The future of the European Research Area – The four VERA scenarios and their use for policy-making

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Background

ERA was defined in 2012 as a “unified research area open to the world based on the Internal Market, in which researchers, scientific knowledge and technology circulate freely” (European Commission). Five key priorities have been identified to focus the ERA-related efforts:

- more effective national research systems
- optimal transnational co-operation and competition
- an open labour market for researchers
- gender equality and gender mainstreaming in research
- optimal circulation and transfer of scientific knowledge.

ERA is supposed to strengthen not only scientific and technological capacities, but also competitiveness (including growth and job creation) and the ability to respond to global challenges.

Policy-driven endeavours like ERA do not unfold in a void, but are situated in, respond to and act upon, contexts which change over time. Likewise, institutions related to ERA change over time. It is against this background that the “Forward visions of the ERA” (VERA) project set out to produce strategic intelligence for the current and future governance of ERA. It did so employing foresight methodology and, more concretely, producing four scenarios for ERA in 2030. In developing and assessing these scenarios, the project team engaged with a number of stakeholder groups in a structured dialogue.

This policy brief introduces the various outputs of the dialogue process and illustrates how they can be of use for ERA-related policy-making at European Union and EU Member States level beyond the VERA project lifetime (VERA ended in January 2015).

Usage case 1: The VERA scenarios

One of the core outputs of the VERA project is the scenarios themselves. Each of the four draws a picture of how the European research,
technology development and innovation landscape might be governed in the future. In addition to considering a number of macro-trends, the scenarios are constructed from factors that stakeholder representatives considered relevant for the future of ERA governance (e.g.: the emergence of new types of research institutions, companies’ strategies, etc.; cf. Teufel et al. 2013 for details on the scenario development process).

The scenario development process in general was characterised by the involvement of a variety of stakeholder groups (from research policy, funding, research performing institutions, NGOs, etc.). A part of the merit of scenario-based thinking about the future lies in the strategic conversation between stakeholders in the process of their development (van der Heijden 2005). Constructing and developing scenarios is as much part of scenario learning (Fahey/Randall 1998) as is the use and integration of scenarios in decision-making processes. However, the “consistent images of possible futures” (Ringland 2002) produced by the VERA project can readily be used as input for additional strategic thinking, even if their development is concluded technically. Discussing and, thus, “activating” them at, for instance, strategic debates conducted or organised by research policy-making institutions makes it possible to generate some of the reported benefits of scenario development: structured deliberations of expectations, the forming of a shared language across groups of actors, the raising of awareness of upcoming challenges, or the sensitisation of individual and institutional perceptions towards certain possible future situations (cf. da Costa et al. 2008; Schirrmeister/Warnke 2013).

In order to facilitate this use of VERA’s 2030 scenarios of ERA governance, we invite readers to skim through these summaries of the four scenarios. The full versions including illustrated film clips for each scenario can be found at www.eravisions.eu. They are in the public domain and can be used at stakeholder events.

**Scenario 1: Private Knowledge - Global Markets**

In this scenario, today’s European Research Area gradually evolves into a Global Innovation Area, where research is mainly legitimised by its contribution to innovativeness, competitiveness and growth. As a result of limited public funds, growing inequalities between Member States and the jostling for political influence within Europe, private actors, mainly enterprises, dominate the financing of the research landscape and thus the setting of research priorities. The coordination and integration of
worldwide research, technological development and innovation are primarily managed by global, vertical networks and value chains.

**Scenario 2: Societal Challenges – Joint Action**

EU Member States have become increasingly open to collective action to tackle societal challenges such as climate change or health protection. Joint Actions emerge as large programmes, with large public investments in R&D complemented by NGO investment and activities, and a greater role for regions. The role of the European institutions becomes increasingly important, and this leads to a substantial change in the governance system, with the European Parliament taking a central policy role.

**Scenario 3: Solutions apart – Local is beautiful**

This scenario captures the vision that today’s understanding of progress is transformed into a human-centred rationale, where e.g. happiness and quality of life are operationalised into new measures of progress. Research and innovation in Europe are transparent and open to individual or societal needs, in particular regarding new ways of living together, health or data privacy. The main new element in the governance of research, technological development and innovation is the increased participation of citizens. The open landscape for research, technological development and innovation provides a good basis for close ties with society around micro/regional level activities where society can become involved and/or invest in research and innovation activities.

**Scenario 4: Times of Crises – Experts at the Helm**

This scenario takes up the idea that today’s economic rationales (jobs and growth) have been transformed into an approach where a sustainable development path is viewed as the main rationale of progress. European-level coordination and policies play a strong role in steering research, technological development and innovation towards the overall goal and, at the same time, in worldwide networking and managing international collaboration. Experts play key policy roles by becoming heavily involved in policy definition and implementation. Research is funded by a wide range of actors who define programmes primarily to deliver useful outcomes for sustainable development. Private and public sector research
around the globe is increasingly complemented by “citizen science”; as a consequence, the role of the “expert” extends and expands significantly.

These scenarios aim at inspiring structured and visionary thinking about future research, technology and innovation governance in Europe. They can be used (in presentations, in world cafés or focus groups, on intro notes, posters, etc.) by individual stakeholders or in group processes in this short form, as well as in their long forms or with videos and additional material available on www.eravisions.eu.

However, the “raw” scenarios are not the only input VERA can provide to European research and innovation policy makers. The VERA team has put some efforts in assessing the scenarios from two angles, one stakeholder-based and one expert-based.

**Usage case 2: Stakeholders’ reflections on the scenarios**

With the scenarios at hand, the VERA project team conducted a number of so called “Strategic Debates” with seven different stakeholder groups: society actors, university and research actors, industry actors, research funders, coordinators of ERA actions and networks, policy-makers and international actors. In total, 123 participants from 28 countries joined one of the seven focus group discussions and/or a stakeholder symposium. Based on these debates, the VERA team then prepared the ERA Strategy Map report (Popper et al. 2015a, presenting the outcomes of the debates with this group) plus an overview policy brief (Popper et al. 2015b) and the ERA Open Advice Report (Popper et al 2015c), all of which are available on the project website.

The policy brief (ibid.) on “Evolving Dimensions of the European Research and Innovation Landscape” and the ERA Open Advice Report present stakeholders’ rethinking of the ERA agenda and priorities. They argue that the current ERA priorities should be further pursued, but that they are too limited and not flexible enough. Among the dimensions that have been identified as missing in the ERA discourse so far are the following:

- boosting research and innovation synergies
- strengthening the global influence of ERA
- promoting smart R&I evaluation
- improving the governance of the EU R&I system
- fostering relevant science-society engagement
- developing attractive and impactful research careers
- supporting knowledge co-creation and sharing
- achieving gender equality and social inclusion in R&I
- reinforcing ERA regional and local outreach

Each of these dimensions is presented in further detail in the above-mentioned documents. The dimensions can inspire and inform debates of decision-makers at various levels as to what issues can and should be addressed in ERA.

**Usage case 3: Lensed” scenarios: policy issues identified**

The implications of the VERA scenarios for today’s policy-making have also been analysed according to a so-called “policy lensing” approach (Robinson et al. 2014). This approach has been designed to translate the often rich and complex outputs of foresight exercises into strategic policy intelligence. The VERA experts (Robinson et al. 2014) behind this approach try to extract, from the scenarios, key features that speak to policy-shapers (as they call them in broadening the notion of policy-makers to include users and appliers of policy).

Three “lenses” have been applied to each scenario:

- The first lens focuses on the priorities and goals of today’s policy-shapers: competitive innovation environment (framework policies); strong science base (basic and fundamental research policies); addressing societal grand challenges (mission-oriented policies).
- The second lens takes into account that policy is developed and implemented in different functional spaces that need to be considered separately. Barré et al. (2013) differentiate three layers: the orientation layer (definition of policy objectives, etc.), the programming layer (funding) and the performance layer.
- The third lens focuses on the question which forms of Europeanisation are possible, desirable and necessary in each of the scenarios: integration and full delegation of decision-making to the European level; coordination and joint decision-making; or juxtaposition and non-concerted action.
Every scenario has been assessed through each of these lenses. The result is an enriched and policy-focused scenario text and a list of key features for policy consideration. The complete enriched texts for each scenario are available on our website and in the report by Laredo et al. 2015 and can be used to inspire structured policy discussions.

The Policy Brief “European Research Area at Crossroads” (Molas Gallart et al. 2015) summarises the main findings from the policy lensing approach. It highlights the fact that the different political and societal contexts as defined by the scenarios shape the way in which problems are perceived. This has an effect on the role of science and technology in society and on the actors involved in research and innovation and the policies governing R&I. Thus, we need to think twice about our current assumptions underpinning R&I policies today. Moreover, although the policy context for European research and innovation will be quite different within two decades, our current policy decisions will shape such a context; “what we are doing today opens and closes options for the future” (ibid. p. 2). In this respect, the VERA analysis alerts us to the importance of framework conditions and to their profoundly political nature. “In other words, the framework conditions posed by IPR regulations, standards, and procurement regulations are in need of further development, which will be aligned with specific political objectives” (ibid. p. 3).

**Concluding comments**

In this short policy brief, we have presented guidance for research and innovation policy makers interested in benefitting from the strategic intelligence generated by the VERA project. We invite you as the readers to skim through this document and then to follow the leads to the documents and material most valuable to your needs. We hope you agree that the project outputs can provide food for thought, inspirations for policy debate and design, sensitisation to future contexts for European research and innovation policy-making, as well as insights into stakeholder views.
References


• van der Heijden, Kees (2005): Scenarios. The art of strategic conversation, Second, Chichester: John Wiley & Sons


• Schirrmeister, Elna and Philine Warnke (2013); Envisioning structural transformation — lessons from a foresight project on the future of innovation, in: Technological Forecasting and Social Change, 80(3), 453-466.