

Collaborative Innovation in the Public Sector (CLIPS)

Collaborative innovation is, for example, when young people and parents work together with the local police and city councillors in order to find new ways to reduce the number of people carrying knives in the local nightlife, or when



Summary

The CLIPS project focuses on *innovation in the public sector*,¹ which needs innovative solutions in order to offset the growing demand for effective problem solving and high quality services. We aim to enhance *user-driven innovation* by analysing and improving the future prospects for *collaborative innovation*, defined as the formation and implementation of new knowledge and creative ideas resulting from mutual learning facilitated by negotiated interaction among users, professionals, public managers, politicians, consultants, interest organisations and private firms.² As such, we claim that user-driven innovation is not merely a matter of learning ‘about’ or ‘from’ the users, but requires collaboration among users, professionals and other relevant actors who trust that mutual exchange of experiences, information and viewpoints will help to improve the quality of public policies and services by making them more efficient, effective, appropriate and legitimate. Empirical studies show that interactive forms of network governance stimulate public sector innovation (Dente, Bobbio and Spada, 2005). However, there is no systematic knowledge about why, how and when collaborative interaction leads to innovation of public policies and services, and the role of innovation management and institutional design in facilitating learning-based innovation in the public sector is hardly addressed in the research literature. In order to compensate for these neglects our research will focus upon the institutional forms of network-based interaction among users, professionals and other relevant actors in user boards, future workshops, citizen panels and more informal arenas for dialogue with users. We will identify and analyse the barriers to and drivers of interactive learning and the subsequent implementation of innovative policy solutions, and we will help to overcome these barriers through theoretical, empirical and experimental research that will be conducted in close collaboration with relevant public and private stakeholders. The project will create an internationally-oriented Danish research environment and train young researchers who can continue this line of research in the future. Finally, it will produce context-sensitive recommendations about how to spur collaborative innovation in the public sector and make a lasting contribution to competence building among professionals and public managers.

¹ Whereas ‘creativity’ is merely the generation of new and useful knowledge and ideas, ‘innovation’ involves both the production and implementation of creative ideas within an organization. To avoid confusing ‘innovation’ with ‘change’ we assert that change becomes innovation when it transforms the identity and perceptions of the actors involved.

² The term ‘collaborative innovation’ is sometimes used in studies of how innovation in private firms can be further stimulated through public-private cooperation. In this project we take a different approach as we use ‘collaborative innovation’ as a name for deliberate attempts to stimulate public sector innovation through network-based interaction between users and public sector actors who aim to address specific policy problems.

1. Objectives of project

The project builds on the assertion that the conditions and drivers of innovation in the public and private sector are different because decisions in the public sector are rooted in contested political leadership rather than in self-evident economic incentives. It assumes that public sector innovation is most successful in enhancing the quality of public services when it is systematic, pervasive and involving. As such, we claim that innovation in the public sector can be stimulated by facilitating exchange, learning and joint problem solving among users, professionals, politicians, and other actors who have a stake in the production of public services. Consequently, our basic research question is how, and under which conditions, collaborative interaction between users, professionals and other relevant actors emerge and lead to innovation of: 1) public policy (macro); 2) the organisation of public service production (meso); 3) the content and delivery of public services (micro). Although we seek to explore and improve the general conditions for collaborative innovation, *the main objective of the research project is to identify and analyse the barriers to collaborative innovation in the public sector and to show how innovation management and institutional designs can help to overcome these barriers and spur collaborative innovation.* In order to do this, we intend to develop a new theory of collaborative innovation that will inform a series of qualitative case studies and design experiments focussing on public sector innovation in relation to the pressing policy question of how to secure the citizens in general and young people in particular a healthy living, a high level of education, public safety and multi-functional land use. The empirical studies and experiments will produce new knowledge of: 1) how users and other stakeholders in public service provision can learn from each other and form new perceptions, ideas and practices that improve the quality of public policies, organizations and services and 2) how different institutional forms collaborative innovation can be designed, governed and improved by innovation managers in the public sector. The new insights will be generated through continuous interaction between researchers and practitioners and will be disseminated to target audiences. The ultimate ambition of the research project is to contribute to changing the prevailing ideas about public governance by shifting the balance from control-oriented performance measurement and employee-driven rationalization to collaborative innovation based on self-evaluation and learning-based interaction.

2. The main results of the project

The research project on Collaborative Innovation in the Public Sector will produce and deliver five tangible results:

1. It will produce a *systematic mapping of the barriers to and drivers of collaborative innovation* that combines expert knowledge with insights elicited from on-site interaction with users, professionals and other relevant actors.
2. It will provide a *comprehensive and interdisciplinary theory about collaborative innovation* in the public sector that helps us to understand: a) how collaborative learning-based interaction can facilitate innovation at the macro, meso and micro level and b) how innovation management and institutional design can spur collaborative innovation.
3. It will generate *empirical knowledge* about the conditions and drivers for engaging individual and organized users in processes of collaborative innovation, test our hypotheses about the barriers to collaborative innovation through creative learning, and provide crucial insights into the critical factors that contribute to overcoming these barriers.

4. It will draw *practical lessons* from our empirical experiences with removing barriers to collaborative innovation in local public institutions through theoretically-informed interventions in actual cases of collaborative innovation.
5. It will *build competences* for collaborative innovation in the public and private sector, *disseminate theoretical and empirical research results* and *practical and political recommendations* to relevant target groups, and *contribute to the development of OECD's policy strategy for public sector innovation* via FORA's active involvement.

A less tangible result of the research project is that we will seek to develop a *constructive alternative to the prevailing New Public Management thinking* that fails to unleash the creative and innovative capacities of local councillors, public employees and public service users by insulating the politicians from the production of public services, straight-jacketing the public employees through strict performance control and reducing the users to a passive role of clients and consumers. The development and implementation of creative ideas that lead to new and better practices in the public sector requires a re-evaluation and cross-fertilization of the knowledge, experiences and capacities of politicians, public employees and users. This does not mean that politicians, once again, should be bugged down in administrative matters, that public managers and professionals should be reinstated in the role of omniscient experts, or that the users should give their lives to the public sector. Rather, it means that we should develop a new set of roles, identities and arenas that facilitate collaborative innovation.

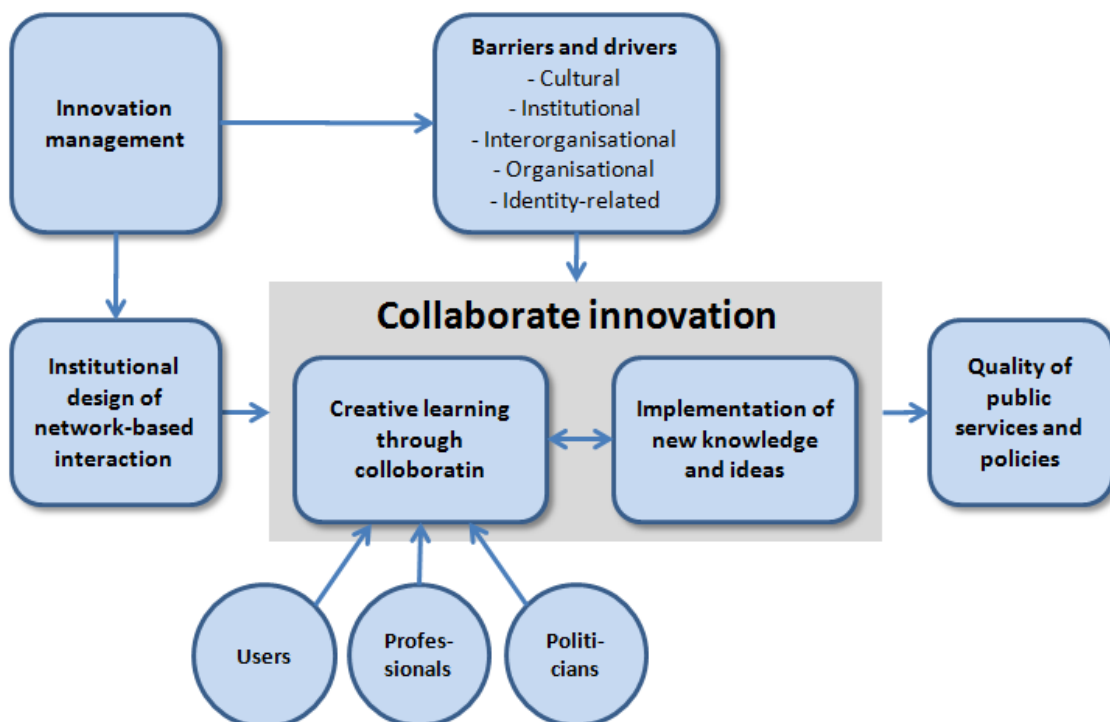
3. Theoretical background and hypotheses of the project

There is much to gain from stimulating innovation in the public sector, but so far the efforts to enhance public service innovation through top-down initiatives have not been very successful (Antonsen and Jørgensen, 2000; Breul, Boyle and Dahler-Larsen, 2008). Consequently, we need to find new ways of enhancing the innovative capacity of the public sector through creative bottom-up processes. The recently developed *theories of service innovation* are helpful in this regard (Sundbo and Fuglsang, 2002; Nysveen and Pedersen, 2007). *Theories of technology- and research-driven innovation* claim that innovation is a result of local entrepreneurs' exploitation of new technologies and research results (Davenport, 1993). *Theories of employee-driven innovation* contend that innovation is spurred by the mobilization of the practical knowledge and experiences of the employees (Ahmed, 1998). *Theories of user-driven innovation* argue that innovation can be enhanced through deliberate attempts to uncover the expressed and unexpressed needs of the users (Magnusson, 2003; Stevens and Dimitradis, 2005). Finally, *theories of collaborative innovation* emphasize the innovative capacities of networks of users, employees and other relevant actors (Howells, 2000). In this research project we will draw upon the insights generated by the theories of user-driven innovation, but focus our attention on the innovation-enhancing effects of collaborative interaction between users and other relevant actors from the public and private sector. Unfortunately, theories of user-driven innovation and collaborative innovation have been preoccupied with innovation in the private sector and with few exceptions (see Djallal and Gallouj, 2006) innovation theorists fail to consider the special conditions for innovation in the public sector. We shall, therefore, aim to combine the central insights from innovation theory with insights from what we will broadly define as *public administration theory*. The classical public administration literature is highly sceptical towards the prospect of innovation in the public sector. As such, the common wisdom seems to be that the lack of profit motives, open competition and proper efficiency measures, together with the inherent tendency of large public bureaucracies to spend all their energy and resources on internal coordination and boundary maintenance, preclude innovation. However,

Albert O. Hirschman's path-breaking book *Exit, Voice and Loyalty* (1970) holds a more optimistic view and has helped to stimulate the interest in user-driven innovation, for example, through the recent public governance reforms that have aimed 'to put the user in the centre'. Nevertheless, there are still relatively few studies of public service innovation (Albury, 2005; Hartley, 2005) and policy innovation (Farazmand, 2004) in the field of public administration research and there is no comprehensive account of user-driven or collaborative innovation. This means that we have to *construct a new theory* by bringing together theories of service innovation, user-driven innovation and collaborative innovation in the private sector with new insights from public administration theory. With regard to the latter, there are a number of theories that are highly relevant to our theoretical endeavour. Hence, economic neo-institutionalism focuses on the creation of economic incentives for innovation in the public sector (Lane, 2005). Sociological neo-institutionalism emphasizes the role of standard procedures for exploration and exploitation (March and Olsen, 1995). Profession theory analyses the conditions for responsive interaction between professionals and users (Dent and Whitehead, 2002). Governance network theory draws attention to the innovative potential of complex networks and offers crucial insights into how networks can be metagoverned by public managers (Klijn and Koppenjan, 2004). Collaborative participation explores different ways of enhancing participation in public planning (Fung and Wright, 2003). Organizational learning theory explores the condition for double-loop learning (Argyris and Schön, 1978). Interorganizational learning theory envisages how creative ideas emerge through collaborative processes (Engeström, 1999; Mezirow, 1991; Wenger 1999).

The attempt to combine and integrate insights from different theories and traditions must be guided by a clear research problem, a pragmatic philosophy of science, and a pre-understanding of the relationship among the core variables. Figure 1 shows how we perceive the interrelation among the basic variables.

Figure 1: Chart indicating the interrelation among the basic variables



Read backwards, figure 1 shows that the quality of public services and policies can be enhanced by collaborative innovation that involves both creative learning through collaboration with different user groups and the subsequent implementation of new knowledge and ideas. Collaborative innovation is facilitated by the institutional design of network-based interaction that brings together users and other relevant actors in sustained interaction and is hampered and/or spurred by a contingent set of barriers and drivers. Finally, the prospect of collaborative innovation can be enhanced by a reflexive and strategic innovation management that aims to adjust the institutional design, remove barriers and build drivers.

Our own research on network governance in the public sector and the recent studies of public sector innovation suggest that the formation and implementation of new knowledge and creative ideas through interaction among users, professionals, politicians, etc. is often *hampered* by: 1) *cultural barriers*: prevalence of a legalistic zero-error culture and paternalistic professional norms and a general absence of an participatory, entrepreneurial and experimental culture; 2) *institutional barriers*: emphasis on documentation and control, separation of politics and administration and use of inappropriate designs for dialogue with users; 3) *interorganizational barriers*: predominance of silo thinking, boundary wars, group think, uneven power relations and high transaction costs; 4) *organizational barriers*: lack of focus on innovation and interactive governance and absence of procedures for exploration and exploitation; 5) *identity-related barriers*: the identities of key stakeholders are not conducive for spurring collaborative innovation.

In order to overcome these barriers to collaborative innovation through innovation management and institutional design we will pinpoint the *critical determinants* that help to facilitate and enhance collaborative innovation based on the active engagement of users. This is done through the formulation of a *corresponding set of hypotheses* that assert that:

1. Collaborative innovation is enhanced if the *cultural environment* in the public sector encourages experimental learning, calculated risk taking and user involvement.
2. Collaborative innovation is enhanced if the *political-institutional context* prescribes only a limited number of standards, encourages self-evaluation, facilitate problem-oriented dialogue between politicians and administrators, and provides different institutional arenas for interaction with individual and/or organised users.
3. Collaborative innovation is enhanced if *institutional interaction* among public and private actors is encouraged by traditions for crosscutting and project-based cooperation, is based on a strong feeling of interdependency, involves a large diversity of actors, establishes a pattern of contacts with a high density, balances the power of different groups and lowers the transaction costs of participating in a sustained dialogue.
4. Collaborative innovation is enhanced if the *organisational environment* has a clear focus on the possible gains from collaborative innovation and provides routinized procedures for identifying and implementing new knowledge and creative ideas through collaboration with users.
5. Collaborative innovation is enhanced if the *identities of the key actors* are transformed so that the elected politicians see themselves as metagovernors capable of taking calculable risks, the professionals see themselves as responsive facilitators of public-private collaboration, and the users see themselves as co-producers of public service and governance.

Our research will refine and test these hypotheses through dialogue and cooperation with public and private stakeholders as well as through iterative rounds of theoretical and empirical studies.

4. Relevance and impact of the project

The Danish government is strongly committed to the achievement of the Lisbon goals stating that the EU should become the most competitive economic region in the world, while ensuring a high degree of social cohesion. The realization of this daunting task requires an adjustment of the Danish welfare state in order to be able to finance increased investments in research and development, while maintaining a high level of welfare service. In response to this challenge, the government has embarked on an ambitious Quality Reform that seeks to improve the quality of public services without triggering drastic increases in public expenditure. The first stage in the Quality Reform has dealt with the education and recruitment of public sector employees. The next stage will focus on the formulation of welfare standards and the improvement of welfare delivery. Our argument is that the attempt to get more welfare for the same money requires the mobilization and activation of the innovative capacities of users, professionals and other stakeholders through sustained interaction. Unfortunately, there is little scientific knowledge about how user-driven innovation in the public sector can be enhanced through collaborative interaction. Public administration research has recently focussed on efficiency, management and economic incentives and only paid scant regard to the question of how to spur innovation. In order to compensate for this neglect, we shall aim to produce new theoretical, methodological and practical knowledge that will help public authorities to produce new and better welfare services through collaborative innovation. As such, we are convinced that the project will be of *great relevance* for politicians, public managers and professionals at the local level where most of the welfare services are produced and delivered.

The project will have a *societal impact* at both a practical and strategic level. At the *practical level*, it will produce: a number of context-sensitive models of how to institutionalize dynamic forms of collaborative innovation in the public sector; a re-conceptualisation of the role and identity of users, professionals and other relevant actors; a practical guide to how relevant public and private stakeholders can overcome the barriers to collaborative innovation; and a competence building programme that will help public managers, professionals and elected politicians facilitate the formation and implementation of creative ideas through a responsive involvement of users. At the *strategic level*, the project will provide further knowledge about how the provision of low-cost, quality-enhancing innovations in the public sector can be further accelerated through an active and systematic involvement of different user groups in collaborative processes that facilitate creative learning and create a common ownership to innovative solutions. As such, the project seeks to initiate a paradigmatic change in the prevailing ideas about public governance by shifting the balance from top-down performance management and rationalization on the basis of given standards and objectives to collaborative innovation through institutionalized processes of self-evaluation and interactive learning that mobilizes and integrates the wants, experiences, knowledge and competences of public service users.

The project will also have a *scientific impact* by elaborating a cross- and trans-disciplinary theory of collaborative innovation in the public sector that brings together important insights from innovation theory and public administration theory. In addition, the project will provide new empirical insights into the barriers and drivers of collaborative innovation and test the use of design experiments in the social sciences. Last but not least, the project will contribute to developing new interactive research methods that build on continuous collaboration between researchers and practitioners. As such, we endeavour to elaborate and qualify the new Mode 2 thinking (Ansell, 2007; Nowotny, 2001).

5. The project's methodology and results

The project will facilitate an ongoing cross-fertilization between theoretical and empirical work and draw on a combination of different quantitative and qualitative methods in order to reach plausible conclusions and present well-informed policy advice.

Empirically, the project will focus on collaborative innovation in response to pressing, cross-sectoral policy problems that seem to attract a growing attention in our present risk society (Beck, 1992). The policy problems are: 1) How to promote healthy living through preventive care? 2) How to improve the level of education so that people can manoeuvre in the knowledge society? 3) How to ensure the public safety in traffic, leisure activities and nightlife? 4) How to promote multi-functional land use through urban and landscape planning?

These are all policy areas where the citizens have an extended use of public service and where public sector innovation may produce considerable gains. In order to enhance the robustness of the knowledge produced in this research project we have chosen related, but different policy problems. Whereas the first two policy problems relate to high cost, human-centred public services, the last two relate to the exercise of authority and technical expertise, respectively. Although professionals play a key role in finding innovative solutions in relation to all four policy problems, there are different traditions for user involvement in the four policy areas. A more pragmatic argument for focussing on these policy problems rather than some other problems is that we have a solid knowledge of the policy fields and some well-established contacts with key stakeholders in all four problem areas. It is open empirical question who the relevant users are in the four problem areas. In our empirical studies we will focus on both strong and weak users, but when comparing across cases and problem areas we will focus on young people as users of public services. This is motivated by the fact that young people are the users of public services of tomorrow and, therefore, cultivating their interest and participation in public sector innovation is a worthwhile endeavour.

Following an initial *mapping of the barriers and drivers* for collaborative innovation, we will develop a *general theory of collaborative innovation* that will inform a further elaboration of our hypotheses about the barriers and drivers of collaborative innovation. The theoretically sustained hypotheses will be tested in *qualitative empirical studies* of cases selected from each of the four policy problems. Comparison of the results from the analysis of different cases and policy problems will lead to a revision and refinement of our hypotheses and a specification of their scope conditions. The insights generated so far will inform a series of *design experiments* that will be conducted in continuation of the qualitative case studies in order to take advantage of the contacts and trust developed in the course of the case studies. The design experiments will create a more practical knowledge of what works in terms of enhancing collaborative innovation in specific contexts. The theoretical, empirical and practical research results will be *disseminated* to target audiences and inform the development of various *competence development programmes*. Since interactive and trans-disciplinary research is a fundamental ambition of our research we will *reflect on our experiences with joint knowledge production* throughout the project. Last but not least, we will attempt to measure the impact of our research and dissemination by conducting an *ex-ante and an ex-post survey* of public managers' perception of the role of users in public sector innovation and their knowledge and usage of collaborative innovation.

This brief overview of the research project gives the following set of mutually connected Work Packages (WP):

WP1: Ex-ante and ex-post survey of public managers (5%)

The Confederation of Professionals in Denmark (FTF) has recently made a survey about how public managers perceive the role of users in public sector innovation. It shows that only about 20% of the public leaders believe that users can provide relevant ideas for improving the quality of public service. The survey will be replicated at the beginning and the end of the project in order to measure the impact of our research and dissemination. The survey will also include a battery of questions about the respondents' knowledge and usage of collaborative innovation based on active engagement of relevant user groups. It will be based on electronic questionnaires sent to more than 12,000 public managers. The expected results are that the public employees in the four policy areas we are dealing with will evaluate the input from users more positively in the second survey, and that there will be an increase in the knowledge and usage of collaborative innovation. The deliverables will be two public research reports and executive summaries published in targeted press releases.

WP2: Mapping the barriers to and drivers of collaborative innovation (8%)

This work package aims to further develop, add to and refine our hypotheses by mapping the barriers and drivers for collaborative innovation in the public sector. The first task is to clarify and define the notion of 'collaborative innovation' through a critical engagement with traditional notions of employee-driven and user-driven innovation. The second task is to conduct a Delphi-study of 100 academic and non-academic experts with theoretical, empirical, or practical knowledge of public sector innovation. The experts will be identified via internet research and reputation-based snowballing techniques. The Delphi-panel will be asked via e-mail what they think are the major barriers to and drivers of collaborative innovation (user engagement, learning, experimentation and adoption of innovative practices). Subsequently, the panellists will be invited to reflect on each others' comments in an iterative process facilitated by the Delphi-study software. The result will be a list of relatively concise and refined statements about the factors driving and hampering public sector innovation. The third and final task is to supplement the elite-based Delphi-study with 3-4 interactive workshops that use fictional theatre improvisation to uncover the users', professionals' and local politicians' perceptions of the critical determinants of collaborative innovation. These workshops will apply ethnographic methods to observe and identify the cultural, conversational and emotional conditions of collaborative innovation in real-life interactions organized by highly skilled process consultants. The deliverables from WP2 will be a public research report that will be translated into a series of targeted publications and will be presented at the kick-off conference.

WP3: Elaboration of a theory of collaborative innovation (15%)

The insights from the Delphi-study and the interactive workshops will serve as the starting point for the formulation of an inter- and trans-disciplinary theory of collaborative innovation that will draw upon and seek to integrate insights from innovation theory and a broad range of public administration. The theory building will take place throughout the project through iterative rounds of theoretical and empirical research and dialogue with practitioners. Workshops involving leading national and international researchers will play a significant role in this process. The result will be a general theory of collaborative innovation in the public sector that will help to further qualify and theoretically underpin our hypotheses by viewing the critical determinants of collaborative innovation as a part of complex causal chains and by specifying the mechanisms whereby the determinants bear on the outcome. The theoretical framework and the hypotheses it brings to the fore will guide the empirical studies and practical experiments described in WP4 and WP5. The deliverables will be a public research report, a monograph on theories of collaborative innovation in the public sector, and scientific articles in international peer reviewed journals.

WP4: Empirical case studies of collaborative innovation (35%)

This work package consists of a series of theoretically informed case studies of contemporary experiences of collaborative innovation in local public institutions. Initially, a number of small Research Teams will map the experiences with collaborative innovation in relation to each of the four policy problems and select 3-4 contemporary cases of collaborative innovation within each problem area for an in-depth analysis based on triangulation of a variety of qualitative and ethnographic methods including participant observation, research interviews, diary writing and document studies (for a detailed review see Bogason and Zølner, 2007). In the selection of cases we will sample along the dependent variable in order to compare successful cases of collaborative innovation with less successful ones. The case analysis will first assess the outcome in terms of the relative degree of success, measured in terms of the generation, implementation and adoption of innovative practices, and then trace the complex interaction of determinants that contribute to explaining the degree of success. The systematic process analysis will help to ascertain which of the theoretically sustained hypotheses and causal chains that are supported by empirical evidence, but it will also open our eyes for the role and impact of variables and contingencies we had not initially thought of. The empirical research will be planned and evaluated in and through an on-going dialogue with problem-specific Stakeholder Panels and the empirical validity of the research results will be tested through a new kind of dialogical focus group interviews that invite a group of actors from the empirical case to reflect and comment upon the key findings. As we have explained above, the policy problems relate to the promotion of healthy living, a high level of education, public safety and multi-functional land use. The qualitative case studies will result in a deeper understanding of the actual conditions for collaborative innovation in relation to emerging risks. The deliverables will be a public research report that compares the experiences across cases and policy problems, an edited volume presenting the key findings from the qualitative case studies in relation to our hypotheses, and a number of scientific articles in international peer reviewed journals.

WP5: Innovation enhancing design experiments (20%)

This work package will launch a series of design experiments in extension of the case studies conducted in WP4. Since design experiments are rather resource demanding and require a lot of interactions with the practitioners we will only do one design experiment in each policy area. The academic researchers and the process consultants from Dacapo and FORA will work closely together in planning, implementing and monitoring a series of iterative interventions that aim to produce a certain innovation enhancing effect that emerges from user participation in real-life interaction processes. Design experiments originate from design sciences like aeronautics, but have also been used in educational research. The method draws on the experimental tradition in the social sciences, but focuses on the micro-details of a particular case rather than on the causal relations in a large number of randomized control trials. As such, the ambition is not to test the effects of a particular intervention, but rather to explore the difficulties and obstacles experienced in the attempt to bring about a certain innovation enhancing effect. As such, the result of our design experiments is not generalized claims about causal effects, but situational knowledge of ‘what works’ in particular circumstances. The reiterative interventions cannot be described in advance, but will depend on the particular context and the identified barriers to collaborative innovation. However, it should be emphasized that design experiments are theory-driven and, therefore, can help to establish the fruitfulness of our theoretical arguments. The expected result will be a concrete insight into how barriers to collaborative public sector innovation can be overcome through innovation management and institutional design. The deliverables will be a public research report on experimental innovation strategies in the public sector that will be accompanied by a plethora of popular publications.

WP6: *Dissemination and competence building* (12%)

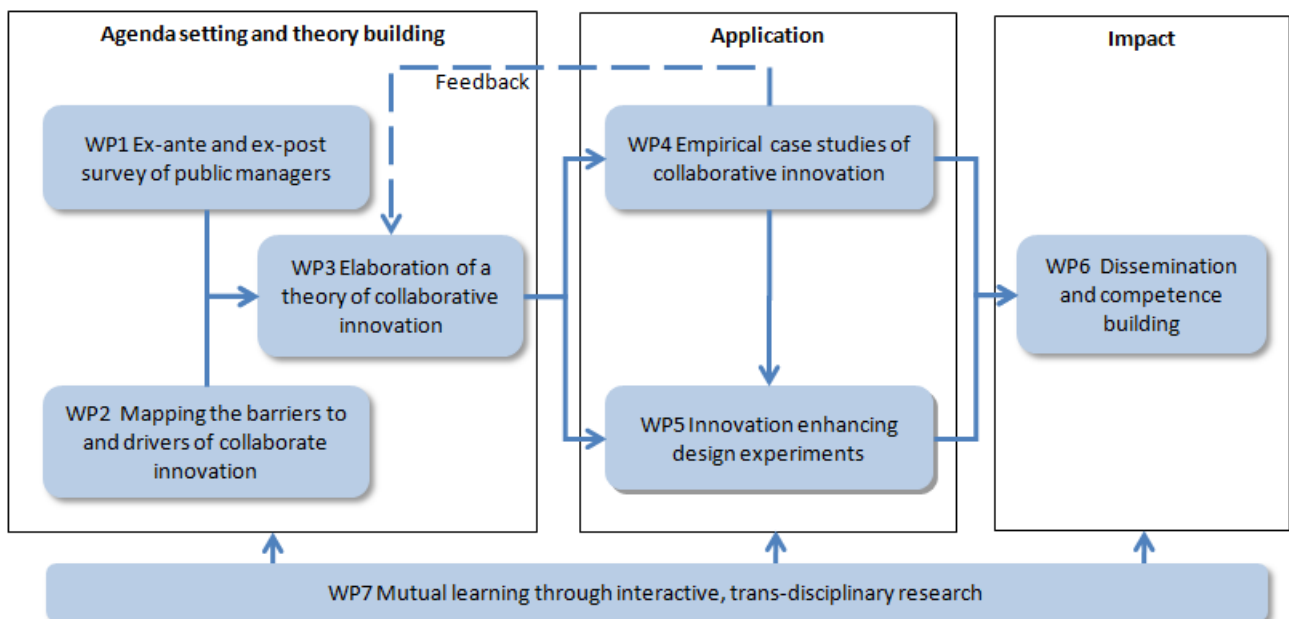
This work package will consolidate the theoretical framework in the light of WP4 and WP5 and summarize our main findings in relation to the research hypotheses that have guided the project. It will also ensure a targeted dissemination of the final research results to relevant stakeholders. The dissemination strategy will include PhD courses; a broad range of scientific publications; a series of handbooks targeting users, professionals, public managers and politicians; a concluding conference presenting our main results and policy recommendations; and a competence building programme developed in close cooperation with COK, Dacapo, DFH and FTF. The competence building programme will develop, test and distribute blueprints for on-site workshops, intensive training courses, camps and courses at universities and schools for professionals.

WP7: *Mutual learning through interactive, trans-disciplinary research* (5%)

This work package will reflect upon and draw lessons from the research interaction between the academic (AAU, CBS, KU and RUC) and non-academic (COK, Dacapo, DFH, FORA and FTF) research partners. There will be a continuous discussion throughout the project about how the academic and non-academic research partners can learn from each other and how they produce and make use of knowledge. An initial session will be devoted to a fine-tuning of the mutual expectations to research cooperation. A mid-term session will review our joint experiences with trans-disciplinary research and discuss the potential blockages to mutual learning. A final session will assess the value added of our interactive research strategy for the research partners and the project as a whole. The deliverable will be a public report with critical reflections about how to learn from interactive and trans-disciplinary research practices.

The percentage in the brackets behind the WP titles gives a rough indication of the relative weight of the particular WP in the project as a whole. The interrelations among the work packages are shown in the Pert diagram presented in figure 2.

Figure 2: Interrelations among the work packages



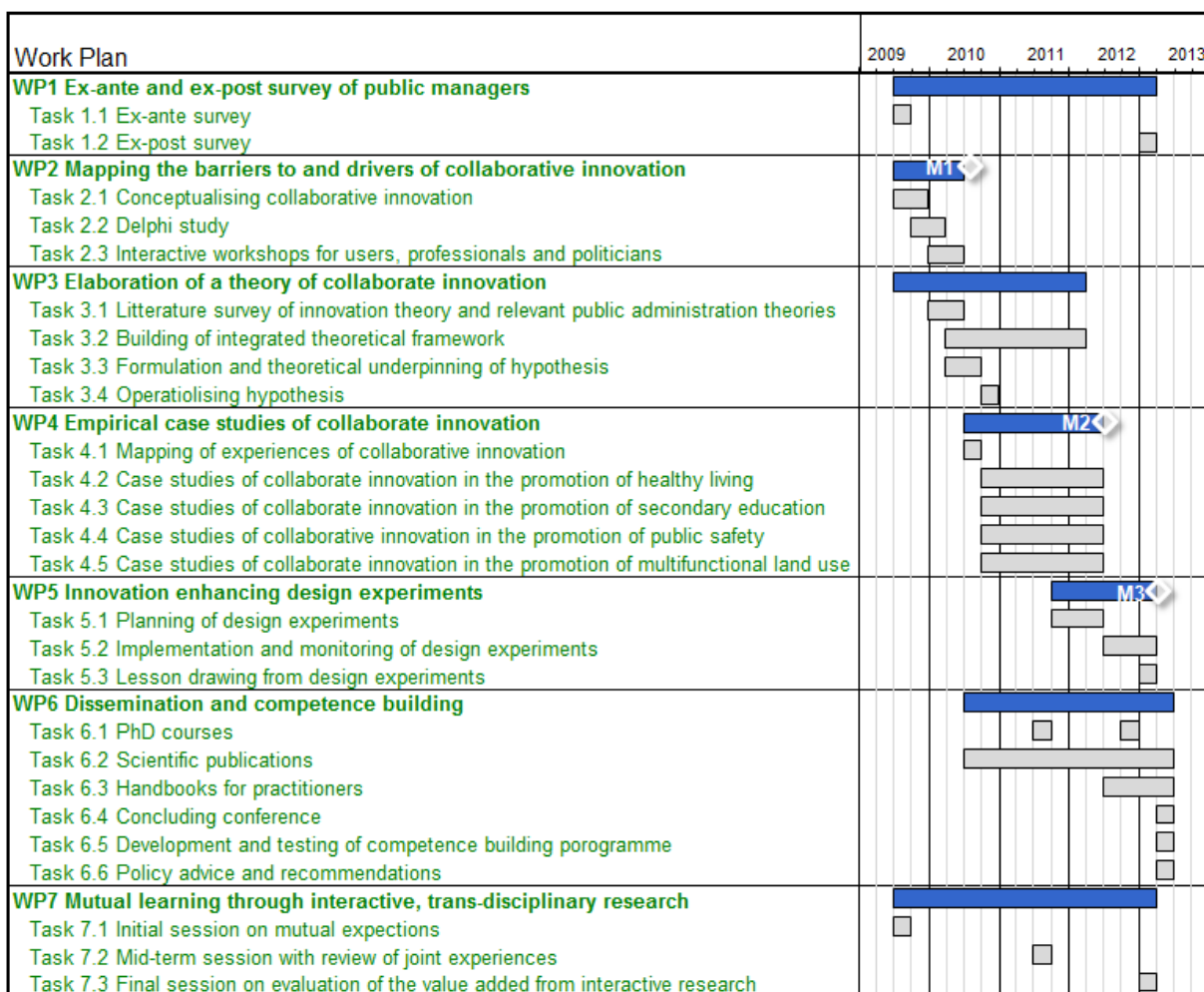
6. Project plan and resource allocation

The CLIPS project will be carried out within 48 months as shown in the Gantt charts in figure 3 and figure 4 that show the time schedule at WP level and at task level.

Figure 3: Time schedule at WP level



Figure 4: Time schedule at task level



As shown in the Gantt chart, there are three important *milestones*. The first milestone (M1) is placed right after the completion of WP1 and WP2 where we will reflect upon the input from the field of investigation and reformulate our research questions and hypotheses. The second milestone (M2) is placed prior to the design experiments where we will take stock of what we have learned so far and discuss how the theoretical and empirical insights can be used in the design experiments. The third and final milestone (M3) is placed towards the end of the project where the final research results must be consolidated and translated into dissemination and competence building. At this point, the consortium will also discuss how the research cooperation can be institutionally embedded in the future in order to prevent the loss of valuable contacts and competences.

The allocation of the total resources of the project (only the three business PhDs are excluded as they will be funded by other means) to the different work packages is shown in table 1. The figures are only indicative estimates, but they are roughly equivalent to the relative weight of the work packages of the project as a whole as presented above.

Table 1: Allocation of resources on work packages

Work Package	Costs of academic researchers	Costs of non-academic researchers	Costs of student assistants	Operational costs
1: Survey	1,001,192	78,720	45,563	119,813
2: Mapping	1,601,908	125,952	72,900	191,700
3: Theory building	3,003,577	236,160	136,688	359,438
4: Case studies	7,008,346	551,040	318,938	838,688
5: Design experiments	4,004,769	314,880	182,250	479,250
6: Dissemination	2,402,862	188,928	109,350	287,550
7: Mutual learning	1,001,192	78,720	45, 563	119,813
TOTAL	20,023,847	1,574,400	911,250	2,396,250

7. The project's international dimension

Denmark has a comparative advantage when it comes to initiating and strengthening collaborative innovation processes in the public sector. The decentralization of the large public sector, the autonomy of local government, and the long-standing tradition for user involvement in the public governance gives us a unique potential to hit the ground running and lead the way in the development of new forms of collaborative innovation based on active engagement of users. As such, it can be argued that Denmark constitutes a 'best case' for enhancing the innovative capacity of the public sector through a further institutionalization of collaborative interaction between users and relevant stakeholders. As such, our research project is likely to attract significant international attention. We already have a well-established network of international researchers and the new research project will be carried out in close cooperation with leading international researchers and research groups that in different ways can contribute to developing our theories and methods. Our international collaborators include: 1) Dr. Jenny Lewis, School of Social and Political Sciences, the University of Melbourne who is an expert in network governance and public service innovation; 2) Dr. Joop Koppenjan, the Faculty of Technology, Policy and Management, Delft Technical University who is a leading scholar in the field of policy innovation through interactive network governance; 3) Dr. Jean Hillier, the Institute of Policy and Practice, the University of Newcastle, who is an expert in collaborative planning. These three scholars have all agreed to come to Denmark for an extended period of time to work on the research project. Our other international collaborators include: 1) Professor Charles Edquist, CIRCLE, Lund University who is a widely recognized expert within the field of innovation theory; 2) Professor Ralph Stacey, the Complexity and Management Centre, the University of Hertfordshire who is an expert in learning theory; 3) Professor Frank Hendriks, the Tilburg School of Politics and Public Administration, the University of Tilburg who is an expert in interactive research methodology; 4) Professor Guy Peters, the Department of Political Science, the University of Pittsburgh who is an expert on public administration and institutional theory; 5) Professor Jean Hartley, the Institute of Governance and Public Management, University of Warwick who is an expert on inter-organizational learning; 5) Dr. Jan Erling Klausen, Norwegian Institute for Urban and Regional Research, who is directing a large research project on collaborative interaction and innovation in the Norwegian regions. The collaboration with international researchers is further promoted by the establishment of an Academic Advisory Board (see the section on Organization and management of the project). Finally, the research project will host a series of international seminars, workshops, PhD courses (see the section on Contribution to PhD training) and research conferences on collaborative innovation in the public sector that will help to qualify our research and disseminate our results to the international research community.

8. Legal and ethical aspects

The research project does not raise any severe ethical problems. We intend to respect the Fundamental Rights of the European Union as well as the generally accepted norms for conducting research on subjects that are expressed in the ESRC's Research Ethics Framework. We will also follow the Danish rules for Research Ethics issued by the UVVU. Nevertheless, there are two points that need to be addressed. First, our design experiments may grant some particular groups or individuals a better public service or better conditions for participation than the law stipulates. However, such a preferential treatment will only be accepted if the groups and individuals that are not targeted in the experiment are assured the public services and conditions for participation that they are normally entitled to. Second, since individual users and people in various administrative and political positions will be interviewed, observed and asked to write diaries, questions may be raised about anonymity, secrecy and our use of data. Therefore, it should be emphasized that all

requests for anonymity will be respected. People interviewed will not be personally identified in the project's reports. There will be no need to do so as the focus of the project is on the roles of public and private actors in processes of responsive interaction and creative learning, not on the individuals and their personal lives, views and attitudes. The rules and demands for secrecy will also be respected and data material referring to individual persons will be stored safely. Last but not least, we will do our best to make sure that statements from individuals are understood correctly and used in the spirit of the interviewee. In conclusion, no ethical principle will be violated.

9. Publication and promotional strategy

Dissemination will be an ongoing activity addressing different target audiences such as academic researchers, consultancy firms, elected politicians, public managers, professionals, different user groups and the wider public. We will adopt a comprehensive and multi-faceted dissemination strategy that will combine virtual dissemination, dissemination through interactive research, different kinds of printed material, and competence building programmes. We will set up a Virtual Research and Dissemination Infrastructure (VRDI) that will be a nodal point in our dissemination strategy. The VRDI will be structured to permit privileged access for project members to project calendars, research manuals, data bases, drafts of working papers, threaded e-mail forums, etc. The general public will have free and open access to a Welcome Page that will present the basic objectives and tasks of the project and also contain a news section with the latest reports, publications and conference calls. Registered users will be able to subscribe to a biannual newsletter and gain access to a Collaborative Innovation Resource Centre with interactive technologies such as weblogs, podcasts, RSS feeds and other forms that enable many-to-many publishing. The VRDI will ensure that the project has a global reach. However, dissemination of more detailed research results to relevant stakeholder groups requires a more targeted, face-to-face medium. Our interactive research strategy will be most helpful in this regard and provide opportunities for a qualified feedback on our research plans and research results. Publication of written material that reports on the research achievements of the project will provide a lasting contribution to the advancement of knowledge about how to enhance collaborative innovation in the public sector. We intend to produce three kinds of written publications that will be distributed either through the VRDI or through commercial publishing channels: 1) research reports that will summarize the result of each work package; 2) scientific publications including working papers, journal articles and monographs; and 3) popular publications in terms of handbooks and pamphlets aimed at target audiences. Research training in terms of PhD courses will be organized in conjunction with the national Danish research school Polforsk. Competence building activities in terms of training courses, on-site seminars, interactive workshops and camps will be organized in close cooperation with COK, Dacapo, DFH and FTF who are all highly experienced competence builders with a wide reach. Present and future users will be reached indirectly through special training courses for the leadership of different user organizations and more directly through a series of radio programmes that we are planning together with Karen Secher from the Danish Broadcasting Corporation (DR).

10. Innovation

Our research project is innovative with respect to its theoretical, empirical and practical contributions and makes a point of ensuring the actual application of the research result in order to maximize its real-life impact on collaborative innovation in the public sector.

The innovative results and their application are shown in table 2.

Table 2: *Innovative results and their application*

Before our research project	After our research project	Application of results
Collaborative innovation focuses on how public-private interaction can stimulate innovation in the private sector	A new concept of collaborative innovation captures how institutionalized interaction with users can stimulate innovation in the public sector	Conferences and popular publications will ensure that collaborative innovation becomes a nodal point in the debates about public sector innovation
Innovation theory hardly addresses issues pertaining to public sector innovation and public administration theory is highly sceptical of the prospect for innovation in the public sector	A general theory of collaborative innovation has bridged the gulf between innovation theory and public administration theory and identified the mechanisms that promote collaboration and drives innovation	Theoretical training of young researchers and new generations of students will build a strong Danish research community focussing on collaborative innovation in the public sector
No systematic knowledge of the barriers to and drivers of collaborative innovation in the public sector	Theoretically informed case studies have identified the critical determinants of collaborative innovation	Training and education of public managers, professionals and politicians draw on the systematic knowledge of collaborative innovation
Practical advice about how innovation management and institutional design can promote collaborative innovation is scarce and not backed by empirical evidence	A series of design elements have not only enhanced collaborative innovation locally, but also produced empirical validated knowledge of what works in different situations	Rather than canonizing a few empirical success stories to best practice, the situational knowledge of how to overcome the barriers to collaborative innovation is transformed into context-sensitive advice
New Public Management is the prevailing paradigm for organising public governance and service production and its emphasis on documentation, bureaucratic control and employee-driven rationalization hampers collaborative innovation	The limits of New Public Management are revealed and a constructive alternative that seeks to promote collaborative innovation through institutionalized processes of self-evaluation and interactive learning is developed	Promotion of alternatives to New Public Management in popular publications and public debates swings the pendulum away from documentation and control and creates a fertile climate for collaborative innovation in local public institutions

11. The participating parties

The CLIPS project will be carried out by a highly experienced team of academic researchers from Roskilde University, Copenhagen Business School, the University of Copenhagen, and Aalborg University. The academic researchers will collaborate with non-academic partners from COK (Centre for Competence Building in the Public Sector), Dacapo (private consultancy firm specialized in theatre improvisation), DFH (the Danish School of Public Administration), FORA (research and analysis division under the Danish Ministry of Economy and Business) and FTF (Confederation of Trade Unions for Public Employees).

The research consortium brings together academic researchers with expert knowledge of all the key actors that are engaged in collaborative innovation within the public sector: users (Birgit Jæger, Anne Reff Pedersen and Eva Sørensen), professionals (Karina Sehested), elected politicians and public administrators (Eva Sørensen) and civil society organizations (Jacob Torfing and Peter Aagaard). In addition, the research group possesses key competences in the field of neo-institutional theory (Peter Aagaard, Jacob Torfing), profession theory (Karina Sehested), network governance (Eva Sørensen and Jacob Torfing), collaborative participation (Lone Kristensen and Karina Sehested), learning theory (Birthe Lund), and innovation theory and ICT theory (Birgit Jæger, Birthe Lund). The research consortium also includes non-academic researchers with strong theoretical and practical know-how about public and private sector innovation (Jørgen Rosted and Tanja Bisgaard, FORA), design experiments (Claus Have, Dacapo), competence development (Bettina Skårup, FTF) and training of politicians and public managers (Lisbeth Christensen, COK and Jørgen Danelund, DHF). Finally, it should be emphasized that most of the consortium members have a long record of using interactive research methods in the study of public governance, policy and service and several of them have recently contributed to the only available book on the use of qualitative methods in the study of collaborative interaction (see Bogason and Zølner, 2007).

As shown in table 3, the project partners will contribute to one or more work packages.

Table 3: The allocation of partners on work packages

Work Package	Participants	Responsible
1: Survey	KU, RUC and FTF	Eva Sørensen, RUC
2: Mapping	AAU, CBS, KU, RUC and Dacapo	Karina Sehested; KU
3: Theory building	All participants	Jacob Torfing, RUC
4: Case studies	AAU, CBS, KU, RUC and FORA	Eva Sørensen, RUC & Karina Sehested, KU
5: Design experiments	AAU, CBS, KU, RUC, COK, Dacapo, DHF and FTF	Birthe Lund, AAU
6: Dissemination	CBS, KU, RUC, COK, Dacapo, DFH and FTF	Anne Reff Pedersen, CBS
7: Mutual learning	All participants	Birthe Lund, AAU

The competences needed to carry out the different WPs are distributed as shown in table 4.

Table 4: Competences needed to carry out the WPs

Competences needed to carry out WPs	RUC	CBS	KU	AAU	COK	Dacapo	DFH	FORA	FTF
Survey methods	X								X
Delphi study	X		X		X				
Theater improvisation						X			
Qualitative case study methods	X	X	X	X				X	
Experimental method (design experiments)	X			X		X			
Dissemination, scientific and practical	X	X	X	X					
Competence building					X	X	X	X	X

As shown in table 5, the individual participants in WP4 and WP5 will be involved in Research Teams dealing with different policy problems. The leader of the Research Team is underlined.

Table 5: Composition of Research Teams

Policy Problems	Participants in Research Team
1: How to promote healthy living?	<u>Anne Reff Pedersen</u> (CBS), Post Doc researcher I, PhD student I
2: How to improve the level of education?	<u>Birgit Jæger</u> (RUC), Birthe Lund (AAU), PhD student II, Business-PhD I
3. How to ensure public safety in traffic, leisure and nightlife?	<u>Jacob Torfing</u> (RUC), Peter Aagaard (RUC), Post Doc researcher II, PhD student III, Business PhD II
4. How to promote multi-functional land use?	<u>Karina Sehested</u> (KU), Lone Kristensen (KU), Post Doc researcher III, Business PhD III

13. Project management

The project will be directed by Professor Eva Sørensen who is Vice-director of Centre for Democratic Network Governance and Director of the PhD programme in ‘Governance, Welfare and Citizenship’, Department of Society and Globalization, Roskilde University. She is also Director of the national PhD programme ‘Polforsk’. Eva Sørensen has a wide network of international research contacts and a strong publication record and she has led several large-scale research projects including ‘Roles in Transition’ (funded by the Social Science Research Council) and ‘Empowering the Danish Regions’ (funded by the VAT Foundation). The project will be co-directed by Professor Jacob Torfing, who is Director of the Centre for Democratic Network Governance, and Associate Professor Karina Sehested, who is highly experienced in cooperating with public professionals.

Project management will take place in close cooperation with the *Project Assembly*, which includes all partners and external partners and meets at an annual basis, and the *Project Board*, which consist of the academic and non-academic partners and meets bi-annually.

The Project Manager will also consult with the Academic Advisory Board and the Advisory Board of Stakeholders. The *Academic Advisory Board* will consist of:

- Professor Ralph Stacey, Hertfordshire Business School
- Professor Emeritus Patsy Healey, University of Newcastle
- Professor Mirko Noordegraaf, University of Utrecht
- Professor Jon Sundbo, Roskilde University
- Professor Stig Montin, Örebro University.

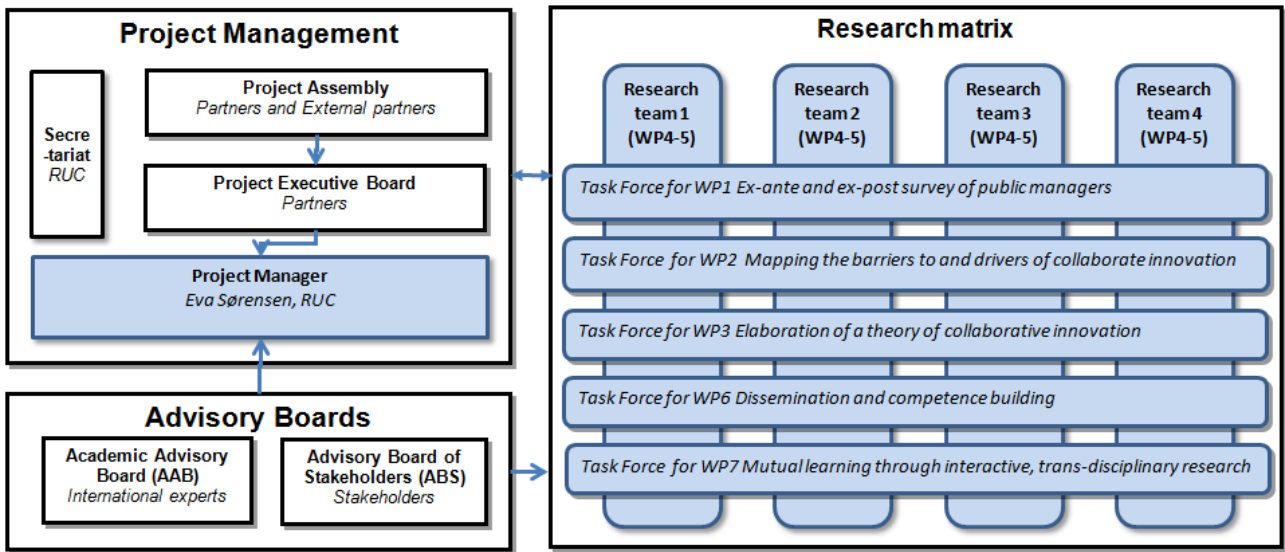
The Academic Advisory Board will be consulted in relation to questions about research strategy, theory building and the quality of the scientific studies. *The Advisory Board of Stakeholders* will comprise:

- Chief Executive Manager Henrik Kolind, Roskilde Municipality
- Consultant Kathrine Kirk, Implement
- Mayor Jørn Sørensen, Holbæk Municipality
- Chief Planner Jørgen Klausen, Odense Municipality
- Chief Director Jesper Fisker, the National Health Agency

The Advisory Board of Stakeholders will be involved in discussions about the detailed research plans, the preliminary research results and the device of the final plans for dissemination and knowledge sharing.

The research consortium comprises *different kinds of partners*: four universities (AAU, CBS, KU and RUC), one private consultancy firm (Dacapo), two public teaching institutions (COK and DFH), one public agency (FORA) and one interest organization (FTF). There are also *different kinds of external partners*: two national state agencies (the Danish Police and the National Service Agency), a private consultancy firm (Rambøll Management) and two municipalities (Odense and Roskilde). The external partners will be consulted in connection with the choice of cases, reflections on the role of private consultancy firms in collaborative innovation and the selection of cases. The partners will work closely together in carrying out the work packages in a number of Task Forces, which take the lead in relation to WP1-3 and WP6-7, and Research Teams, which will conduct the case studies and design experiments specified in WP4 and WP5. The Project Manager will draw up a Consortium Agreement and make individual contracts with each of the partners prior to the launch of the project. The Research Teams and the Task Forces will be combined in a matrix structure that encourages collaboration across research teams and task forces, and they will submit regular progress reports to the Project Manager. The Project Manager chairs the Joint Project Seminars in which research manuals, work in progress, final research reports and detailed dissemination plans will be discussed and approved. Between the Joint Project Seminars the Project Manager will be in contact with the leaders of the various Task Forces and Research Teams in order to enhance coordination. In relation to the case studies and the case-based design experiments we will form a series of Stakeholder Panels (SP) that will be involved at all stages in the research process. The management structure is shown in figure 5.

Figure 5: Management structure



The project will recruit three PhD students and three Post Docs researchers. In addition, the project will apply elsewhere for three business PhDs: one co-financed by Dacapo, one by COK, and one by FORA. The PhD students and the Post Doc researchers will be involved in the theory building and participate in the Research Teams that are conducting the case studies. This will provide a valuable input to their thesis work and research publications. However, it is important to ensure that the PhD students have time enough to write their thesis and to help them reducing the complexity of collaborative innovation to something manageable. Although we want to give the PhD students some latitude in formulating their own research questions, we have already some clear ideas about topics and relevant research questions. The same goes for the Post Doc researchers. The possible topics for the early career researchers are shown in table 6.

Table 6: Research topics for early career researchers

Early career researchers	Possible research questions
PhD student I	What drives the participation of different kinds of users in collaborative innovation?
PhD student II	What are the drivers of creative problem solving in situated interaction processes?
PhD student III	Which identities, skills, competences are conducive for managing processes of collaborative innovation?
Business PhD I	How to exploit diversity and conflicts in creative processes facilitating public sector innovation?

Early career researchers	Possible research questions
Business PhD II	What can public managers and politicians do to spur collaborative innovation?
Business PhD III	What are the main conditions for collaborative innovation in the provision of recreational activities?
Post Doc I	What is the role of innovation management in overcoming the institutional barriers to collaborative innovation in preventive care?
Post Doc II	What is the role of institutional design in overcoming the barriers to collaborative innovation in relation to public safety?
Post Doc III	What is the role of public managers and professionals in collaborative public sector innovation in urban planning and rural development?

The group of PhD students and the Post Docs researchers will participate in tailor-made research training activities that include a lecture series organized by the senior researchers in the project, work in progress seminars in the Centre for Democratic Network Governance and international workshops with leading national and international experts in user-driven innovation in the public sector. They will participate in PhD courses on methodology organized by the Danish Polforsk Network and specially designed international PhD courses organized in close collaboration with our international research collaborators (see below). The research training activities will be organized by Professor Eva Sørensen. Two of the PhD students will be enrolled at Roskilde University, and one at University of Aalborg. The business PhD students will all be enrolled at RUC. It is an explicit goal to ensure that the PhD students and the Post Doc researchers work closely together with the senior researchers in the Task Forces and the Research Teams and participate in the Joint Project Seminars. The PhD students will be supervised by senior members of the research team and the Post Docs will be assigned an academic mentor that will support and guide them in their research. The Centre for Democratic Network Governance receives a large number of visiting scholars and PhD students every year and this creates a stimulating research environment for the training of the young researchers that will help to build a Danish research competence in the field of user-driven innovation. If we can find enough international PhD students working with user-driven innovation in the public sector we will set up an international network via the VRDI.

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