Dialogues in innovation: Interactive learning and interactive research as means for a context sensitive regional innovation policy

Øyvind Pålshaugen

Theoretical and empirical studies that demonstrate and discuss the importance of interactive learning for releasing the innovation potential within national as well as regional innovation systems have been steadily increasing since Lundvall's first publications on this topic in the late eighties. More recently, studies that emphasise the importance of context-sensitive regional innovation policies for releasing the innovation potential have added new arguments for the importance of interactive learning in regional innovation systems. However, innovation researchers operating at the national and/or regional level still seem not to consider themselves as the kind of actors who might enter into any kind of processes of interactive learning with other institutional actors. Against this backdrop, this article develops the argument that interactive research will provide new knowledge on how to realise context-sensitive innovation policies, by supporting interactive learning for the purpose of realising the innovation potential of regions. Such interactive research may take on many forms, but one common methodological aspect will be some kind of participation in dialogues on innovation.

Key words: dialogue, interactive learning, interactive research, regional innovation policy

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Introduction:
Interactive learning and context sensitive innovation policy

During recent decades, innovation studies have provided evidence of the importance of interactive learning for developing the innovation capability of an innovation system and its members (Lundvall, 1988, 1992; Cooke, 1992, 1998; Lindegaard, Christensen, & Lundvall, 2004; Asheim & Parilli, 2012). In the wake of these studies, interactive learning has gradually come to be considered an issue also in regional innovation policy. This may be due to its positive correlation with innovation capability and innovation, but it may also be viewed as an attempt to remedy three types of imperfections from which regional innovation systems may suffer: fragmentation, lack of key resources and lock-in (Nilsson & Moodysson, 2011). However, the emphasis on the issue of interactive learning might also be viewed as a strategy for dealing with this very issue, as a *fourth* kind of imperfection of regional innovation systems.

One reason for considering the issue of interactive learning from the perspective of system imperfection is the structural mismatch between the general acknowledgement of the importance of interactive learning processes within regional innovation systems on the one hand, and the lack of a general agency in a position to secure that such processes are realised optimally and with the necessary funding, on the other. The general reason for this is precisely articulated in the plan document for a Norwegian research programme on regional innovation: "Collaboration is about co-ordinating and executing activities in a process where no single actor or any single institution has *total responsibility, and where these processes therefore have to take place through dialogues between the actors*" (NRC 2013:7 <italics ØP>). In short, processes of interactive learning in innovation systems appear as kind of common good that there is no common agency to ensure and enact.

At the empirical level this structural mismatch, or system imperfection, may occur in many ways: From the point of view of the individual actor, participation in processes of interactive learning involves spending time and resources, the outcome of which may appear unsure in both the short and the long run. Also, experiences from participating in such processes may vary in quality. The threshold for any actor to take on the responsibility for *organis-*

ing events and processes of interactive learning is perhaps even higher. This does not imply an absence of interactive learning processes within regional innovation systems; rather, and most probably, they are sub-optimal, both quantitatively and qualitatively. Whether or not this sub-optimality is conceptualised as a system imperfection, the fact remains that it is an inherent structural challenge of any regional innovation system.

Obviously, there is no single innovation policy measure that may compensate for this systemic imperfection. Rather, there is a need for a number of various kinds of measures, whose common denominator is that they fit in to the requirements of a *context sensitive* innovation policy. As have been noted e.g. by Martin & Tripple, there is a widespread agreement in the scientific community of innovation research, and within policy circles in the EU, of the need for developing more context sensitive regional innovation policies. This widespread agreement, though, has not yet resulted in accordingly widespread examples of such policies: "What remains, however, less clear is what such a context-sensitive, differentiated regional in policy approach should look like. Scholarly contributions to this debate are based on a variety of theoretical frameworks including, amongst others, insights from evolutionary and institutional schools of thought, leading to partly highly differentiated conclusions about the nature of a fine-tuned regional innovation policy approach" (Martin & Tripple, 2013, p. 2).

The community of innovation researchers is not the only community within the social sciences that ends up with an abundance of theoretical frameworks for policy-oriented research, and consequently recommendations for policy-orientations that point in diverse directions. The standard receipt of overcoming this kind of fragmentation, which has become standard in most big branches within the scientific communities, is to provide just another new, synthesised framework that is assumed to be more comprehensive than those already in place: preferably comprehending some of the most outstanding of these. Irrespective of the intentions, such partial syntheses tend to continue the fragmentation, rather than overcoming it. In fact, this vicious circle appears like a kind of system imperfection within the scientific communities.

As an attempt to break with this vicious circle, the line of argument to be pursued in this paper is therefore not about suggesting another new theoretical framework. Instead, I will make a plea for supplementing the dominant forms of innovation studies with approaches that are different from these, in methodology rather than in the theoretical perspectives applied. The kind of supplement I have in mind is not really new. As a matter of fact, it is already to be found also within the field of innovation studies. I will briefly explain in what way.

In many respects innovation researchers are to be considered part of national and/or regional innovation systems: indirectly as well as directly. As such, they are among the kind of actors who are relevant participants in certain processes of interactive learning within regional innovation systems, at different levels. The step from engaging in interactive learning processes within regions to engage in *interactive research* within regions, may be considered less a question of taking the step from researcher to practitioner, than as a question of *research methodology*. There are many ways of conceiving and conceptualising interactive research, but common to most is that interaction in the sense of communication based on a mutual understanding of some kind of a common purpose is part of the research process (Nielsen & Nielsen, 2006; Svensson, Ellström, & Brulin, 2007). There are a number of ways to design and perform interactive research projects, and the engagements of researchers in interactive learning processes are integral parts of many of these (cf. Pålshaugen, 2011, 2013). In this article I will suggest one line of reasoning about how interactive research might be suited to promote interactive learning, for the purpose of realising both context-sensitive innovation policies and the innovation potential of regions.

The interactive turn in innovation policy

The 'regional turn' in innovation policy reflects not only that regional and national priorities may differ but also differences in underlying innovation capabilities between regions (Tödtling, Asheim, & Boschma, 2013). The need for context sensitive policies has generated a demand for an inventory of generic policy measures adaptable to a variety of specific regional con-

texts. This demand has led to the emergence of general, yet context sensitive, measures by funding regional initiatives on the condition that they develop their own reasoned policy mixes, and even encouraged experimentation with new measures. A common feature of the variety of such context-sensitive innovation policy measures is that they emphasise the need to make use of arenas, forums and meeting places where the diversity of institutional actors, stakeholders and policy actors within regional innovation systems can have encounters to exchange experiences, develop new ideas, and explore the specific possibilities for collaboration on innovation. The creation and use of these kinds of measures can be said to have contributed to an 'interactive turn' in innovation policy, inasmuch as they promote various kinds of interactive learning between policy actors, stakeholders and participants in innovation processes at all levels of a regional innovation system.

There are mixed reports regarding the value of the interactive learning that has taken place in these settings. Nevertheless, there is an increasing acknowledgement of the necessity of national and regional policy makers to participate in some kinds of encounters and dialogues with institutional actors at different levels within the region, in order to be able to develop and implement a context-sensitive regional innovation policy in practice. Thus, from the point of view of innovation research, the medium of dialogue, and the adherent interactive learning that somehow takes place thereby, appears an unavoidable medium for transforming general innovation policy measures into context sensitive support to regional innovation processes.

However, still relatively little attention has been given to how these kinds of dialogues have been organised, managed and performed, and how this may have affected their outcome in terms of interactive learning and subsequent policy changes. One general reason is that those involved mostly are more engaged in the content than in the form of the dialogues/encounters. That means neither that form is unimportant, nor that those involved have no experiences or opinions of the relation between form and content in these arenas. Rather, as a medium for discussions and interactive learning, dialogues seem, not surprisingly, to meet the same fate as does generally the medium of language: the attention of the users of language is directed to what it is about, the content, not the form. As a conveyor of content, language is

normally considered transparent: like the water in which the fishes swim. Any actor can talk, like any fish can swim, in any sort of shoal. Therefore, the question of to what extent the form of dialogues: the way they are organised, managed and performed, may affect the content as well as the outcome of dialogues, is not given the attention it deserves, neither in innovation studies nor in innovation policy. This, then, we have to dive into.

For this purpose it is necessary to start with briefly recalling the great variety of contexts that the attempt to develop context-sensitive innovation policies are confronted with, when diving into the real diversities and heterogeneous character of any regional innovation system. In order to both acknowledge and master this diversity, Martin & Tripple have recently suggested a systematic approach to specify some of the general features of the variety of kinds of context with which tailor-made regional innovation policies are confronted. Their approach is to combine a typology of regional innovation systems, based on types of system imperfections they may suffer from, with a typology of types of knowledge bases (analytical, synthetic and symbolic) that may be dominant within the industries to be found in any particular region (Martin & Tripple, 2013). By combining these two typologies, they obtain a quite differentiated 'grid' for mapping the diversity of contexts for kinds of innovations, and this framework may serve as a foundation for developing more context-sensitive regional innovation policies.

However, even this rather differentiated grid still appears all too general to be helpful for the real working out and carrying out regional innovation policies that are in tune with the manifold of *composite* kinds of regions, knowledge bases and innovations that exist. There are examples of empirical innovation studies that make use of more differentiated perspectives, which enable approaching more specific combinations of types of regions and types of knowledge bases (Isaksen & Karlsen, 2012; Manniche, 2012). But if we take a look at the institutional and organisational landscape of a region from above, but dive into the real complexity and diversity of the innovation processes that are at work within (and in-between and beyond) these institutions and organisations, we will find a more heterogeneous bunch of factors that are at play compared with those which are addressed by the kind of 'grid' Martin & Tripple (2013) have constructed.

Thus, a context-sensitive innovation policy is needed for measures and means that may be able to 'map' the specific constellations of factors and actors that are at work in the innovation processes of any particular region, in a way that is much more differentiated. This implies the ability not only to map the main structural features of the region, but also the kinds of dynamics that unfold and change in the course of the run of implementing innovation policies and the various attempts to realise innovations. What is required, then, is measures and means that may enable policy actors and innovation actors in a region to enter into policy making processes that take place through *dialogues* between the relevant actors. In short, the attention has to be turned towards the interactive turn in innovation policy, to develop further the arenas and forums for dialogues, and to refine the ways in which dialogues between policy actors and innovation actors are organised, managed and performed.

Mutatis mutandis, the same goes for the collaboration between different kinds of actors in the innovation processes that are underpinned and supported by the regional policy. Nevertheless, however well organised and performed, dialogues are but one of a pretty heterogeneous bunch of factors that are at play in any innovation process. It is exactly because of the need to be able to cope with such heterogeneity that dialogues need to be organised and performed in accordance with the particular constellation of heterogeneous factor that are specific to any innovation process. When approached 'on location' and in 'real time' through interactive research, such constellations tend to appear to be far more heterogeneous than when approached through the battery of analytical concepts that makes up the framework of some regional innovation system theory.

Before returning to a few general aspects of the role interactive research can play within the field of innovation studies, I will try to create a certain vision of this heterogeneity. I will do it indirectly, by recalling the fact that there are more perspectives and approaches within the field of innovation studies that may be relevant for creating more differentiated frameworks for a context sensitive innovation policy, than those touched upon hitherto. This is not to say that anyone of these is better suited that those mentioned. Rather, the diversity of innovation theories is but a sign of the heterogeneity that exists and unfolds in the practices of innovation.

Related variations: Forms and drivers of innovation

Since the introduction of the concept of national innovation systems decades ago, theories of innovation systems at different levels and different kinds have contributed to the development of a plethora of systemic approaches to innovation studies. The cluster of RIS-approaches may be said to gradually have grown into one of the most successful, regarding the impact on innovation policy. The RIS-approaches' roots in the theories and analyses of industrial districts and the adhering primarily territorial foundation, or limitation, of the approach has been complemented with functional perspectives that include the interplay with actors distributed according to logics that are not to be adequately grasped by territorial concepts (Asheim, Cooke, & Martin, 2006).

Still, the very concept of *regional* innovation systems literally works as a demarcation for what kinds of innovation systems may be studied by this approach. The development of the concept of sectoral innovation systems (Malerba, 2004), and the number of innovation studies from approaches based on this concept, is but one sign of the relevance of other kinds of approaches to innovation systems than the RIS approaches. However, the impact of sectoral innovation system approaches on innovation policy appears to be far less than the impact of RIS-approaches, even when the 'time-lag' is taken into consideration. The combination of the earlier influence of theories of national innovation systems and the later influence of RIS-theories on innovation policy, not least within the EU, may be interpreted as a development that is about to give RIS-theories a certain hegemonic role as provider of premises for innovation policy in Europe.

Of course, there is a 'time-lag' also in the relationship between what is the 'state of art' regarding insights, perspectives and knowledge within the field of innovation studies, and what is the corresponding 'state of art' within the field of innovation policy. As we know, this is not a new kind of situation. For example, at the time when the innovation policy discourse in Norway to a large extent had absorbed the system perspective, and started to consider the linear model of innovation a model for just one segment of types of innovation, actual innovation policy measures were still dominated by the STI-model of innovation (Remøe et al., 2004).

The main problem however, is not the problem of 'time-lag' between what is commonly established knowledge and insights within the research communities of innovation studies, and what is absorbed as part of the knowledge base for innovation policy. Rather, the problem is that the mechanisms at play in the interrelationship between innovation research and innovation policy tend to make one or a few theoretical approaches obtain a hegemonic position as supplier of the kind of models and perspectives that form the foundation for innovation policies. This is not the place for inquiring into these mechanisms. My concern is not to pave the way for other approaches that might better deserve a hegemonic status in the future. My concern is that such hegemonies always will represent a hindrance for seeing, and acknowledging, the value of different co-existing approaches to innovation studies: among these also interactive research approaches.

Put in very general terms, I suspect the tendency to neglect, or not really appreciate, co-existing approaches to innovation studies, and instead search for some overarching approaches, relies on a particular kind of confusion: the inclination to confuse the need to undertake comprehensive, empirical analyses of various kinds of innovation with the need for a comprehensive system theory of innovations. Comprehensive, systemic analyses of innovations may be undertaken by means of a combination of different approaches and theoretical perspectives, in order to understand the various, heterogeneous aspects of innovation of different kinds in different contexts. The belief that a comprehensive system theory is required to undertake systemic analyses of the dynamics of social phenomena is just that: a belief. This kind of belief, however, is pretty common both within the field of innovation studies and the field of innovation policy, though probably for different reasons.

More interesting, though, than speculations on the reasons for today's situation, is a brief glance at what it looks like. Very briefly, innovation policy in Europe today seems to be based in particular on RIS-theory and cluster theory, partly in combination (cf. e.g. Møller, 2010). Notwithstanding the wide range of kinds of innovation that may be well understood by means of these two dominating kinds of approaches, there are a number of kinds of innovations that require supplementary perspectives to be grasped, in ways that may form the foundation for a more context-sensitive innovation policy.

I will very briefly mention a few examples, well known and therefore perhaps not really examples of neglected approaches as regards the extent to which they have been subject of research, but my concern is, as just mentioned, another: the extent to which research on these kinds of innovation have come to influence innovation policy, or are considered in the contemporary development of innovation policy for the future. My examples are of quite different kinds in a number of respects. Thereby, they may serve the function of illustrating the challenges pertaining to the need for developing more context-sensitive innovation policies both at the regional level and within sectors. This will also allow me to suggest just briefly the need for interactive research in the field of innovation studies, a topic I will elaborate on later.

The most obvious example of a kind of innovations that takes place in most fields of economic life and working life in general is incremental innovation. This is well known, not least within RIS-theory, also from national innovation system studies (e.g. Arundel et al., 2007). However, the knowledge of incremental innovation is mainly deduced from survey-based studies, and so are the recommendations on how to support it. More specific knowledge of how it takes place, of its specific interplay with less incremental forms of innovation, whether it is about product/service innovation, process innovation and organisational innovation, etc. is rather sparse. Interactive research design on incremental innovation might fit well here.

An example of a quite different type is 'open innovation' (Chesbrough & Vanhaverbeke, 2006). Again, the approaches to and the literature on the variety of different kinds of open innovation is huge, and open innovation are also analysed as part of innovation system approaches (Herstad et al., 2008). Also, open innovation is a phenomenon that is not bound to particular regions nor particular sectors, even though it might be said that in industrial sectors based extensively on ICT some of the conditions for open innovation might be particularly well present, and open innovation might be particularly well suited. Still, the traces of the research based claims for innovation policy that are (context-) sensitive for the need to enhance the possibilities for open innovation, are not easily found. Open innovation should be well suited for interactive research, since openness for entering into dialogues with anyone concerned in principle is part of the innovation method. However, those

engaged in research on open innovation seem not yet to have been open for that possibility.

A third example might be 'responsible innovation' (Owen, Heintz, & Bessant, 2013). This concept is not about any particular kind of innovation. Rather, it designs a certain 'mode' of innovation: innovations that are defined not only by being brought to the market, but also by the fact that thereby they are also brought into *society*. Thus the quest for social responsible innovation, which requires innovation processes based on the acknowledgement of responsibility for the societal impacts of the results of the process. The need for responsible innovation may be regarded as obvious as the challenges concerning the means and measures by which it may be realised. However, in the hegemonic discourses on innovation policy these perspectives seem to thrive far out on the periphery of the discourse on sustainable innovation, which is a related though pretty different issue. Of course, part of the reason for this is that the quest for a context-sensitive innovation policy in this respect would mean not only a sensitivity regarding the local context, but rather a 'sensitivity' regarding the consequences of innovation for the 'global context'.

This very brief presentation of examples of quite heterogeneous forms of innovations is not meant to exemplify the multitude of forms of innovation processes that takes place within all sectors. Rather, they are meant just to recall this multitude, and to recall the incongruence between this multitude and the relative lack of approaches applying a multitude of perspectives in the field of innovation studies. My thesis is that this incongruence is also part of the reason for the need for a more differentiated and context-sensitive innovation policy. The research based knowledge on innovation, based on various innovation system approaches, is still far more uniform than are the phenomena under study.

This critical thesis may be underpinned by taking a brief look also at some of the theories and perspectives within innovation studies on what are the drivers for innovation. As we know, the theories that emphasise *science* as the most important driver for innovation, have been heavily contested after the introduction of theories of innovation systems. The number of 'drivers' of innovation has escalated since then: user-driven, employee-driven, problem-

driven, x-driven and y-driven are among those who have gained much attention from innovation research. The making of one kind of 'driver' having the main role in initiating and realising innovations seem to be most relevant in approaches studying certain *sectors* of working life. However, the system perspective on innovation tends to deconstruct most theories of a hierarchy of drivers for innovation in particular sectors.

This does not mean that the perspectives focussing on and trying to depict what actors or kinds of dynamics in the specific interplay between the different actors, that make up important parts of the context are of particular importance for innovation to take place, are wrong or useless. Rather, such perspectives may be regarded one of the multitude of perspectives that are necessary to understand the kind of innovation processes under study. Recently, also a perspective emphasising *interactive learning* as a driver for innovation have been launched (Asheim & Parilli, 2012). With regard to the deconstruction of the analytical division between e.g. research-driven, user-driven and employee-driven innovation, it can be claimed that interactive learning might be termed a 'driver' of innovation just by means of its capability to *synthesise* the efforts and effects of these or all other drivers in processes of interactive learning.

This claim is of course one of a kind that is very difficult to verify: and therefore also equally difficult to reject. Therefore, the best strategy for verifying the truth of this claim may perhaps be to participate in realising it. As mentioned above, many innovation researchers also play a role in some of the interactive learning processes that take places within innovation systems at different levels. Therefore, it is close at hand to argue that by pursuing some kind of interactive research that enables better forms of interactive learning, the synergetic effect of interactive learning as a driver of innovation might be considerably enhanced or increased. This is the line of argument that will be pursued in the following.

Fine-tuned innovation policy: In need of fine-tuned interactive research?

The attentive and critical reader may have observed that the line of argument in this paper by now has made the author construct what appears as a para-

dox: the issue of interactive learning has been treated on the one hand from the perspective of being one of the imperfections of regional innovation systems, and from the perspective of being a driver for innovation on the other. However, rather than demonstrating a paradox, this demonstrates the need for applying different perspectives to the same phenomena, in order to create a true understanding of it:

When considered from within a regional innovation system, interactive learning processes are to be considered part of the *endogenous dynamic* that contributes to increasing the innovation capabilities and the rate of innovations in regional innovation systems. By definition, this endogenous dynamic is characterised by having emerged and come into practice through a number of events and in a number of ways, and for purposes that hardly have been defined as a purpose of interactive learning. When considered from the 'outside', that is, from an innovation research perspective, the potential for interactive learning is to be considered also as part of the *innovation potential* of an innovation system. Thereby, also the *purpose* of enhancing the conditions for realising the overall innovation potential of an innovation system by improving the conditions for interactive learning, as well as the very processes of interactive learning, comes to the fore.

However, as has been noted, this is a purpose that is recognised as such mainly within the community of innovation researchers, and within certain innovation policy milieus. To the actors who are involved in the diverse types of interactive learning processes that unfold as part of the endogenous dynamic of regional innovation systems, these processes are recognised as means to an end: to the extent they are recognised at all. Only to actors responsible for creating suitable measures for innovation policy, measures for stimulating and improving processes of interactive learning may rightly be conceived as a purpose in itself.

Thus, the challenge to regional innovation policies in this respect is twofold. On the one hand to create general measures for stimulating interactive learning as part of the endogenous dynamic of innovation systems. On the other hand, to develop more context-sensitive measures that may compensate for systemic imperfections in particular regions by supplementing the endogenous dynamics of interactive learning processes, by offering economic and

professional support to organising, managing and supporting interactive learning processes.

There are examples of national programmes that somehow have addressed this challenge, among these the TEKES programme in Finland and the VRI-programme in Norway (Alasoini, 2012; Abelsen, Isaksen, & Jacobsen, 2013; Johnsen & Pålshaugen, 2013). Both have their main focus on the first-mentioned part of the two-fold challenge. There seems to be a growing interest also for the second part, but the uncertainty regarding what kind of measures and means for innovation policy implementation that are/would be adequate in this respect is no less than before, for a number of reasons. I will mention just a few.

Even though the issue of well organised and performed processes of interactive learning has increasingly become the subject of research, as the fields of innovation studies and organisation studies have become more overlapping, there is still little evidence provided on what forms of organising and performing such processes are most successful. This might be an issue that could be settled by increased research efforts, but as has been noted, there are inherent problems of measuring the effects of processes of this kind, interwoven as they are with a number of other kinds of processes that contains elements of quite different natures. This is not to say that more research on this issue is not required for, but anything like evidence-based knowledge on this issue will probably never be established. This is also because the question of what are the best forms of organising and performing dialogues for interactive learning will vary with the specific conditions within which these dialogues takes place: a topic we will return to in the final section.

There are a pretty large amount of principles and models for how to organise dialogues for interactive learning at offer, both from research milieus and not least from consultancy milieus. Lots of these are seemingly rather context-sensitive, as they emphasise the necessity to apply those principles and models that are in accordance with the context within which they are to be applied. However, whatever principles and/or models are selected for use in any particular context, these cannot be applied as 'blue-prints'. This is because the design of processes of interactive learning has to be undertaken in collaboration with the local actors, in order to fit the particular context.

Also, the judgment of the effects of these processes, and the creation of prospects for ways of continuing them, has to be undertaken in collaboration and dialogue with the local actors. Needless to say, there is also a need for different ways of organising processes of interactive learning in different phases of innovation processes.

To illustrate and elucidate these general points I will briefly present an example from the Oslo region (Pålshaugen, 2011). The regional authorities had developed an overall regional innovation policy strategy on the basis of empirical studies and reports on the conditions of the Oslo region as a regional innovation system. In these studies, clusters in some branches of industry was reported to have an outstanding innovation potential, among them a life-science cluster, a maritime cluster and a bio-marine cluster. Thus, an important part of the innovation policy of the Oslo region was to support cluster development to enhance the probabilities of innovation within these clusters. A regional innovation policy agency was responsible for implementing this innovation policy.

The first phase of the implementation process was defined as a phase of *mobilising* the institutional actors (companies, knowledge milieus, research institutions etc.) within the clusters to engage in cluster development. The innovation policy agency organised meetings, gatherings and seminars that worked as arenas for communication and dialogues between these actors. Within the Maritime Cluster, many of the institutional actors participating in the dialogues in these arenas developed mutual interests in common efforts to improve the conditions for innovation within the shipping industry and to enter into closer dialogues to explore possibilities for collaboration on various types of innovations.

In this first phase, the regional agency's way of organising of arenas for dialogues on innovation worked well. The dialogues on these arenas gradually led to a differentiation of a number of issues related to innovation in shipping. These issues had to be explored more in depth, and thereby also to be concretised, in order to be taken further towards practical action. Then it turned out that the arenas established in the first phase did not work very well for this purpose.

On the basis of their empirical, research-based, knowledge about the conditions of the regional shipping industry, the innovation policy agency tried to deal with this challenge in various ways, e.g. by on organising dialogues focussing on particular issues, working out more specific policy documents etc. Neither of these ways turned out to be particularly successful. A 'breakthrough' came when the actors were invited not only to participate in the dialogues organised by the agency, but invited also to participate in the very *design and organising* of these dialogues. The actors within the shipping cluster had far better and more specific knowledge of what were the critical issues to be discussed, who were necessary and possible participants, and what might be apt forms and forums of dialogues on the respective issues.

Thus, by collaboration with the actors in the shipping cluster, on how to design processes of dialogue and interactive learning among themselves, new and better ways of organising dialogues on innovation were developed. Within a relatively short time, a number of specific forums for more specific issues of innovation within shipping were created. These forums were led by actors from the cluster and supported by the regional innovation agency, and collaboration on various aspects innovation eventually occurred (cf. Pålshaugen, 2011).

This example also points towards another issue that has to be dealt with by organising dialogues in different ways in different phases of innovation, namely the issue of *trust*. In order to establish some kind of network-based collaboration on innovation, it will in the initial phase be necessary to create a minimum of trust among the relevant actors, whether they operate within a region, a cluster, a branch of industry. Experience has shown that there are many kinds of arenas, forums, gatherings and events that assemble a diversity of actors to join into various kinds of communication and dialogues for exploring the possibilities for entering into some kind for collaboration on innovation. The importance for regional innovation policy to support such arenas and events to create relations and trust between actors is well-documented (Gausdal, Hildrum, & Gustavsen, 2014; Pittaway et al., 2004; Keeble, 2000).

However, having established the necessary level of trust to make people from different companies enter into an exploration of the more specific issues

regarding collaboration and cooperation on innovation, there may still be difficulties with finding apt ways to proceed. Among the dilemmas that the actors from the different companies or institutions are confronted, is the need to on the one hand side be open and share information and ideas so on, and on the other hand the need to protect sensitive information etc. Coping with such dilemmas require other kinds of dialogues than the initial ones. Because of these kinds of dilemmas, such dialogues are not easy to design; normally they will have to go on for quite a long time without any warrants whatsoever regarding the outcome. In practice, there are many examples where none of the involved parties is willing to take the risks and the costs of continuing the dialogue, and in addition, neither of the parties know any smart ways to deal with these kinds of dilemmas in/through dialogues.

For the kinds of reasons presented above, there is a limit to how far it is possible to make either general presentations of the principles of organising dialogues, or 'thick descriptions' of cases of dialogues at work, function as some kind of models or recipes for how to carry out dialogues for innovation in practice. Neither of these kinds of research-based knowledge can simply be 'transferred' to other places, new situations. To put it bluntly: the principles are too general, and the 'thick descriptions' are too specific. Or, to phrase it otherwise: general principles are not context-sensitive, and 'thick descriptions' are sensitive to just one particular context.

To be useful for the purpose of a context-sensitive innovation policy, there is a need for a knowledge of another kind than these ones. What is needed is a kind of knowledge that is sensitive regarding *the context of its own use*. The quest for a fine tuned innovation policy thus leads to the quest for a more fine-tuned innovation research. This means that for innovation research to be able to develop a kind of knowledge that is more useful for innovation policy, innovation researchers should engage in dialogues on innovation with the policy makers and other stakeholders that are part of the *context of use* of the knowledge innovation researchers are about to create. That is, the context within which the processes of promoting, stimulating and organising various forms of collaboration on innovation takes place, in any particular region. Thereby it might be possible to provide far more and better

answers to the question of which forms of dialogues for interactive learning seem to be most effective and innovative within what kind of context(s).

My thesis is that this kind of engagement would not mean leaving the field of innovation research and enter into innovation policy. Rather, it would mean that the methodology of interactive research enters into innovation studies, to the benefit of regional innovation policy. Having been launched in various forms a number of times throughout this article, my thesis now needs a conclusive elaboration.

Concluding question: Who's afraid of interactive research in innovation studies?

As stated above, innovation researchers are, in fact, more than often engaged and asked to contribute with lectures, viewpoints and advice to key actors and innovation policy makers within the RIS that are their object of study. My point is that rather than considering such kinds of contributions as extraneous to the research task and just as a matter of *dissemination*/mediation of knowledge, innovation researchers should deliberately consider these kinds of activity as part of their research process, as part of the process of knowledge-*creation.* The many kinds of communicative action that innovation researchers perform in interaction with policy maker, and other key actors within a regional innovation system, can from a methodological point of view be considered a form of *interactive research*. Thus, instead of being considered an epi-phenomenon of research in the form of dissemination of knowledge, these forms of communication with actors in the field where the research-based knowledge is supposed to be used can be considered as one of the important methods for data-gathering and part of the process of *generating* new knowledge.

If innovation researchers were linked to and involved in various kinds of dialogues on innovation within a RIS in this deliberate way, that is, as part of an interactive research design, they would get/obtain valuable knowledge on the many varied kinds of dialogues on innovation that the various actors within a RIS undertake when trying to realise the innovation potential of their region. Thereby, they would also gain new insight and knowledge on what kinds of innovation policy measures that might fit in to support the (specific

needs of the) diversity of kinds of dialogues on innovation, and other activities that take place during the different phases of promoting and performing innovation processes in practice within the RIS they study.

Knowledge from within these activities and processes would give evidence that a context-sensitive innovation policy to support the realisation of the innovation potential within a region is dependent not only on empirical knowledge of all the factors that make up the regional *conditions* of innovation. Just as necessary is also knowledge of the *processes* by which the actors try to make use of and benefit from these regional conditions for the purpose of innovation. Together, the knowledge of the given factors or conditions for innovation and of the processes by which these given conditions are trying to be improved as well as explored and exploited for the purpose of innovation, might form the foundation for generating new knowledge of great importance, and very useful in the development of a context-sensitive regional innovation policy. The recent study on 'innovation through dialogue' from the Basque region, is but one example of this (Karlsen & Larrea, 2014).

More generally, this kind of innovation studies would provide new knowledge about *what kinds* of processes and dialogues on innovation seem to work well within *what kinds* of contextual conditions. This kind of knowledge from a number of regions and/or a number of kinds of innovations processes, might provide knowledge about a certain repertoire of *what kinds of innovation processes and dialogues on innovation seem to function well within which kinds of contextual factors.* Such knowledge would be useful in developing and implementing a corresponding repertoire of context-sensitive innovation policy measures that would be suitable to give the kind of support that would fit best to any particular constellation of contextual conditions for innovation, and to the kinds of forums and processes by which the regional innovation potential is tried to be realised.

Innovation studies based on this kind of interactive research may indeed also provide new knowledge on what kinds of innovation processes and dialogues on innovation seem *not* to function well within different kinds of contextual factors. The academic freedom of innovation researchers to think independently and critically is not be hampered by their close interactive relations to actors in the field. The formal conditions for this have to be taken

care of by the contract between the research institution and the institution of research funding. On this basis, the closeness to the processes in the field by interactive research will provide better conditions both for discovering what aspects are in need of criticism, to develop critical perspectives that are well-informed and to communicate these perspectives to the relevant actors at different levels in the regional innovation system. Needless to say, also the conditions for theory-development in innovation studies will thus be improved, regarding the development of constructive as well as critical theory.

My plea for innovation research to take the methodological step into (some kind of) interactive research, then, is not a plea for making all innovation research into action research. Of course, this is partly a question of definition. Interactive research may be defined as a sub-category of action research: or, action research may be defined a sub-category of interactive research. Regardless of the lengthy problems one may enter into when trying to make short theoretical definitions, it remains the fact that there is a difference in research practice between doing interactive research by *participating* in dialogues on innovation with the actors in the field and doing it by *organising* dialogues among (and with) the actors in the field. The latter of these two methods is so far commonly, and rightly, regarded part of an action research methodology.

Thus, my concern is not that all innovation research should also take on *organising* dialogues. From the point of view of action research for innovation, I would be more than happy if innovation researchers could be happy with *participating* in various kinds of dialogues on innovation and consider their participation in these dialogues as a methodological device for their interactive research, regardless of who organises the dialogues on innovation in each particular case.

In conclusion, I would not object to the claim that a combination of the RIS concept and the concept of different knowledge bases may "provide a valuable framework for the design of fine-tuned regional innovation policies" (Martin & Tripple, 2013, p. 2). Rather, for the methodological and innovation policy reasons presented in this article, I will claim that such *frameworks* needs to be complemented with *networks*, in which both policy actors, innovation actors and innovation researchers tune in to perform dialogues on innovation.

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About the author

Dr. Øyvind Pålshaugen in Research Director at the Work Research Institute (WRI), Oslo.

Author's address

Work Research Institute
Pb. 4, St. Olav Plass
0130 Oslo, Norway
www.afi-wri.no
Email: oeyvind.paalshaugen@afi-wri.no