Kimmo Kaski

Greeting from the President

I am writing this greeting in English (translated into Finnish) to address both the ordinary and external members of the Finnish Academy of Science and Letters. The reason for this is that English has become the *lingua franca* of scientists, there is a growing number of foreign nationalities among our external members and resident ordinary members, and that the Academy has a strong international orientation in its activities. Next, I would like to tell who we are, what we do and where we are headed. After that I will discuss the challenges that lie ahead of us, and my trust in that science and scientists from a wide range of disciplines can together find solutions to these challenges. Finally I highlight some of our recent developments.

Since its foundation in 1908 the Finnish Academy of Science and Letters has been promoting scientific research and acting as a bond between those engaged in advanced research. Each year the Academy grants membership to several distinguished academics in recognition of their achievements in research. All new members are warmly welcomed to interact with their colleagues in our learned society of nearly 900 ordinary members of Finnish nationality or resident in Finland and around 170 external members of foreign nationality. For its members and the general public, the Academy organises meetings, discussions, and events, produces and releases publications and statements of opinion, comments on research-related matters concerning current topics of interest in society and - as its newest activity provides *science advice* to support sciencebased decision making.

The overall goal of the Academy's activities is well characterised by the motto "For the benefit of science - for the good of society". The way to achieve this goal was updated over a year ago such that the central driver of the Academy's future thinking and activities is the idea of *valuable and precious science*, which in its pursuit of truth, knowledge, and understanding is open, independent, and limitless. Valuable



science stands on the pillars of impactful science, collaborative science, sustainable science, and progressive science and it constitutes the Finnish Academy of Science and Letters' strategic focus for 2021-2024. In the following I will describe the roles of these four pillars in more detail.

At the heart of *impactful science* are the promotion of societal decision-making based on researched knowledge and the influence of policy decisions on science. The aim is to diversify the use of scientific expertise in advising on informed policy-making but also to increase the understanding of how science works and, in turn, enhance scientists' understanding of societal decision-making mechanisms.

Collaborative science stands for enhancing the interaction between the Academy and the rest of the national and international scientific community as well as for building a sense of community between scientists in order to improve interaction between them across disciplines and across the silos that separate disciplines. From the Academy's point of view it is important to encourage its members to get involved and participate in activities and their further development.

The key aim of *sustainable science* is to support and promote sustainable development in the areas of society, environment, and economy. In all these areas sustainability also entails participation in public debate and the promotion of sustainable development goals through science. Science itself depends upon sustainability, which is why the Academy works tirelessly to secure the basic conditions for doing science.

Progressive science carries an essential role in maintaining the development, credibility, and impact of science. At the same time, progressive science promotes research into sustainable development and helps to find solutions to new challenging problems, related to our living environment, socio-economy, and security. Progressive science is multidisciplinary, multimodal, and wide-ranging. In addition to a local perspective, which includes the individual and societal level, a global perspective of challenges is central.

In the midst of slowly simmering challenges like climate change, the past couple of years have been most exceptional for all of us, as we were hit and have since been coping with two shattering global-scale crises: the COVID-19 pandemic and Russia's brutal attack on Ukraine. Both crises have affected and continue to affect various aspects of our lives in terms of health, social life, economy, politics, democracy, and security. Yet more effects are to be expected, as these and other aspects of our personal lives and humanity are interconnected in a number of complex and intertwined ways.

The complex and multifaceted nature of a global crisis is exemplified by the COVID-19 pandemic, the waves of which different countries were initially fighting against with recommendations and restriction measures concerning personal hygiene, mask-wearing, keeping distance and lockdowns, curfews, travelling restrictions, testing, and quarantining. Then, as a real tour de force of science, targeted vaccines were developed surprisingly quickly. This made population-wide vaccination possible on a global scale, yet vaccination campaigns were deployed in different countries around the world at different times, paces, and under varying schemes.

While these measures have made the disease less life-threatening, they have not been able to eradicate it and new strains of the virus appear in sequence, causing waves of seasonal epidemics. Moreover, we have witnessed the emergence of further global-scale developments on the Internet and social media, such as anti-vaxxer movements, conspiracy theories, and a "pandemic" of mis- and dis-information. From a research point of view, these destructive developments fall outside the scope of medical and natural sciences and are better understood within the realm of social sciences and humanities.

Due to these multiple developments, the "tectonic plates" of our personal lives and the society are on the move, pushing us away from normality we are comfortable and familiar with, towards a yet unknown new normality where we must find ways to live resiliently. But how? This is a challenge for both researchers and decision-makers. The initial step in this search for resilience concerns the fact that in today's digitalized societies, a sequence of events in a local or global crisis produces a continuous stream of digital "footprint" data, which as such serves as a living laboratory platform to investigate and act on. The next step in this search is to recognise that global crises are multifaceted and complex in nature. Thus the approach must be multidisciplinary and involve interaction between many fields of research, collaboration of researchers across disciplines as well as setting new scientific paradigms and research questions. This will give insight into the properties and mechanisms of the crises, with

the help of which researchers and decisionmakers will jointly be able to devise ways to mitigate or alleviate the effects of a crisis.

The year 2022 is marked by the implementation of important 2021 decisions by the Finnish Academy of Science and Letters. In accordance with its renewed strategy focusing on impactful science pillar the Academy has taken over full responsibility to continuing and further developing the provision of science advice after the conclusion of the Sofi project, or Science Advice Initiative of Finland (2019-2021). This important outreach activity will now be greatly boosted by a EUR 1 million grant from the Jane and Aatos Erkko Foundation in May 2022 to the Academy to strengthen its mission in science advice and societal decision-making. There is no doubt that this decision will increase the Academy's influence and visibility, both nationally and internationally. 2022 also marks the implementation of another important milestone decision of the Academy, namely the reform by which the Academy will only publish one general science journal through the relaunch of its original series Annales Academiae Scientiarum Fennicae. Articles are accepted in Finnish, English, and Swedish, and all members - especially newly elected ones are encouraged to submit their current works to the journal.

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