

## **Research to change the world**

*By Torbjørn Røe Isaksen, Minister of Education and Research, and Carlos Moedas, EU Commissioner for Research, Science and Innovation*

**The Kavli Prize is awarded today. The laureates' work demonstrates that excellent research backed by broad science cooperation can change the world.**

The Kavli Prizes for astrophysics, nanoscience and neuroscience that are handed out today in Oslo are a testimony of how the ways of doing science are changing globally.

The big breakthroughs that contribute to Europe's knowledge economy – and to solving global challenges – now come not from one person, or one university or one nation. Science is now a global endeavour that needs a global outlook to succeed.

The nine outstanding researchers who will receive cash prizes totalling \$3 million today also worked in league with hundreds of other scientists all over the world for major discoveries, such as the recent detection of gravitational waves – fluctuations in space time that move as waves at the speed of light –, which were predicted by Albert Einstein 100 years ago.

Norway is, without doubt, among the leaders of the global trends towards open science based on a broad collaboration of scientists across the globe. The government of Norway also understands that the revenues from exporting oil and natural gas will not last for ever; therefore it is investing heavily in research as a key component to an evolving competitive and innovative society that can respond flexibly to changes in the global economy and societal values.

This approach makes Norway a key partner of the EU in research and innovation. The country is an active participant in Horizon 2020, the EU's €77 billion research funding programme that runs between 2014 and 2020. For Norway, the participation helps promote quality, grants access to networks and showcases the excellence of Norwegian research communities. For the EU, the partnership is a way to tap into Norway's excellent science base.

Through participating in Horizon 2020, Norway also partakes in the EU's efforts to make Europe the first region of the world where open access is the norm for all scientific publications. This strategy was endorsed by EU science ministers in May, and now Horizon 2020 – the largest public research funding programme in the world – is to introduce open data as a default from 2017 for all projects funded under the scheme.

Overall, more than 15% of Norwegian participants have succeeded in getting funding from Horizon 2020. The government of Norway has recently set the goal that the country should succeed in absorbing 2% of the funds available in open calls under Horizon 2020. Compared to the country's 1.67% share in the previous seven-year research and innovation framework programme (FP7), this target would involve an increase of 20% in the level of funding received by Norwegian participants.

This is as an ambitious but achievable goal. However, this may require mobilising researchers in all sectors in addition to continuing the good work that Norway has achieved in areas including medicine, engineering, agricultural and biological sciences, biochemistry, genetics, molecular biology and computer science.

Energy security and the transition to a sustainable and low-carbon energy system are certainly among the topics where the EU and Norway could scale up cooperation. And in social sciences, the need to formulate evidence-based policies and strategies to tackle the current migration crisis, calls for more joint work with Norwegian scientists.

In Norway, the debate over the mechanism on the framework for research which will succeed Horizon 2020 has already started. We meet in Oslo today to discuss, amongst other things, what role Norway can have in the work towards the next framework programme. Without doubt, the focus on excellent research communities and open science will continue.