

Degrowth and Commons-based Peer  
Production Organisations: Understanding  
the Role and Implications of an  
Alternative Mode of Production in  
Achieving a Degrowth Society

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The candidate confirms that the work submitted is their own, except where work which has formed part of jointly authored manuscripts/publications has been included. The contribution of the candidate and the other authors to this work has been explicitly indicated below. The candidate confirms that appropriate credit has been given where reference has been made to the work of others.

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## **Abstract**

This thesis identifies a research gap on the role of economic organisations in connection to degrowth and problematises that past research fails to view economic organisations as encompassed by capitalist structures. The thesis seeks to contribute to the degrowth discourse by filling part of this research gap by researching the role of economic organisations in achieving degrowth and the resulting implications for these organisations. The thesis makes use of Gramsci's conceptualisation of hegemony and counter-hegemony to define degrowth as a counter-hegemony seeking to overcome the capitalist hegemony. The thesis finds that economic organisations must operate in line with a mode of production that can fit degrowth (such as commons-based peer production) and aim to shape society's superstructure to help enable a degrowth transition. The resulting contradiction of aligning with an alternative mode of production is further unfolded using Luhmann's social systems theory together with the concept of counter-hegemony. This theoretical investigation highlights that organisational social systems aligned with degrowth counter-hegemony face a paradox in having to embrace uncertainty in their social systemic reproduction. The thesis' empirical findings show that economic organisations (on the example of commons-based peer production organisations) can align with degrowth through awareness of the afore mentioned contradiction and aiming to overcome it. These economic organisations require a strong alignment with degrowth counter-hegemony in their decision premises, particularly cognitive routine (the conceptualisation of the organisations system environment). The thesis highlights that such an alignment might only be achieved and ensured by keeping a relatively small organisational membership. The concept of scaling-wide is therefore proposed to create degrowth aligned networks of economic organisations that could further help to ensure counter-hegemonic reproduction. Ultimately, the thesis also makes a plea to the degrowth discourse to take charge of research on economic organisations in connection to degrowth to ensure counter-hegemonic alignment.

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## **Abbreviations**

CBPP – Commons-based peer production

CR – Corporate responsibility

CSR – Corporate social responsibility

CV – Curriculum Vitae

DGML – Designing globally and manufacturing locally

DisCO – Distributed cooperative organisation

DIY – Do-it-yourself

EU – European Union

GDP – Gross-domestic-product

NGO – Non-governmental organization

PhD – Philosophical Doctorate

PP – Peer production

P2P – Peer-to-peer

SDG(s) – United Nations' Sustainable Development Goal(s)

UBI – Universal basic income

UBS – Universal basic services

UK – United Kingdom

WCED – World Commission on Environment and Development

WE – Wind Empowerment

# Chapter 1 – Introduction

## 1.1. Introduction to the Thesis

Humankind is facing unprecedented changes through continued climate change, ocean acidification, biodiversity loss, mass extinction, and other ecological degradation (Hoekstra and Wiedmann, 2014). These unprecedented changes, if kept unchecked, will lead to drastic changes in the earth's ecosystems impacting the earth's carrying capacity and consequently what life (human and other species) can be supported on the planet and to what extent (Rockström et al., 2009). Such changes will consequently require drastic adaptation of human life and society. However, it is also, without a shred of a doubt, clear that these impactful changes are human induced. This means that humankind can, nay must, mitigate these changes to ensure life on earth (Kallis, 2018).

The fact that climate change and other ecosystem impacting changes are human induced has led to terming the current geological epoch the Anthropocene (Foster et al., 2010; Gowdy and Krall, 2013). Other scholars have proposed the term of the Capitalocene (see e.g. Moore, 2016) to emphasise that the unprecedented changes in the planet's ecosystems are the result of capitalism. It is not the aim of this thesis to argue for the appropriateness of either term to describe the current epoch. Whichever term one deems more fitting to describe these changes, it is combined global human activity (mainly economic activity) as well as the way human society and economy is organised and structured, that is leading to global changes to the ecosystem that threaten all life on this planet (Ruuska, 2017). No other species but the human species is responsible for the ecological crises that planet earth is facing. However, who, what activity, or which societal and economic structures might be 'more' or 'less' the reason for the continued ecological degradation is a different question.

For an increasing number of scholars (see e.g. Victor, 2008; Jackson, 2011; Kallis, 2018) the continued pursuit of economic growth is the main driver behind the climate crises. The unfeasibility of endless and continued economic growth has been questioned as early as the 1960s/1970s. One of the key publications from the 1970s in this regard is Meadows et al.'s (1972) report 'Limits to growth' commissioned by the Club of Rome. Meadows et al. (1972) used system dynamics modelling by utilising the World 3 model to demonstrate the unfeasibility of endless economic growth. Further, the report was heavily influenced by Georgescu-Roegen's (1971) work on the unfeasibility of continued economic growth from a thermodynamics perspective. Meadows et al. (1972) concluded that by the time of the report's publication, humanity was barely within the carrying capacity of the planet. The 30-year update of the report showed that by the year 2000, humanity required 1.2 planets to stay within a safe operating space (Meadows et al., 2004; Rockström et al., 2009).

Various growth-critical and post-growth concepts and scholarships such as steady-state economics (see Daly, 1993) have been influenced by Meadows et al.'s (1972) as well as Georgescu-Roegen's (1971) work alongside other growth-critical scholars of the 20<sup>th</sup> century such as Illich (2001) and Gorz (1994). The most radical and transformation-seeking discourse influenced by these works (amongst many) is arguably degrowth. To achieve a sustainable society, degrowth aims to reduce society's matter-energy throughput while maintaining or increasing wellbeing (Schneider et al., 2010; Robra and Heikkurinen, 2019). Matter-energy throughput represents all matter and energy taken from the natural environment to use within society and then put back into the natural environment mainly in the form of waste (Daly, 1985). Reducing society's matter-energy throughput will arguably reduce society's ecological impact. It is important to note however that society's matter-energy throughput cannot be reduced to zero without destroying society and human life itself. Society's matter-energy throughput can be understood as society's metabolism, which means society must consume to survive. More specifically, humans must consume in order to survive. Degrowth seeks to reduce society's matter-energy throughput and therefore human consumption to sustainable levels.

Reducing matter-energy throughput will require significant changes to the organisation and structure of society. Particularly as the continued pursuit of economic growth has been seen as the consistent stabiliser for society since the early 20<sup>th</sup> century (Jackson, 2011; Dale, 2012). This pursuit of economic growth arguably requires constant increases in matter-energy throughput. Many of society's structures and institutions such as welfare and healthcare in their current form are based on and reliant on continued economic growth and will require significant changes to function in a non-growth oriented society (Büchs and Koch, 2017, 2019). Degrowth recognises that significant changes need to take place in society to create and enable a society not based on economic growth as well as able to function without it (Kallis, 2018).

For several scholars the concept of degrowth not only represents a growth critique but also an incompatibility with capitalism (see e.g. Foster, 2011; Liodakis, 2018). Capitalism here defined as a system based on and requiring capital accumulation (Foster et al., 2010). Capital accumulation leads to economic growth which enables further capital accumulation (van Griethuysen, 2010). Capitalism's imperative of capital accumulation is the driver of the endless requirement of economic growth, making capitalism fundamentally at odds with degrowth (Foster, 2011). Degrowth must therefore not only be understood as a growth critique but as a concept aiming to transcend the capitalist system (Buch-Hansen, 2018). This incompatibility has stark political economic implications on what can and what might not fit or help achieve a degrowth society. Political economic considerations have recently found increasing attention in connection to degrowth (see e.g. Chertkovskaya et al., 2019). Of particular interest is the adoption of Gramsci's (1971) concept of hegemony to describe degrowth as

a counter-hegemony to the capitalist hegemony (see e.g. Buch-Hansen, 2018; D'Alisa, 2019; D'Alisa and Kallis, 2020).

Research on and around degrowth has increased significantly in recent years (Kallis et al., 2018). Yet, the topic of organisations (particularly economic organisations) still seems illusive. Hardt and O'Neill (2017) argue that much greater research attention has been paid to the macro level on postgrowth in general. Nesterova (2020) laments that little research in the context of degrowth and organisation has been done thus far. Economic organisations influence and define how society produces and consumes its goods. Arguably, this also means that organisations influence how much is consumed and produced. To achieve sustainable throughput levels both consumption and production must reduce (Bonnedahl and Heikkurinen, 2019). It is therefore clearly vital to research economic organisations in the context of degrowth.

Over the last two to three years the number of publications on economic organisations in connection to postgrowth topics in general has increased (see e.g. Khmara and Kronenberg, 2018; Gabriel et al., 2019; Robra et al., 2020; Hinton, 2020; Nesterova, 2021; Hankammer et al., 2021). However, many of these publications disregard the political economic implications of degrowth stemming from its incompatibility with capitalism. According to Spash (2020a) disregarding capitalism while critiquing economic growth represents a gross ignorance of political economy. On a micro economic level it also needs to be understood that more 'traditional' economic organisations such as businesses, firms, and corporations are generally expected to grow and maximise their profits to create surplus, hence fulfilling the capitalist imperative of capital accumulation (van Griethuysen, 2010). Researching these 'traditional' capitalist organisations therefore seems unfitting in a degrowth context.

This thesis aims to contribute first and foremost to the scholarly field of degrowth. The aim of this PhD is to partially fill the vast research gap on economic organisations in connection to degrowth's political economic implications. That is, understanding how economic organisations can fit degrowth considering its incompatibility with capitalism. Further, this thesis seeks to investigate what the role of economic organisations might be in helping degrowth to transcend and overcome the capitalist hegemony.

To accommodate for the incompatibility of capitalism and degrowth, a focus on alternative forms of organisation and modes of production instead of 'traditional' economic organisations is arguably needed. Various alternative forms of economic organisation have been connected to degrowth such as cooperatives (see e.g. Blauwhof, 2012; Johanisova et al., 2015), social enterprises (see e.g.

Johanisova et al., 2013), and commons-based peer production (CBPP)<sup>1</sup> organisations (see e.g. Kostakis et al., 2018; Robra et al., 2020). CBPP organisations represent a special case in the above list of alternative organisations as CBPP also represents an alternative mode of production (Bauwens et al., 2019). CBPP as a mode of production is theoretically claimed to be indifferent to growth and does not require profit incentives for innovation (see Kostakis et al., 2018). This thesis therefore sets its focus on CBPP as a mode of production as well as an alternative form of organisations that could potentially fit and help to achieve degrowth.

Many of the previous studies on economic organisations and degrowth fall back on traditional management and organisational theories (see e.g. Khmara and Kronenberg, 2018; Hankammer et al., 2021). These theories are mostly influenced through neoclassical economics arguably aligning with the capitalist hegemony. Further, many of these theories disregard or make it hard to include political economic considerations (Ergene et al., 2020). These arguments will be picked up in more depth in Section 2.3. Further, Luhmann (2018) laments that the focus on agents of these traditional theories disregards the complexity of society and proposes the use of social systems theory and viewing organisations as social systems. Social systems theory is often overlooked as an organisational theory that allows to view organisations as complex entities encompassed by the wider social system of society (Seidl and Becker, 2006). Luhmann's (2012) social systems theory is often described as at odds with political economic considerations (Thornhill, 2013). However, Schechter (2017, 2019) highlights that there is more overlap between Marx's as well as Gramsci's political economic conceptualisations and Luhmann's social system theory than one might initially think. This PhD therefore seeks to use Gramsci's conceptualisation of hegemony and Luhmann's social systems theory together to achieve a novel and complex perspective on organisations and how they can contribute to achieving a sustainable degrowth society.

The remainder of this chapter is structured as follows. Section 1.2. describes the aims, objectives, and research questions for this PhD thesis. The findings of the PhD are summarised in Section 1.3. Section 1.4. outlines the remaining thesis structure following this chapter.

## **1.2. Aims, Objectives, and Research Questions**

There is a general lack of research on economic organisations in the context of degrowth. Despite a relative increase in studies, particularly on various forms of businesses, in the last three years (2018-

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<sup>1</sup> CBPP as a mode of production emphasises freely sharing knowledge and ideas enabling other organisations and practitioners to modify these ideas in accordance with their requirements. CBPP will be described in further depth in Section 2.3. as well as Chapter 4.

2021) a broad research gap remains. Especially questions around how economic organisation can and ought to help achieve a society-wide degrowth transformation are still left unanswered. The focus in recent studies has mainly emphasised how various conceptualisations of businesses, firms, and companies might fit degrowth or in other cases how degrowth might fit these organisational forms. In this context the political economic implications of degrowth and its incompatibility with capitalism have largely been ignored. This PhD first and foremost aims to partially close this research gap by researching the role of economic organisations in helping to achieve a societal-wide transformation to degrowth.

Degrowth scholars have started to adopt Antonio Gramsci's conceptualisation of hegemony, framing degrowth as a counter-hegemony seeking to overcome the capitalist hegemony. This PhD seeks to use the concepts of hegemony and counter-hegemony to understand economic organisations in the setting of the capitalist hegemony and further understand the role of economic organisations in helping to achieve a degrowth society. By drawing on the Marxist foundations of Gramsci's work it can be argued that an alternative mode of production to the dominant capitalist one is needed for degrowth. This further emphasises the need to look at alternative economic organisational forms in contrast to more orthodox ones (such as businesses, firms, and corporations) intertwined with the capitalist mode of production and its imperatives. Degrowth has previously been connected to various alternative organisational forms. However, within this PhD, CBPP organisations are seen as a fruitful focus for the studies' aims as CBPP can also be viewed as an alternative mode of production. The PhD therefore uses CBPP as an alternative mode of production as well as CBPP organisations as a focus point.

The majority of previous studies on economic organisations in the context of degrowth fall back on organisational, management, and business theories closely aligned with capitalist imperatives, leaving little room for political economic considerations. Further, these theories often fail to account for the complexity of society by which the organisation is encompassed. This might partially explain the lack of acknowledgment regarding the political economy of capitalism in these studies. This thesis identifies Niklas Luhmann's social systems theory as a theory that can account for the complexity of society while researching organisations. However, social systems theory does not automatically account for political economy. This PhD therefore aims to use social systems theory together with the concept of counter-hegemony to create a unique new lens to view organisations from a degrowth perspective.

The contributions of this PhD thesis should be firmly seen within the scholarship of degrowth. The thesis seeks to contribute to the degrowth discourse by researching economic organisations and their role in achieving a society wide degrowth transformation. Within the degrowth scholarship the contributions are on perspectives on organisations in connection to understanding the political

economy of capitalism. The research from this thesis should therefore be seen as a contribution towards how degrowth as a society wide transformation can be achieved.

The aims of this PhD can be summed up in the following objectives below:

1. Understand the role of economic organisations in helping degrowth counter-hegemony overcome the capitalist hegemony.
2. Understand the implications for economic organisations aligning with degrowth counter-hegemony.
3. Understand how commons-based peer production organisations as organisational social systems can align with degrowth counter-hegemony.

From these research objectives the following research questions are drawn:

1. How can commons-based peer production as a mode of production and as a form of organisation help the degrowth counter-hegemony to overcome the capitalist hegemony?
2. What are the implications for organisational systems aligning with degrowth counter-hegemony in a capitalist hegemony?
3. Do, and if so, how do commons-based peer production organisations demonstrate counter-hegemonic degrowth in their decision premises?

The research objectives and questions are tackled in three different findings chapters. Each of the findings chapters deals exclusively with just one objective and the corresponding research question. A summary of which research objectives and questions (as outlined and numbered above) were tackled by which findings chapter are shown below in Table 1. Each of the three findings chapters have their own interpretation and conclusion, enabling them to stand on their own. However, due to the overarching focus and theme of this PhD thesis, the three findings chapters also partially overlap in their research foci. It is also important to highlight that bringing all three findings chapters as well as their research objectives and research questions together, enables a wider analysis of the chapters' implications and findings. This will be discussed in the wider context of the PhD thesis as a whole.

<b>Findings Chapters</b>	<b>Aligned research objectives</b>	<b>Aligned research questions</b>
Chapter 4	1	1
Chapter 5	2	2
Chapter 6	3	3

**Table 1 – Findings chapters' alignment with research objectives and questions**



### **1.3. Summary of Findings**

The PhD thesis' findings show that economic organisations should be understood in the complexity of society and its structures. This also means that economic organisations should be seen as operating within the capitalist hegemony (at this point in history). Such an understanding entails implications for how economic organisations might help to achieve a degrowth transformation. Economic organisations help to reproduce the capitalist hegemony and superstructure or can alternatively aim to reproduce a counter-hegemony and influence changes in the superstructures aligned with said counter-hegemony.

To help reproduce a counter-hegemony (such as degrowth) economic organisations must align with an alternative mode of production (alternative to the capitalist mode of production) that fits the counter-hegemony. Kostakis et al. (2018) as well as Robra et al. (2020) argue that CBPP can be a fitting alternative mode of production for degrowth. This PhD echoes this insight but expands upon the argument that CBPP organisations (i.e. economic organisations using CBPP as their mode of production) can therefore theoretically align with degrowth counter-hegemony. This thesis cautions however, that this theoretical potential does not deterministically and automatically lead to degrowth counter-hegemony alignment by CBPP organisations. In order to align with degrowth counter-hegemony, it is argued that CBPP organisations must not only adopt CBPP as an alternative mode of production but also fight co-optation by the capitalist hegemony and actively aim to shape the superstructure to enable a degrowth transition. In this context, the thesis also points out that economic organisations aligning with an alternative mode of production face the contradiction of being misaligned with society's economic structures and relations.

By exploring the above contradiction further through the use of social systems theory in connection to hegemony and counter-hegemony, the PhD finds that economic organisations aligning with degrowth counter-hegemony in a capitalist hegemony are confronted with a paradox. Social systems reproduce through communication. This communication can be accepted or rejected making social systems' reproduction uncertain. Social systems therefore create structures and rules to make particular communication, their acceptance, and continuation more likely, helping to absorb the uncertainty of social systemic reproduction. Organisational social systems aligned with degrowth counter-hegemony face a hegemonic system environment where the organisations' counter-hegemonic communication will unlikely lead to continued counter-hegemonic communication. This increases the uncertainty of the systemic production for these organisations. Yet, these organisations arguably have to continue counter-hegemonic communication to enable degrowth overcoming capitalism. In other words, organisational social systems aligned with degrowth counter-hegemony paradoxically have to

embrace uncertainty to help a degrowth transformation even though social systems aim to reduce uncertainty.

The thesis further explores the above paradox that ensues from the contradiction of an alternative mode of production in a capitalist hegemony by empirically researching two CBPP organisations as social systems. The empirical research highlights that in order to unfold the above paradox, economic organisations must recognise their contradiction within the capitalist hegemony. The research further shows that an organisational social system's cognitive routine plays a key part in not only recognising this contradiction but enabling the organisational social system to understand that it must help to reshape its system environment (i.e. society) to support a different mode of production.

Overall, the thesis maintains that economic organisations have a role to play in achieving a degrowth transformation which goes beyond producing goods and services in a way aligned with degrowth, namely actively influencing a change in society and its superstructure. The thesis' findings emphasise the need to understand economic organisations not in isolation but in the context of the complexity that is society. This means, the thesis challenges much of the previous literature on economic organisations and degrowth where the focus seems to have largely been on potentially non-growing businesses without even addressing the concept of capital accumulation in these settings. This thesis' insights highlight that previous studies have failed to account for the political economy of capitalism (see e.g. Khmara and Kronenberg, 2018; Plaza-Úbeda et al., 2020; Hankammer et al., 2021). Following the arguments of this thesis' research, much of the research done in the context of degrowth and economic organisations could be argued to help reproduce the capitalist hegemony instead of degrowth counter-hegemony. Van Griethuysen (2010) as well as Lioudakis (2018), amongst others, have previously pointed out the failure of the degrowth discourse to acknowledge the structures of capitalism from a Marxist perspective. Through engagement with such perspectives, this thesis therefore fills part of the research gap in regard to economic organisations' role in helping to achieve degrowth by first and foremost recentring the research in this context in a manner that is coherent with degrowth as a counter-hegemony. Further, this thesis hence also represents an appeal to the degrowth research community to take hold of the research on the topic and align it with degrowth's normative goals.

#### **1.4. Thesis Structure**

The remainder of this thesis is structured as follows:

**Chapter 2 – Literature Review** broadly introduces the concept of degrowth and the need for degrowth (Section 2.2.). The chapter further reviews the previous literature on degrowth in the context of economic organisation and identifies the PhD thesis’ research gap (Section 2.3.).

**Chapter 3 – Research Philosophy, Methodology, and Design** describes the PhD researcher’s research philosophy (Section 3.2.). Further, the chapter frames the research and argues for the need of an a priori theoretical understanding (Section 3.3.). The research methodology for the empirical part of the PhD research is also described in this chapter (Section 3.4.).

**Chapter 4 – Findings 1 – Commons-based Peer Production Organisations for Degrowth Counter-Hegemony** is the first findings chapter of the thesis. This chapter aims to answer the question of: ‘How can commons-based peer production as a mode of production and as a form of organisation help the degrowth counter-hegemony to overcome the capitalist hegemony?’ To answer this question, the chapter explores degrowth as a counter-hegemony (Section 4.2.) and theoretically describes the contradiction economic organisations using alternative modes of production face in the capitalist hegemony (Section 4.3.). The chapter uses these theoretical insights to analyse CBPP as a mode of production as well as an organisational form fitting degrowth counter-hegemony (Section 4.4.) and interprets this analysis (Section 4.5.).

**Chapter 5 – Findings 2 – Using Social Systems Theory with the Concept of Counter-Hegemony to Create a Unique Lens to View Organisations in the Context of Degrowth** represents the second findings chapter in the thesis. The chapter’s research question is: ‘What are the implications for organisational systems aligning with degrowth counter-hegemony in a capitalist hegemony?’ The chapter recalls parts of Chapter 5’s insights as part of its theoretical background to answer this research question (Section 5.2.). The chapter then introduces social systems theory in more depth and describes organisations as social systems (Section 5.3.). The chapter brings the concepts of hegemony and counter-hegemony together with social systems theory for its analysis (Section 5.4.) and interprets these findings (Section 5.5.).

**Chapter 6 – Findings 3 – Counter-Hegemonic Decision Premises in Commons-based Peer Production Organisations** is the third and the empirical findings chapter of this thesis. The chapter briefly recalls parts of Chapter 4 for its theoretical background (Section 6.2.). The chapter further briefly redescribes social systems theory and explains decision premises of organisational social systems for the purpose of the empirical study (Section 6.3.). The methods for the empirical work are briefly highlighted again for the benefit of the reader (Section 6.4.). The chapter shows the empirical findings for two CBPP organisations as case studies (Section 6.5., 6.6. & 6.7.) and interprets these findings (Section 6.8.).

**Chapter 7 – Discussion and Conclusion** Discusses the findings of the PhD thesis as a whole. The chapter explains and highlights the contribution to knowledge and the degrowth discourse (Section 7.2.). The chapter further emphasises the need to view economic organisations in the complexity of society and particularly in the context of the capitalist hegemony, additional implications for the degrowth discourse are also drawn from this (Section 7.3.). The chapter gives future research potential and ideas that arose from the PhD’s findings (Section 7.4.). Finally, the chapter concludes the overall thesis (Section 7.5.).

## **Chapter 2 – Literature Review**

### **2.1. Introduction**

This chapter represents the literature review of this PhD thesis. The chapter is structured as follows. Degrowth as an idea and concept is described in Section 2.2. while also making the basic argument for the need of degrowth to achieve sustainability. Further, this section tackles some of the most common critiques of degrowth as a concept. Section 2.3. highlights the general research gap on economic organisations in connection to degrowth. This section briefly reviews sustainable business studies but emphasises that these theories and concepts are incompatible with degrowth's opposition to capitalism. In addition, the meagre amount of literature on economic organisations in the context of degrowth is reviewed further emphasising the vast research gap in this area particularly in connection to political economic considerations. The section further proposes a way forward to fill parts of this research gap through social systems theory in tandem with political economic considerations. The chapter is briefly summarised and concluded in Section 2.4.

### **2.2. The need for Degrowth**

Human induced climate change, pollution, and bio-diversity loss is having unprecedented impacts on the world's ecosystem (Hoekstra and Wiedmann, 2014). Rockström et al. (2009) argue that human activity is breaching several planetary boundaries that ensure a safe operating space for a sustainable society. The imperative of continued economic growth, mainly calculated in increases of gross-domestic-product (GDP), has been identified as one of the main drivers leading to the afore mentioned ecological changes and destruction (see e.g. Victor, 2008; Daly and Farley, 2011; Jackson, 2011). Constant increases in economic activity to continue economic growth requires increases in matter-energy throughput, which means intensifying the use, extraction, and depletion of earth's resources, which in turn increases the negative impact on the world's ecosystem (Daly, 1985; Jackson, 2011).

The unfeasibility and unsustainability of continued and endless economic growth has been brought to wider attention since the early 1970s (see e.g. Georgescu-Roegen, 1971; Meadows et al., 1972). The resulting ideas on the need of a postgrowth or non-growth socio-economic system has found particular scholarly attention in the field of ecological economics (Spash, 2017). One of the most transformation-seeking discourses influenced by ecological economics as well as Georgescu-Roegen's (1971) work directly, is arguably degrowth. Degrowth as a concept, activist movement, and academic discourse is a recent development (Martínez-Alier et al., 2010). Its academic influences range from the above critique of endless economic growth as well as other growth critical scholars such as Illich (2001) and Gorz (1994) to other discourses around social and environmental justice movements as well as political ecology (see D'Alisa et al., 2015; Cosme et al., 2017). The social and environmental justice facets in the

degrowth discourse has resulted in a connection to the post-development discourse and its anti-colonial stance (see Escobar, 2015). Degrowth is further influenced by and rooted in the French activist movement *décroissance* (French for degrowth) from the early 2000s (Latouche, 2009; Cosme et al., 2017; Liegey and Nelson, 2020).

Degrowth follows the critique on endless economic growth and questions it as a desired end for human society but also as a means to reduce inequality and increase wellbeing sufficiently (Robra and Heikkurinen, 2019). Degrowth maintains that an ecological sustainable society is impossible within a society that follows the imperative of endless economic growth (Cosme et al., 2017). Environmental sustainability in this context representing keeping “wastes within assimilative capacities; harvest within re-generative capacities of renewable resources; deplete non-renewables at the rate at which renewable substitutes are developed” (Goodland and Daly, 1996, p.1002). The main aim of degrowth is to transform society towards a sustainable and just society by reducing matter-energy throughput and maintaining or increasing wellbeing (Schneider et al., 2010). Latouche (2009) argues that degrowth seeks to create a ‘concrete utopia’. Despite its name, the aim of degrowth is thus not to reduce economic growth per se. The term ‘degrowth’ should be seen as a missile slogan to repoliticise questions around the seemingly unquestionable desire of continued economic growth (Latouche, 2009).

Through the envisioned reduction of matter-energy throughput, economic growth will most certainly decrease as well, yet negative growth is not an aim of degrowth as such, it rather represents a consequence (Kallis, 2018). A reduction in matter-energy throughput will require reductions in both production and consumption, which will consequently lead to a reduced economic activity and thus growth (Bonnedahl and Heikkurinen, 2019). Arguably the current structures of society are based and intertwined with the imperative of continued economic growth. For example, Büchs and Koch (2017) highlight that current healthcare and welfare systems are based on the continuation of economic growth and would require a complete transformation to function without continued economic growth. Degrowth acknowledges that the current growth-based society faces crises without growth, which is why degrowth emphasises a radical transformation towards a non-growth-based society (Kallis, 2018). Such a transformation includes changes to the general organisation and structure of society but also its culture, which emphasises the radicality of what degrowth implies on a broad societal level (Robra and Heikkurinen, 2019).

Degrowth has been the object of much critique (Kallis, 2011). Much of this critique boils down to a supposed unfeasibility and lack of implementable policies (see e.g. van den Bergh, 2011; Schwartzman, 2012). Such critique might be due to a reductionist view where degrowth is solely seen as a concept of negative economic growth (Robra and Heikkurinen, 2019). As mentioned above, in a growth-based

society negative growth leads to, potentially catastrophic, crisis, which is why degrowth as a concept includes a societal transformation (Kallis, 2018; Büchs and Koch, 2019). Such a transformation cannot be simply reduced to implementable policies. Further, there is a breadth of policy recommendations by degrowth scholars that could potentially help achieve a degrowth society (see Kallis et al., 2018; Kallis, 2018).

Seeing economic growth as the driver to achieve prosperity and wellbeing is well established within society (Buch-Hansen, 2018). It is thus understandable that degrowth (as well as other postgrowth concepts) are heavily questioned and criticised in a society where continued economic growth is commonly seen as positive and the solution to society's social as well as environmental problems (Jackson, 2011; Dale, 2012). Schwartzman (2012) criticises degrowth for not considering the qualitative aspects of economic growth instead of just viewing it in purely quantitative terms. On the social level the argument is that increases in economic activity will lead to more jobs resulting in the affordability of better lifestyles and therefore higher prosperity and wellbeing (Dale, 2012). The argument that economic growth usually makes the rich richer is countered through the concept of the trickle-down effect (Mankiw and Taylor, 2011). Trickle-down describes the idea that more income for the rich automatically leads to more investment which will create jobs and thus the increased income will also 'trickle down' to other parts of society. The fact that despite continued economic growth, the levels of inequality have also continuously increased (see Stiglitz, 2013; Piketty and Saez, 2014) should be a counter argument to the notion that economic growth resolves inequality. Further, according to Wilkinson and Pickett (2009) quality of life as well as happiness have not increased but rather plateaued in the global north for decades despite continued economic growth. Yet, since the 1950s the pursuit of economic growth is part of nearly every political party's programme (Jackson, 2011; Kallis, 2018).

Other critique on degrowth is often connected to the argument that green or greener industries such as renewables should still be allowed to grow. Indeed, from a degrowth perspective, industries such as renewables could be allowed to grow within limits but only if society's overall matter-energy throughput reduces (Robra and Heikkurinen, 2019). However, critique on degrowth, such as Schwartzman's (2012), also often claims that degrowth does not consider technological advancement made possible through economic growth and its supposed potential to decouple economic growth from ecological degradation.

The first part of the critique on degrowth regarding technological advancements stems from the assumption that economic growth is the driver for innovation (van Griethuysen, 2010). The Schumpeterian belief that innovation requires economic growth is closely related to the capitalist imperative of profit maximisation (Pansera and Fressoli, 2021). Under this assumption, the investment

in research and development for innovation must pay off in the future (i.e. it must lead to capital accumulation). Essentially this describes the imperatives of innovation in a capitalist system (van Griethuysen, 2010; Pansera and Fressoli, 2021). Innovations under the imperative of profit maximisation lead to technologies that first and foremost help to achieve and continue this imperative instead of solving social or ecological problems (Illich, 2001; van Griethuysen, 2010). The assumption that innovation can only work in tandem with economic growth disregards innovation taking place without future profit incentives that are often much better at addressing problems (Boehnert, 2018; Kostakis et al., 2018; Bauwens et al., 2019; Robra et al., 2020).

The second part of the above critique on degrowth stems from the belief that technology through innovation could alleviate all (or at sufficient levels) ecological impacts of economic activity (Blowfield and Murray, 2011). From this perspective continued technological innovation is arguably required to solve the climate crises (van Griethuysen, 2010; Heikkurinen, 2018). Such ideas can generally be encompassed under the concept of decoupling economic growth from ecological degradation. Decoupling in this context can be differentiated into relative and absolute decoupling (Jackson, 2011; Dietz and O'Neill, 2013). Relative decoupling describes the concept of reducing the ecological impact in relative terms whereas absolute decoupling describes the notion of continuing economic growth while overall ecological impact decreases (Jackson, 2011).

Relative decoupling can for example mean reducing the materials and/or energy required per unit produced. Another option is reducing emissions per produced unit which might require or imply the former and vice versa. Relative decoupling is closely related to the concept of eco-efficiency (Robra and Heikkurinen, 2019). Eco-efficiency as a concept is similarly described like relative decoupling as reducing the impact per unit produced, achieved principally through technological innovation (Dyllick and Hockerts, 2002). At first glance reducing the ecological impact per unit should be viewed in a positive light. However, eco-efficiency is prone to the rebound effect (Alcott, 2005). The rebound effect describes the increased overall energy/resource use and emissions after the introduction of efficiency measures. New efficiency measures enable lower production costs which can be used to increase overall production of the good in question (direct rebound) or the reduced production costs can open up funds to produce or invest in other industries, increasing impact there (indirect rebound) (Dietz and O'Neill, 2013). According to van Griethuysen (2010), rebound should always be expected in a capitalist system with the imperative of profit maximisation. Hence, the belief that eco-efficiency and relative decoupling could solve the climate seems misplaced (Robra and Heikkurinen, 2019).

Absolute decoupling on the other hand lacks empirical evidence that would suggest it is taking place on the levels required to achieve sustainability (Parrique et al., 2019). On the example of CO<sub>2</sub> emissions, Jackson (2011) highlights that global carbon intensity would have to decrease 130 times by 2050 to



achieve the 2007 IPCC (Intergovernmental Panel on Climate Change) targets. Up until 2011 the average decrease in carbon intensity has only been 0.7% per year (Jackson, 2011). The feasibility of achieving absolute decoupling following this example seems therefore more than farfetched. Jackson's (2011) calculations are not even based on the more recent and damning IPCC reports and targets. Further, these calculations are only on the example of CO<sub>2</sub> emissions and therefore do not account for other forms of emissions or ecological degradation, making the feasibility of absolute decoupling even more unlikely.

In their report *Decoupling Debunked*, Parrique et al. (2019, p.3) perfectly summarise that “not only is there no empirical evidence supporting the existence of a decoupling of economic growth from environmental pressures on anywhere near the scale needed to deal with environmental breakdown, but also, and perhaps more importantly, such decoupling appears unlikely to happen in the future”. Other concepts related to decoupling, and similarly betting on technology (mainly in the form of eco-efficiency) to solve the climate crises without changing ‘business as usual’, include green growth, sustainable growth, and circular economy (Zink and Geyer, 2017; Robra and Heikkurinen, 2019). All of these concepts fail to take biophysical limits of the planet into account when proposing the continuation of growth in economic activity (Georgescu-Roegen, 1971; Giampietro, 2019).

It should be noted that concepts such as eco-efficiency and circular economy can generally help achieve degrowth as efficiency as well as recycling measures can arguably help reduce matter-energy throughput (Robra et al., 2020; Nesterova and Robra, forthcoming). However, a focus on these measures alone within a capitalist system will not achieve sustainability but rather increase environmental pressures through the rebound effect (van Griethuysen, 2010). Robra et al. (2020) argue that eco-efficiency can help reduce matter-energy throughput if used as a supplement in eco-sufficiency. Eco-sufficiency referring here to a focus on producing enough to fulfil human needs rather than producing to maximise profits (Heikkurinen et al., 2019). A focus on eco-sufficiency would entail capping overall production levels to counteract rebound potentials, which seems unlikely in a capitalist setting (Robra et al., 2020).

As mentioned in the introduction, degrowth has been argued to be incompatible with capitalism (Foster, 2011; Kallis et al., 2015). Foster (2011) for example insists that the idea of degrowth must also mean the end of capitalism, not only the end of economic growth. Kallis (2018, p.73) on the other hand argues that economic growth has survived “the abolition of capitalist relations in socialist countries” and has therefore become a power of its own that should be opposed. This abolition however only holds true “if one understands capitalism in terms of a set of institutional attributes (wage labour, private property, bank-credit money, market exchange and private enterprises) that were all abolished in socialist countries” (Kallis, 2018, p.73). Kallis (2018, p.73) concedes that his conceptualisation of the

end of capitalism does not hold true “[i]f one takes a broader view of capitalism as a system where surpluses are invested in the production of bigger surpluses, then socialist countries were ‘state capitalist’ economies, with profits and surpluses concentrated in the hands of the government and public enterprises”. It is beyond this literature review and even this thesis to argue and analyse why Kallis opted for the less complex view of capitalism despite acknowledging but ignoring the more Marxist interpretation of capitalism. Capitalism viewed as a societal system of accumulation where surplus must generate further surplus arguably also existed within so called ‘socialist states’ (Foster et al., 2010; Blauwhof, 2012; Saito, 2017; Lioudakis, 2018). Arguably from this more Marxist influenced perspective, economic growth has to be opposed and critiqued at the same time as the overall capitalist system (Spash, 2020a).

Capitalism’s modus operandi as a system is the continued process of capital accumulation (Ruuska, 2017). This imperative of capital accumulation is the driver of economic growth (Foster et al., 2010). Economic growth is then the driver that enables further capital accumulation to take place. On this abstract level of defining capitalism as a system requiring and leading to capital accumulation, it becomes clear that in the context of the need to reduce matter-energy throughput it does not matter whether the accumulation is done through private firms or the state apparatus (as in the case of the former Soviet Union). Spash (2020a) argues that critiquing economic growth without critiquing capitalism signifies a complete ignorance of the capitalist political economy and its structures.

This thesis follows the definition of capitalism as a societal system based on capital accumulation which consequently means an incompatibility with degrowth. Hence, the thesis further embraces the resulting political economic implications of degrowth’s incompatibility with the capitalist system and its imperatives. The focus on the opposition to economic growth in the degrowth discourse without an explicit critiquing capitalism has arguably led to an omission of political economic consideration in parts of the academic degrowth discourse, namely in the context of economic organisations (see Section 2.3. below).

### **2.3. Degrowth and Economic Organisations**

Degrowth has received an increasing amount of academic attention in the last 10 years from various disciplinary perspectives (see Cosme et al., 2017; Kallis et al., 2018; Vandeventer et al., 2019). Yet academic work on organisations, and particularly economic organisations, in the context of degrowth is often argued to be lacking (Dietz and O’Neill, 2013; Shrivastava, 2015; Hardt and O’Neill, 2017; Nesterova, 2020). Economic organisation defined in this thesis as an organisation that produces goods and services. Economic organisations strongly influence how and what, but also how much is produced

and hence also how much of what might be consumed in society (Bonnedahl and Heikkurinen, 2019; Robra et al., 2020). To achieve degrowth's envisioned matter-energy throughput reduction, it is essential to reduce both overall production and consumption levels (Robra and Heikkurinen, 2019). This emphasises the need to research economic organisations in connection to degrowth further (Robra et al., 2020). As already highlighted in Section 2.2., degrowth should be viewed as incompatible with capitalism, making it important to view the compatibility of various forms of economic organisations also from that angle.

Outside the degrowth discourse, economic organisations in connection to sustainability have been researched for a relatively longer period. Blowfield and Murray (2011) argue that within the United Nations' sustainable development goals (SDG) businesses, firms, and corporations are seen as key actors to achieve sustainable development. Málovics et al. (2008) observe that the majority of businesses and firms have adopted some sort of sustainability conceptualisation into their business models, missions, or visions. The concept of sustainability in connection to business has largely found attention in the fields sustainable business studies and related fields of corporate responsibility (CR) and corporate social responsibility (CSR) (see e.g. Banerjee, 2008; Blowfield and Murray, 2011; Heikkurinen and Bonnedahl, 2013). For the purpose of clarity, the remainder of this chapter will use sustainable business studies as encompassing both CR and CSR. Generally speaking, within these fields or discourses it is recognised that businesses and corporations have a role and/or responsibility to help achieve social and environmental sustainability. However, what constitutes as sustainable is often up for interpretation and heavily debated (Blowfield and Murray, 2011).

According to Blowfield and Murray (2011) the most used definitions of sustainability in sustainable business studies are derived from the World Commission on Environment and Development (WCED) which later developed into the SDGs. The main aim of the WCED was to explore ways of protecting the environment "without jeopardizing economic growth" (Blowfield and Murray, 2011, p.59). In the report *Our Common Future* the WCED (1987, p.8) argues the following:

"Humanity has the ability to make development sustainable – to ensure that it meets the needs of the present generation without compromising the ability of future generations to meet their own needs. The concept of sustainable development does imply limits – not absolute limits, but limitations imposed by the present state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effect of human activities."

The common criticism of this notion of sustainability in the form of sustainable development is that it is too vague and can easily be misused or misinterpreted (see Robert et al., 2005). Further, what is

clear within the WCED's conceptualisation of sustainability is the fact of trying to continue economic growth and explicitly denying absolute environmental limits (Robra and Heikkurinen, 2019). As mentioned, this problematic conceptualisation of sustainability has been carried over into the SDGs. Robra and Heikkurinen (2019) analyse and critique the SDGs from a degrowth perspective<sup>2</sup>. The authors argue that the SDGs failure to acknowledge absolute limits has led to their focus on eco-efficiency and the omission of aims to reduce resource use in absolute terms. As already highlighted in section 2.2. of this chapter, eco-efficiency does not address absolute levels of production and consumption and leads to the rebound effect (see also Robra et al., 2020).

As mentioned in Section 2.2. van Griethuysen (2010) argues that the rebound effect should be fully expected in a capitalist system with imperatives of continued capital accumulation and profit maximisation. Businesses and firms are expected to produce and consume more with funds made available through efficiency measures to maximise their profits. It should therefore be no surprise that management scholars like Porter and Kramer (2006) argue that it is economically rational for firms to adopt sustainability measures in the form of eco-efficiency as it will boost their competitive advantage. Due to this economic rational, sustainable business measures such as CR and CSR have been criticised by critical management scholars (see e.g. Banerjee, 2008; Gilberthorpe and Banks, 2012). Sustainability measures undertaken by businesses and firms are often criticised as only being adopted when economically paying off, which further encourages rebound effects.

It is problematic that the SDG's conceptualisation of sustainability and eco-efficiency seems to be the main focus of sustainable business studies (Robra et al., 2020; Nesterova and Robra, forthcoming). Nesterova and Robra (forthcoming) argue that the concept of sustainable business is associated with weak sustainability and a reformist approach. Weak sustainability is a categorisation first adopted by Goodland and Daly (1996) in contrast to strong sustainability (see also Hopwood et al., 2005). Weak sustainability assumes that natural and human-made 'capital' are unlimitedly substitutable, further assuming that sustainability is achieved as long as the overall level of 'capital' remains constant. Theoretically this would mean that natural 'capital' in the form of ecological systems and their services can be replaced with human-made goods fulfilling these same ecological functions.

Strong sustainability challenges the notions of weak sustainability and argues that the different types of capital are only substitutable to a very meagre degree if at all (Goodland and Daly, 1996; Bonnedahl and Heikkurinen, 2019). Hopwood et al. (2005) describe weak sustainability as associated with a reformist approach where the core principles of the capitalist system remain. This means environmental as well as social considerations are included into theories and practises without

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<sup>2</sup> Also see Hickel (2019) a degrowth critique of the SDGs.

changing the core principles of accumulation and growth. In other words the ends of the capitalist system remain unquestioned and weak sustainability approaches essentially represent another means to these ends (Nesterova and Robra, forthcoming). Strong sustainability on the other hand can be associated with a transformative approach acknowledging absolute limits on economic activity and resource extraction which also challenge the principles of accumulation and growth. Strong sustainability has therefore been connected to the radical transformation sought by degrowth (see Robra et al., 2020; Nesterova and Robra, forthcoming).

The reformist weak sustainability approaches of sustainable business studies fail to address the requirement of absolute reduction of matter-energy throughput making it incompatible with degrowth (Nesterova and Robra, forthcoming). Therefore, different approaches to and conceptualisations of economic organisations in the context of degrowth are needed. Encouragingly, despite a relatively low amount of research on economic organisations in connection to degrowth in the past, the last three years (i.e. 2018-2021) have produced more research on the topic (including other growth critical discourses such as postgrowth) (see e.g. Kostakis et al., 2018; Gabriel et al., 2019; Plaza-Úbeda et al., 2020; Hinton, 2020; Nesterova, 2020; Hankammer et al., 2021). Yet, the political economic implications of degrowth's incompatibility with capitalism is only briefly acknowledged, if at all, in the majority of these studies. Khmara and Kronenberg (2018) for example propose a business case for degrowth. Similarly Roulet and Bothello (2020)<sup>3</sup> claim that the adoption of degrowth could create a competitive advantage for businesses. This is not too dissimilar from the arguments made by Porter and Kramer (2006) in relation to sustainability and business in general. Not only are studies like Khmara and Kronenberg (2018) problematic as the issues of the rebound effect remain unaddressed but they try to make degrowth fit the business discourse instead of finding economic organisations that could fit the radical implications of degrowth. Such approaches show a complete lack of understanding or willing ignorance of the capitalist political economy in connection to businesses and other economic organisations.

The creation of a business case for degrowth or a competitive advantage through degrowth represents creating new means for the end of capital accumulation on a micro economic level which is incompatible with the aims of degrowth (Nesterova and Robra, forthcoming). As described in Section 2.2., capital accumulation should be seen as the driver of economic growth in a capitalist system (Foster et al., 2010). Capitalist economic organisations such as businesses, firms, and corporations operate under the imperative of capital accumulation (van Griethuysen, 2010; Spash, 2020b). In other words, the core modus operandi of capitalist forms of economic organisations (i.e. businesses, firms

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<sup>3</sup> For a response to Roulet and Bothello's (2020) Harvard Business Review article see Nesterova et al.'s (2020) article on degrowth.info.

and corporations) is to accumulate capital. These capitalist economic organisations must follow the imperative of profit making in order to survive within the capitalist system (Robra et al., 2020; Nesterova, 2020). These profits represent a form of capital accumulation that enable and drive economic growth (van Griethuysen, 2010), albeit not necessarily in the form of economic growth at the level of the economic organisation in question. This means that capital accumulation at the micro economic level helps drive economic growth in the capitalist system even if the organisation on the micro economic level does not grow. Hence, the focus on non-growth as a connection to degrowth is insufficient to account for the complexity of the political economic setting of capitalism. It is clear that non-accumulation must be one of the principles for economic organisations that could fit a degrowth society (van Griethuysen, 2010).

Many of the recent studies on degrowth and economic organisations still fall back on theories and conceptualisations closely related to and aligned with sustainable business studies. Hence these approaches share the same shortcomings of not addressing absolute reduction in matter-energy throughput and non-accumulation, but also the disregard of the political economy of capitalism. Further, in light of the capital accumulative imperative of capitalist economic organisations such as businesses (see van Griethuysen, 2010) a focus on alternative economic organisations can be deemed necessary. This is in contrast to, for example, Hinton's (2020) definition that business can be for profit or not-for profit. Businesses' modus operandi is coupled to the imperative of capital accumulation (van Griethuysen, 2010; Ruuska, 2017; Nesterova et al., 2020). This thesis acknowledges that businesses are inherently capitalist forms of economic organisations and therefore proposes a focus on alternative economic organisations instead. There are several forms of alternative economic organisations that have previously been connected to degrowth.

Johanisova et al. (2015) suggest cooperatives as potential organisational forms that could fit degrowth. Blauwhof (2012) similarly discusses cooperatives in the need to overcome the imperative of accumulation but laments that these organisations are still very much prone to co-optation into the capitalist system and following its imperatives. Mondragon in Spain and the co-operative supermarket chain in the UK are prominent examples of such co-optations (Blauwhof, 2012). Social enterprises are another organisational form that has previously been connected to degrowth (see Johanisova et al., 2013). However, social enterprises arguably still represent a form of capitalist economic organisation following the imperative of capital accumulation albeit while *also* pursuing social goals (see Nesterova, 2021). This shortcoming is further very much part of the problem with studies focusing on B-corps (such as Khmara and Kronenberg, 2018; Hankammer et al., 2021). Studies on social enterprises and B-corps still represent a focus on business, albeit a 'more socially orientated' businesses, but not on alternative economic organisations as such. Nesterova (2020) concludes that businesses might be able

to help in the lead up to a degrowth society but ultimately their goal should be to also transform into non-business alternatives. Social enterprises and B-corps do not represent a sufficient transformation away from capitalist imperatives (Nesterova, 2021).

Another form of alternative economic organisation that has been linked to degrowth are commons-based peer production (CBPP) organisations (Kostakis et al., 2018; Robra et al., 2020). CBPP represents a mode of production that emphasises freely sharing knowledge and ideas so that other organisations and practitioners can modify these ideas in accordance to their local needs and requirements (Benkler, 2007). CBPP as a phenomenon and alternative mode of production has emerged since the broad introduction of the internet (Benkler, 2007; Bauwens et al., 2019). Within CBPP “contributors create shared value through open contributory systems, govern the work through participatory practices, and create shared resources that can, in turn, be used in new iterations” (Bauwens et al., 2019, p.6). This means that the digital commons enable contributions to an endless pool of knowledge that gets constantly re-shared and re-shaped (Kostakis, 2018). Most significantly is the fact that this form of innovation and knowledge creation takes place without a clear profit incentive but rather through intrinsic, non-monetary motivation (Benkler, 2017; Kostakis et al., 2018). It is therefore in stark opposition to the belief that innovation requires a future profit incentive as described in Section 2.2. (see van Griethuysen, 2010; Pansera and Fressoli, 2021).

Furthermore, CBPP is interesting in the context of helping achieve degrowth as it not only represents an alternative form of organisation (i.e. CBPP organisations) but also a mode of production. To overcome and transcend capitalism a new and alternative mode of production is essential (see Marx, 1969; Saito, 2017). Essentially degrowth in its opposition to capitalism requires an alternative mode of production, which CBPP could potentially be. This means alternative economic organisations using this alternative mode of production, further encouraging a focus on CBPP. Alternative modes of production entail the contradiction of facing economic relations and structures misaligned with this mode of production (see Marx, 1969). This also emphasises the need to study these organisations with political economic implications in mind. It is therefore important to research how CBPP as a mode of production might fit degrowth but also how organisations using CBPP (i.e. CBPP organisations) might survive in a capitalist system despite the resulting contradiction.

With a need to include political economic considerations when researching economic organisations in the context of degrowth, it is problematic that, as described above, many of the recent studies predominantly disregard capitalism and its political economic implication. An explanation for this might be the use of more orthodox or traditional management and business theories as well as

frameworks used in these studies<sup>4</sup>. Many of these more ‘traditional’ theories leave no room for political economy or critique on capitalism (see Spash, 2020a; Ergene et al., 2020). Luhmann (2018) laments that these ‘traditional’ organisational theories are heavily influenced by neo-classical economics and its assumptions. Albeit that Luhmann's (2018) critique here is not in regard to political economy but the lack of complexity employed by these theories. Hence, Luhmann's (2012) social system theory could help study organisations in the complex setting of society.

Two past studies on organisations in connection to degrowth as well as postgrowth have utilised social systems theory (see Reichel, 2017; Plaza-Úbeda et al., 2020). However, both studies (like many others) fail to address or acknowledge the political economic implications of degrowth. Reichel (2017) follows Baecker's<sup>5</sup> (2006) example and analyses the form of the firm in the context of postgrowth. However, Reichel (2017) fails to draw significant implications for organisations that even acknowledge the political economic implications of either postgrowth or degrowth. Plaza-Úbeda et al. (2020) adopt Luhmann's work directly to research sub-systems within organisational social systems in the context of degrowth. However, Plaza-Úbeda et al. (2020) also fail to translate political economic implications of degrowth to the organisation level and revert back to ‘traditional’ management and business indicators within companies, despite having identified degrowth's opposition to capitalism.

It needs to be pointed out at this point that Luhmann himself completely disregarded political economy when applying his theory and was vehemently opposed to Marx's view and conceptualisation of society (see Schechter, 2017). Schechter (2017, 2019) argues that social systems theory can be detached from Luhmann's personal worldview and connected to Marxist concepts including Gramsci's conceptualisation of hegemony. On its own, social systems theory does not address the shortcoming of political economic considerations. This PhD therefore seeks to bring Gramsci's (1971) conceptualisation of hegemony together with Luhmann's (2012) social systems theory to enable viewing organisations as encompassed in the complexity of society whilst also considering society's political economy. This will enable the PhD to fill parts of the vast gap on economic organisation and degrowth without ignoring its incompatibility with capitalism.

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<sup>4</sup> Albeit that there might be other reasons for this disregard and omission of capitalism and its imperatives. One can speculate whether these reasons are of a diplomatic nature to ensure greater ease in publication and/or continuations of research funding. Regardless, this disregard is highly problematic in achieving degrowth as will be discussed throughout this thesis.

<sup>5</sup> Dirk Baecker is considered one of Niklas Luhmann's disciples and seen as one of the most important social systems theorists after Luhmann himself, particularly in the German speaking context.



## 2.4. Summary and Conclusion

This chapter set out to briefly introduce degrowth as a concept as well as its most common critiques. It further sought to review the literature available on economic organisations in connection to degrowth, highlighting the vast remaining research gap in this area.

The literature review highlighted that degrowth seeks to transform society to become sustainable by reducing matter-energy throughput and aiming for a societal transformation that allows for a society not based on continued economic growth. In this context, the chapter also reviewed some of the common critique on degrowth and highlighted that these either represented a misunderstanding of degrowth or continue to perpetuate the belief in unfeasible concepts such as green growth while ignoring the rebound effect. The chapter also highlighted degrowth's incompatibility with capitalism. In this context the chapter explained that this thesis follows the (Marxist influenced) definition of capitalism as a societal system based on capital accumulation.

The chapter explored the general lack of studies in connection to degrowth and economic organisation while simultaneously arguing the need to research economic organisations in the context of degrowth. Before reviewing the meagre available literature on the topic, the chapter showed the incompatibility of degrowth with sustainable business studies due to degrowth's incompatibility with capitalism. The majority of existing studies on degrowth and economic organisation was then deemed to fall back on sustainable business studies despite this incompatibility. Further, this highlighted a number of studies that tried to make degrowth fit these business studies. As the chapter described businesses as inherently capitalist economic organisations, it proposed the focus on alternative economic organisations instead. In this context, CBPP was identified as the organisational form the thesis would focus on. The chapter also identified Luhmann's social systems theory as a fitting theory to study organisation that would prevent a fall back on 'traditional' business theories. However, it was also identified that this theory must be connected to Marxist concepts to include the political economic implications of degrowth.

To conclude, the chapter highlights the need to study alternative economic organisations in the context of degrowth and how these can help to achieve a degrowth society. Simultaneously the chapter also emphasised the failure of most previous studies on degrowth and economic organisation to acknowledge degrowth's incompatibility with capitalism as well as the resulting implications. 'Traditional' business studies, including sustainable business studies, fail to acknowledge the political economy of capitalism and its inherent unsustainability. The chapter therefore proposes to study CBPP organisations by using Marxist conceptualisations such as Gramsci's hegemony and counter-hegemony together with Luhmann's social systems theory.



## **Chapter 3 – Research Philosophy, Methodology, and Design**

### **3.1. Introduction**

This chapter describes the researcher's research philosophy and the consequential research approach of the overall PhD thesis. Section 3.2. argues the need of a research philosophy in research and describes the PhD researcher's personal take on critical realism. The research framing of the thesis follows in Section 3.3. The section describes the critical realist approach to first conceptualise and frame the particular research focus of the thesis. In the case of this thesis, this means how organisations are conceptualised for the study. In connection to this, the section further emphasises the critical realist need of an a priori theory conceptualisation and makes the case for the partial theoretical approach to the thesis. The research methodology and design choice of case study research for the empirical part of the thesis is highlighted in Section 3.4.

### **3.2. Research Philosophy**

Paradigms in research influence how a researcher conducts their research and thus plays an important role in any research undertaking (Robson, 2011). There are various paradigms within social research that might oppose each other philosophically (Denzin and Lincoln, 2018). This is not simply a question of quantitative paradigm vs. qualitative paradigm (Robson, 2011; Lincoln et al., 2018). The 'hard' science vs. 'soft' science debate where quantitative research is viewed as objective compared to qualitative research viewed as non-scientific, is arguably out of date (see Denzin and Lincoln, 2018). The need for an objective researcher for such 'hard' science is unfulfillable as "you can't leave your humanity behind doing research" (Robson, 2011, p.15). In other words, researchers can never be fully value-free and objective when doing research.

A researcher's worldviews, assumptions, and the way they view reality in the search for knowledge, i.e. the researcher's ontology, play a key role in how the researcher conducts their research (Lincoln et al., 2018). This further influences the researcher's epistemology, i.e. their way of thinking as well as viewing their research subjects and objects (Spash, 2012; Lincoln et al., 2018). Epistemology and ontology influence and determine the strategy and process of the research itself, i.e. the research methodology. It is therefore vital for researchers to be clear about their own personal research philosophy, in order to be able to align methodological choices with their research philosophy. As a researcher's research philosophy represents something very personal, the remainder of this section is written in the first person to emphasise the PhD researcher's personal worldview embedded within the research philosophy.

I personally view my research philosophy to be aligned with Roy Bhaskar's (1998) critical realism to a high extent. I acknowledge a reality that exists apart from human existence and hence also apart from human consciousness. Science is a social product/construct that studies and operates within a reality that exists prior to science (Archer et al., 1998). I agree with Joseph (2002, p.28), who goes as far to say that "reality must exist independently of our knowledge of it if scientific development and debate are to have any relevance". Further, I believe that one can never fully know if what one has found constitutes as objective truth. Research is always value laden (be that consciously or subconsciously) and especially so in social science and research related to economics. I oppose the positivist view of an objective truth through empirical (quantifiable) research but similarly also oppose the relativist viewpoint where it can be hard to argue for the existence of reality outside the researcher's own perception.

Critical realism aims to explore and answer research questions by understanding structures and mechanisms that influence phenomena (Robson, 2011). However, critical realism emphasises structures and agents as mechanisms leading to phenomena on an equal footing (Bhaskar, 1998; Spash, 2012). Vincent and Wapshott (2014) for example emphasise a critical realist research approach focusing on agency and agents. Joseph (2002) on the other hand, critiques Bhaskar's (1998) view of agency standing one-to-one with structures. I similarly side here more with Joseph's (2002) Marxist view of structures having primacy over agents. My view is further influenced by Luhmann's (2012) social systems theory where structures heavily outweigh agents and their agency as mechanisms. Structures arguably constrain and influence agents so heavily that a primary focus on structures as mechanisms to research can be argued. This does not mean that agency and agents do not play a role, however from this perspective maybe not as a vital a focus as perceived by some scholars. It should also be said that agents and structures are heavily interdependent. Structures are initially created by agents, but structures essentially constrain agents in changing and creating new structures. Arguably, structures can only be changed by agents, however to do so, structures must first be understood.

Marx's materialist dialectic is a further aspect that influences my research philosophy. Marx inverts Hegel's philosophy (*Marx stellt Hegel vom Kopf auf die Füße* – Marx puts Hegel from his head on his feet) (Saito, 2017). This means that Marx's materialist dialectic departs from the materialist world instead of Hegel's departure from human consciousness. In other words, everything comes from a material base, there is no human consciousness without the material world (Creaven, 2002). This is very similar to Bhaskar's (1998) stratification of nature, if understood from the bottom up i.e. with a materialist footing. Creaven (2002) argues that with a more explicit footing on a material base than critical realism, materialist dialectic is in a stronger position to oppose ideas such as god as a creator. Critical realism is often described and used as an 'under-labourer' in conjunction with other theories

and philosophies (Brown et al., 2002). Hence, the combination of critical realism with Marxist ideas in my personal research philosophy is not only possible but also common amongst some Marxist scholars (see e.g. Joseph, 2002), albeit debated amongst Marxists (see Brown et al., 2002).

### **3.3. Research Framing**

From a critical realist perspective phenomena and research subjects as well as objects cannot be studied in isolation but must be studied in their specific environments and settings (O'Mahoney and Vincent, 2014). This means to get an in-depth understanding of the studied object and/or subject an understanding of its surroundings is essential to describe and research the mechanisms causing a certain phenomenon. Critical realism follows an abductive and retroductive logic (Ackroyd and Karlsson, 2014). Abduction re-describes the observed object, subject, or phenomenon in a more abstract way. In other words, abduction theoretically describes the causations observed. Retroduction on the other hand, is the notion of describing the world surrounding the studied phenomena in a way that explains the mechanisms observed to work as perceived (O'Mahoney and Vincent, 2014). Meaning, retroduction describes the way the world around the phenomenon must look for the phenomenon to occur as observed. According to O'Mahoney and Vincent (2014), abduction and retroduction are often seen and conducted as one move within research by critical realists.

For critical realism's abductive and retroductive logic, a theoretical understanding of a phenomenon and its surroundings is vital to be able to identify potential mechanisms causing it (O'Mahoney and Vincent, 2014). This means an a priori theory understanding of the object or subject of study is essential before empirical research. In the context of the research in this PhD thesis, this translates to the requirement of theoretically understanding economic organisation in the political economy of capitalism. This also includes the need to theoretically understand alternative economic organisations, their alternative modes of production, and the resulting contradiction in the current setting of the capitalist hegemony. The literature review (Chapter 2) highlighted the lack of understanding capitalist structures when studying organisations in the context of degrowth, which further emphasises the need for an a priori theoretical understanding in the research of this thesis.

Vincent and Wapshott (2014) argue that a good starting point for critical realist research on organisations is the ontological assertions of what organisations do and are. This gives a good theoretical foundation for both the abductive and retroductive process of the research (Vincent and Wapshott, 2014). This PhD takes the view advocated in Luhmann's (2018) social systems theory on organisations where organisations are viewed as social systems. Social systems theory thus represents a theoretical starting point for the abductive process. Further, as social systems theory views

organisational social systems as encompassed by the wider social system of society (Seidl and Becker, 2006), the theory will help with the retroductive process of the study. Other conceptualisations relevant for the a priori theoretical understanding are arguably Gramsci's (1971) concept of hegemony and counter-hegemony as well as Marx's (1969) base and superstructure. Both will help to facilitate a socio-political dimension in the abductive and retroductive process.

### **3.4. Research Methodology**

The previously mentioned lack of extensive literature on organisations in the context of degrowth makes the creation of an a priori theoretical understanding based on this literature alone, difficult. This PhD therefore takes a theoretical as well as empirical approach, theoretical meaning here simply a non-empirical approach. This means that this PhD tries to fulfil and answer some of its research objectives and questions through theoretical analysis. These theoretical enquiries help to establish a better a priori theoretical understanding which then in turn helps to inform the empirical part of the PhD. Specifically, the first two findings chapters (Chapters 4 and 5 of this thesis) aim to fulfil and answer their research objectives and questions in this way. These chapters therefore represent the a priori theoretical discussions needed from a critical realist perspective which then allow for a better understanding of what and how to undertake the empirical work of this thesis. Even though the empirical work of this thesis (Chapter 6) can arguably stand on its own as a findings chapter, in the whole of the thesis, the two preceding findings chapters represent the a priori theoretical exploration that helped frame and conceptualise the empirical study.

The empirical research question of this PhD is the following:

*Do, and if so, how do commons-based peer production organisations demonstrate counter-hegemonic degrowth in their decision premises?*

According to Robson (2011), critical realists aim to answer how and why questions, i.e. the causation of phenomena. The above question therefore fits well within the research philosophy of critical realism. As argued in Section 3.2. research philosophies have methodological consequences, the same is true for critical realism. Case study research is generally seen as a methodology to answer how and why questions on organisations (Van Maanen, 1983; Yin, 2003). Further, Ackroyd and Karlsson (2014) identify case study research as a fitting design for critical realist studies, particularly when studying organisations. It should be noted however, that critical realism works with various research designs and does not prescribe one (O'Mahoney and Vincent, 2014). Yet, due to the abductive potential in case studies to find and show mechanisms in an in-depth setting (Vincent and Wapshott, 2014), case study research seems fitting for the above research question from a critical realist perspective.

There are various approaches to case study research and not one indefinite way of procedure (Vincent and Wapshott, 2014). Vincent and Wapshott (2014) argue that the requirement of an a priori theoretical understanding in critical realism is similar to the a priori conceptual framework that Yin (2003) postulates for case study research. However, Vincent and Wapshott (2014) are quick to point out that instead of testing the theoretical framework (as in the case of Yin's approach), the aim is to abductively use it to re-describe the observed causalities (Ackroyd and Karlsson, 2014; O'Mahoney and Vincent, 2014). This theoretical description then further helps with the retrodution i.e. showing which conditions allow for the causation as the mechanisms are often outside the case studied thus requiring a theoretical level to be worked out (Vincent and Wapshott, 2014).

Both single and multiple case study research is possible from a critical realist perspective (Kessler and Bach, 2014; Vincent and Wapshott, 2014). Ackroyd and Karlsson (2014) emphasise that mechanisms can be identified in a single case study, and these mechanisms can also be believed to operate in other places. Multiple-case study research can however help to make conclusions about causes more effective (Ackroyd and Karlsson, 2014). Further, multiple cases can help to identify broader tendencies and mechanisms that might be lost if focusing only on the setting of a single in-depth case (Kessler and Bach, 2014). Within the philosophy of critical realism every case is seen as an in-depth case even if in a multiple case study approach (Ackroyd and Karlsson, 2014). Multiple cases can therefore be used to generalise about mechanisms.

For its empirical part, the PhD adopted a multiple case study approach. Snowballing (Biernacki and Waldorf, 1981) was used in the PhD researcher's network of CBPP academics and practitioners to identify potential cases that showed practices aligned with the concept of designing globally and manufacturing locally (DGML) (see Chapter 4) to ensure a focus not on solely digitally-based CBPPs. Five CBPP organisations were initially identified that were willing to participate in the study:

1. Wind Empowerment – a CBPP organisation focusing on the manufacture and knowledge dissemination of small-scale wind turbines.
2. Hydro net – a CBPP organisation focusing on small-scale hydro energy solutions.
3. T4 – a CBPP of software for energy management, mainly focusing on solar energy.
4. P2P Lab – A research collective organised as a CBPP organisation, focusing on research on and around CBPP.
5. Guerrilla Translation – A translation collective organised as a CBPP organisation.

After initially agreeing to partake in the research project, Hydro net withdrew as a case before data collection began. T4 withdrew as a case due to the ensuing Covid-19 pandemic, stating that the extra pressure from the pandemic left no time to participate in the research project. This left three cases:

Wind Empowerment, P2P Lab, and Guerrilla Translation. However, after initially taking part in the data collection process, Guerrilla Translation became unresponsive after a few interviews, making further in-depth data collection impossible. Despite the high quality of data collected from this case, the small quantity of data collected seemed disproportional to the other two remaining cases. The small number of interviews also made it impossible to cross check findings. Guerrilla Translation was therefore dropped as a case because too many assumptions about the data would have had to be made to make it comparable to the other two cases, Wind Empowerment and P2P Lab. This decision was further influenced by the fact that Guerrilla Translation could be an interesting case in future research. Assumptions around the collected data in published material would unnecessarily undermine the present and potentially future researcher-case relationship.

Data collection in case study research can take many shapes and forms (Yin, 2003). Mintzberg (1983) argues that qualitative research helps to understand organisations in depth. Similarly, Wolf et al. (2010) argue that researchers working with social systems theory should utilise qualitative methods to explain the complex issues researched. Besio and Pronzini (2010) recommend interviews, participant observation, document analysis, and discourse analysis as relevant data collection techniques when researching organisational social systems. From a critical realist perspective, there is no particular data collection technique that should be used (Ackroyd and Karlsson, 2014). Smith and Elger (2014) however recommend in-depth interviews particularly in the context of case study research as the researcher will be able to probe for details and implications of mechanisms. The authors (Smith and Elger, 2014) caution however that interviews have to be critically scrutinised, they recommend triangulation of the collected data with other sources as well as other data collection techniques.

This PhD collected data through semi-structured in-depth interviews with various members of the case organisations. Snowballing was used to increase the number of interviewees and interviews (Biernacki and Waldorf, 1981). The interviews were structured to touch upon the decision premises and self-description(s) of the organisation. Chapter 6 expands on the theoretical background for the focus on decision premises. Further, Chapter 6 (Section 6.4.) describes how the analysis of the data was undertaken. The interviews' length ranged from 40 to 90 minutes. Skype was used to conduct and record the interviews. All interviews were transcribed (using Otter.ai) to allow for easier analysis. In total 11 and 9 interviews were conducted with members from Wind Empowerment and P2P Lab respectively. Table 2 in Chapter 6 includes a detailed overview of all collected data from the two cases.

In the case of Wind Empowerment, four board and strategy meetings were observed; field notes were created for analysis from these. As the meetings within P2P Lab are held in Greek, an observation was not possible. Wind Empowerment provided three key strategic documents (Charter, Constitution, and



Finance and procurement Policy) for document analysis. Wind Empowerment also provided access to various email conversations which were deemed relevant to the research after initial conversations and interviews. These emails were analysed as documents. Through their *modus operandi*, P2P Lab does not have similar strategic documents that could have been analysed. Instead, its members referred to academic research publications of the collective. These publications were not analysed in the way the rest of the data was (as outlined below). Rather, the publications are used as academic references to enrich the study's findings.

Case study researchers like Yin (2003) suggest analysing data through pattern matching it to an a priori theoretical framework. Although the deductive approach offered by Yin (2003) might be similar to the abductive approach of critical realism it needs to be refined to also allow for a retroductive logic (Vincent and Wapshott, 2014). Generally, coding interviews as well as documents is common practise in qualitative research to identify emerging themes (Roulston, 2013; Coffey, 2013). The anonymised as well as transcribed data was imported into NVivo for coding. However, in light of viewing organisations as social systems in this PhD, decision premises and the organisations' self-description were taken as themes to code the data (see Chapter 6 for the theoretical a priori considerations for these codes). The coded data was then analysed for counter-hegemonic alignment with degrowth (see Chapter 6 for a description of the notion of counter-hegemonic alignment in the context of the empirical study).

The initial discussions and interviews with P2P Lab led to broader discussions around CBPP itself as well as the investigated topic. These discussions also emphasised that CBPP as an emerging phenomenon is difficult to detach from its precise context (see also Bauwens et al., 2019). To understand the cases' contexts better it was deemed beneficial to incorporate a more participatory approach to the case studies. According to Reilly (2010), in participatory case studies, typically case participants contribute to the analysis and discussion of the research, to enhance the understanding of both the underlying processes and the contextual setting. Participants are not subject to observation and inquiry by the researchers but are considered experts on the underlying contextual causes and details of their social environment. The objectives and outcomes of the research are foremostly relevant to the participants and oriented towards the improvement of the investigated social situation.

One participant from each of the two cases was chosen to participate in the analysis and discussion of the research process. To balance any confirmation bias or potential conflicts with preconceived notions, the two participants were only involved in the analysis and discussion phase of the research, while the PhD researcher provided critical checks and had the final say in the key decisions concerning the research process. The data was solely collected by the PhD researcher, while the two participants were only given access to fully anonymised data.

## Chapter 4 – Findings 1 – Commons-based Peer Production

### Organisations for Degrowth Counter-Hegemony?

#### 4.1. Introduction

As outlined in Section 2.2. degrowth scholars argue for the need to establish a new societal system that is not based on and does not require economic growth to function while increasing and maintaining wellbeing (Schneider et al., 2010; Kallis, 2018). In this context it was also highlighted that capitalism is, by definition, a growth-based system (Foster et al., 2010). Degrowth's opposition to economic growth therefore ultimately also requires overcoming capitalism and its imperative of capital accumulation as well as profit maximisation (see e.g. Blauwhof, 2012; Foster, 2011; Spash, 2020a; van Griethuysen, 2010). The need to overcome and essentially transcend both capitalism and the need for economic growth has a significant impact on the economy in a potential degrowth society. More precisely any notion to overcome capitalism and its growth imperative requires an acknowledgment of political economic considerations (Spash, 2020a).

Arguably, the notion of degrowth has significant impacts on how and which economic organisations might fit a degrowth society (Shrivastava, 2015; Robra et al., 2020). Yet, the role of production and economic organisations seems unclear in the context of degrowth (Hankammer and Kleer, 2018). However, it is clear that studying economic organisations in the context of achieving a degrowth society needs to acknowledge capitalism and its political economy (see Section 2.3.). As argued in Section 2.3., businesses in any form represent capitalist economic organisations that strive for profits and to accumulate capital, making them incompatible with degrowth (van Griethuysen, 2010; Nesterova and Robra, forthcoming). Recent studies on the topic of degrowth in connection to economic organisation have arguably ignored degrowth's political economic implications and the resulting need to focus on alternative economic organisations. This chapter seeks to fill part of this research gap by introducing a political economic lens to analyse economic organisations' role for achieving degrowth. This first and foremost requires a political economic lens compatible with degrowth.

Various different political economic considerations have been introduced to the degrowth discourse recently (see Chertkovskaya et al., 2019). One of the most promising avenues in the context of this PhD is D'Alisa's (2019) (see also D'Alisa and Kallis, 2020) use of Gramsci's conceptualisation of hegemony and counter-hegemony to describe degrowth as a counter-hegemony essentially seeking to replace the capitalist hegemony and its common-senses. An unexplored avenue in this context of economic organisations therefore becomes the role of economic organisations in helping the degrowth counter-hegemony overcome the capitalist hegemony. Following this notion, economic

organisations currently operate in a hegemonic, capitalist context. Within this society, economic structures are arguably aligned with the capitalist hegemony and enforce its reproduction. It is therefore important to not only understand how economic organisations could align with degrowth in such a context and even help to overcome the capitalist hegemony, but also what such an alignment implies for these organisations in said hegemony. With CBPP the focus of this thesis, this chapter seeks to explore the following objective of this thesis (see Section 1.2.):

Understand the role of economic organisations in helping degrowth counter-hegemony overcome the capitalist hegemony.

In light of this research objective, this chapter seeks to answer the following research (see Section 1.2.):

How can commons-based peer production as a mode of production and as a form of organisation help the degrowth counter-hegemony to overcome the capitalist hegemony?

The remainder of this chapter is structured as follows: Section 4.2. describes and operationalises degrowth as counter-hegemony using Gramsci's conceptualisation of hegemony. The section describes the core idea of hegemony and counter-hegemony and how these reproduce. Section 4.3. theoretically develops the need for an alternative mode of production and its purpose within a degrowth context. From this, broad implications for economic organisations are drawn. In this context, counter-hegemony is connected to Marx's conceptualisation of the economic base and superstructure. The resulting theoretical insights are then analysed on the example of CBPP (both as a mode of production and CBPP organisations) in Section 4.4. This section highlights how CBPP aligns (as well as how it does not) with degrowth as a counter-hegemony and the purpose of the alternative mode of production described in the previous section. Section 4.5. interprets these insights and connects them to the wider literature on degrowth, and further makes suggestions how CBPP organisations might better align with degrowth. In Section 4.6. the chapter concludes and connects its findings to the wider setting of the PhD thesis.

## **4.2. Degrowth as Counter-Hegemony**

According to Kallis (2018, p.85), "[d]egrowth marks a frontal attack on the growth paradigm". This means degrowth repoliticises and critiques the notion of continued economic growth as a means to achieve prosperity and wellbeing (Latouche, 2009; Swyngedouw, 2015). Repoliticisation is needed in this context as the pursuit of economic growth (as well as capitalism) has become largely unquestioned and therefore depoliticised (Dale, 2012; Swyngedouw, 2015). Despite the aforementioned

shortcomings of economic growth to alleviate social as well as ecological problems (see Section 2.2.), it is commonly viewed as positive and required (Dale, 2012). As argued in Section 2.2., not only economic growth but particularly capitalism through its growth imperative should be seen as the main driver of ecological destruction and climate change (see e.g. Blauwhof, 2012; Foster et al., 2010; van Griethuysen, 2010). This has led to the argument of degrowth's incompatibility with capitalism.

Capitalism's imperative of capital accumulation is the driver of economic growth. According to Foster et al. (2010: 28) "capitalism has remained essentially (if not more so) what it was from the beginning: an enormous engine for the ceaseless accumulation of capital, propelled by the competitive drive of individuals and groups seeking their own self-interest in the form of private gain". Capitalism also requires economic growth as this creates opportunities for new capital accumulation (Foster et al., 2010; van Griethuysen, 2010). Hence, capitalism and economic growth are interdependently linked. To overcome the growth imperative, capitalism must be overcome and vice versa. Capitalism viewed here as a societal system and not just as the economy or a set of institutional attributes (as Kallis (2018) does, also see Section 2.2.). Capitalism from this perspective signifies various structures of society that are based on and require capital accumulation and economic growth to continue. Degrowth therefore not only represents the "frontal attack on the growth paradigm" Kallis (2018, p.85) speaks of, but a full on assault on capitalism and its imperatives.

Despite his focus on the opposition to economic growth instead of the capitalist system, Kallis (2018) (as well as D'Alisa (2019)) proposes Antonio Gramsci's conceptualisation of hegemony and counter-hegemony to explain the ensuing socio-political dynamic of opposing and replacing the dominant growth paradigm. Hegemony here as Gramsci (1971) (re)conceptualises the term to describe the dominating ideology, culture, and norms, but also structures and systemic relations within society at a certain point in history. Gramsci's work helps to understand how a hegemony can persist but also what it might entail to overcome and replace it (Fontana, 2008). Gramsci's conceptualisation of hegemony therefore introduces a socio-political facet to Marx's concept of cultural hegemony (Texier, 2015). What is clear from Gramsci's definition of hegemony is that it can be used to describe capitalism as a hegemony following this thesis definition of capitalism as a societal system. This is more complex than Kallis' (2018) focus on a growth hegemony as capitalism as a system encompasses a growth imperative through its imperative of capital accumulation. Hence, in the context of hegemony this thesis sees degrowth as opposing the capitalist hegemony instead of a growth hegemony.

In the context of hegemony, Gramsci (1971) conceptualises civil society, political society, and the state in a very heterodox way. Civil society (e.g. educational system, religion) is the sphere of consent to hegemony and its reproduction (Buttigieg, 1995). Political society (e.g. judicial system, the army and police, as well as bureaucracy) enforces the consent to hegemony if necessary (potentially through

brute force) to ensure its continuation with minimal coercion (D'Alisa and Kallis, 2016). For Gramsci (1971) civil society is inseparable from political society. This inseparability led Gramsci to understand civil society and political society together as the integral state (Texier, 2015). Gramsci's (1971) understanding of what constitutes the state is thus more complex than the liberal understanding as purely the government apparatus (which Gramsci describes as part of political society). Similarly, civil society is seen as a part of the integral state and therefore not just reduced to the private sphere but part of the state and how its hegemony is reproduced (Buttigieg, 1995).

The consent to hegemony its structures, culture, and norms is manufactured through processes, mechanisms, and relationships between civil and political society (Buttigieg, 1995). Consent in this context is reproduced through the hegemony's norms and culture being viewed as common senses. Gramsci uses the 'grammatically non-existent' plural of common sense to describe the plurality of norms and rules that are viewed uncritical and become unquestioned, hence everyday common sense in the persisting hegemony (Hoare and Nowell-Smith, 1971). The hegemony's common senses essentially represent the dominant *Weltanschauung* or worldview in society. This worldview represents a subconscious understanding of the world that helps to ensure the persistence of the current hegemony (Hoare and Nowell-Smith, 1971). Essentially meaning the hegemony's worldview is not even viewed as such but perceived as 'natural' (see Lösch, 2017).

Hegemony persists as common senses remain largely unchallenged but also through their active reproduction (D'Alisa and Kallis, 2020). That is, acting in line with the common senses of the hegemony (albeit mainly subconsciously) actively reproduces the hegemony. The common senses of economic growth and capitalism are constantly reproduced, resulting in but also explaining the continuation of the capitalist hegemony (Buch-Hansen, 2018). For example, the common senses around the perception that innovation needs to follow the imperative of profit maximisation leads to innovation for future capital accumulation, which results in the active reproduction of these common senses and ultimately the capitalist hegemony.

Schools are another example which reproduce and teach hegemonic common senses and largely discourage critical engagement with these (Ruuska, 2019). Business schools reproduce the idea of the hegemonic view on growth, capitalism and the economy (Ghoshal, 2005). Critical or other ways of viewing the economy or society are marginalised or discriminated against. Common senses have been depoliticised (Swyngedouw, 2015) thus ensuring their constant uncritical reproduction. This further helps explain why economic growth is seen as the solution to society's problems. These beliefs are part of the capitalist hegemony and its common senses.

Through the alignment of society's structures with the capitalist hegemony, everyday life and activities mostly reproduce this hegemony directly or indirectly. Humans are members of the societal systems and help to reproduce it (Luhmann, 2012). Many activities within society therefore inadvertently reproduce its hegemony (Kallis, 2018). The simple act of grocery shopping in a supermarket reproduces and reinforces the capitalist hegemony. Through this act the capitalist hegemony is most likely unconsciously reproduced through individuals' actions. Even the conscious individual in this regard might be forced through society's structures to help the reproduction of the capitalist hegemony, e.g. the individual's need to buy food at a supermarket to sustain their biological metabolism.

According to Latouche (2009), degrowth repoliticises ideas about economic growth and capitalism. Essentially degrowth opposes the capitalist hegemony and its common senses. Degrowth thus represents a counter-hegemony to the capitalist hegemony, seeking a paradigm shift by replacing it (Buch-Hansen, 2018). Counter-hegemony represents cultural and political opposition to the hegemony its beliefs and power structures, ultimately seeking to overcome and transcend it (Fontana, 2008; Carroll and Ratner, 2010). A counter-hegemony repoliticises the common senses of the hegemony, creating the possibility to question and oppose them (D'Alisa et al., 2013; García López et al., 2017). Through this, the reproduction of hegemony can be challenged and undermined, creating the possibility of the counter-hegemony to take hold as a new emerging hegemonic possibility in society (Hoare and Nowell-Smith, 1971).

Counter-hegemony can take hold through counter-hegemonic everyday activities, these represent activities that are in accordance with the counter-hegemony's instead of hegemony's common senses (García López et al., 2017; Pansera and Owen, 2018). In the context of degrowth Kallis (2018) advocates counter-hegemonic activity aligned with degrowth to help achieve a societal transformation. Indeed, Gramsci's work has mainly been used to describe and research such counter-hegemonic activity in the context of degrowth (see e.g. García López et al., 2017; Pansera and Owen, 2018). Other work focused on the conceptualisation of the state in this context, also arguing for general counter-hegemonic activity (see D'Alisa, 2019; D'Alisa and Kallis, 2020).

Counter-hegemonic activity is no doubt necessary and can help degrowth overcome and transcend the capitalist hegemony, however it is hard to imagine how such activity alone can lead to the required societal transformation to achieve a society in line with degrowth. Particularly as "[a]lternative ways of living are either co-opted into the economic growth paradigm or condemned as backward or primitive" (Spash, 2020a, p.9). Yet, for scholars like Kallis (2018) counter-hegemonic activity is meant to achieve structural change through co-emergence. This seems plausible but only seems to scratch the surface of how a structural degrowth transformation might be achieved. Spash (2020a, p.4) argues that "[i]n order to understand why systems change is necessary, and how it might be achieved the

structural aspects of that system must be understood, including the mechanism by which it operates and reproduces itself". In the context of degrowth this means it must be understood how counter-hegemonic activity can lead to a structural transformation of society. For the focus of this thesis this means understanding the role of economic organisations in society's structural transformation towards degrowth.

### **4.3. Economic Organisations and the Contradiction of an Alternative Mode of Production**

According to Spash (2020a), to understand the reproductive structures of capitalism one must unavoidably work with Marx's understanding of society and its political economy. In order to better understand the role of economic organisations in overcoming the capitalist hegemony, it is vital to understand the relation between economic base and superstructure. For Marx (1969), society's economic structures (i.e. its mode of production and relations of production) represent the economic base. This economic base enables and shapes society's superstructure. The superstructure can be understood as all of society's non-economic structures such as politics, culture, and law which in turn maintain and shape society's economic base (Marx, 1969). This means that the superstructure and economic base maintain and shape each other in circularity.

The mode of production is an abstraction and not in itself the actor that can shape the superstructure, instead economic organisations operating according to and aligning with a mode of production do. Economic organisations through their mode of production and relations of production are connected to the base while simultaneously also being connected to the superstructure. Economic organisations therefore have a fundamental role to shape a superstructure that will help maintain a particular economic base and its mode of production. For degrowth this further emphasises the role of economic organisations as these must help change the superstructure to overcome capitalism and the capitalist mode of production.

The influence economic organisations can arguably have on shaping the superstructure becomes even more vital in connection to Gramsci's conceptualisation of hegemony. Gramsci is connected to Marx's work in various ways (see Mouffe, 2015). Some scholars view Gramsci as overcoming Marx and his concepts of economic base and superstructure (see e.g. Bobbio, 2015). Whereas others argue that Gramsci adds to (rather than overcomes) Marx's concepts, particularly on the level of the superstructure (see e.g. Texier, 2015). This thesis follows Texier's (2015) reading of Gramsci in order to make use of Marx's arguments around economic base and superstructure while also connecting this to Gramsci's concept of hegemony and counter-hegemony. Gramsci digs deeper on the level of the

superstructure, whereas Marx's exploration focused mainly on the economic base. Texier (2015, p.63) argues that Gramsci's integral state is "the whole body of superstructural activities" and hence dubs Gramsci the theoretician of the superstructure. Following this interpretation, economic organisations have a vital role to play in shaping society's superstructure and ultimately its hegemony.

The capitalist mode of production is the current dominant mode of production. Capitalist economic organisations like firms and businesses have historically enabled and shaped the emergence of a superstructure aligned with the capitalist hegemony. This capitalist superstructure in turn is maintaining the capitalist mode of production as the dominant mode of production. This drives economic organisations to further align with the capitalist mode of production essentially further maintaining the capitalist superstructure and the reproduction of its hegemony. In a nutshell, this is the dialectic relationship Marx (1969) describes between base and superstructure. For degrowth as a counter-hegemony this first and foremost means an alternative mode of production at the economic base is required. On the level of economic organisations this means operating according to an alternative mode of production in line with degrowth and its counter-hegemony.

The capitalist mode of production forces production for the purpose of exchange value. The core aim is to create economic surplus and accumulate capital, leading to growth (van Griethuysen, 2010). The capitalist mode of production therefore encompasses various economic and societal relations (such as for example wage labour) to enable production for the given purpose of the mode of production. In the context of modes of production, this thesis focuses on the purpose of a mode of production for degrowth and the ensuing implications for economic organisations.

A degrowth mode of production needs to be non-accumulative to make reducing throughput possible. In a degrowth society production needs to take place for use value, fulfilling needs instead of consumer wants created by marketing departments (Nesterova, 2020). This further emphasises the need to produce in line with eco-sufficiency (i.e. the concept of enough) instead of ever more and eco-efficiently (see Heikkurinen et al., 2019; Robra et al., 2020). Production in line with degrowth needs to focus on what is needed rather than what has the highest exchange value.

To create continued surplus and drive accumulation, capitalist economic organisations produce goods often with planned obsolescence (van Griethuysen, 2010; Dietz and O'Neill, 2013). Products break at a planned time and are non-repairable, incompatible with new requirements, or can only be used for very specific purposes. People are forced to purchase new goods at an ever-increasing rate driving surplus and growth. Degrowth's mode of production therefore needs to be one of conviviality and not planned obsolescence, while ensuring reparability (Dietz and O'Neill, 2013; Kallis, 2018; Kostakis et al., 2018). Conviviality means that things can be used for various purposes depending on the user (Illich,



2001). Illich (2001) argues that convivial tools can be adapted to needs of the users and various situations, whereas manipulative tools require the user to adapt to them. The capitalist mode of production creates an increasing number of manipulative tools and products to ensure their use and replacement through planned obsolescence (Pansera and Fressoli, 2021). For economic organisations this means not only producing different goods but also making them easy to repair. In other words, enabling repairs rather than selling new products to enable further surplus creation.

In the capitalist mode of production innovation drives profits to ensure capital accumulation (van Griethuysen, 2010; Pansera and Fressoli, 2021). Profit-driven innovation emphasises inventions and products that fit exchange value rather than use value. Innovation takes place foremost to create exchange value rather than use value. Further, patents are used to protect profit-making and ensure continued capital accumulation through the created knowledge. In contrast, within a degrowth mode of production innovation needs to be driven by human and societal needs. Most importantly the resulting knowledge needs to be made part of the knowledge commons instead of patented to undermine capital accumulation (Kallis, 2018; Bauwens et al., 2019). This also means that economic organisations need to cooperate with- instead of competing against each other.

Three key criteria of the purpose of a degrowth mode of production can be drawn from the above paragraphs:

1. Production for use value instead of exchange value, and non-accumulation
2. Production of convivial goods/tools with no planned obsolescence
3. Shared knowledge commons and non-competition

Broadly speaking these three criteria need to be fulfilled by alternative economic organisations to align with the purpose of a degrowth mode of production. However, as mentioned, a mode of production alone does not create a change in superstructure or shift in hegemony. 'Mode of production' is an abstraction and theoretical concept which will only become concrete once it is acted out. Economic organisations need to become the mode of production's actors. Yet, aligning with this mode of production does not automatically make it the new dominant mode of production and does not ensure that degrowth counter-hegemony overcomes the capitalist hegemony. Aligning with the purposes of a degrowth mode of production represents a complete contrast to the capitalist hegemony, its mode of production and its purpose of capital accumulation. Economic organisations aligning with a degrowth mode of production must therefore survive in a society where the economic relations are driven by different purposes at odds with their own purpose. This makes the survival of any economic organisation aligned with degrowth precarious within a capitalist system (van Griethuysen, 2010).

It needs to be reiterated that the economic base enables the shaping of a superstructure and its hegemony. However, this does not take place automatically and deterministically through economic organisations adopting a new mode of production. There is a fundamental contradiction between a new mode of production and the old (hegemonic) production relationships (Marx, 1969). This contradiction means that economic organisations under a new mode of production will struggle to thrive and can only exist in niches (if at all). Economic organisations need to actively try and influence and change the superstructure and its hegemony. On the one hand influencing and changing the superstructure will increase the likelihood for these organisations to exist and survive. On the other hand, it will help to enable overcoming and replacing the current dominant mode of production. In other words, economic organisations must influence the superstructure in such a way that it starts to maintain a degrowth mode of production instead of the capitalist mode of production. Arguably the superstructure cannot help to maintain degrowth at the economic base without aligning with the degrowth counter-hegemony, highlighting again the dialectics between base and superstructure.

Nowadays it is normal for capitalist economic organisations to politically influence society be that through lobbying or to oppose regulation (see e.g. Utting, 2005). Historically, capitalist economic organisations similarly have shaped politics and law to fit the purposes of the capitalist mode of production (Banerjee, 2008). Hence, these organisations have heavily shaped a capitalist superstructure. A core aspect (going beyond the three above mentioned criteria) of economic organisations potential alignment with degrowth must be to politically influence the superstructure so that it will start to maintain the degrowth mode of production as the dominant mode of production.

#### **4.4. Commons-Based Peer Production for Degrowth?**

Since the broad introduction of the internet and consequently digital commons, CBPP emerged as a new modality of production and organisation (Benkler 2007). It is exemplified through free and open source software and knowledge, but also open hardware projects, such as the RepRap 3D printer (Bauwens et al., 2019). As the name suggests, CBPP is a commons-based ‘variant’ of peer production (PP) (Benkler, 2016). Benkler (2007, p.60) describes PP as “a new modality of organizing production: radically decentralized, collaborative, and non-proprietary; based on sharing resources and outputs amongst widely distributed, loosely connected individuals who cooperate with each other without relying on either market signals or managerial commands”. In other words, PP is a way to organise production and innovation peer-to-peer (P2P), without the need for centralised control or market incentives. PP builds on P2P coordination to enable self-identified contributions by loosely affiliated individuals or groups, with no predefined roles or structure. Through PP contributors can adapt,

change, and advance a product to their needs as well as local requirements by developing the product further (Benkler, 2016).

The difference between PP and CBPP lies in the property rights on the means of production, as well as the outcomes created (Benkler, 2017). Within CBPP both are freely shared as commons, through licences, such as the GNU General Public Licence or Creative Commons (Bauwens and Kostakis, 2014). CBPP implies the principle that knowledge and ideas should be freely available in the commons, so that for example blueprints or software can be adapted to specific and local needs (Benkler, 2007). PP on the other hand does not ascribe the need to adopt this commons perspective. Benkler (2017) argues that PP can be used as a tool within firms to create new innovations and retain these through property rights such as patents. In other words, PP can serve firms' capitalist-defined goals for innovation, accumulation, and growth. On the contrary, CBPP employs commoning (Bollier and Helfrich, 2015, 2019), i.e. the capacity to contribute to and benefit from the commons, based on community-defined rules and norms.

One of the best-known examples created through CBPP and continuing to operate under CBPP principles is Linux (an operating system which Google's operating system is based on) (Benkler, 2007). Linux is a free to download operating system that can be adapted and changed by users to fit their own needs. Users are encouraged to share their iterations of the operating system, making them available for further iterations by others. It needs to be reiterated that this form of production and knowledge creation takes place without the need for profit incentives or business coordination (Benkler, 2017). This is in stark contrast to profit-driven innovation of the capitalist mode of production (van Griethuysen, 2010).

CBPP products like Linux heavily rely on digital knowledge commons (Benkler, 2007). Many CBPPs remain in the digital sphere, i.e. where the sharing takes place in the digital commons and the produced good remains in the digital sphere (e.g. software) as well (see Salcedo et al., 2014). However, one configuration of CBPP, which builds on the conjunction of a global knowledge commons with local distributed manufacturing capabilities, exemplifies its potential for material production. This configuration, codified as 'design global, manufacturing local' (DGML) is documented in a broad array of practices and artefacts, from small scale wind turbines and prosthetics (Kostakis et al., 2015, 2018), to farming tools (Giotitsas, 2019), and even buildings (Priavolou and Niaros, 2019).

CBPP has previously been connected to degrowth (see Kostakis et al., 2018; Robra et al., 2020). Kostakis et al. (2018) propose a potential affinity of CBPP (particularly in connection to DGML) to degrowth. CBPPs using DGML are theoretically well suited to produce for locally occurring needs and reduce emissions that would otherwise occur through transportation (Kostakis et al., 2018). Further,

aforementioned lack of profit-driven innovation has led Kostakis et al. (2018) to argue that CBPPs have a potential neutral stance towards economic growth. Robra et al. (2020) build on these insights and investigate how CBPP organisations (i.e. economic organisations using CBPP as their mode of production) could help ensure degrowth by reducing throughput. Robra et al. (2020) argue that CBPP organisations must adopt the aim of eco-sufficiency to fulfil the degrowth aspects of a focus on needs and conviviality (see also Pantazis and Meyer, 2020). However, neither of these studies goes into any depth regarding the implications described in Section 4.3. of a degrowth counter-hegemony on these economic organisations in a capitalist system and its political economy. The three criteria for the purpose of a degrowth mode of production (as described in Section 4.3.) can be used to determine CBPP's potential as a fitting mode of production. In the following CBPP is analysed according to these three criteria.

#### Production for use value instead of exchange value, and non-accumulation:

CBPP emphasises production according to local needs and specifications (Kostakis et al., 2015). This means goods can be produced for use value rather than exchange value. Instead of producing to fulfil wants created by marketing agencies, this means producing for actual needs which can be saturated. This further underlines the possibility to produce in a way not emphasising capital accumulation. However, CBPP's potential alone does not guarantee non-accumulation. Similar to the growth ambivalence Kostakis et al. (2018) describe, CBPPs do not deterministically lead to non-accumulation. Benkler (2016) argues that PP can be harnessed by businesses to drive economic growth and hence accumulation. Google uses and adapts the CBPP Linux as an operating system for many of its products, ultimately helping to accumulate capital and increasing economic growth. In other words, CBPP can be used for production of use-value in a non-accumulative way but in the capitalist hegemony, it can also be co-opted for the opposite.

#### Production of convivial goods/tools with no planned obsolescence:

As CBPP products are usually manufactured for a specific local need, they are not built to intentionally become obsolete (Kostakis et al., 2015). Kostakis et al. (2018) emphasise that many non-profit CBPP products can be repaired locally, helping to reduce unnecessary waste. Products are effectively “designed to last a lifetime” (Kostakis et al., 2015, p.130). CBPP's reusable and repairable products therefore fit Illich's (2001) concept of conviviality. However, as the above example of Google shows, CBPP will not automatically create convivial tools and certainly not if co-opted for capitalist purposes.

### Shared knowledge commons and non-competition:

CBPP's notion of sharing knowledge to drive innovation is very different to profit-driven innovation and patents to retain property rights that is persistent within capitalism. Sharing knowledge and cooperation is therefore at the core of CBPP. Sharing and cooperation can often also be extended to the non-digital in form of shared manufacturing tools and workshops (see Kostakis et al., 2016, 2018). However, the reliance on digital commons to share and cooperate has also led to co-optation of these commons in prominent examples like Airbnb and Facebook (Kostakis, 2018). Kostakis (2018) argues that digital knowledge commons do not automatically create change to overcome capitalist tendencies but are a platform that can be used for this. Bauwens and Kostakis (2014) argue that new forms of licenses and laws are required to shield CBPP and their knowledge commons from co-optation. For example, these could be licenses which only allow access to the knowledge commons if it is being used for non-profit activity. However, CBPP organisations need to actively use and help create these licences with the aim to protect their knowledge from the use for accumulative purposes.

The above analysis shows that CBPP as a mode of production can potentially align with degrowth. However, it also highlights that CBPP will not automatically be used in line with degrowth counter-hegemony. That means economic organisations using CBPP as a mode of production (i.e. CBPP organisations) need to actively aim to align themselves with the three key criteria highlighted in Section 4.3. Further, this also shows that CBPP organisations will not automatically align with degrowth.

Robra et al. (2020) operationalise degrowth for economic organisations through the organisational aim of eco-sufficiency and investigate the CBPP organisation Wind Empowerment and how well it aligns with this aim. Wind Empowerment is a network that seeks to help rural electrification through DIY small scale wind turbines. Members “share their knowledge and best practices relating to small-scale wind turbines to become more effective at supplying rural electrification. [...] The peer production element of the association is this network for sharing knowledge on small-scale wind turbines. This knowledge is mainly open-source which further strengthens the peer production aspect” (Robra et al., 2020, p.4). Wind Empowerment as described by Robra et al. (2020) fulfils various aspects of an eco-sufficiency orientation and arguably the three criteria set out in Section 4.3. The authors (Robra et al., 2020) emphasise that a full alignment would only be possible if it was the aim of the Wind Empowerment to fully align with the eco-sufficiency aspects their paper sets out.

CBPP organisations have the potential to align with degrowth counter hegemony. However, CBPP as a mode of production does not automatically lead to this alignment. This means that CBPP organisations do not automatically influence and change the superstructure to align with degrowth counter-hegemony. CBPP organisations seem to coexist in a niche separate from capitalist enterprises or their

creations get co-opted for accumulative purposes (Bauwens and Kostakis, 2014; Kostakis et al., 2018). CBPP as a non-dominant mode of production faces the contradiction of economic relationships misaligned with its modus operandi (as described at the end of Section 4.3.). CBPP organisations not only need to align with the purposes of a degrowth mode of production but must also actively become political and aim to influence the superstructure to overcome this contradiction to fulfil their full theoretical potential and role to help achieve a degrowth society.

#### **4.5. Interpretation**

Even though CBPP can be seen as an alternative to the capitalist mode of production, one should not be under the illusion that this fact will lead to transformative change on its own. CBPP organisations need to actively aim to align with degrowth and help shape a degrowth superstructure. It is vital to explore how CBPP organisations can further align with degrowth to help overcome the capitalist hegemony. In the capitalist system this will have further implications for these organisations.

One might argue that economic organisations should not become political or in other words try to shape the superstructure. However, as mentioned at the end of Section 4.3., capitalist economic organisations have historically shaped society's structures to help maintain the capitalist mode of production (Banerjee, 2008). Similarly today, capitalist firms often oppose regulations so that potential and future capital accumulation is not harmed (Utting, 2005). It is in the interest of capitalist economic organisations to reproduce the capitalist hegemony and its superstructure in order to continue capital accumulation. In other words, capitalist organisations must shape and maintain the capitalist superstructure for the superstructure to maintain and shape the capitalist mode of production these economic organisations operate by. Capitalist organisations might not actively be aware of their reproduction of the capitalist system and its structures. However, through the organisations' alignment with the dominant capitalist mode of production and modus operandi in a society with a capitalist superstructure they willingly or unwillingly help to reinforce this superstructure that in turn reinforces their capitalist operations. Capitalist organisations therefore do not actively need to try and maintain a capitalist superstructure as capitalism is already established as the hegemony with a dominant mode of production and other economic structures.

Economic organisations aligned with an alternative mode of production on the other hand face a society in which structures reinforce the capitalist mode of production which results in a contradiction for these organisations that has significant implications. Economic organisations that do not abide by the principles of the current hegemony and its mode of production are constantly in danger of ceasing to exist (e.g. not self-sufficiently creating income) (van Griethuysen, 2010; Johannisova et al., 2013).

Following the concept of eco-sufficiency to align with degrowth (see Robra et al., 2020) will most certainly mean forgoing potential income opportunities, which can easily be a death sentence in capitalism. Johanisova et al. (2013) highlight how social enterprises as alternative economic organisations struggle to survive in the capitalist hegemony. Similarly, Blauwhof, (2012) points to cooperatives as alternative economic organisations but also cautions that institutions and structures need to change to support a non-accumulative mode of production.

Beyond making ends meet as an economic organisation, members of such organisations such as employees similarly face struggles if they cannot be paid. Many alternatives connected to degrowth rely on volunteers who need to make their ends meet through other employment (Kallis, 2018; Liegey and Nelson, 2020). The concepts of universal basic income (UBI) and universal basic services (UBS) could help to ensure employment in alternative economic organisations (with low or no monetary remuneration) does not undermine livelihoods. Both ideas have been floated as concepts that could help degrowth become reality in general (see Kallis, 2018). Büchs (2021) emphasises that particularly both, UBI and UBS, in connection can help achieve a sustainable society. These concepts in turn could support these economic organisations to survive too as employees could be supported without undermining the organisations' meagre income and would enable more people to get involved in these organisations. Alternative organisations aligned with degrowth could therefore fight for and demand UBI and UBS. This would represent a change at the superstructure that would help support alternative non-accumulative modes of production and economic organisations.

Another problem that alternative economic organisations are faced with in the capitalist system is the constant threat of co-optation. Section 4.4. has highlighted examples of how CBPPs can be co-opted for capitalist means. CBPPs are surrounded by capitalist firms able to utilise and co-opt their free knowledge. This means that these alternative economic organisations are often confined to niches but also means that they indirectly help to reproduce hegemony via the co-opting firms. There are similarly prominent examples of cooperatives being co-opted such as Mondragon in Spain or the Co-op supermarket chain in the UK (see e.g. Johanisova et al., 2013).

Alternative economic organisations need to erect barriers against co-optation. The earlier mentioned licences for non-commercial use of CBPP come to mind here (see Bauwens and Kostakis, 2014). Legal organisational structures can also help to undermine co-optation. The example of Wind Empowerment (see Section 4.4.) is a registered charity that bars itself from engaging in for-profit activity. Such a legal structure ensures against internal co-optation, however without non-commercial licenses the knowledge can theoretically still be co-opted (see Robra et al., 2020). Other legal structures such as cooperatives are accepted in various countries that can ensure a not-for-profit and non-accumulative organisational structure. Particularly interesting and new organisational forms are the distributed

cooperative organisation (DisCO) (see Troncoso and Utratel, 2019) as well as open cooperatives (see Pazaitis et al., 2017). These organisational forms combine the cooperative organisational form with CBPP and clearly non-accumulative principles as well as aligned political aims. Alternative economic organisation could therefore adopt these concepts to ensure the political aim to influence the superstructure. These organisations could then push and demand an establishment of these organisational forms as organisational legal entities. This could support enforcing licencing laws around CBPP that would also help to protect CBPP as an alternative mode of production overall.

UBI, UBS, non-commercial licenses, and new legal organisational forms are examples from a non-exhaustive list of structural transformative changes that can help to protect a new and emerging mode of production such as CBPP. These examples re-highlight how important it is for alternative economic organisations to influence and force change in the superstructure. Changes at this level will help to protect and enable economic organisations using any potential degrowth aligned mode of production. However, these examples also show how immense these structural changes will need to be. The examples hint at cultural changes like values in connection to work and production, such as: why things are produced and for what purpose? Arguably things should be produced to satisfy needs rather than to enable capital accumulation. Further, how should employment be viewed and remunerated? Should UBI and UBS fulfil just basic needs or more? UBI and UBS as the main forms of payment and provisioning could potentially allow for a focus on producing for needs even if these activities are not seen as profitable.

The sheer immense task of shifting cultural values and thus hegemony clearly shows that alternative economic organisations cannot achieve these changes alone. Other facets of society must help to change society's superstructure and overcome the capitalist hegemony. Activist groups or the academic field of degrowth as examples must recognise the connection between the economic base and the superstructure to help influence it to enable alternative economic organisations aligned with degrowth. Activist groups could for example help push for UBI and UBS knowing that this will help alternative modes of production and organisations to break free from their niche confinement. However, alternative organisations must similarly recognise the political role they have to play for degrowth to overcome the capitalist hegemony. Alternative economic organisations as well as other societal actors (such as climate activist groups) need to work in conjunction to be able to change society's superstructure.

The conversation around economic organisations and modes of production in connection to degrowth is arguably in its infancy (Shrivastava, 2015; Robra et al., 2020; Nesterova, 2020). Yet, the connection between economic organisations and overcoming the capitalist hegemony highlight the importance to research this in more depth. The proposed adoption of alternative modes of production and political



aims in line with degrowth present a starting point to create more concrete degrowth criteria and/or principles for organisations. This is a step beyond identifying natural allies to the degrowth discourse (see Kallis, 2018). Alternative economic organisations play an essential role for the reproduction of counter-hegemony in line with degrowth to eventually replace the current capitalist hegemony. These organisations must accept their role in this shift despite the economic risks this might entail. This is not to say that this might also lead to other problems such as political repercussions.

What is also clear from the analysis of this chapter is that the idea of reconciling degrowth with capitalist forms of economic organisations such as firms, corporations, and businesses is misplaced in the context of degrowth counter hegemony. Studies such as Khmara and Kronenberg (2018) and Hankammer et al. (2021) claiming to have found businesses aligned with degrowth disregard the complexity that degrowth entails. The findings of this chapter therefore represent an attempt to rectify this folly by pointing towards the need of alternative economic organisational forms that if infused with the aims of degrowth counter-hegemony could represent a chance at making degrowth reality. Yet, it is also important to highlight that the aforementioned studies (as well as others) not only represent incompatibility with degrowth for the perspective presented in this chapter but also represent a bigger problem in the connection of hegemonic reproduction. The persistent focus on aligning degrowth with businesses and other capitalist economic organisations represents a reproduction of the capitalist hegemony. Not only do the economic organisations studied in those research papers reproduce capitalism, the faux alignment to degrowth claimed and published as research also helps to further reproduce the capitalist hegemony through academic co-optation. Ultimately this means that the findings from this chapter have relevance to steer the degrowth discourse in the context of economic organisations if degrowth's to transcend capitalism is to be regarded seriously.

#### **4.6. Conclusion**

This chapter generally set out to better understand the role of economic organisations in helping degrowth overcome the capitalist hegemony. The chapter further analysed CBPP organisations theoretically as an example on this background. In the context of this thesis, this chapter aimed to help research the following research objective:

Understand the role of economic organisations in helping degrowth counter-hegemony overcome the capitalist hegemony.

As well as answering the following research question:

How can commons-based peer production as a mode of production and as a form of organisation help the degrowth counter-hegemony to overcome the capitalist hegemony?

To conclude, the chapter argues that first and foremost a degrowth aligned mode of production is required to help overcome the capitalist hegemony. To help overcome the capitalist hegemony, economic organisations must operate in accordance with this alternative mode of production. Further, the role of economic organisations is to actively try and influence society's superstructure to help maintain an alternative mode of production.

Economic organisations aligning with an alternative mode of production face the contradiction of society's economic relations and structures being misaligned with the organisation's mode of production. This chapter therefore further recognised that economic organisations not operating under the dominant mode of production (i.e. capitalism) are constantly at risk not only to be co-opted but to cease to exist through this misalignment. This chapter hence also concludes that the implications for economic organisations aligning with a degrowth mode of production mainly lie at this abstract level of said contradiction. Arguably this contradiction will have further in-depth implications depending on the economic organisation in question. However, on the abstract level of this conclusion it first and foremost implies a very precarious situation for economic organisations, which threatens co-optation, confinement to niches, or simply the cessation of operations. Yet, as argued economic organisations have a vital role in (re)shaping the superstructure. In light of this chapter's findings, economic organisations must therefore become more political to further enable the adoption of a degrowth aligned mode of production but to also make the existence and survival of these organisations more likely.

The chapter further concludes that CBPP as a mode of production does not automatically lead to the political engagement by alternative economic organisations to try and shape the superstructure. Instead, as already mentioned, economic organisation must actively aim to align with degrowth and shape the superstructure. In this context the chapter also recognises that alternative economic organisations cannot change the superstructure alone. The chapter identified three areas on the example of CBPP to actively help alternative economic organisations shape the superstructure:

1. Non-commercial licences can help to curb the potential of co-optation. Economic organisations need to start using novel forms of licences that protect them from co-optation for accumulative purposes. Simultaneously, policy makers should enable the use of these licenses in law, so that they can be enforced if necessary.
2. New legal forms of organisations can further help to fight co-optation but also ensure the political aim of influencing the superstructure. Economic organisations need to experiment and adopt new forms of organisation that will enable them to further align with degrowth. Policy makers should enable the establishment of novel legal forms that would further benefit these organisations being protected from co-optation.

3. The introduction of UBI and UBS would further help alternative economic organisations aligned with degrowth. Economic organisations should try and lobby policy that would support such concepts. Similarly, policymakers should recognise the benefit of introducing UBI and UBS to benefit a more sustainable society.

The examples given above need to also be supported by other facets of society such as, for example, activist groups and the research field of degrowth. Particularly in the context of degrowth as a research field, further work in connection to economic organisations needs to be done to support these superstructural changes. In this context it is also clear that the degrowth discourse must take hold of the emerging conversation around economic organisations in its field to stop the production of research that helps the reproduction of the capitalist hegemony.

In the context of this thesis, this chapter's conclusion offers four key takeaway points that influence the following findings chapters and the overall conclusion of this thesis:

1. Economic organisations must actively help influence the superstructure to help maintain an alternative mode of production aligned with degrowth. These organisations also have to align with said alternative mode of production.
2. Through the alignment with an alternative mode of production, economic organisations are faced with the contradiction of being misaligned with society's economic relations and structures which can easily confine them to niches, lead to co-optation, or the ceasing of these organisations altogether.
3. CBPP as a mode of production but also in the form of CBPP organisations can be aligned with the purposes of a degrowth mode of production. However, this alignment is not automatic and requires active action. Further these organisations have to actively engage politically to help shift the superstructure.
4. In the context of counter-hegemony, the degrowth discourse needs to be aware that faux alignment with degrowth (particularly in micro-economic studies) reproduces the capitalist hegemony and should be avoided.

## **Chapter 5 – Findings 2 – Using Social Systems Theory with the Concept of Counter-Hegemony to Create a Unique Lens to View Organisations in the Context of Degrowth**

### **5.1. Introduction**

As mentioned in Section 2.2., degrowth is arguably one of the most radical approaches to tackle the unprecedented and devastating changes society faces through human induced climate change, pollution, and other manifestations of ecological degradation. As also previously stated, degrowth is one of the few discourses that highlight the incompatibility of the growth-based capitalist paradigm with achieving a sustainable society (D’Alisa et al., 2015). As highlighted in Chapter 4, Antonio Gramsci's (1971) terminology has been adopted to describe degrowth as a counter-hegemony in clear opposition to the capitalist hegemony. The adoption of Gramsci's (1971) work alludes to a foundational connection to Marxist scholarship within the degrowth discourse. Further, Parrique (2020) highlights the need to think about degrowth in political economic terms. Various entries in ‘Towards a Political Economy of Degrowth’ (see Chertkovskaya et al., 2019) connect degrowth to Marxist thought. Similarly, the need for degrowth to oppose capitalism has clear (particularly eco-) Marxist roots (amongst other critical perspectives such as feminist economics and anarchism). Yet, the importance of modes of production and hence economic organisations in transitions of socio-economic systems in Marxist scholarship (Lioudakis, 2018), seem to have been meagrely explored in the degrowth scholarship.

The need for an alternative mode of production in connection to degrowth was already highlighted in Chapter 4’s analysis of CBPP. Yet, as mentioned in Section 2.3. the majority of research on degrowth and economic organisations fall back management and business studies shaped by neoclassical economics. This means it should be no surprise that both capital accumulation and profit maximisation play key roles in many organisational theories. Degrowth clearly lacks a perspective on economic organisations that aligns with and acknowledges degrowth’s anti-capitalist counter-hegemony as well as its Marxist political economic roots.

Ergene et al. (2020) generally lament the lack of political economic considerations within organisational studies. Luhmann (2018) argues that traditional approaches to organisation disregard the embeddedness of organisations in society. Luhmann's (2018) argument here revolves around his claim that classical and traditional approaches to organisational studies are heavily influenced by neoclassical economics which disregards the complexity of society. This argument does not critique the lack of political economic considerations but is similar to degrowth’s critique of neoclassical

economics for not embedding the economy in the complexity of society as well as in the natural environment.

Luhmann's (2012) social systems theory (German: *Theorie Sozialer Systeme*) offers a unique way of researching and analysing organisations by conceptualising and observing them as social systems encompassed by the wider societal social system (Seidl, 2018). The 'wider societal social system' means here all of society conceptualised as a social system i.e. what Luhmann means by *Gesellschaft*. Seidl and Becker (2006, p.10) describe social systems theory as "an entirely new approach to social phenomena". Luhmann's social systems theory can mainly be used to observe social systems in various forms (e.g. societal systems and organisational systems), focusing not on cause and effect but rather on functional analysis, problems, and problem-solving (Schuldt, 2006). This means observing the system's behaviour and its relations with other systems and their system environments. Further social systems theory therefore enables examining how organisations relate to their environment through communication, and hence which challenges they face if they divert from the hegemonic structures.

As mentioned in Section 2.3. two studies have previously connected social systems theory to degrowth and postgrowth in the context of economic organisations. Plaza-Úbeda et al. (2020) attempt to use social systems theory on the level of management studies for degrowth purposes. However, the study fails to overcome the neo-classical traditions of management studies. Plaza-Úbeda et al. (2020) rather re-describe a business case approach to sustainability under the guise of degrowth. Reichel (2017) builds on Baecker's (1999, 2006) work on organisations as social systems, analysing the firm in the context of postgrowth. Reichel's (2017) work is insightful from a social systems theory perspective alone but similarly lacks considerations around the political economy of capitalism.

It needs to be noted that Luhmann's theory by itself lacks a political economic lens as politics and economics are regarded as separate sub-systems (at least operationally) distinct from the rest of society (Schechter, 2019). The functional differentiations of society Luhmann makes in his analysis are in stark contrast to Marxist scholarship (Thornhill, 2013; Schechter, 2017). However, Marx also observed and acknowledged the evolving and functionally differentiated capitalist society. Luhmann on the other hand observed the fully functionally differentiated modern society (Thornhill, 2013). Both, Marx and Luhmann thus saw society as functionally differentiated at different historical points. Further, both Marx and Luhmann argued that society can only be understood as a phenomenon that reproduces itself according to its own "internal functional logic" (Thornhill, 2013, p.272). According to Schechter (2017) select elements of Marx and social systems theory can be used together to analyse social phenomena. In this way, Gramsci's (1971) functional differentiation of society seems to be the bridge between Marx and Luhmann (Schechter, 2015; Schechter, 2019).

Luhmann (2012) argues for a non-normative research approach. However, Spash (2012) argues that research following the paradigm of ecological economics requires a normative research approach as it aims to change socio-economic structures. Similarly, heavily influenced by ecological economics, degrowth as a counter-hegemony arguably requires a normative research approach as well. From a critical realist perspective it is not actually possible to take a completely unbiased approach to research (Bhaskar, 1998; Spash, 2012). Plaza-Úbeda et al. (2020) and Reichel (2017) explicitly take a non-normative approach which could explain the lack of political economic considerations in these publications. Luhmann's own application of his theory sometimes seems very conservative particularly because of the lack of political economic considerations. Luhmann very much sought to observe society as is, without any intention to change it (Schuldt, 2006). According to Schecter (2019) the orthodox study of social systems does not see or explain hegemony, yet social systems theorists might refrain from embracing Gramsci's work. This, however, means that Luhmann's social system theory can be extended with the concepts of hegemony and counter-hegemony.

Indeed, social systems theory can be regarded as a pair of glasses through which a research object can be viewed (Schuldt, 2006). The question is, which normative paradigm looks through the glasses. Luhmann's (2017) own application of social systems theory follows his own supposedly value neutral paradigm, thus lacking a political economic facet. However, when Luhmann's theory is taken in its abstract form and detached from his own paradigm and application it can arguably be filled with the counter-hegemonic degrowth paradigm. This chapter therefore takes degrowth counter-hegemony and applies it to Luhmann's social system theory to observe economic organisations. This approach takes organisations as social systems encompassed by the wider societal system while still acknowledging society's (capitalist) political economy. This is vital for the degrowth discourse as economic organisations arguably play a key role in societal transformation. Through its approach this chapter is able to elaborate on the question of what economic organisations aligned with degrowth will be confronted with in a societal system predominantly aligned with the capitalist hegemony.

In the context of this PhD thesis, this chapter seeks to investigate the following research objective:

Understand the implications for economic organisations aligning with degrowth counter-hegemony.

This chapter further seeks to answer the following research question:

What are the implications for organisational systems aligning with degrowth counter-hegemony in a capitalist hegemony?

It should be stated that this chapter and PhD thesis seek to contribute to the degrowth scholarship and not directly to social systems theory or Gramscian scholarship. This chapter brings Luhmann's and

Gramsci's theory together for the unique analytical application to better understand how a degrowth transformation can be achieved. However, the chapter does not claim to create a new form of social systems theory by adding Gramsci's concepts and vice versa.

The remainder of this chapter is structured as follows: Section 5.2. reiterates parts from Chapter 4 relevant for this chapter's investigation. The section mainly re-highlights degrowth as a counter-hegemony and the resulting abstract implications of economic organisations. Section 5.3. describes social systems theory in more depth, particularly in connection to organisations. In Section 5.4. the chapter works with the insights of Sections 5.2. and 5.3. to create an analysis of organisational social systems from a degrowth perspective. The section uses social systems theory together with the concept of counter-hegemony and creates a unique lens to view economic organisations. Section 5.5. interprets the implication from the analysis in the previous section for economic organisations from a degrowth perspective as well as the implications for the degrowth discourse more generally. The chapter finally concludes in Section 5.6. and further connects the chapter to the wider context of the thesis.

## **5.2. Degrowth Counter-Hegemony and Economic Organisations**

As described in Chapter 4, this thesis follows the conceptualisation of degrowth as a counter-hegemony using the terminology and concepts of Antonio Gramsci. Further, this PhD thesis follows Texier's (2015) interpretation of Gramsci's work referring to him as the theorist of the superstructure. This means this thesis sees Gramsci's (1971) work as adding to Marx's (1969) concept of superstructure and economic base instead of overcoming it. To reiterate from Chapter 4, the superstructure includes all structures, norms, and rules of society at a historical point in time. The superstructure is shaped and maintained by the economic base. The economic base represents relations of production and means of production in society. In turn, the superstructure maintains and shapes the economic base. In other words, the superstructure enables as well as forces the economic base and economic organisations to continue the dominant mode of production. Similar to Gramsci's concept of the political and civil society, base and superstructure are only analytically separable (Texier, 2015). Critically for degrowth, Gramsci's work on the superstructure needs to also be understood in connection to society's mode of production and the economic base.

Further reiterating from Chapter 4 for the context of this chapter, the predominantly capitalist economic base has helped shape (and maintain) a capitalist superstructure and thus the capitalist hegemony. This superstructure of the capitalist hegemony in turn enforces (maintains and shapes) the continuation of an economic base aligned with the same hegemony. It represents a certain circularity

reinforcing the capitalist hegemony. Economic organisations are forced towards aligning with the capitalist hegemony and its mode of production, explaining why economic organisations are required to accumulate in order to survive in the capitalist system (van Griethuysen, 2010; Johanisova et al., 2013). The superstructure and hegemony maintain the structures that enable, require, and encourage economic organisations to further accumulate capital. Within the hegemony of capitalism, capitalist economic organisations such as businesses, corporations, and firms are the main forms of economic organisations. This means that these traditional economic organisations reproduce the hegemony of capitalism and therefore also maintain its superstructure. This further emphasises the role economic organisations play in transformation of society as they are not only at the core of change in modes of production, but in the context of degrowth, also have to reproduce the degrowth counter-hegemony instead of the capitalist hegemony.

As described in Chapter 4, everyday performances and practices that repoliticise common senses can be counter-hegemonic (García López et al., 2017; Pansera and Owen, 2018). Any everyday activity can thus be counter-hegemonic in a degrowth sense (Kallis, 2018). Further, this means that organisational activity and economic organisations can be counter-hegemonic. As concluded in Chapter 4, to fit degrowth, economic organisations need to align with degrowth counter-hegemony. Broadly speaking, economic organisations need to align with and operate according to a degrowth mode of production and help shape a degrowth superstructure (as shown in chapter 4).

An alignment with a degrowth mode of production results in the contradiction of economic organisations being misaligned with and facing the structures as well as norms of a capitalist system. This contradiction has major implications for economic organisations which can easily result in the organisations' demise. Capitalist economic organisations' imperative of accumulation does not fit degrowth's notion to reduce throughput. Reducing throughput would entail capping production levels and thus undermining the process of capital accumulation (van Griethuysen, 2010; Robra et al., 2020).

Beyond the significant impact degrowth has on economic organisations (Shrivastava, 2015), the above also re-highlights the vital role economic organisations have to play in a transition towards a degrowth society. The lack of attention to economic organisation in the degrowth discourse thus far (Nesterova, 2020) is therefore problematic. What is further concerning is the fact that the majority of the meagre number of publications on economic organisations and degrowth seem to have disregarded the above outlined political economic context, advocating business cases and market opportunities for degrowth (see e.g. Khmara and Kronenberg, 2018; Roulet and Bothello, 2020). As argued at the end of Chapter 4, instead of helping to achieve degrowth, such publications represent a reductionist co-optation of degrowth as well as the reproduction of the persisting capitalist hegemony. The degrowth discourse is in dire need of an organisational perspective that acknowledges degrowth counter hegemony and



political economic implications. Further, this perspective needs to be able to understand organisations in the complex context of society.

### **5.3. Social Systems Theory and Organisations as Social Systems**

As mentioned in section 5.1., Luhmann (2018) argues that the focus on agents in orthodox organisation and management theories represent a blatant simplification of the complexity society and organisations within it represent. Instead, Luhmann (2018) proposes his own social systems theory to understand the organisation as a social system encompassed by the wider social system of society. This means a focus on the organisational system itself instead of individuals, agents, and their intentions (Seidl and Mormann, 2015). Luhmann's (2012) social systems theory is a universally applicable and highly abstract theory. The theory is useful to observe social systems in various forms (e.g. societal systems and organisational systems), social systems' behaviour, and their relations with other systems and their system environments. According to Schuldt (2006) social systems theory can thus help to make new findings in every area where it is utilised.

Systems in social systems theory are systems in difference to their environment i.e. system environment (Luhmann, 2006). According to Luhmann (2012) social systems must create a distinction to their system environment in order to exist. For example, any organisation conceptualised as a social system exists as a social system because it distinguishes itself as an organisational system from other systems such as other organisations, and natural systems. All other systems, from which the organisation distinguishes itself, are its system environment. In other words, this distinction determines for the system what is to be regarded as part of the system and what is viewed as outside of the system (Seidl and Becker, 2006). It is important to note that such a distinction is an analytical tool and does not necessarily represent reality as such (Lippuner, 2011).

A social system's distinction from its system environment allows the system to create its autopoiesis (Luhmann, 2006). Autopoiesis describes the system's self-reference when making sense of its system environment. Social systems use self-reference to make sense of their system environment. A social system's autopoiesis allows the system to selectively deal with influences (or rather irritations) from its system environment (Luhmann, 1989). Luhmann (2012) conceptualises social systems as operatively closed through this autopoiesis. The operational closure signifies that social systems are autonomous in their operating mechanism (i.e. means of communication), but are also open as they require a relationship with their relevant system environments (Luhmann, 2006).

The fact that social systems are operatively closed does not mean that these systems are closed in a thermodynamic sense. A social system is still reliant on material flows for survival. However, to focus

on social systems themselves, the theory conceptualises social systems as self-contained (when it comes to their means of communication) but structurally coupled with their system environments (material or non-material) (Lippuner, 2011). The self-containment is thus only on the social system level. Social systems are still reliant on biological organisms and psychological systems (Seidl and Becker, 2006). Therefore, social systems create an operative distinction to their system environments (Luhmann, 2006).

The distinction from its system environment allows the system to reduce the complexity it is faced with (Lippuner, 2011; Simon, 2013). To understand this complexity reduction, one must first dive into Luhmann's conceptualisation of communication. "[S]ocial systems consist of communications" (Luhmann, 2018, p.38). Communication in this context is not purely information. Instead, communication is a unit of utterance, information, and understanding. Understanding here does not mean to understand the information i.e. content of the communication, but simply understanding the communication as communication. Hence understanding communication allows the continuation of communication. Social systems reproduce through communication. If a system's communication ceases to take place, the system will cease to exist (Luhmann, 2012). Communication is the "autopoietic operation" (Luhmann, 2018, p.38) of social systems. Communication builds on previous communication, meaning that communication enables the reproduction of communication and ultimately social systems (Luhmann, 2006). Communication as a social system itself is an example Luhmann (2012) frequently uses. If communication does not lead to further communication, communication ceases to be reproduced and the social system of the communication equally ceases to be reproduced.

Communication can be accepted or rejected, making it unclear and uncertain whether communication will continue to reproduce further communication (Seidl and Becker, 2006). By this definition communication is fragile as uncertainty prevails around its reproduction and consequently social systems. By drawing a distinction to their system environment, social systems can create structures (e.g. rules) that will make it more likely for communication to take place and continue (i.e. be accepted) (Schuldt, 2006). A social system's structure makes it easier for the system to accept communication by anticipating certain communication. Through its structures a social system reduces the complexity of its system environment in self-reference, thus reducing uncertainty by making communication and the continued reproduction of the system more likely. This conceptualisation of uncertainty is unique to social systems theory. Further, this conceptualisation of uncertainty is very different for the Schumpeterian understanding of economic uncertainty where it is seemingly required for innovation and progress. The Schumpeterian idea of innovation requiring economic growth and profit incentives

has already been critiqued in Chapters 2 and 4 of this thesis. In the following, this thesis will refer to uncertainty in the social systems theory conceptualisation.

For the purposes of clarity, the above conceptualisation of communication, complexity reduction, and uncertainty can be put into a more digestible form in the following. Instead of being faced with all communication in its system environment, a social system can focus on communication it selectively deems relevant. Systems select what within their system environment is seen as relevant. Further, systems decide how to observe and deal with, or react to changes and irritations (Simon, 2013). The system decides whether these irritations will be regarded as relevant and find resonance in the system itself (Luhmann, 1989). A systems autopoiesis thus creates the structures and processes of the system (Schuldt, 2006). These structures influence how a system regards its system environment.

As an example, a tea producer as an organisational social system will decide if new laws regarding coffee production in its system environment are relevant to itself. As a tea producer the organisation might ignore these new laws in self-reference as it perceives that coffee laws do not apply to its production. However, the organisation could deem the communication relevant as it perceives the product of coffee to be similar to tea. It might lead to resonance within the organisation in the form of perceived changes in a shared market space of hot beverages. Which way the laws are perceived within a social system depends on how the system is structured and how it understands its system environment. This means that the structures a social system creates through its autopoiesis allow it to reduce the complexity of its system environment by having rules (e.g. structures and processes) that help it determine which communication to ignore and which to deem relevant. Without these structures a social system would constantly be faced with the entirety of its system environment paralysing its own operation and ceasing to exist (Seidl, 2018).

Like all other social systems, “Luhmann conceptualizes organizations as systems that produce themselves as an organization by distinguishing themselves from their environments” (Seidl and Becker, 2006, p.14). Organisations in Luhmann's (2018) work are social systems that are encompassed by the wider social system that is society (Seidl and Becker, 2006). Organisations as social systems are a sum of processes and rules steering communication (Seidl, 2018). Like other social systems, organisational social systems make communication more likely by giving it sense through its autopoiesis and the resulting structures (Simon, 2013). In social systems theory, people are not parts of social systems but rather members (Luhmann, 2018). This also means that people are members rather than parts of the societal social system. From Luhmann's (2012) perspective, people are simply different types of systems; a biological system connected to a psychological system that can and have to be coupled to social systems.

An example that humans are not part of social systems: an academic terminates their employment and thus membership at a university. If the academic were part of the organisational social system, that is the university, the system would have to change e.g. change its rules, structures, or modus operandi. The opposite can be observed, the academic leaves and the organisational social system (university) remains unchanged in terms of its sum of processes and rules. The university as a social system might change its structures in light of the newly vacant role, particularly if the leaving academic fulfilled a particular role and was utilised as a decision maker (Seidl, 2018; Luhmann, 2018). Yet the person does not represent a process or rule, signifying that they were not a part of the organisational social system. Yet, people are not irrelevant in social systems theory but are very important for social systems (Schuldt, 2006). Social systems are reliant on people (Seidl, 2018). Similar, to how social systems are structurally coupled to ecological systems for survival, social systems are structurally coupled to the psychological systems of people (Luhmann, 1989, 2012). Social systems (particularly organisations) require people as actors, communicators, and for memory (Luhmann, 2018).

Luhmann (1989) conceptualises society as a social system with functionally differentiated subsystems or functional systems. Subsystems are for example the economy, politics, law, science, religion, and education. Each subsystem represents a function of society's social system. Organisational social systems are aligned with society's subsystems but not exclusively to one subsystem (Simon, 2013; Luhmann, 2018). A university as an organisational social system for example, is aligned with the two subsystems of science and education. However, universities (particularly in the UK) are also aligned with the economic subsystem given that they are managed increasingly like businesses required to make a profit and accumulate capital. Each subsystem uses a unique binary code for communication (Luhmann, 1989; Luhmann, 2018). The subsystem of law for example uses the code of legal and illegal. The number and types of subsystems or functional systems is debatable as well as their specific binary codes. For the analysis in this chapter, the discussion around number, types and binary codifications of subsystems is however, irrelevant. What is important, is that society is functionally differentiated into subsystems with unique binary codes (Schechter, 2019).

Unique binary codes make communication across subsystem boundaries by subsystems themselves impossible as one subsystem's binary codes will not be understood by others (Luhmann, 2018). If communication cannot be understood it cannot be accepted and thus not reproduce social systems. So, how does society as a social system reproduce if its subsystems cannot communicate with one another? Inter-systemic communication between subsystems must arguably take place as society exists and operates despite its functional differentiation (Schechter, 2019). Schechter (2019) therefore argues that Luhmann might be mistaken regarding the impossibility of self-referential subsystems being able to understand each other. However, Luhmann seems to have anticipated this or similar

critique. In his later work, Luhmann (2018) elaborates on the significant role of organisational social systems. Organisational social systems use decision communication. Organisations communicate a chosen alternative from a pool of alternatives as a decision which can be regarded as the binary code of organisational social systems. As this code is the same for all organisational social systems, organisations are able to communicate across social system boundaries as the code can be understood by other organisational social systems (Luhmann, 2018). Society's subsystems require organisations to communicate with one another. Organisational social systems are essentially the communicators of society without which society as a social system could not reproduce itself (Seidl, 2018; Luhmann, 2018).

As communication can be accepted or rejected, organisational social systems' ability to communicate across system boundaries does not determine or ensure that their communication leads to further communication and thus reproduction (Luhmann, 2018). Anything in a social system's system environment is foremost viewed as an irritation that a social system must deal with. Social systems decide through their autopoiesis which irritations from their system environment they determine as relevant to observe and act upon (Simon, 2013). Social systems therefore determine self-referentially which irritations will find resonance and which will be ignored (Luhmann, 1989). The ability of organisational social systems to communicate across system boundaries therefore enables the reproduction of society but does not guarantee it.

Through structures and rules the acceptance of communication within a social system can be made more likely. As social systems are only operatively closed, they can also build structures to deal with irritations from their system environment (Luhmann, 1989). Social systems can anticipate and expect certain irritations, creating structural couplings together with their system environment (Lippuner, 2011). Together does not mean that a structural coupling between two social systems is created on equal footing, one of the two social systems has more power in creating the structural coupling in a particular way. The system environment influences a social system's behaviour. As a broad example, an economic organisation receives an invoice and is expected to pay. Structural coupling points on the one hand reduce the complexity a social system must deal with (Luhmann, 1989). On the other hand, this means social systems influence and potentially reinforce structures of other social systems vice versa to communicate in a certain way. This creates expectations of these certain communication which represent structural couplings that make social system reproduction more likely.

#### 5.4. Counter-Hegemony and Social Systems

As stated in Section 5.2., it is vital to understand economic organisations in the context of the political economy of capitalism for the purposes of sustainability. Chapter 4 argued for the use of Gramsci's (1971) conceptualisation of hegemony to describe degrowth as a counter-hegemony on the level economic organisations. However, the insights from Chapter 4 do not replace the need for organisational theory, rather they highlight the need for an organisational theory that does not stem from neoclassical economics. Luhmann's (2018) conceptualisation of organisations as social systems could be an organisational theory fit for degrowth purposes. However, Luhmann's social systems theory lacks a political economic facet. Hence, both Gramsci's concepts and Luhmann's theory together could be useful for degrowth questions. Yet, social systems theory and Marxist scholarship (incl. Gramsci) are often described as at odds (see e.g. Thornhill, 2013). However, following Schecter's (2015, 2019) interpretation, Gramsci's and Luhmann's work also share similarities and could arguably be used together in analysis. In the following, this section shows how Luhmann's and Gramsci's theories can be used together for the purpose of a degrowth perspective on organisations.

According to Luhmann (2018: 12) "an organisational system cannot be looked at in isolation, but only in relation to its environment or environments". Organisational social systems like any social system are influenced by their system environment and structurally coupled to other systems. However, structural couplings and system structures cannot determine particular communication but rather make it more likely (Luhmann, 2018). Social systems include all possibilities, how likely each is to take place is a different question that is mainly influenced through the systems autopoiesis (Seidl, 2018). Social systems are therefore highly complex through the sheer number of possibilities they must deal with. The structures of social systems helps them to reduce this complexity (Schuldt, 2006).

It is important to highlight again that Luhmann (2012) conceptualises communication<sup>6</sup> as very fragile as it can be accepted or rejected. If all communication is always possible it makes it much harder for the system to anticipate particular communication. The social system of communication can only reproduce and continue to exist if communication leads to further communication; for this communication must be understood and accepted (Schuldt, 2006). As it is uncertain if communication is accepted and leads to further communication, the reproduction of a social system is also uncertain. Social systems therefore create structures to absorb this uncertainty (Luhmann, 2012). This means social systems create structures that make it easier for them to deal with the complexity they face (Luhmann, 2006).

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<sup>6</sup> It is also vital to point out again that the thesis follows Luhmann's conceptualisation of communication as described in Section 5.3.

By creating structures and rules within social systems and structural coupling points with other systems, particular communication becomes more likely while other possibilities become less likely (Lippuner, 2011; Seidl, 2018). This means the social system becomes able to expect communications from a smaller pool of alternatives making it easier to handle. In other words, complexity is reduced. Through becoming able to expect certain communication and building structures that easily allow it to connect further communication to previous communication, much of the uncertainty around continuing communication is absorbed (Luhmann, 2012). Structures make internal communication of the social system more likely (e.g. within an organisation) while structural coupling points make certain communication between systems more likely and thus the reproduction of the wider societal social system less uncertain.

The structures and structural couplings of social systems in the all-encompassing societal system make a certain reproduction of society more likely. Scholars familiar with Antonio Gramsci's (1971) work might make the observation here that this is similar to the concept of structures and rules reinforcing the reproduction of hegemony in society. Following such an observation it can be argued that the structural couplings and structures of the social system that is society, enable the reproduction of the current hegemony to be more likely. It needs to be noted however that Luhmann would likely oppose such an observation. Luhmann's drive of enquiry was mainly to understand how society works (Schuldt, 2006) but did not seek to transform it. Luhmann advocated a non-normative approach to research, or in other words did not see the necessity for society to change (Thornhill, 2013; Schecter, 2019).

Luhmann's own application of his theory for example in the conceptualisation of power (see Luhmann, 2017) or the political system (see Luhmann, 2002) seems to actively exclude a socio-political or political economic perspective and their power structures. Luhmann is often described as highly conservative and might thus have opposed the concept of hegemony and counter-hegemony (Thornhill, 2013; Schecter, 2019). Yet, by aiming to observe and understand society and how it reproduces itself (and describing this), Luhmann (without intending) abstractly describes the process of how the hegemony of modern society reproduces itself through specific functional differentiation and structural couplings that make the communication of hegemony and its reproduction more likely than other communication.

It is important to point out that in the following, this chapter (and ultimately this thesis) departs from Luhmann's conservative interpretation of society. The following analysis uses degrowth's paradigm as a foundation to look through the glasses that are Luhmann's general social systems theory. This chapter therefore uses social systems theory and the concepts of hegemony and counter-hegemony in conjunction for its analysis. In other words, by actively including Gramsci's concept of hegemony

and counter-hegemony to describe social systems and their structures, this chapter uses its own unique analytical language that is not a pure interpretation of Luhmann's or Gramsci's work respectively and should not be regarded as such.

Including the concepts of hegemony and counter-hegemony in the analysis adds a socio-political as well as political economic level to social systems theory that Luhmann's pure form lacks. This further allows for a normative approach in the analysis in line with degrowth's paradigm (as described in Section 5.1.). This means that social systems' structures as well as structural couplings and communication can be regarded as aligned with the capitalist hegemony or the counter-hegemony of degrowth (or any other counter-hegemony for that matter).

As social systems include all possibilities (Seidl, 2018), it can be argued that the social system of society includes the current hegemony as well as all counter-hegemonic possibilities. This means hegemony is not a social system itself but rather the dominant norms and structures within society that systems through their communication and structures align with and reproduce. The structures and rules as well as structural couplings make communication in line with the capitalist hegemony and thus its reproduction, more likely. System structures are arguably non-static and can change. Yet, the foundation of the capitalist hegemony in the form of capital accumulation has historically remained constant since its inception (Foster et al., 2010). In other words, society's structures and structural couplings have in various forms made it more likely for capital accumulation to be possible and thus the reproduction of the capitalist hegemony. The capitalist hegemony thus far has forced a reproduction of the societal social system and its structures that ensures capital accumulation and the reproduction of the capitalist hegemony itself. The structures of society's social systems encourage communication aligned with the capitalist hegemony; thus, making the reproduction of a hegemony that continuously leads to the destruction of both the ecological system and society more likely.

Social systems reproduce to continue their autopoiesis i.e. their 'survival'. It would be understandable to question why a social system reproduces in a way that destroys parts of its system environment that it fundamentally relies on, be that the societal social system and its members or the ecological system for all its functions and resources. Indeed, at first glance it makes no sense. However, the autopoietic reproduction of social systems happens in self-reference (Luhmann, 2012). That is a social system reproduces in a way that makes sense internally to the system and how it understands its system environment. Through this self-reference it is possible that social systems reproduce themselves in a way that destroys their system environments as well as their thermodynamic and material base (Luhmann, 1989; Lippuner, 2011). Luhmann (1989) himself argued that through its structures (i.e. its autopoiesis) the social system of society seems unable to transform in a way that would avert ecological crises. The main argument from this perspective is that social systems cannot communicate



with other types of systems like ecological systems but can internally communicate *about* these systems. Yet not being able to communicate *with* these systems makes it less likely that irritations and influences from these other system types lead to resonance within the original systems.

A social system's own reproduction can lead to its own demise without realisation in its own self-reference (Luhmann, 2018). This is similar to Marx's argument that capitalism would pull the rug from underneath itself (i.e. capitalism destroying its own social and ecological material base) (Foster et al., 2010; Saito, 2017). Yet, through Luhmann's vehement opposition to normative approaches and Marx's work (Thornhill, 2013), Luhmann essentially barred himself from making such a political economic observation. Luhmann saw politics and economics confined to the political and economic subsystems of society respectively (Thornhill, 2013; Schechter, 2017). This is exactly the functional differentiation that the capitalist hegemonic society presents in its common senses (Schechter, 2019). In other words, Luhmann uses his own theory and looks through it from the hegemonic capitalist paradigm.

Gramsci's (1971) conceptualisation of the integral state highlights that confining politics to just the governmental apparatus is a gross misconception. From this perspective it can be argued that Luhmann only described the governmental apparatus when he conceptually confined all politics to society's political subsystem. By using Gramsci's and Luhmann's theory together in this chapter's analysis, Luhmann's conservative bias regarding political economy can be overcome. Following this, it can now be argued that the capitalist hegemony shapes social systems' structures and structural couplings that make the reproduction of this hegemony through hegemonic communication more likely. It is this capitalist hegemony that leads to a form of reproduction which leads to the destruction of ecological systems it requires for continuous existence. Further, the capitalist hegemony's structures and coupling points lead to a self-reference in the societal social system that ignores irritations from its system environment, thus regarding the connection of its own reproduction and the destruction of parts of the system environment as irrelevant.<sup>7</sup>

For a degrowth perspective on economic organisations, the insights of Luhmann's social systems theory together with Gramsci's concepts of hegemony and counter-hegemony first and foremost mean that an economic organisation can be viewed as encompassed by a societal social system in which the capitalist hegemony dominates. In other words, any economic organisation's system environment (at least other social systems) encourages capitalist hegemonic reproduction through its structures and couplings.

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<sup>7</sup> At the very least the irritations from the ecological systems do not create the required resonance in the capitalist hegemony.

As an illustrative example, an economic organisation like a business is structurally coupled with its system environment that will make its own reproduction through the modus operandi of capital accumulation more likely. A business is structurally coupled to the economic subsystem to receive investment to accumulate and pay out a positive return on the investment. Similarly, it is coupled to the law subsystem that ensures that the business must pay back its investors with interest. Through these structural coupling points, the organisational social system is encouraged in a way that accumulates capital and reproduces the capitalist hegemony and its system structures. On the other hand, the organisation's system environment (e.g. other organisations, subsystems etc.) is equally encouraged to reproduce in line with these structural couplings. Both the business as an organisational social system and its system environment encourage each other to reproduce the capitalist hegemony as it makes their own reproduction more likely.

Social system communication aligned with the capitalist hegemony is more likely to lead to resonance within a society which is arguably predominantly aligned with the same hegemony. Capitalist hegemonic alignment by social systems thus also makes their reproduction more likely. Counter-hegemonic communication on the other hand is less likely to lead to resonance with hegemonic structures in place, making a counter-hegemonic social system's reproduction less likely. Nevertheless, counter-hegemonic communication needs to take place and increase for a counter-hegemony to replace the current hegemony. The fact that organisations are the only social systems able to communicate across system boundaries and various subsystems (Luhmann, 2018) further underlines the importance of economic organisations for the degrowth counter-hegemony to replace the capitalist hegemony.

Counter-hegemonic communication and system reproduction in line with degrowth can only take place if the social system aligns itself with the degrowth counter-hegemony. That is economic organisations as social systems, and their members need to align with the degrowth counter-hegemony. As mentioned in Chapter 4, alignment with counter-hegemonic principles such as anti-accumulation and throughput reduction means a complete opposition to the modus operandi of the predominant capitalist hegemony. For economic organisations this mainly translates to resisting the notion of capital accumulation. Such an opposition can easily lead to the demise of the organisation as it will fail to attract financial capital to stay afloat. Alternative economic organisations (i.e. non-capitalist models) are often reliant on donations and other financial help to operate. An alignment with degrowth would also mean capping the organisations economic activity. In the competitive market environment created by the capitalist hegemony this can very easily mean the end of any economic organisation (van Griethuysen, 2010). Essentially this reiterates the contradiction faced by alternative economic organisations (as described in Chapter 4).

Economic organisations that partially align with degrowth to varying degrees do exist, despite the higher degrees of uncertainty this entails for the organisation. For example, radical forms of cooperatives and social enterprises (see e.g. Blauwhof, 2012; Johanisova et al., 2013) or commons-based peer production organisations (see e.g. Kostakis et al., 2018; Robra et al., 2020) (see also Chapter 4). However, these alternative economic organisations seem to co-exist in niches somewhat separate from capitalist market dynamics. These are often niches where production and other economic activity can seldom lead to capital accumulation due to small markets or meagre/non-existent profit margins (Bauwens et al., 2019). Further, these organisations are still reliant on their system environment to function. On the one hand, they require financial funding to be able to operate (Johanisova et al., 2013) which still stems from the capitalist hegemony. On the other hand, these organisations are often based on the work of volunteers who do this work while also employed in the capitalist economy (Kallis, 2018). Inadvertently, these alternative economic organisations therefore still reproduce the capitalist hegemony. In other cases, alternative economic organisations might be fully co-opted into the capitalist hegemony like the prominent example Mondragon (Johanisova et al., 2013).

Economic organisations that are aligned with the counter-hegemony of degrowth face high uncertainty when trying to reproduce themselves in the capitalist hegemonic societal social system (uncertainty here in social systems theory terms as described in Section 5.3.). This makes alternative economic organisations' continued existence very precarious. The counter-hegemonic communication of these organisations is at odds with the structural couplings and expectations of their hegemonic system environment. Social systems (including other organisations) in counter-hegemonic economic organisations' system environments are likely aligned with the capitalist hegemony. The system environment of such organisations is littered with social systems and structural couplings aligned with the capitalist hegemony. This means most social systems expect capitalist hegemonic communication. These social systems therefore likely regard counter-hegemonic communication as an irritation that is irrelevant and ignored. The hegemonic system environment is structured to make hegemonic communication more likely. Counter-hegemonic communication by an organisational social system is therefore very unlikely to lead to further communication and the system's reproduction. Simply, because the majority of social systems and their structural couplings are aligned with the capitalist hegemony, they will ignore counter-hegemonic communication. This creates a very high uncertainty of reproduction for any organisational social system aligned with degrowth counter-hegemony.

An economic organisation can be taken as an illustrative example here: If an economic organisation aligns itself with degrowth counter-hegemony it needs to be in line with the purpose of a degrowth mode of production as outlined in Chapter 4. To fulfil the concepts of non-accumulation and reduced throughput, this could mean that the economic organisation ceases production if not required or

beyond allowed throughput thus forgoing potential capital accumulation (Robra et al., 2020). This spells problems in a socio-economic system where capital accumulation is expected or indeed required (van Griethuysen, 2010). The organisation might not be able to pay investors their dividends or employees their pay. Indeed, degrowth counter-hegemony requires economic organisations that operate in complete contradiction to these capitalist imperatives. However, in a societal social system mainly aligned with the capitalist hegemony such an opposition is difficult to imagine. Alternative economic organisations often struggle financially and rely on volunteers as their main employees (Kallis, 2018; Liegey and Nelson, 2020).

As mentioned earlier, alternative economic organisations exist, albeit in niches (see e.g. Johannisova et al., 2013; Kostakis et al., 2018). Further, these organisations still require structural couplings to their system environment. This could take the form of external funding which in the end, even though outside the organisational social system itself, would still be produced through capital accumulation in one way or another. Similarly, if the organisation is run by volunteers, these personnel would still require provisioning through other means like another employment which again will be through the capitalist mode of production and ultimately hegemony.

Beyond illustrating Adorno's point of no right life in the wrong, or in this case, no complete counter-hegemony in the hegemony, two major insights can be deducted from this section's analysis. First, the irritations and structures in any social system's environment encourage the social system mainly to align with the capitalist hegemony in order to make its reproduction, in other words survival, more likely. Second, organisational social systems and particularly economic organisations that align themselves with degrowth counter-hegemony need to be open to the increased uncertainty this entails. Degrowth counter-hegemonic organisations essentially need to embrace this uncertainty if degrowth counter-hegemony is to become the new hegemony as these organisations must continuously communicate degrowth counter-hegemony. Paradoxically from a social systems perspective, a counter-hegemonic organisation needs to embrace uncertainty even though social systems create structures to absorb and reduce uncertainty.

## **5.5. Interpretation**

By using Gramsci's and Luhmann's theories together to analyse economic organisations from a degrowth perspective, the previous section's analysis first and foremost re-highlights the significant role economic organisations have in achieving a counter-hegemonic degrowth transformation. Organisations are the social systems able to communicate across the boundaries of society's subsystems (Luhmann, 2018) and are therefore vital in spreading degrowth counter-hegemony

throughout the societal social system. Beyond reaffirming that the attention on economic organisations has been lacking in the degrowth discourse, the analysis also highlights a broad key barrier that economic organisations face if they align with degrowth counter-hegemony. Economic organisations aligned with degrowth counter-hegemony are still encompassed by a wider societal social system that is mainly aligned with the capitalist hegemony. This also means that most structures and structural couplings in organisations' system environments are aligned with the capitalist hegemony. In other words, a degrowth aligned economic organisation faces opposing capitalist structures that will make it hard for an arguably anti-capitalist economic organisation to exist. Social systems theory is not needed to make such an observation. However, the use of Luhmann's social systems theory in this context highlights a paradox that needs to be unfolded and overcome.

Counter-hegemonic economic organisations face high amounts of uncertainty encompassed by a hegemonic societal system. As previously mentioned, the concept of uncertainty in social systems theory describes the uncertainty surrounding the reproduction of any social system. For a social system to reproduce, its communication needs to lead to further communication (Schuldt, 2006). In other words, communication builds on previous communication thus reproducing social systems (Luhmann, 2012). Communication can be accepted or rejected but only accepted communication can lead to further communication and system reproduction (Schuldt, 2006). Social systems create structures to absorb and reduce this uncertainty (Seidl, 2018). Social systems' structures make certain communications more likely so that these can be expected, which in turn makes it easier for the social system to accept the communication and reproduce further communication. Structural couplings play the same role between systems for inter-systemic communication (Luhmann, 2002; Lippuner, 2011).

By opposing the hegemonic structures and couplings in its system environment, a counter-hegemonic economic organisation drastically reduces the likelihood of its communication being accepted by other social systems. The organisation's communication is at odds with what hegemonic social systems will expect through their structures and likely ignore (i.e. reject) the initial communication. An organisational social system that aligns itself with degrowth must therefore embrace higher uncertainty even though the core purpose of social systems in the first place is to reduce uncertainty.

Paradoxically for economic organisations from a degrowth perspective, economic organisations need to first embrace a higher degree of uncertainty to potentially reduce it. In other words, an economic organisation aligned with degrowth counter-hegemony must influence the superstructure so that the superstructure in turn maintains a different economic base and a degrowth mode of production (see also Chapter 4).

A social system can non-deterministically influence other systems' structures and couplings by communicating in a way that irritates the other systems. This irritation then needs to lead to resonance in the other systems to change their structures to be able to expect this new communication (i.e. counter-hegemonic communication). The more counter-hegemonic communication takes place the more likely it is that structures and coupling points will change to expect it.

Economic organisations aligned with degrowth principles, or 'natural allies', as Kallis (2018) denotes them, paradoxically need to embrace the described uncertainty to make an emergence of large scale counter-hegemonic structural couplings remotely possible. However, there are also possibilities that can help change structures and coupling points that would on the one hand make it likelier for counter-hegemonic communication to find resonance and on the other hand make it easier for economic organisations to align with degrowth. Counter-hegemonic activity can take the form of various types of day to day activities that highlight that things can be done differently to the predominant hegemony (García López et al., 2017). This must also include activities that build structures that further enable and encourage counter-hegemonic activities. For degrowth counter-hegemony in general this means acknowledging the structural transformation required in society to help achieve a degrowth shift. Büchs and Koch (2017, 2019) highlight perfectly the immense structural shifts that need to be considered to ensure a degrowth society would be able to maintain and increase wellbeing.

In relation to economic organisations and with the findings from Chapter 4 in mind, two structural areas come to mind that a single economic organisation cannot change on its own:

1. Legal structures ensure organisations' recognition in economic as well as legal contexts. Many legal structures of economic organisations like limited companies reinforce the capitalist hegemony and make it nearly impossible to align with degrowth counter-hegemony. Alternative legal structures like social enterprises and cooperatives exist but are still easily co-opted (see Blauwhof, 2012; Johannisova et al., 2013). Other legal structures are needed that on the one hand make it easier to align with degrowth counter-hegemony while on the other create barriers for co-optation. Creative commons licenses represent an example that already makes it harder to co-opt creative commons (Bauwens et al., 2019). Something similar is required for overall organisational legal structures. As mentioned in Chapter 4, the concept of DisCOs and open cooperatives might be emerging legal structures emphasising organising through CBPP as well as a political alignment of an economic organisation.
2. As current alternative economic organisations are often unable to pay their members, they rely on volunteers (Kallis, 2018). As mentioned in Chapter 4, UBI and UBS would make it easier for people to get involved in such organisations without having to find further income in areas that often reproduce the capitalist hegemony.

Beyond these two points already emphasised in Chapter 4, the analysis of this chapter and its conceptualisation of counter-hegemonic communication points towards another area that could help degrowth aligned economic organisations overcome the resulting social systems theory paradox and the contradiction of operating in the capitalist hegemony. If alternative economic organisations aligned with degrowth operated in networks dedicated to degrowth counter-hegemony, it could help these organisations operate and support each other. A network that recognises and connects economic organisations aligned with degrowth could help organisations find other organisations where their counter-hegemony is more likely to lead to counter hegemonic resonance. In other words, these networks could be places where counter-hegemonic communication easily finds resonance and leads to further counter-hegemonic communication, which essentially would help counter-hegemonically aligned economic organisations to reproduce as social systems.

Ultimately such networks could help economic organisations aligned with degrowth reduce the uncertainty they are faced with due to this alignment. Ideally, such networks need to be established on global as well as local levels. CBPP organisations are a good example of economic organisations networking on a global scale due to the shared principles based on their mode of production (see Bauwens et al., 2019) (see also Chapter 6). On a local level, the example of Cargonomia in Budapest represents another interesting network example, consisting of three independent organisations working collaboratively based on principles of degrowth (see Liegey and Nelson, 2020).

The above points are examples of changes that could help economic organisations overcome the uncertainty faced through alignment with degrowth counter-hegemony and do not represent an exhaustive list. These points cannot be addressed by economic organisations alone. However, they represent areas that the degrowth discourse can focus on to help enable counter-hegemonic communication and structural couplings for economic organisations. Help could entail further research in these areas. Further, the activist movement part of degrowth could actively advocate for these changes to enable counter-hegemonic alignment by economic organisations that will help the overall degrowth transition. The degrowth discourse needs to play an active role in helping to absorb the uncertainty that is created by aligning with degrowth. Creating ‘concrete utopias’ for degrowth (Latouche, 2009), therefore means embracing uncertainty that social systems usually aim to reduce.

To help alternative economic organisations, the degrowth discourse and its members must embrace the uncertainty that results from alignment with degrowth counter-hegemony. D’Alisa and Kallis (2020) argue that academics in universities need to spread degrowth counter hegemonic common senses. A university seen as an organisational system is arguably aligned with societies functional systems of education, science, and economic sub-systems (as described in Section 5.3.). In society it can be argued these functional systems are aligned with society’s hegemony to actively reproduce it.

Universities as organisations arguably reproduce the capitalist hegemony (Ruuska, 2019). Universities mainly fund or receive research funding for activities that can be turned into profits and align with imperative of capital accumulation. With the question of employability, education of students focuses on the creation of a labour force for the economy. Universities in the UK for example even seem to be run like businesses themselves.

Academics aligning with degrowth counter-hegemony in such institutions consequently face high levels of uncertainty as well. Degrowth academics, like economic organisations, also need to willingly embrace and overcome this uncertainty. In their call for a degrowth journal, Robra and Parrique (2020) lament the fact that degrowth scholars are forced to publish in a journal environment that arguably exploits academics and reproduces capitalism. By creating structural couplings, a degrowth journal based on principles opposed to capitalism could potentially help academics to further embrace the uncertainty posed through alignment with degrowth.

On a societal level, the analysis for this chapter also shows that it is arguably better to embrace the uncertainty of degrowth, instead of embracing the certainty of ecological and societal destruction capitalism poses. In this context uncertainty is arguably the better option than the certainty of ecological destruction which will mean the end of civilisation as we know it. As Innerarity (2012) argues, society must again be willing to embrace the uncertainty of the future to make a future possible. In this context a comparison to the Schumpeterian idea of economic uncertainty can be drawn. As mentioned, in a Schumpeterian understanding economic uncertainty must be embraced by economic organisations in the process of innovation (for profit purposes). However, this uncertainty taken on by single economic organisations allows a higher certainty for the overall societal social system to reproduce in line with the capitalist hegemony.

On the other hand, the uncertainty that economic organisations aligned with degrowth must embrace is closer to Marx's idea of contradiction in the capitalist system. Hence, for the economic organisation in question it not only represents an economic uncertainty in the context of perusing new innovation for profit purposes but a systemic constant. Further the uncertainty identified in this chapter needs to be embraced by the whole societal social system. This uncertainty is therefore in complete contrast to the Schumpeterian idea where uncertainty on the level of economic organisations leads to higher certainty on the overall societal level.

Despite the need to embrace uncertainty and counter-hegemonic communication, this does not automatically ensure that the required societal system wide transformation towards degrowth takes place. Communication in social systems theory cannot determine further communication in other social systems but only influence it through irritations or structural couplings (Luhmann, 1989;



Lippuner, 2011). Social systems can simply ignore irritations (i.e. communication by other social systems) (Luhmann, 1989). Similarly, if irritations are not ignored, social systems decide through their autopoietic self-reference how to react to the irritations of their system environment. This means that even if counter-hegemonic communication is not ignored and leads to resonance, there is no guarantee that this resonance will be counter-hegemonic as well, an example of this below.

Degrowth as a term and concept arguably found increased interest outside of the degrowth discourse during the developments of the Covid-19 pandemic. This might have been due to an increasing amount of attention to the discourse, a reaction by the degrowth discourse to the crisis, or simply a comparison of degrowth to the ensuing economic downturn resulting from the crises (see e.g. Rammelt et al., 2020; degrowth.info, 2020). There has been varied counter-hegemonic communication throughout the degrowth discourse in response to the crises. Some advocating a degrowth society for after Covid-19 (see The open letter working group, 2020). Others highlighting that the economic downturn through the crisis should not be misunderstood as degrowth (see Rammelt et al., 2020). This counter-hegemonic communication might have been widely ignored but has also led to resonance throughout the wider societal social system. Yet, this increase of degrowth counter-hegemonic communication cannot determine or force resonance that is equally counter-hegemonic. Moore's (2020) anything but counter-hegemonic (also less than scientific) critique of degrowth is a result of the increased counter-hegemonic degrowth communication due to Covid-19.

The above shows that resonance of counter-hegemonic communication does not deterministically lead to counter-hegemonic communication but can equally lead to hegemonic communication. Not all resonance will therefore be positive from a degrowth perspective. Research on economic organisations in the context of degrowth is a telling example. Failure to study economic organisations in the light of degrowth's political economic implications has led to a void that is being filled by research that reproduces the capitalist hegemony (see Chapter 4). The recent business studies claiming to be aligned with degrowth (see e.g. Khmara and Kronenberg, 2018; Roulet and Bothello, 2020; Hankammer et al., 2021) represent communication aligned with the capitalist hegemony, meaning they potentially create structural couplings that help to reproduce the capitalist hegemony. Further, this co-opts degrowth.

Arguably there is room for compromise where 'full' counter-hegemony needs to be communicated or enacted. Compromises for survival must be made without a doubt. However, any compromise can potentially also mean co-optation and reproduction of the capitalist hegemony. It does not seem feasible to lead a fully counter-hegemonic life in a hegemonic system. Similarly, an economic organisation fully aligned with degrowth counter-hegemony will struggle to continue to exist in a capitalist hegemonic system environment upon which it and its members still depend. Counter-

hegemonic structures need to co-evolve with any new counter-hegemonic common senses (Kallis, 2018; Bauwens et al., 2019). However, through the use of social systems theory in this chapter, it is clear that the degrowth discourse needs to start to be aware of its own counter-hegemonic communication and start to steer it to make counter-hegemonic resonance more likely instead of producing research that achieves the opposite. Taking charge of the research gap on economic organisations in the context of degrowth would be a good start.

## **5.6. Conclusion**

Following degrowth's recent adoption of Gramsci's conceptualisation of hegemony and counter-hegemony, this chapter acknowledged that organisations need to be understood, studied, and theorised on in a manner compatible with degrowth counter-hegemony and political economic implications. This further meant applying an organisational theory not influenced by traditional business and management studies. The chapter used Gramsci's concept of hegemony and counter-hegemony together with Luhmann's social systems theory for a novel lens on economic organisations. The chapter therefore created its own unique language to describe organisational social systems aligned with degrowth counter-hegemony facing a system environment mainly aligned with the capitalist hegemony. In the context of this PhD thesis, the chapter aimed to investigate the following research objective:

Understand the implications for economic organisations aligning with degrowth counter-hegemony.

This chapter further sought to answer the following research question:

What are the implications for organisational systems aligning with degrowth counter-hegemony in a capitalist hegemony?

To conclude, the chapter's social systems theory approach underlined again the importance of organisations for the degrowth discourse and the societal transformation degrowth seeks to achieve. Organisations conceptualised as social systems can communicate across the boundaries of social systems and society's subsystems, making them vital for degrowth counter-hegemony to replace the capitalist hegemony. Further, the chapter's analysis also highlighted the uncertainty of counter-hegemonic communication finding resonance within a hegemonic system environment. This translates to high uncertainty in reproduction for economic organisations aligned with degrowth.

Uncertainty in the context of this chapter as understood in social systems theory, represents a wider conceptualisation of the concept than just economic uncertainty as in the Schumpeterian sense. The

chapter argues that in order to help achieve a counter-hegemonic transformation, economic organisations must embrace this uncertainty (i.e. be open to it) to help counter-hegemonic structures to emerge. Paradoxically, this means that social systems which usually create structures to reduce uncertainty must embrace uncertainty to be able to reduce it in the long run by potentially changing the superstructure. Like the findings from Chapter 4, new organisational legal structures and UBI as well as UBS were identified as areas that could help absorb and overcome parts of the uncertainty economic organisations face when aligning with degrowth. However, this chapter also points towards the need of degrowth aligned organisational networks that can help absorb the aforementioned uncertainty.

It is vital to understand that the degrowth discourse has to help reduce the uncertainty of alternative economic organisations. The degrowth discourse must similarly embrace the uncertainty of its counter-hegemony to undermine co-optation and structures that essentially reproduce the capitalist hegemony. This also means that academics aligned with degrowth must be willing to embrace the uncertainty they might face in hegemonic institutions of higher education.

Despite the clearly more structuralist approach taken in this chapter (as well as PhD as a whole), its insights have relevance for more agency-based approaches as well. Agents are required to change societal structures, yet agents also need to understand structures to be able to change them. The presented use of Gramsci's and Luhmann's theories together for a degrowth perspective on organisations can potentially be adopted for various other areas. Thus, this chapter's analytical approach can be used as a strategic tool to understand the structures that even agency-based approaches will face in aiming to achieve a degrowth transformation.

In the context of the overall PhD thesis, this chapter offers four key takeaway points:

1. The conceptualisation of economic organisations as social systems reinforces their role in achieving a societal degrowth transformation as organisations are the only social systems able to communicate across system boundaries.
2. The contradiction economic organisations face by aligning with a counter-hegemonic mode of production is further amplified by increased uncertainty regarding the systemic reproduction of these organisations. Paradoxically, to help achieve degrowth, economic organisations must embrace this uncertainty although as social systems they strive to reduce it.
3. The degrowth discourse has a role in helping to absorb the uncertainty faced by counter-hegemonically aligned economic organisations in the form of supporting structural changes in society that can help counter-hegemonic communication find resonance.

4. The perspective taken by this chapter highlights that the degrowth discourse must become aware and take hold of its own communication (particularly around economic organisations) to ensure counter-hegemonic alignment and reproduction.

## **Chapter 6 – Findings 3 – Counter-Hegemonic Decision Premises in Commons-based Peer Production Organisations**

### **6.1. Introduction**

As described earlier in Chapter 4, Gramsci's (1971) concepts and terminology of hegemony and counter-hegemony have increasingly found use in degrowth (see e.g. Kallis, 2018; D'Alisa, 2019; D'Alisa and Kallis, 2020). Argued in Chapter 4 these concepts can be used to describe how degrowth opposes the capitalist hegemony. However, the use of these concepts in connection to degrowth has been limited to conceptualisations of the state in a degrowth society (see e.g. D'Alisa, 2019) and general counter-hegemonic activity (see e.g. García López et al., 2017; Pansera and Owen, 2018). Chapter 4 already lamented that the concept of counter-hegemony and the connected political economic perspective have found little or no application in the context of organisations and degrowth. Chapter 4 highlighted that economic organisations aligning with an alternative mode of production and degrowth counter-hegemony face the contradiction of society's economic relations and processes underpinning the capitalist mode of production. Similarly, with the use of social systems theory, Chapter 5 described that economic organisations must paradoxically embrace uncertainty due to this contradiction.

Both Chapter 4 and Chapter 5 give examples of how economic organisations can be supported in overcoming this contradiction and uncertainty. Yet, neither of these two chapters went into depth regarding how existing organisations, albeit in niches, potentially deal with this contradiction and uncertainty. For degrowth to fulfil its counter-hegemonic role it is vital to consider its political economic implications on the level of economic organisations. Alternative modes of production and organisations play significant roles in potentially overcoming the capitalist hegemony. It is therefore vital to understand the distinct roles of organisations and modes of production as well as the interplay between them in helping to achieve a degrowth society, while facing the aforementioned contradiction and uncertainty.

Following this thesis' focus on CBPP organisations, this chapters seeks to further investigate CBPP in the context of degrowth. As mentioned in Chapter 4, the tentative link between CBPP and degrowth highlights CBPP as a potential but not automatically aligned mode of production that helps to achieve degrowth. Whether and how CBPP can help degrowth overcome the capitalist hegemony needs to be further empirically investigated on the level of organisations. To this end, this chapter seeks to empirically study how CBPP organisations can align with degrowth counter-hegemony and reproduce it. As already argued in Chapter 5, such an investigation also requires an appropriate organisational theory. Classical organisational theories are heavily influenced by business and management and are

hence more aligned with the capitalist hegemony. Furthermore, these theories often fail to fully conceptualise organisations in the complexity of the wider social system (Luhmann, 2018), which is arguably required to analyse organisations in the context of hegemony and counter-hegemony. As a result, these theories are inappropriate for the purpose of this chapter's investigation.

As already mentioned in Chapter 5, Luhmann's social systems theory has the unique potential to analyse organisations in the complex setting of the societal system (Seidl and Becker, 2006). This chapter thus uses Luhmann's (2012) social systems theory as a theoretical lens to examine organisations in connection to the wider social system that is society. This allows the chapter to conceptualise organisations as social systems that communicate decisions to constantly reproduce themselves (Seidl and Becker, 2006; Seidl, 2018; Luhmann, 2018). Specifically, this allows the chapter to focus on decision premises, i.e. previous decisions that are used as the foundation for future decisions and the future reproduction of the system. This has been proposed as an effective approach to use social systems theory for empirical research on organisations (see Besio and Pronzini, 2010).

This chapter aims to investigate the following research objective of this thesis (see Section 1.2.):

Understand how commons-based peer production organisations as organisational social systems can align with degrowth counter-hegemony.

This chapter hence seeks to answer the following research question (see Section 1.2.):

Do, and if so, how do commons-based peer production organisations demonstrate counter-hegemonic degrowth in their decision premises?

To answer this thesis' empirical research question, this chapter explores two cases of CBPP organisations, namely P2P Lab and Wind Empowerment. In line with the need of an a priori theory understanding (as outlined in Section 3.3.), this chapter uses the theoretical findings from Chapters 4 and 5 as the theoretical foundation for its empirical exploration.

The remainder of this chapter is structured as follows. Section 6.2. provides the first part of the a priori theoretical framework of the study by briefly reiterating parts of Chapter 4 relevant for this chapter's investigation. Degrowth as a counter-hegemony is briefly described in this section. Further, CBPP is connected to degrowth according to Chapter 4's findings. Section 6.3. represents the second part of the a priori theoretical framework by reiterating parts from Chapter 5 relevant to this chapter's investigation. The section further describes the concepts of decision communication and decision premises in more depth. The methodology employed for the empirical part of the PhD is briefly recalled in Section 6.4. Section 6.5. describes the empirical findings for the first case (Wind Empowerment). The second case (P2P Lab) and its findings is described in Section 6.6. Section 6.7.

summarises and compares the findings from both cases. Section 6.8. interprets the findings and connects them to the wider literature on degrowth and CBPP. The chapter concludes in Section 6.9. This section also draws connections to the wider context of this PhD thesis.

## **6.2. Commons-based Peer Production in the Context of Degrowth Counter-Hegemony**

As argued in Chapter 4, through its aims and definition, degrowth essentially represents a counter-hegemony to the capitalist hegemony. To reiterate, Gramsci (1971) described hegemony as a representation of the dominant structures, ideology, culture, and norms at a certain point in history. Counter-hegemony is the opposition to this hegemony, seeking to overcome and replace it (Fontana, 2008). Degrowth as counter-hegemony seeks to overcome capitalism, which has significant implications for economic organisations. At the same time organisations must also align with degrowth counter-hegemony to foster this transition (see Chapter 4). As mentioned Gramsci's (1971) concept of counter-hegemony has found a home in the degrowth discourse, particularly in connection to the state (see e.g. D'Alisa and Kallis, 2020) but also on the level of counter-hegemonic activity (see e.g. Pansera and Owen, 2018). However, degrowth scholars have yet to apply these concepts to the study of (particularly economic) organisations. As mentioned in the literature review of this thesis (Section 2.3.) most studies on organisations and degrowth (as well as postgrowth) disregard and ignore capitalism and its political economy. Critique is often solely placed on economic growth without highlighting its connection to capitalism and capital accumulation. This is problematic on two related levels, which are reiterated below.

Firstly, capital accumulation, on an organisational level, might not lead to economic growth in the organisation itself but enables growth in the wider economic system (van Griethuysen, 2010). Hence, the persistent focus only on economic growth on the organisational level in connection to degrowth leaves a blind spot on the systemic dimensions in capitalism. Secondly, this omits the fact that economic organisations are not only producers of goods but also reproducers of hegemony, and potentially counter-hegemony (see also Chapter 4). Arguably, reproducing counter-hegemony can be achieved by engaging in activities following the common-senses of a counter-hegemony (García López et al., 2017). But these activities alone will not automatically overcome capitalism as these are often and easily confined to niches (Spash, 2020a).

To overcome capitalist hegemony, the capitalist superstructure must be replaced (Marx, 1969). To reiterate from Chapter 4 and 5, according to Marx (1969) society's superstructure represents non-economic structures of society such as culture and politics. Economic structures are represented in the

economic base that shapes the superstructure, and ultimately society's hegemony. Modes of production and hence economic organisations play a key role in shaping society's superstructure and are simultaneously enforced by it to operate according to the dominant relations of production. In other words, economic organisations are forced to operate in line with capitalism and its imperative of economic growth and capital accumulation. Yet, economic organisations can also operate using counter-hegemonic modes of production and organisation. This however means operating in contradiction to the dominant societal and economic structures. It is vital to understand not only how alternative economic organisations continue to exist despite this contradiction but also how they might influence and transform the superstructure to align with degrowth. On the back of the findings from Chapter 4 and 5, this chapter operationalises degrowth counter-hegemony as evident in how organisations:

- deal with the above contradiction of an alternative mode of production/organisation within the capitalist economic and social structures.
- potentially influence/transform their surroundings and ultimately society's superstructure.

It needs to be clarified at this point that this chapter also acknowledges that counter-hegemony needs to also be addressed on the level of production itself. However, following on from Chapter 4's findings, this chapter works with the argument that CBPP is theoretically closely aligned to degrowth in terms of the parameters of the mode of production. This alignment is still based on thin theoretical and empirical foundations. Yet, for the purposes of this chapter, the a priori theory understanding sees CBPP as well suited for degrowth on a production level. Therefore, the operationalisation of degrowth in the above two points makes it possible to focus on the political economic alignment on the organisational level of CBPP organisations.

Commoning can resist capital accumulation, thus transfusing CBPP with a counter-hegemonic affinity that has been connected to degrowth (see Kostakis et al., 2018). As already mentioned in Chapter 4, Kostakis et al. (2018) further argue that CBPP is a potential mode of production for degrowth because it enables production and innovation without being primarily driven by profit maximization. However within studies connecting CBPP with degrowth (see e.g. Robra et al., 2020), the ambivalence between the political economy of capitalism and the potential for CBPP to help degrowth as a counter-hegemony largely remains unaddressed. Robra et al. (2020) for example argue that an adoption of eco-sufficiency within CBPP organisations seems unlikely and risky in the context of capitalism as it would require forgoing potential profits with the relevant impacts on their economic viability. Chapter 4 highlights that research around the contradictions of a potentially counter-hegemonic mode of production in capitalism on the organisational level is still lacking.



Outside of the degrowth discourse, CBPP has been connected to political economy and its potential as an alternative mode of production (see e.g. Bauwens, 2006; Bauwens et al., 2019). Rifkin (2014) argues that this mode of production could replace the capitalist one but sees it as a rather deterministic emergence in which capitalism will be pushed into a niche. CBPP is an alternative but how this mode of production is to overcome capitalist hegemony seems unclear in these studies.

As discussed in Chapter 4, new modes of production do not deterministically lead to a new superstructure and thus hegemony. Rather, alternative modes of production enable the potential to change the superstructure (Marx, 1969). Further, a mode of production is an abstraction and not an actor or agent that can change the superstructure. Instead, economic organisations that adopt it can become such agents. Organising in line with an alternative mode means operating in contradiction to dominant economic processes, enforced through the hegemonic superstructure. If CBPP is a mode of production that can be aligned with degrowth counter-hegemony (as argued in Chapter 4), it becomes essential to also understand how economic organisations operating using CBPP deal with the resulting contradiction and uncertainty (see Chapter 5), while also shaping a new superstructure to help overcome this contradiction.

### **6.3. Observing Organisations as Social Systems**

For degrowth as a counter-hegemony, an organisational theory that enables the understanding of economic organisations in the complexity of society is required. Following Chapter 5, this chapter uses Luhmann's (2012) social systems theory to understand organisations as complex social systems in the wider context of society. Within social systems theory different forms of social systems (e.g. organisations and sub-systems) are conceptualised that together form society as a whole. Reiterating from Chapter 5 for the purpose of this chapter's investigation, all social systems consist of communication as their elements and reproduce themselves through this communication. As this communication can either be accepted or rejected, it is uncertain whether communication will lead to further communication. As social systems require continued communication for their reproduction, this fact also makes their reproduction uncertain (Seidl and Becker, 2006; Seidl, 2018). Social systems therefore create internal structures and processes that will make the acceptance of communication more likely.

Social systems draw a distinction to their system environment to make their systemic reproduction more likely (Luhmann, 2006). Social systems must constantly observe their system environment and decide how to react to or ignore communication by other social systems. Beyond their own internal structures, social systems create structural couplings with their system environment to reduce the

uncertainty of the sheer amount of complexity and possibility the system environment represents (Lippuner, 2011; Seidl, 2018). Ultimately, social systems create structures to reduce complexity (Luhmann, 2006).

Organisations conceptualised as social systems have a particular form of communication, decision communication, which means that decisions themselves are “a specific form of communication” (Seidl and Becker, 2006, p.26). Decisions become the foundation for future decisions, which leads to the possibility to coordinate actors and actions on a grand scale (Simon, 2013). Decision communication, like any communication, must lead to further communication (in the case of organisations, decision communication) to make the reproduction of the social system more likely. Organisations constantly communicate their decisions in the form of structures, processes, and rules. An organisation as a social system has to endlessly reproduce the communication of decisions to keep its distinction from its system environment (Seidl and Becker, 2006). Decisions and the resulting decision communication take place on the back of previous decisions, i.e. decision premises (Besio and Pronzini, 2010; Luhmann, 2018). Decision premises are previous decisions that are the reference for present decisions to make (Seidl and Becker, 2006). This means that decision premises help in enabling further decision communication and hence the organisation’s systemic reproduction.

This chapter uses Luhmann's (2018) social systems theory on organisations as an analytical tool to study organisations. The empirical focus is on the organisations’ decision premises (see Besio and Pronzini, 2010). There are five types of decision premises (see Seidl and Becker, 2006):

1. *Programmes* → criteria on how to decide e.g. processes/process maps
2. *Personnel recruitment and assignment rules (Personnel)* → expected decisions new personnel will ‘make’
3. *Communication channels* → organisation of the organisation e.g. internal hierarchy
4. *Organisational culture* → handling of the decision-making process in the organisation
5. *Cognitive routine* → conceptualisation of the organisation’s system environment

Seidl (2018) argues that beyond decision premises a further key factor of organisational systems is their self-description. Self-description meaning how the organisational social system describes and observes itself. An organisation often has various, potentially opposing self-descriptions. For example, the accounting department of a firm, might describe the organisation differently than the sales department. Self-descriptions strongly influence decision premises and can thus sometimes act as decision premises themselves (see Seidl, 2018). This chapter therefore uses the above five decision premises plus self-description as a sixth decision premise as an analytical tool to observe organisations.

In the context of degrowth this means analysing how these decision premises in CBPP organisations might align with degrowth counter-hegemony as operationalised in Section 6.2. of this chapter.

#### **6.4. Method**

As described in Section 6.1. this chapter represents the empirical part of the PhD thesis and seeks to answer the question of: 'Do, and if so, how do commons-based peer production organisations demonstrate counter-hegemonic degrowth in their decision premises?'. As already highlighted in Section 3.4., how and why questions can be answered using case study research (Yin, 2003; Ackroyd and Karlsson, 2014; Vincent and Wapshott, 2014). Further, case study research is often used to understand organisational phenomena in-depth (Fiss, 2009). This PhD therefore adopted a qualitative case study approach to study CBPP organisations in-depth.

As this PhD broadly aligns with Spash's (2012) call for a critical realist perspective for research related to ecological economics (see Chapter 3), an a priori theory understanding is essential for the empirical enquiry into CBPP organisations. The findings from Chapters 4 and 5 represent the broad theoretical understanding of economic organisations in the context of a degrowth counter-hegemony. More specifically, Section 6.2. represents the operationalisation of degrowth counter-hegemony in the context of economic organisations and in particular CBPP organisations. Section 6.3. adds to this with the definition of decision premises to encompass self-description. Together, these two sections represent the a priori theoretical framework for this study with a focus on the potential degrowth counter-hegemonic alignment of decision premises within CBPP organisations.

The case selection is described in depth in Section 3.4. Two cases were ultimately selected: Wind Empowerment, a CBPP network enabling its members to create and share knowledge of small-scale wind turbine production; and P2P Lab, a research collective focusing on the commons. As CBPP is an emerging phenomenon that is difficult to isolate from its context (Bauwens et al., 2019), the study adopted a research approach inspired by participatory case study research (Reilly, 2010). The aim was to have one case participant from each case to contribute to the analysis and discussion of the research to enhance the understanding of both the underlying processes and the contextual setting of the studied cases. The participants for the participatory aspect are an executive board member from Wind Empowerment and a core member of P2P Lab. To tackle any confirmation bias or potential conflicts with preconceived notions, these two participants were only involved in the analysis and discussion of the data, while the PhD researcher provided continued critical checks throughout the participatory process and ultimately had the final say in the research process. The PhD researcher alone collected the formal data, and the two participants were only given access to fully anonymised data.

The justification for the method of data collection is given in Section 3.4. The bulk of the data for both cases was collected through semi-structured in-depth interviews. The interviews were structured to touch upon the decision premises and self-description(s) of the case organisations. For each case a list of questions was developed to loosely help structure the interviews. The lists of questions for Wind Empowerment and P2P Lab are shown in Appendix I and II respectively. The interviews' length ranged from 40 to 90 minutes. Skype was used to conduct and record the interviews. All interviews were transcribed to allow for easier analysis. In total 11 and 9 interviews were conducted with members from Wind Empowerment and P2P Lab respectively. Further, in the case of Wind Empowerment, four board and strategy meetings were observed; field notes were created for analysis from these. No meetings from P2P Lab were observed as the meetings are held in Greek, representing a language barrier for the PhD researcher. Wind Empowerment provided 3 key strategic documents (Charter, Constitution, and Finance and procurement Policy) for document analysis (see Coffey, 2013). Wind Empowerment also provided access to an email conversation which was deemed relevant to the research after initial conversations. These emails were analysed as documents. A comprehensive list of the collected data is given for both cases in Table 2 below. Through their modus operandi, P2P Lab does not have similar strategic documents that could have been analysed. Instead, its members referred to academic research publications of the collective. These publications were not analysed in the way the rest of the data was, rather, the publications were used as academic references to enrich the study's findings.

<b>Wind Empowerment – Collected Data</b>			
<b>Data label</b>	<b>Data type</b>	<b>Length</b>	<b>Date of collection</b>
WE Interviewee A	Interview	78 minutes	19/11/2019
WE Interviewee B	Interview	58 minutes	19/11/2019
WE Interviewee C	Interview	72 minutes	20/11/2019
WE Interviewee D	Interview	52 minutes	29/11/2019
WE Interviewee E	Interview	49 minutes	03/12/2019
WE Interviewee F	Interview	50 minutes	18/12/2019
WE Interviewee G	Interview	41 minutes	19/12/2019
WE Interviewee H	Interview	51 minutes	27/01/2020
WE Interviewee I	Interview	41 minutes	01/02/2020
WE Interviewee J	Interview	45 minutes	06/03/2020
WE Interviewee K	Interview	88 minutes	19/03/2020
WE Strategy Meeting A	Meeting observation	n.a.	18/07/2019
WE Strategy Meeting B	Meeting observation	n.a.	12/12/2019

WE Board Meeting A	Meeting observation	n.a.	18/10/2020
WE Board Meeting B	Meeting observation	n.a.	28/03/2020
WE Charter	Document	n.a.	n.a.
WE Finance and procurement Policy	Document	n.a.	n.a.
WE Constitution	Document	n.a.	n.a.
WE Email Documents A	Document	n.a.	n.a.
WE Email Documents B	Document	n.a.	n.a.
WE Email Documents C	Document	n.a.	n.a.
WE Email Documents D	Document	n.a.	n.a.
<b>P2P Lab – Collected Data</b>			
<b>Data label</b>	<b>Data type</b>	<b>Length</b>	<b>Date of collection</b>
P2P Interviewee A	Interview	61 minutes	18/03/2020
P2P Interviewee B	Interview	74 minutes	23/03/2020
P2P Interviewee C	Interview	71 minutes	24/03/2020
P2P Interviewee D	Interview	63 minutes	31/03/2020
P2P Interviewee E	Interview	43 minutes	02/04/2020
P2P Interviewee F	Interview	69 minutes	01/07/2020
P2P Interviewee G	Interview	40 minutes	02/07/2020
P2P Interviewee H	Interview	41 minutes	03/07/2020
P2P Interviewee I	Interview	40 minutes	03/07/2020

**Table 2 – Collected Data from Wind Empowerment and P2P Lab**

As mentioned above, all collected data was anonymised. In case of direct quotes, the quote is attributed to interviewees through 'WE' (Wind Empowerment) or 'P2P' (P2P Lab) plus a letter of the alphabet. For example, 'WE Interviewee K'. The data was imported into NVivo for more practical analysis. Coding (see Roulston, 2013) was used for data analysis, however, instead of searching for recurring themes to code, the data was coded using the earlier mentioned decision premises and self-description (see Section 6.3.) as themes. An example of how the data was coded in NVivo is given in Appendix III. The coded data was then analysed using the two key points of degrowth counter-hegemony as operationalised in Section 6.2. The findings of the following three sections derive directly from the analysis of the various collected data described here.

## 6.5. Empirical Findings 1 – Wind Empowerment

Wind Empowerment (WE) is a global CBPP network for the development of locally manufactured small wind turbines for sustainable rural electrification. The membership consists of 73 organisations in 43 countries, spanning almost all continents, ranging from organisations such as cooperatives and enterprises, to NGOs and university research groups. WE seeks to develop and share knowledge on the manufacture and maintenance of small-scale wind turbines. Through this WE aims to empower its members in achieving its goal of sustainable rural electrification.

The findings for WE and their analysis are shown below in sub-sections corresponding to the six decision premises (including *self-description*). The last subsection (6.5.7.) summarises the findings and analysis for WE. The findings derive directly from the collected data as set out in Section 6.4. The analysis of the data derives directly from the investigation of the findings' counter-hegemonic degrowth alignment as set out in Section 6.2.

### 6.5.1. Self-Description

Wind Empowerment generally describes itself as a network of various organisations and institutions coming together under the topic of small wind and sustainable rural electrification. WE Interviewee K put it as follows:

“Wind Empowerment is more of an organisation that is focused on creating and expanding the network around this common theme that is small wind in rural electrification.”

Another interviewee (WE Interviewee E) further emphasised the focus on renewable energy in this process:

“We are a renewable energy-based organisation.”

WE Interviewee C argued that the overall aim of WE was to “help people get access to electricity”. Various interviewees (WE Interviewee C, D, H) described WE in this context as an organisation that helps to achieve sustainable rural electrification through locally manufactured wind turbines.

As a network, WE includes a plethora of different member organisations. One interviewee (WE Interviewee K) described this in the following:

“Wind Empowerment is a network of institutions, which can be public or private, whose objective is to collaborate together to share best practices and further the installation and the maintenance and the understanding of small wind in rural electrification setups.”

In the context of its many members, two interviewees (WE Interviewee D, H) were particularly adamant to emphasise that the network is driven by its member organisations. WE Interviewee F to the same extent conceptualised WE as a bottom-up organisation:

“Wind Empowerment is not an organisation at the top and below are the various organisation members, no. It is the opposite; the main things are the organisations. The role of Wind Empowerment is to help the different organisations but it's not the organisation at the top.”

WE Interviewee A went as far to describe WE as a grassroots network:

“I perceive Wind Empowerment as a grassroots network. [...] That's not necessarily the same with all the board members that are on the board or have been on the board in the past. So, it does not necessarily reflect what all organisations in Wind Empowerment might see in the network's soul.”

Another interviewee (WE interviewee J) emphasised that the network should just enable its member organisations without enforcing an overall network agenda:

“Wind Empowerment is simply a network that helps us connect and gives us further expertise in what we're doing. After the project Wind Empowerment shows the results of our work so that other members can see what we have done and maybe want to do something similar.”

From this articulation it is also clear that not all network members interpret and describe WE in the same way. WE Interviewee A also emphasised that there might be members that might not be clear on what WE as a network could do for them or how it could benefit them. What WE stands for and what it aims to achieve and how, is interpreted differently by member organisations (WE Interviewee F, J, K, G). Various interviewees (WE Interviewee A, B, E, I, K) specifically referred to the organisation's charter (WE Charter) for the organisation's self-description by referring to WE's mission, goals, and guiding principles.

The organisation's charter (WE Charter) states that WE is a charitable and non-profit organisation. Yet one interviewee (WE Interviewee C) claimed that this could also change:

“I don't think Wind Empowerment needs to necessarily be a non-profit, it could be for-profit as well. I don't think that the basic values and the mission would change.”

This further emphasises that there are various interpretations of WE's *self-description*. According to Seidl (2018) it is common for organisational social system to have various and even opposing *self-descriptions* and interpretations of these. In the context of WE, the analysed email conversations (WE Email Documents A, B, C, D) showed that there is clear contention as to how the *self-description* should

be interpreted in line with the mission, goals, and aims of the organisation when it comes to network decisions. Overall, these documents show that members (board members and member organisations) might interpret the role and purpose of WE differently. This is also connected to different interpretations on how to achieve WE's mission. Some see the network in a way that should just enable member organisations to do their projects collaboratively and not worry too much about how these projects take place. However, some other member organisations feel that it is the role of the network to uphold certain ethical standards.

Due to WE's reliance of individual members' interpretation of WE's *self-description*, *self-description* as a decision premise is highly reliant on the decision premise *personnel* which ultimately influences the type of members the organisation admits. Further, the referral to the organisation's charter in the context of its *self-description* highlights a strong reliance on and connection to the decision premise *programmes*. From a degrowth counter-hegemony perspective, WE's *self-description* is too vague and broad to allow an interpretation of this decision premise as aligned with degrowth. Instead, with the connection and reliance on the decision premises *programmes* as well as *personnel* in mind, the counter-hegemony of *self-description* is reliant on the counter-hegemonic alignment of these other two decision premises.

### **6.5.2. Programmes**

WE's charter document (WE Charter) sets out what the organisation tries to achieve and to a certain extent how (WE Interviewee A). The charter (WE Charter) states the organisation's mission as follows:

“Wind Empowerment (WE) supports the development of locally built wind turbines for sustainable rural electrification. This is achieved by strengthening the capacity of its members.”

This mission is similarly emphasised by WE Interviewee D:

“Wind Empowerment is actually building locally manufactured wind turbines for rural electrification. So, that's the main mission of Wind Empowerment. And building capacity of all its members to achieve this. And one of our main working areas is to share, develop, and to strengthen the capacity of our members with financial resources, with human network connections, and all of this.”

Various other interviews (WE Interviewee B, E, I) also confirmed this. This highlights that WE seeks to achieve its mission through enabling its members to do so. The WE Charter sets out various broad sub-goals of helping its members such as information sharing and collaboration. Interestingly, various



different sub-goals are more emphasised by some board members and member organisations such as the focus on the network to actually enable the overall mission of WE. For example, one interviewee (WE Interviewee H) stated:

“The idea of the Wind Empowerment network is to connect, to create momentum and to help people make joint projects.”

Similarly, WE Interviewee J argues that WE’s “goal is not to actually do projects itself but be more of a network that enables projects amongst its members”. Other interviewees on the other hand saw the notion of assimilating and sharing knowledge around small scale wind turbines as more important. One interviewee (WE Interviewee H) argued:

“I would say that going open source is one of the goals of Wind Empowerment. Sharing the knowledge is the top priority of Wind Empowerment.”

WE Interviewee F brought the notion of the network as well as sharing knowledge together as the key mission of the organisation:

“The purpose of Wind Empowerment is to be a network of different organisations. [...] And the purpose is to disseminate the knowledge about the Piggot<sup>8</sup> technology; I think to create, to develop, and to share different open-source technologies.”

All interviewees agreed in one way or another that all of WE’s activity needs to align with the organisation’s charter (WE Charter). This charter and its core mission were referred to in all observed board meetings (WE Board Meeting A, B). Similarly, one interviewee (WE Interviewee B) stated:

“I think the charter is the most important because we have referred to it in the past, particularly to the decision-making process that is stated in the charter.”

WE Interviewee C also referred to the importance of the charter:

“So, the charter document is like an aid that helps the board to make decisions with all its guidelines.

However, two interviewees (WE Interviewees A, E) pointed out that the charter and its guiding principles are quite vague. Similarly, WE Interviewee C said:

“The charter is more like principles around things. It gives you a guideline, but it is too vague to help you prioritise activities.”

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<sup>8</sup> Referring here to Hugh Piggot’s DIY small scale wind turbine design that WE bases its designs on.

WE Interviewee A was also adamant in this context that decisions are mostly based on the individual board members' beliefs and norms. The analysed email conversations (WE Email Documents A, B, C, D) also highlighted that the interpretation of WE's charter and the stated mission and guiding principles depends on the individual board member. This becomes even clearer in the example on controversial decisions. Within WE's charter is a process that describes what to do at the level of the executive board in case of a controversial decision. In this context WE Interviewee D stated the following:

“There is a list of guiding principles, Wind Empowerment as an organisation has ethical criteria let's say. So, for example a particular collaboration, for it to take place, the decision has to fulfil the ethical criteria that are in line with the guiding principles and the charter overall.”

However, apart from project collaborations with large for-profit entities, the document does not define controversial decisions (WE Interviewee A, WE Charter). One interviewee (WE Interviewee B) in particular stated:

“The understanding of each person of what is controversial and what is not, is different. So that is where we need to be more specific.”

If it is decided to be a controversial decision, the decision will be opened up to the whole voting membership (Interviewee A, B, E, WE Charter). Non-controversial decisions will only be taken to a vote if consensus cannot be reached.

Overall, it is clear that WE's charter document sets out various guiding principles and that all activities of WE need to align with this general set of missions and guiding principles. However, the interpretation of these is left to the board members. Purely on a decision premise level this means that the decision premise of *programmes* is very important for decisions, yet this decision premise is highly reliant on the decision premise of *personnel* i.e. who the board members are and how they will interpret the decision premise of *programmes*.

On the counter-hegemonic level the decision premise of *programmes* is reliant on the counter-hegemony of the decision premise of *personnel*. Individual parts of the decision premise such as knowledge sharing and open source generally fit within the context of degrowth (see also Robra et al., 2020), but do not represent a counter-hegemonic alignment as such. The various interpretations of the decision premise *programmes* are also leading to discussions that could potentially create a more concrete and counter-hegemonic decision premise. However, this is not deterministically ensured. The recent ethical discussion in the WE email documents (WE Email Documents A, B, C, D) highlight the potential for this to go in either direction in terms of hegemony or counter-hegemony.

### 6.5.3. Personnel

New members can join WE as long as they are involved in the area/industry of small wind turbines (WE Interviewee B, E, WE Charter). The charter (WE Charter) further states that organisations must “align with the association’s full mission and adhere to its guiding principles”. One interviewee (WE Interviewee E) stated that there is no formal or guideline on how to allow new members to join WE:

“So, if a potential new member applies to the organisation [WE], I'm not sure actually whether there is a formal document for this or not. And the criteria we generally have in mind are, is this organisation, you know, are they working with small scale wind? Are they active within that? How can we benefit them? And how can they benefit the rest of our membership?”

WE does not really set any specifications to what new members must agree to or sign up to. It is simply enough to be involved in the area of small wind and respect the other members.

WE is described by several interviewees (WE Interviewee A, B, C, D) to be reliant upon the board members to make decisions for the organisation. WE Interviewee A was adamant to also point out that this might be due to lack of engagement of other members. WE’s board members usually come from within the network (i.e. they are members of member organisations) to reflect the thoughts of the network (WE Interviewee A). Board members are supposed to be elected but according to WE Interviewee A “two people have never competed for a position”. The same interviewee (WE Interviewee A) also stated the following:

“I think people they just vote for anybody who's been suggested, who’s applied for the board and because it’s like that as in the way that I described, I don’t think people actually think much about who they vote for. Personally, I don’t really agree with this, I don’t really like this much, because I think that if we actually did pay attention to this as a network, we would have a better board, we would have potentially done more things, but this is just a guess.”

There seems to be not much thought put into who is putting themselves forward to be a board member, but rather on the point that it is great that someone wants to do it. WE Interviewee B argued that the diversity of member organisations is reflected on the board which in turn leads to various viewpoints on the board. In this context WE Interviewee A referred to the email conversations (WE Email Documents A, B, C, D) arguing that these show that a lot of the decisions on the board level depend on the personal views of the board members. The same interviewee (WE Interviewee A) stated that: “it is therefore problematic to just put people into this position without knowing what they do exactly”.

From a decision premise perspective, a lot of the decisions and the interpretation of the decision premises *self-description*, and *programmes* depend on the personal views of the board members.

Indeed, several interviewees (WE Interviewee A, D, I) stated that there was a reliance on board members to flag if something might not align with the values, mission, or goals of WE. However, there is no real decision process behind who becomes a board member but rather whoever wants to. In other words, the decision premises of *self-description* and *programmes* are highly dependent on *personnel* as a decision premise. Yet, as described above, these decision premises are vaguely defined. Due to the reliance of the decision premise *personnel* on these other decision premises, it is equally vaguely defined. As these decision premises also rely on the decision premise *personnel*, they together reinforce this vagueness.

This vagueness of the decision premise *personnel* further highlights that there is no direct alignment with degrowth counter-hegemony. The decision premise is reliant on the counter-hegemonic degrowth alignment of the decision premises *self-description* and *programmes*. Yet, as stated above these decision premises are also reliant on the decision premise *personnel* for their counter-hegemonic alignment.

#### **6.5.4. Communication Channels**

Every member of WE can participate in the executive board forum (where decision discussion takes place outside of the monthly board meetings) and give input into decisions and discussions concerning the network. It is also possible for members to participate in board meetings without being able to vote in those meetings. This became apparent from various interviews and documents as well as observed board meetings itself (WE Interviewee A, B, WE Charter, WE Email Documents B, WE Board Meetings A, B). WE Interviewee A simply stated that:

“discussions are on the forum and then board meetings are open to anybody to join. [...] Everything is discussed on the executive board forum. People can participate in the discussion, freely and openly.”

Despite this openness WE Interviewee C emphasised that it was up to the members to get involved in discussions. But most involvement comes from the board members or former board members that are still involved through being members in WE's member organisations.

According to WE Interviewee B, smaller and day to day decisions are made by board members in the monthly board meetings, whereas controversial decisions will be opened up to the voting membership. According to WE's charter document (WE Charter) only not-for-profit entities have voting rights due to WE's status as a registered charity. Regarding the voting process and involvement of members, WE Interviewee E pointed out the following:

“We try and make sure that our members have as much a say as possible. And in our governing documents, it's a case of, in many circumstances when a controversial decision arises, we have to consult the membership and offer it to them on a vote. And to ensure that the members have as much as a say as possible. A quorum is required from the membership to have official weight in the voting process. Often because people are across the world and people are very busy, often it's a case that people won't engage with the voting process. Or, you know, not enough people basically will come forward in a voting capacity to reach the quorum that is required.”

This emphasises that most (even controversial decisions) are mainly left in the hands of the board members (WE Interviewee A, C). Even though all interviewees agreed that the board members are trusted to act according to the WE's mission, vision, goals, and guiding principles, the findings of the previous three decision premises highlight how open they are to different interpretation. Ultimately on the level of decision premises, the decision premise *communication channels* is reliant on the decision premise *personnel* and through this individuals' interpretation of decision premises *self-description* and *programmes*.

Regarding the alignment of the decision premise *communication channels* with degrowth counter-hegemony, due to its reliance on the decision premise *personnel*, it is equally reliant on the counter-hegemonic alignment within the decision premise *personnel*. This also means that the decision premise *communication channels* is caught in the same dilemma of vagueness for counter-hegemonic alignment in the interplay between the decision premises *personnel*, *self-description*, and *programmes*. However, it also needs to be pointed out that there is a counter-hegemonic potential in only not-for-profit members being officially allowed to vote. This clearly favours non-accumulation driven organisational members in the decision process. At the same time this does not amount to a counter-hegemonic alignment to degrowth as described in Section 6.2.

#### **6.5.5. Organisational Culture**

WE's charter (WE Charter) is the main document used or referred to in discussions (WE Interviewee B, WE Board Meetings A, B, WE Strategy Meetings A, B). According to WE Interviewee C the charter document (WE Charter) is used to ensure activities and projects align with the WE's goals and aims as well as guiding principles. However, WE Interviewee I also emphasised that the content of the WE's charter document and the organisations values are generally embodied by the board members. In the same context of how they make decisions, WE Interviewee I stated the below:

“We always focus on how it is this going to do point one, two, and three from our mission and vision, and if it aligns, then great, we move forward, and then we start doing the other aspects. But if it doesn't align or if something's not clear, then we say, okay, guys, we got to think this through, we got to debate this a little bit more because it does not really align with this point.”

Yet the same interviewee (WE Interviewee I) also said the following when asked how the organisation's charter (WE Charter) gets used:

“We refer to the charter, we pull it up in our meeting. [...] [another board member] will make a point of, in the charter, this is what we said, right? So, we have a couple of people like that, that keep us in check in line to make sure that we are doing what we had voted on or agreed on as an association.”

The analysed email conversations (WE Email Documents A, B, C, D) similarly highlighted that the WE Charter gets referred to regularly in decision discussions. Apart from the WE Charter other things are referred to in discussions such as previous meeting minutes, WE Interviewee B described this in the following:

“There have been times where some people on the board had complained that there are actions or decisions that go against previous decisions that we have taken. And in that case, we have referred to previous minutes and then we discussed this again.”

What is becoming apparent is that both the decision premises *programmes* as well as *self-description* are actively used in the organisation's decision processes. However, there does not seem to be a definitive consensus on how to exactly use them and when but only that they should be used. Various interviewees (WE Interviewee A, B, D) stated that overall decisions are made through discussions on the board level while simply trying to find a consensus. WE Interviewee I similarly said:

“So, the decisions in wind empowerment are made on a consensus base.”

WE Interviewee G argued that reaching this consensus is often the unofficial way compared to the official way of voting:

“Generally, we will follow the charter. I would say that there is an official way and an unofficial way of [making decisions]. The unofficial way is when everyone agrees, we agree. And the official way is taking action through voting according to the charter when we have, let's say, conflict within the board.”

The majority of interviewees agreed that they try to reach a consensus to not have to take decisions to an official vote. It seems that this is to forgo the vagueness of the decision premises used (i.e. the

vagueness of *programmes* and *self-description*). As mentioned in the findings on the decision premise *programmes* it is for example very vague (apart from collaboration with for-profit entities) what constitutes a controversial decision. This means that the vagueness of the decision premises *self-description* and *programmes* is copied into the decision premise *organisational culture* (i.e. how decision premises get used). The decision premise *organisational culture* is therefore heavily reliant on how board members interpret the *programmes* and *self-description* and when to use them (i.e. refer to them). This further means *organisational culture* as a decision premise is heavily reliant on the decision premise *personnel*.

On a counter-hegemonic alignment level, *organisational culture's* reliance on the decision premise *personnel* means that it is reliant on this decision premise for its counter-hegemonic alignment. This reliance also means that the decision premise *organisational culture* is equally caught in the vagueness of the connection between the three decision premises *personnel*, *programmes*, and *self-description*. Therefore, a clear counter-hegemonic alignment with degrowth is similarly missing within *organisational culture*.

#### **6.5.6. Cognitive Routine**

WE as an organisational social system clearly shows awareness of the ecological degradation in its system environment. Not only does WE aim to enable sustainable rural electrification but the organisation sees the need to align with the SDGs as well as Raworth's (2017) concept of doughnut economics (WE Interviewee A, B, I, WE Charter). Both the SDGs and doughnut economics are explicitly referred to in WE's charter (WE Charter). When pressed on the reason for the inclusion of these concepts WE Interviewee E commented the following:

“Well, you could boil it down to one criterion, one element which is to help people without contributing to environmental degradation. And that is summarised quite nicely or expanded on really within the doughnut.”

Beyond these conceptualisations of its ecological system environment, WE's decision premise *cognitive routine* does not conceptualise its system environment further. This means that WE has no conceptualisation of its social system environment. This further entails that WE lacks an overall awareness on the organisational level regarding the contradiction of CBPP as a mode of production in the capitalist hegemony. However, one individual member (WE Interviewee K) observed capitalism as problematic but also stated that these were their own personal opinions, and they were in this regard not speaking on the behalf of WE. While describing the problems of capitalism, this interviewee (WE Interviewee K) argued that WE as a network somehow positions itself outside of capitalist imperatives:

“It's about imperatives of capitalism, more efficient production, more efficient labour, the need, the drive for competition and the requirement of accumulation. What makes Wind Empowerment work in the circumstance is that Wind Empowerment positions itself outside of these [capitalist] imperatives.”

WE Interviewee K went on to argue that individual members and member organisations of WE still need to work according to the capitalist imperatives which creates an internal competition between members that try to protect their own knowledge to make a living from it. That is some WE members (individuals as well as organisations) do not share their knowledge in the commons of WE to protect their own capital accumulation ability. WE Interviewee K therefore argued that WE's supposed neutral stance seems to frustrate everyone:

“But the thing is, we have these conflicting accumulations by members. And because they are in this predicament, this is capitalism in particular. And Wind Empowerment is not. Wind Empowerment has the sort of a neutral stance, and legitimacy that's kind of proceed by the other members as neutral. And the thing is that we end up frustrating everybody, not only one side but the other as well.”

This consequently means that WE has no definite way of dealing with the contradiction of an alternative economic organisation in a capitalist system. Essentially, individual member organisations have to decide themselves how to survive within the capitalist system. As mentioned, for various member organisations this results in following the imperatives of capitalism (i.e. accumulation and profit making) to survive. In relation to this WE Interviewee K also stated that WE is essentially besieged by capitalist imperatives from within:

“Wind Empowerment tries to position itself as an A-capitalist<sup>9</sup> institution, but it's sieged by capitalist imperatives of its members, but still it is trying to hold strong and not position itself as a capitalist institution.”

The fact that WE's members are left to their own devices on how to conceptualise and deal with the contradiction of residing in a capitalist system means for the decision premise *cognitive routine* that it is reliant on the members' interpretation of the system environment and thus reliant on the decision premise *personnel*. This further means that the decision premise *cognitive routine* is reliant on the decision premise *personnel* for counter-hegemonic alignment with degrowth. The lack of conceptualising CBPP as in contradiction to the capitalist modus operandi as well as WE's supposed

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<sup>9</sup> 'A-capitalist' meaning here agnostic to capitalism. In other words, according to the interviewee (WE Interviewee K), WE takes a supposedly neutral stance to capitalism and its imperatives.



natural stance to capitalism represents a lack of counter-hegemonic alignment within the decision premise *cognitive routine* itself. Further, leaving its members to deal with the contradiction themselves also means accepting these members to forgo this contradiction by accumulating capital and putting themselves in competition to other members. This essentially represents allowing the reproduction of the capitalist hegemony within WE through its members.

**6.5.7. Summary**

The summarised findings and data analysis for WE are shown in Table 3 below. The table presents the findings (left column) and analysis (right column) for WE’s six decision premises (including *self-description*) separately.

<b>Self-description</b>	
<b>Findings</b>	<b>Analysis – Degrowth counter-hegemony alignment</b>
<ul style="list-style-type: none"> <li>● A network of various organisations and institutions coming together under the topic of small wind and sustainable rural electrification.</li> <li>● Charitable non-profit organisation.</li> <li>● Member driven organisation.</li> <li>● Interpretation of role and purpose of network dependent on individual members’ interpretations. Reliant on decision premise <i>personnel</i>.</li> <li>● Strongly connected to decision premise <i>programmes</i>.</li> </ul>	<ul style="list-style-type: none"> <li>● WE’s <i>self-description</i> is too broad and vague to be interpreted as aligned with degrowth counter-hegemony.</li> <li>● Reliant on the counter-hegemonic alignment of the decision premises <i>programmes</i> and <i>personnel</i>.</li> </ul>
<b>Programmes</b>	
<b>Findings</b>	<b>Analysis - Degrowth counter-hegemony alignment</b>
<ul style="list-style-type: none"> <li>● WE’s goal is to help with the development of locally manufactured wind turbines for rural electrification.</li> <li>● WE aims to achieve its goal by enabling its members through collaboration as well as open-source knowledge and technology sharing.</li> <li>● All activity of WE has to align with the goals and aims of the organisation.</li> <li>● Documentation of goals and aims is seen as a guide for executive board members in decision making.</li> </ul>	<ul style="list-style-type: none"> <li>● WE’s decision premise of <i>programmes</i> can potentially fit within a degrowth system. The aim of freely sharing knowledge and technology fit in particular in connection to production.</li> <li>● However, there is a lack of alignment with degrowth counter-hegemony.</li> <li>● Discussions around interpretation of WE’s goals could lead to a more concrete and potentially counter-hegemonic decision premise.</li> <li>● Reliant on the counter-hegemonic alignment of the decision premise <i>personnel</i>.</li> </ul>

<ul style="list-style-type: none"> <li>• Discussions around opposing interpretations of how to achieve WE's goals.</li> <li>• Ultimately, the interpretation of the goals and mission is left to the members. Reliant on decision premise <i>personnel</i>.</li> </ul>	
<b>Personnel</b>	
<b>Findings</b>	<b>Analysis - Degrowth counter-hegemony alignment</b>
<ul style="list-style-type: none"> <li>• Organisations, institutions, and individuals can become members of the network if involved in small wind and aligning with WE's mission and guiding principles.</li> <li>• Executive board members in theory are voted into their position but are essentially selected for the fact of putting themselves forward and not based on which decisions they will make.</li> <li>• Executive board members are trusted to act in line with WE's mission and guiding principles.</li> <li>• Reliant on <i>self-description</i> and <i>programmes</i>.</li> </ul>	<ul style="list-style-type: none"> <li>• Very loose definition of <i>personnel</i> that shows no direct alignment with degrowth counter-hegemony.</li> <li>• Reliant on counter-hegemonic alignment of <i>self-description</i> and <i>programmes</i>. As stated above these are also reliant on <i>personnel</i> for their counter-hegemonic alignment.</li> </ul>
<b>Communication channels</b>	
<b>Findings</b>	<b>Analysis - Degrowth counter-hegemony alignment</b>
<ul style="list-style-type: none"> <li>• All members can participate in discussions of the executive board (forum or meetings).</li> <li>• Executive board members make most small-scale decisions by referring to <i>programmes</i> and <i>self-description</i>.</li> <li>• Controversial and large-scale decisions are voted on by not-for-profit members (due to WE's charity status).</li> <li>• Reliant on <i>personnel</i> decision premise and ultimately the member's interpretation of WE's <i>self-description</i> and <i>programmes</i>.</li> </ul>	<ul style="list-style-type: none"> <li>• Counter-hegemonic potential in only not-for-profit members being able to vote. However, this does not represent a counter-hegemonic alignment overall.</li> <li>• Reliant on counter-hegemonic alignment of <i>personnel</i> and through this, <i>programmes</i> and <i>self-description</i>.</li> </ul>
<b>Organisational culture</b>	
<b>Findings</b>	<b>Analysis - Degrowth counter-hegemony alignment</b>
<ul style="list-style-type: none"> <li>• The decision premises <i>self-description</i> and <i>programmes</i> are used and referred to in discussions.</li> <li>• Emphasis on reaching consensus in decisions to avoid the need to vote.</li> </ul>	<ul style="list-style-type: none"> <li>• No clear alignment with degrowth counter-hegemony.</li> <li>• Heavily reliant on the counter-hegemonic alignment of decision premise <i>personnel</i> and how other decision premises (<i>programmes</i> and <i>self-description</i>) get interpreted by the members.</li> </ul>

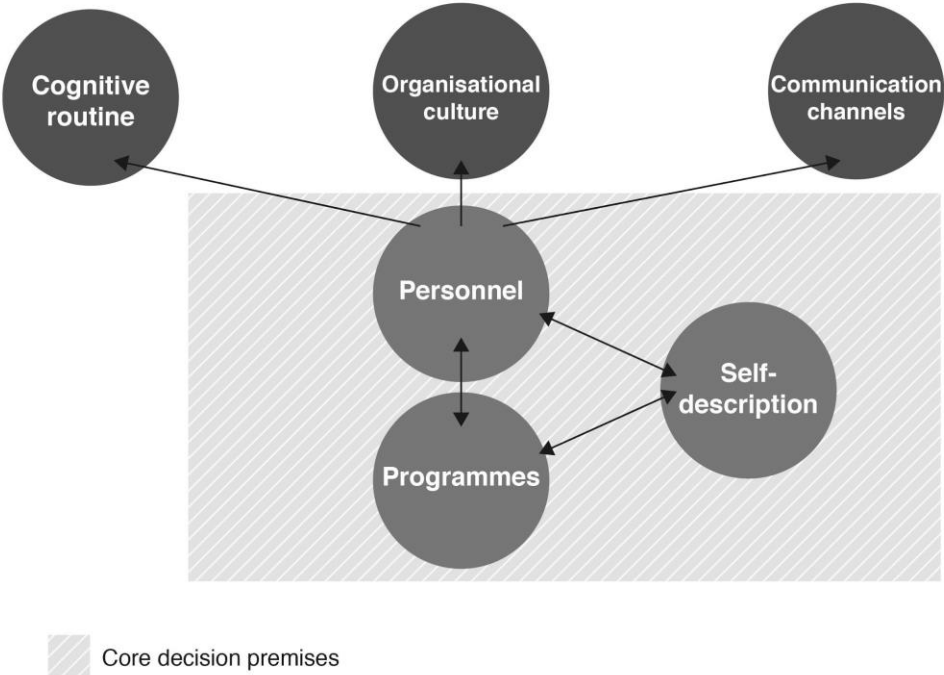
<ul style="list-style-type: none"> <li>● Reliance on executive board members and other members to refer to and interpret the organisational mission and aims.</li> <li>● Reliant on decision premise <i>personnel</i> and the interpretation of other decision premises by its members.</li> </ul>	
<b>Cognitive routine</b>	
<b>Findings</b>	<b>Analysis - Degrowth counter-hegemony alignment</b>
<ul style="list-style-type: none"> <li>● Main conceptualisation of the system environment is on the ecological level.</li> <li>● Awareness of planetary boundaries and need for sustainable resource management.</li> <li>● Lack of conceptualisation of the social system environment, i.e. capitalist system. WE's CBPP as mode of production is not seen in contradiction to capitalism.</li> <li>● WE situates itself as neutral to the capitalist system. The network does not aim to accumulate. Member organisations can use the network for accumulation purposes.</li> <li>● Reliant on the perception of individual members.</li> </ul>	<ul style="list-style-type: none"> <li>● Lack of awareness of CBPP in contradiction to the capitalist modus operandi.</li> <li>● Instead of dealing with the contradiction of CBPP as an alternative mode of production in the capitalist system, WE distances itself from the problem and lets every individual member autonomously deal with this contradiction.</li> <li>● The neutral stance represents a lack of counter-hegemonic alignment in the decision premise.</li> <li>● Reliance on counter-hegemonic alignment of <i>personnel</i> decision premise.</li> </ul>

**Table 3 – Findings and data analysis for Wind Empowerment**

All decision premises including self-description can be observed within WE. WE heavily relies on three core decision premises (i.e. the decision premises the organisation most relies on). These are *personnel*, *programmes*, and *self-description*. These three decision premises are heavily reliant on and influence each other. In other words, these three decision premises use each other as decision premises. WE's *self-description* and *programmes* are relatively broad and vague. This means that these decision premises can be used as a guide but ultimately the interpretations of these two decision premises in specific situations depends on the member's (particularly executive board member's) individual interpretation.

The example of controversial decisions highlights how vague these decision premises are and how they can be interpreted differently. This further emphasises the reliance on the member's interpretation of *programmes* and *self-description*. The decision premise *personnel* is therefore essential for WE's operation. WE's three remaining non-core decision premises (*communication channels*, *cognitive routine*, and *organisational culture*) are also heavily reliant on the decision premise *personnel* and consequently the interpretation of the other two core decision premises through specific members. The connection between the different decision premises is graphically depicted in Figure 1 below. The lines indicate which decision premise is connected to which decision premise(s). The arrowheads indicate the direction(s) of the influence. For example, the line between *personnel* and *cognitive*

*routine* points towards *cognitive routine*, which indicates that *personnel* influences *cognitive routine*, in other words, *cognitive routine* is reliant on *personnel*. Another example, the line between *personnel* and *programmes* has arrowheads at either end, which means that both decision premises influence each other and rely upon each other.



**Figure 1 – Wind Empowerment’s decision premises and their interconnection**

Similar to *programmes* and *self-description*, *personnel* as a decision premise is kept relatively vague. New members can join WE as long as they are active within small wind and align with WE’s mission and guiding principles. Further, executive board members (which are usually members of WE’s member organisations) are elected by WE’s membership. However, the election process of these board members highlights that the decision premise *personnel* (i.e. the expectation of how a person will act/decide) is very weakly defined. Yet, all other decision premises are heavily reliant or influenced by this decision premise. This has stark implications for the degrowth counter-hegemonic alignment of WE.

The three core decision premises (as shown in Figure 1) are reliant on and influence each other regarding counter-hegemonic degrowth alignment. Further, the three non-core decision premises are reliant on the counter-hegemonic alignment of *personnel* and, again, the consequent interpretation of the other core decision premises. However, due to the vagueness and broadness within the core decision premises, a degrowth counter-hegemonic alignment on a whole cannot be observed.

Any counter-hegemonic alignment is reliant on the individual members and their own potentially counter-hegemonic interpretation of the decision premises. However, the lack of counter-hegemonic alignment of *personnel* fails to ensure counter-hegemonic alignment throughout the other decision premises. In other words, through its decision premises, WE does not ensure the reproduction of degrowth counter-hegemony. Further, the non-alignment with degrowth in the decision premise *cognitive routine* seems to allow for the reproduction of the capitalist hegemony through some of WE's members.

It needs to be pointed out that WE aligns with degrowth counter-hegemony on the level of its mode of production (i.e. CBPP). As argued in Section 6.2., CBPP's open-source technology and non-growth/non-profit orientation (which are present in WE's *self-description* and *programmes*) make it a fitting mode of production for degrowth counter-hegemony. However, this does not automatically translate to a degrowth counter-hegemonic alignment on the organisational level and decision premises. In other words, WE's degrowth alignment is limited to the mode of production and requires further organisational alignment on the level of political economy.

## **6.6. Empirical Findings 2 – P2P Lab**

P2P Lab is an interdisciplinary research collective focusing on the commons. Its members conduct research to explore and document CBPP, while putting this knowledge of the phenomenon into practice, through participatory research methods with the engaged communities, but also in P2P Lab's operations. Hence, P2P Lab's members employ CBPP practices to write, edit and publish articles, reports, and books on a diverse range of relevant topics, and organise community-oriented events for reflection, action, and education, while being a CBPP community and organisation in itself.

The findings and analysis for P2P Lab is presented below in sub-sections corresponding to six decision premises (including *self-description*). The last sub-section (6.6.7.) summarises P2P Lab's findings and analysis. The findings derive directly from the collected data as set out in Section 6.4. The analysis of the data derives directly from the investigation of the findings' counter-hegemonic degrowth alignment as set out in Section 6.2.

### **6.6.1. Self-Description**

All interviewees described P2P Lab as a research collective in one way or another. One interviewee (P2P Interviewee H) stated:

“P2P Lab is a research collective.”

P2P Interviewee D similarly described it as such but also emphasised the research focus on the commons and the political economy:

“P2P Lab is a research collective focused on the political economy of the commons.”

One interviewee (P2P Interviewee G) further added that P2P Lab should be seen as a non-profit organisation:

“Generally, P2P Lab is a non-profit organisation that focuses on research that has open-source and P2P linkages, as well as focuses on the commons.”

P2P Interviewee A further stated that the collective’s research clearly has and always had an activist aspect to it:

“It is an NGO that is interested in studying the commons. Since the very beginning, the P2P Lab was very clearly self-defined as an activist research organisation.”

Another interviewee (P2P Interviewee D) mentioned that in the context of activist research the research seeks to be transformative but that the organisation wants to act according to these transformative practices:

“This is also part of what we try to do, like at some point, it is mentioned in the group that it is mostly transformative, not only in what you are talking about, but what you're practising. So, trying to practice and act inside the group as a commons-based initiative.”

These transformative practices mean for the organisation to act as a commons-based initiative. One interviewee (P2P Interviewee I) emphasised the distributed network aspect in this commons-based context:

“My understanding is basically that we are set up as a distributed network of researchers.”

It can be argued that P2P Lab describes itself as a CBPP organisation studying the phenomena of CBPP. P2P Interviewee A phrased it in the following:

“So P2P Lab studies CBPP but is also itself a CBPP initiative.”

Beyond describing itself as a CBPP organisation and practising in the commons while studying CBPP, P2P Lab also acknowledges in its *self-description* that it operates in a system environment not aligned with commons practices. In this context one interviewee (P2P Interviewee B) described P2P Lab as “a commons that is operating within an otherwise a non-commons-based system”. That is P2P Lab recognises that it is not aligned with the predominant norms and structures of its system environment. This recognition was further emphasised by the fact that P2P Lab uses different self-descriptions

depending on whom the organisation is talking to. That is if P2P Lab is talking to a funding body the research project in question might be described to fit their requirements in less radical terms (P2P Interviewee C). P2P Interviewee C put this in the following:

“But the overall narrative of our organisation is very tailored to our audience, for sure. So as far as funders are concerned, it's all about doing rigorous research. And the narrative is kind of geared towards making the current system and infrastructure more sustainable and more viable in the rapid changes that are happening in our society and on our planet. The EU is our primary funder anyway, and they seem to be stressed now and worried about where we're going as a society. So, we're offering, we are saying that we can assist you in adapting but not with a very radical point of view. We are very careful in our wording. So, it's always about healthy entrepreneurship, and small and medium businesses that can be thriving and utilising the untapped resources in the open-source movements, etc. But I would say that probably for everyone, not just for some or myself, our perspective, our true goal is rather more radical than that.”

What is becoming clear is that P2P Lab has a radical internal *self-description* but uses less radical external *self-description* to receive funding to enable its survival in a capitalist system. The decision premise *self-description* therefore already shows a clear awareness of the social system environment as a capitalist system with which the organisation misaligns. This means that *self-description* as a decision premise is strongly connected to the decision premise *cognitive routine* but also *programmes* for its transformative goal.

From a counter hegemonic alignment point of view, the awareness of the contradiction of CBPP in a capitalist system hints at an alignment with degrowth as set out in Section 6.2. Further, the use of different *self-descriptions* due to this awareness shows that the organisation actively aims to deal with this contradiction. The strong connection to the decision premises of *cognitive routine* and *programmes* also means *self-description* influences but also relies on the counter-hegemonic alignment of these decision premises.

### **6.6.2. Programmes**

Overall, the aim of P2P Lab was described by various interviewees (P2P Interviewee A, C, E, G, I) to study the commons and CBPP. P2P Interviewee C stated that P2P Lab has the “overall goal of doing research about the commons and open-source technology and peer to peer practices.” Many interviewees (P2P Interviewee A, C, D, F, H) said that beyond studying CBPP, the aims are also to participate within the commons and as a CBPP. Some interviewees (P2P Interviewee A, F) emphasised

that the aim of the organisation is to also enable a change in society through the organisation's activity.

P2P Interviewee A put this in the following:

“First and foremost, I feel like an activist, like a practitioner who wants to change things. So, my aim is not only to understand this emerging phenomenon [CBPP], to understand society, but also to be able to change society.”

P2P Interviewee H similarly argued that the change in society is the aim to help create an alternative economy and society through a focus on the commons. This interviewee (P2P Interviewee H) further stated the following:

“To visualise and bring about a society that is based on the commons is definitely a vision, I believe.”

This means beyond the aim of just studying CBPP, P2P Lab also aims to change society centred around the commons and enabling CBPP as a mode of production (P2P Interviewee B). Another interviewee (P2P Interviewee G) stated that through all its activity P2P Lab is also aiming to create a more sustainable society:

“We are firstly trying to create a more sustainable society.”

P2P Interviewee G also emphasised in this context that CBPP is seen as a more sustainable form of organisation that P2P Lab hopes to enable.

Throughout the aim of enabling a societal change towards the commons, some interviewees also emphasised that they as well as the organisation as a whole are aware that this goes against the capitalist mode of production and modus operandi. P2P Interviewee D put it in the following:

“The overall aim is to try to steer the digital revolution and the modes of production yet to come towards a commons-based perspective. So, our dream if you may would be that the capitalist mode of production, the industrial capitalistic and liberal mode of imaginary and way of doing stuff in our societies could be transcended if a lot of people and subjects will work towards this direction into a better society into a system that its characteristics would be increasingly different from the value driven and profit driven ones that we have now.”

Similarly, P2P Interviewee G emphasised the social and ecological destructive forces of capitalism and finding an alternative to this:

“Maybe, what we are trying to do as a commons-based organisation is to find an alternative to the society we are in today. I think we need to listen or talk about how this capitalist mode



of economic activities are not only exploiting humans but also the environment and the ecosystem, the global ecosystem we live in.”

This awareness of the capitalist system is further reflected in the organisation’s aims not to maximise profits or trying to compete, as put by P2P Interviewee C:

“[W]e're not trying to maximise profits and we're not trying to establish ourselves amongst competition.”

The fundamentality of the societal change P2P Lab is trying to help achieve was not lost on the interviewees and some stated that they do not see this change happening quickly or even in their lifetime. P2P Interviewee B put it in the following:

“But the goal is not to transform the world in a common centric society in our lifetime which we understand is not going to happen.”

Similarly, P2P Interviewee G stated:

“Truly, we cannot actually transform this in a day. It's very hard, but we can dream about making a change.”

All interviewees articulated that the organisation’s activities and projects need to align with P2P Lab’s aims and vision. One interviewee (P2P Interviewee A) stated the following:

“Projects need to fit our understanding of the things that need to be changed and how things should be changed.”

P2P Interviewee C similarly argued:

“There's no need to engage in projects and in collaborations that don't fit our overall worldview.”

Other interviewees (P2P Interviewee D, I) emphasised that it was possible for P2P Lab to turn down funding or exclude certain parts of projects if the requirements did not fit the organisation’s overall aims and vision.

The decision premise *programmes* reflects that P2P Lab has a clear mission of studying the commons and CBPP to enable a change in society that would emphasise CBPP as the main mode of production and organisation. The organisation is aware that this is in clear opposition to the capitalist system. This means that the decision premise *programmes* is strongly connected to the decision premise *cognitive routine* through the awareness of its system environment and the aim to influence and change it. P2P Lab shows strong awareness of this in its aims by also stating that the envisioned change will take time

due to its fundamental transformation required. Further, the decision premise *programmes* is very much connected to how the organisation *self-describes* itself.

What should further be noted is that all interviewees stated that the aims and vision of P2P Lab are not written down in any documents. Instead, the interviewees stated that the aims and vision of the organisation are embodied by its members. The fact that the organisation's aims are not written down anywhere, apart from a one-line description on their website, emphasises a strong connection between the decision premises *programmes* and *personnel*. The decision premise *programmes* is reliant on the decision premise *personnel* to maintain the organisations aims and goals.

The goal to enable CBPP as the main mode of production and organisation to achieve sustainability highlights first and foremost an opposition to the capitalist mode of production. From a counter-hegemonic degrowth perspective this means a strong alignment as the organisation not only seeks to establish a mode of production theoretically aligned with degrowth but also aims to change societal structures to enable this. On the level of the decision premise *programmes*, P2P Lab can be argued to be aligned with degrowth counter-hegemony without naming degrowth as an aim. The connection and reliance on other decision premises (*self-description*, *personnel*, and *cognitive routine*) further emphasises that the decision premise *programmes* relies on and connects to these decision premises for counter-hegemonic alignment with degrowth.

### **6.6.3. Personnel**

All interviewees stated that they trust the members of P2P Lab to act in accordance with the organisation's aims and values. P2P Interviewee F described this as follows:

“This is one of the premises of the P2P Lab, each member has to be able to independently take decisions and work according to the values of P2P Lab.”

In this context many interviewees (P2P Interviewee A, B, C, D, F) mentioned the role of the coordinator and that the coordinator is trusted by all other members to lead a project for P2P Lab in accordance with the organisation's aims and values. Because of this P2P Lab does not hire people as there is a feeling that this same level of trust could not be created but instead these people would have to be supervised.

For some interviewees (P2P Interviewee A, F, H, I) the need to be able to trust its members to act in accordance with the organisation's values result in in P2P Lab's membership growing organically through the networks of its members. These are friends and colleagues that over time might become members because of overlapping underlying values, philosophy, and trust. P2P Interviewee B described the organic aspect of the membership and trust in the following:

“We grew through trust-based relationships of close people that were you know, gradually coming closer and eventually getting, how can I say, well becoming part of that. Because basically the main condition for someone to become a member was besides having something to do with the rest of the team workwise, that should be her or his interests to join. We haven't really recruited anyone from, you know, by an open call or by looking at CVs of people. [...] Workwise it is a completely trust based situation where there's a lot of sharing a lot of pooling of responsibilities and tasks and there needs to be some, so to say ideological proximity for people to engage into the situation.”

P2P Interviewee G also pointed out in this context that all members to a certain degree share a worldview and that new members might be pointed towards certain literature that reflects the values of P2P Lab. Another interviewee (P2P Interviewee C) also emphasised overlapping values when inviting new core members (members that form the main group of people involved in P2P Lab):

“[W]hen we would invite a new core member to join us we would need to identify the same ethic; the new members would have to identify with that as well. [...] We try and identify the same values in the people that we invite to be a core member. Which is not something that we expect from people that we're affiliated with. Although that might be entirely the case and it tends to be because we try to surround ourselves with people that do share the same values.”

Overall, the decision premise *personnel* defines that members are trusted to act in accordance with the values and aims of P2P Lab. Due to this need of trust in its membership, new members are invited to become members because there is an overlap in worldview and values. In other words, there is already an overlap in the interpretation of the decision premises *programmes*, *self-description*, and *cognitive routine*. This means that the decision premise *personnel* is reliant on but also influences these three decision premises. Essentially the decision premises *personnel*, *programmes*, *self-description*, and *cognitive routine* reinforce each other.

The decision premise *personnel* ensures that only new members join P2P Lab that already or easily align with the interpretation of the other decision premises. For counter-hegemonic alignment this means that new members are invited to join P2P Lab who also fit the organisation's counter-hegemonic alignment. This further entails that the need for new members to align with the organisations worldview and values ensures reinforcing counter-hegemonic alignment in other decision premises through these members. The decision premise *personnel* is not itself aligned to degrowth counter-hegemony but helps to reinforce the counter-hegemonic alignment of other decision premises.

#### 6.6.4. Communication Channels

P2P Lab is structured in a heterarchical way. One interviewee (P2P Interviewee D) described this in the following:

“So heterarchical is when the concept of equality is not understandable in a very strict way. So, when for example, if you are better in facilitating, the group would give you more power to do that. If I'm better in the economics or even better in community building, then the group will give me less restrictions and/or more power and confidence in taking such a role. So, in different tasks, the group is able to recognise the different skills that people have and is open in giving more power and freedom to members to take over stuff. And always also because it is an open process having the right to take it back.”

As already mentioned in the findings for the decision premise *personnel*, members are expected and trusted to act in accordance with the P2P Lab's mission, values, and goals. P2P Interviewee B also pointed out that members lead projects based on merit and skills i.e. the person that is best suited for a particular task due to their skill and expertise will be asked to do it:

“So, what we do is that we appoint someone as the best person in the given situation and under the certain circumstances to undertake this role. And he or she is responsible for coordinating the thing and the rest will just, you know, everyone gets to voice their opinion, but in the end the person that has the whole picture and decides upon what needs to be done is the one coordinator.”

The heterarchical structuring means that project coordinators can act like benevolent dictators as P2P Interviewee A put it:

“[A] very important role, that one can have within the P2P Lab ecosystem is the role of the coordinator. When the team, the group, the community decides that this person is going to coordinate, then this person can make a lot of decisions without asking the rest. [...] [Y]ou are the one who will make sure that the agreed milestones and the agreed agenda is being followed. And you can be a kind of benevolent dictator within the project because we decide, so we say that we agree that you can be a benevolent dictator. And if you overdo that, how can I say this, if you don't behave well according to the norms and the written rules of our community then the community will intervene, and we say enough.”

Members have autonomy in their decisions through the trust bestowed in them. This emphasises that the decision premise *communication channels* is highly reliant on the decision premise *personnel* to only allow members into the organisation that can be trusted to act autonomously in line with P2P Lab's mission, values, and goals. This also emphasises that no counter-hegemonic alignment with

degrowth can be explicitly observed within the decision premise *communication channels*. Rather, *communication channels* is reliant on the counter-hegemonic alignment of the decision premise *personnel* and through this the counter-hegemonic alignment of the decision premises *self-description*, *programmes*, and *cognitive routine*.

#### 6.6.5. Organisational Culture

As already mentioned in the findings for the decision premises *programmes* and *personnel*, P2P Lab trusts its members to align the organisations projects in accordance with the organisation's aims and mission. Decisions around this alignment are achieved through discussion and consensus. Within those discussions the beliefs and values of individuals play a role and how they interpret the situation (P2P Interviewee B, C). P2P Interviewee C emphasised that everything is always open for further discussion, particularly if circumstances change:

“But everything is always open to further discussion and further negotiation, I feel like. It has always been the case with our group.”

What is interesting in this context is that through these discussions and depending on the situation, P2P Lab is sometimes willing to compromise between its aims and project funding requirements (P2P Interviewee D). In the same context some interviewees (P2P Interviewee D, E) also stated that it is hard to find projects that fully align with P2P Lab. However, in these compromises P2P Lab also tries to hack projects to align more with the organisation's aims and goals (P2P Interviewee D, E). One interviewee (P2P Interviewee E) stated this in the following:

“What we usually do is try to hack and modify some parts of the projects and get the best out of them with regard to what we want to achieve.”

P2P Interviewee F similarly articulated the following:

“And we try to a little bit like hack the system to get affiliation and work with some other organisations so you can pursue your agenda.”

The fact that P2P Lab tries to hack other projects to fit its vision and aims underlines the organisation's awareness of its system environment. This means that the decision premise *organisational culture* is reliant on the decision premise *cognitive routine* to do so. Further, the reoccurring need to trust its members to act in accordance with P2P Lab's vision and aims, highlights a reliance on the decision premises *personnel* and *programmes*. In terms of counter-hegemonic alignment with degrowth, the reliance on the decision premises *personnel*, *programmes*, and *cognitive routine* further emphasises reliance on counter-hegemonic alignment through these decision premises. However, the fact that

P2P Lab is willing to hack and modify other projects (essentially in its system environment) not only shows awareness of the contradiction described in Section 6.2. but also shows that the organisation actively deals with this contradiction and tries to influence its system environment in line with its own worldview.

#### **6.6.6. Cognitive Routine**

Many interviewees (P2P Interviewee A, B, C, D, E, G) showed awareness of the contradiction that CBPP clashes with the capitalist system and related this to the operations of P2P Lab. P2P Interviewee A for example argued that the organisation is aware that it clashes with traditional institutions and structures in the way it operates. Other interviewees (P2P Interviewee B, E) emphasised that it is hard to find organisations and projects that align fully with P2P Lab's aims and vision. P2P Interviewee B stated that they see themselves as an alternative to the capitalist form of production:

“So, what we see is that we have two different modalities of social and economic organisation, one is the commons-based one, which we try to organise around, and the other is the market-based capitalist form of production.”

The same interviewee (P2P Interviewee B) went on to say that operating in line with CBPP in a capitalist system leads to contradictions but that the organisation “aims to take those contradictions into account and try to mitigate the impact”. Essentially P2P Lab realises that it needs to deal with this contradiction to survive in a capitalist system. According to some interviewees (P2P Interviewee A, B, C, D) the organisation realised that through academia and academic funding, P2P Lab can ensure economic and financial sustainability for its members while trying to stay true to the organisation's vision and aims. P2P Interviewee A stated:

“We started to understand how academia works. And then we succeeded in securing funding.”

In this context the earlier finding of different *self-descriptions* depending on the audience to receive funding can be recalled. P2P Lab describes itself differently externally depending on the audience to seem less radical and receive funding (P2P Interviewee C). P2P Interviewee C stated the following:

“[T]he overall narrative of our organisation is very tailored to our audience.”

Through this awareness P2P Lab also engages in projects to hack and modify them for their vision and aims. P2P Interviewee D emphasised the idea of hacking the system in this context:

“For example, we use the term of hacking the system.”

P2P Interviewee E spoke of one of the projects P2P Lab is involved with which focused on distributed designs and how they can be brought into the market. P2P Lab's involvement led to the problematisation of the 'market' which ultimately made the project drop it from its title and focus solely on distributed designs instead.

In the context of hacking other projects one interviewee (P2P Interviewee B) referred to the process of transvestment<sup>10</sup>. This interviewee (P2P Interviewee B) described this process of transvestment as follows:

“Transvestment means you transfer value from one modality to the other. So, we're trying to basically create strategies that transfer resources, that is financial resources, people skills, capacities, assets, buildings, whatever, from the capitalist mode of production to the commons-based one.”

From this it becomes clear that P2P Lab not only conceptualises its system environment as dominated by the capitalist system and being in contradiction to it but that it must actively try to transfer and repurpose value and resources from it to survive. Further, P2P Lab realises that it must engage with its system environment to actively try and change it through 'hacking'. Some interviewees (P2P Interviewee A, B, C, D) also mentioned that this means compromising in terms of the organisation's vision and aims to a certain extent whilst also constantly being aware of the potential of co-optation. For example, P2P Interviewee B stated the following:

“So, you need to constantly reflect on whatever structure you're creating to make sure that it is, to the extent possible, immune from the influence of the dominant system.”

In the awareness of being at odds with the capitalist system a few interviewees (P2P Interviewee D, F) were also adamant in pointing out that there is agreement within P2P Lab that capitalism cannot achieve sustainability. P2P Interviewee F stated:

“But we all agree that the principles on which capitalism is based is making any meaningful change towards sustainability, that we'll at some point, be able to slow down and combat things like climate change, that [capitalism] is making it impossible.”

In the decision premise *cognitive routine*, P2P Lab shows a clear awareness of the contradiction CBPP faces in a capitalist system and that it must survive in the capitalist system by dealing with this contradiction. The decision premise *cognitive routine* helps the organisation to actively deal with this contradiction by trying to hack parts of its system environment and transvest resources. Through this particular engagement with its system environment P2P Lab influences the system environment in

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<sup>10</sup> For further information on the concept of transvestment see Kleiner (2010).

accordance with the organisation’s values and aims. On the level of decision premises this means that *cognitive routine* influences but also relies on the decision premise *programmes*. Further, the use of different *self-descriptions* and all members sharing the organisation’s conceptualisation of its system environment also means an interconnection with the two decision premises *personnel* and *self-description*. The use of the decision premise *cognitive routine* in the afore mentioned other three decision premises also re-highlights the influence *cognitive routine* has on the decision premise *organisational culture*.

On the level of counter-hegemonic alignment with degrowth, the awareness of CBPP’s contradiction in a capitalist system shows an alignment with degrowth in accordance with Section 6.2. The awareness of needing to overcome the capitalist system while also influencing its system environment highlights further strong alignment with degrowth counter-hegemony. The interconnection with the three decision premises *self-description*, *programmes*, and *personnel* highlights that these reinforce each other in counter-hegemonic alignment. *Cognitive routine’s* influence on the decision premise *organisational culture* also emphasises the influence *cognitive routine* has on this decision premise in terms of counter-hegemonic alignment with degrowth.

**6.6.7. Summary**

The findings and data analysis for P2P Lab is summarised in Table 4 below. The table presents the findings (left column) and analysis (right column) for P2P Lab’s six decision premises (including *self-description*) separately.

<b>Self-description</b>	
<b>Findings</b>	<b>Analysis - Degrowth counter-hegemony alignment</b>
<ul style="list-style-type: none"> <li>● A research collective studying CBPP while also participating in related practises.</li> <li>● Described to have an activist nature and activist motivation.</li> <li>● Different <i>self-descriptions</i> (internal and external). External <i>self-description</i> depending on the audience.</li> <li>● External <i>self-description</i> with varying degrees of radicality and adaptable vocabulary to help receive funding.</li> <li>● Commons-based organisation within a non-commons-based system. Awareness of its system environment in <i>self-description</i>.</li> </ul>	<ul style="list-style-type: none"> <li>● <i>Self-description</i> hints at awareness of contradiction of CBPP in the capitalist system. This represents a degree of counter-hegemonic alignment with degrowth.</li> <li>● This awareness of the contradiction influences the use of different <i>self-descriptions</i>.</li> <li>● Influences and relies on the counter-hegemonic alignment of <i>programmes</i>, <i>personnel</i>, and <i>cognitive routine</i>.</li> </ul>



<ul style="list-style-type: none"> <li>● Reliant on decision premise <i>cognitive routine</i> as well as <i>programmes</i>.</li> <li>● Influences and connected to the decision premise of <i>personnel</i>.</li> </ul>	
<b>Programmes</b>	
<b>Findings</b>	<b>Analysis - Degrowth counter-hegemony alignment</b>
<ul style="list-style-type: none"> <li>● P2P Lab's goal is to research commons and CBPP to enable CBPP as society's main mode of production.</li> <li>● Aim to influence societal change through change in mode of production and organisation.</li> <li>● All projects must align with the overall aim of P2P Lab.</li> <li>● Aims not written down and highly reliant on members to embody these aims.</li> <li>● Connected to <i>self-description</i>.</li> <li>● Reliant on decision premise <i>personnel</i>.</li> <li>● Connected to <i>cognitive routine</i> in awareness to change the societal system.</li> </ul>	<ul style="list-style-type: none"> <li>● The goal to enable CBPP as the main mode of production is in clear opposition to the capitalist hegemony and its mode of production. This is a strong alignment with the operationalisation of degrowth counter-hegemony as defined in Section 6.2.</li> <li>● Influences and relies on the counter-hegemony of <i>cognitive routine</i>, <i>self-description</i>, and <i>personnel</i>.</li> </ul>
<b>Personnel</b>	
<b>Findings</b>	<b>Analysis - Degrowth counter-hegemony alignment</b>
<ul style="list-style-type: none"> <li>● Members are trusted to act in accordance with P2P Lab's goals and values. Through this trust members can act autonomously.</li> <li>● New members are invited because of overlapping worldviews and values. Essentially new members must roughly align with interpretation of other decision premises.</li> <li>● Relies on and influences decision premises <i>programmes</i>, <i>cognitive routine</i>, and <i>self-description</i>.</li> </ul>	<ul style="list-style-type: none"> <li>● By selecting new members in accordance with the decision premises of <i>programmes</i>, <i>cognitive routine</i>, and <i>self-description</i>, the counter-hegemonic alignment of these decision premises also aligns <i>personnel</i> to the same extent.</li> <li>● The reliance by the other decision premises on <i>personnel</i> and its counter-hegemony helps to reinforce the counter-hegemony in both directions.</li> </ul>
<b>Communication channels</b>	
<b>Findings</b>	<b>Analysis - Degrowth counter-hegemony alignment</b>
<ul style="list-style-type: none"> <li>● P2P Lab is structured in a heterarchical way.</li> <li>● Members as coordinators have autonomy to make decisions to fulfil their projects.</li> <li>● P2P Lab trusts its members to act in accordance with the organisation's vision and aims.</li> <li>● Reliant on decision premise <i>personnel</i>.</li> </ul>	<ul style="list-style-type: none"> <li>● Degrowth counter-hegemonic alignment not explicitly evident in <i>communication channels</i>.</li> <li>● Reliant on counter-hegemonic alignment of decision premise <i>personnel</i>. Through <i>personnel</i> also reliant on <i>self-description</i>, <i>programmes</i>, and <i>cognitive routine</i>.</li> </ul>
<b>Organisational culture</b>	

Findings	Analysis - Degrowth counter-hegemony alignment
<ul style="list-style-type: none"> <li>● P2P Lab is flexible with the decision premise of <i>programmes</i>. P2P Lab participates in projects that do not fully align with its values and aims to ‘hack’ them and better align them.</li> <li>● P2P Lab trusts its members to stay true to the values and aims of the organisation.</li> <li>● Reliant on decision premise <i>personnel</i> and <i>programmes</i>.</li> <li>● Reliant on decision premise <i>cognitive routine</i> to identify need and possibility to ‘hack’ projects.</li> </ul>	<ul style="list-style-type: none"> <li>● Counter-hegemonic alignment and awareness that the system environment is likely not aligned with P2P Lab’s vision etc.</li> <li>● P2P Lab influences its system environment to become more counter-hegemonic by ‘hacking’ projects.</li> <li>● Reliant on counter-hegemonic alignment of <i>programmes</i>, <i>personnel</i>, and <i>cognitive routine</i>.</li> </ul>
<b>Cognitive routine</b>	
Findings	Analysis - Degrowth counter-hegemony alignment
<ul style="list-style-type: none"> <li>● P2P Lab is aware of the contradiction that CBPP as a mode of production clashes with the capitalist system.</li> <li>● Awareness that P2P Lab cannot leave the system of capitalism and compromises must be made to survive with this contradiction.</li> <li>● P2P Lab sees capitalism as destructive and problematic for society and the environment.</li> <li>● P2P Lab communicates its values into the system environment to influence change.</li> <li>● Relies on and influences <i>self-description</i>, <i>programmes</i>, and <i>personnel</i>.</li> <li>● Heavily influences the decision premise of <i>organisational culture</i>.</li> </ul>	<ul style="list-style-type: none"> <li>● Aligns with degrowth counter-hegemony through a strong awareness of the contradiction of CBPP being an alternative mode of production.</li> <li>● P2P Lab recognises the need to overcome the capitalist system.</li> <li>● Actively tries to influence its system environment to align with degrowth counter-hegemony.</li> <li>● Reliant on and influences counter-hegemonic alignment of <i>self-description</i>, <i>programmes</i>, and <i>personnel</i>.</li> <li>● Heavily influences the counter-hegemonic alignment of <i>organisational culture</i>.</li> </ul>

**Table 4 – Findings and data analysis for P2P Lab**

Within P2P Lab all decision premises (including *self-description*) are observable. P2P Lab has four core decision premises that are heavily reliant on and influence each other. These are *self-description*, *programmes*, *cognitive routine*, and *personnel*. The four core decision premises together reinforce each other to work towards P2P Lab’s mission in line with its organisational values.

The aim to help shape the societal system that lies beyond the organisational system itself highlights a strongly defined *cognitive routine* to influence the organisation’s *programmes* and *self-description* and vice versa. The *cognitive routine* of P2P Lab helps it understand that its mode of production (CBPP) is not aligned with the capitalist system and that it needs to ‘hack’ parts of the system in order to be able to survive.

P2P Lab’s *cognitive routine* is highly important to be able to follow its *programmes* and *self-description*. However, the *programmes* and *self-description* of P2P Lab are not documented, much rather they are embodied and lived by its members. This highlights a strong reliance on the members of the organisation and ultimately the decision premise *personnel*. New members must align with the P2P Lab's aims and goals but also broadly share its worldview and conceptualisation of its system environment. Through its decision premise *personnel*, P2P Lab reinforces the other three core decision premises. Therefore, all four core decision premises influence and reinforce each other. The remaining two decision premises (*communication channels* and *organisational culture*) are influenced by core decision premises. This is shown in Figure 2 below. The lines indicate which decision premise is connected to which decision premise(s). The arrowheads indicate the direction(s) of the influence. For example, the line between *personnel* and *communication channels* points towards *communication channels*, which indicates that *personnel* influences *communication channels*, in other words, *communication channels* is reliant on *personnel*. Another example, the line between *personnel* and *programmes* has arrowheads at either end, which means that both decision premises influence each other and rely upon each other.

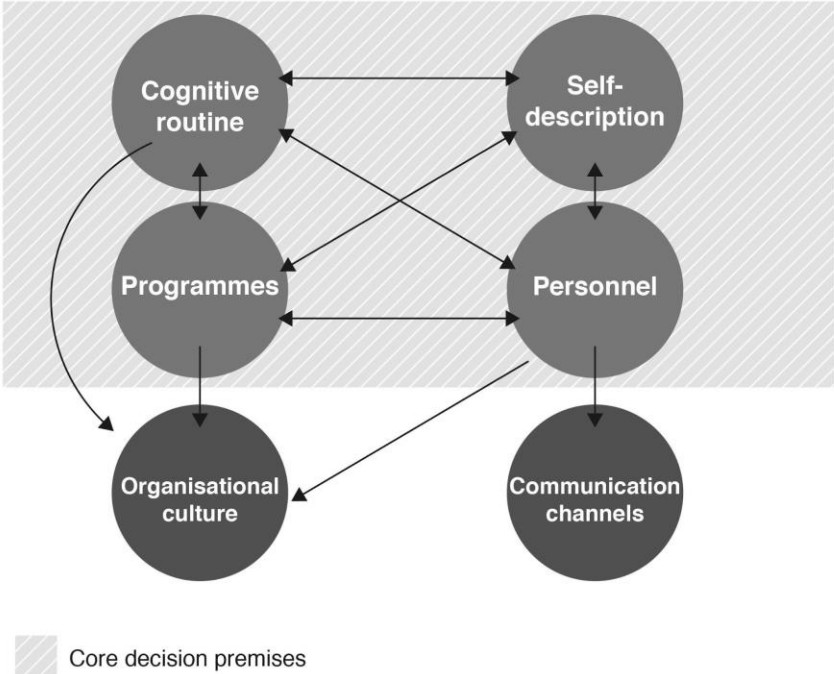


Figure 2 – P2P Lab’s decision premises and their interconnection

Within P2P Lab, the four core decision premises also reinforce each other in terms of degrowth counter-hegemonic alignment. Within *self-description*, *programmes*, and *cognitive routine* this alignment can be observed in the fact that P2P Lab shows awareness of its mode of production (CBPP) being in contradiction to the capitalist system. P2P Lab aims to enable CBPP to become the main mode of production which would ultimately mean overcoming capitalism. The organisation actively tries to influence its system environment by ‘hacking’ projects and constantly communicating its values. Further, P2P Lab uses various *self-descriptions* depending on its audience to receive funds and enable transfers of value from the capitalist system towards commons-based initiatives (transvestment).

The decision premise of *personnel* helps to ensure that only new members whose personal values and worldview broadly overlap with this counter-hegemonic alignment become members of the organisation. The two non-core decision premises are reliant on the counter-hegemonic alignment of the core decision premises they are connected to (as depicted in Figure 2). The decision premise of *cognitive routine* arguably plays a significant role in the degrowth counter-hegemonic alignment of P2P Lab. It emphasises the awareness and conceptualization of the organisation’s system environment. Yet, that does not mean that *cognitive routine* alone enables counter-hegemonic alignment but rather in conjunction with the other three core decision premises reinforcing each other in counter-hegemonic terms. It also needs to be highlighted that P2P Lab does not explicitly aim to achieve a degrowth society. P2P Lab shows counter-hegemonic alignment with degrowth without labelling it as degrowth.

### **6.7. Empirical Findings 3 – Summary and Comparison**

All decision premises (including *self-description*) can be observed in both cases. Both cases make autopoietic sense to themselves. That is, both organisations, their decision premises, *self-description(s)*, and resulting modus operandi make sense within and to the respective organisational social system and their self-reproduction. Overall, neither case explicitly aims to achieve or align with degrowth. Yet counter-hegemonic degrowth alignment can be observed within both cases, albeit to varying extents.

Within P2P Lab there is a clear vision to change and transform society. The organisation acknowledges that it is politically motivated and aims to find and nurture possibilities to transcend capitalism. P2P has an explicit awareness of its capitalist system environment and the entailing contradiction of using CBPP as a mode of production within the capitalist system. This awareness is evident throughout the organisation’s core decision premises. Through this awareness P2P Lab is able to deal with the contradiction of CBPP in a capitalist system (e.g. transvestment from the capitalist system to the

commons-based system by using different *self-descriptions*) but also to influence its system environment by looking to ‘hack’ and modify other projects. Therefore, P2P Lab can arguably be seen as aligned with degrowth counter-hegemony as outlined in Section 6.2. P2P Lab ensures this alignment by ensuring membership that aligns with its worldview and goals. In other words, P2P Lab strongly relies on its decision premise *personnel* to ensure this alignment. This results in relatively small membership which in turn might also help to ensure the alignment.

WE is most concerned about sustainable energy access as a basic human right. WE tries to achieve positive social and environmental change without necessarily associating capitalism as the root cause of the problem the organisation tries to address. This might explain why WE shows a lack of awareness of or ignores the contradiction that CBPP spells within a capitalist system. Similar to P2P Lab, WE relies on its members to align with the organisation’s goals and mission. Yet, WE’s decision premises are too vague and broad to be considered to be aligned with degrowth counter-hegemony. The decision premise of *personnel* is similarly vague and ‘only’ ensures that WE creates an affinity group around the topic of small-scale wind turbines with an emphasis on open knowledge sharing. This could be the reason for a larger membership in comparison to P2P Lab as it is easier to organise around this affinity. Yet simultaneously this means that a counter-hegemonic degrowth alignment cannot be assured through the decision premise *personnel*. Hence, WE lacks a clear alignment with degrowth counter-hegemony as operationalised in Section 6.2. However, WE is able to create a much larger membership around the use of CBPP as a potentially counter-hegemonic mode of production. This means WE enables counter-hegemonic activity through the use of this mode of production on a larger scale than P2P Lab but lacks alignment on a stronger political economic level. However, WE cannot not ensure that CBPP as a mode of production does not get co-opted for capitalist purposes.

## **6.8. Interpretation**

As mentioned throughout this thesis, CBPP has previously been linked to degrowth (Kostakis et al., 2018; Robra et al., 2020). Similarly, Kallis (2018) describes CBPP as a ‘natural ally’ to degrowth. However, this does not signify an overall alignment with degrowth or similar. As mentioned in Chapter 5, economic organisations need to be more than just ‘natural allies’ to help enable a societal degrowth transformation. Kostakis (2018) argues that digital commons (and thus consequently CBPP) do not automatically lead to a more sustainable society beyond capitalism, but heavily depend on how and for what these phenomena are used. Kohtala (2017) problematizes the lack of concrete sustainability conceptualisations in maker and P2P communities. Robra et al. (2020) emphasise that CBPP organisations must actively aim to align with degrowth through eco-sufficiency. Further, Chapter 4 of this thesis theoretically highlights the need for CBPP to further align with degrowth counter-

hegemony. The findings of this chapter echo and add to these insights by highlighting that a political economic alignment with degrowth is not achieved simply through the use of an alternative mode of production but that the economic organisations' decision premises must align with degrowth counter-hegemony as outlined in Section 6.2.

The empirical research question of this thesis (and this chapter) was: 'Do, and if so, how do commons-based peer production organisations demonstrate counter-hegemonic degrowth in their decision premises?' The findings show that if CBPP organisations align with degrowth counter-hegemony on an organisational level within their decision premises, they do so through a strong awareness of the contradiction of CBPP, as an alternative mode of production that must tame and erode, and transcend, capitalist hegemony, to build on the late E. O. Wright's (2015) phrasing. In social systems theory terms, the decision premise of *cognitive routine* i.e. how the organisational system conceptualises its system environment. In this context, conceptualising the system environment as dominated by a capitalist hegemony that must be overcome.

As mentioned in Chapter 5, it is an important insight for the quest in achieving a degrowth society that economic organisations such as CBPP organisations must develop beyond 'natural allies' and align with degrowth counter-hegemony on an organisational level. As already argued theoretically in Chapters 4 and 5, this has significant implications for these organisations. Empirically, the case of P2P Lab shows that a strong awareness of the contradiction of CBPP in the capitalist system and the aim to influence a shift in societal structures helps to survive this contradiction and align with degrowth counter-hegemony (albeit inexplicitly) simultaneously. However, this is only achievable through explicit membership alignment to the values reflecting this counter-hegemony, which results in and is ensured through the relatively small membership and size of the organisation.

It is tempting to follow on from the above that degrowth needs to focus on small economic organisations that can more easily be aligned with degrowth. Nesterova (2020, 2021) similarly argues that small economic organisations are better equipped to fit a degrowth society. However, in light of the findings in this chapter, this might be more nuanced than just a question of big or small. The larger case of WE achieves a counter-hegemonic aspect that P2P Lab (at least on its own) cannot achieve due to its size. Through its broader and vaguer aims and *personnel* decision premise, WE manages to create a network with a large number of members around CBPP as an alternative mode of production. As argued previously, CBPP can be seen as a mode of production that can fit degrowth counter-hegemony. Clearly, this counter-hegemonic potential does not lead to an automatic alignment on the organisational level. However, the engagement with CBPP as a mode of production creates the *potential* of counter-hegemonic activity in general. Counter-hegemonic activity in the context of not operating in line with the capitalist mode of production.

Counter-hegemonic activity might not represent a counter-hegemonic alignment with degrowth on the organisational level but is essential to help overcome the capitalist hegemony. Counter-hegemonic activity generally highlights how things can be done differently to the dominant hegemony (see García López et al., 2017; Kallis, 2018; Pansera and Owen, 2018). Counter-hegemonic activity around CBPP enables wider adaptation of this mode of production which is arguably desired in order to achieve a degrowth society. This means vaguer degrowth counter-hegemonic alignment (as in WE) enables wider acceptance of CBPP as an alternative mode of production. Stricter degrowth counter-hegemonic alignment (as in P2P Lab) might be more able to influence a transformation in society's superstructure. Both are required for degrowth as a counter-hegemony to succeed. The latter rationalises commoning as a new common-sense, while the former expands the sphere where commoning and counter-hegemonic activity can take place. Hence, is it a question of finding potential ways to scale-up the stricter alignment of P2P Lab to the levels of WE to help achieve degrowth?

The notion of scaling up has been heavily discussed within the scholarly field of CBPP. A general argument has been that for CBPP to be successful as a mode of production it needs to scale-up as in the case of the internet-based large-scale collaboration (see e.g. Benkler, 2007). Yet, on a less purely digital but rather digitally-based level<sup>11</sup> CBPP retained smaller sizes. Particularly in this context the concept of scaling-wide instead of scaling-up has emerged (Kostakis and Giotitsas, 2020; Kostakis et al., forthcoming). CBPP organisations build networks amongst themselves and learn from and influence each other; essentially a network of CBPP organisations that is a CBPP in itself (Bauwens et al., 2019).

It needs to be noted that the two studied cases in this chapter have also co-developed their structures and processes in parallel, forming relations of solidarity and mutual learning. That is the two organisations have developed through ideas and practices in tandem. Scaling-wide through CBPP networks might therefore be a way to help influence further counter-hegemonic degrowth alignment on a larger scale. In future, this will mean understanding how smaller organisations (but more counter-hegemonically aligned) such as P2P Lab might influence and pollinate<sup>12</sup> larger organisations (such as WE) with more counter-hegemonic ideas aligned with degrowth. From a social systems theory perspective this will entail understanding how organisations as social systems will understand and accept communication within such networks. A clear connection to the finding in Chapter 5 that such networks might make it more likely for counter-hegemonic communication in a largely hegemonic

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<sup>11</sup> For a brief overview on the various degrees and understandings of 'digitalness' see Kostakis (2019). For the difference between purely digital CBPP and digitally-based CBPP see Salcedo et al. (2014).

<sup>12</sup> Pollination here in reference to Bauwens et al.'s (2019) description of CBPP organisations as bees that pollinate various different digital knowledge commons and thus also other CBPP organisations.

society to be accepted. In this context this means understanding how such networks communicate not only internally but externally with their system environment.

## 6.9. Conclusion

This chapter followed the preceding two findings chapters (Chapter 4 and 5) in adopting Gramsci's conceptualisation of hegemony and counter-hegemony to argue that economic organisations must be aligned with degrowth counter-hegemony to help a societal transition towards degrowth. Further, the chapter followed the findings from Chapter 4 that CBPP organisations have the potential to align with degrowth counter-hegemony. Similarly, the chapter also followed Chapter 5 in applying Luhmann's social systems theory to understand organisations as social systems encompassed by a social system environment dominated by the capitalist hegemony. By using these two chapters as an a priori theory understanding, this chapter set out to empirically investigate how CBPP organisations might align with degrowth counter-hegemony through their decision premises. This chapter operationalised counter-hegemonic degrowth alignment in CBPP organisations through firstly organisational awareness of CBPP's contradiction in the capitalist system, and secondly the aim to deal with or overcome this contradiction while simultaneously influencing society's superstructure. In the context of this PhD thesis, this chapter hence aimed to investigate the following research objective:

Understand how commons-based peer production organisations as organisational social systems can align with degrowth counter-hegemony.

This chapter therefore sought to answer the following research question:

Do, and if so, how do commons-based peer production organisations demonstrate counter-hegemonic degrowth in their decision premises?

To conclude, the chapter first and foremost pertains that in order to fulfil its role in helping to shape and transform society's superstructure, CBPP organisations (as well as other potential alternative economic organisations) need to align their decision premises with degrowth counter-hegemony. This echoed various of the theoretical findings in Chapters 4 and 5. The empirical work on decision premises in this chapter highlighted the need for a strong *cognitive routine* in CBPP organisations to establish an awareness of the contradiction of CBPP in the capitalist hegemony and align with degrowth counter-hegemony. Further, a clearly defined and degrowth aligned *personnel* decision premise is essential to ensure counter-hegemonic alignment of organisations' members and thus in other decision premises. The case of P2P Lab highlighted that strong counter-hegemonic alignment in organisational membership potentially leads to a relatively smaller number of members. However, in order to achieve



wider adoption of CBPP as a potentially counter-hegemonic mode of production, a looser alignment (as in WE) might be beneficial. Future research therefore needs to focus on the potential degrowth counter-hegemony alignment within CBPP networks and the concept of scaling-wide. This can be connected to Chapter 5's call for organisational networks to ensure counter-hegemonic communication.

This chapter offers two key takeaway points in the context of the overall PhD thesis:

1. CBPP organisation can align with degrowth counter-hegemony through strongly defined decision premises. The decision premises of *cognitive routine* and *personnel* are particularly important in ensuring degrowth counter-hegemony alignment throughout economic organisations. A counter-hegemonically aligned decision premise *cognitive routine* can help to conceptualise organisations' system environments to strengthen awareness of the contradiction of CBPP in a capitalist system. A strongly defined *personnel* decision premise ensures membership that reaffirms counter-hegemonic alignment in other decision premises.
2. Problematically, to enable scaling-wide of CBPP's counter-hegemonic potential, a less strict *personnel* decision premise might be more beneficial. This emphasises the need of networks for economic organisations where counter-hegemonic degrowth alignment can flourish.

## **Chapter 7 – Discussion and Conclusion**

### **7.1. Introduction**

This thesis set out to fill part of the vast research gap on degrowth in connection to economic organisation. The literature review (Chapter 2) highlighted the meagre amount of research in this context and the apparent focus on making degrowth fit in a business context. Specifically, little focus has been on how economic organisations might help to achieve a degrowth transformation, what the role of economic organisations is in overcoming the capitalist hegemony, and what implications an alignment with degrowth counter-hegemony might have for economic organisations. Overall, the research gap pointed to a lack of political economic considerations in the research on economic organisations from a degrowth perspective. To tackle parts of this research gap, this thesis first and foremost sought to understand economic organisations in the complex context of society and particularly in the context of the capitalist hegemony. This thesis turned to both Gramsci's conceptualisation of hegemony and counter-hegemony as well as Luhmann's social systems theory to analyse organisations in the complexity of the capitalist hegemony.

The rest of this chapter is structured as follows. In Section 7.2. the chapter will show how the thesis answered its research objectives and questions. This section will discuss how the thesis contributes to knowledge and particularly to the degrowth discourse. The connection between all three findings chapters will be described and discussed in Section 7.3. This section will also draw on these connections to describe wider implications from the PhD thesis' findings for the degrowth discourse moving forward. Section 7.4. will highlight future research potential drawing on all three findings chapters as well as the discussion in the preceding two sections. The chapter and the overall thesis will conclude in Section 7.5.

### **7.2. Contribution to the Degrowth Discourse**

As described in Section 1.2., this thesis set out to explore three research objectives and answer three research questions with the aim to contribute to the degrowth discourse on the level of economic organisations. To recall, the three research objectives are shown below:

1. Understand the role of economic organisations in helping degrowth counter-hegemony overcome the capitalist hegemony.
2. Understand the implications for economic organisations aligning with degrowth counter-hegemony.

3. Understand how commons-based peer production organisations as organisational social systems can align with degrowth counter-hegemony.

From these research objectives, the thesis drew the following research questions to answer:

1. How can commons-based peer production as a mode of production and as a form of organisation help the degrowth counter-hegemony to overcome the capitalist hegemony?
2. What are the implications for organisational systems aligning with degrowth counter-hegemony in a capitalist hegemony?
3. Do, and if so, how do commons-based peer production organisations demonstrate counter-hegemonic degrowth in their decision premises?

By focusing on the above-mentioned research objectives and research questions this PhD thesis aimed at contributing to the degrowth discourse by helping to fill the vast research gap on economic organisations in the context of degrowth. As previously outlined in Section 1.2., three separate findings chapters each focused on a separate research objective and connected research question. In the following subsections each research objective and question will be discussed in light of the corresponding findings chapter. These subsections will also highlight the contribution to knowledge for each of these chapters.

### **7.2.1. Findings 1 – Commons-based Peer Production Organisations for Degrowth Counter-Hegemony?**

The findings from Chapter 4 first and foremost highlight that an alternative mode of production aligned with degrowth is required to help degrowth overcome the capitalist hegemony. The chapter argues that such an alternative mode of production must follow three principles to align with degrowth:

1. Production for use value instead of exchange value, and non-accumulation
2. Production of convivial goods/tools with no planned obsolescence
3. Shared knowledge commons and non-competition

This means that Chapter 4 represents a contribution to the degrowth discourse in the aspect that it recognises degrowth's incompatibility with the capitalist system and its mode of production. That is, not only does the chapter echo Foster's (2011) claim that degrowth must go beyond representing a critique to the imaginary of growth but the capitalist system overall (see also Lioudakis, 2018). Further, the finding that an alternative mode of production is required for degrowth, addresses a relevant Marxist critique on degrowth, which thus far has found very little attention within the degrowth discourse.

Liidakis (2018) vehemently argues that degrowth's focus on economic growth as the destructive force behind climate change and other ecological degradation highlights an ignorance of the fact that the imperative for economic growth emerges from the capitalist mode of production. In other words, this critique must be understood in line with other calls (see e.g. van Griethuysen, 2010; Foster, 2011) for the recognition of capitalism and particularly its imperative of capital accumulation as problematic which must be opposed and critiqued by degrowth. Despite the validity of this above Marxist critique on degrowth it has seemingly been largely ignored or in certain cases led to unnecessarily defensive replies instead of recognising the academic need to address these issues.

For example, Liidakis' (2018) aforementioned critique also denounces degrowth as neo-Malthusian. This clearly is a misinterpretation of degrowth. Yet, it is understandable in light that degrowth first of all is not homogenous but multifaceted with various sub-groupings (see Eversberg and Schmelzer, 2018). Secondly (and related), degrowth is arguably tough to grasp for an 'outsider' due to the lack of an overall coherence in definitions, aims, and goals used within the plethora of degrowth publications (Cosme et al., 2017). On a side note, these two points are arguably further amplified by the fact that degrowth lacks an academic journal or similar to discuss amongst itself (Robra and Parrique, 2020). Regardless, the only significant engagement with Liidakis' (2018) critique from the field of degrowth has been Kallis' (2019) staunch defence of degrowth as not Malthusian. It is important to point out that degrowth is not Malthusian. Yet, the relevant Marxist critique has seemingly thus far not led to significant resonance within the degrowth discourse.

In the context of this thesis, the findings from Chapter 4 (as well as the overall thesis) can retrospectively be interpreted as an engagement with the above-mentioned Marxist critique on degrowth. As already stated above, Chapter 4's findings recognise and highlights the need for an alternative mode of production for degrowth. However, beyond just this recognition, the chapter unfolds this further to argue that this entails that economic organisations have to operate according to this alternative mode of production to help degrowth counter-hegemony. Chapter 4 (as the rest of the thesis) not only engages with the Marxist critique above but fully embraces it to contribute to degrowth. From this perspective, economic organisations not only have to align with a degrowth mode of production but must actively aim to help change society's structures (particularly its superstructure).

The contribution to degrowth by Chapter 4 can broadly be stated as rethinking but also clarifying the role of economic organisations within degrowth as well as in achieving a degrowth transformation. Chapter 4's findings indicate that the role of economic organisations must be seen as more than just agents for provisioning through goods and services but also (and more importantly) as playing a role in achieving a society-wide structural change required for degrowth. This is in stark contrast to the previous literature on degrowth and economic organisations (see Section 2.3.). Many of the

publications on degrowth and economic organisations echo parts of the three principles of a degrowth mode of production mentioned at the beginning of this section, albeit without labelling it a mode of production (see e.g. Khmara and Kronenberg, 2018; Nesterova, 2020). Yet, the concept of non-accumulation and the resulting implications are ignored or omitted within these publications. Similarly, the insight economic organisations have significant role in changing the structures of society towards degrowth had not been previously discussed in the literature on degrowth and economic organisations.

The contribution to degrowth from this thesis by highlighting the fact that economic organisations must not only operate and produce in line with degrowth (see e.g. Hankammer and Kleer, 2018) but need to actively aim to influence society's superstructure to further enable a degrowth mode of production cannot be understated. This seemingly little nuance to the knowledge on economic organisation in connection to degrowth opens up a more complex understanding of economic organisations in a capitalist system. If economic organisations align with degrowth counter-hegemony, they will face the contradiction of being unaligned with society's structures. Robra et al. (2020) previously questioned whether an organisational alignment with eco-sufficiency seems possible within capitalism, essentially highlighting this contradiction without naming it. This research therefore builds on Robra et al. (2020) by highlighting this contradiction and insisting that it must be understood in contrast to the main modus operandi of capitalist economic organisations which is capital accumulation.

What is problematic within previous studies on degrowth and economic organisations is the focus on capitalist firms (see e.g. Khmara and Kronenberg, 2018; Hankammer et al., 2021). Not only do these studies fall short in observing the aforementioned contradiction but also recognising the fact that economic organisations are embedded within society's structures. This means by not addressing capital accumulation and the need to help reproduce degrowth on the level of the superstructure, these studies essentially represent a reproduction of the capitalist hegemony instead. Hence, these studies are incoherent overall if not incompatible with what degrowth aims to achieve. The acknowledgment and unfolding of these shortcomings in Chapter 4's findings therefore help to refocus the perspective on economic organisations in connection to degrowth. Thus, the findings from Chapter 4 contribute to the degrowth discourse by highlighting the above (arguably disastrous) shortcomings in the previous literature while presenting a perspective that is more coherent with degrowth as a counter-hegemony.

The theoretical analysis of CBPP as a mode of production and form of organisation helps to give nuance to the above discussed chapter's findings. The focus on CBPP helps to answer the chapter's research question with more than just stating that the role of economic organisations (hence also CBPP

organisations) is to influence change in the superstructure to help degrowth overcome the capitalist hegemony. Arguably, CBPP as a mode of production and form of organisation can fit degrowth (see also Kostakis et al., 2018). CBPP theoretically fulfils the three principles of a degrowth mode of production. This means CBPP as a mode of production can be taken as the mode of production for a sustainable provisioning system from the perspective of degrowth. Yet, this does *not* deterministically lead to the structural change required for a degrowth transformation.

As Kostakis (2018) argued digital commons and hence also CBPP do not represent a silver bullet in overcoming the capitalist mode of production, it is a question of how CBPP gets used. In this sense, Chapter 4 builds on Kostakis' (2018) argument by highlighting that CBPP organisations must not only operate according to CBPP but also influence society's structures to enable this mode of production, while simultaneously facing the earlier mentioned contradiction of capitalist structures. This means these organisations must resist co-optation by erecting barriers through e.g. licences and organisational legal forms. CBPP organisations must therefore aim to create these barriers and help enforce them by politically demanding these to be adopted into society's structures. Again, to reemphasise, this is in stark contrast to much of the previous research on degrowth and economic organisations where capitalist economic organisation with the modus operandi of capital accumulation are stated to fit with degrowth (see e.g. Khmara and Kronenberg, 2018; Roulet and Bothello, 2020).

Chapter 4's research question 'How can commons-based peer production as a mode of production and as a form of organisation help the degrowth counter-hegemony to overcome the capitalist hegemony?' can therefore be answered as follows. CBPP organisations can help degrowth overcome the capitalist hegemony by operating in accordance with a degrowth aligned mode of production (CBPP) while resisting co-optation and influencing structures to enable such resistance. Ultimately, the degrowth discourse must help erect these structures by understanding their need as well as researching them. This entails viewing economic organisations as more than just agents for provisioning but potential agents of structural change that must be supported as well as influenced.

### **7.2.2. Findings 2 – Using Social Systems Theory with the Concept of Counter-Hegemony to Create a Unique Lens to View Organisations in the Context of Degrowth**

Chapter 5's findings firstly reemphasise the findings from Chapter 4 that economic organisations have a significant role to play in a structural transformation towards a degrowth society. This is particularly supported from a social systems theory perspective where organisational social systems are the only social systems that can communicate across the system boundaries of society's subsystems (see Luhmann, 2018). Secondly, the chapter not only reaffirms the contradiction economic organisations

face when aligning with degrowth counter-hegemony but also unfolds this further. The lens employed in the chapter highlights that this contradiction represents a paradox for organisational social systems. Social systems first and foremost seek to reduce uncertainty but to fulfil their role in achieving a degrowth transition, organisational social systems must embrace this uncertainty. This means for their role in helping achieve degrowth, economic organisations need to go against their social systemic modus operandi of creating structures to reduce uncertainty. Hence, the described paradox has implications for economic organisations aligning with degrowth that on the abstract level can simply be described as challenging the reproduction of the organisation as a social system itself.

The contribution to the degrowth discourse from the findings of Chapter 5 should first and foremost be seen in the lens or view on economic organisations encompassed in the complexity of society and its structures which thus far had been disregarded in the context of degrowth. Chapter 5 builds on Schecter's (2017, 2019) work to use social systems theory in connection to Marxist concepts. The use of social systems theory and the concept of counter-hegemony together creates the ability to understand the implications (in the form of the aforementioned paradox) for economic organisations of aligning with degrowth counter-hegemony. This could potentially also be seen as a contribution to social systems theory as Luhmann's work lacked such a political economic lens. However, as already mentioned in Chapter 5, this thesis does not seek to contribute to social systems theory as such. Further, the approach taken in Chapter 5 does not so much add to social systems theory but highlights a different application of the theory useful for degrowth. However, the thesis does highlight the shortcomings of some of Luhmann's own application of social systems theory by disregarding the political economy of capitalism (e.g. Luhmann, 2002, 2017). Hence, this should not be regarded as a contribution to social systems theory, but a contribution to the degrowth discourse that inadvertently also critiques some of Luhmann's work but not his theory as such. Yet, importantly for the degrowth discourse, this critique also highlights the shortcomings of previous work on degrowth and postgrowth economic organisations (see Reichel, 2017; Plaza-Úbeda et al., 2020). As mentioned before in Chapter 5, these studies fail to acknowledge the political economy of capitalism and utilise Luhmann's application of his theory rather than adapting it for the use of degrowth or postgrowth respectively. This further emphasises that this thesis' work should be seen as a contribution to the degrowth discourse by overcoming the shortcomings of the previous engagement with social systems theory and for the first time creating an application of said theory that is coherent with degrowth.

Like Chapter 4's findings, the contribution to the degrowth discourse is the understanding that economic organisations have a bigger role for degrowth than just being provisioners of goods and services; they have to help transform the societal system. Again, this means Chapter 5's contribution to degrowth is in stark contradiction to the previous literature on economic organisations in the

context of degrowth (see Section 2.3.). The contribution of Chapter 5 goes further in the context of what this entails for the degrowth discourse in terms of its own view on economic organisations and how the discourse should act more coherently in line with its own counter-hegemony. That is, Chapter 5 has created a lens on economic organisations that is not only coherent with degrowth as a counter-hegemony but allows the view on these organisations in the complex setting of society, while simultaneously allowing to observe how these organisations interact with their system environment. Such a lens has previously not existed in the degrowth discourse.

The fact that economic organisations by themselves are not able or cannot be expected to deal with the paradox of having to embrace uncertainty means other societal actors must help to create structures that can help absorb this uncertainty. In this context Chapter 5 throws up similar suggestions to the ones made in Chapter 4. However, the main new nuance is the proposal of organisational networks aligned with degrowth counter-hegemony to create places where counter-hegemonic communication can more easily lead to resonance and hence absorb some of the above uncertainty.

The concept of counter-hegemonic and hegemonic system communication developed in the chapter also highlights that degrowth ought to ensure its own counter-hegemonic alignment. Chapter 4 already highlighted how previous research on economic organisations, particularly with a focus on capitalist firms (see e.g. Khmara and Kronenberg, 2018; Hankammer et al., 2021), is problematic as it represents a reproduction of the capitalist hegemony while co-opting degrowth. Chapter 5's findings further emphasise this as research like the above can be seen as hegemonic communication. This means not only does this research represent a co-optation of degrowth and a reproduction of a system degrowth opposes, but it also further supports and strengthens the structures that create the uncertainty faced by economic organisations aligned with degrowth counter-hegemony.

The degrowth discourse (as an academic field in this context) has to show awareness and ensure counter-hegemonic alignment of its own communication in the social system that is society. Not all engagement should be viewed as positive (if it is not outright negative or opposing). The engagement from the field of business and management studies co-opts degrowth's radical call for transformation through hegemonic communication on degrowth. This communication further reproduces the structures in society that expect hegemonic communication. In this context Chapter 5's findings build on Spash's (2020a) critique of a passive revolution. Spash (2020a) argues that only critiquing growth without the context of the structures of a capitalist system equates to what Gramsci (1971) termed a passive revolution. A passive revolution can never truly address the structural transformation that needs to take place but instead appeals mainly to an imaginary that must be changed. In terms of degrowth in the context of economic organisations this means by not addressing or acknowledging the capitalist structures and economic organisations as encompassed by these structures, degrowth is



open to perspectives that (as shown in the paragraphs above) undermine its potential. This further emphasises the contribution of Chapter 5 to the degrowth discourse by introducing an organisational lens that takes critique such as Spash's (2020a) into account to strengthen the concept of degrowth as a counter-hegemony.

Critique on degrowth (such as Liodakis, 2018) highlights that degrowth requires an organisational perspective that acknowledges the structures of the capitalist hegemony and understands economic organisations as encompassed by these structures. The conceptualisation of social systems theory in connection to the concept of counter-hegemony in Chapter 5 represents precisely such a perspective. The contribution to the degrowth discourse is therefore more than the abstract answer to the chapter's research question 'What are the implications for organisational systems aligning with degrowth counter-hegemony in a capitalist society?' as the paradox of having to embrace uncertainty while aiming to reduce uncertainty. The theoretical tool to arrive at this answer is potentially a greater contribution to the degrowth discourse as it supplies the discourse with a perspective on economic organisations that is ultimately aligned with degrowth counter-hegemony. That is, these concepts do not fall back on management and business studies (as has been the case with previous studies see Section 2.3.) to explain the role and situation of these organisations. Further, the insights from Chapter 5 also highlight the need for degrowth to take control of the emerging sub-research field on economic organisations and steer it to align coherently with degrowth as a counter-hegemony.

### **7.2.3. Findings 3 – Counter-Hegemonic Decision Premises in Commons-based Peer Production Organisations**

Overall, the findings from Chapter 6 echo findings from Chapter 4 that operating in line with an alternative mode of production such as CBPP on its own is insufficient in helping achieve a degrowth transformation. Alternative economic organisations must additionally align on a political economic level and aim to influence a change in societal structures. Hence, this chapter, similarly to Chapter 4, argues that the concepts of counter-hegemonic activity (see e.g. Pansera and Owen, 2018; D'Alisa and Kallis, 2020) by economic organisations is only part of the role they need to play in the society-wide transformation that degrowth envisions.

Building on the social systems theory conceptualisation with counter-hegemony in Chapter 5, it can be argued that organisational alignment with degrowth counter-hegemony requires alignment on the level of organisational decision premises. The findings in Chapter 6 show that counter-hegemonic degrowth alignment through decision premises is possible but requires a strong alignment within the decision premise of *cognitive routine*. In other words, economic organisations as social systems must

align their perception of their system environment with degrowth counter-hegemony. Practically this entails that these organisations conceive the contradiction of operating in a capitalist hegemonic system and actively try to overcome this contradiction by influencing structural change in society.

Chapter 6, like Chapter 4, builds on the previous research on CBPP in connection to degrowth (see Kostakis et al., 2018; Robra et al., 2020) but also the findings of Chapter 4 by combining it with the findings from Chapter 5. Chapter 6 therefore overcomes the shortcomings of Reichel (2017) and Plaza-Úbeda et al. (2020) by working with the degrowth coherent application of social systems theory developed in Chapter 5 and utilising it in an empirical context. The contribution to the degrowth discourse from Chapter 6 is therefore the use of a lens on economic organisations coherent with degrowth counter-hegemony, which has previously been lacking in an empirical context. Further, Chapter 6's findings broadly contribute to degrowth with the insight that economic organisations can align with degrowth counter-hegemony only if these organisations cognitively understand their system environment's structures in contradiction to the organisations' *modus operandi*. In other words, economic organisations become able to contribute to degrowth counter-hegemony if they understand the structures of the capitalist hegemony around them. This is highly relevant for degrowth in connection to the aforementioned Marxist critique that degrowth seemingly disregards the structural force of capitalism (see Section 7.2.1.). As Spash (2020a) argues, the capitalist structures can only be changed and overcome if the reproduction of the system and its structures are understood. The same is true for economic organisations in their argued role to help achieve a degrowth transformation. Economic organisations aligning with and operating according to the degrowth counter-hegemony must understand the resulting contradiction in order to deal with it and help transcend and overcome the capitalist hegemony. The ability to deal with the contradiction comes from understanding the contradiction and thus capitalist structures. Thus, Chapter 6 (like the other two findings chapters) also contributes to the degrowth discourse by engaging with Marxist critique on degrowth (such as Liodakis, 2018).

From the perspective taken and portrayed throughout this thesis, the argument of having to understand structures to change them might present itself as obvious. However, the lack of structural considerations of capitalism within degrowth is what has led to critiques such as Liodakis (2018) (and Spash (2020a) for postgrowth as a whole). This lack of understanding structures is arguably repeated within the previous literature on degrowth and economic organisations (as also argued in Section 2.3.). In this sense, the contribution to the degrowth discourse is also to build on the aforementioned Marxist critique and overcome this shortcoming in previous literature on degrowth and economic organisations such as Khmara and Kronenberg (2018). The omission of the capitalist political economy and its structures around economic organisations might be the reason why the focus in degrowth in

this context has been on concepts around production and organising this production on the level of economic organisations. Hankammer and Kleer (2018) for example argue (in the context of organisation) that the role of production within degrowth is unclear. Yet, it does not need any investigation to argue that the role of production within degrowth ought to be to fulfil human needs through sufficient provisioning. The debate around the role of production instead of the organisation of production and hence the role of organisations is therefore misplaced. Like Chapters 4 and 5, the findings in Chapter 6 arguably help to reposition the focus within the study of economic organisations in the context of degrowth.

Beyond the broader contribution shown above, Chapter 6 also contributes to the degrowth discourse on the level of economic organisations in terms of organisational membership. The findings in Chapter 6 highlight that to ensure continued counter-hegemonic alignment with degrowth within economic organisations, requires selective membership. In other words, to continue counter-hegemonic reproduction within the organisational system, rules are needed that only allow for the inclusion of new members who either already agree with the counter-hegemonic alignment of the organisation or are perceived as being able to sign up to this understanding. This insight has thus far been omitted within the degrowth discourse. The reason for this might be the fact that it entails ideas around exclusion (i.e. exclusion of people to participate). However, within the discourse on commons the concept of managing commons and thus the potential to exclude has long been discussed and deemed as necessary to ensure the continuation of commons (see Dietz et al., 2003; Rifkin, 2014). It should also be noted that degrowth has strong connections to the concept of commoning (see Helfrich and Bollier, 2015).

The answer to Chapter 6's research question 'Do, and if so, how do commons-based peer production organisations demonstrate counter-hegemonic degrowth in their decision premises?' is that degrowth counter-hegemony is demonstrated in decision premises through a strong alignment with degrowth in both the organisations' *cognitive routine* and *personnel* decision premises. Yet, the two cases in Chapter 6 further show that ensuring counter-hegemonic alignment seems easier within a relatively smaller membership. Equally, the presupposed strong alignment of new members might equally only make a smaller membership possible in the first place. This relates to the idea that smaller economic organisations might be better placed to fit degrowth (see Nesterova, 2020). It needs to be noted however that Nesterova's (2020) argument mainly relates to the fact that smaller economic organisations might better fit due to the smaller scale of production. Regardless, the insight of smaller economic organisations fitting degrowth creates a problem in terms of scaling up counter-hegemonic alignment. Therefore, the findings presented in Chapter 6 present a contribution to the degrowth discourse by building on Nesterova's (2020) argument and introducing the concept of scaling-wide and

organisational networks (see Bauwens et al., 2019; Kostakis and Giotitsas, 2020). That is, understanding economic organisations not only as single actors but rather as a group of actors that together must help a degrowth society become reality.

### **7.3. Economic Organisations in the Setting of the Capitalist Hegemony**

Arguably, all three findings chapters represent research that on its own contributes knowledge to the degrowth discourse (see Section 7.2.). However, in the context of this PhD thesis it is also vital to draw these findings together and discuss the contribution of the thesis as a whole. As mentioned before, this thesis engages with and builds upon Marxist influenced critique on degrowth (see e.g. Foster, 2011; Liodakis, 2018). Through this engagement the thesis contributes to degrowth first and foremost by creating or representing a perspective for degrowth that situates economic organisations as encompassed in the wider complex setting of the capitalist hegemony. Further, this thesis' perspective on economic organisations is coherent with the degrowth as a counter-hegemony. Such a perspective has previously been lacking in the degrowth discourse. The thesis has argued throughout the necessity for such a perspective, as well as highlighted the shortcomings of the capitalist hegemony and political economy in the majority of previous research on degrowth and postgrowth in connection to economic organisations (see e.g. Bocken and Short, 2016; Reichel, 2017; Khmara and Kronenberg, 2018; Hankammer et al., 2021). In this context, it needs to be pointed out that this thesis does not seek to denounce previous research but rather question the coherence of such research in connection to degrowth or postgrowth. At the same time, as argued throughout Section 7.2., the contribution to degrowth of this thesis is also in addressing and overcoming the above mentioned shortcomings in the previous literature on degrowth and economic organisations. This means this thesis should also be viewed as a contribution to kickstarting a much-needed debate within the degrowth discourse around the topic of how to view economic organisations as well as their role in a degrowth transition.

As mentioned before, debates around the role of production (see e.g. Hankammer and Kleer, 2018) as a substitute for the above needed debate are stuck in a dead end or out of touch. Degrowth as an academic field is heavily influenced by ecological economics. Within ecological economics the economy is arguably viewed as a provisioning system to fulfil human needs, the question is on how to create such an economy that is sustainable (Spash, 2017). From this it can easily be argued that the role of production is to fulfil such a provisioning. The fact that statements around the unclarity of the role of production in degrowth are still floating around is therefore undermining the above mentioned debate that needs to take place.

Questions around how to organise such production are better suited in the context of degrowth. Nesterova's (2020, 2021) work for example explores how businesses as economic organisation could and should transform to help organise production in way that would fit such a system, with the conclusion that businesses must cease to be businesses (see also Nesterova et al., 2020). Yet, this work largely also lacks political economic considerations around capitalism. Therefore, this PhD thesis can be understood as a contribution to the degrowth discourse by developing the understanding of economic organisations beyond the perspective in the previous literature of solely provisioners towards actors with a role in the structural transformation degrowth entails. This PhD thesis' contribution represents a first attempt at exploring the question around the role of economic organisations in degrowth and starting to understand the resulting implications for economic organisations. This thesis is therefore the first argument in this much-needed debate.

The thesis' findings highlight the need of an alternative mode of production aligned with degrowth to achieve a degrowth transformation. Following the work from Kostakis et al. (2018) as well as Robra et al. (2020), CBPP is proposed as such a mode of production at various stages in the thesis. Yet, it is also cautioned that firstly economic organisations must operate according to such a mode of production. That is the mode of production does not result in structural change but economic organisations using said mode of production. Secondly, for economic organisations to operate in line with a degrowth aligned mode of production (such as CBPP) is insufficient on its own to answer the question around the role of economic organisations in achieving a degrowth transition. Instead, economic organisations aligning with a degrowth mode of production must also aim to influence society's structures and its superstructure to support a degrowth mode of production. That is, the previously proposed idea of counter-hegemonic activity (see e.g. García López et al., 2017; Pansera and Owen, 2018) on its own is insufficient to lead to a degrowth transformation. It can be argued that such counter-hegemonic activity can be taken further by including Wright's (2015) concept of eroding capitalism. In other words, the aforementioned counter-hegemonic activity can and has to challenge capitalist common-senses and show that different ways of life are possible. Yet, this will not lead to the ultimately structural transformation of society degrowth seeks to achieve if economic organisations do not aim to help change these structures as well. As mentioned before, without understanding and addressing the structures of capitalism, radical transformations such as degrowth will fail to succeed (Spash, 2020a). The empirical findings in this thesis show that an alignment with degrowth counter-hegemony that includes the aim to change the superstructure is possible but by no means inevitable through the use of CBPP in economic organisations. Economic organisations require structures to ensure a reproduction of counter-hegemonic views of its system environment and the aim to change it.

These insights on the one hand represents a strengthening of the weak link between CBPP and degrowth (see Kostakis et al., 2018; Robra et al., 2020) but also a more nuanced view. On the other hand, these findings elevate economic organisations in their role for degrowth from just producers and provisioners (see e.g. Khmara and Kronenberg, 2018; Hinton, 2020) to having a significant role in helping achieve a degrowth society. Further, the acknowledgement of this role also highlights the contradiction economic organisations face when aligning with a different mode of production than the dominant capitalist one. This view has thus far been lacking within the degrowth discourse.

In connection to the above, this thesis should also be understood as an appeal to the degrowth discourse to discuss how economic organisations should be viewed from a degrowth perspective. Such a perspective on economic organisations needs to coherently align with what degrowth aims to achieve. As argued before, much of the previous research (see e.g. Khmara and Kronenberg, 2018; Plaza-Úbeda et al., 2020; Hankammer et al., 2021) on degrowth and economic organisations can be viewed as incoherent with degrowth. Again, this thesis is an attempt at the first argument in this conversation by arguing that capitalist economic organisations such as businesses and firms are incompatible with degrowth. Further, alternative economic organisations face a contradiction within the capitalist structures. The created lens on economic organisation through the use of social systems theory and the concept of counter-hegemony together, therefore represents a first attempt at creating a perspective coherent with degrowth defined as a counter-hegemony.

The created perspective or lens on economic organisation in this thesis also unfolds the above-mentioned contradiction further by understanding it in connection to organisations as social systems. That is, uncertainty of social systemic reproduction when aligning with degrowth counter-hegemony. As mentioned, this uncertainty is fundamentally different to the economic uncertainty from a Schumpeterian perspective. Hence, instead of defining uncertainty as economic organisations having to embrace economic uncertainty to stay competitive, economic organisations must embrace uncertainty in terms of their overall system reproduction to help achieve a degrowth transition. From a social systems theory perspective this embracing of uncertainty is paradoxical as social systems aim to reduce uncertainty (see Luhmann, 2012). By understanding this paradoxical need to embrace uncertainty for degrowth, it also becomes clear that economic organisations must be supported to further help enable changes in society's structures. The perspective on economic organisations in this thesis therefore also represents a contribution to degrowth in terms of how degrowth as a discourse can help enable a degrowth transition. The importance of other concepts such as UBI and UBS that have previously been connected to degrowth (see Kallis, 2018; Büchs, 2021) is thus also further emphasised.

As mentioned before, degrowth as a discourse or research field is not homogenous (Cosme et al., 2017; Eversberg and Schmelzer, 2018). The perspective taken in this thesis is therefore one amongst many. Further, this PhD thesis embraces critique on degrowth (see Liodakis, 2018) that other scholars might find problematic due to its Marxist nature. However, this thesis maintains that the engagement with such critique is necessary to achieve a coherent argument in connection to achieving a degrowth transition. This thesis' contribution therefore goes beyond the perspective on economic organisations to represent a partially internal critical appraisal of the discourse from this perspective. This means the thesis makes a contribution to the (unfortunately) remaining debate around the incompatibility of degrowth with capitalism and the resulting implications.

Through the work on economic organisations, this thesis also represents an appeal to the degrowth discourse to reflect on its coherence. That is not to say that degrowth must become homogenous, however internal debate must take place and be put to bed, for example regarding the incompatibility of capitalism and businesses with degrowth. Without such debate(s), degrowth runs the risk of becoming or remaining a boundary object (as Vandeventer and Lloveras (2021) label degrowth) instead of a coherent counter-hegemony that can overcome capitalism. This thesis is part of this debate by ultimately arguing that degrowth must start to view economic organisations as encompassed by the structures of the capitalist hegemony which has implications as to which types of economic organisations can fit degrowth. Disregarding this fact, risks a co-optation of degrowth as a counter-hegemony and leads to hegemonic reproduction of capitalism.

#### **7.4. Potential Future Research**

Throughout its findings chapters this thesis has hinted at potential future research avenues. This section presents two future research avenues which have directly emerged from the research. A third potential research avenue is also described which was the result of the overall reflection upon the thesis and its topic as a whole.

The idea of new organisational forms related to CBPP were briefly discussed (particularly in Chapter 4's findings). Namely the concepts of DisCOs (see Troncoso and Utratel, 2019) and open cooperatives (see Pazaitis et al., 2017). These organisational forms combine CBPP with the concepts of cooperatives. Cooperatives have become a legal form for economic organisations in various countries, but as previously mentioned are still prone to co-optation in the capitalist hegemony (Blauwhof, 2012; Johanisova et al., 2013). In the context of this thesis' findings, it is therefore vital to research concepts such as DisCOs and open cooperatives in their potential to develop into new legal structures that could resist such co-optation. This means that these organisational forms should be researched in connection

to CBPP organisations and whether they could help enshrine counter-hegemonic degrowth alignment. Also, future research should investigate if such potential future legal structures could help CBPP organisations face the contradiction and uncertainty highlighted throughout this thesis. That is researching if and how such organisational legal forms might help to continue degrowth counter-hegemonic reproduction in a capitalist hegemony.

A further potential research avenue that emerged from the thesis' findings is research around networks of economic organisations. Chapter 5's findings highlighted that organisational networks aligned with degrowth counter-hegemony might enable counter-hegemonic communication and thus systemic reproduction aligned with degrowth. This finding was further supported by Chapter 6's acknowledgment that CBPP organisations already co-evolve in loose networks due to their reliance on digital commons (see also Bauwens et al., 2019; Kostakis and Giotitsas, 2020; Kostakis et al., forthcoming). In the context of degrowth, this means it is vital to research networks of CBPP organisations and how these networks might align with degrowth counter-hegemony and how such networks might enable counter-hegemonic communication. Such research could focus on different CBPP organisations in networks and how they influence each other. Which communication in these networks leads to and what type of resonance in the individual organisations? Researching the two cases of this PhD thesis might be an easy first step in this direction.

For both of the future research avenues above, the findings but also the developed theoretical tools can help explore the questions that are vital for the debate on economic organisations within the degrowth discourse (see Section 7.3.). The conceptualisation of counter-hegemony on the organisational level as well as the use of social systems theory in connection to counter-hegemony can be used to explore the above themes as well as other questions arising within the degrowth discourse.

The third potential future research area results from the reflection on the topic of economic organisations in connection to degrowth. The thesis set a focus on economic organisations. To do so the thesis unavoidably had to partially explore topics around production such as modes of production. As mentioned earlier, there had been research on production in connection to degrowth (see e.g. Hankammer and Kleer, 2018; Kostakis et al., 2018) as well as organising production (see e.g. Robra et al., 2020; Nesterova, 2020). It should be clear from the findings of this PhD thesis that production and economic organisations must be viewed in connection. Similarly, three other themes have briefly emerged throughout the thesis in connection to it, these are namely innovation, technology, and design. All three of these themes have also previously been connected to and/or viewed from a degrowth perspective. Pansera and Fressoli (2021) for example, investigate the concept of innovation in connection to degrowth and postgrowth. Heikkurinen (2018) researches technology in connection



to degrowth. Gaziulusoy and Houtbeckers (2018) draw connections between design and degrowth. All of these further three themes more or less also connect to organisation.

All five themes: organisation, production, innovation, technology, and design, can be viewed in an interconnected nexus. This nexus and its interconnectedness represent a potential research avenue for degrowth to view these themes in complex interconnection. Research questions in this regard could include (but are not limited to) the counter-hegemonic alignment of this nexus. Further, CBPP as both a mode of production and organisational form represents itself as an interesting focus in connection to this nexus as well. As argued in this thesis, CBPP organisations have been deemed organisations that can innovate and produce new technology without the imperative of growth and capital accumulation. Further CBPP organisations are often labelled design communities. In connection to the mentioned nexus, the findings from this thesis can be taken as a starting point. Also, the conceptualisation of social systems theory in connection to counter-hegemony can again help to investigate research questions in this area.

## **7.5. Conclusion to the Thesis**

This thesis set out to contribute to the vast research gap in relation to degrowth and economic organisation, which was first identified in Section 2.3. In observing this research gap the lack or omission of not considering the capitalist system and its political economy was problematised. The previous research focus on economic organisations that are arguably still aligned with the capitalist mode of production (i.e. business, firms, and corporations), was deemed incompatible with degrowth. This thesis defined degrowth as a counter-hegemony seeking to overcome and transcend the capitalist hegemony. Considering this, the thesis sought to research alternative economic organisations with a focus on CBPP organisations and their role in achieving a degrowth transition. This meant understanding the implications for such organisations in aligning with a degrowth counter-hegemony. Further, the thesis researched how CBPP organisations might align to degrowth counter-hegemony and thus operate under and deal with said implications.

The thesis took an approach heavily influenced by critical realism as well as Marxist thought. Therefore, an emphasis was put on theoretical understanding before empirical research commenced. This was further supported by the lack of research and considerations around the political economy of capitalism in the previously identified research gap. In this regard, it was deemed necessary to first get a theoretical grasp on the role of economic organisation in helping a degrowth transition and the resulting implication.

The thesis theoretically explored the role of economic organisations, on the example of CBPP organisations, in helping to create a degrowth society. The concept of counter-hegemony in connection to Marx's concept of economic base and superstructure was used to argue that a different and alternative mode of production fitting degrowth is needed to overcome the capitalist hegemony. The role of economic organisations in this context is argued to be to operate in line with the alternative mode of production while simultaneously aiming to influence society's superstructure. Influencing the superstructure is key here, as operating in line with an alternative mode of production entails the contradiction of operating at odds with society's capitalist structures. This has implications for how economic organisations can operate in society and ultimately continue to exist. CBPP as a mode of production is deemed to theoretically fit degrowth. However, CBPP organisations do not automatically aim to influence the superstructure in line with degrowth counter-hegemony.

To unfold and understand the above contradiction further, this thesis used social systems theory in connection with the concept of counter-hegemony. Essentially creating a novel lens on economic organisations as social systems to understand them in the complexity of a capitalist hegemonic society. Through this, the thesis highlighted that the aforementioned contradiction spells a paradox for economic organisations aligning with degrowth counter-hegemony in a capitalist system. Economic organisations must embrace uncertainty to help degrowth overcome the capitalist hegemony, yet organisations as social systems fundamentally seek to reduce the uncertainty they face.

Building on its theoretical findings, this thesis empirically investigated, on the example of CBPP organisations, how economic organisations could align with degrowth counter-hegemony. The thesis argued that CBPP organisations firstly have to show awareness to the contradiction they face in the capitalist hegemony. Secondly, these organisations must deal with this contradiction while also influencing society's superstructure. To do so, the thesis showed the need of a strong cognitive routine as well as a degrowth aligned personnel decision premise. The findings showed that such a strongly aligned personnel decision premise could mean small organisational membership. Hence, the argument was raised for organisational networks where degrowth counter-hegemony can be reproduced.

To conclude, the thesis argues that the role of economic organisations in a degrowth transition is more significant and nuanced than just providing for societal needs. Following the thesis' findings, it is clear that economic organisations must operate using a degrowth aligned mode of production (such as CBPP) while simultaneously shape structural change in society to enable this mode of production further. By aligning with degrowth in this way, economic organisations face a contradiction that paradoxically also requires these organisations to embrace uncertainty in terms of social systemic

reproduction. Economic organisations must overcome this contradiction through their cognitive routine to help achieve a degrowth transition.

As with any research, this PhD thesis cannot and should not be seen as fully closing the identified research gap. The findings from this thesis represent a step towards filling this research gap as well as contributing to various related debates within degrowth. Yet, the thesis also pertains degrowth's incompatibility with capitalism and capitalist economic organisations. Ignoring this runs the risk of capitalist co-optation of degrowth counter-hegemonic potential and ultimately a failure to overcome and transcend the capitalist system.

## References

- Ackroyd, S. and Karlsson, J.Ch. 2014. Critical Realism, Research Techniques, and Research Designs In: P. K. Edwards, J. O'Mahoney and S. Vincent, eds. *Studying Organizations Using Critical Realism - A Practical Guide*. Oxford: Oxford University Press, pp.21–45.
- Alcott, B. 2005. Jevons' paradox. *Ecological Economics*. **54**(1), pp.9–21.
- Archer, M., Bhaskar, R., Collier, A., Lawson, T. and Norrie, A. (eds.). 1998. *Critical Realism : Essential Readings* [Online]. London: Routledge. [Accessed 16 April 2019]. Available from: <https://www.taylorfrancis.com/books/9781136287183>.
- Baecker, D. 1999. *Organisation als System*. Frankfurt am Main: Suhrkamp Verlag KG.
- Baecker, D. 2006. The Form of the Firm. *Organization*. **13**(1), pp.109–142.
- Banerjee, S.B. 2008. Corporate Social Responsibility: The Good, the Bad and the Ugly. *Critical Sociology*. **34**(1), pp.51–79.
- Bauwens, M. 2006. The Political Economy of Peer Production. *post-autistic economics review*. **37**, pp.33–44.
- Bauwens, M. and Kostakis, V. 2014. From the Communism of Capital to Capital for the Commons: Towards an Open Co-operativism. *tripleC: Communication, Capitalism & Critique. Open Access Journal for a Global Sustainable Information Society*. **12**(1), pp.356–361.
- Bauwens, M., Kostakis, V. and Pazaitis, A. 2019. *Peer to Peer: The Commons Manifesto*. London: University of Westminster Press.
- Benkler, Y. 2016. Peer production and cooperation In: J. Bauer and M. Latzer, eds. *Handbook on the Economics of the Internet*. Northampton, MA: Edward Elgar Publishing Ltd, pp.91–119.
- Benkler, Y. 2017. Peer production, the commons, and the future of the firm. *Strategic Organization*. **15**(2), pp.264–274.
- Benkler, Y. 2007. *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. New Haven Conn.: Yale University Press.
- van den Bergh, J.C.J.M. 2011. Environment versus growth — A criticism of “degrowth” and a plea for “a-growth”. *Ecological Economics*. **70**(5), pp.881–890.
- Besio, C. and Pronzini, A. 2010. Inside Organizations and Out. Methodological Tenets for Empirical Research Inspired by Systems Theory. *Forum: Qualitative Social Research*. **11**(3), p.22.
- Bhaskar, R. 1998. Philosophy and Scientific Realism In: M. Archer, R. Bhaskar, A. Collier, T. Lawson and A. Norrie, eds. *Critical Realism - Essential Readings*. London: Routledge, pp.16–47.
- Biernacki, P. and Waldorf, D. 1981. Snowball Sampling: Problems and Techniques of Chain Referral Sampling. *Sociological Methods & Research*. **10**(2), pp.141–163.
- Blauwhof, F.B. 2012. Overcoming accumulation: Is a capitalist steady-state economy possible? *Ecological Economics*. **84**, pp.254–261.
- Blowfield, M. and Murray, A. 2011. *Corporate Responsibility* 2 edition. Oxford: OUP Oxford.

- Bobbio, N. 2015. Gramsci and the conception of civil society *In*: C. Mouffe, ed. *Gramsci and Marxist Theory*. London ; New York: Routledge, pp.21–47.
- Bocken, N.M.P. and Short, S.W. 2016. Towards a sufficiency-driven business model: Experiences and opportunities. *Environmental Innovation and Societal Transitions*. **18**, pp.41–61.
- Boehnert, J. 2018. *Design, Ecology, Politics: Towards the Ecocene*. London: Bloomsbury Visual Arts.
- Bollier, D. and Helfrich, S. 2019. *Free, Fair, and Alive: The Insurgent Power of the Commons*. New Society Publishers.
- Bollier, D. and Helfrich, S. (eds.). 2015. *Patterns of Commoning*. Amityville, New York: Levellers Press.
- Bonnedahl, K.J. and Heikkurinen, P. (eds.). 2019. *Strongly Sustainable Societies: Organising Human Activities on a Hot and Full Earth* 1 edition. London: Routledge.
- Brown, A., Fleetwood, S. and Roberts, J.M. 2002. The marriage of critical realism and Marxism *In*: A. Brown, S. Fleetwood and J. M. Roberts, eds. *Critical Realism and Marxism*. London: Routledge, pp.1–22.
- Buch-Hansen, H. 2018. The Prerequisites for a Degrowth Paradigm Shift: Insights from Critical Political Economy. *Ecological Economics*. **146**, pp.157–163.
- Büchs, M. 2021. Sustainable welfare: How do universal basic income and universal basic services compare? *Ecological Economics*. **189**.
- Büchs, M. and Koch, M. 2019. Challenges for the degrowth transition: The debate about wellbeing. *Futures*. **105**, pp.155–165.
- Büchs, M. and Koch, M. 2017. *Postgrowth and Wellbeing: Challenges to Sustainable Welfare*. Springer.
- Buttigieg, J.A. 1995. Gramsci on Civil Society. *boundary 2*. **22**(3), pp.1–32.
- Carroll, W.K. and Ratner, R.S. 2010. Social Movements and Counter-Hegemony: Lessons from the Field. *Journal of Marxism and Interdisciplinary Inquiry*. **4**(1), pp.7–22.
- Chertkovskaya, E., Paulsson, A. and Barca, S. (eds.). 2019. *Towards a Political Economy of Degrowth*. London: Rowman & Littlefield Publishers.
- Coffey, A. 2013. Analysing Documents *In*: U. Flick, ed. *The SAGE Handbook of Qualitative Data Analysis*. Los Angeles, London, New Delhi, Singapore, Washington DC: SAGE, pp.367–379.
- Cosme, I., Santos, R. and O’Neill, D.W. 2017. Assessing the degrowth discourse: A review and analysis of academic degrowth policy proposals. *Journal of Cleaner Production*. **149**, pp.321–334.
- Creaven, S. 2002. Materialism, realism and dialectics *In*: A. Brown, S. Fleetwood and J. M. Roberts, eds. *Critical Realism and Marxism*. London: Routledge, pp.131–154.
- Dale, G. 2012. The growth paradigm: a critique. *International Socialism*. **134**, pp.55–88.
- D’Alisa, G. 2019. The State of Degrowth *In*: E. Chertkovskaya, A. Paulsson and S. Barca, eds. *Towards a Political Economy of Degrowth*. Transforming Capitalism. London ; New York: Rowman and Littlefield International, pp.243–257.

- D'Alisa, G., Demaria, F. and Cattaneo, C. 2013. Civil and Uncivil Actors for a Degrowth Society. *Journal of Civil Society*. **9**(2), pp.212–224.
- D'Alisa, G., Demaria, F. and Kallis, G. (eds.). 2015. *Degrowth - A Vocabulary for a New Era*. New York ; London: Routledge.
- D'Alisa, G. and Kallis, G. 2016. A political ecology of maladaptation: Insights from a Gramscian theory of the State. *Global Environmental Change*. **38**, pp.230–242.
- D'Alisa, G. and Kallis, G. 2020. Degrowth and the State. *Ecological Economics*. **169**.
- Daly, H.E. 1993. Steady-State Economics: A New Paradigm. *New Literary History*. **24**(4), pp.811–816.
- Daly, H.E. 1985. The Circular Flow of Exchange Value and the Linear Throughput of Matter-Energy: A Case of Misplaced Concreteness. *Review of Social Economy*. **43**(3), pp.279–297.
- Daly, H.E. and Farley, J. 2011. *Ecological Economics, Second Edition: Principles and Applications 2* edition. Washington, DC: Island Press.
- degrowth.info 2020. A degrowth perspective on the coronavirus crisis. *degrowth.info*. [Online]. [Accessed 5 September 2021]. Available from: <https://www.degrowth.info/en/blog/a-degrowth-perspective-on-the-coronavirus-crisis-2>.
- Denzin, N.K. and Lincoln, Y.S. (eds.). 2018. *The SAGE Handbook of Qualitative Research* Fifth edition. Thousand Oaks, California: SAGE Publications, Inc.
- Dietz, R. and O'Neill, D. 2013. *Enough Is Enough*. London: Routledge.
- Dietz, T., Ostrom, E. and Stern, P.C. 2003. The Struggle to Govern the Commons. *Science*. **302**(5652), pp.1907–1912.
- Dyllick, T. and Hockerts, K. 2002. Beyond the business case for corporate sustainability. *Business Strategy and the Environment*. **11**(2), pp.130–141.
- Ergene, S., Banerjee, S.B. and Hoffman, A.J. 2020. (Un)Sustainability and Organization Studies: Towards a Radical Engagement. *Organization Studies*.
- Escobar, A. 2015. Degrowth, postdevelopment, and transitions: a preliminary conversation. *Sustainability Science*. **10**(3), pp.451–462.
- Eversberg, D. and Schmelzer, M. 2018. The Degrowth Spectrum: Convergence and Divergence Within a Diverse and Conflictual Alliance. *Environmental Values*. **27**(3), pp.245–267.
- Fiss, P.C. 2009. Case Studies and the Configurational Analysis of Organizational Phenomena In: D. Byrne and C. C. Ragin, eds. *The SAGE Handbook of Case-Based Methods*. Los Angeles, London, New Delhi, Singapore, Washington DC: SAGE, pp.424–440.
- Fontana, B. 2008. Hegemony and Power in Gramsci In: R. Howson and K. Smith, eds. *Hegemony: Studies in Consensus and Coercion*. New York: Routledge, pp.80–106.
- Foster, J.B. 2011. Capitalism and Degrowth - An Impossibility Theorem. *Monthly Review*. **62**(8), p.26.
- Foster, J.B., Clark, B. and York, R. 2010. *The Ecological Rift: Capitalism's War on the Earth*. New York: Monthly Review Press, U.S.

- Gabriel, C.-A., Nazar, S., Zhu, D. and Kirkwood, J. 2019. Performance Beyond Economic Growth: Alternatives from Growth-Averse Enterprises in the Global South. *Alternatives*. **44**(2–4), pp.119–137.
- García López, G.A., Velicu, I. and D’Alisa, G. 2017. Performing Counter-Hegemonic Common(s) Senses: Rearticulating Democracy, Community and Forests in Puerto Rico. *Capitalism Nature Socialism*. **28**(3), pp.88–107.
- Gaziulusoy, I. and Houtbeckers, E. 2018. Convergences: Design for Sustainability Transitions and Degrowth In: *The 6th International Degrowth Conference*. Malmö, Sweden.
- Georgescu-Roegen, N. 1971. *The Entropy Law and the Economic Process*. Harvard University Press.
- Ghoshal, S. 2005. Bad Management Theories Are Destroying Good Management Practices. *Academy of Management Learning & Education*. **4**(1), pp.75–91.
- Giampietro, M. 2019. On the Circular Bioeconomy and Decoupling: Implications for Sustainable Growth. *Ecological Economics*. **162**, pp.143–156.
- Gilberthorpe, E. and Banks, G. 2012. Development on whose terms?: CSR discourse and social realities in Papua New Guinea’s extractive industries sector. *Resources Policy*. **37**(2), pp.185–193.
- Giotitsas, C. 2019. *Open Source Agriculture: Grassroots Technology in the Digital Era* [Online]. Palgrave Pivot. [Accessed 31 March 2021]. Available from: <https://www.palgrave.com/gp/book/9783030293406>.
- Goodland, R. and Daly, H. 1996. Environmental Sustainability: Universal and Non-Negotiable. *Ecological Applications*. **6**(4), pp.1002–1017.
- Gorz, A. 1994. *Capitalism, Socialism, Ecology*. Verso.
- Gowdy, J. and Krall, L. 2013. The ultrasocial origin of the Anthropocene. *Ecological Economics*. **95**, pp.137–147.
- Gramsci, A.F. 1971. *Selections from the Prison Notebooks of Antonio Gramsci* (Q. Hoare & G. Nowell-Smith, eds.). London: Lawrence & Wishart Ltd.
- van Griethuysen, P. 2010. Why are we growth-addicted? The hard way towards degrowth in the involutory western development path. *Journal of Cleaner Production*. **18**(6), pp.590–595.
- Hankammer, S. and Kleer, R. 2018. Degrowth and collaborative value creation: Reflections on concepts and technologies. *Journal of Cleaner Production*. **197**, pp.1711–1718.
- Hankammer, S., Kleer, R., Mühl, L. and Euler, J. 2021. Principles for organizations approaching sustainable degrowth: Framework development and application to four B Corps. *Journal of Cleaner Production*.
- Hardt, L. and O’Neill, D.W. 2017. Ecological Macroeconomic Models: Assessing Current Developments. *Ecological Economics*. **134**, pp.198–211.
- Heikkurinen, P. 2018. Degrowth by means of technology? A treatise for an ethos of releasement. *Journal of Cleaner Production*. **197**, pp.1654–1665.

- Heikkurinen, P. and Bonnedahl, K.J. 2013. Corporate responsibility for sustainable development: a review and conceptual comparison of market- and stakeholder-oriented strategies. *Journal of Cleaner Production*. **43**, pp.191–198.
- Heikkurinen, P., Young, C.W. and Morgan, E. 2019. Business for sustainable change: Extending eco-efficiency and eco-sufficiency strategies to consumers. *Journal of Cleaner Production*. **218**, pp.656–664.
- Helfrich, S. and Bollier, D. 2015. Commons *In*: G. D’Alisa, F. Demaria and G. Kallis, eds. *Degrowth - A Vocabulary for a New Era*. New York ; London: Routledge, pp.75–78.
- Hickel, J. 2019. The contradiction of the sustainable development goals: Growth versus ecology on a finite planet. *Sustainable Development*. **27**(5), pp.873–884.
- Hinton, J.B. 2020. Fit for purpose? Clarifying the critical role of profit for sustainability. *Journal of Political Ecology*. **27**(1), pp.236–262.
- Hoare, Q. and Nowell-Smith, G. 1971. *Selections from the Prison Notebooks of Antonio Gramsci*. London: Lawrence & Wishart Ltd.
- Hoekstra, A.Y. and Wiedmann, T.O. 2014. Humanity’s unsustainable environmental footprint. *Science*. **344**(6188), pp.1114–1117.
- Hopwood, B., Mellor, M. and O’Brien, G. 2005. Sustainable development: mapping different approaches. *Sustainable Development*. **13**(1), pp.38–52.
- Illich, I. 2001. *Tools for Conviviality*. London: Marion Boyars.
- Innerarity, D. 2012. *The Future and Its Enemies: In Defense of Political Hope*. Stanford, California: Stanford University Press.
- Jackson, T. 2011. *Prosperity without Growth: Economics for a Finite Planet* Reprint edition. London ; Washington, DC: Routledge.
- Johanisova, N., Crabtree, T. and Fraňková, E. 2013. Social enterprises and non-market capitals: a path to degrowth? *Journal of Cleaner Production*. **38**, pp.7–16.
- Johanisova, N., Padilla, R.S. and Parry, P. 2015. Co-operatives *In*: G. D’Alisa, F. Demaria and G. Kallis, eds. *Degrowth - A Vocabulary for a New Era*. New York ; London: Routledge, pp.152–155.
- Joseph, J. 2002. Five Ways in which critical realism can help Marxism *In*: A. Brown, S. Fleetwood and J. M. Roberts, eds. *Critical Realism and Marxism*. London: Routledge, pp.23–42.
- Kallis, G. 2018. *Degrowth*. Newcastle upon Tyne: Agenda Publishing.
- Kallis, G. 2011. In defence of degrowth. *Ecological Economics*. **70**(5), pp.873–880.
- Kallis, G. 2019. *Limits: Why Malthus Was Wrong and Why Environmentalists Should Care* 1st edition. Stanford, California: Stanford University Press.
- Kallis, G., Demaria, F. and D’Alisa, G. 2015. Introduction: degrowth *In*: G. D’Alisa, F. Demaria and G. Kallis, eds. *Degrowth - A Vocabulary for a New Era*. New York ; London: Routledge, pp.1–17.



- Kallis, G., Kostakis, V., Lange, S., Muraca, B., Paulson, S. and Schmelzer, M. 2018. Research on Degrowth. *Annual Review of Environment and Resources*. (0).
- Kessler, I. and Bach, S. 2014. Comparing Cases *In*: P. K. Edwards, J. O'Mahoney and S. Vincent, eds. *Studying Organizations Using Critical Realism*. Oxford: Oxford University Press.
- Khmara, Y. and Kronenberg, J. 2018. Degrowth in business: An oxymoron or a viable business model for sustainability? *Journal of Cleaner Production*. **177**, pp.721–731.
- Kleiner, D. 2010. *The Telekommunist Manifesto*. Amsterdam: Institute of Network Cultures.
- Kohtala, C. 2017. Making "Making" Critical: How Sustainability is Constituted in Fab Lab Ideology. *The Design Journal*. **20**(3), pp.375–394.
- Kostakis, V. 2019. How to reap the benefits of the "digital revolution"? Modularity and the commons. *Halduskultuur*. **20**(1), pp.4–19.
- Kostakis, V. 2018. In defense of digital commoning. *Organization*. **25**(6), pp.812–818.
- Kostakis, V. and Giotitsas, C. 2020. Intervention – "Small and local are not only beautiful; they can be powerful". *Antipode Online*.
- Kostakis, V., Giotitsas, C. and Niaros, V. forthcoming. Beyond Global versus Local: Illuminating a Cosmolocal Framework for Convivial Technology Development. *Urban Studies*.
- Kostakis, V., Latoufis, K., Liarokapis, M. and Bauwens, M. 2018. The convergence of digital commons with local manufacturing from a degrowth perspective: Two illustrative cases. *Journal of Cleaner Production*. **197**, pp.1684–1693.
- Kostakis, V., Niaros, V., Dafermos, G. and Bauwens, M. 2015. Design global, manufacture local: Exploring the contours of an emerging productive model. *Futures*. **73**, pp.126–135.
- Kostakis, V., Roos, A. and Bauwens, M. 2016. Towards a political ecology of the digital economy: Socio-environmental implications of two competing value models. *Environmental Innovation and Societal Transitions*. **18**, pp.82–100.
- Latouche, S. 2009. *Farewell to Growth*. Cambridge, UK; Malden, MA: Polity.
- Liegey, V. and Nelson, A. 2020. *Exploring Degrowth: A Critical Guide*. London: Pluto Press.
- Lincoln, Y.S., Lynham, S.A. and Guba, E.G. 2018. Paradigmatic Controversies, Contradictions, and Emerging Confluences, Revisited *In*: N. K. Denzin and Y. S. Lincoln, eds. *The SAGE Handbook of Qualitative Research*. Thousand Oaks, California: SAGE Publications, Inc, pp.108–150.
- Liodakis, G. 2018. Capital, Economic Growth, and Socio-Ecological Crisis: A Critique of De-Growth. *International Critical Thought*. **8**(1), p.21.
- Lippuner, R. 2011. Gesellschaft, Umwelt und Technik: Zur Problemstellung einer »Ökologie sozialer Systeme«. *Soziale Systeme*. **17**(2), pp.308–335.
- Lösch, B. 2017. Die neoliberale Hegemonie als Gefahr für die Demokratie *In*: C. Butterwegge, B. Lösch and R. Ptak, eds. *Kritik des Neoliberalismus* [Online]. Wiesbaden: VS Verlag für Sozialwissenschaften, pp.201–257. [Accessed 11 January 2021]. Available from: [https://doi.org/10.1007/978-3-531-20006-4\\_4](https://doi.org/10.1007/978-3-531-20006-4_4).

- Luhmann, N. 2002. *Die Politik der Gesellschaft 1*. (A. Kieserling, ed.). Frankfurt am Main: Suhrkamp Verlag.
- Luhmann, N. 1989. *Ecological Communication* 2nd edition. Chicago: University of Chicago Press.
- Luhmann, N. 2012. *Introduction to Systems Theory*. Cambridge, UK ; Malden, MA: Polity Press.
- Luhmann, N. 2018. *Organization and Decision* (D. Baecker, ed.). Cambridge, United Kingdom ; New York, NY: Cambridge University Press.
- Luhmann, N. 2006. System as Difference. *Organization*. **13**(1), pp.37–57.
- Luhmann, N. 2017. *Trust and Power* (M. King & C. Morgner, eds.). Malden, MA: Polity Press.
- Málovics, G., Csigéné, N.N. and Kraus, S. 2008. The role of corporate social responsibility in strong sustainability. *The Journal of Socio-Economics*. **37**(3), pp.907–918.
- Mankiw, N.G. and Taylor, M.P. 2011. *Economics* 2nd Revised edition. Andover: Cengage Learning.
- Martínez-Alier, J., Pascual, U., Vivien, F.-D. and Zaccai, E. 2010. Sustainable de-growth: Mapping the context, criticisms and future prospects of an emergent paradigm. *Ecological Economics*. **69**(9), pp.1741–1747.
- Marx, K. 1969. *Das Kapital - Kritik der politischen Ökonomie - Erster Band*. Berlin: Dietz Verlag.
- Meadows, Donella, Randers, J. and Meadows, Dennis 2004. A Synopsis, Limits to Growth: the 30 year update. *Estados Unidos: Chelsea Green Publishing Company*.
- Meadows, Donella, Randers, J., Meadows, Dennis and Behrens, W. 1972. *The limits to growth: a report for the Club of Rome's project on the predicament of mankind*. New York: New American Library.
- Mintzberg, H. 1983. An Emerging Strategy of 'Direct' Research *In*: J. Van Maanen, ed. *Qualitative Methodology*. Beverly Hills, New Delhi, London: SAGE Publications Ltd, pp.105–116.
- Moore, J.W. 2016. *Anthropocene or Capitalocene?: Nature, History, and the Crisis of Capitalism*. Oakland, CA: PM Press.
- Moore, S. 2020. Beware the Left's 'Degrowth' Movement. *RealClear Politics*. [Online]. [Accessed 9 May 2021]. Available from: [https://www.realclearpolitics.com/articles/2020/04/15/beware\\_the\\_lefts\\_degrowth\\_movement\\_142942.html](https://www.realclearpolitics.com/articles/2020/04/15/beware_the_lefts_degrowth_movement_142942.html).
- Mouffe, C. 2015. Introduction: Gramsci today *In*: C. Mouffe, ed. *Gramsci and Marxist Theory*. London ; New York: Routledge, pp.1–18.
- Nesterova, I. 2020. Degrowth business framework: Implications for sustainable development. *Journal of Cleaner Production*. **262**.
- Nesterova, I. 2021. Small firms as agents of sustainable change. *Futures*. **127**.
- Nesterova, I., Maier, F., Robra, B. and Parker, S. 2020. Why degrowth should scare business. *degrowth.info*. [Online]. [Accessed 5 September 2021]. Available from: <https://www.degrowth.info/en/blog/why-degrowth-should-scare-business>.

- Nesterova, I. and Robra, B. forthcoming. Business for a strongly sustainable society? In: D. D'Amato, A. Toppinen and R. Kozak, eds. *The Role of Business in Global Sustainability Transformations*. London: Routledge.
- O'Mahoney, J. and Vincent, S. 2014. Critical Realism as an Empirical Project - A Beginner's Guide In: P. K. Edwards, J. O'Mahoney and S. Vincent, eds. *Studying Organizations Using Critical Realism - A Practical Guide*. Oxford: Oxford University Press, pp.1–21.
- Pansera, M. and Fressoli, M. 2021. Innovation without growth: Frameworks for understanding technological change in a post-growth era. *Organization*. **28**(3), pp.380–404.
- Pansera, M. and Owen, R. 2018. Innovation for de-growth: A case study of counter-hegemonic practices from Kerala, India. *Journal of Cleaner Production*. **197**, pp.1872–1883.
- Pantazis, A. (Alexandros) and Meyer, M. 2020. Tools from below: Making agricultural machines convivial. *Επιθεώρηση Κοινωνικών Ερευνών*. **155**(0), pp.39–58.
- Parrique, T. 2020. *The political economy of degrowth*. Economics and Finance, Université Clermont Auvergne; Stockholms universitet.
- Parrique, T., Barth, J., Briens, F., Kerschner, C., Kraus-Polk, A., Kuokkanen, A. and Spangenberg, J.H. 2019. *Decoupling debunked: Evidence and arguments against green growth as a sole strategy for sustainability*. European Environmental Bureau.
- Pazaitis, A., Kostakis, V. and Bauwens, M. 2017. Digital economy and the rise of open cooperativism: the case of the Enspiral Network. *Transfer: European Review of Labour and Research*. **23**(2), pp.177–192.
- Piketty, T. and Saez, E. 2014. Inequality in the long run. *Science*. **344**(6186), pp.838–843.
- Plaza-Úbeda, J.A., Pérez-Valls, M., Céspedes-Lorente, J.J. and Payán-Sánchez, B. 2020. The contribution of systems theory to sustainability in degrowth contexts: The role of subsystems. *Systems Research and Behavioral Science*. **37**(1), pp.68–81.
- Porter, M.E. and Kramer, M.R. 2006. Strategy and Society: The Link Between Competitive Advantage and Corporate Social Responsibility. *Harvard Business Review*. [Online]. [Accessed 2 November 2016]. Available from: <https://hbr.org/2006/12/strategy-and-society-the-link-between-competitive-advantage-and-corporate-social-responsibility>.
- Priovolou, C. and Niaros, V. 2019. Assessing the Openness and Conviviality of Open Source Technology: The Case of the WikiHouse. *Sustainability*. **11**(17), p.4746.
- Rammelt, C., Hoogendijk, W. and Merson, F. 2020. This isn't the type of downscaling that degrowth thinkers have in mind! *degrowth.info*. [Online]. [Accessed 5 September 2021]. Available from: <https://www.degrowth.info/en/blog/this-isn-t-the-type-of-downscaling-that-degrowth-thinkers-have-in-mind>.
- Raworth, K. 2017. *Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist*. New York: Random House.
- Reichel, A. 2017. Shape of things to come: From the 'laws of form' to management in the post-growth economy. *ephemera*. **17**(1), pp.89–118.

- Reilly, R.C. 2010. Participatory case study *In*: A. J. Mills, G. Durepos and E. Wieve, eds. *Encyclopedia of case study research*. Thousand Oaks, California: Sage, pp.658–660.
- Rifkin, J. 2014. *The Zero Marginal Cost Society: The Internet of Things, the Collaborative Commons, and the Eclipse of Capitalism*. New York: Palgrave MacMillan.
- Robert, K.W., Parris, T.M. and Leiserowitz, A.A. 2005. What is Sustainable Development? Goals, Indicators, Values, and Practice. *Environment: Science and Policy for Sustainable Development*. **47**(3), pp.8–21.
- Robra, B. and Heikkurinen, P. 2019. Degrowth and the Sustainable Development Goals *In*: W. Leal Filho, A. Azul, L. Brandli, P. Özuyar and T. Wall, eds. *Decent Work and Economic Growth. Encyclopaedia of the UN Sustainable Development Goals*. [Online]. Springer, Cham. Available from: [https://doi.org/10.1007/978-3-319-71058-7\\_37-1](https://doi.org/10.1007/978-3-319-71058-7_37-1).
- Robra, B., Heikkurinen, P. and Nesterova, I. 2020. Commons-based peer production for degrowth? - The case for eco-sufficiency in economic organisations. *Sustainable Futures*. **2**.
- Robra, B. and Parrique, T. 2020. The need for an academic Degrowth journal. *degrowth.info*. [Online]. [Accessed 5 September 2021]. Available from: <https://www.degrowth.info/en/blog/the-need-for-an-academic-degrowth-journal>.
- Robson, C. 2011. *Real World Research* 3rd edition. Hoboken: John Wiley & Sons.
- Rockström, J., Steffen, W., Noone, K., Persson, A., Chapin III, F.S., Lambin, E., Lenton, T., Scheffer, M., Folke, C., Schellnhuber, H.J., and others 2009. Planetary boundaries: exploring the safe operating space for humanity. *Ecology and society*. **14**(2).
- Roulet, T. and Bothello, J. 2020. Why “De-growth” Shouldn’t Scare Businesses. *Harvard Business Review*. [Online]. [Accessed 19 May 2020]. Available from: <https://hbr.org/2020/02/why-de-growth-shouldnt-scare-businesses>.
- Roulston, K. 2013. Analysing Interviews *In*: U. Flick, ed. *The SAGE Handbook of Qualitative Data Analysis*. Los Angeles, London, New Delhi, Singapore, Washington DC: SAGE, pp.297–312.
- Ruuska, T. 2017. Capitalism and the absolute contradiction in the Anthropocene *In*: P. Heikkurinen, ed. *Sustainability and Peaceful Coexistence for the Anthropocene*. Transnational Law and Governance. London ; New York: Routledge, pp.51–67.
- Ruuska, T. 2019. *Reproduction Revisited: Capitalism, Higher Education and Ecological Crisis*. MayFlyBooks.
- Saito, K. 2017. *Karl Marx’s Ecosocialism: Capital, Nature, and the Unfinished Critique of Political Economy*. New York: Monthly Review Press, U.S.
- Salcedo, J., Fuster Morell, M., Berlinger, M., Martinez, R. and Tebbens, W. 2014. Mapping the common based peer production: A crowd-sourcing experiment *In*: *The Internet, Policy & Politics Conference*. University of Oxford.
- Schechter, D. 2019. *Critical Theory and Sociological Theory: On Late Modernity and Social Statehood*. Manchester: Manchester University Press.

- Schechter, D. 2017. From Complex Classlessness to Complex De-Naturalisation: On Hegel, Marx, Systems Theory and Critical Theory *In*: G. R. Ricci, ed. *The Persistence of Critical Theory. Culture and Civilisation*. Transaction Publishers, pp.63–84.
- Schechter, D. 2015. The Historical Bloc: Toward a Typology of Weak States and Contemporary Legitimation Crises *In*: M. McNally, ed. *Antonio Gramsci. Critical Explorations in Contemporary Political Thought*. UK: Palgrave Macmillan, pp.179–194.
- Schneider, F., Kallis, G. and Martinez-Alier, J. 2010. Crisis or opportunity? Economic degrowth for social equity and ecological sustainability. Introduction to this special issue. *Journal of Cleaner Production*. **18**(6), pp.511–518.
- Schuldt, C. 2006. *Systemtheorie*. Hamburg: Europäische Verlagsanstalt.
- Schwartzman, D. 2012. A Critique of Degrowth and its Politics. *Capitalism Nature Socialism*. **23**(1), pp.119–125.
- Seidl, D. 2018. *Organisational Identity and Self-Transformation*. Abingdon: New York: Routledge.
- Seidl, D. and Becker, K.H. 2006. Organizations as Distinction Generating and Processing Systems: Niklas Luhmann's Contribution to Organization Studies. *Organization*. **13**(1), pp.9–35.
- Seidl, D. and Mormann, H. 2015. Niklas Luhmann as Organization Theorist *In*: *Oxford Handbook of Sociology, Social Theory and Organization Studies: Contemporary Currents*. Oxford: Oxford University Press, pp.125–157.
- Shrivastava, P. 2015. Organizational sustainability under degrowth. *Management Research Review*. **38**(6).
- Simon, F.B. 2013. *Einführung in die systemische Organisationstheorie*. Heidelberg: Carl-Auer-System-Verlag.
- Smith, C. and Elger, T. 2014. Critical Realism and Interviewing Subjects *In*: P. K. Edwards, J. O'Mahoney and S. Vincent, eds. *Studying Organizations Using Critical Realism - A Practical Guide*. Oxford: Oxford University Press, pp.109–131.
- Spash, C.L. 2012. New foundations for ecological economics. *Ecological Economics*. **77**, pp.36–47.
- Spash, C.L. 2017. *Routledge Handbook of Ecological Economics: Nature and Society*. Taylor & Francis.
- Spash, C.L. 2020a. Apologists for growth: passive revolutionaries in a passive revolution. *Globalizations*. **18**(7), pp.1123–1148.
- Spash, C.L. 2020b. The Revolution will not be Corporatized! *Environmental Values*. **29**(2), pp.121–130.
- Stiglitz, J. 2013. *The Price of Inequality*. New York ; London: Penguin.
- Swyngedouw, E. 2015. Depoliticization ('the political') *In*: G. D'Alisa, F. Demaria and G. Kallis, eds. *Degrowth - A Vocabulary for a New Era*. New York ; London: Routledge, pp.90–93.
- Texier, J. 2015. Gramsci, theoretician of the superstructures *In*: C. Mouffe, ed. *Gramsci and Marxist Theory*. London ; New York: Routledge, pp.48–79.

- The open letter working group 2020. More than 1,000 experts call for Degrowth as post-COVID-19 path. *degrowth.info*. [Online]. [Accessed 5 September 2021]. Available from: <https://www.degrowth.info/en/blog/more-than-1000-experts-call-for-degrowth-as-post-covid-19-path>.
- Thornhill, C. 2013. Luhmann and Marx: Social Theory and Social Freedom *In*: A. la Cour and A. Philippopoulos-Mihalopoulos, eds. *Luhmann Observed* [Online]. London: Palgrave Macmillan, pp.263–283. Available from: [https://doi.org/10.1057/9781137015297\\_14](https://doi.org/10.1057/9781137015297_14).
- Troncoso, S. and Utratel, A.M. 2019. *If I Only Had a Heart: A DisCO Manifesto*. DisCO.coop, the Transnational Institute and Guerrilla Media Collective.
- Utting, P. 2005. *Rethinking Business Regulation: From Self-regulation to Social Control*. United Nations Research Institute for Social Development.
- Van Maanen, J. 1983. Reclaiming Qualitative Methods for Organizational Research: A Preface *In*: J. Van Maanen, ed. *Qualitative Methodology*. Beverly Hills, New Delhi, London: SAGE Publications Ltd, pp.9–18.
- Vandeventer, J.S., Cattaneo, C. and Zografos, C. 2019. A Degrowth Transition: Pathways for the Degrowth Niche to Replace the Capitalist-Growth Regime. *Ecological Economics*. **156**, pp.272–286.
- Vandeventer, J.S. and Lloveras, J. 2021. Organizing degrowth: The ontological politics of enacting degrowth in OMS. *Organization*. **28**(3), pp.358–379.
- Victor, P.A. 2008. *Managing without Growth: Slower by Design, Not Disaster*. Cheltenham, UK ; Northampton, MA: Edward Elgar Publishing Ltd.
- Vincent, S. and Wapshott, R. 2014. Critical Realism and the Organizational Case Study - A Guide to Discovering Institutional Mechanisms *In*: P. K. Edwards, J. O’Mahoney and S. Vincent, eds. *Studying Organizations Using Critical Realism - A Practical Guide*. Oxford: Oxford University Press, pp.148–167.
- WCED, W.C. on E. and D. 1987. *Our Common Future* [Online]. [Accessed 5 October 2016]. Available from: <https://global.oup.com/academic/product/our-common-future-9780192820808>.
- Wilkinson, R.G. and Pickett, K.E. 2009. Income Inequality and Social Dysfunction. *Annual Review of Sociology*. **35**(1), pp.493–511.
- Wolf, P., Meissner, J.O., Nolan, T., Lemon, M., John, R., Baralou, E. and Seemann, S. 2010. Methods for Qualitative Management Research in the Context of Social Systems Thinking. *Forum: Qualitative Social Research*. **11**(3), p.11.
- Wright, E., Olin 2015. How to Be an Anticapitalist Today. *Jacobin*. [Online]. [Accessed 24 April 2021]. Available from: <https://jacobinmag.com/2015/12/erik-olin-wright-real-utopias-anticapitalism-democracy>.
- Yin, R.K. 2003. *Case Study Research: Design and Methods* 3rd edition. Thousand Oaks, California: SAGE Publications, Inc.
- Zink, T. and Geyer, R. 2017. Circular Economy Rebound. *Journal of Industrial Ecology*. **21**(3), pp.593–602.



## Appendix I. Interview Questions Wind Empowerment

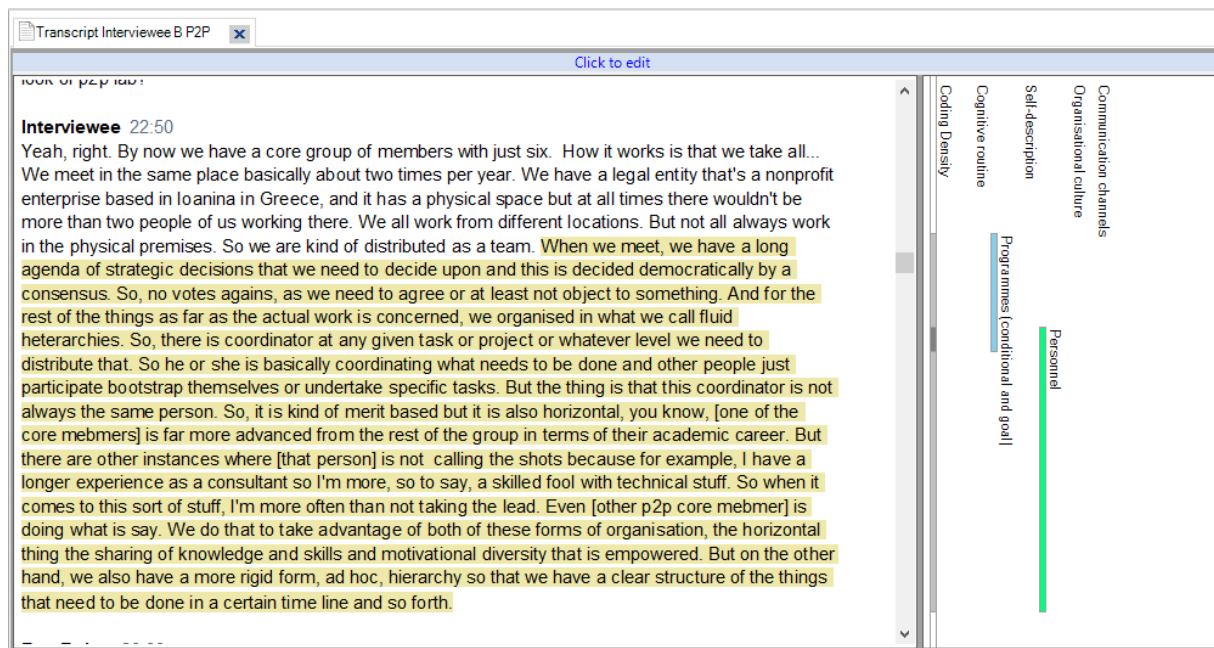
- In general, could you tell me a bit about Wind Empowerment? What does Wind Empowerment do?
- What is your role in Wind Empowerment?
- How in general are decisions made in Wind Empowerment?
- Are there different types of decisions in the organisation?
- What is generally referred to (e.g. documents) when making decisions? What are the decisions based on?
  - Which one of these (e.g. documents) is the most important in your opinion and why?
- How do decisions get communicated around the network and to the members?
- About the meetings that I have been observing, what is the aim of the new Wind Empowerment Board Goals Document?
  - What will the document be used for? How will it be used?
- How do you make decisions in the strategy meeting and board meeting?
- How was the new WE Charter created?
  - What went into its creation, what is it based on?
  - What is different to the past approach?
  - How is this going to affect other decisions in the future?
- How important is the WE conference for making decisions?



## **Appendix II. Interview Questions P2P Lab**

- Could you start by telling me about P2P Lab in general? What do you do?
- How is P2P Lab structured?
- What roles exist within your organisation?
- How in general are decisions made in P2P Lab?
- Are there different types of decisions?
- What is generally referred to when making decisions?
- What are the decisions based on?
- Which one of these is the most important in your opinion and why?
- Are there particular documents that are very important? What are these?
- How do decisions get communicated around the network and to the members?

## Appendix III. Example of Data Coding in NVivo



The screenshot displays the NVivo interface for a transcript titled "Transcript Interviewee B P2P". The main text area shows a transcript segment starting at 22:50, with several lines of text highlighted in yellow. On the right side, a vertical list of codes is visible, including "Communication channels", "Organisational culture", "Self-description", "Cognitive routine", "Coding Density", "Programmes (conditional and goal)", and "Personnel". A green vertical bar is positioned next to the "Personnel" code, indicating its application to the highlighted text.

Transcript Interviewee B P2P

Click to edit

Interviewee 22:50

Yeah, right. By now we have a core group of members with just six. How it works is that we take all... We meet in the same place basically about two times per year. We have a legal entity that's a nonprofit enterprise based in Ioanina in Greece, and it has a physical space but at all times there wouldn't be more than two people of us working there. We all work from different locations. But not all always work in the physical premises. So we are kind of distributed as a team. When we meet, we have a long agenda of strategic decisions that we need to decide upon and this is decided democratically by a consensus. So, no votes against, as we need to agree or at least not object to something. And for the rest of the things as far as the actual work is concerned, we organised in what we call fluid heterarchies. So, there is coordinator at any given task or project or whatever level we need to distribute that. So he or she is basically coordinating what needs to be done and other people just participate bootstrap themselves or undertake specific tasks. But the thing is that this coordinator is not always the same person. So, it is kind of merit based but it is also horizontal, you know, [one of the core mebmbers] is far more advanced from the rest of the group in terms of their academic career. But there are other instances where [that person] is not calling the shots because for example, I have a longer experience as a consultant so I'm more, so to say, a skilled fool with technical stuff. So when it comes to this sort of stuff, I'm more often than not taking the lead. Even [other p2p core mebmmer] is doing what is say. We do that to take advantage of both of these forms of organisation, the horizontal thing the sharing of knowledge and skills and motivational diversity that is empowered. But on the other hand, we also have a more rigid form, ad hoc, hierarchy so that we have a clear structure of the things that need to be done in a certain time line and so forth.

Communication channels  
Organisational culture  
Self-description  
Cognitive routine  
Coding Density  
Programmes (conditional and goal)  
Personnel

Figure 3 – Example of highlighted codes in interview transcript