

THE FINNISH ACADEMY OF SCIENCE AND LETTERS' SECRETARY GENERAL,  
PEKKA AULA, ON A MORE OPEN DIALOGUE WITH THE PUBLIC AND ENHANCING  
CO-OPERATION BETWEEN THE SSH AND OTHER SCIENTIFIC AREAS

# Opening up

**T**he Finnish Academy of Science and Letters is the largest general scientific and academic society in Finland. A learned society covering the full range of academic disciplines, it is devoted to the promotion of scientific and scholarly research and serves as a bond uniting researchers engaged in these activities at the highest level.

Pan European Networks spoke to the academy's recently appointed secretary general, Professor Pekka Aula, about how he hopes to foster a more open dialogue with the public and, indeed, how an enhanced level of co-operation between the social sciences and humanities (SSH) and other scientific areas can help bring down barriers to collaboration and aid in addressing societal challenges.

## How would you describe the main role of the academy today, and how has this evolved?

The academy was founded in 1908, and with a history stretching back over 100 years, we have a lot of experience and knowledge to share. However, I think that it is fair to say that the last couple of decades have not seen us at our most active, and we are now working to change that.

## Was there a reason for that inactivity?

There wasn't a single reason; it was perhaps simply the way that the academy had grown to a certain point. Nevertheless, things are changing, and one of the main ways that we are looking to bring about this transformation is via an increasing focus on openness and the way in which we engage with society at large.



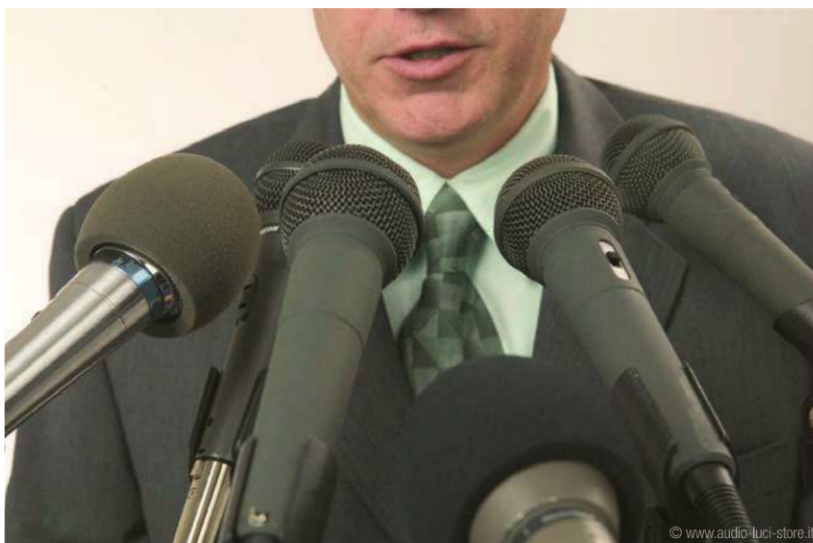
Professor Pekka Aula

A significant part of this will involve embracing the concept of 'science for society', and we will strive to become much more interactive in how we approach and communicate our activities, whether that be to our colleagues within the research and development environment, with society, or with the government, or indeed any other actors. It is an exciting time for us; the Finnish Academy of Science and Letters is on the cusp of a new era.

It is for that reason, amongst others, that I am excited to now lead the academy together with the board into this new era, particularly as this is such an exciting time for scientific research in Europe in a general sense.

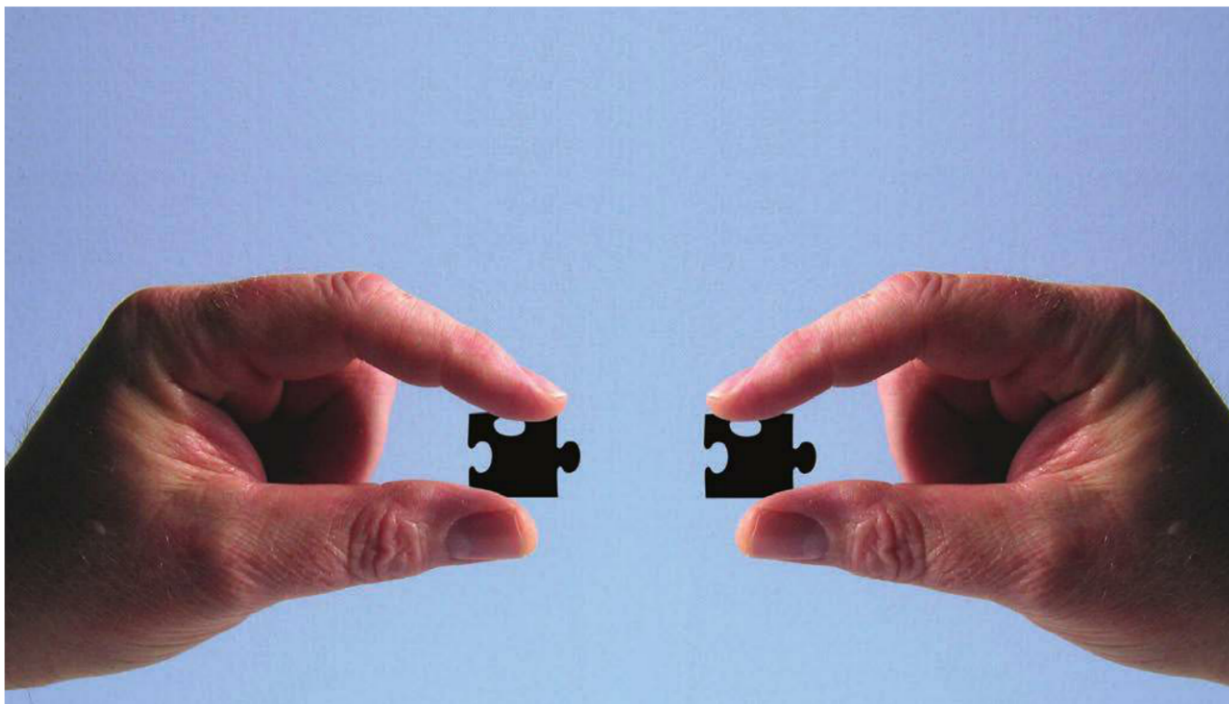
Throughout my own career, much of my work has been based on organisational communicational studies, within which I have studied the concept of organisational reputation. Applying this to science in an effort to better understand the reputation of science today, it becomes clear that science is, or at least has been, too introverted, in the sense that it has been too closed off, with the scientific community only tending to talk amongst themselves. A result of this is that science's reputation, in a general sense, has suffered. If we want to change that, we must become more open, and we simply must begin to communicate more effectively with the general public and with other stakeholders.

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## Do you feel that social media – and perhaps the wider rollout of ICT and internet access – has played a role in making the public much more interested in science and, indeed, much more interested in where and how their money is being spent when it comes to scientific research?

Yes, definitely; and this is a good thing because it is teaching the scientific community to open its doors and to communicate its results.



However, the advent of social media can also have negative consequences, in that it can often be difficult for the public to distinguish between the views and standpoints of the professional research community and those citizens who are less informed.

A good example of this is the debate that Finland saw around vaccination programmes, whereby the general Finnish public were unable to differentiate between groups who were arguing that the vaccines would harm children should they be administered, and the advice of the experts who, of course, were extolling the health benefits of the vaccines.

There is perhaps a culture here of mistrust towards science, as well as a uniformed majority who feel that if they shout loud enough they will be seen as an expert, and, again, this can be remedied by a more open dialogue with the public, whereby they will become more informed about the work being done and how these results, and the applications that stem from them – be they vaccines or otherwise – can benefit them. The scientific community thus needs to be proactive rather than reactive, and rather than trying to shout louder than the naysayers, we need to demonstrate how positive science is, and, moreover, how the work we do offers significant benefits to everyone and their everyday lives. By doing this,

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we can perhaps (albeit slowly) change public perceptions and restore science's reputation.

#### **As the new secretary general of the academy, where will your priorities lie?**

In addition to taking a much more open and transparent approach to scientific research, we will be heavily investing in the next generation of researchers. For our young scientists the world of R&D can be both an unfamiliar and unpredictable place – particularly as many national research budgets are continuing to shrink – and we want to help make the future a little more stable for them as they take their first tentative steps towards becoming researchers. As an independent organisation we are not accountable to the government, meaning that we are in a great position to be able to achieve this.

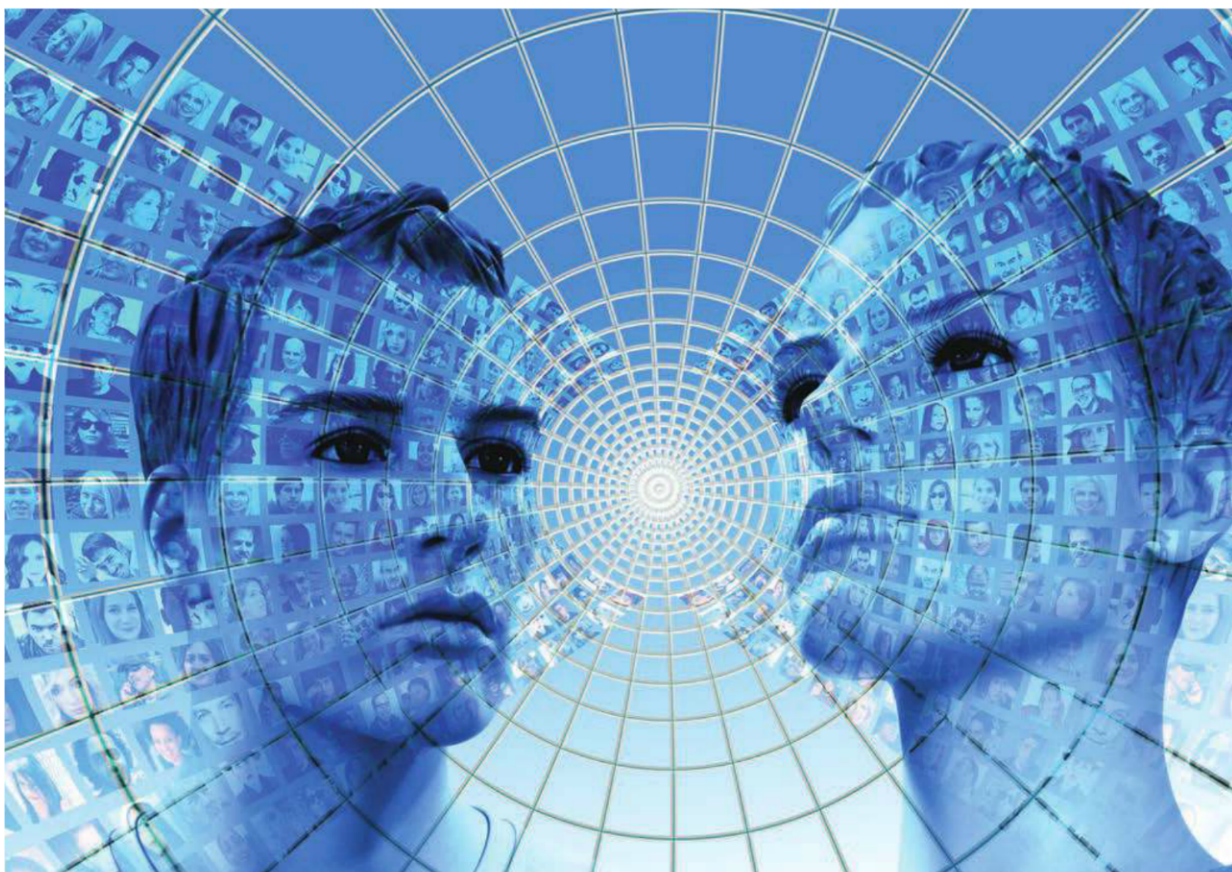
#### **Do you feel that many of the challenges faced by Finnish researchers are shared by those in the rest of Europe today, particularly with regard to young researchers?**

I do feel that the challenges facing the next generation of researchers are present across the whole of Europe, if not further.

In some quarters, the argument is made that there is in fact a 'war' in science, and while this is perhaps too strong a term, in Finland at least there does appear to be something of a persistent negativity in the way that science is being viewed. This is interesting to note because, in a general sense, science – no matter the discipline – is seen as being good for society and as bringing benefits. As such, this negativity, it appears, is symptomatic of the way in which R&D has almost been taking place behind closed doors, with results being kept away from public scrutiny and/or discussion.

This landscape is further complicated by shrinking research budgets and increasing levels of competition, particularly from some of the emerging





economies, all serving to make scientific research in Europe much more challenging than it has been in the past – and perhaps more challenging than it actually needs to be today.

**Given this complex and fluid R&D landscape, do you feel that the right amount of emphasis is being placed on researchers being able to demonstrate commercially viable applications of their research?**

There is an increasing sense that too much weight is being placed on commercialisation, and while this could be seen as a sign of the times – many research proposals now need to detail the outcomes before the research has even begun, which doesn't seem to make sense.

Of course, that is not to say that there should be no focus at all on commercial applications of scientific research, but that this should not be the core focus of *all* science, not least because most research quite simply takes time to conduct, and basic studies are needed to ensure that the foundations are there to bring about change and to foster innovation in the long term. Without blue sky thinking, the mill will keep turning, but nothing new will emerge.

Having been a professor for 15 years, I have witnessed the R&D landscape change from one in which proposals would be drawn up and submitted based on innovative ideas, to one where it is almost impossible to become a professor without successfully developing a lot of proposals and, effectively, bringing large amounts of funding into your establishment. While this does have a positive side to it too, there is

**The new generation of researchers is taking an entirely new approach to how they share their work and their ideas**

nevertheless the sense that there is indeed too much weight now being placed on the commercial side of things.

**The academy has, of course, two 'sections', one being science and the other humanities. How would you like to see – and perhaps foster – an enhanced level of crossover between these areas?**

There is a real need for a much greater degree of co-operation and for the breaking down of barriers between these two areas, and that is true not only for our academy but also in the scientific community more generally. Indeed, when it comes to addressing many of the societal challenges facing Europe today, it will be crucial to bring together these different fields.

The traditional reasons for keeping this separation no longer seem viable, and, as such, it is time for these barriers to be thrown down; we need the humanities, we need the social sciences, and we need the 'hard' sciences to work together if we are to make marked progress moving forwards.



Silos in general are restrictive – in terms of both creativity and output – but they do not appear overnight: once barriers are established, these will evolve over time into the silos that we see today, and once that mentality has been established it is very difficult to break free from them. It will therefore not only be important to bring these silos down, but also to ensure that no more come to replace them by making certain that no new barriers emerge.

**The European R&D landscape is complicated by shrinking budgets and increasing levels of competition, particularly from some of the emerging economies**

**What are your thoughts with regard to the social sciences and humanities within the European R&D landscape, including perhaps any comments you may have on the inclusion, or at least underlining, of the role of SSH in Horizon 2020?**

While the inclusion of the social sciences and humanities is, of course, a very positive development, there is perhaps a sense that the way in which this is being approached here is a little too prescriptive. That is, this kind of collaboration may work better if it is allowed to grow naturally – by bringing together smart, open minded, dynamic people to achieve a specific goal, and then providing them with the necessary infrastructure and resources, before allowing them to explore how best to address the problem themselves.

Horizon 2020, however, takes a more top-down approach, and this attempt at almost forcing co-operation could perhaps benefit from a more bottom-up methodology which would allow for a more organic and fruitful co-operation between fields which have, in a more traditional

sense, been seen as being disparate, such as is the case between SSH and other scientific disciplines.

That these scientific areas are able to work together successfully is already apparent in many instances – the Board of the Finnish Academy of Science and Letters, for instance, is composed of experts from numerous disciplines, and we work together very well – and so while there is a need for the barriers to be brought down, it is clear that in some cases this has already happened, and, moreover, the fruits of the enhanced level of co-operation are self-evident.

**What elements of best practice do you feel could be exported from the Finnish model, and where do your hopes lie for the future – specifically when it comes to the SSH element of the research base?**

Finland is, of course, a relatively small country, with a population of some 5.5 million. Yet, most of our universities rank relatively high in the world, so we are obviously doing something right. And while the silos persist here too, the new generations of researchers are playing an integral role in bringing down the barriers to co-operation (although, this is something that is presumably happening elsewhere, too).

The PhD and postdoctoral students with whom I have contact no longer recognise the silos that were established by – and perhaps before – my own generation; when they have a problem to solve they will simply seek the best possible people; they don't care about the barriers between faculties or universities. They are aware that people from the social sciences and humanities, as well as those from the hard sciences and, indeed, those who are working in relatively new areas such as Big Data, will bring with them a wealth of knowledge and, moreover, will address each challenge from a completely different direction.

It is also fascinating to see how this new generation is taking an entirely new approach to how they share their work and their ideas: they are much more open with one another, and when they have new ideas or develop new concepts or approaches they share them with their peers in the belief that everyone – themselves included – will benefit. This is a marked difference to how things were done in the past, and while, unfortunately, this may well mean some of them fall victim to those who may want to steal their ideas, for the main part this is a very welcome development to the way in which scientific research is now being approached.

Finally, the new generations are also becoming much more organised with regard to their activities; they are forming clubs or societies where they come together to share their ideas. This could perhaps be seen as a kind of 'scientific activism', and should be encouraged.

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