



Grand societal and economic challenges: a challenge for key actors in the Norwegian knowledge and innovation system

Opinion Piece

STEFAN KUHLMANN,
professor,
University of Twente

ARIE RIP,
professor,
University of Twente

sen knyttet debatten til en aktuell norsk problemstilling da han benyttet anledningen til å kommentere Produktivitetskommisjonens syn på forholdet mellom fri og temastyrt forskning. Temastyring er legitimt, påpekte han, med kritisk brodd mot kommisjonen, men brede føringer er bedre enn smale, og det er viktig med god balanse mellom frihet og føring i den samlede porteføljen.

Debatten ble brakt tilbake i et faglig spor, med innlegg om foresight, interdisiplinaritet og offentlige innkjøp – som alle på hver sin måte kan være egnede verktøy i en forsknings- og innovasjonspolitikk for å løse samfunnsutfordringer. I sitt innlegg understreket Jakob Edler at det er viktig å skille mellom bruk av offentlige innkjøp for henholdsvis innovasjonspolitiske og utfordringsrettede formål.

Sverker Sørin avsluttet med et overgripende, epokalt perspektiv på betydningen av at forsknings- og innovasjonspolitikken nå søker å adressere virkelig store samfunnsutfordringer. Han så i dette overgangen til et nytt politisk regime som avløser det nyliberalistiske – i det nye regimet vil endring, transformasjon og omstilling måtte gjennomsyre alle kunnskapsprioriteringer.

Det var altså et stort antall spørsmål over et stort spenn som ble berørt i løpet av konferansen. Jakob Edlers påpeking et annet sted i dette nummer av *Forskningspolitikk* kan egne seg som oppsummering: «The Grand Challenge notion is indeed a term that means different things to different people».

Norway has an advanced, well performing knowledge, research and innovation system. Still, key actors in the system sense that major challenges have to be addressed, on the one hand the Grand Societal Challenges (such as health; ageing; food; energy; climate change; inclusive societies), often of a global character, and on the other hand national challenges of value creation and employment, also in the longer term, for a post-oil Norway. Yet, while their urgency is widely recognized, it is not easy to address them. The challenges are complex, require contributions from many actors, and it is not clear which actor or consortium of actors should have a major responsibility.

The key point we make is that the temptation should be withstood to address Grand Challenges simply as a matter of setting political priorities, or as launching traditional mission-oriented public programmes for research and innovation. Grand Challenges are open-ended and they play out at the system level; often they require system transformation! While well-proven policy instruments can still have a role new approaches and policy instruments are essential, in particular creating spaces for a pro-active collaborative involvement of the public sector, industry, civil society and philanthropic organizations. In the Government's Long-term Plan for Research and Higher Education, they now mention «collaboration arenas for coordination and implementation»; this should become the guiding principle for addressing Grand Challenges rather than traditional top-down coordination efforts.

We are talking of new constellations of actors and interactions to be explored and exploited. They require «concertation», articulating and coordination work that goes into eventually achieving concerted efforts.

There are actually steps in this direction. The so-called «21 Strategies», initiated by Ministries, but in some cases with a broader

scope of actors involved, could be seen as first steps towards concertation, even if their outcomes are sometimes quite traditional. Other actors can play such a role, even if they do not have a formal role. Elsewhere, we have shown that charitable foundations can play such a role. Other novel actors would be a health-oriented organization like a cancer society, or a sector organization of knowledge and technology oriented firms, and other organizations.

There are two more challenges in addressing Grand Challenges in a knowledge, research and innovation system as in Norway. One challenge is the difference between the worlds of academic research («excellence») and of industrial or social innovation («relevance»). Here «bridging» efforts are required as well as the development of new competencies in assembling relevant knowledge and experience, as it were a further mode of knowledge production. Several of the European Joint Technology Initiatives – bringing together not only academia and industry but also societal organizations, regulators, etc. – could serve as an inspiration.

The other challenge is that one cannot simply derive what to do by specifying the problem and developing a diagnosis. Grand Challenges are open-ended, and learning about the nature of the challenges and how to address them must be an integral part of any strategic effort. Not only are there different viewpoints and contestations (as in climate change), but also learning over time what the challenge is about (this is clear, for example, in the issues of ageing societies). Any priority setting will thus be provisional, and should be accompanied by regular evaluation of what has been learned about the Grand Challenges and ongoing transformations.

Finally, there is a challenge which is not specific to Grand Challenges but to the Norwegian knowledge, research and innovation system. As a small country Norway is surrounded by, embedded in and to some extent driven by larger social and economic developments, in Europe and globally. Consequently, political «concertation» and coordination efforts in Norway would have to include vivid interfaces with global partners.