

Regional complexity and the need for engaged governance

The paper introduces the concepts regional complexity and engaged governance. Regional complexity is a situation where there is a conflict of interest between different regional actors. It is a situation where there is no clear answer of how this conflict can be solved. It is also a situation where no single actor has the authority to solve the conflict. Engaged governance is active participation between interdependent actors, and use of research based knowledge in order to solve a situation of regional complexity.

Artikulu honetan eskualdeko konplexutasunaren eta gobernantza konprometituaren kontzeptuak aurkezten dira. Eskualdeko konplexutasunak aditzera ematen duen egoeran, eskualdeko eragileen interesen arteko gatazka gertatzen da, eta gatazka hori konpontzeko moduari buruzko erantzun argirik ez da. Gainera, eragileek ez dute gatazka beren kabuz konpontzeko aginpiderik. Gobernantza konprometitua eragile independenteen parte-hartze aktiboa da. Gobernantza konprometituan ikerketan oinarritutako ezagutza baliatzen da, eskualdeko konplexutasun-egoera bat konpontzeko.

Este artículo presenta los conceptos de complejidad regional y gobernanza comprometida. La complejidad regional es la situación en la que existe un conflicto de intereses entre diferentes actores regionales; una situación en la que no existe una respuesta clara a cómo se puede resolver un conflicto. Es también una situación en la que ningún actor tiene autoridad para resolver el conflicto por sí mismo. La gobernanza comprometida es la participación activa de actores independientes y supone el empleo de conocimiento basado en la investigación para resolver una situación de complejidad regional.

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Keywords: governance, conflict, consensus, collaboration, action research.

JEL classification: H77, R58 .

1. INTRODUCTION

The paper introduces the concepts regional complexity and engaged governance. Regional complexity is a situation where there is a conflict of interest between interdependent regional actors.¹ It is a situation where none of the actors have the authority and the power to instruct the other actors to a situation of consensus. There can be different types of regional complexity, such as a conflict about different aims or about different means or a conflict of both aims and means.

Consensus and conflict are often seen as each others opposite. Conflict is often seen as bad and a hamper for necessary actions in order to change a situation in a region, and consensus is seen as good

and a prerequisite for development of common objectives, strategies and means in plans for regional innovation or economic development. However, consensus can also have negative effects such as being an obstacle for development of innovations because actors do not see that there is a need for change or because powerful actors do not want a change. A conflict can be used to demonstrate diversity of values, problems and solutions and demonstrate democracy in practice because different voices are allowed to speak out. A conflict is not necessarily a situation of war. It can be disagreement between actors, but still they can respect each others right to speak out and have a different opinion. Consensus between actors can be strong or weak, and can change from situation to situation. This implies that the intensity and the scope of a conflict can vary, and the same can consensus between actors (Koppenjan 2007). The conflict consensus dimension is therefore more blurred than usually assumed.

¹ The concept regional complexity is inspired by Johnsen and Normann (2004) and Normann and Isaksen (2009). However, they do not use the concept regional complexity, but the concept complex context about a situation where there is conflict of interest between stakeholders in a region.

Network governance is one alternative to the market and to the hierarchical approach in order to solve a situation of regional complexity. In network governance interdependent regional actors have to collaborate and try to solve a situation of regional complexity. The regional actors that collaborate represent end users, such as companies, workforce and people in the region. A strategy to handle regional complexity is to establish regional governance networks with actors that can discuss, implement and learn from different kinds of policy initiatives. Engaged governance is one strategy to avoid talk and create a common ground for action. The actors that participate in a governance network must show engagement and have capabilities of regional leadership; i.e. that they can influence other actors in some way. They must also use research based knowledge in order to find solutions to situations of regional complexity.

An example of a situation of regional complexity is industrial development and transition from one dominant mode of production to another. Innovation is in itself a complex phenomenon, and when there are different interests connected to an innovation challenge the potential is present for a regional complex situation. In order to solve a challenge different actors have to collaborate under the uncertainty produced by the fact that there are no clear solutions to an innovation challenge, such as the Finish story shows.

In the beginning of this century Finland was regarded as one of the most competitive economies in the world, in rankings done by the World Economic Forum.² The economic success of Finland

inspired authors, such as Himanen and Castells (2004), to argue for a Finnish model of technological innovation, economic productivity and social organisation. However, Finland has since the top ranking in 2003 dropped down on the ranking list. In the 2009-2010 World Economic Forum ranking the country was on a 10th place. Finland is in a situation of becoming a victim of its own sectoral success connected to the domestic telecommunications and ICT-based industries (Sabel and Saxenian 2008). The story about this industry has many similarities with the former economic base industry in the country, the paper-making industry, despite their different output. Both industries adapted corporate and managerial structures that maximize exploitation of the existing technology trajectory, rather than systematic exploration of alternatives (Sabel and Saxenian 2008, p. 110). The Finish case shows that today's successful strategies are not necessarily tomorrow's successful strategies. The industry and the Finnish innovation system as a whole must therefore undergo a needed transformation in the future (Sabel and Saxenian 2008). The government in Finland has initiated a change process of improving the competitiveness through developing new innovation strategies (Ministry of Education 2009).

"We think they are right to do so, provided that in their haste they do not forget that they are likely to be wrong this time too, and will need to catch and correct errors more quickly than before" (Sabel and Saxenian 2008, p. 110).

In the Finish case there seems to have been too much consensus and a lack of conflicting and alternative opinions of the policy aims and solutions. Finland has a tradition of a top-down approach,

² See <http://www.weforum.org>

where the government decides the best innovation policy. When the last innovation strategy was developed the government used international experts as advisors. The question, which can only be answered in the future, is if this kind of decision making process will create engagement and actionable knowledge in the regions that are facing challenges of competitiveness and innovation.

Another example is the future of the competitiveness of the Basque Country (Orkestra 2009). In the report it is argued that the Basque Country has to make a transition from an investment driven stage to an innovation-driven stage, which implies a change from producing standardized products with lower cost than other economies, to create innovations at the technological frontier. The message in the report is that if this challenge is not properly handled, the competitiveness and the economic development in the country can be changed to a negative scenario (Orkestra 2009). The report does not say much about how this challenge can be handled and the potential for conflict of interest between different actors in this process.

The conceptualisation of regional complexity and engaged governance builds on main arguments in the regional innovation system (RIS) literature, which emphasises that regional development challenges most often include collaboration among many different actors in order to solve the challenges (e.g. Cooke 1992; Lundvall 1992; Braczyk et al. 1998; Cooke 2002; Asheim et al. 2006). In a complex and rapidly changing world, solutions are not necessarily prevailing on a long term basis or new challenges may arise, which were not anticipated. When change becomes the normal situation, the assumption of

solving the challenge once and for all, is no longer valid. Neither is the idea that there is only one solution to a problem any longer valid. There seems have been an increase in complexity in general as a result of blurred and contextual understandings of the nature of the problem, the effects of the various solutions and the potential of conflicts between different actors' (Sørensen and Torfing 2007, p. 5). This implies that regional complexity is not necessarily a challenge that is solved once and for ever, but is probably a process where different kind of challenges will supersede each other.

The argument in the paper is that there is a need for a clear understanding of the characteristic of regional complexity, network governance and engaged governance. The structure of the paper follows this logic. First the characteristics of regional complexity are presented, then network governance and engaged governance. The article ends with a short summary of main issues discussed. The main questions discussed in the paper are:

1. what characterises regional complexity?
2. how can regional complex situations be solved?
3. what is engaged governance?

2. CHARACTERISTICS OF REGIONAL COMPLEXITY

Regional complexity in this article is about conflict of interest between different regional actors. The inspiration to the concept is from a work of Johnsen and Normann (2004). They do not use the concept regional complexity, but argue that the region is a complex context compared

to a company, which they characterise as a simple context. In a development process in a company there is usually two groups of actors involved; the management and the workers. The decision making rules in such a process is known and the ones affected of the decision are directly involved in the process. In a simple context the actors interest and utility will be articulated by the ones the decisions concern. In a complex context this is different. First, the regional actors do not necessarily represent the needs of the firms, organisations and the inhabitants in a region. Second, they can act strategic and have other agendas than those they represent. Third, regional actors can make a power play of interest, which may not be beneficial to the development of a region (Johnsen and Normann 2004). This implies that accountability is less clear in such a context. Accountability means that the representatives actors have a mandate from their organizations and that they contentiously should check if the substance of their discussion is within the mandate or not (Johnsen and Normann 2004). The number of interest represented in a regional development process is usually more than two parts. Usually there are many different actors involved such a process, which increases the complexity.

The difference between the concepts 'complex context' and 'regional complexity' is that there can be different types of regional complexity and that there can be a transition between the different types. The different types of regional complexity are a result of conflict of interest between different actors. Conflict and consensus between actors is the dynamic that can generate a change from one type of regional complexity to another or hamper the transition from one type to another.

2.1. Conflict and consensus

Consensus and conflict are often seen as each others opposites. Conflict is often regarded as bad, while consensus is regarded as good. Consensus means agreement.³ Consensus is often interpreted as agreement about more fundamental values as norms, but can also refer to agreement about problem formulation, aims, solutions, policy measures, and working methods. The most minimal consensus is the 'agreement of disagreement', which makes it possible for interdependent actors that disagree about almost everything to coexist without fighting. Interdependent actors can have the agreement, that agreement in one topic does not necessarily mean agreement in another topic. Consensus between actors can therefore be shifting from case to case without destroying the interdependency between the actors. Actors can also express an opinion about the degree of importance for them, ranking from very important to little important. Consensus can vary in scope, level and intensity (Koppenjan 2007).

Conflicts are as natural as consensus. An absence of consensus does not imply conflict. Conflict is not therefore exactly the opposite of consensus. Conflict assumes differences in preferences, interests and views between actors, and is present when one actor or groups of actors are prevented from realising their aims by other actors. Conflict can be about division of scarce resources or incompatibility of character in such as ideological differences. Conflict as consensus can therefore vary in scope, level and intensity (Koppenjan 2007).

³ The paragraphs about consensus and conflict builds on Koppenjan (2007).

Conflict and consensus can have both positive and negative effects; cf. figure 1. Conflict can destroy trust and social capital in a region. A conflict can harm or even destroy cooperation in a regional development process. Consensus can create a lock-in situation, where the actors do not see that the external environment is changing, which will influence the situation. Conflicts can be the foundation for the creation of innovations in industries and

new development paths in regions. Conflicts can demonstrate that there are different opinions about aims, strategies, means and development paths, and that there can be more than one solution in such as a regional complex situation.

Consensus can be necessary for cooperation and development of common aims and strategies. Only consensus or only conflict between important actors in a

Figure 1

Positive and negative effects of consensus and conflicts ⁴

	Positive effects	Negative effects
Consensus	<ul style="list-style-type: none"> —Necessary for cooperation between different actors and for development of a common identity, with values and norms, for a society —Necessary for development of common objectives, strategies and means for regional development —Efficiency in decision making —Consensus can also be seen as a goal in it self 	<ul style="list-style-type: none"> —Can hamper development of innovations —Can hamper competition and development of excellence —Can hamper development of deviating perceptions, preferences and interests —Can neglect or suppress opinions and interest of minorities in a region
Conflict	<ul style="list-style-type: none"> —Expresses the importance that different groups pay to values, problems, solutions etc. —Can results in creation of innovations —Demonstrates democracy in practice because different voices are allowed to speak out —Generates information about different opinions, solutions, problem descriptions, goals, means etc. —Can lead to initiation of research and generation of new knowledge —Can result in formulation of new solutions 	<ul style="list-style-type: none"> —Can destruct trust and social capital —Can hamper cooperation —Can hamper problem solving and decisions —Can in worst case result in a devastating struggle with a lose-lose situation as the final outcome

Source: Made by the author.

⁴ Figure 1 is inspired and builds on the writings of Koppenjan (2007).

region can be unproductive in the long run. Conflict and consensus used strategically can be a mechanism for initiating change processes in the existing mindset, attitude and behaviour of regional actors. It implies a balance between conflict and consensus and using the positive effects of them. Scope, level and intensity of conflict and consensus can differ in a region.

2.2. Different types of regional complexity

There can be many different types of regional complexity. In the discussion in the article four typologies of regional complexity will be presented. A typology is like a description of a “unique combination of attributes” (Doty and Glick 1994). The regional complexity model can be used to identify if there are conflicts between actors in a region and the type of conflict. This kind of information can be used for different kinds of purposes. A conflict can also be used in a strategic way to illustrate that there are no clear solutions to a challenge and that in order to change the situation some actions have to be initiated.

For the simplicity of the discussion I assume that interests can differ with respect to aim and mean. Since they can differ I further assume that there can be conflict of interest between some of the actors and consensus between others. The distinction between conflict and consensus, and aim and mean has been used to construct a model, cf. Figure 1.⁵ The model consists of two dimensions. The first dimension is about consensus and conflict about aims.

The second dimension is consensus and conflict about means, i.e. how to fulfil the aims. Means can imply economic tools, but also such as organisation of regional development work and role and responsibilities of different regional agencies.

The two dimensions together give the possibility of constructing different kinds of situations of regional complexity, ranging from strong conflict to strong consensus. The figure can be used to analyse a situation in a region and judge the degree of consensus and conflict. The figure shows different ‘voices’ of interest, which can be conflicting or consensual in nature. The term ‘voice’ illustrates that regional complexity is a process; it is a dialogue and not an outcome. Since it is a process it can be changed. The arrows in the figure symbolise that there can be a difference in degree of consensus and conflict. The figure illustrates that it is not so clear where consensus stops and conflict starts. This illustrates that there is a fine line between consensus and conflict.

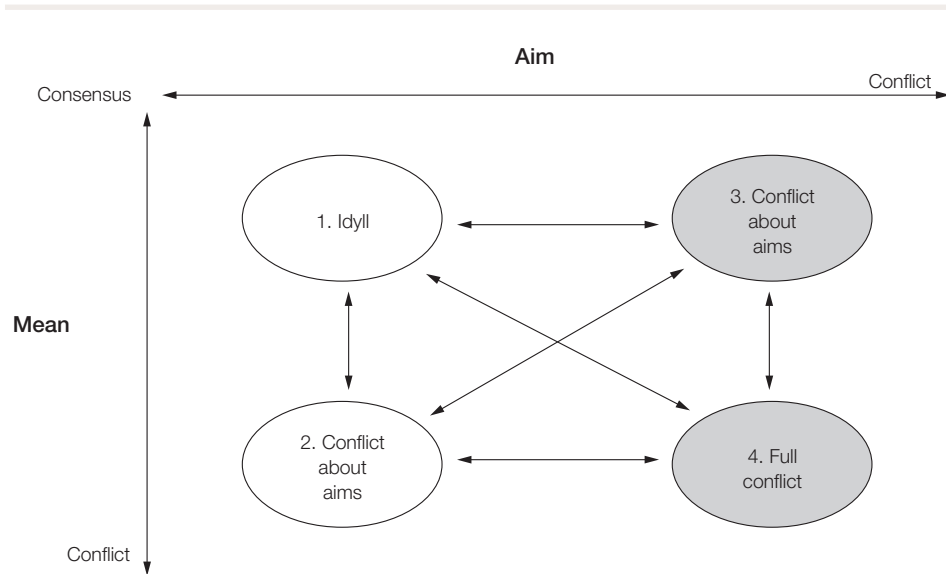
The arrows also symbolise that a situation can change from one type to another, such as from *Full Conflict* to *Idyll* or from *Idyll* to *Conflict about aims*. To keep the argument simple there are only constructed four different types of regional complexity. In reality there can be many different types of regional complexity.

Type 1 – Idyll

It is a situation where all or at least the majority of actors agree in a description of a challenge and the cause to the challenge, the aim and the necessity of action and how to act; i.e. how to try to solve the situation. In short, it is consensus both about aim and

⁵ The figure is inspired by Normann and Isaksen (2009).

Figure 2
Different types of regional complexity



Source: Made by the author.

mean. Idyll is not only a situation that exists in theory. It exists also in practice. When such a situation occurs there is common ground for action.

Idyll is not a static and stable situation. It can be changed due to actions either by those participating in the situation or by actions external to the situation. The action brings new information, and the interpretation shows that what was once assumed to be good is not longer good enough. Or the actors may realise that it was not so easy to solve the challenge as first thought. The new insight may show that the aim was too general and that the different actors had different opinions about the solutions, which were not properly discussed in the process.

Acknowledgement of this can result in a more concrete discussion, but when they start this discussion they realise that they no longer agree about what to do, and/or how to do it. The actors have moved from Idyll to one of the other types. In a rapidly changing world there are no regions that will stay in a situation of Idyll for a long time. Idyll is a situation for taking action, not to rest on one's laurels.

Type 2 – Conflict about means

Even if there is an agreement about aims, such as increasing the innovative capacity in a region, there can be a conflict about what the best means are in order to achieve the aim. There can be a discussion about incentives such as tax relief versus

economic support to establishment of new companies, economic support to innovation, to collaboration between companies, to upgrading of workers skills etc. It can also be about how to organise support to innovation processes, such as establishment of new organisations or reconfiguration of existing organisations. Conflicts about means can be hard because powerful actors may want to protect their own organisations and interests.

Type 3 – Conflict about aims

Conflicts about aims are quite common. The table may also be read as there is consensus about means, but the point is that the conflict about aims overshadows the mean discussion. Conflict about aims can have long term negative effects if it destructs trust and social capital, and it can hamper future collaboration.

Type 4 - Full conflict

Full conflict may sound dramatic, and it can be dramatic if it is not solved. In the worst case it can result in a devastating struggle, with a lose-lose situation for all involved, as the final outcome. This can be the situation when a new challenge is facing a region. In the beginning the actors do not necessarily know how to interpret the challenge, and what the appropriate actions should be in order to deal with the challenge. Another label of this type could of course be “we don’t know” or “we don’t know yet what to do”. If the actors are paralysed because of the challenge or can’t find any thing to agree about, they remain in the situation. However, if the actors can agree about one thing and start working with this and through that process build up trust they may have laid the foundation for

future working. This means that they move back to Idyll. However, they can also move to one of the other types, which mean that there are still some conflicting issues that need to be properly discussed.

3. HOW CAN REGIONAL COMPLEXITY BE SOLVED?

3.1. Different approaches to regional complexity

Regional complexity is a situation that can take short or long time to solve, if ever solved, because new challenges can pop up as a result of the process or because of changing economic circumstances. The more actors involved, the longer time it can take to reach an agreement of consensus and common action. Conflicts in opinion between actors can also be seen as necessary in order to discuss alternative understandings of the challenge and solutions. How can this best be done? Or said with other words: how can regional complexity be solved? There are three qualitative different approaches to make regional complexity actionable; i.e. to find a common ground for actions so that a situation can be solved: the market approach, the hierarchical approach, and the governance approach; cf. figure 3.⁶

The first approach would imply to let the market chose among the different interest, which is central in orthodox economic theory. The market approach

⁶ The root of the market/hierarchy discussion is from Coase (1937) which introduced the distinction between the market and the firm as the central unit of analysis. The work of Coase (1937) has been taken further by Williamson in his discussion about market, hierarchy and governance (1975; 1985; 1986; 1996).

Figure 3
Different approaches of economic organization

Forms			
Key Features	Market	Hierarchy	Network governance
Normative Basis	Contracts – Property Rights	Employment relationships	Complementary strengths
Means of Communication	Prices	Routines	Relational
Methods of Conflict resolution	Haggling – Resort to courts for enforcements	Administrative fiat supervision	Norm of reciprocity- Reputational concerns
Degree of Flexibility	High	Low	Medium
Amount of Commitment Among Actors	Low	Medium to high	Medium to high
Tone or Climate	Precision and/or suspicion	Formal, bureaucratic	Open-ended mutual benefits
Actor Preferences or Choices	Independent	Dependent	Interdependent
Criterion of failure	Economic inefficiency Market failure	Ineffectiveness Red-tape	‘Noise’ ‘Talking-shop’

Source: (Powell 1990, p. 300; Jessop 2003, p. 102).

is founded on independent actors, where the price mechanism is the main mean of communication and haggling or resort to court for enforcements is the mechanisms for conflict resolution. This can create the possibility that decisions made in the interest of one elite group, such as companies or the ones that control companies, will not correspond to the interest of the many; i.e. the ones that do not control companies. This may imply that the interest of the many are defined by the possibility of reaching ‘socially efficient’ outcomes (Wilson 2004).

The hierarchical is founded on dependent actors, where formal routines and a hierarchic system is the main management mechanism and administrative fiat supervision is the mechanism for conflict resolution (Powell 1990). The approach is based on the authority and power of one actor, such as a regional government, a regional agency, an organisation, or a company where the actor tries to instruct other actors to change behaviour. This kind of action will not necessarily result in any successful outcome. The reason is that the

other actors do not necessarily agree in the interest and the solution proposed by this actor. A classical bottom-up approach will not necessarily work either because of lack of support from enough actors, or it can be blocked by strategic regional positioned actors. A weakness with the approach is that it can be ineffective because of complicated bureaucratic routines and procedures.

The network governance approach involves neither the explicit criteria of market nor the familiar paternalism of the hierarchy (Powell 1990). The approach is founded on interdependent actors, where relational skills are the main mechanism for communication and norm of reciprocity and reputational concerns is the main mechanism for conflict resolution. The basic assumption in the approach is that one actor is dependent on resources controlled by other actors, and that there are benefits by pooling of resources. "In essence, the parties to a network agree to forego the right to pursue their own interests at the expense of others" (Powell 1990, p. 303). The network approach is based on negotiations between the participating actors in a network. This means that the interest of the actors that do not participate in the network can be excluded or not taken into consideration.

Since a situation regional complexity cannot be solved by a single actor alone, but only through collaboration of interdependent actors, the two approaches market and government (hierarchy) are not offering any satisfying solutions to this kind of situations. In order to solve the challenge the actors are dependent of collaborating with other actors in the region. A regional complex situation is both characterised by different opinions both of the cause and the necessary means in order find workable

solutions to the challenge and that actors need to collaborate in this process. There is not fixed recipes and the only way to deal with the challenge is that actors in the region collaborate and create tailor made solutions. A weakness with the network approach is that it can create a lot of 'noise' and talk, but without getting to any kind of decisions and actions.

The network approach represents a transition from government and hierarchy to governance (March and Olsen 1995; Stoker 1997). Governance has since the mid 1990 become a prominent form of steering (March and Olsen 1995). Government represents the formal institutional structure of authoritative decision making in the modern state. Governance is much wider and focuses on the interdependence of governmental and non-governmental forces in meeting and working together with economic and social challenges (Stoker 1997). The emphasis on governance is not the same as saying that governance has taken over government, or that governance is the only relevant approach for understanding regional complexity. Governance, hierarchy and market are systems that stand in an interactive, reciprocal, and interdependent relationship.

Connection of interdependent actors in a network and the use of the network in order to create a change process is network governance (Sørensen and Torfing 2007). The concept refers to a specific type of network and a particular form of governance with the following characteristics: "1. a relatively stable horizontal articulation of interdependent, but operationally autonomous actors; 2. who interact through negotiations; 3. which take place within a regulative, normative, cognitive and imaginary

framework; 4. that is self-regulating within limits set by external agencies; and 5. which contributes to the production of public purpose” (Sørensen and Torfing 2007, p. 9). One type of network governance is engaged governance.

3.2. Engaged governance

Engaged governance is a strategy to find an actionable solution to a situation of regional complexity. Engaged governance is defined as active participation, use of research based knowledge, decision making and action in a process of solving challenges such as regional complexity or pertinent and practical problems in a region.

Engagement and involvement of actors is a foundation for a real change process and not only talk. It is a foundation for any kind of networks that have established an aim of changing a situation. In order to change a situation there must be real interest for change. Engagement implies respect of the other actors’ interest and intentions, willingness for participating in a dialog and skills for making cogenerated decisions and actions about common aims and means. Engagement is not only intellectual understanding, but also emotional. Intellectual understanding of concepts can simplify some processes, but have little effect to change conduct (Goleman 1998). Emotional intelligence involves knowing when and how to express emotions as well as the ability to control emotions. It involves self-awareness, self-management, social awareness, and the ability to manage relationships (Goleman 1998). Emotional involvement is a prerequisite for enabling a change process. Engagement creates

a responsibility for actors to follow up decisions in order to implement them.

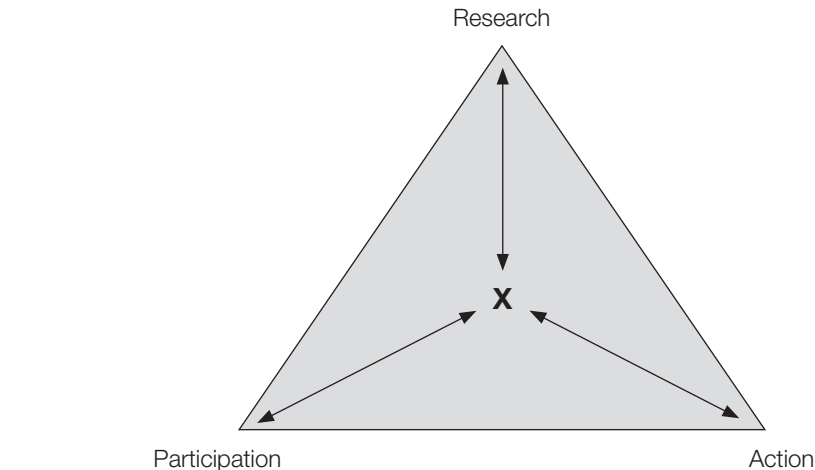
Engaged governance builds on the corner stones of action research. The cornerstones are participation, research and action. Adapted to governance it means active participation, use of research based knowledge, and action in a process of solving a situation of regional complexity.⁷ There is a mutual dependence between participation, research and action, cf. figure 4. Only participation, only research or only action is not sufficient in order to solve regional complexity. There must be a balance between the three elements.

3.3. Participating actors

A governance network is usually initiated by someone and with some kind of specific purpose, such as to solve a situation of regional complexity. One challenge for the initiator of the network is how to select actors to the network. In principle all actors that are interdependent and have an interest in a case should join in a process with the aim of generating a shared vision and strategy of how to solve a situation of regional complexity. In a region this is difficult to do. All affected by a challenge do not have the possibility of participating in a process and neither is it possible to organise a process where all inhabitants, the workforce or the companies in a region can participate. The pragmatic and usual solution is to select actors that represent different

⁷ Engaged governance is inspired by Levin and Ravn (2007) concept the *engaged researcher*. They define engaged research as praxis where researchers actively engage in a social field in the pursuit of solving important local problems, while at the same time combining this with a scientific knowledge generation process.

Figure 4

The corner stones of action research

Source: Made by the author.

kinds of interest to participate in a network; i.e. that they represent end users interest. In line with the concept engaged governance actors that shows engagement and regional leadership capabilities could be selected. By being a leader he or she represents authority in their organisation. Regional leadership means that leaders are able to influence actions of other organizations, and thus also the actions and decisions of other leaders despite having no authorization in the other organisations (Sotarauta 2005). Regional leaders are leaders that have authority in their own organisation, but also have influences on the behaviour in other organisations. Regional leadership is the capability of acting, connecting visions with actions and making them real. Regional leadership is more than a formal position in an organisation, it is more than talk; it is fulfilling visions through actions in-house and through collaboration with other organisations.

Actors in a governance network can be private, public and semi-public, and they can be located at different geographical levels, ranging from municipality to transnational organisations. A network can have members from firms, governmental organisations and other kind of public organisations such as county, council and municipalities, non-governmental organisations, knowledge institutions, agency and network organisations, labour and employers' organisations. They are interdependent because they are dependent on each other's resources and capacities, but are also autonomous since nobody can instruct them to participate in the network. The diversity means that there can be differences in resources, authority and knowledge between the actors. On the one hand this represents a benefit with the network because it has a potential for exchange of different opinions

and interpretation of a regional challenge. On the other hand the diversity can be a disadvantage, which can be used by some actors to demonstrate power. Actors with much resources and formal authority can be more used to participate in dialogues and therefore are better to formulate their ideas, meaning and interests than less experienced actors are. This does not imply that the later actors have less knowledge than the former actors, but just that they lack knowing how in how to act and formulate their ideas and experience in dialogues with others. This can lead to situations where some dominate the dialogue because of their knowing how in talking and that the others opinions are suppressed. However, if some actors try to suppress and impose their opinion on other actors, this can lead to the ruin of the network (Sørensen and Torfing 2007). It is in the common interest of the whole network to let everybody speak out, and for the more experienced ones to help the other to formulate their arguments. The participants in the network are therefore equal in the meaning that they have the same right to participate and argue in the dialogue. Each participant must accept that other participants can have better arguments, and the participants should be able to tolerate an increasing degree of difference of opinion (Gustavsen 1992).

The potential for power play in a network makes it necessary to create rules for the governance network, such as for learning and reflection, for handling negative effects of conflict and consensus and for creating decision making rules. Rules in the network can be created by the actors themselves or by the actor that has initiated the network. Rules created and agreed by the participating actors make it easier to use them in practice. Even actors that have

conflicting perspectives can collaborate if they agree in a rule of minimal consensus from case to case (Koppenjan 2007). To agree only on paper is not enough. The participants must also actively support the decisions through actions (Gustavsen 1992).

Regional complexity can cause a lot of talk without getting to any kind of action that can solve the situation, such as in consultations. In a consultation, actors are usually invited to give their opinion about specific issues, but not invited to participate with the aim of changing a situation. This kind of use of actors can be counter productive, if they see that there are no actions coming from the consultations, or that the consultations are only one way communication of information; i.e. from the one inviting to the consultations to the audience. If this turns out to be the case the actors will soon lose trust, and will not use time in this kind of meetings or do any effort of following up the topics presented in the consultation. Participation and talk is therefore not enough. In order to solve regional complex situations the actors must be engaged. Without engagement and commitment the challenges discussed can run the faith of only being solved on paper, and never in praxis.

3.4. Why research knowledge?

In order to make the discussion simple I will start by differentiating between two kinds of knowledge; regional knowledge and theoretical knowledge. The former is the knowledge the regional actors in a region or in a regional governance network have or share. This kind of knowledge is usually experience based and is shared

through work relations or by social interaction between people that have lived in the same region for a while.

Theoretical knowledge is knowledge that is developed by researchers' following scientific methods and that is codified in a language accessible for others. In combination with modern communication technology theoretical knowledge becomes ubiquitous. This means that every body has the same opportunity to adopt the theoretical knowledge, despite their location. Use of theoretical knowledge has become more and more usual in production and innovation processes. It is seen as important factor in companies' and regions' competitiveness. The increase in production and use of theoretical knowledge in society is seen as a qualitative shift from an industrial society to a information and knowledge society (Bell 1974; Castells 2000). However, usually theoretical knowledge can not be used without being adapted to a context of application. This implies that that actors in the region must have absorptive capacity in order to adopt and adapt the new knowledge (Cohen and Levinthal 1990). Researchers can be used as brokers in the adaption process of new theoretical knowledge. It is through this kind of knowledge creation processes, challenges such as regional complexity can be solved or new innovations created.

Combination of theoretical knowledge and practice based knowledge is well known within technological fields, such as within engineering. It is also well known within organisational development processes in companies. Both part of the American Action Research tradition with authors such as Argyris and Schön (1996) and the Norwegian Action Research tradition with authors such as Levin (2002)

and Gustavsen (1992) have worked with change processes on organisational level. In this tradition the researcher is an outsider that is invited into a change process. The researchers participate with insiders in the organisation in order to help them in the change process. Compared to the regional level the organisational level is a simple context (Johnsen and Normann 2004). As described earlier in the article the complexity increases on a regional level because there are more actors with different kinds of interests involved. Since university and research institutions are regional actors, they can become a part of conflicts. Experience from the Agder region in Norway shows that this is not only a theoretical construction, but something that can happen in reality. In the Agder region the researchers themselves were involved in a conflict with other regional actors (Johnsen and Normann 2004; Johnsen et al. 2005). The classical role of the researcher as an outsider in processes is therefore challenged on the regional level.

Regional actors, included researchers, can become parts in conflicts by choosing which interest they want to support. This can happen through negotiations, such if 'I support you in this case, you can support me in another case'. The solutions and the knowledge generated in such a process is a negotiated solution of different strategic interest, rather than pure reflection on what the most efficient solution could be. With the possibility that the action researcher is drawn into such a strategic and political play, there is a need to identify this role as a critical voice. The action researcher needs to be critical in order to balance strategic action and protect democratic ideals. The action researcher is by this no longer only a facilitator for co-generation

of knowledge between regional actors. In a situation of regional complexity the researcher must also have the mandate and authority to analyse the conflicting interest and provide this information to other actors, and facilitate a reflection on the foundation of their practice. The role of the action researcher can be played as a reflective resource that challenges the assumptions that the regional actors base their interests on.

If the researchers don't want to do this, exist is the only other alternative. However, by choosing this situation the researcher is not longer in any position of framing arguments in the discussion between regional actors.

The researchers' must therefore learn how to participate with other regional actors in situations of regional complexity. This kind of knowledge can only be developed through practice; i.e. that the researcher has participated before with regional actors, and as a result of this has developed knowledge in how to do this. However, this kind of knowledge must be combined with cutting edge theoretical knowledge within specific topics. For one researcher this can be to demanding. There are few universal geniuses which both are good at applying knowledge and have cutting theoretical knowledge within many different fields. This implies that there needs to be a research team with both knowledge of how to apply knowledge and relevant theoretical knowledge within relevant issues (Karlsen 2009). Some could be engaged as facilitators of processes and other researchers could follow the processes as observers, some could have a more distant and critical role and some contribute with cutting edge knowledge within specific topics. The researcher must be engaged

in the process of problem definition and problem solving, and through this process develop new knowledge, which can be useful for solving a regional challenge as well as contributing to new theoretical knowledge (Greenwood and Levin 2007; Levin and Ravn 2007).

3.5. Actions

Well-known solutions that do not work in new and complex regional circumstances have to be challenged by alternative opinions in order to try to solve a more complex situation. Regional complexity is a practical challenge. Engaged governance implies that interdependent actors engage in dialogues of regional complexity issues and try to solve them in practice. Since the participants are engaged, this mode of governance is better to handle conflicts and discuss actionable solutions. What is required is a broad common dialogue between different kinds of regional actors. Within this dialogue there can be, and should be, different understandings and opinions of the regional challenge. The aim with the process is not to harmonise the opinions, rather the contrary, to expose the opinions for each other, to challenge each others opinions, to deepen the understanding, and to develop further the understanding of each and every participant in the process. It is only through such a process that the content and the conditions for a decision making process can be made explicit for each participant (Pålshaugen 2009). There is no guarantee in regional complex situations that a broad process in a governance network will create correct and right solutions. The decisions and actions can well be wrong. It is only in the future one can judge if a

decision was correct. Insecurity is a part of the process when working with regional complexity. Rather than searching for the best theoretical solution there can be search for practical solutions. In a regional complex situation there is no other way to judge the quality of a solution than to test it through final actions, and not through final arguments (Pålshaugen 2009). If the actors in a governance network in the process acknowledge this, then they are better equipped to learn from the process and make new decision next time. It is only by testing assumptions, theories and knowledge in action, one can find out if they pass the reality test or if they have to be modified (Greenwood and Levin 2007; Pålshaugen 2009).

Critical reflection over the outcome of action is necessary, if one wants to learn, make changes and innovations both in a region and in companies. Engaged governance must therefore be experimental and learning oriented, so that necessary strategic changes can be made whenever needed, such as the Action Network in the Basque Country.

3.6. An example of engaged governance

The experimental learning design of the Action Network is an example of engaged governance that tries to work with regional complexity and create decision making rules in real life. Since the network is a relatively

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An example of an experimental learning design is the Action Network established in the Basque Country in 2009 as a result of the challenge presented in the introduction of the paper. The starting point for the creation of the Action Network was a workshop about action research where representatives from different networks were invited by the Basque research institution Orkestra. It was the approach to action and the feeling that there were participatory processes in the region that did not derive into action that made the proposal attractive for most networks. The action the network looked for was stated in the mission in terms of reaching a stage where they all “worked as a multilevel network”. The Action Network has focused on fulfilling its vision through cooperation actions that later every member should try to activate in-house. The goals agreed for the long run are: “transform the public policy definition through bottom-up and top-down processes” and “operationalise the network so that it can go deeper into its contents”. The interdependence and trust in this network is reflected in the rules they have created such as “involvement of all participants knowing and sharing the mission and the meaning of the network, being able to make all participants’ walk in the same direction and with the same compromise”. Besides, one of the specific actions defined to reach the short term goals is to “learn how to transfer knowledge and how to permeate it inside each participant organization”.

Source: Orkestra⁸.

⁸ The information about the Action Network is from Orkestra, which is facilitating the network.

new construction it is of course too early to evaluate how the network is functioning. The network has adopted a strategy where they have combined research based knowledge with experience based knowledge in the search for practical solutions. One challenge for the network is to manage to make actionable decisions; i.e. decisions which have practical implications for the competitiveness and innovation challenges the Basque Country is facing. Another is to judge if the network has enough interdependent actors so that the network really can make a difference through their common actions.

4. SUMMARY

In the introduction following questions were raised:

1. what characterises regional complexity?
2. how can regional complex situations be solved?
3. what is engaged governance?

Regional complexity is defined as a situation of conflict between different interests, and where none of the actors have the necessary resources or the authority to instruct the other actors to a situation of consensus. The conflict of interest can be between different aims, or means or both aims and means. The conflict consensus dimension and the difference between aim and mean was used to construct a figure for analysing different types of regional complexity. Figure 1 shows that conflict and consensus can be illustrated as situations of degree in conflict and consensus. The figure also shows that the conflict consensus dimension can be

illustrated in more extreme positions, such as the four types of complexity. Regional complexity is a process where the 'voice' between different interests represents the scope, level and intensity of the conflict.

Conflict of interest can be tried solved by the market, the hierarchical or the governance approach. It has been argued that the network governance approach is best suited to solve a situation of regional complexity because of the interdependency between the actors and that nobody have the necessary resources and authority to solve a situation of regional complexity alone. In order to solve a situation of regional complexity interdependent actors must collaborate in a governance network.

One weakness with network governance is that it can generate a lot of talk and no action. Engaged governance is a strategy for working with regional complexity by creating engagement and action between interdependent regional actors. It is defined as active participation, use of research based knowledge, decision making and action in a process of solving challenges such as regional complexity. This is a strategy where there so far is little experience to reflect and learn from. The Action Network in the Basque Country is one case where engaged governance this is tested out in practice.

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