Science *with and for* society:
Ontopolitics of democratisation

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Abstract

As a policy instrument serving the European Commission's ambition to align science with societal needs, responsible research and innovation has assumed a central role in funding and research activities under the 'Science with and for Society' programme. Despite its prominence and the consensus about what RRI is among scholars and policymakers, translating it to practice has proven to be rather difficult, emphasising a missing link between policy making and its outcomes. In this thesis, I provide an intimate account from three months of ethnographic work in a research project that was funded to conduct local RRI experimentations in the Örebro region to address this gap. With particular focus on the local practitioners and the European researchers' practices of RRI, I embark on an ontopolitical discussion to make the case that RRI governance does not account for difference, which I argue for in two forms: First, that the researchers are bound to the policymakers' assumption of ontological singularity imposed through the way the project is governed, becoming callous towards any actor who does not subscribe to it. Secondly, that RRI is handled as a matter of fact, an immutable framework, that can be operationalised, made measurable and implemented in any organisational or cultural setting without attending to local specificities. Finally, I conclude by calling for the accounting of ontological multiplicity in RRI governance by drawing on Latour's work on compositionism and reframing European research consortia as ontopolitically charged arenas of concern, emphasising that RRI cannot be taken as a given.

Keywords: policy, empirical philosophy, responsible research and innovation, ontology

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Preface: how to read this text

First and foremost, this text is a thesis for attaining my master's degree in Techno-Anthropology at Aalborg University in Copenhagen. It also is a document that gives an account of my first major ethnographic project. As such, for readers who are not acquainted with the particular theoretical vocabulary or the style of writing that often accompanies text within this discipline (largely affiliated to science and technology studies), I understand that parts of this text can lead to confusion. In an attempt to facilitate any reader in the story that is told, I adopted three measures:

Primarily, I use italics towards two ends: First, to highlight specific terms or concepts, theoretical constructs or similar words that either stem from theory or are of special interest. When used for theoretical concepts, I will additionally indicate a reference that relates to the term. Secondly, I use italics to stress certain aspects that are of interest (theoretically, metaphorically or otherwise) in the context in which a word occurs.

Finally, for readers who do not want to read through the document, I have written the introduction and conclusion in a way that it can be read as an extended abstract that communicates the most important themes, arguments and ideas that this thesis touches on. Also, in the table of contents above, I have only added page numbers to sections where contextual information is (of course recommended, but) not necessary and can be used as 'entries' into the text.

1. Introduction

A single look into publications that outline the strategic goals of the European Commission's programme for research and innovation suffices to observe how central notions of *responsibility* are in contemporary European policy governance. One strong programme that drives the agenda since the late 2000s is *responsible research and innovation* (RRI). Originated from policymaking circles in the European Commission and spawned out of an increasing involvement of citizens in the governance of research and innovation as of the beginning of the 21st century, RRI was heralded as a policy instrument to better align science with societal needs, thereby creating space for 'real world complexities' (Silva et al., 2018) in policymaking that concerns research and innovation (Owen et al., 2012; Von Schomberg, 2013). These reflections have made funding available and mobilised researchers and policymakers to tackle the aforesaid issues, providing the space necessary to inquire about questions that relate to the relationship between policymaking, science and society. Among others, paradigmatic themes were normative discussions on the right impacts of research (Von Schomberg, 2013), conceptual developments and principles to adhere to when *doing RRI* (Owen et al., 2012; Stilgoe et al., 2013) or the strategies and risks when engaging with notions of responsibility in practice (Brand & Blok, 2019).

Additionally, the European Commission itself made their normative commitments explicit, consolidated in six RRI keys, including *engagement*, related to co-creation and participatory practices, *gender equality*, *science education*, *ethics, open access* and *governance,* serving as organising principles in engaging with RRI (European Commission, 2014). In turn, RRI was grounded and made a key pillar in funding activities of the European Commission under the Science in Society programme (later called Science *with and for* Society[1]) in the context of the strategic framework programme for funding

[1] which reflects how *responsibility* became embedded into European visions of science and innovation

called Horizon 2020, making RRI an *obligatory passage point* (Callon, 1984) in any research or innovation effort coming from the European Commission (Silva et al., 2018; Yaghmaei & van de Poel, 2020).

Although there is rough consensus about what RRI *is* in theory, translating it to practice turned out to be rather difficult, often highlighted by the issues that arise between RRI policy and research and innovation practices (Hesjedal et al., 2020; Koops et al., 2015; Owen et al., 2012). As a response, the European Commission started funding research projects that were explicitly tasked to produce knowledge and find ways to bridge this gap between RRI theory and practice. These consortia produced a wealth of tools that aim to make RRI more practical and applicable that Hesjedal et al. and others coined 'toolbox approaches' (2020), already counting more than 1100[2] descriptions of tools and procedures to apply RRI. This in itself is evidence of the ambivalence that radiates from the question of *how* RRI can be 'done'. Another response from the European Commission was the funding of a range of 'territorial'[3] research projects that focus on *regional* experimentations with RRI, assuming that understanding local organisational and scientific dynamics may contribute to better addressing this gap.

The struggle of translation that these projects are trying to embrace is not particularly new, as they can be considered pointing to a body of work that emphasises a missing link between policy making and policy outcomes, where policy transfer later was regarded as an interactive process requiring flexible and adaptive strategies rather than a causal chain to obtain desired policy results (Derthick, 1974; Hargrove, 1985; Matland, 1995). Feeding from this thinking on policy transfer as 'meaning-making practices that are uncertain and messy' (2014), Law and Singleton, being outsiders to policy studies, take it a step further with their case on the policy response to the 2001 British Foot and Mouth Disease. Departing from feminist material semiotics and actor network theory, they make the case that policymaking assumes a single reality in which a single policy has to do the

[2] these are collated on a central website called www.rri-tools.eu
[3] *territorial* is how the European Commission refers to *regional* RRI projects

job - arguing for the consideration of multiplicity in policy practice. They do so by humorously inventing an 'actor network prime minister' who is in charge of making the policies for this epidemic who, in acknowledging multiplicity, designs policies to pick from rather than a single one to rule.

This is where this thesis departs from. Based on observations of three months of ethnographic work in CHERRIES, one of the 'territorial RRI' projects funded by the European Commission, I illuminate the assumptions with which the researchers and practitioners involved approach RRI and connect these reflections to the missing link between theory and practice. To prelude the conversation that I lead in this thesis, I want to juxtapose two statements. The first is from one of the consortium's researchers, the other from one of the practitioners, approximately one year after they first engaged with RRI through the project:

> *If you don't yet know what RRI is, you can find a video library on the website where we had webinars in fall, where we discussed RRI practices in healthcare and other topics. And we uploaded a deliverable of the project about RRI, a toolbox, that is collecting 150 or more practices that we consider as responsible approaches in healthcare.*

> *Maybe we don't understand all the things about RRI or CHERRIES, but if we are going to do something good out of this and have an impact and a result for the people we are working for; we need to make it our own. We have to contribute with how we, as being practitioners, can have an actual use for RRI.*

To understand the discrepancy between these statements, we need to inquire into ontology. How do the researchers and practitioners in CHERRIES enact RRI into being? Where is it? What qualifies someone or something as responsible? What is RRI in practice and how does it differ from RRI in theory? These are questions that are at the heart of this thesis. In essence, they help to understand how RRI is enacted in the consortium and what is being put at risk on the way.

This document consists of four key sections that narrate the story that is told. The next part of this document, chapter two, provides the reader with an understanding of the

field in which this thesis takes place, followed by reflections on my engagement and a section that elaborates on the theoretical point of departure and makes explicit the assumptions with which this thesis leads the discussion. In chapter three, I first present how the European researchers enact RRI into being, which I follow up on by expanding on two interferences with the regional actors' enactments of RRI. One is a mapping exercise of the local actors' region that aimed at setting the scene for different activities. The second is the formulation of a local challenge in the healthcare sector. In tandem with these two interferences, I describe the local actors' enactments of RRI, which I follow up on with a discussion on *difference* in chapter four and conclusions in chapter five.

Finally, I want to point out that this thesis is not only directed towards actors who are engaged in RRI. Despite the fact that it is situated in a theme of RRI (and policymaking more generally), it implicitly touches on discussions about public understanding of science, co-creation and other participatory approaches, as well as discussions on expertise in my attempt to stimulate reflection about RRI in practice and the implicit assumptions that are inscribed into the way RRI is governed.

2. Research Design

Before diving into the case, this chapter serves to introduce the field in which this thesis is situated, declare the thinking with which I arrived at this way of framing the research at all and the assumptions that underlie my engagement.

2.1. Constructing the field

The purpose of this study is to better understand and present ways to think about RRI that address the long-deliberated gap between RRI-in-theory and RRI-in-practice. The case that I will present below relies on a three-month-long ethnographic inquiry, between February and May 2021, into a research project funded by the European Commission that aims at bringing responsible research and innovation closer to the healthcare systems of

three different regions in Europe, namely the region of Murcia in Spain, the Republic of Cyprus and the region of Örebro in Sweden. This not-so-humble task that hides behind the rather innocent acronym CHERRIES[4] indeed proved very fruitful with regards to the problematisation that underlies this thesis. To better understand this background, the following pages are dedicated to describing both the communities in and around CHERRIES and the project itself (the participants that are formally engaged with and affiliated to this project and the actors that the community behind the project engages with).

This research project came to be as a response to a call for research under the European Commission's funding umbrella that carries the name Horizon 2020. Specifically, it was proposed as a research consortium aiming to tackle the broader topic of 'supporting the development of territorial Responsible Research and Innovation'[5], under which many projects concerned with RRI have found the space (and funding) for experimentation in *regional* contexts under the assumption that understanding local dynamics can contribute to better addressing the struggles of translating RRI.

The key actors in this project consist of different Swedish, Cypriot and Spanish local representatives and respective partners from the regions, as well as a range of researchers from different institutes and organisations in four other countries. Actively engaged in the ethnographic work of this thesis were first and foremost two practitioners from the region of Örebro in Sweden representing the municipalities of Karlskoga, Degerfors and Laxå, who work for the local government and a healthcare-providing foundation respectively, five researchers from CWTS, an institute with focus on science and technology studies affiliated to the University of Leiden in the Netherlands, two researchers from Knowledge & Innovation, an Italian organisation with focus on the interrelations between new knowledge and transformation of societies, as well as one

[4] many acronyms of European research consortia usually underscore their purpose. CHERRIES for example stands for *constructing healthcare environments through responsible research and innovation and entrepreneurship strategies*

[5] CHERRIES project proposal

researcher from the Centre of Social Innovation in Vienna, who formally acts as the consortium leader.

Albeit that some of the protagonists of this thesis might be summarised in these little lines through careful attribution of position, organisation and location, the field itself is much more multi-dimensional. In the context of CHERRIES in particular, whose actors are geographically dispersed to start with, the boundaries of the field extended throughout a local-global divide that was omnipresent across this project; attributed to the project's position across the supranational (European Commission), national (institutes), the regional (regions) and the local (e.g. patients); or to put it differently, from the Policy Officer in Brussels, to the Researcher in Leiden, to the Healthcare Practitioner and finally the Elder Citizen in Örebro who suffers from involuntary loneliness (or any other constellation of directionality through a from-to divide). Interestingly, this directionality of the local-global were held in place through an understanding by the actors that for a citizen to engage with a policy officer, there is the necessity to pass these obligatory passage points that separate these two sites in the order described above. From the perspective of an ethnographer, the actors' understanding of CHERRIES thus allowed me to employ what Marcus (1995) has described as the 'studying up' and 'studying down' of a field (quite literally), where the ethnographer follows the subject of study across multiple sites, shifting the role and the relationships towards the actors engaged. It is a constant pursuing of the connections that the field presents one with, not only becoming a form of activist through the changing of identities and sensitivities from site to site, but also actively constructing the field by drawing the boundaries through the act of following.

This thinking gave me the orientation through which I traced and followed the practices that stabilise conceptions of responsible research and innovation, and responsibility for that matter, and how these are performed across sites. Indeed, my position varied across sites as my commitment towards different actor groups was not static and clearly defined as opposed to if I were bound to a single site creating rather unambiguous relationships with the research subjects. This multi-sited approach to ethnography has however proven very fruitful (and necessary) in my interest to follow

responsible research and innovation across Europe for understanding the gaps between theory and practice. What is particularly interesting in this case is the very connection between the two: revisiting the example of the senior citizen and the policy officer into account (and their relation to a theme of governance that makes this so interesting), questions emerge that are worth inquiring into. How do these actors connect in reference to Hine's reflections that it is the local in which the global emerges and that the local is always constitutive of the global (2007)? What displacements happen across these sites (Callon, 1984)? What cultural logics underlie the different sites and how do these constitute understandings of responsibility? These questions (that we will raise in the case below) again underline how these two sites – the European institutional domain and the 'anywhere' in Örebro are (or should be) connected through a series of translations.

Reflections on engaging with the field

I gained access to the field through an exchange with one of the researchers from the University of Leiden, who, after two thought-provoking conversations, saw why and how a techno-anthropological inquiry into CHERRIES may be of value and in a swift reaction introduced me to the world of European projects. Hence, my point of entry was the Institute of Science and Technology Studies that is affiliated to the University of Leiden, which may have pre-empted my position towards the actors engaged in this field (reinforced in very practical ways - e.g. the suffix of my email). It would, however, be false to claim that my role was entirely clear from the get-go, as the initial ideas (that were discussed in the two conversations mentioned) transformed with access to new knowledge and interactions with the actors, shaping CHERRIES on the way.

At first, the idea of this research was to understand how responsible research and innovation is enacted from site to site regionally – among the regional actors involved in the project and organisations they directly collaborate with. However, very quickly, I realised that the field extends much further. Even if it now might seem very obvious, I realised that the consortium itself *is* part of my subject of research and not only my point

of accessing the field, as how the researchers of CHERRIES conceive of RRI co-constitutes how the regional actors understand and translate it into their own cultural and political logics. Extending my field three weeks after I initially engaged with the field, my role transformed from *the ethnographer who studies the regions* to *the ethnographer who studies CHERRIES* – which was also made explicit in the interactions that followed. Indeed this move from what the actors in CHERRIES describe as *the regions* and *project level* at first might seem unexpected, it reflects the spirit of Marcus' account of multi-sited ethnography, as this extension (I'd rather call it inclusion or exploration; or a *studying up*) can be understood as an act of constructing the ethnographic object through the pursuing of connections (Hine, 2007; Marcus, 1995).

Another important theme in the ethnographic experience that I had was that of distance and proximity understood as both my commitment towards the actors and sites that I engaged with but also the way I practically interacted with the field, as this entire account happened through virtual interactions due to lockdown-regulations during the coronavirus pandemic. To reflect on my relationship towards the field, I used the work from Marcus (1995) on the role of the ethnographer as an ethnographer-activist and Birkbak et al. (2015) on critical proximity. Although both reflect on the relationship between the ethnographer and the subject of study, Birkbak et al. offer a perspective that focuses on relating actors to phenomena that they perform into being, which was especially interesting as the research conducted in this thesis holds RRI as the grand phenomenon to inquire about. This methodological move therefore allowed me to make use of the ways that actors problematise issues around RRI and take these themes further in my inquiry. On the other hand did Marcus' (1995) notion of the ethnographer-activist help in the understanding of myself against the backdrop of the field. He argues that during the previously mentioned *studying up* and *studying down*, the researcher is becoming an ethnographer-activist – as identities are renegotiated across sites with different commitments in each. As such, this constant reflection of my position and commitments allowed me to employ *critical proximity* as an organising principle in the way I conducted this ethnographic inquiry (Birkbak et al., 2015).

The second important aspect to discuss and reflect upon is that my engagement was entirely virtual. The infrastructure that connected myself with the field, I would even go as far as saying that the field consists of it, was an accumulation of links, files, virtual rooms, comments, emails, avatars, and, most of all, (virtual) conversations. In a sense, one could even speak of the reconnecting to the roots of observations during the 19th century, expanding the armchair anthropology with a contemporary notion of 'armchair multi-sited ethnography made available through digital technologies'. There are however two sides of the coin, even though it might seem intuitive to conclude that being geographically bound to one place and physically isolated from the communities that one wants to study is potentially the worst that could happen. The limitations are considerable. This position forced me to formalise and plan any conversation or other engagement with any actor, impairing me of any possibility to physically visit the communities I observed. The ethnographer's tenet of following the people therefore was much more structured and systematised through weekly, unstructured bilateral and multilateral conversations or by participating in workshops and meetings that were held. On the other hand, it allowed me to travel from site to site in an instant, making much more explicit the differences between the different communities when switching places and having access much more readily available, as the (logistical) threshold of engaging with new actors was considerably lower. Simultaneously, it created an environment of nowhere everywhere, disjointing otherwise existing connections because of the uniformity of the virtual format. As such, the field became much more immediate and accessible – but also much more impersonal.

2.2. Empirical basis

The three months during which I conducted this ethnographic work form the basis of the descriptions and thus the argumentation that is presented in the case below. This section therefore serves the purpose of making explicit what empirical material was collected. I could not stress more in what a fortunate position I found myself, as the team from Leiden University proved to be extremely open to my presence, supporting and

connecting me with actors that otherwise might not have been accessible - both within the project and beyond. This position gave me the opportunity to collect rich data to work with. In short, I employed a range of methods spanning from document analysis, interviews, focus groups and participant observations to the employment of autoethnography.

The initial touch point with empirical material was to study the materials that are available online and those that were in-the-making when I started with the fieldwork. Indeed, CHERRIES produces a wealth of documentation in the form of reflection reports and synthesis reports that are not only written accounts of the activities of the project, but simultaneously serve as reflections on these activities as such. This made them rich materials to mine for gaining a basic understanding of the assumptions that are inscribed in the project and how this community of practitioners and researchers tries to conduct these 'territorial RRI experiments'[6]. In addition, I started participating in weekly meetings of the team at Leiden University, where the researchers discussed the tasks at hand, assigned responsibilities and reported weekly happenings and reflections. Paired with the knowledge gained from the documentation that was available and initial conversations with the researcher who I got in touch with in the first place, it established a 'good enough' initial understanding about the field for me to start contact other CHERRIES-actors and further discover the field. What followed was a series of engagements in the months of March, April and May 2021. These engagements started with unstructured bilateral interviews with project actors that served two purposes: first, to inquire about understandings of RRI and the practices that bring this concept to life.

The second purpose these fulfilled was that of giving me an opportunity to introduce myself and why I was engaging in this project. At that point, my presence in the project was not considered anything strange, I was accepted and granted access to partake in conversations, conferences and meetings that happened across the actors, allowing me to gain a wealth of material through participant observations. Specifically, I followed two major internal processes: first of all, I followed the actors' planning, organising, holding,

[6] CHERRIES: D2.2 Territorial mapping – synthesis & reflection report

reflecting and reporting of an interregional workshop as part of a mapping exercise that I later describe in detail, where not only the actors that are enrolled in the CHERRIES project, but also other actors, such as patients, healthcare providers and policymakers from the regions, would be present as well. The second process that I followed was the formulation of a local challenge that served as a basis for further activities. These two processes helped me gain extensive insight into performances of responsible research and innovation and was a substantial part of the ethnographic work conducted.

In parallel, I embarked on an autoethnographic journey by agreeing to take responsibility and ownership of part of the work that was planned to happen. Specifically, I, together with another researcher, planned, conducted and reported on so-called innovation biographies, an approach from the field of regional studies that emerged from a concept known as *territorial knowledge dynamics* by this research field. In short, it describes 'dense knowledge spaces' (2016) and discovers the spatial, temporal and organisational dimensions out of which novelty emerges – eventually growing into what can be understood as innovation (see Butzin & Widmaier, 2016). In relation to CHERRIES, these innovation biographies were explorations and descriptions of ten cases of innovation in the project's three regions, where I conducted interviews that aimed at understanding the evolution of three cases of innovation in Murcia. This task allowed me to partake in a journey of conducting research as a representative of a European research project, rendering explicit the ways in which such research is organised and navigated and what questions are being asked; or more importantly, what questions are not being asked. This autoethnographic experience simultaneously allowed me to better understand the researchers' assumptions and the practices that validate the production of new knowledge and how it is transferred back and forth from the transnational to the local and vice versa. To make sure I capture as many reflections as I can in the duration of the autoethnography, I employed a playful metaphor that helped me to transcend between my roles: Specifically, I often brought to my mind the 'wearing of two hats' – in some situations the one of the techno-anthropologist on fieldwork, the other as the CHERRIES researcher from Leiden University who conducts work as part of the project. Indeed, this simple metaphor helped

in many moments the capturing introspective notes on the experiences gained. The last part that I employed was a focus group after initial interviews with two of the practitioners embodying and facilitating CHERRIES in the Örebro region. The engagement proved valuable in understanding the issues that arose in the act of translating RRI from theory to practice, as they not only represent the regions, but also are the actors that need to facilitate the exchange from Örebro to the researching institutions and vice versa. Therefore, the focus group was organised to reflect on this act of translation.

Throughout the case, I present different quotes from the wealth of ethnographic material that was collected. If not indicated otherwise, these quotes, that I will put in a different text style and in italics, originate from the conversations, interviews and focus groups that have been part of my engagement.

2.3. Theoretical point of departure

We have now established the grounds on which this thesis plays out, but how should we look at or understand this ground? How can we make sense of the stories and actors CHERRIES presents us with? Or most importantly in this thesis, how can we make sense of practices of responsibility, for understanding RRI across these multiple sites? This section is dedicated to these questions - questions of theory, making explicit the assumptions that underlie the story that is told. This declaration starts with a problem. It emerges from two themes that are central to this thesis, and in science and technology studies more generally. One theme is that of singularity. The other is that of multiplicity. In this text, the one relates to the governance of research and innovation, the other as well – but differently. The following lines will try to lay out the tensions in which we are moving and position how I look at things on the way.

Clarity and standardisation versus flux and fluidity

To herald the discussion, I want to refer to the opening paragraphs of John Law's text which title asks a question that will be central to this thesis; namely *what's wrong with*

a one world world? To understand the implications that this question carries, Law starts by presenting the way in which Australian Aboriginal people understand and make sense of the world.

> *In Aboriginal cosmology land is not a volume or a surface with features, or a space that can be occupied by people. Instead it is a process of creation and re-creation. The world, including people, […] plants, animals, ritual sites, and ancestral beings, are all necessary participants in a process of continuing creation. And if this does not happen, then the world starts to hollow itself out. It stops existing. (Law, 2015)*

To a European[7] person, this description of understanding the world may invoke anxious feelings, as it ceases dualisms that often underlie the ways in which the world is represented: the divide between micro and macro, very well reflected in the way many actors in CHERRIES understand the relationship between the European Commission and the regions, distinctions between human and non-human or the 'in-here' versus the 'out-there-ness' of reality are all examples that potentially feel familiar, even comfortable, to readers from the European corner of the world (Latour, 2004a, 2017; Law, 2004a). The problem that this creates is that it detaches the one from the other; it creates difference. When imagining a policy officer in a European institution, it is only through a series of steps, often demarcated through *levels* of 'up-there' and 'down-here', through which there is a relation between the policymaker and, let's say, a patient in one of the Örebroer municipalities. It is an understanding of reality as a detached, singular and autonomous entity 'out there'; far away from the policymaker who is working to implement the next strategic orientations of *any* region's healthcare agenda, which comes with the comfort of stability, universality and balance (Mol, 1999). And whilst early scholarship on policymaking often was concerned with this missing link between policy making and policy outcomes (see Hargrove, 1975), this clear division between the world-out-there and

[7] not only European understandings of the world hold dear the notion of out-there-ness, but as this thesis mainly plays out in European localities, I am restricting myself to describing it as such.

us in it is the nurturing ground that gives rise to ideas of objectivity, a precondition for measuring, documenting and studying of the regions' performances given different indicators that were set in order to evaluate the policies developed. It is the thinking of being able to document and capture what happens out there and, after a succession of translations, capturing these happenings in diagrams and maps; creating representations of the world (Latour, 1987, 1999). The position that crystallises even to the most inattentive reader can boils down to one question: so what then *is* wrong with a one world world? What is wrong with juxtaposing metrics across geographies to be able to tell which of the two is more productive, innovative or responsible? Resisting the temptations posed by clarity and balance in a world that can be perfectly represented in facts and figures, there is a line of argumentation that claims that reality is more fluid, more in flux; that reality is 'historically, culturally and materially located' (Mol, 1999), washing away the dualisms upon which *this* world(view) rests. So in this argumentation, the simple answer to the one world world question would be that there is no such thing as a one world world!

Realities enacted through practices

In science and technology studies, we see a (relatively) long history in demonstrating how the social and the material are interwoven. Most notably has actor network theory proven to be a very potent set of questions to allow for inquiries that describe how different actors, both human and non-human, relate to one another, temporarily holding together in relative stability through the relation between them (Gad & Jensen, 2010). This 'ruthless appliance of semiotics' (Law, 1999) has rather radical qualities, as it imposes that things *are* because they find themselves in a network of relations; they *are* only in relation to other things – and it is in the webbing of material and human relations in which realities emerge. This understanding highlights the performativity of things, a notion that we will often encounter in this text. A central assumption of ANT therefore is that 'things are what they are because they are done by actors *relating* to other actors' (Gad & Jensen, 2010). With this assumption, it was ANT that 'robbed the elements that make up reality […] of its alleged stable, given, universal

character' (Mol, 1999), because it implies that anything is *constructed and stabilised* through the enrolling of actors (both human and nonhuman) into a network until it becomes strong enough, stable enough, for it to be *blackboxed* and taken for granted. As such, nothing is given, but held stable[8]. In other words, relations become central in the bringing-into-being of things.

Whilst not disjointed from traditional ANT-work exactly because relations are very central to both After-ANT and ANT, John Law and Annemarie Mol brought about the spirit of *after* into ANT; a spirit that focuses on performativity – on the bringing-into-being through relations - or the *enacting of realities through practices* (Law, 2004a; Mol, 2002). What is important here to note is the plural form, realit*ies* through practice*s*. It implies that it is not one version, or perspective of a reality that is performed though practices, but rather, that *different* realities are being enacted through *different* practices (Law, 2004a). It is not plural, not different perspectives of one material object. It is *multiple*[9] – carrying new ontologies with them, in their enactment (Mol, 1999). This presents us with a problem that Annemarie Mol calls the *problem of difference* and is at the heart of this thesis' argumentation. It raises a question. If we say that practices are where different ontologies are enacted, then the relations between the different enactments – the different realities – are 'uncertain, sometimes vague, difficult and contradictory' (Law, 2004a). The problem of difference can be illuminated well by referring to an early text by Mol and Law, where they describe different social topologies of anaemia, arguing for the fluidity of things. Indeed, it does not feel intuitive to not describe *what* anaemia is in reference, but this is exactly the problem. Because if I were to lay out anaemia in these lines, it would not – could not, be just to other anaemias. The only way to communicate it is to describe anaemia performances; the practices that perform it into being. The text describes two anaemias, one in Africa and one in the Netherlands. The Dutch anaemia is enacted through complains and measurements, which are connected to laboratories. That is, because anaemia in the

[8] ANT first emerged in the studying of the social construction of scientific facts (see Latour, 1986)
[9] see Mol, 1999 for further differences between multiplicity and pluralist notions

Netherlands is clinical – it takes symptoms and data of haemoglobin levels to enact anaemia into being. In Africa, complains do not work, as people just accept them; they are routinised. And measurements in laboratories are not readily available. But that does not make anaemia disappear from Africa – much rather, anaemia is done in practices of observation, of clinical gaze: through the paleness of eyelids or nailbeds of those potentially affected (Mol, 1999; Mol & Law, 1994).

Ontological politics

The problem of difference however emerges when we try to find how these different ontologies relate to each other. It surfaces in that if realities are being enacted in particular ways they might as well be enacted differently. This problem is depicted well in Charis Thompson's (2002) case study of the management of elephants in Amboseli National Park in Kenya, where a controversy that was sparked through different enactments of the park's elephants settled in key disputes about epistemology, justice, and governance (Thompson, 2002). So differences settle in politics: how to choose between which enactments of reality? Can 'common grounds' exist without betraying the admitting of messiness and discontinuity multiplicity? 'If truth by itself is not a gold standard, then perhaps there may be additional *political* reasons for preferring and enacting one kind of reality rather than another' (Law, 2004a). These concerns relate to what Annemarie Mol terms *ontological politics* (1999); or what Bruno Latour has formulated as an effort to go from *matters of fact* to *matters of concern* (Latour, 2004a, 2004b), and surfaces, in John Law's words, from the 'merging of two worlds: the kingdom of facts and the kingdom of values' (2004b). But this is where it becomes delicate. And this comes in two flavours.

First of all, subscribing to performativity is, simultaneously, subscribing to this research and my involvement in CHERRIES being performative itself. After all, I am surely not giving a notoriously objective account of the ways the project's researchers are finding ways to bridge the RRI gap between theory and practice (see the dualism?). Much rather, through my engagement with the field, I am participating in the enactment of the realities in these communities (Law, 2004a). What results are reflections that were part of

what Munk and Abrahamsson raised as concerns in engaging in such 'empirical philosophy' (2012). Next to the authors' main points (which will be discussed shortly), they point out how closely tied the strategies of intervention are in relation to the questions that are being asked; which in turn calibrate how the descriptions (assuming that we stick to the STS-doctrine of presentation) are informed (Munk & Abrahamsson, 2012). This, in turn, makes navigating such engagement with and the making descriptions of the field a political process of world-building and interfering; highlighting the stakes that unavoidably accompany the engagement of the communities that the research wants to study. The consequences are collated well by Vikkelsø, who not only said that descriptions are 'invariably confronted with politics and resistance' (2007), but also that a good description 'puts itself at risk by being exposed to multiple audiences, and that at the same time is sensitive to the ways it puts others at risk' (2007).

The second relates to a seeming decision-to-be-made as a researcher engaging in empirical philosophy that Munk and Abrahamsson formulated as to either 'unite under the compositionist banner, or join the guerrilla of ontological interference' (2012). The choice that the authors lay bare rests on a disagreement between John Law and Bruno Latour, who both depart from the same position of relationality and heterogeneity of early STS, but fundamentally disagree about the effect that descriptions should produce: whilst Latour calls for cosmopolitics and the reassembling for crafting common worlds through the composing and decomposing of heterogeneous actors (Latour, 2004a, 2010), Law insists that 'STS should rely on its attention to the multiplicity of situated experience and focus on the difference it can make by describing/enacting these messy specificities' (Munk & Abrahamsson, 2012; Law, 2009). Although it might seem, at this point, imperative to pledge allegiance to either of the two, Munk and Abrahamsson convincingly argue that there cannot be drawn that strict of a line between these 'options' and that the relationship between descriptive accounts and their political effects is a balance that has to be reflected upon by any 'empiricist foot soldier' (2012) on the 'ontopolitical battlefield' (2012). This reliefs a tension that became present by relating Law's and Latour's position to CHERRIES: in conversations and other interactions with the researchers and practitioners

I always paid particular attention to the enactments of RRI in situated experiences. Simultaneously, the actors (both researchers and practitioners) were part of CHERRIES in an attempt of collaboration and interaction; invoking the need for *some kind of* understanding of common ground for themes that are spatial (decisions that travel across the Örebro municipalities), political (in the sense of policymaking), and normative (what are desirable futures in healthcare?); for which the *situatedness* of the ontological guerrilla did not serve the space for (Haraway, 1988). In other words, the values that accompany CHERRIES (as in, the project itself) called for, what Latour would call, *cosmos* (Latour, 2004a). And it is exactly this - the situatedness of my observations (called 'local level' in the field) in relation to the values that the project comes with ('project level') - why I will become unorthodox in the eyes of Latour and Law. That is, because I will look through both lenses at CHERRIES; highlighting the *practices that enact RRI into being* to establish a *diagnosis* of the assumptions with which the researchers approach RRI (Law, 2015; Mol, 2002), which I follow up with a *proposition* in form of a discussion about ways to address the gap between theory and practice by introducing a modified version of Latour's matters of concern that is more ontopolitically charged (Latour, 2004a, 2004b). To be blunt, I allow myself to pick from the best of both worlds in the presentation of the case, followed by *diagnosis* and *proposition*.

3. Following practices of responsibility

A rather simple-sounding question can be quite difficult to answer. With this question I started investigating this issue that I am describing here that took me to many places. *Where is responsible research and innovation?* I will argue that it is not a material artefact that one can hold and pass on to people or carefully place it somewhere. Rather, I will argue that it can be anywhere where it is being done. And it manifests in every text,

deliverable, action, decision, conversation and any other *thing*[10], all together weaving the socio-material fabric that is part of the network of responsible research and innovation. In that sense, let us start with some basic observations to understand *where RRI is in CHERRIES*. Let us start in its name: *constructing healthcare environments through responsible research and innovation and entrepreneurship strategies*. In the name, it is considered a *strategy*. A strategy *through* which research and innovation in different healthcare environments is constructed in a responsible manner[11]. In order to keep the discussion focused, I will concentrate on the relations between the European researchers and Örebroer practitioners – which translates to the relations between the ten researchers from the three institutes and the two practitioners from two organisations in the Örebro region, including a number of local partnerships. Let's start by listing some words that are connected to it. In interviews that I have conducted with local practitioners from Örebro region, it was sometimes called *methodology*. In a public presentation where both European researchers and local practitioners presented a call for solutions, it was called an *approach*. Sometimes, it was called *framework*. Or a *tool*. It shows that there is no straightforward answer to *what*, and by far not *where* RRI is. To show how different these RRIs are, I want to prelude with juxtaposing two statements. One comes from one of the local practitioners in Örebro. The other from a on of the researchers.

> *Maybe we don't understand all the things about RRI or CHERRIES, but if we are going to do something good out of this and have an impact and a result for the people we are working for; we need to make it our own. We have to contribute with how we, as being practitioners, can have an actual use for RRI.*

[10] this thesis relates to Martin Heidegger with two words: the word 'thing' and 'gathering' (see Latour 2005)
[11] this research disregards the second part of the title, as this research is not focused on 'entrepreneurship strategies'. It would exceed the scope of this paper.

Just some months prior to this statement from the practitioner, following introduction was made in a conference that aimed at engaging people who may have never heard the term after the wider goals of RRI were laid out.

> *If you don't yet know what RRI is, you can find a video library on the website where we had webinars in fall, where we discussed RRI practices in healthcare and other topics. And we uploaded a deliverable of the project about RRI, a toolbox, that is collecting 150 or more practices that we consider as responsible approaches in healthcare.*[12]

On the one hand, there are the partners from Örebro who, after more than one year after first hearing the term have decided that it is time to let go of trying to understand the specificities of the RRI that is in the documents that circulate across research institutes and the data and the language that accompanies it. On the other hand, there is a collection of responsible practices that one can visit when wanting to do RRI aimed at anyone who is curious enough to inquire about it. Are these responsible to anyone? To doctors and patients alike? It is not hard to tell that there are *some* differences between those two statements. But what kind of differences? Taking from our previous discussion on multiplicity, we can say that difference between the European researchers and local practitioners manifests through their practices of RRI. This section will try to render these differences explicit. Specifically, this chapter will introduce RRI-multiples as a diagnosis for us to later talk about interference through the example of a mapping exercise that aimed at setting the scene for different activities and the formulation of a local challenge.

3.1. Implementing RRI

The two actor-groups that we have present in CHERRIES are the researchers and the practitioners. And whilst the ways and understandings about RRI vary slightly among

[12] from a Q&A session about a 'Call for Solutions' that aimed at sparking interest for citizens to engage

the researchers, we can group them together here, as their enactments rely to a high degree on a baseline of academic and EU policymaking practices of RRI.

So first, to understand how interwoven the ontologies are prescribed in the structure of the project, we need to understand what it means (and takes) to be a research project funded under the European Commission in the first place. Already the assembly of the project itself implies a cascade of rearrangements, negotiations and planning, as it is prerequisite for any consortium to get funded by the European Commission to propose in meticulous detail the research design, the plan, with which a collective of representatives from different organisations plan to tackle a specific 'call for proposals'. Among many other aspects, it includes detailed descriptions of the plan, objectives, and how the 'impact' of the consortium efforts will be measured. Finally, the activities are captured in so-called 'work packages' that form the basic structure the projects follow, where different consortium participants are leading different work packages (and thus are accountable in terms of deliverables (to a designated project officer in the European Commission) – which accompany every activity. This formalised 'grant agreement', required by the European Commission, can be understood as what French philosopher Michael Serres would call a *quasi-object* (Serres, 1980). It represents a travelling token in the network of the consortium that weaves the collective, like a sun around which actors orbit, stressing how the actors 'almost become extensions of the token – its attributes' (1980). In CHERRIES, the grant agreement thus stabilises the project and dictates the delegation of tasks among the different project partners (there is a work-package coordinator assigned for each who carries the main responsibilities) – and specific understandings of RRI.

As the title says, this grant agreement is representative of the consensus, negotiated with and agreed upon by the project participants, the project officer responsible, and finally is signed by all members – acting as a point of reference: it delineates the activities and corresponding deliverables, appoints responsibilities, validates actions and describes in detail the strategy with which the pre-set objectives of the project are to be attained. And it is in this central document already, in the grant agreement, where we can first encounter notions of responsibility in the form of questions in which actors who submit a proposal

are requested to describe how the project adheres to *six key principles* that are central to RRI in policy-circles of the European Commission: that is, *ethics, public engagement, governance, open access, gender* and *science education*. Of course, this seems rather problematic following the previous theoretical discussions, as the question can be raised to ask about *what ethics, what public engagement*, etc., as these keys, just like RRI, seem ontologically charged. In the CHERRIES grant agreement, it therefore is explicitly stated how the project *is aligned* with these different keys*:*

> *(1) Engagement of all societal actors (researchers, industry, media, policymakers and civil society) in a reflective research process, including the framing of issues as a starting point for research; (2) Gender equality and in a wider sense, diversity (including the integration of the gender dimension in research); (3) Enhancement of current education processes to better equip future researchers and society as a whole with the necessary competences to participate in research processes; (4) Open access to research results and publications to boost innovation and increase the uptake and re-use of scientific results; and widening open access to social scientific methods and workflows; (5) Research that anticipates and respects ethical standards and fundamental rights to respond to societal challenges and social issues; (6) Governance of policymakers to prevent harmful or unethical developments in research and innovation. […] CHERRIES will address these six key principles of RRI within a dynamic iterative process both in project activities and in particular in the dissemination/exploitation activities.*[13]

And so it is that for the project officer at the European Commission, there is RRI in CHERRIES; through a description in a plan, declaring that these tenets will be reflected in project's activities and engagements with local actors. RRI then, in the grant agreement, comes in the form of a *prospect* of responsibility; as considerations of the six keys in relation to the project. But does this make the project then responsible? The answer is no. Because for the project officer, there is RRI in CHERRIES, but the regions are not yet responsible. That is, because for the European Commission, *responsibility* needs to be measurable before it exists. Whether there is responsibility or not thus depends on evidence

[13] from the grant agreement

– which in CHERRIES was incorporated threefold. A first strand of evidence was provided by CHERRIES itself, where four key *impacts* were formulated and quantified for measurement: 60 regional needs, 3 pilot actions with citizen engagement, 3 open access papers or 6 recommendations for policy instruments with RRI potential (among many other impacts) could thus be expected from the project. For the second strand, the researchers enrolled another set of *RRI indicators* that were developed as part of a different research consortium called MoRRI (*Monitoring* Responsible Research and Innovation[14]). It spawned out of the commission's desire to make measurable the *impacts* of the many research consortia concerned with RRI and had the task to develop *indicators* that allowed for its quantification. And although the researchers in the MoRRI consortium themselves cautiously voiced concerns and doubts as to the definition, let alone the quantification of responsibility as such, the MoRRI indicators became an *obligatory passage point* (Callon, 1984) for any project under the RRI funding programmes. That is, because the European Commission started to request each project to reflect on these indicators. It so became the performing of RRI through RRI performance. Finally, the third strand of evidence was relating different CHERRIES activities to six of the societal development goals developed by the United Nations that formulated generalised, uniform challenges that are ought to be tackled for societies to 'develop'. With this prospect of measurement, CHERRIES simultaneously became responsible for the European Commission – *by enactments of responsibility through evidence of six RRI-keys*.

European researchers

Inspected through the perspective of heterogenous actor-networks, the grant agreement thus does not only function as a document that lays out the plan for the consortium activities only. Much rather, it represents a strong actor in the network of CHERRIES that not only weaves the collective, but simultaneously prescribes ontological

[14] see Peter et al. 2018

assumptions about RRI onto anyone who subscribes to CHERRIES in the form of specific activities, desirable targets or the use of RRI keys, inherently making it a political actor.

This puts the researchers into an ambiguous position, as they are confronted with a struggle that will guide the discussion of this case: succumb to the grant agreement's dictum of 'implementing RRI' into the regions' healthcare systems, or lead a more exploratory journey in collaboration with the local partners? After all, the uncertainty and curiosity of exploration is captured in the very essence of the CHERRIES' objective: that is, to *experiment*. In effect, this choice is rather rhetorical, because the activities that are agreed upon in the grant agreement – sometimes called the CHERRIES approach - and its logic of slicing up the project into work packages is counterproductive to governing the consortium in ways where new knowledge and new ideas get the chance to change the direction of the exploration. Instead, the planned activities are carried out by the researchers and the practitioners meticulously following the grant agreement. In this sense, the *CHERRIES approach* is a program without an anti-program (Latour, 1992); or to stay in rhetoric language, it is an avalanche of attempts to implement RRI. Notably, avalanches are not very receptive to objects that are in their way. And so it leaves little room for the researchers to balance the activities of the project (deliverables, deadlines, activities) against the exploratory drive from which the project departed from, which is why most researchers gather beyond the mantra of implementing RRI. In this ambiguous position, the researchers are acting as proxies of the ontological assumptions about RRI from European policymaking communities that travel through the project's governance. Thus, I want to add the word 'European' before the word 'researcher', to highlight two aspects: first, the ontological proximity of RRI to European policymaking communities and secondly, that the ways in which the researchers navigate the activities in CHERRIES is not by default in harmony with their normative standpoints as to what it means to do research in the first place.

> *It [activities of the project] should be done maybe in a different way; a more open way, open for adaptation of the methodology or terminology, everything. And this should be*

> *the starting point. Because of course, it should be responsible. It is irresponsible to do it in an imposing way.*

Which the grant agreement does not allow for.

> *We are the conceptual partners, I think they call it like that for our role in the project, so we can guide the reference partners. So that can be contradictory in a sense that if we are trying to do a bottom-up approach how can we guide and provide the others with a platform and be the important people about saying how this should be done.*

By adding this one word, there is also something lost. That is, by subscribing to the agenda (and the project ontology) of implementing RRI (that is, make healthcare in Örebro more open, ethical, democratic, governed reflexively, literate in science and gender equal), the researcher's sense of reflexivity and sensitivity becomes washed away. Instead, the focus becomes to *apply* the implicit logic that seems to radiate from (this) RRI:

> *I think some of the keys are easier to apply in reality. For example ethics, you really have to think about how you can apply this. […] So, it is our way of approaching these methodologies to comply with the RRI keys, but you can't all the time. Depending on what you are doing you apply some of the keys.*

What I want to draw particular attention to is not necessarily that applying the keys is not a straightforward task, but that there is a felt need to *comply* with RRI keys. Whilst the keys, to those who gather behind the normative standpoints they embrace, surely are desirable, the notion of *compliance with* delineates what I am problematising in this thesis: it renders RRI an extrinsic force that needs to be put into place (avalanche). This is the difference between the two 'hats' that the researching actors wear; *researchers* and *European researchers*. For latter, *complying with and applying* the six principles - '*implementing* RRI' - is how RRI is performed into being. While for the former, responsibility can be different things (we will come to this later in this text).

At this point, I want to make explicit the commitments of this thesis in relation to the creation of the 'European researcher'. The purpose of this ethnographic account is not

to describe CHERRIES in all its doings. It is embedded in an argument that mainly presents and discusses from the perspective of the local practitioners, because it has become the commitment of this thesis to emphasise their struggles in relation to CHERRIES (more to this later as well). This is why despite the fact that sometimes it may be received as the researchers' burden, I want to emphasise that this is not the case, because of two things: First, they act as proxies to the assumptions of the European Commission. Secondly, they *do want to* make Örebro more responsible, but this matter of translating responsibility between 'project' and 'local' level is not straightforward. This is why created the 'European researcher' persona. For the moment, let us focus on the activities of *doing* RRI from the European researchers – that is, to implement it. Turning again to the *CHERRIES approach*, the strategy that was evident in the planning consisted of three key acts: *mapping, implementation and sustainability*, consisting of different translations that are captured in the grant agreement.

> *During the mapping phase, the existing policy mixes and status of RRI adoption in the healthcare systems will be analysed. In the implementation phase, RRI tools and principles will serve as basis for experimentation within the three territories, while in the sustainability phase, such principles will be embodied in the governance of the territorial innovation systems and beyond.*[15]

In essence, it was clear what to do for the European researchers on their quest: first, there was a question of where. An attempt to *understand* the local specificities of the regions. Secondly, it was about *implementing* the (six) principles in the local context. And lastly, these principles needed to be reflected and *measured*. The following sub-chapter will inspect this succession of activities to move to questions of politics. Specifically, we will focus on *interference* by carefully inspecting how different objects, or things, are enacted by the European researchers and local practitioners in the same arena – the project itself (Law, 1999; Mol, 1999). Through these interferences, we not only make visible the local

[15] from the grant agreement

practitioners' practices of RRI, but simultaneously herald a discussion that is about *difference* and the risks and stakes that are attached to it in practices of *implementing RRI* that are so prominent. I focus on a process which is situated in between *mapping* and *implementation*. That is, constructing the Örebro through a joint mapping exercise that was planned to be a collaborative activity between the work package leaders, the researchers from Leiden University, and the two local partitioners in Örebro and involved, according to the project plan, three representations: a stakeholder map of relevant actors, a policy-mapping and a mapping of the regional strengths. The mapping was done to inform and set the scene for the local practitioners to be able to formulate a challenge that aimed at capturing a local need in healthcare. For the European researchers, the creation of these maps was a step in helping the local practitioners define, to narrow a local healthcare problem in an informed way that would be the basis for the building of a pilot in the last phase of CHERRIES. Each map had thus a different purpose: the stakeholder map was planned to contribute to identifying and building a local network of actors that can mobilises around the questions that CHERRIES comes with beyond the project itself and was mainly conducted by the local practitioners given their local insights. The policy map served a foundation of the policy-design for the next phase of the project and to understand how the health system in Örebro region is structured. And finally, the science and technology mapping served to make available knowledge previously disclosed to the local practitioners for being able to make a *good* decision about the resulting challenge.

All these impressions would ultimately collate in an *interregional workshop,* where not only the two actor groups from our case would be present, but also other local actors from the municipalities and regions. The idea there was to first introduce the regional strengths (science and technology mapping) and stimulate reflection as to how to build on them by discussing the local need that would have been formulated by then. Being a collaborative activity between the local practitioners and the European researchers, these tasks made explicit the *differences* (through interference) between the actor groups, which the next two subchapters focus on. The first interference comes with the mapping exercise

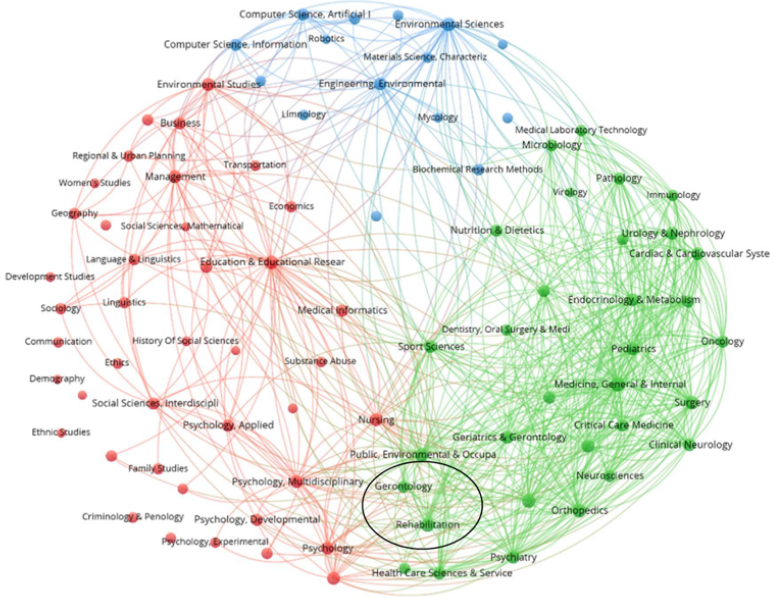
that was planned to set the scene for other activities. The second interference happens in the process of choosing the *right* 'territorial' challenge for a pilot project.

Interference 'in Örebro'

One step of the strategy that underlies CHERRIES was the formulation of one key challenge in each 'territory', on which basis the final phase of project would rest, where a 'healthcare innovation pilot' would be funded and developed. In the project plan, the idea was to conduct the previously described mapping exercise to inform the formulation through the understanding of the local stakeholders, the policy structures and the regional technoscientific strengths. *For the European researchers*, the mapping exercise simultaneously was a performance of RRI 'on the project level', as it was not only an act of collating knowledge and providing it to the local practitioners, but it *democratised* local knowledges and allowed for crafting local alliances that would otherwise remain unlinked, enabled through the expertise of the Leiden University's specialisation on bibliometric and scientometric analysis. Simultaneously, the mapping allowed for European researchers' enactments of realities of Örebro, as it brought into being the context in which CHERRIES plays out on a local level (research and innovation in the healthcare ecosystem of the region of Örebro). As to the science and technology mapping, the main idea was to make explicit regional capabilities in science and technology for *aligning the formulation of the challenge with regional strengths*[16]. In CHERRIES, this notion came from a European policy concept called *smart specialisation*[17] which was employed as a methodological point of departure for the science and technology mapping. Specifically, it departs from economic and spatial dimensions of different regions, building on the idea that regions should capitalise on their already-existing strengths to stay competitive in the European market. The key assumption that underlies this European policy concept is that specialised

[16] initially, this exercise was planned to be more iterative than it turned out to be due to different restrictions
[17] beyond CHERRIES, smart specialisation is a major policy concept of the European Commission that is the point of departure for a multitude of achieving strategic goals (see Morrison & Pattinson, 2020)

knowledge is better than non-specialised knowledge. The European researchers' rationale in enrolling the smart specialisation methodology was that the spatial and economic focus *combined* with RRI principles can serve as an experimental basis for drawing the boundaries of the territories. To capture this picture, the European researchers gathered and analysed data from scientific publications and patents on both national and regional level and produced following network visualisation (among other).



Strengths of Örebro Region

As such, similar to the prescriptions of the grant agreement, the maps of the regional strengths were performed with specific ontological assumptions (of European policymaking communities; travelling through the map and the European researchers' skills) that simultaneously carried notions of the *right* way to formulate a challenge: that is, to build on the already-existing strengths. For the European researchers that were conducting this mapping exercise, it was an enactment of the boundaries in which the problem that was to be chosen was located. It then was only a matter of choosing the

specialisation to build on by the regional partners. Simultaneously, it was an enactment of (implementing) RRI because this exercise was done collaboratively from with the regions in iterative reflection loops. However, as the local practitioners were relatively new to the project, they felt that the exercise suffered from their limited knowledge. In retrospect, they voiced concerns as to contributing to the (stakeholder and policy) mapping given the 'grand scale' that the mapping exercise required. The plan that was captured in guidelines that were developed for the mapping delineated that

> *It is expected that relevant policy instruments and strategies at International and European level should be collected by the Centre for Science and Technology Studies [Leiden University]. The regional effort is essential to explore the National and Sub-National policy ecosystem*[18]

From European policymakers' understanding of the world, territories can be categorised and 'made small' by defining them into supranational, national or subnational. Here, the project plan assumed that the same applies for the understandings of the local practitioners, which was, however, difficult for them to relate to.

> *We were very focused on the regional and the local things. And I think that it was expected that we should have had a national, or almost European view on the mapping. And we didn't have the knowledges of what to map on the national basis. We provided some things that we could look out on the internet or so, but we didn't have any personal experience or any connections. And when we sometimes talked with the researchers about these things, they were suggesting to talk about national organisations […] but we didn't agree that they were particularly important to us.*

Interestingly, this statement simultaneously captures a difference that defines Örebro for different actor groups: whilst for the practitioners the local is enacted through the specificities of and in the three municipalities of Karlskoga, Degerfors and Laxå, the regional is referred to as the wider Region of Örebro. The maps however drew the

[18] from the project proposal

boundaries of 'the territory' differently – through organisations and strengths defined by knowledge producing entities. Finally, after the maps were created, the science and technology map did not resonate with the local specificities of the practitioners' understanding of Örebro region and its strengths, nor did it frame what the formulation of the problem should be for them.

> *We can absolutely see that this [strengths identified through mapping] applies for Örebro University; this is exactly what they do. But when we look from a regional perspective*[19]*, from a regional development point of view, it is definitely not the same picture.*

At this point, it seems to surface a core struggle that accompanies the themes that this text describes and I want to point it out by referring back to the notion of *implementing RRI*. Earlier we described its focus being the *application* of an implicit logic that seems to radiate from RRI. Now, we can complete the sentence by adding 'rather than introspectively reflecting on what RRI *can becomes in a specific context*' – which here are the boundaries of the problem formulation. By not creating the space to enact Örebro with its local specificities and superimposing ontological assumptions through the governance of CHERRIES itself, the science and technology map became a politicum in negotiations about whether European policymaking or the local practitioners' enactments of the problem boundaries should prevail in CHERRIES, as it put at stake the very region itself - an object of interference through multiple performances of Örebro and its strengths that did not match quite right. And as a result, it shows how quickly, in the collaboration of actors and the different realities that were enacted in the maps and the activity, the European researchers and the local practitioners were 'no longer concerned with exactly the same thing' (Munk & Abrahamsson, 2012).

[19] for the local practitioners, coming especially from a background of regional development, the regional perspective is much more focused on the three municipalities of Karlskoga, Degerfors and Laxå, with special focus on the civil society organisations and the local governmental administration.

Interference 'in CHERRIES'

The construction of the territories through the mapping was simultaneously interesting as to highlighting the way the actor groups construct the territory as such. From the previous sub-chapter, we saw that for the European researchers, the mapping was one step, one translation, to reach a problem formulation, as it enacted the boundaries of *where* the problem can be located. The process of the mapping was precondition to the step of the problem formulation. However, for the local practitioners, this way of organising the process rendered it impossible for them to contribute to the mapping as such, because for them, *the definition of a problem field was precondition* to being able to map the stakeholders in the first place.

> *This is also a question of where do we start? Do we start with a specific focus area that we have and then look for research that applies to that or the other way around? Do we look at the research first and then, you know, what area we are supposed to focus on. And I think that the way they did the mapping, I suppose that it was not meant to support our choice but the other way around.*

What one of the local practitioners referred to was that there was already a problem defined before the mapping had started that they wanted to formulate for the Örebro region. And whilst this did not comply with the project plan (given that the maps were a pre-condition), the 'pre-mature' formulation spawned out of the local practitioners' inability to relate in practical terms to a point of departure of CHERRIES as such. That is, because the funding programme behind CHERRIES is addressed towards the European Commission's *societal challenge* of bettering issues of *demographic change, health and wellbeing*.

> *We felt quite early that this societal challenge that CHERRIES focuses on, the demographic change, health and wellbeing from Horizon 2020, is too big for us to do something with it. We decided quite early in the project to narrow it down to be able to do something real with it.*

At this point, the local practitioners became unorthodox as to the grant agreement by *not* following the way CHERRIES was planned to be conducted. In them knowing that *a* problem would need to be formulated, they referred to their knowledge about issues in healthcare that have been prominent in the boundaries of their territory. Specifically, they related CHERRIES and its focus on research and innovation in healthcare to an ongoing local discussion about mental health issues among elderly people.

> *We didn't just choose this area with mental health in elderly from nothing. We have a lot of material from our own that we have developed both nationally and locally here in Örebro to support that choice. But I don't think that these were the kind of sources that were covered in the mapping.*

The important aspect that I want to pick up from that formulation of the problem concerning *mental health among elderly* is that it provoked an interference between two enactments of CHERRIES' epistemological assumptions captured in the grant agreement itself. One that has set methods of doing things (according to the grant agreement). The other as a gathering of actors around a topic of concern (where the following of the grant agreement is not necessarily the ultimate goal). That CHERRIES as a project was enacted differently through our protagonists in this case is evident in the fact that there was resistance from the European researchers towards accepting the framing of the problem the way it was proposed, because it was, for them, premature to settle already.

> *It became something that we felt we needed to fight for that we wanted to do it this way. […] We thought that this was necessary. For me it was a very painting picture. We were really not on the same page when it came to the challenge.*

In another conversation, they emphasised that:

> *He [one of the European researchers] didn't understand our needs and we didn't understand his idea as to how to approach this [formulating the challenge].*

The resistance emerged from the deviation of the grant agreement's plan of conducting CHERRIES. For the European researchers, it was pre-mature given that it did not comply with the methodology of CHERRIES (implementing RRI) and the thinking that possibly, the democratisation of knowledge through mapping the 'territory' might have opened new arenas where a problem could be formulated. For the Örebroer practitioners, this was different. They felt that there is enough evidence and local discourse to support this challenge and therefore 'fought for it', eventually integrating it into the project.

3.2. Translating RRI

That moment simultaneously marked the time when the local practitioners had a reflection about their involvement in the project itself: were they actually bringing RRI closer to their local context by conducting the tasks, producing the deliverables and planning the activities that accompanied the participation in CHERRIES?

> *We were really focused on 'what do they want from us' instead of 'what will we use this for'. We were so focused on doing right for the project that we focused too little on what it was actually good for us, what we would need or have some kind of benefit from.*

For the local practitioners, it was a reflection that simultaneously opened the blackbox of the grant agreement, allowing them to find ways of bringing RRI closer to healthcare in their local context in ways that were not planned for in the project's proposal or the grant agreement. In other words, they started to translate RRI into their cultural and political context – or how it was oftentimes put in conversations: *'make it our own'*.

> *In the last months we have been trying to focus on what we can learn from CHERRIES, not just focus on the call for needs, the call for solutions and the pilots, but also on the bigger picture. […] How can we use CHERRIES to improve, moderate or change the innovation system, the way we work. And I guess it is in that sort of context, where we start to think more about what we do in another way. Not just focus on the specific actions, but also ask how can we use this? How can we learn from this to get changes that last after CHERRIES is over?*

This translation manifested in two different CHERRIES, as for the local practitioners, it was not performed into being as a project that prescribed a set of ontological assumptions about things or a succession of tasks with the goal of 'implementing RRI'. Rather, CHERRIES was enacted as a public forum around which to mobilise local actors, gathering around questions concerning responsibility (and what this is). CHERRIES was brought into being as a space for deliberation about local issues (beyond the final challenge of involuntary loneliness among elderly). These different enactments became explicit in an 'interregional workshop' where, after the mapping exercise, a joint session was held where both European researchers and local practitioners, but also other local actors, that were not involved in CHERRIES as such, were present. The workshop was organised according to the project plan with the aim of involving actors in a common reflection and exchange about building a more open, inclusive and responsible research and innovation ecosystem in the regions. During the first part, the European researchers presented the results from the mapping exercise followed by time for comments or remarks from the regions (whether they see the right actors / policies / aspects reflected for instance). Stimulated by the mapping results, regional focus groups were held to capture the thinking and reflections from key groups of healthcare actors per region: that is, policymakers, healthcare providers and patients mostly, and some funding-providing actors as well (this grouping of actors points back at the project plan, as there, the actors were operationalised into a 'four P model' (patient, provider, payor, policymaker)). The focus groups were designed around four questions that the local practitioners moderated in the local language. Finally, the participants of the workshop met in plenum to share reflections and exchange mutual learning. As such, this workshop had two sides: one was the interregional discussions that were facilitated by the European researchers (the mapping results and what CHERRIES is for instance, as well as the moderation of reflections and discussions in-between). The other side was the regional focus group, where only actors from the region were present.

In retrospect, the interregional workshop was an example of 'RRI in practice' for both European researchers and local practitioners – although in two different ways. For

former, it was the *workshop-as-an-application-of-implementing-RRI* and could thus be understood as 'RRI in practice'. It came with evidence and measures.

> *The workshop might be considered, in this sense, a concrete example of 'territorial RRI' application [foster mutual responsiveness and collective reflection on responsible innovation in health among territorial R&I key actors].*

For the local practitioners (and the other regional actors), it was also responsible, but responsibility instead refers to what the workshop produced. That is, the creation of a space for deliberation and reflection. Thus, the *workshop-as-an-arena-of-concerns* was what made it responsible in the first place and therefore an act of RRI in practice. The subtle difference is that the one ends after the workshop; done and documented in deliverables with deadlines. The other carries on, because the workshop was only an assembly of RRI, where it momentarily gathered, but always in flux. The six RRI keys from the European Commission and whether they were all covered in the discussions was thus not important *for the regional actors*. Rather, responsibility was performed through making explicit and raising questions, *inspired through CHERRIES,* that provided a space for the sharing of concerns.

> *Maybe not even knowing it, we have used the RRI principles in our own way and made them work in our own context rather than having the RRI principles having a bigger impact in our choice and our way to work in the CHERRIES project.*

For the actors engaged in healthcare in the region of Örebro, the concerns that were raised gravitated around the creation of such public fora for different actors to be able to gather and strengthen the ties between civil society organisations and public administration. In reflection with the six RRI keys, these themes surely do overlap with what the European Commission enacts as the 'open' key. Was it therefore responsible? Or: *would it be responsible* if the local actors would have raised concerns that do not directly relate to any of the six keys? The next chapter will build on what this question implies.

4. Diagnosis and proposition

We have established that responsible research and innovation is not the same for either European researchers nor local practitioners by showing the *differences* that surface when the local practitioners are confronted with policymakers' ontological assumptions about responsibility inscribed in the project (i.e. grant agreement, travelling through the European researchers). Even more so, we have established that there are *multiple* RRIs; that the RRI that European researchers enact into being is *not* the RRI that the local practitioners perform. This is foregrounded with the governance of the project, with special focus on the grant agreement, and the role it plays in the coordination of these multiple overlapping realities. As such, we find ourselves in an arena of ontological politics between the local practitioners, the European researchers and the European policymakers around different RRIs in practice. This section builds on the two levels that CHERRIES departed from, in tandem with two levels of complexity. First, it discusses how *RRI-in-theory* is constructed as a matter of fact across the heterogeneous actor-network of CHERRIES, followed by reflections on how the project coordinated multiple enactments of RRI 'in practice'. This is followed with ontopolitical tensions that surfaced in this translation. Finally, I propose to understand the consortium as an *arena of concerns*, carrying a call for more democratisation in the governance of European research projects.

RRI in CHERRIES: a matter of fact

RRI emerged as a policy-concept with the aims to bring science closer to societal needs by involving societal actors in processes of research and innovation. *In theory*, not only strategy documents that proclaimed what this new concept was and what it aimed for stabilised RRI, but also considerable academic publications and debates that, among other themes, collectively engaged in discussions around normative anchor points (Von Schomberg, 2013), different dimensions and conceptual principles (Owen et al., 2012; Stilgoe et al., 2013) and ways to facilitate these forms of public engagement (Brand &

Blok, 2019). These efforts stabilised the actor-network of RRI (in *theory*), increasingly enrolling different actors that strengthened the program of the European Commission. As such, it stabilised into a matter of fact: a clear, stable and transparent policy instrument that can be operationalised (Latour, 2005). RRI *in theory* became blackboxed and made into immutable mobiles, travelling across sites in models, principles, or monitoring indicators (Latour, 1986). It is *this RRI* that was operationalised by the grant agreement with an implicit logic of 'responsibility' ready to be implemented, as we have showed in the case. In other words, RRI was enacted as a '*matter of fact*' (Latour, 2004b) by the European researchers and the policymakers in the European Commission; captured in the grant agreement; prescribing not only *what RRI is,* but additionally what *good* RRI is.

This was the RRI that the local practitioners encountered when they first joined CHERRIES: a strong commitment by European actors to bringing science and society closer together by implementing RRI-in-theory into their region under which they had to find their place. To reflect on what this means, I want to quickly elaborate on what the thesis has so far left unquestioned: what is a consortium, a European research project, what is CHERRIES? As we have seen, it is not a homogeneous organism that pulls on one string. We have seen through the case that *the project* is much rather a *socio-material assembly* of *heterogeneous* actors itself, a network of both *humans* (our protagonists) *and non-humans* (our other protagonist, the grant agreement) that are held together through *objectives, deliverables and deadlines* in the common quest of creating, in our case, 'responsible healthcare ecosystems' (Bjögvinsson et al., 2012). These objectives and deliverables do not only serve as *quasi-objects* that hold the consortium together. They have a strong political dimension inscribed into them. That is, because they validate the actions that are being done and the resources that are spent towards the project officer in the European Commission. Nonetheless, these were all aligned with the network of *RRI-in-theory* and with it, aligned with *what RRI in CHERRIES should be*. CHERRIES inscribed RRI as a matter of fact, RRI-in-theory, into the design of the project. This is the first diagnosis that I want to make: the way the project was designed held ontological assumptions about RRI in place. Implicitly, this presented the local practitioners with a

choice: subscribe to RRI-in-theory, joining the program of action that the grant agreement dictated or try to understand what RRI was *for them* to translate it into practice. Or as one of the local practitioners said: make RRI 'their own'.

> *Maybe we don't understand all the things about RRI or CHERRIES, but if we are going to do something good out of this and have an impact and the result for the people we are working for; we need to make it our own. We have to contribute with how we, as being practitioners, can have an actual use for RRI.*

Whether it was a conscious decision or not to not subscribe to RRI-in-theory does not matter. Because for the local practitioners, there simply was no other way but to make RRI work for them if they were to '*do something good out of this'*. So how *did* they do it? And what happened to RRI on the way?

RRI-in-theory to responsibility in practice

Let us start by addressing the question from which the project departed: the gap between RRI-in-theory and RRI-in-practice. Did the engagement of the European researchers produce a more responsible healthcare system in the region of Örebro? The best answer that we can deliver in response to this question is an 'it depends'. For the local practitioners (and their stakeholders), the answer is yes: through the common space of deliberation (during the interregional workshop), the actors raised a set of concerns that are now being followed up on; better linking public administrative bodies and civil society organisations through such forums to create space for concerns in the three municipalities and Örebro - these practices, for these actors, are practices of responsibility. CHERRIES, for the local practitioners, was a source of inspiration to inquire and critically reflect on local processes that are worth challenging. It was a reason to gather collectively and make explicit the issues that were present. The role they assumed in this was that of translators from the *ontology of responsibility of the project* to the *local ontology of responsibility*, which for them meant to identify already-existing networks to enrol, invite to public fora or revisit and question the normative standpoints of regional strategy documents.

So yes, 'responsibility' travelled to Örebro region through the CHERRIES project - but not in the way that the European researchers (or the European Commission) planned for: not as 'RRI-in-theory'. That is, because it did not arrive in Örebro region as RRI in the first place. It metamorphosed into different things:

> *We talk about the aspects of RRI but we never, ever, use the term RRI. We try to talk a lot about things that we can relate to, the strategies that we have, for example the innovation strategy talks about mobility and inclusion. We try to use these words to translate RRI into our context. To talk more about inclusion in a way that more people, organisations and so on should be able to participate in the innovation system. And we try to use our other documents, like our regional development strategy, which doesn't cover innovation very clearly, but still has a lot of questions that we need to sort of mobilise around in some way. […] We try to use things that we already have in our organisations to translate RRI.*

So, responsibility has travelled to Örebro region, while RRI metamorphosed into other things, enacted differently across the actors and organisations in Örebro region. The question however remains open: what about the gap between RRI-in-theory and RRI-in-practice? To answer this question, I want to present the second diagnosis, arguing that CHERRIES' enactment of RRI is done as a *matter of fact* by the European researchers (and policymakers) that does not allow RRI to travel across localities in *different* forms. The project's governance did not consider difference, becoming callous towards anyone (and anything) that did not subscribe to the grant agreement's inscribed ontology of RRI with which the project was constructed. In other words, it does not take *multiplicity* into account, and it is therefore 'lost in translation' – but not gone. That is, because it is only lost from the radars that search for particular indicators and criteria that relate to RRI-in-theory. Responsibility however, as we have seen in CHERRIES, *does* travel. It simply manifests in different things.

The radars that I am referring to are one example of how the consortium does not account for multiple enactments of RRI (or difference). The radars are contained in any consortium in a 'work package' that focuses on *measurement and evaluation* with the central quest of 'tracing the impact that was created'. The problem is that it is difficult to

capture enactments of responsibility when they are done differently from actor to actor in the municipalities where the local practitioners are situated; to capture them through indicators, especially if it goes by different names and terms. The question, looked at from the multiplicity perspective that this thesis offers would thus be: how to make indicators indicate *the right thing, and what does right mean*? Or even: *can indicators indicate at all?* Two questions that are reflected in many of the discussions (European researchers from other similar projects often struggle with using indicators for measuring 'benefits'[20]), but never questioned (the dictum of the grant agreement).

So RRI makes its way in different forms of responsible practices and becomes different things, 'creating a gap' between *RRI theory* and *RRI practice*, because it is searched for in this form. There is an assumption that is implied that if there is something in theory, it must be there in practice, in similar form. But this thesis has shown that, at least for RRI 'in practice', it is not the case. RRI-in-theory surely can inspire actions and trigger engagements, but in practice, the more fitting formulation would be the 'translation from *RRI-in-theory* to *responsibility in practice'*.

RRI is remarkable insofar it surfaced the vulnerabilities of policymaking and its practices through the active attention of the European Commission of bringing science and society closer together. It laid bare the flaws that policymakers' central assumption of a 'one-world world' (Law, 2015) surface by exposing them, deliberately, to citizens and other actors that these policies, after all, affect. This act brough forth a tension that seems impossible to resolve: that is, how to reconcile the stability, standardisation and uniformity of policymaking with the messiness, flux and fluidity of local specificity?

> *It is not that you can go to another country, look at what they are doing and say 'this is the way we take this home. To just take it and apply it to our system […]. Working with people and working with social issues and working with social innovation, you can*

[20] from my involvement in another consortium called Super_MoRRI. This project is a continuation of a project called ‚MoRRI', which developed an (elaborate) set of indicators to be ‚*mo*nitoring *RRI'*. In Super_MoRRI, concerns of indicator rejection and struggles of uptake are being discussed.

> *always learn from other countries and how they do it. But you cannot take it and place it into the region of Örebro and expect it to work*[21].

The thesis has described these vulnerabilities in the form of interferences. In the case, they surfaced in the clashing of different realities enacted in different practices: topologically, in the mapping of 'Örebro'; and epistemologically, in the formulation of the local challenge; playing out between the local Örebroer practitioners and the European researchers (note why we created this type of researcher in chapter 4.1). And whilst the anecdotal and fictional 'actor-network prime minister' in Law and Singelton's (2014) case of the British foot and mouth disease epidemic in 2001 surely did not convince his colleagues of being worthy in leading the country through a time of crisis by designing policies that 'can be picked from' depending on one's different needs, the metaphor delivers a point that is at the heart of the problem of 'translating RRI', and policymaking more generally: *how can policy(practices) account for multiplicity*?

Interlude: what this thesis tries to do

This thesis would not fulfil its purpose by concluding with these diagnoses. Because in the consortium, it has become interwoven with both European researchers and local practitioners. The thesis has become entangled in the socio-material assembly of the project. As Vikkelsø (2007) argued, descriptions, which is mostly what this thesis has produced (in a material sense), are not mere descriptions. Rather, they are in themselves interventions by exposing themselves to multiple audiences and putting themselves at risk, while also being aware about how they put others at risk. The thesis would not be just to either European researchers nor local practitioners (and the multitude of other stakeholders that do not subscribe to either of these groups that led the narrative of the discussion) by leaving these concerns entirely open. My involvement with the consortium was timely,

[21] see (Peter Sloterdijk; in Latour, 2005) for his idea of the ‚pneumatic parliament', a piece of inflatable architecture to quickly restore democracies, which comes with the same notions.

given that it consolidated already-beginning discussions about the use of indicators, the actionability of RRI and other concerns. As such, this description aims to stimulate reflections in three ways:

(1) First for the European researchers as to the prefix 'European'. That is, to stimulate thinking about the ontological assumptions that they subscribe to and transfer in the facilitation of the activities with the regions through the decisions that are made in and for the grant agreement starting with the project proposal.
(2) Secondly considering the local practitioners, or any actor who does not directly identify with or subscribes to the epistemological and ontological assumptions that a grant agreement, or any similar project (with objectives, deadlines, indicators or other planning); thinking about this thesis as a making-of-space to address issues of prescription; raising the project itself a matter of concern.
(3) And finally, reflections about the governance of research projects stemming from the European Commission; especially in relation to linking these with a normative position to becoming more sensitive to *difference*.

This is why this thesis will go beyond diagnosis and propose a way to think about RRI (and its governance) that, at least for CHERRIES and other 'territorial RRI'-consortia, takes difference into account. Simultaneously, this marks the point in this thesis where we become unorthodox in the eyes of Law (see chapter 2.3). That is, because we move from describing 'situated experience' (admittedly, we were not always strictly following this imperative) to compositionist notions for governing these projects (Latour, 2004a, 2010).

Consortia as arenas of concern

What I am referring to is a mode of constructing 'projects' while acknowledging and retaining the multiplicity of enactments of the actors involved. The key move that this mode of project construction implies is what Latour called a move 'from matters of fact to matters of concern' (Latour, 2004b) and is what I want to focus on. We have described the

characteristics that render RRI-in-theory a matter of fact. But what would it imply to understand RRI as a matter of concern in CHERRIES? In essence, it describes an understanding of RRI and its governance assuming that there is no indisputable process, methodology, structure or anything else that can be considered 'part of the way' from the get-go. It would mean to understand and govern RRI as an open question, *a concern*, around which the different actors in consortium gather to bring these notions of responsibility to the healthcare system in the Örebro region.

In this thinking, this process would not start with facts (RRI *is*…), but with questions (*What is* RRI?). It would not superimpose what is right (responsible) for Örebro, but let these answers surface in the engagement with local actors, building on themes and issues that are raised on the way. In other words, it would not allow for the practices that implicitly or explicitly give rise to the ontopolitical struggles that we described earlier. The 'project' becomes a 'gathering' around a *common* concern, where the common is being slowly *composed* into being.

> *We don't assemble because we agree, look alike, feel good, are socially compatible or wish to fuse together but because we are brought by divisive matters of concern into some neutral, isolated place in order to come to some sort of provisional makeshift (dis)agreement (Latour, 2005).*

Acknowledging these differences in the way the research projects are designed simultaneously allows for making explicit the ontopolitical struggles that unfold through the 'mundane and mute' artefacts which the consortia consist of. This is *not* to say that we should let go of matters of facts altogether. The six RRI keys are important in encapsulating *an* idea about responsibility - serving as a trigger for conversations on RRI for example. Note that it is *an* idea of RRI. Not *the*. And this is the difference: once the six keys become standalone facts that cannot be disputed, they lose their purpose. They enforce a particular idea about responsibility, becoming irresponsible themselves.

Understanding consortia as 'gatherings around a matter of concern' does not encapsulate the liminality in which the actors find themselves in a state of nothing being

beyond dispute (Latour, 2010). It does not highlight that RRI no longer has 'the clarity, transparency, obviousness of matters-of-fact; they are not made of clearly delineated, discrete objects' (Latour, 2005) and the effects that this thinking brings with it. This is why I would like to stress this aspect by moving the focus from RRI as a concept to where it is practiced, to the gathering itself: namely consortia as *arenas of concern*. I do not introduce this slight modification as an alternative to Latour's terms. Rather, I introduce it for reframing how acts of collaboration are understood in these projects, as collaboration and the engagement of citizens is usually not further questioned: because whilst the word 'arenas' does not fit into insofar it comes with the notion a final winner who triumphs over others, it underlines that a consortium is not an environment where actors meet with a clear idea of how RRI should be done nor what it is, highlighting the need to come to terms with each other before being able to come to terms with RRI. As such, it is a space where actors come together while needing to be willing to let go of part of their realities (of the RRI that they enact) in a quest to create *common* ground 'achieved only by the slow process of composition and compromise, not by the revelation of the world of beyond' (Latour, 2010).

Indeed, this is a thinking that can be rather unsettling, because it puts at risk the very worlds that our protagonist actor groups enact for themselves. For the policy officer and project officer in the European Commission, control and accountability would become a liminal aspect that may need to be revamped to fit the new way of governing the consortia. Rather than meticulously planning for years ahead, where a project becomes an 'executable' succession of activities with set deadlines and deliverables, a critical balance would have to be struck between making it formal enough for processes of administration whilst retaining the openness and uncertainty of an arena of concern. Even more so, it might mean that the project officer and (or) the policy officer would need to engage directly with the regional actors and the researchers instead of relating to the projects through deliverables and reports only. They would need to 'step out' and actively engage with the localities for which the policy practices are employed for in the first place; practicing the act of democratisation that has made their practices vulnerable in the first place. A

consortium would become an active contributing different RRIs through their involvement in different arenas of concern.

Simultaneously, this way of approaching governance would allow the European researchers to distance themselves from the ontological assumptions of the policymaking actors, being able to reconnect with the researchers' ethos of being receptive and curious towards new knowledge and ideas without being bound to preconceived pathways that need to be done. Epistemological assumptions would need careful reflection as it would not suffice to set a strict methodology for the project. Rather, the researchers would need to constantly reflect on how their knowledge practices become received to not create indifference through expertise; and produce knowledge that actually matters and is understandable to all actors involved. As such, it would not suffice to point at things 'out there' to retrieve what is right or wrong (six keys of RRI). The consortium as an arena of concern is a process of negotiation - an oscillation of different performances of RRI against each other, in an attempt to temporarily stabilise what RRI *is* for the consortium itself*;* and what the right means along the way. Admittedly, this thinking raises a sea of questions; despite that, I deliberately want to leave them open (for now[22]). That is, because I would like to see it as an act of raising the *governance of European research consortia* as a concern in itself that is worth gathering around for the reasons I raised in this thesis.

What RRI and a bush pump in Zimbabwe have in common

Finally, I want to stimulate these reflections and conclude this chapter by referring to Annemarie Mol and Marianne de Laet's (2000) case of the Zimbabwe Bush Pump, where the authors showed, in different chapters, different enactments of the pump: whether it be a *provider of water* for communities without a water supply, a *provider of health* for communities with otherwise contaminated water or a *maker of national identity* through the building of infrastructure. I here do not want to focus on the pump itself too much, but

[22] a series of workshops are planned to address these issues and reflect on consortia as ‚arenas of concern'.

on the designer of this pump, a person called Dr Morgan, who, just as the European Commission, worked to not only build, but also implement his product in the different localities in rural Zimbabwe. I focus on the designer because the similarity is striking to the European Commission's policymakers and their relationship to RRI, with one key difference: Morgan considers and designed the pump itself as a multiple, from the get-go *designed mutably*, *adaptably*, and *fluidly*. On *implementing* the pump in different sites, the authors make clear how Morgan goes about helping to install the pumps:

> *[…] he does so not by taking command, but by trying to let go. By allowing for surprises. And such surprises do, in fact, occur – and steer the further development of the pump. (de Laet & Mol, 2000)*

In the vocabulary that we have established in this thesis, Morgan does not superimpose the pump onto the communities, instructing where to drill the holes for the water supply for it to be a good pump. He leaves space for the community to make use of the pump in their very own context and in their very own ways.

> *He is firm about the necessity of abandoning control. Implementation, he maintains, depends on involving those who will use the pump. It therefore requires room for their methods and insights. Without this, any pump is bound to fail. (de Laet & Mol, 2000)*

He allows for the space that the local practitioners longed for. The space in the project's way of implementing RRI to raise *their* methods and insights, *their* context into how RRI is trying to be implemented in Örebro region. And if it transforms into something different, so be it. This is the crucial difference between how Morgan implements the pump and the European Commission RRI. The former does account for ontological multiplicity; the latter does not.

5. Conclusion

Setting out to discover the CHERRIES' actors' enactments of RRI in order to illuminate the 'gap' between 'RRI in theory' and 'RRI in practice', this thesis has given an intimate account of the European Commission's (and thus the European researchers') attempts to implement RRI into the healthcare sector of Örebro region. With particular focus on the local practitioners' struggles to comply with the grant agreement's requirements and the European researchers' enactments of RRI, I have shown that RRI governance in the consortium does not take *difference* into account, for which I argue in two forms: Firstly, the researchers are bound to the assumption of ontological singularity imposed by the European Commission through the requirements towards them that are held stable in the grant agreement, becoming callous to any actor who does not subscribe to the ontological assumptions inscribed into it. Secondly, I make the case that RRI is regarded and handled as a *matter of fact* – a strictly solid framework, a tool or instrument, which can be operationalised, made measurable and be implemented in any organisational, political or cultural setting without attending to local specificities.

From these two argumentative positions, I call for the accounting of ontological multiplicity in the governance of RRI by presenting a way to think about this policy instrument that may contribute to transcending the struggles that RRI-as-a-matter-of-fact invokes. That is, thinking about RRI-as-a-matter-of-concern, a gathering around a theme of interest that allows for bringing together different realities in a fluid space of responsible research and innovation. To further build this thinking and capture the ontopolitical tensions that unfold in interferences of differently enacted RRIs, I introduce a modified formulation of Latour's *matters of concern* that allows me to highlight the ontological differences that come with the oscillation of differently enacted realities against each other – that is, to understand such acts of collaboration as the actors' entering into *arenas of concern*, where they need to first come to terms with each other before they can come to terms with what they are gathering for, in an act of accounting for ontological multiplicity.

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