

# Why caring counts: Public value creation in smart specialisation through partnerships for regional innovation (PRI)

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## Abstract

Smart specialisation is an instrument of the European Cohesion Policy and a key political principle to advance European competitiveness, innovation and welfare. Whereas smart specialisation is previously recognised for its focus on creating economic value through regional specialisation and new innovations, some recent arguments show that sustainable and social aspects are now defining the new smart specialisation strategy (McCann & Soete 2020; Pontikakis et al. 2022). In this paper, we examine the concept of public value to determine what a broader sustainable focus could mean for the next generation of smart specialisation strategies and how regions may use their entrepreneurial discovery processes (EDP) in a new way to combine vertical specialisation with more horizontal, sustainable and particularly social sustainability goals. Our inspection of public value via Moore's strategic triangle and the smart specialisation literature indicate that the entrepreneurial discovery process can be viewed as a platform for conveying public value, which may also help in understanding how the entrepreneurial discovery process may become an open discovery process (ODP) in partnerships for regional innovation (PRO) implementation.

## Keywords

Smart specialisation, entrepreneurial discovery process, public value, PRI, regional development

## Introduction

The global climate crisis has become an important challenge for the European Union (EU), which is now active in achieving green transformation through sustainable innovation goals. This race towards carbon-neutral solutions will enable new economic growth in the long-term, which is one reason that various actions surrounding the European Green Deal are now ongoing (McCann & Soete 2020). The EU wants to be among the winners in the battle against climate change and invites regions to do their part as well. This allows for new opportunities regarding regional smart specialisation activities because sustainable solutions and carbon-

neutral or even carbon-negative innovations are drastically needed across the world. Thus, new green markets are emerging (Gibbs & O'Neill 2017).

Now that a new EU programming period has begun and the European Green Deal is beginning to take form, it is important to ask how smart specialisation can help regions as they aim to develop more sustainable solutions. It is not an exaggeration to suggest that smart specialisation must re-orientate itself to enable this sort of new, deeper transition towards sustainable innovations. As has been said, the purpose is no longer the change in itself but ensuring a more sustainable development path within a global perspective, contributing to the UN Sustainable Development Goals (McCann & Soete 2020: 10). This discussion has recently evolved the concept of S3 into S4+, referring to sustainable and inclusive smart specialisation strategies (McCann & Soete 2020). S4+ has recently been adopted through the actions of Partnerships for Regional Innovation (PRI) and the open discovery process (ODP), which emphasises inclusive actions in implementation processes considering the need for a broader participation of actors in the discovery process (Pontikakis et al. 2022.) At the same time, Pontikakis et al. (2022) and Kangas and Rynänen (2022) have found that the value of smart specialisation is dependent on the knowledge of complex systems in which local, national and international actors are acting in multiple operating environments. It has even been suggested that smart specialisation implementation resembles a 'wicked game', where players have different and sometimes even contradictory agendas (Lundström & Mäenpää 2017).

One of the key elements of smart specialisation is and has always been the discovery of new potential pathways and innovative elements that can lead to regional- or system-level transformation. The Morez-case, where glass and metal manufacturers transformed the region into an eyeglass cluster, is a classic case (Foray 2014). Although a transition can occur without public interference (as in Morez), there are also transitions in which public decisions are necessary and/or will expedite the process. This is indeed not a new discovery because public organisations' central role in S3 implementation has been recognised in recent years (Mäenpää 2020; Morgan 2017); however, the transition from S3 into PRI may be considered an even stronger shift towards more public presence in regional innovation activities because sustainability focus highlights environmental and social elements that are often under public jurisdiction in Europe. This also raises questions regarding the actual value of this intervention and how smart specialisation can increase it. It has been said that the value creation involved in smart specialisation is tightly connected to institutions' capacity to define and achieve sustainable, social and economic goals based on smart specialisation priorities (McCann & Soete 2020).

This article examines the future implementation of PRI through the concept of public value, how the concept of public value helps to outline the future strategy and its implementation for smart specialisation, and how it may support European sustainable innovation goals more broadly. Public value can be viewed as the most important action made

by public institutions, such as governments, and the economic efficiency of institutions as well as the value produced for stakeholders (Moore 1995; Horner & Hazel 2005: 34-35). From the conceptual perspective, public value in smart specialisation is strongly connected with responsibility and sustainability in research- and innovation-related activities as well as social value in political decision-making and actions (Uyarra et al. 2019; Kroll, 2015). According to Uyarra et al. (2019), the public value concept can act as a guiding principle for innovation policies and thus also help in smart specialisation implementation:

‘Public value can therefore help us address the contested elements within societal challenges by acting as a guiding principle for innovation policy and underpinning the essential contribution of processes like public procurement (e.g., smart specialisation) that translate societal needs into private business practices using performative administrative processes’ (Uyarra et al. 2019:2370).

It could be stated that public organisations are now in a highlighted, or even proactive, role in creating green and sustainable markets (Gibbs & O’Neill 2016), and the authors argue that this role is in high demand due to the increasing need for public value.

Value is therefore added mostly for RDI organisations, and this has raised the question regarding the broader public value of EDP and its role in smart specialisation. Uyarra et al. (2019: 2370) have also highlighted the need for looking at ‘...how public value is performed within specific systems and by specific actors...’. This issue is even more prominent in the new PRI iteration of smart specialisation because inclusion is one of its core elements. To attract a broader engagement of stakeholders, there should be some value in the process. This paper examines where the value might lie and how it could be taken into consideration in future innovation policy implementation.

The authors approach the issue by focusing on public value governance literature, which has suggested that current problems require multi-actor solutions. One recent paper from Laranja (2021) has also highlighted the role of processes (i.e. governance) in smart specialisation implementation, which highlights the need for more active implementation. Publicly-lead innovation can be one avenue where progress can be made and understanding public value may be important in addition to the arsenal of regional developers. Therefore, the authors delved deeper into the public value literature to determine how public value manifests and how it might be better included in future smart specialisation processes. The research questions are:

- What is the role of public value in the new smart specialisation concept (PRI)?
- How does public value affect PRI implementation?

We first discuss public value in general and how it can be approached based on Moore’s (1995) triangle, which is a well-known framework for examining the different elements of

public value. Based on this examination, we evaluate the EDP process as well as how it may change in the new programming period towards the suggested ODP (Pontikakis et al. 2022). We then conclude by presenting the discoveries of how public value affects smart specialisation and how they could be taken into consideration in its implementation.

## **Why Is Public Value Important for Smart Specialisation?**

### **Horizontal elements in a vertical approach: From S3 into PRI**

Smart specialisation strategies emphasise regional knowledge, and specialisation acts as a source of innovation and development (Foray, David & Hall 2011). The aims of smart specialisation are to increase the innovativeness of regions, enhance the result-driven agenda of the European Cohesion Policy and improve the innovation system for Europe (Crawley & Hallowell 2020; McCann & Ortega-Argilés 2013). However, there has been more emphasis on how smart specialisation strategies should focus on sustainability actions and contribute to the United Nations Sustainable Development Goals and to the Agenda 2030 embraced by the European Green Deal, which is highlighting the top key elements of the results-driven agenda of the latest cohesion policy. (McCann & Ortega-Argilés 2013; Espon 2022; Foglia 2023.)

It has been addressed that S3 aims to do this by leveraging private research and innovation expenditure, and enables coordination among different types of actors at national and regional research and innovation systems (Chrysomallidis & Tsakanikas 2017, p. 185). The novelty value of the smart specialisation, compared to previous innovation system literature, is that smart specialisation not only emphasises place-based development but also includes policy prioritisation, where regions are encouraged to develop innovation competencies and opportunities (Crawley & Hallowell 2020; Foray et al. 2012).

Smart specialisation policy emphasises the co-creative principles of implementation methods and openness between various actors. Openness refers mostly to the actions of higher education institutions, governance, industry and civil society, especially for issues related to economic development and the internationalisation of regions (Kroll 2015; Kangas & Aarrevaara 2020; Pontikakis et al. 2022.) This regional engagement is referred to as the entrepreneurial discovery process (EDP) (Foray 2014). Domains are considered focus areas or end products of regional entrepreneurial discovery processes (Foray 2016; Mäenpää & Teräs 2018) and form the specialisation areas in regional smart specialisation strategies.

Smart specialisation has become a mainstream innovation policy in Europe, but it has also faced criticism. Previous research has criticised the concept for allowing the continuation of 'business as usual' (Pugh 2014), for unclear definitions concerning domains (Mäenpää & Teräs 2018), for the applicability of the concept in semi-autonomous regions in general (Pugh 2018), for subregional government engagement (Estensoro & Larrea 2016) and for the endogenous view of innovation activities (Giustolisi et al. 2022). Because S3 is based on regional innovation system (RIS) theory, it has also been criticised for having a narrow view of

innovation and especially its actors (Moulaert & Sekia 2003). The EDP has also been lacking stakeholder engagement (Kroll 2015; Kangas & Ryyänen 2022).

There has also been criticism on the wider strategy-approach, which has been criticised for lacking consensus on the concept of smart specialisation, its goals and the involvement of multi-level stakeholders (Lopes et.al 2018). As some emphasise the role of previously identified domain selection, others emphasise the selection of imitation models for specialisation (Lopes et al. 2018; ESPON 2022). Criticism also connects to the findings of Foglia (2022) which shows the need for cohesion policy actions to develop into more effective, valuable and forward-looking methods of implementation, focusing more on the substance of the actions. One could say that PRI is aiming to add more substance to sustainability issues for smart specialisation since it highlights the concrete results above the processes (Pontikakis et al. 2022).

Esparza-Masana (2021) criticise the transition from S3 into PRI by arguing that there is insufficient empirical evidence. Currently, PRI is to some extent fulfilling this lack of empirical evidence by engaging with volunteering regions in order to arrange pilots (S3 Platform 2022). Despite the early implementation of PRI, it seems to be directed towards value creation with a broader group of actors in the ODP process (Pontikakis et al. 2022).

Indeed, this co-creation element, which has been the focus of criticism previously, might change to some extent in the next programming period. Conversely, research and innovation strategies for smart specialisation emphasise specialisation at the regional level but also encourage the creation of links to inter-connected policies and governance spaces at the European level to create more outward-looking policies (Uyarra et al. 2018.) To increase the efficiency of smart specialisation, there are suggestions for more entrepreneurial governance actions such as entrepreneurial behaviour between public authorities and private-sector innovators, as well as a higher focus on sustainability and stakeholder engagement increasing social, economic and environmental value (ESPON 2022). It could be argued that environmental and social aspects are adding a new layer of cooperation in the new programming period because sustainability and social inclusion are becoming a partly unifying theme for PRI, adding horizontal elements to the vertical specialisation concept, as has been stated by McCann and Soete (2020).

One way of describing this horizontal element is via mission-oriented innovation policies, which may focus on carbon neutrality, microplastics or other environmental challenges (Mazzucato 2016). Horizontal refers to broader, systemic aspects, meaning that new solutions can be discovered or enhanced in several domains or industries. For example, the circular economy is a good example of horizontal focus, since it may mean more advanced recycling and material distribution in some industries (food production), or service and maintenance in other industries (electric car production etc.). This resonates with existing domains or may even create entirely new ones (car battery recycling). However, increasing horizontal aspects

(including diversification of actors and actions) in smart specialisation could homogenize its conceptual understanding (Westman et.al.2023) but also set new challenges for the implementation such as path dependencies and socially constructed interpretations of concept at the local level (Meyfroidt et.al.2021). For example, a broader PRI focus might turn into digitalisation or a circular economy, which might limit the regions' specialisation potential, which might be closer to more specific wood or metal circulation and digital services, instead of the more generic buzz words. Ideally, regions could combine existing vertical aspects with horizontal perspectives. Figure 1 shows the connection between the horizontal and vertical elements of PRI.

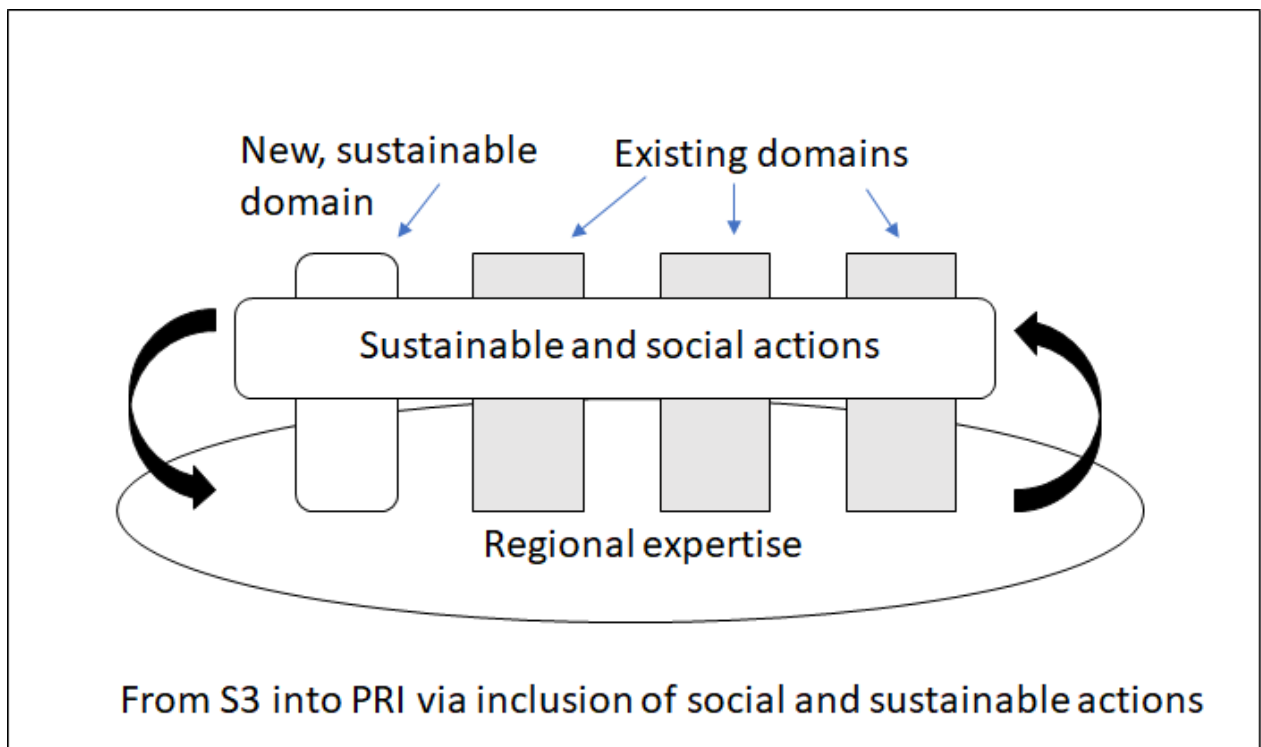


Figure 1 – Sustainable and social actions in existing and new domains (author's own contribution).

It could be argued that co-creation between participants for multiple levels and sectors is already strongly connected with smart specialisation's basic features; however, sustainable and social aspects should provide an effective way to connect civil society, especially for the creation of innovative products and actions, but may also have an effect on the governance mechanisms of innovation creation (Hassink & Gong 2019). Innovative ideas from civil society for smart specialisation-related development connect them directly with the other stakeholders at multiple levels. Therefore, other participants can understand the needs of the consumer and the related development. This is especially important in establishing sustainable markets because consumers play a crucial role by creating the demand for sustainable products. EDP—and later ODP—indeed should be a truly bottom-up process, as indicated by previous literature (Pontikakis et al. 2022; Foray 2014; Carayannis &



Rakhmatullin 2014), but the question is how much more emphasis should be put on the role of the consumers? How can PRI be made relevant to them?

If one aims to continue with the existing domain formulation and specialisation, then one suggestion would be to examine the existing domains and to consider how social and environmental sustainability could help in developing new PRI activities that are based on them. A focus on the sustainable and social aspects of innovations may lead to new products and services in emerging green markets (Gibbs & O'Neill 2017), but we argue that they can also spur more activities that enhance the well-being of regions. To explain this, we examine public value and explain why it is an important component of PRI.

### Public value as a concept

The public value concept has attracted growing interest in multiple discussions and disciplines (Bojang 2021; Hartley et al. 2017); however, its problematic nature has also been discussed in recent studies. For example, and despite the high interest, most research has been theoretical or descriptive rather than empirical. One reason could be that public value is considered a complex concept. The concept itself is at the same time a theory and a descriptor of specific public actions and programmes (Bojang 2021.) The public value and descriptions of the concept depend on the context and audiences, which makes it ambiguous, and various types of perspectives are included (Hartley et al. 2017). Uyarra et al. (2019) outline its risk of becoming mere 'rhetoric' rather than part of practical actions.

The core elements of value creation are to determine for whom value is created and then to perceive its aspects. Public value can be viewed as the most important action taken by public institutions, such as governments, regarding the economic efficiency of institutions as well as the value produced for stakeholders (Moore 1995; Horner & Hazel 2005: 34-35). Public value has been described based on the political preferences of citizens, which generate fairness and trust, create services or regulations and involve resource allocation decisions (O'Flynn 2007). Therefore, public value should be legitimated by public policy.

Horner and Hazel (2005: 34-35) claim that public value can be created through social cohesion, cultural development and economic prosperity, and they emphasise the value of the stakeholder return as a correlation of public money (taxes, for example). Public value is analysed as a result of political concerns that are made to ensure the dimension of public value. The results achieved must be worth the public resources used and must produce public value over a long period, which gives legitimacy to the actions (Moore 1995; Horner & Hazel 2005: 34-35; Hartley et al. 2017). According to Hartley et al. (2017), the beneficiaries of public value are citizens as individuals but also society.

Public value is a contribution to the public sphere, and public value is considered the addition of value through actions in an organisational or partnership setting (Hartley et al. 2017). Previous discussions have focussed on the new public management (NPM) paradigm

(O'Flynn 2007), but they have shifted to network governance and value management (Kelly, Mulgan & Muers 2002; Stoker 2006; Monfardini & Ruggiero 2014; Bojang 2021) discussions, which emphasise the role of stakeholders and networks in creating public value. The theory of public value, therefore, goes further than NPM by bringing insights into practices of the future and the challenges of future demands into the discussion (Benington 2011). The public sphere is hence broadly understood, conceptualised and adaptive—not simply understood in an organisational context. The public sphere related to public value has similar elements to complex adaptive systems in smart specialisation which makes it even more crucial to understand the principles of creating public value in the sphere where smart specialisation implementation operates (Kangas & Ryyänen 2022; Uyarra 2021).

As briefly described in the introduction, Moore (1995) investigated value creation through the strategic triangle, which focuses on the role of public managers. Public value can be viewed as something that public organisations or managers not only create but add to actions. According to Moore (1995), to create public value, one must examine the ethical responsibility and expectations of actions. From Moore's (1995) perspective, this refers to the ethical responsibility of public managers and the expectations of citizens. This perspective is highly value sensitive and raises questions regarding what good or bad values are, what is good enough and in which situation the public value is lost or wasted (Benington 2011; Hartley et al. 2017). Bryson et al. (2017) have also criticised this approach because it does not consider the factors that construct public value in multiple contexts and the role of stakeholders in the public value process.

Public value as a basic feature of the governance model emphasises the involvement of multiple aspects from multiple levels of society. For example, the role of civil society and the role of an active developer in society are the key indicators of public value development rather than studying administration and political actions as statistical models (Bojang 2021). The theory of public value not only examines the creation and creation process of public value but also forces continuous adaptations to the operating environment and the factors that add public value to the public sphere (Bryson et al. 2017; Bojang 2021). This directly connects the concept to principles of smart specialisation, which serves as a viewpoint for this paper. This investigation also adds to the public value literature because the examination of smart specialisation adds multi-level perspectives to the public value concept. To define public value, we next examine the concept alongside private value to determine its nuances.

### **Public versus private value as part of sustainable value**

One way to study the nature of public value is by examining it alongside private value. Public value is a fundamental principle for public organisations to create value for citizens via public services (Moore 1995; Try & Radnor 2007; Meynhardt 2009). Similarly, in the private sector, the goal is to generate profit to create private value (Sami et al. 2018). Contributions to the



well-being of society in the economic, social and environmental sectors are considered public value (Try & Radnor 2007). Thus, sustainable value can be viewed as part of public value. Indeed, according to Evans et al. (2017: 600), sustainable value in business models is based on a combination of three values: social, environmental and economic. Of the three values, only economic value originates from private value, whereas two of the three represent more public values. This would indicate that sustainable value is based more on public than on private value.

As climate actions (such as the Green Deal) and well-being are often governed or regulated by public organisations, they need to become more active in enabling new sustainable activities. Levelling the playing field by enabling green markets is not enough because public value is not based purely on economic value; however, public value can of course also create economic value. As an example, sometimes, stricter environmental goals enable new innovations, and public organisations act almost in a sparring role as they ask for more sustainable solutions or make tighter legislation regarding pollution (International Energy Agency 2021: 82). They cannot remain in a passive role because they ultimately decide the future.

However, this also means that sustainable value can only be realised via the collaboration of private and public sectors, which together, through the procedure of innovation, co-produce and co-shape markets (Mazzucato 2016). Thus, public intervention for sustainability increasingly occurs through sustainable business model innovation, which brings together the interests of various public and private stakeholders. Although public intervention is in some cases considered a necessity for promoting broader systemic changes for sustainability (Gibbs & O'Neill 2016), sustainability innovation is also considered a necessary business capability (Adams et al. 2012). Altogether, in innovating for sustainability, changing the fundamentals of business models is necessary for sustainable value creation (Adams et al. 2012; Gibbs & O'Neill 2016; Mazzucato 2016; Chesbrough & Rosenbloom 2002).

Kelly et al. (2002) have suggested that public value is based on three significant sources: services, outcomes and trust. Trust is considered the most important element because without trust, there can be no public value, and it is also a key enabler of sustainable value creation when viewed from inter-organisational and societal perspectives (Boons & Lüdeke-Freund 2013). From the perspective of smart specialisation, trust refers to the connectedness of actors to innovation actions and networks (Kangas & Rynänen 2022; Ghinoi et al. 2020; Mäenpää 2020). Looking beyond the organisational borders highlights the need for integrated thinking, the alignment of various interests and aspects and considering the needs of various stakeholders, which are all key aspects of sustainable business models (Evans et al. 2017). This is a critical point connecting smart specialisation and its ODP perspective with the public value literature.

Emphasis on the public value paradigm also challenges public policies (Benington 2009; Bojang 2021; Moore 1995; O’Flynn 2007) because an ideological shift from outcome and efficiency focussed goals has larger themes, such as sustainability and/or value. According to Moore (1995), public value is much more complex to define than value in the private sector, where results are more easily visible and clearly demonstrated. In public management, the concept is described to be constructed from three components and is a basis of a strategic triangle. Next, we examine Moore’s strategic triangle as well as how public value manifests based on this framework.

## Discussion on Public Value in PRI And the Open Discovery Process

### Moore’s triangle as a basis for examining public value in PRI

Moore’s (1995) strategic triangle helps to understand the value creation process, mechanisms and framework conditions for smart specialisation strategies. Moore (1995) created a strategic triangle (see Figure 2) to define the creation and factors of public value. The strategic triangle was created to set a normative or prescriptive framework for public value that focuses on the triangle and effective management and therefore the results desired. Still, the strategic triangle does not postulate a specific social mechanism, scope condition or variables (Hartley et al. 2017). We consider the strategic triangle from the descriptive perspective. Moore (1995) emphasises that the management of public value means the ability to evaluate the value of the outcome and the ability to lead actions towards policy, which legitimises actions. One feature is the ability to manage actions to achieve goals. From the perspective of the strategic triangle, public value can be achieved when goals have value in principle with political legitimacy and when the actors have the operational capacity to achieve the goals (Moore 1995).

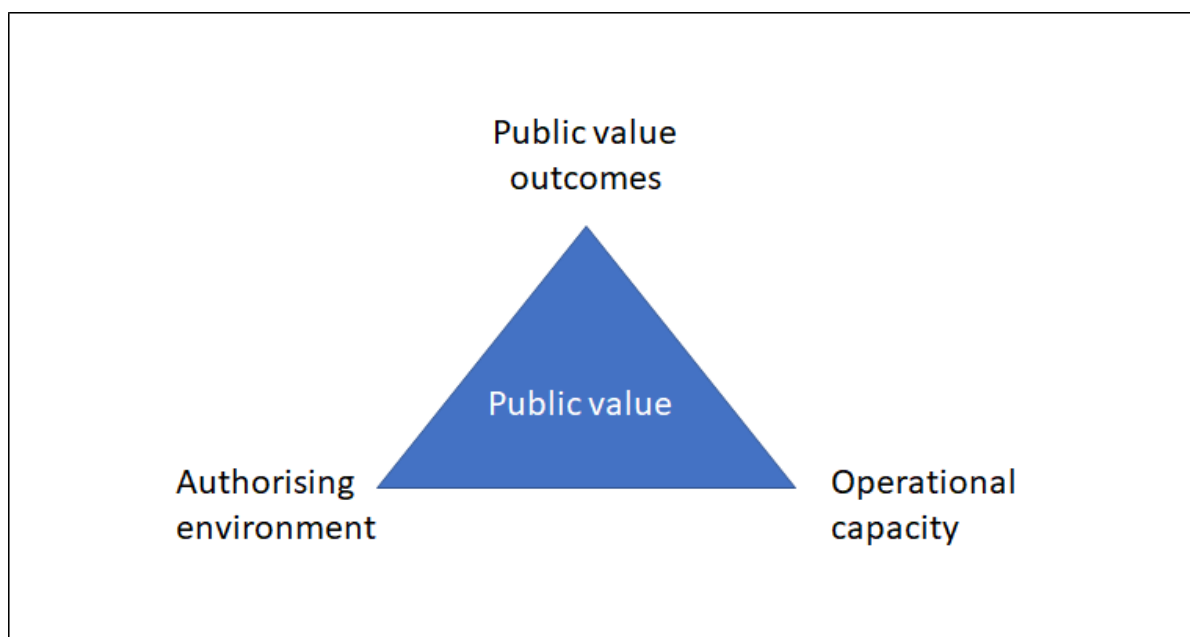


Figure 2 - Moore’s strategic triangle (based on Williams & Shearer 2011).

Public value emphasises the critical role of public managers in mediating well-organised service provisions and citizens' participation in designing public policies (Mazzucato et al. 2020). In the smart specialisation context, this means regional governments, development organisations and other implementors of the strategy processes, alongside other regional and local stakeholders. Accordingly, public value goals can only be realised via a partnership between private and public sectors, which together, through the procedure of innovation, co-produce and co-shape markets (Mazzucato 2016). In essence, public value creation strategies should extend beyond borrowing simple private sector models and market practices. Instead, public sector managers must consider three issues simultaneously: legitimacy and support, operational capabilities and delivered public value (Moore 1995). Kelly et al. (2002) advanced a detailed conception of a value source as services, outcomes and trust. These three value sources are all significant in public value creation. Trust is the most important because even if the government provides or meets citizens' expectations, a mere lack of trust will destroy public value. Public value gives relative importance to value-laden outcomes and citizens' engagement in the democratic process (Blaug et al. 2006). Public value is profoundly democratic because it requires public sector organisations to discuss value creation in the public sector.

The strategic triangle consists of points that create public value and enable an improvement in strategies via actions or programmes. Because Moore's (1995) perspective emphasises the role of public managers, there is a need to have legitimacy for strategic goals through collaboration with other public managers and to determine the 'big' picture of public value. According to Bojang's (2021) perspective, the triangle should continuously reflect environmental and public programmes. Public value must be practically achievable in terms of operational capability (Turkel & Turkel 2016). Public value can be increased in collaboration with stakeholders and legislators, political leaders and other stakeholders, including citizens (the authorising environment). Collaboration gains legitimacy and power, which leads to mandates. Operational capacity is one of the points in the strategic triangle. Normally, public managers act in their own spheres of authority and control the allocation of resources strategically, but horizontal cooperation can lead to a greater capacity shared between different actors. More operational capacity is constructed when stakeholders in the same authorising environment negotiate continuously, and therefore trade-offs can be made among public goals between managers. Moore's (1995) public value highlights the responsibility of public managers who can make decisions and control operational capacity. The creation of operational capacity requires a continuous understanding of actions that could affect the creation of public value (Moore 1995; Bryson et al. 2017).

Bryson et al. (2017) wanted to modernise the triangle by bringing arenas, spheres of action, public challenges and/or functions to the middle of the triangle. By putting public

problems or challenges in the middle of the triangle and using the descriptive approach, the triangle is a helpful tool to research how complex situations can be understood, appreciated, valued, etc. Hence, our interpretation of Moore's (1995) triangle puts smart specialisation at the centre (see Figure 3). Public value is achieved through the causality of the legitimacy of public policies, the contextualised value as a common understanding of the public goals of actors and citizens and the operational capacity to achieve mutual goals.

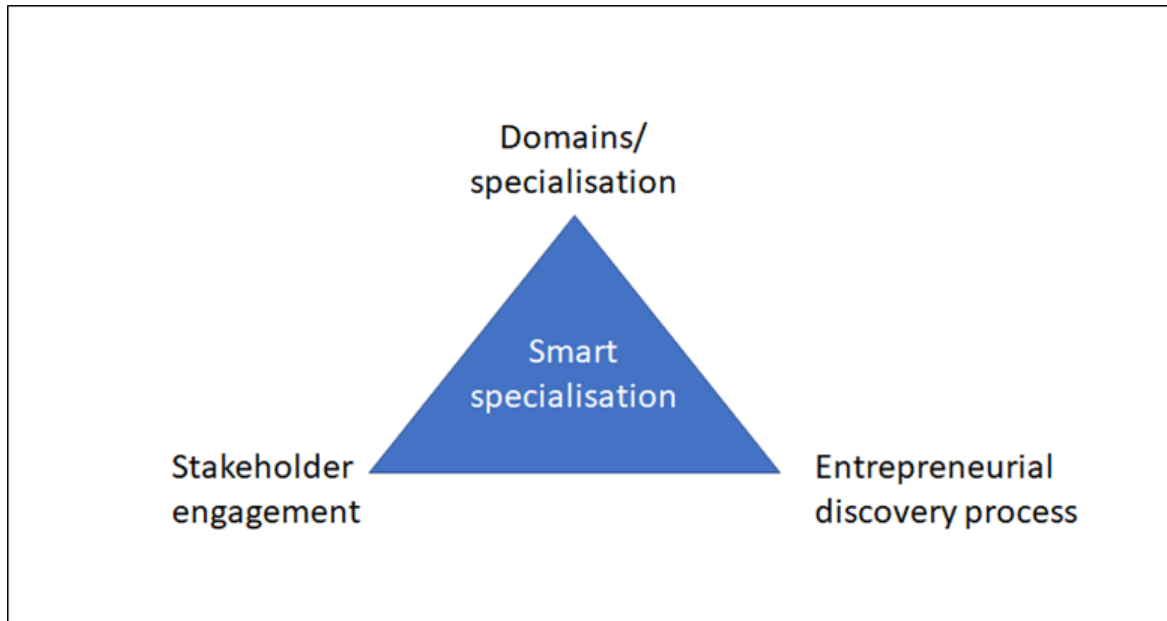


Figure 3 - Smart specialisation as a framework for public value (based on Moore's strategic triangle).

This experiment revealed some striking resemblance to the original triangle because it includes elements of the environment (ability to operate among actors), operational capacity (ability to have an active co-creation process) and outcomes (specialisation goals), which add public value only if all elements align and work together. The figure also explains why smart specialisation should be able to act as a platform for public value because it includes all the necessary steps to engage stakeholders in a mutual dialogue and process, which leads to achievable public goals (specialisation domains). Next, we elaborate on how this can be taken into consideration during implementation.

### Public value governance in smart specialisation implementation

Some studies have suggested a more mediating role of public organisations in smart specialisation (Mäenpää 2020; Kangas & Aarrevaara 2020). This sort of role is logical when examining 'regular' innovation actions, where the focus is innovative new products and services. A public organisation's value is based on its role to offer peace and mutual rules for broader society (Etzkowitz & Leydesdorff 2000). Public organisations basically offer economic value to companies by having regulations and offering rules regarding how they may or may not operate. This is also in line with the origins of smart specialisation; public organisations

should support innovation actors by organising EDP and contributing to developing innovation systems and policies as well as smart specialisation strategies, which would allow for more efficient economic opportunities. Public organisations themselves will benefit from these increased economic opportunities as the regions will have more revenue, jobs and opportunities.

As the focus shifts to sustainability, this no longer takes place, or the value changes. Value is not only provided to companies because environmental and social value indicate broader societal benefits, which need to be addressed. Indeed, one important distinction between S3 and PRI is related to public value and how it functions in sustainable innovation processes. The focus shifts from products and services to systems, where all actors are interlinked, forming a complex structure (Seiffert & Loch 2005; Kangas & Ryyänen 2022). This is also evident in new PRI networks, where EDP is considered a broader ODP (Pontikakis et al. 2022).

What does this mean for EDP? EDP is ultimately a process of creating public value and has always been so, based on our investigation of how smart specialisation is perceived according to Moore's triangle. First, EDP as a process co-exists with stakeholder engagement (authorising environment) and public value outcomes (specialisation). This main structure of the triangle remains similar in S3 and PRI; however, one section of the triangle changes: that of the authorising environment, especially because PRI adds social and ecological value to the previously highlighted economic value. This may mean that EDP could also involve stakeholders other than the classic economic actors, further pointing towards ODP. This could include, for example, citizens and municipalities as well as other citizen-related actors in society. This is an important but also understandable addition because climate and social actions can be based on citizens' activities, such as cleaning parks, better waste management, etc. This highlights the need to broaden the sphere of engagement from the 'usual suspects', such as companies and development organisations, into a more public sphere.

Indeed, based on this investigation, the biggest change to public value creation occurs through broader stakeholder engagement, which is derived from the need to address broader public value, especially environmental and social value, which will add to the already established economic value.

How does one engage more stakeholders? One way to approach this is via the idea of public value. Basically, the process (EDP or ODP) must have some value for the stakeholders or participants. Only by providing something valuable can one hope to engage actors in a mutual process. Although smart specialisation has been portrayed as a tool for economic well-being (and value), it has been designed to add public value through two means: directly through the results from a successful EDP exercise (goals or specialisation) and indirectly via stakeholder engagement itself (see Figure 4). Some literature (Mäenpää 2020) has highlighted that although the results are what EDP is designed for, the indirect effect that it has

(stakeholder interaction) is also valuable for regional developers and especially participants; they see some value in this engagement. One reason might be that this co-creation offers a forum for discussion, which may increase public value by offering networking opportunities. In PRI, this networking process (originally focusing on creating economic value) may become a platform for expressing environmental concerns or for empowering the health and well-being of the population.

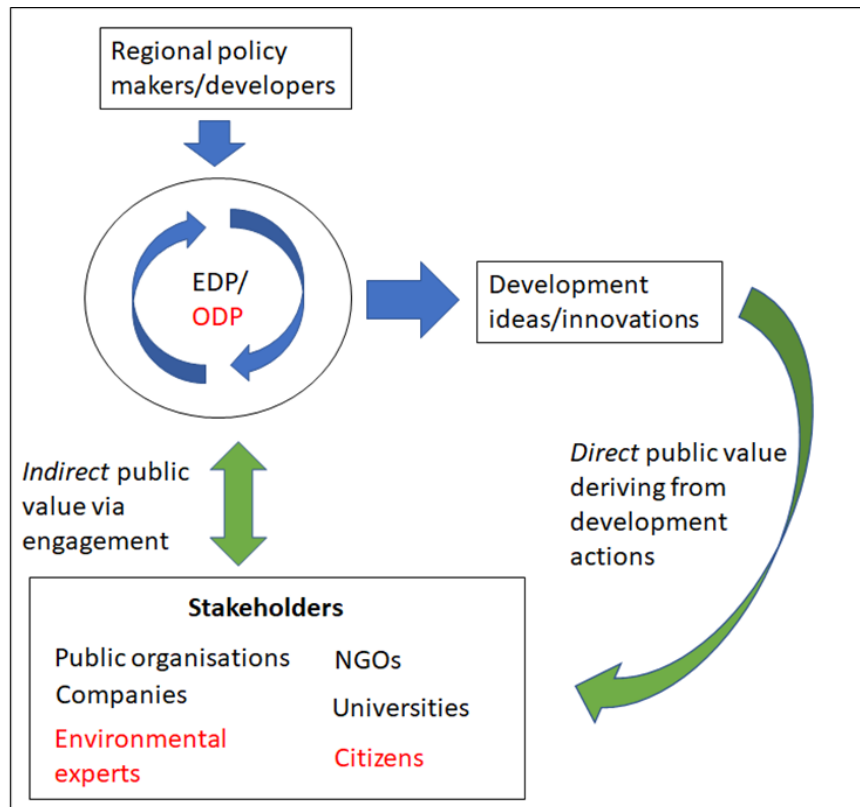


Figure 4 - Public value creation in smart specialisation (authors own contribution).

Based on the examination of Moore's triangle and the early PRI literature, the EDP process can be used as a framework for creating public value via stakeholder interaction. This also means that it may be used for ODP by including citizens and other actors, which adds social and environmental elements. Smart specialisation can act as a platform for public value creation and should also function as a platform for creating broader sustainable value.

One way to determine more practical solutions is to focus on the sub-regional level. As has been discussed regarding the PRI framework and ODP (Pontikakis et al. 2022), this broadening of the discovery process may also mean more local solutions on a smaller than regional level (Jungsberg et al. 2020) and social inclusion may also offer avenues for thinking more generally of the well-being of citizens. This highlights the need to start thinking about issues concerning regional wellbeing and to shift the focus from products and services to the people who make them and to the environment where they are created. This also indicates the need to look for new tools to develop citizen engagement in the innovation policy context.



Some solutions have been proposed in the S3 context (Mäenpää & Lundström 2019), but the environmental and societal focus may also offer possibilities for new types of engagement solutions, such as city labs, environmental events, etc. Although we do not discern a major difference in how public value is created in PRI when compared to S3, we do see the potential that broader participation, i.e. ODP, offers for new relevance and impact (See Figure 5).

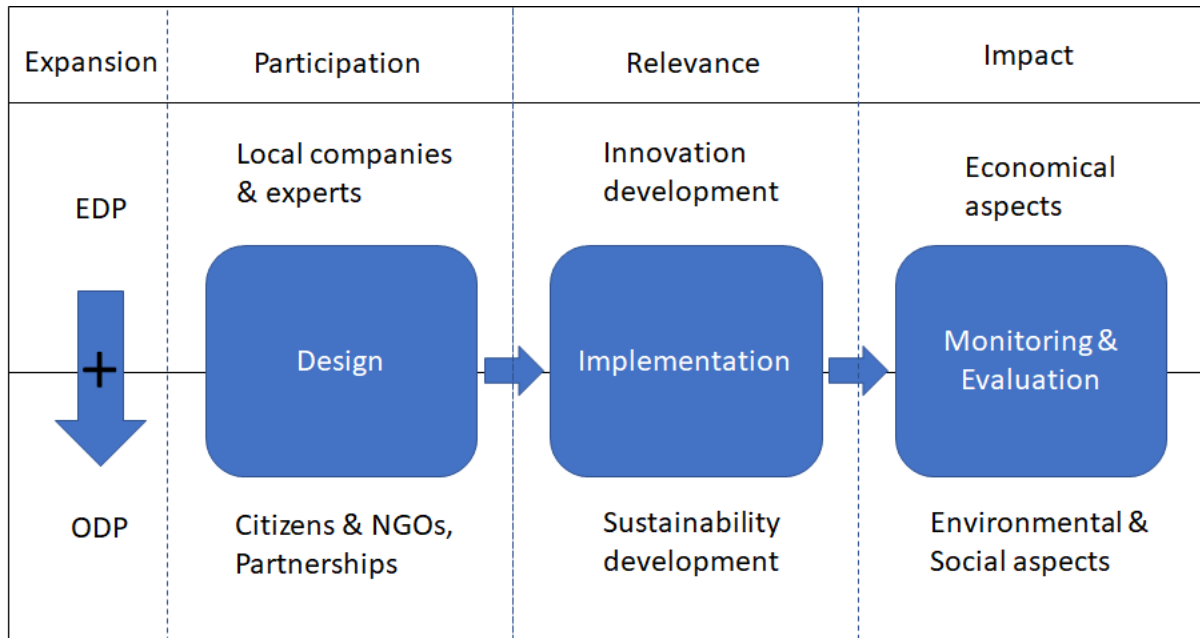


Figure 5 - The effects of broadening focus from EDP into ODP (Author's own contribution).

However, there are some limitations of this study. First, the concept of PRI actions was launched during the spring of 2022 and has non-empirical evidence. Therefore, the findings of this study are based on theoretical assumptions of the directions of smart specialisation and value creation in future programme development. Second, the discussion of Moore's (1995) public value has mostly been discussed from a strategic management perspective, and this article provides only a theoretical perspective regarding how public value can be created during the EDP process. With more empirical evidence and for example examination of the value which is perceived via engaging in EDP or ODP process, a more concrete understanding of value could be developed.

Despite these limitations, public value creation is an integral part of future smart specialisation implementation, and its role can be expected to become more important during the next programming period. It also seems that ODP may respond to some of the critiques that have been mentioned concerning former S3 implementation because a more open approach to innovation at least expands the potential list of stakeholders (see Moulaert & Sekia 2003) and may even contribute to exogenous engagement with stakeholders outside the region (see Giustolisi et al. 2022). The sub-regional focus is also making this engagement easier by focusing the actions on certain cities or districts, especially when officials from

municipalities or cities are actively engaged in the process (see Estensoro & Larrea 2016). This may be a more fitting approach for semi-autonomous regions as well (see Pugh 2018). These findings indicate that the new PRI has the potential to outshine its predecessor, but only if public value creation is taken seriously and not only as 'rhetoric', as mentioned by Yuarra et al. (2019).

## Conclusions

In this paper, we have discussed the role of public value in the new smart specialisation concept PRI as well as how public value affects its implementation. Our examination of public value and EDP revealed that EDP is considered a process that adds public value to regional innovation systems and that it manifests in both direct and indirect ways through regional dialogue and development projects; however, public value is also an important outcome of successful EDP processes. This emphasises the need for engagement as an important condition for creating public value. This thought could be broadened by stating that successful engagement will require both time and resources. In order to demonstrate the value some pilot projects would be useful since people need to see the benefits. This need is emphasised in PRI, where results are seen as more important than strategy documents. The question then is, how existing processes should change in order to better add public value?

Our examination showed that when smart specialisation is applied to Moore's triangle, the basic principles remain the same in S3 as well as in PRI with one exception: stakeholder engagement. This element needs to change if the focus changes from economic to broader, sustainable value. This also means that if smart specialisation does not provide any public value for participants, i.e. if the process does not seem to offer any social or environmental value, then stakeholders may reconsider participation in the process. This is especially important in new ODPs, where the inclusion of new types of stakeholders would enhance the public value potential of the whole smart specialisation process. However, in order to make this effective, three key aspects should be considered. Public value creation:

- a) should extend beyond borrowing simple private sector models and market practices
- b) should shift the focus from products and services to the people who make them and to the environment where they are created
- c) should complement the realistic analysis of the region based on the citizens' perspectives of domain selection and could even be formulated as a complementing criterion.

Furthermore, inclusion based on values other than economic value can also spur new regional activities, which are more based on systemic solutions than singular products or services. For example, environmental solutions are not necessarily related to technological innovations but may also provide new ways to circulate or save waste or energy for example. These are also important aspects that could be enhanced and developed in ODPs. The focus of the process is shifting from products and services to broader, systemic solutions. It would

indeed seem that a stronger emphasis on public value should be integrated into regional innovation policies, which means that further studies on the subject, especially on practical implementation, would be beneficial for understanding its role in PRI.

Current PRI pilot actions emphasise the ODP, and collaboration with civil society. As Mäenpää and Teräs (2018) have pointed out regarding the smart specialisation domain selection, domains should be based on the realistic analysis of the current situation of the region. The ODP creates connections between traditional smart specialisation partners and civil society, broadening the scope for inspecting innovations, especially relating to social innovations. Therefore, public value might complement the realistic analysis of the region based on the citizens' perspectives of domain selection and could be formulated as a complementing criterion. In some regions, there are natural operating environments for traditional smart specialisation in inclusive actions with companies, universities and development organisations, for example, but in regions lacking potential innovation partners, municipalities and other local stakeholders should be considered relevant partners for generating public value (Kangas & Aarrevaara 2020; Kangas & Ryyänen 2022), for example via increasing the well-being of citizens.

Indeed, if one inspects the new PRI as a broader public value instrument, it opens the scope on what social and environmental innovations might mean. European municipalities and local administrations are often responsible for health and well-being promotion and might therefore act as an important link in creating more public value via smart specialisation. It should be noted that municipal (and other local) actors may have been quite absent from previous smart specialisation implementation. However, there is more evidence that the local level play's crucial role in sustainability issues, for example in land use and planning (Meyfroidt et al. 2021). Civil society is also more heavily connected to the basic tasks of municipalities, which might ease their inclusion into ODP. Perhaps the well-being of citizens could become one important focus for smart specialisation, adding more horizontal aspects into the vertical specialisation that the S3 is mostly known for.

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