Bridging gaps and squaring circles: attempts at a cross-European technology assessment

Policy-Oriented Technology Assessment Across Europe: Expanding Capacities Palgrave

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Technology assessment (TA) has never opted for an ivory tower position. From its very beginning, TA has been institutionalised as an undertaking that bridges technological expertise and scientific methods, societal concerns and political rationales. Already in the wake of the establishment of the U.S. Office of Technology Assessment (OTA) in 1972, it has been explicitly stated that TA not only represents "a class of policy studies which systematically examine effects on society that may occur when a technology is introduced, extended or modified" (Porter et al. 1980: 3, op. cit in Vig and Paschen 2000: 4), but also that the institutionalisation of parliamentary TA has the explicit ambition to "strengthen the role of the Congress in making judgments among alternatives for putting science to work for human benefit," (Daddario 1968: 202-203, op. cit. in Vig and Paschen 2000: 3), or, in more abstract terms: to not only *add to* but to *interfere with* the existing science and technology policy

landscape so as to make a societally robust steering of innovation more feasible. With this twofold conception, parliamentary TA (PTA) as represented by the OTA serves two clients: one informally by its mission (society at large) and another one formally by providing information (Congress).

OTA now is history; a number of European parliamentary and non-parliamentary TA institutions have followed its example, varying the initial themes and organisational modes in diverse national and historical contexts. We can draw on several comparative treatises that highlight similarities and differences, historical continuities and shifts within the international TA landscape. We can also look back on accentuated debates about the feasibility, quality, legitimacy and impact of TA (for both see Bröchler et al. 1999; Vig and Paschen 2000; Decker and Ladikas 2004). And while all these analyses and debates point at fundamental tensions and ambiguities in institutionalising and performing TA, they also – or even more so – tell us a lot about the local and historical contexts of TA, that is, about diverse and changing technology policy regimes, including the institutional landscapes, power constellations and discourses.

With "Policy-Oriented Technology Assessment Across Europe", the main publication of the project PACITA ("Parliaments and Civil Society in Technology Assessment", funded from 2011 to 2015 within the European Union's Seventh Framework Programme (FP 7) and gathering representatives of several renowned TA institutions in Europe) we are served with a further, contemporary take on these themes. It is especially the first two texts (introduction and first chapter) that explicitly address general challenges and ambitions of a cross-European TA and call not only for an expansion of the TA landscape but also for a re-conceptualisation of TA against this background. The quality of these two texts is to pay close attention to the specific policy regime a cross-European TA is embedded in and has to answer to. Notably,

this new variant of TA is not only conceived of as adding to and interfering with the existing science and technology policy landscape, but is characterised by at least three further crucial aspects: (1) PACITA was commissioned within the European Union's 7th framework programme for funding research and innovation (FP 7), its only formal mandate was to report to the European Commission; thus, its immediate client differs from established national parliamentary TA institutions and it is only loosely connected to the project's activities. (2) Beyond this immediate client, PACITA is confronted with a pluralisation of additional instrumental connections and of power relations it interferes with: with an objective to encompass the national as well as the European level the list of optional clients includes individual national parliaments as well as the European parliament; with an approach that amalgamates instrumental as well discursive conceptions of TA, the list of optional addressees includes parliaments as well as civil society at large. (3) The discursive propagation of science and technology as *the* central factors in building our society's future within FP 7 and beyond ties TA activities in a new way to much more general, genuinely political, questions. Given these three specificities of PACITA and its take at a cross-European TA, it is very understandable that the authors "[push] the concept of TA beyond its traditional limits" (p. ix) and opt for a re-definition of TA "along informational and relational terms" (chapter 1).

In their programmatic introduction, Rasmus Ojvind Nielsen and Lars Klüver, both from the Danish Board of Technology Foundation, zoom in on the potential specifics of the envisioned 'cross-European technology assessment', for which PACITA is invested with an experimenting and initiating ("seed sowing") function. The stated hopes for this new mode of TA are high and resonate with an ambition to interfere with the existing science and technology policy landscape and beyond: cross-European TA should not only serve as a "European wide support system for broadening the knowledge base of policy making in

Europe" (p. 5) and strengthen national parliaments as remaining "privileged fora for maintaining true European democracy" (p. 9), but also "[enhance] the connection between parliamentary debates and European developments" and support "the emergence of a true 'European public'" (p. 12). High also are the challenges enlisted by the authors: they range from a lack of a common mandate from the parliaments involved in PACITA, to the necessity of "squaring the circle of democratic involvement in centralized European policy making" (p. 7) and a contemporary routine of "consensus-building that centres on 'necessary' rather than 'wished' policies" within the European Union (p. 9).

"Bridging gaps to square circles" is a theme also to be found in the first chapter (Rinie van Est, Michael Nentwich, Jurgen Ganzevles and André Krom; Rathenau Instituut and Institute of Technology Assessment of the Austrian Academy of Sciences), that introduces an "understanding of TA in relational terms", an understanding that resonates with the specific amalgamation of instrumental and discursive TA approaches propagated in PACITA. Accordingly, specific TA institutions can be affiliated in different ways and to different degrees to "parliament", "government", "society" and/or "science and technology". The chapter comes up with five distinct types of affiliation to be found among contemporary European TA institutions. The authors also aim at inspiring the foundation of new TA institutions by acknowledging the many different ways in which TA can be set-up. What they leave open is who should decide which option is suited "to make the best of the opportunity structures that exist in each individual country" (p. 20) and whose interests will best be served by each choice. For such a critical analysis it would be necessary to re-open the black boxes of "society" or "science and technology", drawing on the more differentiated and qualitative empirical data that fed into the aggregated quantification of each relation. Thus, concrete actors and prevalent stakes and interests within the aggregated actor fields would again come to the fore; the rightly inferred difference between the institutional, organisational and project

level (supplemented by references to "personal links" and "personal contacts" in some instances, cp. p.18 and p.34) would not be glossed over too quickly. Also, the later (chapters 2 & 3) categorical differentiation between "PTA" and "non-PTA", "TA" and "non-TA" countries is probably less helpful than hindering in the national case studies on the (non-)establishment of TA.

Overall, this volume, the ambitious project and the sincere conceptual struggles it stands for, can be seen as a valuable source when it comes to translating our conception of TA to a contemporary, cross-European model. Further chapters present many more issues than can be discussed here – some of them of a distinctly methodological nature, addressing practical questions of performing participatory cross-European TA with an orientation towards publics and parliaments, but with the potential to raise further fundamental questions[1]. As such, the volume can also serve as a good follow up on an earlier conclusion that "[i]t seems more adequate to capture policy advice qua TA as a reciprocal learning process between politics, science and society" (Bröchler 1999: 63, English translation by the author). This learning process is clearly still as lively and rewarding as in the beginning of TA.

Bröchler, S. (1999) 'Wissenschaftliche Politikberatung und Technikfolgenabschätzung und – bewertung (TA)'. In: Bröchler S, Simonis G and Sundermann K (eds.) *Handbuch Technikfolgenabschätzung*, pp. 53–64. Berlin: Rainer Bohn Verlag.

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[1] The strong emphasis on the production of new knowers rather than new technoscientific knowledge (cp. chapters 6, 7 and 8) seems somewhat anachronistic in the present innovation regime at a first glance. At a second glance, it hints at a stabilising division of labour between the production of de-contextualised technoscientific potentials and the re-contextualisation of these potentials along scientific, economic and civic rationales.

Bröchler, S., Simonis, G. and Sundermann, K., eds. (1999) *Handbuch Technikfolgenabschätzung*. Berlin: Rainer Bohn Verlag.

Decker, M. and Ladikas, M., eds. (2004) *Bridges between Science, Society and Policy Technology Assessment – Methods and Impacts. Wissenschaftsethik und Technikfolgenbeurteilung*. Berlin: Springer Verlag.

Vig, N. J. and Paschen, H., eds. (2000) *Parliaments and Technology*. Albany, USA: State University of New York Press.