**COLLABORATIVE DESIGN IN PUBLIC SERVICES:**

**A PROBLEM REFRAMING CASE**

***Patrícia Moura e Sá***

FEUC & CICP

University of Coimbra (Portugal)

[pmourasa@fe.uc.pt](mailto:pmourasa@fe.uc.pt)

Corresponding Author

***Catarina Frade***

FEUC & CES

University of Coimbra (Portugal)

[cfrade@fe.uc.pt](mailto:cfrade@fe.uc.pt)

***Fernanda Jesus***

Center for Social Studies (Portugal)

[fcostajesus@gmail.com](mailto:fcostajesus@gmail.com)

***Mónica Lopes***

Center for Social Studies (Portugal)

[monica@ces.uc.pt](mailto:monica@ces.uc.pt)

***Teresa Maneca***

Center for Social Studies (Portugal)

[tmaneca@gmail.com](mailto:tmaneca@gmail.com)

***Victor Raposo***

FEUC & CeBER (Portugal)

University of Coimbra

[vraposo@fe.uc.pt](mailto:vraposo@fe.uc.pt)

**Abstract:**

Wicked problems require collaborative innovation approaches. Understanding the problem from the users’ perspective is essential. The purpose of the current paper is to identify some critical success factors in defining the ‘right problem’ to be addressed.

With this purpose, a case study approach was used and extensive data was collected from citizens, politicians, public servants, and other relevant institutional players, by means of interviews and a focus group.

As defined by the Central Government, the problem to be addressed by the research team was to identify which justice services should be made available locally to a small- and low-density community. Therefore, the problem was initially formulated using top-down reasoning. In-depth contact with citizens and key local players revealed however that the lack of justice services was not ‘the issue’ for that community. Mobility constraints and the shortage of economic opportunities had a considerable impact on the lack of demand for justice services. Using a bottom-up perspective it was possible to reframe the problem to be addressed and suggest a new concept to be tested at later stages.

The approach followed called attention to the importance of listening to citizens and local organisations with a profound knowledge of the territory to effectively identify and circumscribe a local problem in the justice field.

The current paper contributes to expanding the voice-of-the-customer principle, typically associated with quality approaches, to the public policies design by showing how listening to ‘local voices’ can lead to a substantially new definition of the problem to be addressed.

**Keywords**: Innovation; public services; local community; problem formulation; citizens’ involvement

1. **Introduction**

Over the last decades, a growing number of problems, like poverty and inequality, family violence, drug control, criminal behaviour and environmental pollution, for example, have become more and more complex and enduring. These problems are usually referred to as ‘wicked problems’ and tend to be ill-structured with messy boundaries and connections (Ackoff, 1974, cited in Head, 2018).

Existing public policies have often been unable to solve these problems. This is partly due to the fact that political decision makers know too little about the complex problems they set out to solve ([Sørensen](https://www.researchgate.net/scientific-contributions/2077483513_Eva_Sorensen?_sg=Ygd5CoiYNXQBBSzkAH2M2-6KR4RDU42LPes0TWbe6Xa3tWYDcNH5m0BO_Pj5WB1vtxzLehw.lJdmOsxCxp-RS78TyBdF4vxIZ_f0uSe1BHtXK2AFPHdnK5isOsazSg1reE5qeVCejDMKy87q7w2pO-2wy3IS1A) and Waldorff, 2014). Research has been stressing the need, for socially relevant decisions, to combine multidisciplinary knowledge and a variety of actors (Elia and Margherita, 2018, Loukis et al, 2017).

The way in which problems are recognised, prioritized and managed is of central concern in policy systems (Head, 2018). Moreover, once a problem has been elected, addressing the ‘right problem’ is vital. As stressed by Torfling and Ansell (2017), one of the difficulties of dealing with wicked problems is precisely the fact that they are hard to define.

Although the importance of problem definition is well-established both in management science (Büyükdamgacı, 2003) and in policy studies (Head, 2018) literatures, policy agendas still usually reflect the ‘problems’ as political leaders perceived them with insufficient attention to the way ‘people in the field’ feel them.

The purpose of the current paper is to identify some critical success factors in defining the ‘right problem’ to be addressed. To investigate the matter, a case study approach was used and extensive data was collected by the research team from citizens, politicians, public servants, and other relevant institutional players.

In line with the arguments in favour of collaborative design, it was assumed from the beginning that understanding the problem from the users’ perspective was essential. As the case study illustrates, the use of collaborative design approaches might inclusively lead to the ‘reframing’ of the initial problem.

It must be acknowledged that the difficulties in defining the ‘right problem’ are not exclusive to the public policy arena. A recent study published in the *Harvard Business Review* based on a survey of 106 senior executives (who represented 91 private and public sector companies in 17 countries) reveals that 85% of the respondents strongly agreed or agreed that their organisations were bad at problem diagnosis and recognised that this had important costs (Wedell-Wedellsborg, 2017). The HBR article then recalls a classical problem-reframing example. Complaints made in a building about the slowness of the lift has initially led to suggesting the obvious solution: “making the lift faster”. Yet, when the problem was presented to a group of building managers they suggest a much more unexpected solution: putting up mirrors next to the lift. This measure ended up being very successful and much cheaper. Coming up with this solution was only possible because the initial problem was substantially reframed to ‘the wait was annoying’. As the author notes, the point of reframing is not necessarily to find the ‘real’ problem to address, “but rather see if there is a better one to solve” (Wedell-Wedellsborg, 2017).

The remainder of the paper is structured as follows. In the following section, based on a brief literature review the nature of wicked problems is discussed and the need for collaborative approaches to address them emphasised. Next, the concept of policy innovation is presented and the importance of including collaborative forms in their design and implementation stressed. Then, the case study is described and analysed in light of the literature review. Finally, some concluding remarks are presented.

1. **Wicked problems and the need for collaborative design**

The limitations of traditional problem solving approaches to cope with complex social problems have been stressed for some time (Head, 2018): they tend to produce narrow understandings of a reality that is diffuse and, thus, not to reflect, as much as needed, its political and conflictual dimensions. Moreover, complexity theory literature has also been drawing attention to the importance when addressing wicked problems of taking into account multiple connections and unexpected side effects (Head, 2018). Ignoring them might be leading to unsound policy responses.

Wicked problems are usually defined in the literature as complex, unique, ‘un-ruled’ and multi-causal (Elia and Margherita, 2018; Torfling and Ansell, 2017). Some authors (e.g. Head, 2018) argue that wicked problems cannot be completely solved or ‘fixed’, but need to be better managed. As Torfling and Ansell (2017, p. 37) put it, “*they cannot neither be solved by standard solutions nor by increasing public spending, but call for innovative and out-of-the-box solutions*”. Because of their complex interlinkages, wicked problems require the application of multidisciplinary knowledge in finding and implementing innovative solutions.

The literature on problem solving is extensive and stresses the importance of strategies such as abstraction, analogy, brainstorming, lateral thinking, morphological analysis, root cause analysis or trial-and-error (Elia and Margherita, 2018). Broadly, the problem solving process includes three sub-activities: (1) represent and analyse the problem; (2) ﬁnd alternatives, and (3) make choices (Antunes et al., 2014, cited in Elia and Margherita, 2018). These stages include further activities such as problem setting, problem examination, solutions generation, solutions evaluation, and decision making.

Thus, problem framing is one of the first steps in problem solving. As defined by Schön and Rein, (1994, p. 146, cited in Head, 2018), framing is “*a way of selecting, organising, interpreting and making sense of a complex reality to provide guideposts for knowing, analysing, persuading and acting*”. The way the problem is framed has obviously impact on the set of alternatives that are identified and on the final solution that is implemented, because it directs the search for new innovative policy visions and the strategies that are chosen for their realisation and diffusion. The idea is reinforced by Rittel and Webber (1973, p. 158) when they state that for ill-structured problems “*the process of formulating the problem and of conceiving a solution... are identical, since every specification of the problem is a specification of the direction in which a treatment is considered*”.

Problem formulation embraces two major steps: recognition and diagnosis. Based on Mintzberg’s work, Büyükdamgacı (2003) defines recognition as the stage “*where the problem is sensed and the need for problem solving is acknowledged*”. Later, in the diagnosis, *“the organisation tries to understand the stimuli and establish cause–effect relationships in the situation*”.

Attention needs to be given to problem formulation. As Büyükdamgacı (2003, p. 327) highlights, “*solving the wrong problem may prove to be more detrimental than ignoring the problem altogether*”.

This incomplete representation is often the consequence of having a single individual or entity reflecting upon the situations. Problem formulation initiatives that broaden the base of participation are more likely to identify the right problem. Furthermore, since problem formulation necessarily involves a process of information gathering to clarify and define the issues, the limitations of individuals, in terms of memory, skills and predispositions, need to be acknowledged. To overcome some of these limitations, the direct involvement of key interested parties when possible, is crucial.

The origins of collaborative design may be associated with the work of Rittel and Webber (1973), who, back in the seventies, have highlighted the importance of involving a wide range of stakeholders to deal with complex issues in the future so that the image of the problem is enriched and a ‘better’ solution can emerge gradually among the participants.

Broadly defined, stakeholders are “*all the actors participating to, inﬂuencing, or which can be impacted by the solution design and implementation activities*” (Elia and Margherita, 2018). As Elia and Margherita (2018) emphasise, “*wicked problems involve constellations of stakeholders, which may have conﬂicting interpretations as well as diﬀerent life experiences, competencies, goals, and values*”.

1. **Collaboration and policy innovation**

Policy innovation can be understood as “*the formulation, realization and diffusion of new problem understandings, new political visions and strategies for solving them*” ([Sørensen](https://www.researchgate.net/scientific-contributions/2077483513_Eva_Sorensen?_sg=Ygd5CoiYNXQBBSzkAH2M2-6KR4RDU42LPes0TWbe6Xa3tWYDcNH5m0BO_Pj5WB1vtxzLehw.lJdmOsxCxp-RS78TyBdF4vxIZ_f0uSe1BHtXK2AFPHdnK5isOsazSg1reE5qeVCejDMKy87q7w2pO-2wy3IS1A) and Walderoff, 2014, p.3).

Developing new policy design practices is essential in order to address in a more effective way wicked problems. Briefly stated, policy design represents an ‘integrated’ approach that comprises the identiﬁcation and scoping of the problem, deliberation on the choice of instruments and procedures and the evaluation of implementation including longer-term outcomes (Howlett, 2014). In each of such stages, it is unlikely that politicians alone can create policy innovation. Effective policy innovation requires the contributions of other public and private actors (Torfling and Ansell, 2017).

As complexity rises, political leaders lack the confidence, skills and competencies to find, develop and implement innovative solutions (Torfling and Ansell, 2017) and increasingly need the collaboration of other actors. As stressed by Loukis et al. (2017), nowadays in order to address many social problems competent government agencies have to collect and process a large amount of external information from different stakeholder groups, with different perspectives, goals, expectations and attitudes. Collaboration between relevant public and private stakeholders is thus regarded as essential to cope with wicked problems.

Stakeholders have different assumptions, values and capacities, which make them look at the same problem from different angles. As Hoppe (2010, cited in Head 2018) argues, responding to policy problems requires the analysis of several interrelated dimensions and the use of knowledge and power that often is dispersed among many actors. Therefore, as Torfling and Ansell (2017) argue, multi-actor collaboration can lead to new and creative policy solutions, which, in addition, have more possibilities of being successful due to the likely support they get from the stakeholders involved. As a result of the participation of different stakeholders, solutions tend to be negotiated. This typically facilitates the implementation of the solution/programme designed.

The field of collaborative design has been expanding over the last decades boosted by the development of social media and internet platforms. These technological developments make possible to exploit the extensive knowledge of citizens, in particular, a process that some researchers call “citizen-sourcing” (Loukis et al, 2017). The process includes a variety of approaches, some of them more active than others. For example, governmental agencies might pose a specific social problem or public policy in a government site or social media account and ask citizens to provide their knowledge and opinions about it (active citizen-sourcing) or, in a more passive attitude, simply monitoring relevant external social media (passive citizen-sourcing) (Loukis et al., 2017).

Besides being a driver of public innovation, the efficiency, effectiveness and democratic quality of public governance is expected to be enhanced by the implementation of collaborative forms of governance ([Sørensen](https://www.researchgate.net/scientific-contributions/2077483513_Eva_Sorensen?_sg=Ygd5CoiYNXQBBSzkAH2M2-6KR4RDU42LPes0TWbe6Xa3tWYDcNH5m0BO_Pj5WB1vtxzLehw.lJdmOsxCxp-RS78TyBdF4vxIZ_f0uSe1BHtXK2AFPHdnK5isOsazSg1reE5qeVCejDMKy87q7w2pO-2wy3IS1A) and Waldorff, 2014). Such collaborative forms can bring together the efforts of politicians, affected citizens, relevant street-level bureaucrats and non-governmental organisations and businesses, this promoting a broad sense of ownership of the solution(s) proposed.

1. **Case study**

The case study described in this section corresponds to a project carried out within the “Close Justice” (*Justiça Mais Próxima*) Programme developed by the Portuguese Ministry of Justice. The Programme aims at creating mechanisms for a justice that is closer to the citizens it serves and, simultaneously, contributes to solving other issues related to the social and economic circumstances of territories that have low population density.

The project is called “The Court Solves” (*Tribunal Resolve*). As initially defined by the Ministry of Justice the problem to be addressed by the research team was to identify which justice services should be made available and integrated locally to a small- and low-density community. It must be highlighted that many of these territories have lost their First Instance Courtrooms in the last decade or so and the Ministry of Justice was/is studying the possibility of redesigning the justice services to be provided in such contexts.

More specifically, the “Court Solves” project had two main goals: 1) to create (formal and informal) mechanisms to ensure citizens’ access to justice, including information, judiciary counselling and conflicts prevention; and 2) to develop a network of public, private and third sector organisations capable of acting at the local level, especially targeting vulnerable groups.

Looking at this broad context, at the issues associated with low-density communities, and at the goals of the “Court Solves” project, it becomes clear that the problem to be addressed can be categorised as a wicked one. In fact, low-density territories face social problems that are complex – unemployment, social exclusion, isolation, poverty -, interlinked, have multiple causes and cross the boundaries of several institutions.

The pilot study was conducted by the authors of the current paper (research team) in a municipality of the Centre Region of Portugal and comprised two key tasks:

(1) the diagnosis of the demand and supply of local (public) services; and

(2) the development of the preliminary concept of an integrated response to citizens’ needs with the potential to be replicated and applied to populations with similar features.

Since the research team assumed from the beginning that getting the views of relevant local stakeholders was essential to get a real picture of the problem, extensive data was collected from citizens, politicians, public servants, and other relevant institutional players. For that purpose, individual interviews and a focus group were conducted. Additionally, some documents and statistics were also analysed.

Documents and statistics available on official websites were important to characterise the municipality and getting a first picture of the public services available in the territory. Afterwards, the perceptions of citizens, public servants working for different public organisations, and other key informants from the private and third sector were collected by means of individual semi-structured interviews. At a later stage, a focus group was conducted to pre-validate some of the research team conclusions.

Statistics revealed that the territory has lost more than 8% of its population over the last decade and has more than 2.6 senior citizens for each younger. There is a considerable number of long-term unemployed and the economic dynamism is low, with almost all the firms existent in the territory being very small (less than 10 workers).

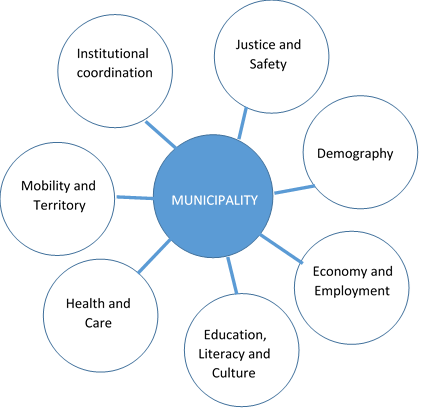
Data collection took place between February and April 2018. Thirty-four interviews were conducted with institutional players and twenty-six with ‘ordinary’ citizens (aged from 21 to 82 years old). There was a concern to reflect the characteristics of the territory – aged, with low qualification levels and low income – in this intentional sample. The focus group took place in middle April with participants from 9 local institutions and 3 citizens.

The departure point for the project was the problem as recognised by the Ministry of Justice. Yet, the diagnosis step – when efforts were made to understand the problem dimensions and to establish cause–effect relationships in the situation based on the perspectives of the various stakeholders identified – revealed a much more complex scenario.

First of all, meetings with city councillors and other local government members revealed, early in the process, a slightly different agenda from that of the central government (Ministry of Justice). Local politicians had a clear notion that the Court was regarded by the local community as a major asset. Moreover, they were aware that there is a problem of scale in many public services. Public agencies in the territory are very small, with a reduced number of public servants who have very little chances to develop their skills.

Based on data collected from the interviews, seven main problem dimensions emerged (see Figure 1). Due to obvious constraints and given the purpose of the current paper, only the justice and safety dimension is described next in some detail.

**Figure 1. Analytical framework of problems and needs**



According to the way the problem was initially formulated the focus was expected to be much more on the “justice” dimension. Yet, data revealed that the number of pendent processes in the municipality was very low when the First Instance Court closed in 2013 (less than 30). The courtroom had in the meantime reopened as a Small Claims court (criminal and civil claims) (27 from January 2017 to March 2018). The courtroom holds witnesses’ hearings, deals with some processual diligences, receives documentation and gives some information.

It was almost consensual among all stakeholders that the territory has a very low level of litigation (“*Here the incidents are diverse but few*”). Property disputes are the main issue and this kind of conflicts tends to happen within the scope of the family and/or neighbourhood relationships. Defence of property rights is often regarded as a matter of honour (“*I have the duty of defending what has belonged to my parents and grand-parents”*). Among elderly people, especially when they live alone in remote areas, there are also some events of swindling. The role of the military police (‘GNR’) in giving support to old people who live in the most remote areas of the municipality was stressed (“*They come here often and are always warning us not to open the door to strangers*”). There seems to be some suppressed demand in what domestic violence is concerned: “*Complaints of domestic violence that reach us are few compared to the reality. We have informal knowledge… it is a small community”*.

Even if the demand for justice services is not high, the closure of the Court is regarded as an important symbolic lost by the citizens (“*I am against it. They take everything away from us!”*).

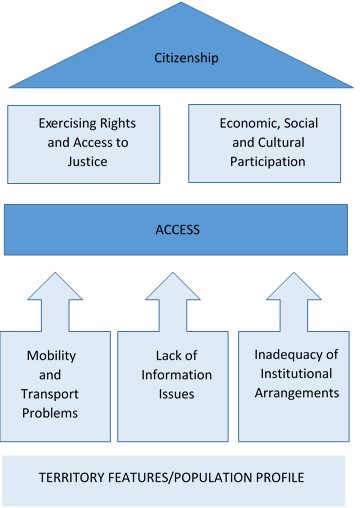
The lack of transportation is pointed out as a major problem in having access to justice: “*In rural areas, such ours, when transports are difficult, closing the Court and having to go to other places to take care of the matters is very harsh*”. Illiteracy also emerged as an important constraint. People have problems with legal jargon (as most citizens do) and in understanding procedures, but difficulties among this population are more severe: “*it is necessary to help people fill forms, tell them where to go… most do not have financial resources to have a lawyer…*”.

Public policies often suggest cheaper, simpler and more informal mechanisms to dealing with some litigation (e.g. Courts of Peace), especially for small communities where the number of events is small and the complexity is low. Yet, as the current research has shown, sometimes these solutions disregard symbolic dimensions of justice: “*People want to bring the case to the judge… people like to be listened to by a ‘proper’ judge”*; *“People are conservative… even young people”*.

This diagnosis was important to call attention to the likely ineffectiveness of looking at the redesign of justice services in isolation and to the importance of addressing at the forefront some other matters. In-depth contact with citizens and key local players revealed that the problem had to be considerably reframed since the lack of justice services was not ‘the issue’ for that community. Mobility constraints and the lack of economic opportunities had a considerable impact on the lack of demand for justice services. Therefore, the problem was reframed as: “How can access to public services in general (and justice services in particular) be improved in this local community?”

Figure 2 gives a representation of the ‘new’ problem determinants, which are highly interlinked.

**Figure 2. New Problem Representation**



Physical mobility is currently strongly dependent upon the use of a private car. Population size is small and inhabitants are scattered all over the municipality territory, making the development of public transportation economically unviable. People with low income and low education levels are also the ones who typically live in more remote locations. Having limited access to public services make them more vulnerable and less capable of exercising their citizenship rights.

Citizens have difficulties in understanding the sequence of steps they have to follow and the interactions they are supposed to have with public services to solve their problems, fulfil their obligations and exercise their rights. Local institutions, mainly due to traditional arrangements, are unprepared to give the necessary support to citizens in these ordeals.

It became evident in the diagnosis that there are important redundancies in the scope of intervention of several institutions. Competition between them leads to inefficiency and to citizens’ burdens. Informal contacts, extremely facilitated by the small dimension of the territory, are not sufficient to solve the problem. A more strategic and integrated approach is needed and that can only happen with the support (and flexibility) of central levels of policymaking.

To address these issues a new concept to be tested at later stages was proposed by the research team.

1. **Concluding remarks**

The systemic and interlinked nature of many contemporary problems calls for the involvement of stakeholders and the implementation of collaborative design forms. This case study provided a good example of why traditional problem solving approaches typically fail when addressing wicked social problems:

* Their tendency to fragment messy unstructured problems into well-structured’ micro problems, which ignores the interlinks that might exist;
* Their assumption that a restrict group of experts has enough skills and competencies to find a proper solution, undervaluing the idea that often people ‘who feel the problem’ have knowledge that cannot be overlooked;
* The fact that they underestimate the importance of negotiation and communication for effective policy implementation.

Previous studies have highlighted (e.g. [Sørensen](https://www.researchgate.net/scientific-contributions/2077483513_Eva_Sorensen?_sg=Ygd5CoiYNXQBBSzkAH2M2-6KR4RDU42LPes0TWbe6Xa3tWYDcNH5m0BO_Pj5WB1vtxzLehw.lJdmOsxCxp-RS78TyBdF4vxIZ_f0uSe1BHtXK2AFPHdnK5isOsazSg1reE5qeVCejDMKy87q7w2pO-2wy3IS1A)and Waldorff, 2014) that top-down centred models of public governance that leave policy making and policy innovation in the hands of politicians and executive managers can result in policy execution problems. The current study shows that these top-down centred models have an additional risk: they might focus the attention to the ‘wrong’ problem. Using a bottom-up approach it was possible to redefine the problem to be addressed and suggest a new concept to be tested at later stages.

For collaborative design to be effective some conditions need to be in place.

* Stakeholders, citizens in particular, need to be empowered and therefore efforts need to be directed towards capacity building. Participants in collaborative design initiatives need to be educated about and fully engaged. In small and low-income communities, as it was the case in the current paper, this is particularly challenging.
* Politicians, public leaders and managers need to be willing to abdicate from some control and to share power. Due to short timelines, often associated with political and electoral cycles, and severe resource constraints, this commitment from politicians and political leaders to collaborative approaches is especially difficult to happen. In this project, this openness existed at the earlier stages, since considerable freedom was given to the research team to address the problem with no major constraints. However, because the project terminated with the new problem formulation and a preliminary concept, it was not possible to assess to what extent such openness would exist at later stages.
* Sufficient time needs to be available. As participants increase the amount of information to be processed also increases. This was a difficulty that the research team faced.

This research has some limitations that need to be acknowledged. First, it is exclusively focused on the problem identification and conceptualisation stage. Collaborative design was essential to ensure a comprehensive and shared definition and understanding of the problem, its meaning and related issues. Subsequent problem solving stages might pose different challenges to collaborative forms.

To a certain extent, the current paper also draws attention to the benefits of collaborative governance. Although collaborative governance – i.e. the cooperation of leaders and organisation working across sectoral boundaries – might be more important when it comes to implementation stages, bringing together the views of central government agencies, local government institutions, the local community and researchers was essential to find the ‘right’ problem to be addressed.

**References**

Büyükdamgacı, G. (2003). “Process of organizational problem definition: how to evaluate and how to improve”, *Omega*, 31(4): 327-338.

Elia, G., Margherita, A. (2018). “Can we solve wicked problems? A conceptual framework and a collective intelligence system to support problem analysis and solution design for complex social issues”, *Technological Forecasting and Social Change*, 133: 279-286.

Head, B (2018). “Forty years of wicked problems literature: forging closer links to policy studies”, *Policy and Society*, DOI: 10.1080/14494035.2018.1488797

Howlett, M. (2014). “From the ‘old’ to the ‘new’ policy design”, *Policy Sciences*, 47(3): 187–207.

Loukis, E., Charalabidis, Y., Androutsopoulou, A. (2017). “Promoting open innovation in the public sector through social media monitoring”, *Government Information Quarterly*, 34(1): 99-109.

Rittel, H. W. J., Webber, M. M. (1973). “Dilemmas in a general theory of planning”, *Policy Sciences*, 4: 155–169.

[Sørensen](https://www.researchgate.net/scientific-contributions/2077483513_Eva_Sorensen?_sg=Ygd5CoiYNXQBBSzkAH2M2-6KR4RDU42LPes0TWbe6Xa3tWYDcNH5m0BO_Pj5WB1vtxzLehw.lJdmOsxCxp-RS78TyBdF4vxIZ_f0uSe1BHtXK2AFPHdnK5isOsazSg1reE5qeVCejDMKy87q7w2pO-2wy3IS1A), E., Waldorff, S. (2014). “Collaborative policy innovation: Problems and potential”, *The Public Sector Innovation Journal*, 19(3), article 2.

Torfling, J., Ansell, C. (2017). “Strengthening political leadership and policy innovation through the expansion of collaborative forms of governance”, *Public Management Review*, 19(1): 37-54.