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### **Training TA Professionals**

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Abstract: Researchers, project managers and communication officers involved in TA projects are faced with a variety of context-dependent challenges which necessitate that TA practitioners constantly reflect upon their practices, innovate and strengthen their skills, making knowledge sharing essential. In the light of this, Bütschi et al. investigate the needs for and possibilities in practitioners' meetings and debates the different needs from established and newcomer TA organizations. The authors convey lessons learned from four PACITA practitioners meetings about principles of knowledge sharing useful for practitioners' training in the future. And they argue for the necessity for TA institutions and their supporters in European policy to use future implementations of similar formats as a way of building human capacities for TA.

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In this chapter, we discuss the needs for TA professionals' training, taking into consideration both the needs of established TA organizations, as well as those of organizations trying to develop TA activities in their countries. Based on concrete experiences, we shall draw some conclusions on the contribution that training TA professionals has in strengthening and expanding the TA landscape in Europe.

The attainment of an open, inclusive and transparent governance, as well as evidence-based policy making in Europe, requires the development and further enhancement of capacities for providing insight into the opportunities and consequences related to science and technology, by facilitating democratic processes of debate and awareness building and by formulating policy options in the field of science, technology and innovation (STI). Various organizations in Europe undertake activities that are included in the concept of TA. Yet, TA is still performed by relatively small and mostly nationally/regionally focused institutions, which do not have the needed resources and/or the mandate to make the necessary effort to expand the capacity and use of knowledge-based policy making in Europe. In addition, there is a growing tendency in the field of science and technology to move decision making upwards (from the national to the European level), which entails a common effort and a consolidation of expertise from across Europe in doing European-level TA. Furthermore, considering that in many countries there is no institutionalized approach to doing TA, training professionals from those countries is needed in order to strengthen national capacities for evidence-based policy making. These were among the major motivations to form the PACITA consortium and include TA practitioners' training seminars as an integral part of the work programme of the project.

The PACITA training seminars aimed to stir the communication and mutual learning among TA practitioners. They were designed so that researchers, project managers and communication specialists could learn from each other by sharing their knowledge and best practices. Considering the large variety of TA settings in Europe, the training seminars were conceptualized so that participants who aspire the establishment of TA in their own country could learn about the challenges and solutions related to the different settings of TA institutions; they could thus enhance their understanding of TA approaches and methods and increase their capacities in providing knowledge-based policy

advice on science- and technology-related issues. For the professionals who work in established TA institutions, the PACITA training seminars offered an opportunity to broaden their practical knowledge as they could become inspired by the work of their colleagues and share best practices.

## Shared knowledge for a strong and innovative TA community

The way of doing TA is strongly related to the specific cultural and political environment of a country – as well as to other institutional aspects, such as whether there is a formal link to the parliament, the available funding, its source and so on. This is reflected in the various approaches and methods used within the TA community. This diversity of practices makes technology assessment an innovative and dynamic community, to which many professionals and scientists contribute. But for TA to be more than an experimenting field and for it to become a community that shares a common vision and relies on specific tools, it is important that TA professionals draw on a shared knowledge of what technology assessment is, how it works and what it can achieve. All these aspects are actually covered by extensive literature on technology assessment (see for example Vig and Paschen, 2000, Decker and Ladikas, 2004, Grunwald, 2009 and Enzing et al., 20112), which provides the core elements for the daily practices of TA professionals. However, TA project managers, researchers or communication officers are often confronted with very concrete issues which are not (or are only partially) covered by the literature. What they need is very practical advice related to TA project management: how they should design and frame a concrete project, which methods they should select and how they should implement them, how they should deal with the political and societal environment and how they should communicate their results. For the TA community to further develop and adapt to the ongoing technological and policy changes, it is essential to develop European-wide training platforms, wherein TA professionals will get the opportunity to learn from each other and to work in a systematized and integrative way. This is necessary to ensure a high and uniform level of quality for TA across Europe.

### The PACITA practitioners training seminars

The need for an integrative and systematized training of TA professionals has been recognized some fifteen years ago by the European Parliamentary Technology Assessment (EPTA) network. Since the end of the 1990s, EPTA organizes TA practitioners' meetings once in every two years. Each workshop is hosted and organized by a different EPTA member. Themes address common aspects of TA work, such as determining TA-relevant issues, defining TA projects, communicating TA results, and so on.

The PACITA project continued this tradition by organizing four practitioners' training seminars, which took place between September 2012 and September 2014. Each seminar lasted three days and gathered about 30 TA professionals from all over Europe. The seminars were open to all institutes that perform (or that intend to perform) TA, regardless of whether they are involved in the PACITA project. PACITA covered the costs of the host, as well as travel and accommodation expenses of PACITA partners (others had to pay from their own funds).

The trainings were designed to address the four main stages and the major challenges that project managers face when they run TA projects:

- ▶ The first essential challenge that TA practitioners have to deal with is the identification and framing of the issue to be addressed. TA projects have to be based on a prior monitoring process of science and technology innovations and of their societal implications; the social and political context has to be clarified as well. During the first training seminar, participants worked on case studies and shared experiences on how they select and define TA-relevant issues.
- A second challenge lies in the selection of a relevant method or relevant methods for meeting the project's goals. This issue was addressed during the second training seminar as participants worked through fictive (but reality-inspired) case studies that featured a contentious TA topic and that demonstrated the complex linkages between societal challenges, technology options and policy solutions. Specific application strategies, complementarities of different TA methods, methodological planning and project designs were then explored in greater depth.
- ▶ During the course of TA projects, various stakeholders need to be involved, which is a challenging task for TA professionals. The third

- training seminar focused on questions: Which actors need to be involved in TA? Why and how are these actors important? What is their role? What are the main challenges for engaging them?
- ▶ And last but not least, as TA aims at advising policy making on technological and scientific issues, TA practitioners have to communicate the results of their projects. Communication strategies and tools for communicating the results of a TA project were the central theme of the fourth practitioners' meeting.

All the trainings involved intensive group work, plenary presentations and plenary discussions. This proved to be a particularly inspiring experience for newcomers in the TA community, as they could gain insights into the practicalities of doing TA and integrating science and technology into social discourses, public policies and decision making. More experienced TA professionals also could gain practical knowledge for their daily work and extend the professional network they can rely on for future activities. When the participants were asked about the benefits of such trainings, two thirds of them indicated that they had gained new knowledge on TA and half of them indicated that they had learned new TA skills. Most of the participants said that they extended their professional network and found inspiration and new ideas for their work. On average, respondents rated the usefulness of such meetings 5 on a scale from 1 to 6.

### Expanding the TA landscape through training

In many countries where no institutionalized approach to TA exists, we can find organizations implementing TA-like activities such as foresight projects and inter- or trans-disciplinary researches or participating in European initiatives that involve the use of technology assessment methods. Yet, in order to be able to lay the groundwork for knowledge-based policy making in these countries, it is important for these organizations to increase their understanding of how TA is done in different political settings so that they can support the process of expanding TA in their own countries.

The PACITA practitioners' training seminars proved to be very helpful in this respect. Interacting with professionals from already established TA institutions and listening to their experiences in TA during the training sessions was a great learning opportunity for 'newcomers' in the field. They could get to know the criteria used to select and frame the issue under scrutiny, different approaches for selecting relevant TA methods, the available input and needed outcomes and various other factors. The participants could also learn about when and how to involve stakeholders, civil society and policy makers in the TA processes and how to communicate the achieved results. Some of the major insights in this respect concern the role of actors, which is liable to change over time and over the different project phases; the potential conflict between evidence-based policy making and the political agenda of policy makers; the importance of making the policy cycle transparent to the stakeholders who were involved; and the difficulties in initiating dialogue among the stakeholders and the importance of using appropriate language for communicating with politicians and citizens. In this respect, practitioners' meetings proved to be especially fruitful to those who are looking for national proponents of TA within their own countries and attempting to demonstrate the relevance of TA in their national contexts. Not only could partners from countries with no TA traditions learn first-hand from the experienced partners, but also they could expand their network and thus strengthen the foundation for successfully establishing and implementing TA in their country.

### Review and perspectives

When we look back at PACITA TA training seminars (as well at the past EPTA practitioners' meetings), such events bear significance for both established TA institutes and organizations that are developing TA activities in their country or region. However, organizing such trainings implies the availability of funds not only for the organizers but also for the participating organizations. Whereas established institutes may have the resources to organize practitioners' training seminars and finance the participation of their staffers, the situation is more problematic for institutes which have scarce resources. The fact that the European Commission provided funds to the PACITA consortium to organize such a series of events was clearly an advantage, as all member institutes of the consortium could send their staffers regardless of their financial situation. Supporting the organization of training events that help with building specialized and policy-relevant knowledge and skills, such

as TA, could be prioritized in the European research and innovation programmes. By this, the European Commission will stimulate continuing collaboration among diverse organizational partners and will also include a larger set of practitioners. Not least, however, such a high-level programming commitment will additionally legitimize the application of TA methods in support of policy design and development regarding science, technology and innovation.

For the future, it might also be worthwhile to look for new tools for knowledge transfer that complement the training seminars. Such tools would be important to make the topics presented and discussed during the training seminars accessible to a wide audience of professionals, and also to deepening their knowledge on certain aspects of TA or specific TA methods. In that respect, a series of manuals or best-practice reports could be initiated. New online tools may also be developed.

The issues to be addressed in training, be they in the form of seminars or of written tools, are manifold. The idea of covering the major steps of a TA project in the four PACITA training seminars has been considered by the participants as a meaningful approach. However, participants suggested additional topics of interest, such as determining which are the most pressing issues to which TA could contribute (technology scanning), presenting current TA projects and different TA organizational settings, discussing the specificities of TA project management, exploring possible ways of collaboration between TA institutions and assessing the role of TA contributions for the governance of science and technology. Some participants also suggested integrating better the needs and expectations of the decision makers, who are the end-users of the TA activities. There is obviously a need for TA professionals not only to learn about and share what technology assessment is and how to do it but also to meet with and learn from their addressees. Similarly, the idea of inviting journalists has been raised; their presence would provide an 'insider' perspective on ways to go public or, in some cases, to enable journalists to understand better the communication aspects of a TA project.

The PACITA practitioners' meetings had the particularity of being practice-oriented: concrete TA projects were presented in terms of good practices, and activities were proposed to participants. When ask about this format, three thirds of the participants of the PACITA training seminars wished that future practitioners' trainings would dedicate more time to theoretical aspects of TA or the topic at hand, and more than three quarters would like to have more time for the discussion of case

studies in terms of best practices. This demand for more theoretical and case study presentations actually calls for complementing the practitioners' meetings with written material that presents theoretical aspects of TA-as-a-practice as well as case studies and best practices in a comprehensive and accessible way. Thus, TA-relevant knowledge would persist and could be utilized in subsequent projects.

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