



**The Role of
Universities in
Innovation and
Regional Development**

Reconnecting the University to the Region of Twente

Findings from the RUNIN-Design Lab Think Tank

Think Tank Report

RUNIN Project Summer School
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Executive Summary

The RUNIN project's Design Lab Think Tank took place on 28th June 2018. Its aim was to discuss the topic of universities' engagement with society, specifically in their region. It used a world café format that brought together regional stakeholders to discuss how the University of Twente (UT) can incorporate societal questions in its core activities and, through this, create regional benefits. This report provides a description of the event, a summation of the initiatives proposed and an analysis of the discussion that was prompted by the sub-questions around the subject of universities' societal engagement.



The first question considers the responsibility UT should have to incorporate societal interests in its teaching and research activities. Tentative conclusions from the Think Tank discussion give UT the responsibility of unifying relevant stakeholders around the topic of regional development. In doing this, it should move on from a narrow focus on its missions, incorporate broader definitions of engagement and impact, and give attention to both technological and non-technological approaches to societal challenges. The need to shift mentalities, not just at the university but in society in general, to achieve this systemic change was viewed as particularly important.

Integrating societal interests in UT's teaching and research activities inevitably requires changes to its internal organisation. Suggestions for new channels, mechanisms, and activities were made throughout the discussion responding to this second question, which emphasised the need to implement, at both strategic and operational levels, engagement-oriented reforms across the university.

The third question considered UT staff and students' role in ensuring the incorporation of societal interests is facilitated. While some mechanisms of engagement were mentioned, knowledge of their existence was considered variable both within and outside UT. Improvement of both internal and external communication was thus pinpointed as an essential requirement for incorporating societal engagement at UT. In turn, this could promote the creation of formal or informal channels

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to develop relations at various levels and nurture bottom-up initiatives and assimilation of knowledge from society into the academic community.

The last three of the six questions addressed UT's facilitation of questions coming from regional actors. The fourth question, around how far society should be able to influence a university's teaching and research activities, appears difficult to define. It requires balance among identified societal actors on a case by case basis. To avoid power problems, where one single stakeholder may be too strong in the collaboration, the amount of time and money given by stakeholders should have limits. In addition, applying a transparency mechanism is considered an important safeguard in collaborations between university and society.

Several specific activities need to be promoted to assist societal actors in bringing their concerns into UT, which was discussed under the fifth question. Those activities – such as festivals, workshops or science cafés – should be organised by UT both on and outside the university campus, with different topics targeted to various audiences. To bridge the gap between university and society, academic staff, not just current employees but also retirees, play an important role through their societal networks. In addition to such physical interactions, UT could explore the advantages of technologies, such as online portals, in obtaining ideas from society.

The final question prompted suggestions for a great variety of methods through which societal actors could constructively contribute to UT's teaching and research activities. Besides typical activities, such as joint research projects, internships and guest lectures, two novel methods were suggested: the inverted sabbatical year and a course that addresses one specific (regional) challenge. To enable significant contributions from societal actors to UT, three important things need to improve: accessibility, trust and communication. Lastly, both UT and other societal actors need to show high levels of commitment in any collaboration.

In a nutshell, it is believed that UT should mainly be in charge of implementing actions to integrate societal considerations in its teaching and research activities. However, support from societal partners is vital to enhance collaboration between university and society.

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Introduction

Technology has become ubiquitous in contemporary society as a means of answering wider societal questions. Much of that technology originates in various ways in universities, and increasing efforts are being made to find ways to better connect universities to these societal questions. In the Netherlands, the government organised a coordinating exercise allowing citizens to directly send in questions and distilled them into the National Research Agenda. The University of Twente (UT) claims to take this societal role seriously, with its tagline “*High Tech Human Touch*” suggesting a university aiming to embed societal aspects within its technological research. But what is society expecting and what ideas do societal parties have about research? And how can the university include societal needs in new or current research projects? Trying to answer these important questions, PhD students, university staff, and regional partners, among others, were invited to participate in a Think Tank event where they could work towards sharpening understanding of these issues, make suggestions for concrete activities, and highlight where additional research will be needed to meet societal needs.

The RUNIN-Design Lab Think Tank “*Reconnecting the University to the Region of Twente*” was an academic meeting held at UT in the Netherlands on June 28th, 2018. With a World Café format, the meeting focused on the topic of universities and regional engagement and the specific case of UT, focusing on how UT can incorporate societal questions in its core activities and create regional benefits. The Think Tank event was co-organised in collaboration between RUNIN Project, CHEPS, NUCLEUS Project and UT DesignLab; more information on the event organisation is provided in **Annex 1**.

The discussion was structured around six specific questions grouped in two themes, as shown below.

Theme 1: How to include societal considerations in the research and teaching conducted at the University of Twente?

- 1) What responsibility or duty should UT have to incorporate societal interests in its teaching and research activities?
- 2) How should UT organise itself internally to facilitate incorporating societal interests in its teaching and research activities?
- 3) What can UT staff and students do to ensure that societal interests are incorporated in teaching and research activities?

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Theme 2: How can the University of Twente facilitate questions from society, and in particular, questions from regional actors?

- 4) How far should society be able to influence the questions that UT addresses in its teaching and research activities?
- 5) What kinds of activities do societal partners find useful to make their influence known to UT (staff)?
- 6) How can societal partners constructively contribute to UT teaching and research activities in ways that allow their interests to be heard?



Each question was assigned to one table in the World Café setting and each table had two hosts, who took the roles of **Moderator** and **Rapporteur** and led the three rounds of discussion; more information about the table hosts is provided in **Annex 2**. The **RUNIN Project Editorial Team** has turned the tables' reports into this document: the final Think Tank report, which is structured around the six discussion questions and presents main findings and analyses from the table hosts.

Question 1: What responsibility or duty should UT have to incorporate societal interests in its teaching and research activities?

Hosted by *Rıdvan Çınar & Utku Ali Rıza Alpaydın*

Beside its original responsibility for teaching and research, UT should play a unifying role in bringing together different stakeholders around the goal of regional development. At the same time, UT has the duty to use its current advantages and expertise in high technology and entrepreneurship to influence the lives of citizens positively. This is based on the understanding that the university should broaden its focus from high-tech to include societal challenges in the Twente region.

1.1. Discussion Outcomes

What are the suggested actions?

Participants suggested several steps that UT could take.

- 1) Resolving the insufficient **communication** between UT and the public. When the remote location of the UT campus is considered, channelling UT activities to the city centre would increase the visibility of UT in the eyes of citizens. The **presentation of graduate projects** (as at ArtEZ) and the organisation of **Open Day events** in Enschede city centre were given as examples. Students are the university's most important asset in engaging with the public. However, students' engagement should go beyond internships in companies. Students should be mobilised through projects dealing with societal issues and trying to integrate the high-tech dimension into the lives of ordinary people. This type of initiative will increase the interaction between students and citizens.
- 2) The establishment of a societal challenges **helpdesk** at UT. This helpdesk would have a one-stop-shop approach and fulfil the role of a liaison office matching the needs of citizens with academics' expertise. This would provide a gateway between UT and the public's issues and interests.
- 3) Retraining for graduates, or unemployed people, through **lifelong learning programmes** could provide a solution to the region's unemployment problem, as Twente has the highest unemployment rate in the Netherlands. The experience of Tampere region in Finland, where the former Nokia workers have been re-integrated into the labour market through various training and lifelong learning programmes, could provide a model.
- 4) The **attractiveness and image** of the Twente region should be improved. This will help to keep the **brain drain** at low levels and attract more businesses to the region, meaning more job

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opportunities for graduates. To make the city more attractive, the social life it offers should become more entertaining and vivid through increasing the number of *festivals, concerts and other events*. Moreover, the *connection between the communication departments* of all relevant stakeholders – municipality, university, NGOs – should be strengthened to reach more people. For example, the *social media accounts* of those organisations should promote each other's events.

- 5) UT should also play a role in contributing to social cohesion in the region, particularly in *narrowing the gap between generations and different ethnicities* by bringing them closer in a *platform to meet* for a common aim: making Twente better.

Who is responsible for executing/implementing these actions? Who else participates?

The responsibility for executing these actions lies with both individual academics and university administration/governance. Moreover, governmental bodies (local, regional or national) should support the engagement initiatives through regulating, opening the space, and incentivising. The potential changes UT would undergo in responding to such demands would probably not be enough to realise this, unless they are accompanied by transformation in the broader social system. More specifically, expectations from external stakeholders in making the region high-tech focused should be openly discussed. Furthermore, relevant stakeholders in the region, such as the municipalities, the provincial government and the Twente Board, should facilitate UT's societal outreach by providing necessary support.

Why are these actions needed?

The actions will facilitate UT's closer engagement with the Twente region. It will be a mutually beneficial situation for the university and the region. UT will enable the region to better respond to existent and arising issues by providing its expertise. The joint efforts will also generate multiplier effects for all related stakeholders.

How should these actions be implemented? How do they fulfil the assigned question?

One of the great resources that UT should tap into is its *student body*. UT students come from all over the world, acting as a pool of creativity and diverse outlooks. The bachelor programme curriculum should be reorganised in a way that gives the opportunity for students to *work on a challenge the region faces*. Such tasks must entail interaction with citizens. Every bachelor programme could have a course or project in which students are expected to go out in the field for some time, observe the region, interact with the local people, and discuss how their scientific field is relevant and how it can contribute to solving challenges in Twente. Another action that could be taken is *channelling UT's activities to the region*. To enable this, municipalities should work in close cooperation with UT and provide logistical and social support.

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Another action lies in establishing *lifelong learning programmes for graduates*. These programmes could have a theme tailored to a specific group of students, sectors or disciplines. A single type of lifelong learning programme for all disciplines should be avoided. Furthermore, self-employment opportunities should be addressed and encouraged. Lastly, together with Saxion University of Applied Sciences, ArtEZ, and municipalities, UT should have a duty to make the region more attractive and vibrant, culturally and socially. These cooperative works may include working on *festivals and fairs* that would be identified with the region. Dutch Design Week in Eindhoven is one example of this type of activity.

1.2. Analysis

One theory that can be linked to the actions suggested above is new institutionalism. The theory posits that the wider environment surrounding organisations heavily influences them, and that actions of institutions are rooted in the realm of seeking legitimacy to survive (DiMaggio & Powell, 1991; Meyer & Rowan, 1977). In our case, external stakeholders' growing emphasis on high-tech has consolidated UT's actions. The impact of the high-tech narrative is also increased due to the belief of a group of managers/faculty members that going high-tech is the right way forward. Therefore, not only does UT need to undergo some changes to respond to these issues and implement the actions mentioned above, so does the superordinate social system surrounding it.

Question 2: How should UT organise itself internally to facilitate incorporating societal interests in its teaching and research activities?

Hosted by *Sofya Kopelyan & Saeed Moghadam Saman*

To include societal considerations in its activities, UT should develop and implement a concerted set of engagement-oriented reforms. These reforms, which are expected to boost the regional 'developmental role' of the university, target the permeability of UT's organisational boundaries by integrating the third mission (i.e. societal engagement) at all levels of academic practice. It is vital, however, to underpin the reforms with cultural changes to consolidate their sustainability and coherence.

2.1. Discussion Outcomes

What are the suggested actions?

The actions suggested by participants can be classified into three categories: strategic, organisational, and cultural reforms.

Strategic reforms: Some of the actions discussed deal with the strategic missions of UT, and therefore imply formal changes in its core activities. Overall, the perceived tension between UT's focus on international versus regional excellence is considered a major influence on its mission definition. Advocating for the latter approach, most participants emphasised the need for a ***closer engagement between university teachers and students and wider society*** in teaching and learning and in conducting academic research - for instance, by means of ***incorporating practical, socially engaging work in course syllabi***. Academics' societal interests are generally considered to be a largely untapped opportunity to establish such engagement activities. Concomitantly, several existing practices, such as ***conducting 'action research' or including 'business ethics' in the content of entrepreneurship courses***, are viewed as examples worthy of further development to unravel and incorporate societal interests in academic work. To institutionally promote and formally develop the societal engagement of academic staff and students, participants recommend UT provides ***training, supporting the skills needed for "going outside" academic settings***.

Organisational reforms: Another type of reform envisages organisational changes. Overall, participants' recommendations can be grouped in three clusters:

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- 1) Adding a new component(s) to UT's organisational structure, such as an *office responsible for societal considerations*, and/or creating formal roles with the task of feeding input from the "outside environment" to the university, its scholars, and students. For example, it is now usual for UK universities to *appoint a person dedicated to leading 'engagement'* activities at the level of each faculty; their tasks include encouraging, monitoring and reporting on those activities;
- 2) Improving the *visibility of existing 'boundary-spanning' actors*, including actors from other organisations such as regional or provincial authorities. Within UT, such boundary-spanning actors could, for example, be scholars or university alumni who give 'public lectures' in settings like a Science Café or guest lecturers from non-academic environments;
- 3) Reallocating *available time and funding* to account for university employees' engagement activities. Some of the most critical questions raised by participants concern the possibility and mode of embedding societal engagement in academics' working hours and professional skills development. It was debated whether such practices – for instance, spending secondment periods in industry – need to be considered in academics' employment contracts (by "*personalising*" the contracts) to provide necessary and sufficient organisational support.

Cultural reforms: As the changes required for better inclusion of societal interests in teaching and research practices call for changes in the mind-set of academics and their audiences alike, cultural changes were a recurrent theme during the discussion. The points raised can be grouped around three topics:

- 1) UT's organisational identity, which implied that university management should be *communicating the message that teaching and research activities need to genuinely address societal challenges*. Importantly, such activities should not be incentivised exclusively by financial or reputational considerations – such as obtaining external funding or enhancing the university's position in the European market – but be based on altruistic motivations to deliver better impact. It is therefore essential to use *societal problems as sources of inspiration for research and education*. In line with this, it was also recommended that *UT add "social innovations" to its technical innovation achievements*, to create a more balanced organisational identity;
- 2) Instrumental support for changing organisational culture, namely the need to *recognise academics' societal engagement and make it an integral part of their appraisal and promotion* (e.g. by creating a *prize for best examples* of including societal interests in their professional activities). Some universities (e.g. Linköping University in Sweden) are already giving credit to their staff for these activities and it was argued that such initiatives must be promoted and scaled up, while also preserving recognition gained outside the university environment as a genuine incentive;

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- 3) The need for a bottom-up approach, *promoting and supporting the intrinsic pro-social motivations and individual projects of academics, students, and alumni* as an authentic resource for incorporating societal concerns in UT's activities.

Who is responsible for executing/implementing these actions? Who else participates?

The strategic and organisational reforms, as well as some of the cultural reforms, require active involvement from the top levels of management (at the university, faculty, and department level) in addition to the academic and administrative staff of the university. Some elements of the strategic and organisational reforms, such as action research projects, secondments in industry, or improving the visibility of boundary-spanning actors, cannot be implemented without effective participation from external societal and economic stakeholders. Cultural reforms are more related to individual values and perceptions. Thus, participation in their implementation, while being concentrated inside the university, spans across all actors in society.

Why are these actions needed?

The discussed reforms aim at facilitating an internal organisational change at UT to better entwine academic practices with actual societal concerns. While the strategic reforms target the long-term '*planning*' of such changes, the organisational reforms aim at their '*execution*', and the cultural reforms seek to guarantee the '*sustainability*' of those changes. These actions will also better align UT and its strategies with the mission-oriented approach taken by the European Commission regarding EU research and innovation, which highlights the need for wider societal relevance.

How should these actions be implemented? How do they fulfil the assigned question?

Implementation of the discussed actions calls on the one hand for a full-scale *formal endorsement of societal engagement as the university's strategic mission*, on a par with traditional academic missions; and on the other hand for an earnest *pursuit of societal impact as the end goal rather than as a means to increase revenues*. Accordingly, this necessitates a revision of the university's strategic and operational documents and structures. For instance, UT could *introduce portfolio holders for engagement (or impact or valorisation)* – in addition to portfolios for research, education, and operations – in the structure of faculty boards. While these revisions prepare the organisational infrastructure needed for the actions (reforms), the cultural reforms demand a broader (cognitive and pragmatic) participation from all intra-organisational actors, towards 'socially-aware' academic practice. Hence the importance of *identifying 'engagement champions'* at the bottom level and ensuring that their efforts are promoted by managerial actions.

2.2. Analysis

Gunasekara (2006) compares the triple helix model (Etzkowitz & Leydesdorff, 1997) and the engaged university model (OECD, 1999; Holland, 2001; Chatterton & Goddard, 2000), suggesting they give the university, respectively, a generative and a developmental role in regional innovation systems. According to Gunasekara (2006), while the generative role mainly centres on knowledge capitalisation and firm formation projects, the developmental role centres on the intersection of regionally-informed learning economies and the regionalisation of production and regulation. It can be argued that the reforms discussed at the Think Tank event aim to create a balance between the generative and developmental roles of the University of Twente, by preparing it organisationally to accommodate this balanced role-playing. As Gunasekara (ibid, p. 23) clarifies, “[...] *the nature of the role performed by a university, as between developmental and generative, is not necessarily evolutionary, but, perhaps, is mediated by unique sets of historical, institutional and cultural factors*”. Accordingly, creating an equilibrium between the generative and developmental roles requires deliberate strategic, organisational, and cultural interventions (briefly) presented above.

Question 3: What can UT staff and students do to ensure that societal interests are incorporated in teaching and research activities?

Hosted by *Maria Salomaa & David Fernández Guerrero*

UT staff and students should maintain their participation in connecting-society events such as the Science Shop at Kennispark Twente and co-creation sessions at the DesignLab. They are also encouraged to initiate their own projects to engage with society. These activities can assist in forming a culture of societal engagement at the individual level. It is vital for UT management to 1) continue launching mechanisms to improve societal engagement and make these known to UT's staff and students and 2) facilitate bottom-up initiatives.

3.1. Discussion Outcomes

The aim of this section is to present an overview of the actions proposed by the Think Tank participants, with the goal that UT staff and students incorporate societal interests in the university's teaching and research activities. For each action an outline is given of: its potential contribution to incorporating societal interests in the university's teaching and research activity; how it would be implemented; and which actors would participate in its implementation, execution, and development.

UT staff and students already develop a wide range of actions that facilitate the inclusion of societal considerations in teaching and research activities and the Think Tank participants emphasised their importance. One example is the Science Shop located in Kennispark Twente: its function is to serve as a matchmaker between demands from non-profit organisations, interest groups, or individual citizens and the expertise available at the university (Kopelyan & Nieth, 2018). According to one of the participants, the Science Shop addresses 130 questions per year, incorporating societal demands in the activity of the university. UT's Design Lab has a similar aim: according to the participants, civil society organisations and businesses can work with UT students and researchers on societal problems that require insights from multiple disciplines. Other participants mentioned internships as a channel through which students can incorporate societal needs: during internship projects, students combine academic knowledge acquired in the classroom with practical demands from businesses. According to another participant, a similar outcome can be reached through the visits that students make to the municipalities: over the course of their education, students get to know the concerns coming from public administration. Lastly, a more recent development is the Living Smart Campus: students and researchers can use

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UT campus as a testbed for solutions to problems posed by firms, municipalities and civil society actors.

Nevertheless, some of the participants were unaware of the initiatives developed at the university and this is precisely one of their overarching considerations: ***UT needs to improve its internal and external communication strategy***, increasing awareness of what students and staff can do for society. These actions, which would include the ***promotion of role models of societal engagement***, could incentivise student and academic links with the rest of society, whilst motivating societal actors to approach UT. These actions, moreover, could help to fulfil another requirement raised by the Think Tank participants: students and staff, particularly those individuals that are more inclined to interact with external parties, should ***internalise societal engagement as an essential part of their education***, not just as something driven by incentives such as improving the university rankings for societal engagement. Otherwise, societal engagement could be perceived as another element in the competition between universities for better funding (in fact, the idea of establishing university rankings for engagement generated a debate between the participants, for fear that their implementation could lead to incentive-led, not genuine, engagement on the part of students and staff). Nevertheless, the participants also acknowledged the need for some recognition of students' and researchers' societal engagement, to facilitate the integration of this aspect in research and education. For example, students' curricula could offer ***credits for projects*** developed in the region; and tenure track scholars' participation could be ***included within their work schedules***, with no salary penalty. One proposal was to ***allocate one day of the academic calendar to societal engagement activities***, or to devote vacation days to these actions.

Even if these efforts deliver results, the incorporation of societal concerns in the education and research activity of UT might also be limited by the geographical proximity of its premises and societal actors, which might increase the perception of the university as a distant actor in the region (Kopelyan & Nieth, 2018). Some participants considered the university to be too far from rural municipalities and proposed the ***establishment of branch campuses in these locations*** to stimulate the incorporation of the needs of these municipalities into UT's activity. Some students, however, believed that this proposal could decrease the cohesiveness of the student and faculty community. Another proposal that could help bridge the geographical gap between UT and the Twente municipalities is the ***development of pop-up labs***, to be established on a market day in the main square of each municipality. The idea is to generate interest in the university's activity and provide an entry point for societal demands, however ephemeral.

Finally, there was a perceived need for structures that facilitate student and staff initiatives for societal engagement. Even if these actors internalise a mentality of societal engagement (there were, for example, proposals for ***courses on socially responsible engagement and revising***

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entrepreneurship education), it is unclear whether ideas for social engagement can find the appropriate support structures to become functioning initiatives and serve as an example for the rest of the university community. These structures could entail benefits other than the recognition of student credits or paid hours.

3.2. Analysis

The Think Tank participant proposals can be studied in different literatures: namely, those of economic geography, smart specialisation, the role of universities in the development of peripheral regions, university governance, and research engagement.

UT has multiple instruments that can help it fulfil its mission of societal engagement. Nevertheless, calls for stronger internal and external communication policy suggest the university is not effectively promoting the channels it already has for student and societal engagement. This limitation, from the perspective of the economic geography literature, suggests the institutional distance between UT and some of its stakeholders is preventing effective communication of the actions developed by UT (Boschma, 2005): communication routines followed by the university might clash with the actual expectations of the stakeholders. Societal stakeholders expect simple and coordinated communication policies, and this is visible in their claims during the Think Tank session. This finding is not surprising given that previous research has perceived a lack of coordination in third mission activities developed by UT (Kopelyan & Nieth, 2018). In addition, the calls from some participants to move activities out of the main campus to the more rural municipalities, whether in the form of branch campuses (Charles, 2016) or temporary facilities like pop-up labs, suggest that geographical proximity matters in stimulating UT's engagement with society. This is coherent with the hypothesis that geographical proximity and institutional proximity are associated (Boschma, 2005). Another way to look at the proposals is through the lenses of previous research on the role of universities in the development of peripheral regions. According to this research, the debate on the geographical location of UT can be seen as part of the conflict between urban and rural municipalities for the allocation of resources (Benneworth, Korotka, & Ratinho, 2018; Kopelyan & Nieth, 2018).

Secondly, previous research suggests that some of the university's main interaction channels, such as the Strategic and Business Development team and the Design Lab, are more accessible to large businesses and start-ups and this suggests UT might perceive these stakeholders as higher in power, legitimacy, and urgency, which is connected to the university's profile as a high technology institution (Jongbloed, Enders & Salerno, 2008; Kopelyan & Nieth, 2018). The participants' proposals, however, entail a reconsideration of the importance UT places on each of its stakeholders. Strengthening the university's communication channels and facilitating the involvement of researchers in societal engagement activities are measures that might increase

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the ability of less powerful stakeholders (civil society organisations, citizens, small businesses) to access the resources provided by the university. These stakeholders are likely to be highly legitimate because of their presence in society (Jongbloed *et al.*, 2008). Furthermore, through having a greater voice in the direction of university research and education, these stakeholders could work together with UT to find alternative paths for the development of the Twente region, beyond high technology. Ultimately, this interaction might help the region diversify into different but related economic activities, which is one of the desirable outcomes of smart specialisation strategies (McCann & Ortega-Argilés, 2015).

Thirdly, the actions suggested in the previous paragraphs might lead to a change in the attitudes of students and academics. Be it through problem-solving student internships in companies or paid hours allocated for civil society activities (whether as one calendar day, several hours to be freely distributed, or ECTS credits for students), the actions proposed by the Think Tank participants facilitate the inclusion of societal concerns in the agenda of scholars and students. These measures, in sum, could stimulate a shift towards engaged forms of research that is already observed in the literature (Duncan & Manners, 2014). At the same time, there is a risk that these measures stimulate forms of engagement guided by scholarly distinction, rather than an honest will to contribute to society (Watermeyer & Chubb, 2018). For instance, implementing university rankings for engagement could lead to competitive, incentive-driven engagement on the part of students and staff. For these reasons, the table participants believed that societal engagement should be internalised by students and scholars as an essential part of academic life, regardless of pure incentives. Another way to promote these genuine, bottom-up forms of engagement would entail structures facilitating bottom-up engagement initiatives.

Nurturing this culture of societal engagement in UT's community will be essential in the future, considering the evolution of the links between this university and society: as one of the participants mentioned, the Living Smart Campus provides an opportunity to test innovations on the campus before they are applied to the rest of society. These tests could enable a more thorough evaluation of the potential impacts of the innovations under development, following the premises of responsible research and innovation (Stilgoe, Owen, & Macnaghten, 2013; Von Schomberg, 2013), and an academic community that is already sensitive to the need for socially responsible research could help even further.

Question 4: How far should society be able to influence the questions that UT addresses in its teaching and research activities?

Hosted by *Mirjam Schuijff & Eloïse Germain-Alamartine*

The extent to which society should be able to influence UT's teaching and research activities cannot be easily defined. It depends on the balance found between stakeholders, as suggested by Star Model, and possibly on each case of societal challenge that is tackled by the university. Safeguards need to be incorporated into the new approach to dealing with stakeholders and societal questions. This could take the form of setting time and money limitations on influence from any stakeholder on the university's teaching and research or the issue could be addressed through transparency (and accountability) mechanisms.

4.1. Discussion Outcomes

The discussion's main outcomes can be broadly grouped into six actions, which are mostly perceived to be the responsibility of the university.

1) Define who "society" is

The university should take the lead on this task, but all stakeholders are encouraged to be involved. Without *a clear definition of who society is*, the debate will remain unclear and inefficient. Depending on who 'society' is, i.e. the different interest groups comprising it, the university can consider and choose how far they can influence its activities.

2) Explain to society what university and society can do together

It is necessary to establish a contact between the university and society, and keep the relationship alive, in a win-win situation. For example, *create a hub for people with societal questions* and a meeting point, since the environment is not homogeneous. The university should be responsible for this action together with some local stakeholders, such as local media and any other communication channel (e.g. science cafés). This action implies *more communication and more transparency* from the university side, which should make actors in society more aware of how they can get involved and how the university can help. It might also be necessary to communicate to university researchers and staff about being open to society (as they should be open and welcoming to societal stakeholders and their questions). This action shows that the university is willing to collaborate with society in its activities and shows that society can do more than react to what the university is doing: it can also actively collaborate. Society will be given a voice.

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3) Detect the best opportunities for university-society collaboration

The star model (Figure 1) should be used to implement this action. The star model suggests *six main stakeholders* who are encouraged to promote collaboration between university and society. *Controlling the amount of money and time given by each stakeholder and applying transparency mechanisms* is crucial to ensuring the success of such a collaboration. The university is responsible for this action, with possible collaboration with funders of university activities (teaching and research). The action is needed because the university cannot take care of all societal problems; it has its own strategy and constraints and must be coherent and focus on a limited number of opportunities. By detecting the best opportunities, the university will be able to determine for each case who the stakeholders are and negotiate what their role will be – and negotiate to determine how far society will be able to influence its activities.

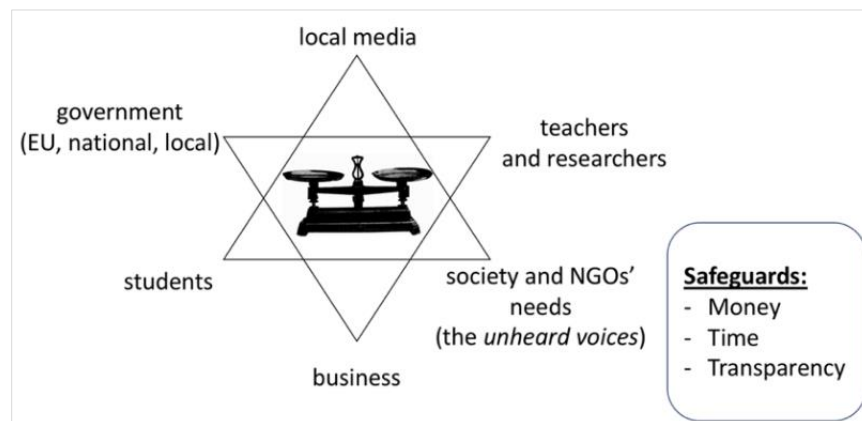


Figure 1: The Star Model

4) Make research (local or societal) challenge-driven

The research should be *challenge-driven* instead of money and tech-driven. This action needs to be addressed by the university and the whole research system. The action is critical to give priority to urgent societal questions, rather than to questions that might be less urgent and less useful for society but in which funders are ready to invest. The action does not directly fulfil the assigned question, but it does so indirectly in the sense that it should have an impact on how research and teaching activities are designed and conducted, giving more place to society. Raising awareness for this in the research (funding) system is something UT could do together with universities that have a similar regional role. Together they could lobby for changes in the system that would allow universities to respond to region-specific research challenges more easily.

5) Implement parallel research in a value-chain

UT should learn from Saxion and *implement parallel research in a value-chain* to provide more complete solutions to society. The university and its counterparts are responsible for this

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suggested action. Defining what each HEI can provide to society in their own way, without redundancy, could help increase efficiency and effectiveness in tackling societal challenges. The action fulfils the assigned question in supporting the implementation of action b) on improving communication between the university and society.

6) Increase the relevance of the university's teaching

Teaching should be partly funded by private money (as research is) to increase its relevance. Also, draw inspiration from Hamburg where the city has its own tax system and can more easily decide what to do in the university that would be relevant for the region. The research system and the government, as well as funders, should oversee the implementation of this action. This action is needed to support university activities in being more closely linked to the region and its needs. As with pursuing challenge-driven research, this action indirectly fulfils the assigned question in the sense that it implies a revision of the teaching and research system, giving more power to the region to ask the university to tackle societal challenges.

4.2. Analysis

An RRI approach

Some actions are in line with the implementation of an RRI (Responsible Research and Innovation) approach. Action 2 aims at giving a voice to society, and creating a real relationship with it, where society could be able not only to react to the university's activities but also to act, by taking part in them. In that sense, it aims to make the university's teaching and research activities more inclusive but also more reflexive and responsive; these three characteristics are presented as dimensions of responsible innovation by Stilgoe *et al.* (2013). An effective relationship between UT and regional society allows UT to use local, non-academic expertise to tailor its teaching and research activities to society's needs. UT and the region can mutually benefit from this relationship. In RRI, stakeholder inclusion enriches the research process and the end-result of research, enabling better embedding in society (Von Schomberg, 2013).

A stakeholder approach

Action 3 is coherent with Jongbloed *et al.* (2008)'s reflections on higher education and its communities: in three rounds, it was quite clear that the traditional stakeholders in the teaching and research activities of the university were the government and the private sector, mainly for funding purposes. Society seems to be a new stakeholder. Thus, action 1 aims at defining who society is and who the stakeholders involved are. Action 5 aims at unifying the academic institutions as one stakeholder.

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A need for a reform of higher education funding and evaluation systems

Actions 4 and 6 call for a reform of higher education funding and evaluation systems. Action 6 may worsen the situation criticised by Watermeyer and Tomlinson (2017): taxpayer pressure on higher education resulting in competition. However, this pressure might be more relevant and more targeted, and maybe easier to deal with, if the tax system is decentralised and closer to regional needs. In addition, action 4 could be a solution to this problem but might be difficult to implement since it involves major changes in mindsets.

Question 5: What kinds of activities do societal partners find useful to make their influence known to UT (staff)?

Hosted by *Gerwin Evers & Kwadwo Atta-Owusu*

Certain activities need to be promoted to bridge the gap between the university - as an ivory tower - and surrounding society, namely festivals, workshops, and science cafés. These activities should cover different topics for various audiences using the social capital of UT's current and retired staff. This means both 1) getting out of the campus and 2) inviting people to the campus. In addition to such physical interactions, societal partners find online activities useful in sharing their ideas.

5.1. Discussion Outcomes

After some elaboration on the meaning and context of the question, interesting conversations and discussions developed at this table. The varied background of the participants, ranging from general society and policy-makers to academics, allowed them to approach this question from many different angles. This led to interesting developments in the discussion. Although every round brought new insights, some topics and suggestions were recurrent. Participants agreed on the relevance of the question. The university at this stage is still believed to display some characteristics of the ivory-tower university, and the discussants believed most societal stakeholders, although to varying degrees, experience barriers to approaching university staff with their needs. Therefore, the main discussion was related to which activities can facilitate a bridging function between UT and society.

The consensus was that there is no easy answer to this question. Put differently, there is no ideal way that will suffice for all societal actors to make their needs known to UT staff. The recurring theme that can be synthesised from the discussion is that different approaches can be employed by the university. Specific activities that can be undertaken to get input from societal stakeholders are:

- **Going out there:** Several people indicated they regarded the geographical location of the university, on a campus outside the city, as a cause or mirror of its connection with society. Therefore, several suggestions focused on organising and getting involved in off-campus activities;
- **Inviting people to the campus:** The opposite, yet complementary, category is to invite people to the campus and demonstrate and get them involved in the research environment via events and open days;

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- **Use existing social capital:** Academic staff are part of society and can try to be open to their own social network for inputs into their research agenda. Furthermore, retired university staff could play a more prominent role in connecting society to the university;
- **Exploring possibilities of technological bridges:** While the former three strategies rely on physical interaction, some audiences might prefer to employ technology (such as online portals to share ideas) to bridge the gap between the university and society.

There are differences between and within these categories in the target audience. The category of 'going out there', targets the most heterogeneous audience. This can range from younger people at a festival through an audience interested in a particular topic in science cafés to people on the street when organising activities in the city centre. Inviting people to the campus already imposes an additional hurdle, since not everyone would be able or willing to go there. The discussants expect this would mainly cater to people that have received an academic education, while elderly people and people from other education levels are less likely to participate in these events. However, elderly people might rely on their social capital to connect to university staff while educated young people might benefit more from the low barriers involved in providing their input via a website or other technological means.

By employing a set of the suggested activities to cater to different target audiences, the gap between the ivory tower university and the surrounding society can be bridged. Although all these activities depend on the input of other societal actors, and bottom-up initiatives might be of value, the discussants agreed the university should take the lead in these activities. For instance, by providing the resources and taking away as many barriers as possible.

5.2. Analysis

The outcomes presented above point to a growing demand from societal partners for university actions which, in the light of resource constraints, asks for a deliberate strategy in which UT prioritises its regional engagement activities and synchronises them with its core functions. It is obvious that societal partners are not the only stakeholders that have some claims on UT. Other stakeholders also exert some influence on the university. There is a need to manage the expectations of these diverse actors so that others do not feel neglected. However, considering resource constraints, it is unrealistic for UT to meet competing stakeholders' needs equally. It is therefore imperative to evaluate the needs of societal partners (and other stakeholders) in relation to the mission and resource availability to address the concerns expressed.

One promising tool that can help in this direction is the stakeholder management approach (Benneworth & Jongbloed, 2010; Jongbloed *et al.*, 2008). Drawing on stakeholder theory

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(Freeman, 1984; Mitchell, Agle & Wood, 1997), this approach proposes that universities should analyse and classify their stakeholders based on their relative salience. In other words, better understanding of which stakeholder groups exert considerable influence can be achieved when they are ranked according to the power they wield, their legitimacy, and the urgency of their claims. Stakeholders that have more of these characteristics exert a stronger influence on a university's engagement decisions.

Analysing the strength of societal partners' claims on UT, their legitimacy comes from an inherent social contract with these public institutions. In addition, their claims to some extent demand immediate action. However, when examined on a scale of low-to-high, these claims are of medium urgency. For instance, the call for UT to be visible and for the provision of information centres in communities are not urgent claims. Therefore, societal partners appear to be 'expectant' stakeholders (Mitchell *et al.*, 1997) whose expectations or claims lie in the middle of the priority hierarchy. Saying this does not mean they are not salient stakeholders and as such their claims should be ignored. On the contrary, their claims can easily be met without substantial resource commitment. It requires academic and non-academic staff to dedicate part of their time to engaging with the community. However, this is easier said than done, given that academics feel they are not adequately rewarded when they engage with the community. Secondly, community engagement does not translate into research 'dividends' (Mejlgaard & Ryan, 2017). UT management needs to incentivise staff members to be able to play this engagement role.

Question 6: How can societal partners constructively contribute to UT teaching and research activities in ways that allow their interests to be heard?

Hosted by *Lisa Nieth & Alina Meloyan*

There is a great variety of methods for societal partners to constructively contribute to UT teaching and research activities. While activities such as joint research projects, internships, and guest lectures are common, two new and special ways of contributing have been proposed: the inverted sabbatical year and a course that examines the complexity of one particular (regional) challenge. To maximise the contribution of societal partners to UT, communication problems must be minimised, while the atmosphere of tolerance and trust should be enhanced.

6.1. Discussion Outcomes

1) Joint research projects & common themes

- If societal partners (see **Figure 2**) and their UT counterparts develop **joint projects and work on common themes/topics**, this can advance communication, trust, and learning between the partners and make UT's teaching and research activities more accessible for societal partners;
- **Sharing the challenges** that are currently 'tackled' independently by each group (either by UT or the societal partner) can help bring new ideas to the table and develop new perspectives on existing societal needs/challenges. This would also contribute to the **creation of new themes in research and teaching at UT** (which UT employees may not have considered themselves);
- Joint projects and common research themes would not only help in the design of creative solutions to the identified challenges, but also stimulate creative thinking and possibly even **new creative teaching methods**;
- Different societal partners (e.g. industry, municipalities) could host interns who would later approach the problematic areas in their research as a **part of their educational programme (projects, theses, dissertations, etc.)**;
- **Societal partners (e.g. alumni) could raise funding for certain projects to be carried out at UT**. These projects are (semi-)cognate to the partners' current working space (non-academic network) and thus stand a better chance of being recognised by a non-academic circle.

2) More applied teaching and research activities & more flexibility in courses and programmes

If the teaching and research activities of UT were **more applied**, this would make them more 'approachable' to societal partners. Higher proximity would then help societal partners to stay in touch with UT and exchange knowledge and projects.

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3) Involvement of societal partners in skills development

- If the *societal partners participate in skills development* at UT – e.g. through participation in curriculum design – UT’s activities can be better aligned with the needs of societal partners (e.g. of regional industry);
- *Alumni of UT, who have gained practical expertise, can even evaluate how well the contents of educational programmes are aligned with the real work setting.* Thus, their input into curriculum design could contribute to closing the gap between the working environment in a certain industry and the perception of it by academia;
- If the skills and competences ‘produced’ and ‘needed’ are aligned, bridges between the partners can be built more easily.



Figure 2: UT Societal Partners

4) Guest lectures by societal partners and project visits to their installations

- If societal partners could be invited to give *guest lectures at the university* and UT academic *staff and students could visit societal partners in their setting*, this would help both sides to obtain insight knowledge on the practical working environment and ‘real’ challenges. By strengthening these types of exchanges, UT’s academic staff will “get out of the ivory tower” and societal partners will “open up” and share their problems/challenges or operations/practicalities. Eventually, this could lead to an open type of cooperation;
- Current students can more easily relate to societal partners like alumni or industry representatives and thus both sides have an opportune ground to expand their networking systems;
- Guest lectures have the potential to give inspiration for new research topics & activities and the knowledge of societal partners can be quite advanced in particular topics, and therefore should be shared with the academic world.

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5) Promotion and facilitation of lifelong learning activities

The introduction of *courses/workshops for societal partners* who are no longer students could strengthen the bond between the partners and the university, as knowledge exchange will be enhanced.

6) Living Labs

Societal partners and their operations (e.g. industry or NGOs) could serve as living labs or connect researchers to existing living labs. This would give UT employees the opportunity to test their research and understand the applicability of their work in a ‘real life setting’.

6.2. Analysis

A shared context between partners has been described as the base for successful collaboration between the involved parties (Kelly, 2000). To see if a potential partner shares the same values and ideas, one can consider what mission or vision the partner of interest has. In its visions UT, one of the largest employers in the Twente region, recognises the importance of collaboration with societal partners like its alumni, industry, and governmental bodies. Nevertheless, it is worth mentioning the priority in the scale of these partnerships covers national and international levels, not a regional level (UT Vision 2020). When it comes to activities that could foster collaboration between UT and its societal partners, we have examined available literature on the possibilities for their implementation. The importance of the involvement of various parties in designing the curriculum was discussed by Morgan and Houghton (2011 as cited in Warren, 2016) in the list of principles for inclusive curriculum design. They argue that professional bodies and employers are apt participants for developing course content and/or evaluation, as well as for securing its relevance to the reality of work settings.

Guest lectures and internships have proved to be students’ most desirable method of learning (Karns, 1993, 2005, as cited in Algie & Rowland, 2007). In his research, Karns concluded that guest speakers were considered by students as “*stimulating (versus dull), requiring less effort (versus much effort) and applied/concrete (versus theoretical/abstract)*” (Karns, 1993, 2005, as cited in Algie & Rowland, 2007, p. 3149-3150). Nevertheless, the authors highlight that this method must be used cautiously in regard to its regularity and relevance. Internships are considered a beneficial tool for the university to improve the relevance of the curriculum and match contemporary needs of industry with future students, as well as with potential research partners (Schmutte, 1986; Beard, 1998, 2007; Burnett, 2003 as cited in Maelah *et al.*, 2014). However, since the intermediary in the process of the internship is a student, one of the most important criteria for successful cooperation is making a good match between an intern and an internship host. The reason is two-tailed: (1) students mirror their university’s capacity to prepare (un) suitably qualified human

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capital; (2) the latter may (or may not) have the resources to match the intern's needs and interests, as well as the capability to train/coach them (Peou, 2018; Holyoak, 2013).

The concept of Living Labs (LL) was created to answer the question of how citizens could actively contribute to the development of their residential areas. This means LL have a bottom-up nature and are strongly oriented towards societal needs, providing everybody acts in society's and their own best interest. In 2013, research conducted by Mulvenna and Martin on the diversity of European LL, showed that a little less than 60% of them operate on the regional level and the rest on international and national levels. As for the hosting bodies, approximately 30% of hosts are universities and organisations from the public sector (e.g. government and other public organisations), while 16% operate on private sector premises. The rest was a mix of public-private-academic partnership (Triple-Helix Model). The results of the survey showed universities and private sector organisations are well embedded in the activities of LL. These results picture an encouraging future of the university-industry-local government relationship to initiate joint research projects based on LL.

At a time when HEIs are striving to match the demands of their regions, the role of professional and vocational training has received much attention from practitioners and academics. Therefore, the increasing demand for continuing education and lifelong learning comes in play. Chatterton and Goddard (2000) argue that the classical scenario incorporates a fusion of attempts from universities and local bodies to solve the technical side of the issue. However, they also cautiously warn that organisation of lifelong learning activities can be a challenging task for universities if there are no leading agencies to articulate the skills relevant for regional needs. The differentiation between different types of research and teaching activities has been highlighted in the literature, often resulting in a distinction between basic and applied activities. The reported need for more applied teaching and research activities at UT can be related to an extensive discussion on whether universities should become more applied and a resulting fear that this could lead to *"universities [deflecting] from their primary mission of undertaking basic research, in the interests of commercialisation"* (Ranga et al., 2003, p. 301; see also literature on "the skewing problem" of Florida & Cohen, 1999).

Finally, fundraising activities have precedents as well. An example is the literature on small independent colleges that have kept in touch with their alumni to raise funds (Hopkins, 2015; Ewell, 2005). Unfortunately, there is no substantial literature in which this activity and its efficiency has been properly examined through conceptual and theoretical perspectives.

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Conclusions

It appears that incorporating societal interests in UT's teaching and research activities is seen as mainly UT's responsibility. A culture of engaging with society requires both top-down and bottom-up approaches and accordingly should be reinforced at both strategic and operational levels of the university and at the individual levels of UT staff and students. The university has already launched a significant number of mechanisms to establish and improve societal engagement. However, UT could still do more and it has the capacity to further contribute to regional development. Incorporating societal engagement more closely with research and teaching activities requires: (1) strengthening internal communication, as individual academics and students are not aware of current possibilities for incorporating societal activities in academic missions; (2) external communication to stakeholders, such as citizens or civil society organisations, which are not well connected to the university.

In this journey, UT cannot be left to go at it alone. If change is to occur, it should be in the company of other stakeholders in the region. Such stakeholders may include, but are not limited to, governments, industry, local media and civil society such as NGOs and citizens. This report highlights the complexity of the different societal partners, their different interests in contributing to UT activities and the various forms that contributing activities can take. It should be noted that any constructive contribution needs to be based on the principles of accessibility, trust, and communication. A sustainable relationship among stakeholders also asks for a power balance in any collaboration. Societal partners and universities may never be completely 'on the same page'; however, it is vital that both sides show a strong commitment to enhancing the contribution of the different actors to UT's teaching and research activities.

By facilitating this Think Tank event and report, we believe that another step has been taken in bringing UT and its region and society closer together. It can also serve as a reflection for universities in other regions and contexts. We look forward to further collaborations between universities and different regional partners in the future.

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Annex

Annex 1: Think Tank Organisation



This Think Tank event was co-organised with the collaboration of:

- The **RUNIN Project** (The Role of Universities in Innovation and Regional Development) is an innovative training network (ITN) funded by the European Union's Horizon 2020 under the Marie Skłodowska-Curie programme and network. The aim of the RUNIN is to train researchers on how universities contribute to innovation and economic growth in their regions. This seeks to examine, through research, how universities fulfil their third mission in relation to regional industry and explore the range of university engagement with regional firms and institutions.
- The event formed part of this year's RUNIN summer school, which was organised by **CHEPS**, the Center for Higher Education Policy Studies. CHEPS offers research, training, and consultancy on various aspects of higher education policy, particularly from an international comparative perspective.
- **NUCLEUS** is an EU funded Horizon 2020 project investigating how to make Responsible Research and Innovation (RRI) a reality in universities and research institutions. What institutional barriers prevent these organisations from engaging with their stakeholders to align research with society's needs? How can these obstacles be overcome? UT is one of the 10 institutions where the science-society relationship is stimulated and studied. Researchers from the department of Communication Science at the faculty of BMS study the science-society relationship.
- **DesignLab** is a creative and cross-disciplinary ecosystem at UT, connecting science and society through design. Faculty and students from all fields work together with companies and governments to implement and develop scientific and technological insights that can be used in finding and shaping creative, innovative, and meaningful solutions for complex societal challenges. The Think Tank event was held at the DesignLab facilities.

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Each question under discussion was assigned to one table in the World Café setting, and participants divided themselves between the tables. There were three 20-minute rounds for discussing and trying to answer the assigned question at each table. After each round and a small break, participants moved to other tables, ensuring balanced groups for discussion. Table hosts guaranteed continuity and built-up the responses and discussion into an overall narrative and response to each question. The session was concluded with the table hosts finalising and presenting their findings back to the audience, who had a final opportunity to respond in plenary format, before the event concluded with a reception.

The RUNIN-Design Lab Think Tank had approximately 30 participants in total, excluding tables' hosts. The number of participants for each table at each round is shown below:

Table 1: Number of participants for each table

	Round 1	Round 2	Round 3	Total Table
Question 1	5	5	4	14
Question 2	-	-	-	16
Question 3	5	6	4	15
Question 4	6	5	6	17
Question 5	4	3	4	11
Question 6	6	5	5	16

This was the schedule followed at the Think Tank event:

- 16:00 – 16:30: Doors opened
- 16:30 – 18:30: Introduction and active sessions in World café style
 - Welcome and short introduction
 - Short explanation of the world café format and the questions.
 - Round 1: Discussion of each question (20 minutes +5 to change)
 - Round 2: Discussion of each question (20 minutes +5 to change)
 - Round 3: Discussion of each question (20 minutes +5 to change)
- 18:15 – 18:30: Wrap up of the results per table: 15 minutes – in 3 slides and 3 minutes in which they present the most important points per question = 6 chapters
- 18:30 – 19:00: Discussion about the outcomes from the think-tank session with short response from the Board of the University.

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Annex 2: Think Tank Hosts



Each table had two hosts, who took the roles of **Moderator** and **Rapporteur** in the discussion. These roles were allocated as the below table:

Table 2: Moderator and rapporteur of each table

Table/Question #	Moderator	Rapporteur
1	Rıdvan Çınar	Utku Ali Rıza Alpaydın
2	Sofya Kopelyan	Saeed Moghadam Saman
3	Maria Salomaa	David Fernández Guerrero
4	Mirjam Schuijff	Eloïse Germain-Alamartine
5	Gerwin Evers	Kwadwo Atta-Owusu
6	Lisa Nieth	Alina Meloyan

The **moderator** role was to:

- Welcome participants and introduce the question to be discussed at the start of each round;
- Summarise what was previously discussed at the start of each round and get people to react to it and input their own ideas;
- Moderate and guide the discussion, maximise the participation of all participants and maintain the focus on the assigned question;
- Make use of a flipchart that was positioned on each table to write down the main ideas in discussion, and/or encourage other participants to do so and add each group's ideas to the previous group's.

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The *rapporteur* was to:

- Take detailed notes on the discussion at the table in each round and capture as much information as possible;
- Support the moderator in summarising and presenting what had previously been discussed, at the start of each round.

At the end, both the *moderator* and the *rapporteur* had to:

- Summarise the ideas of the whole discussion in a three-minute presentation that was delivered back to the whole audience at the end of the event.
- Organise the table findings and report them to the RUNIN Project Editorial Team.

The *RUNIN Project Editorial Team* has turned the tables' reports into this document: the final Think Tank report.

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Findings from the RUNIN-Design Lab Think Tank

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