

Stronger integration and dialogue between science and society for the SDGs

More than 70 high-level decision makers, scientists, NGO and funding agency representatives gathered to celebrate *20 years of KFPE Guidelines* at the conference “Leveraging Research Partnerships for Global Challenges”. A series of talks presented in three separate sessions addressed the following topics: (i) new roles and tasks of science in general and research partnerships in particular; (ii) regional adaptation of scientific systems; and (iii) how science policies and funding systems can support transformative research. Participants were left with one clear conclusion at the end of the 22nd November meeting: stronger integration and dialogue between science and society, including policy and business, is essential if we are to achieve the Sustainable Development Goals.

The formulation of research agendas has changed fundamentally in the 20 years since the KFPE’s Guidelines were drafted. Keywords such as ‘multipolar world’, ‘Anthropocene’, or ‘global transformation’ highlight such changes. In addition, our understanding of development has evolved markedly; today, all countries are considered as ‘developing’.

This does not mean that research partnerships today are fundamentally different than they were 20 years ago. However, research has become more complex and evolved to require a broader and more in-depth view of external determining factors. These include the research policy framework as well as the new expectations and tasks faced by and asked of research partnerships.

From ‘unequal collaborations’ to ‘mutual learning’

“KFPE and its thinking produced not only principles and guidelines, but have truly evolved into a movement”, underlined **Marcel Tanner**, president of the Swiss Academies of Sciences in his opening statement. “Past decades often were defined by unequal collaborations and partnerships, but we have moved towards establishing greater balance to reach the SDGs”, Tanner said. “We need to build on the process of mutual learning for change.”

“We need to live the innovation chain from research through to validation, and implementation. After defining the SDGs, the academic community must now establish a research agenda with critical questions to be addressed. Let’s formulate the questions and find the answers with the help of the wealth of experience and data that have already been collected.”

Thomas Breu, president of KFPE, pointed out the “double marginality” situation for sustainability research from both a development cooperation and research funding perspective (“knowledge production is for academics” and “sustainability research is hardly research”, respectively). Research systems must change to overcome three basic challenges in order to meet the 2030 Agenda. “First, and most pressingly, research has to be stepped up and scaled up. Therefore, efforts targeted at synthesising existing knowledge and capacity development at all levels are needed. Second, scientific approaches actively bridging across and beyond disciplinary silos are essential to analyse interlinkages and harness transformation from a system’s perspective. Third, global solidarity is essential.” Breu points to the immense inequity in science: Around 150 countries have only 6% of worldwide research spending at their disposal. Therefore, transboundary research partnerships are essential, but so are effective research funding institutions in the Global South. “With such investments modern ‘knowledge societies’ can be developed and low-income countries can get a chance to become equal partners.”

SDGs as a gateway for transformational pathways beyond 2030

Silvia Hostettler (École Polytechnique Fédérale de Lausanne – EPFL) convened the first session on researchers' new roles in the implementation of the SDGs. **Melissa Leach** (Institute of Development Studies - IDS - University of Sussex) highlighted that the timeline of the Agenda 2030 also serves as a gateway to finding the transformational pathways beyond 2030. "Research needs to be solution focused, globally aware, locally grounded and community engaged. It needs to be interdisciplinary, working across social and natural sciences, and transdisciplinary, linking researchers with societal actors. Thus, research partnerships need to be top-down and bottom-up in connecting global challenges with local problems. By acknowledging power relations, equity and trust can be established; but without considerable strengthening of institutional capacity in the Global South, institutions from the Global North will remain the leaders."

Mohamed H.A. Hassan pointed to significant challenges that still need to be overcome. The integration and cooperation across business, society, government and science to generate sustainable solutions is of utmost importance. He denounced current funding criteria as narrow and uni-disciplinary and the danger of the sole focus on a strong publication record as a measure of success within research institutions. However, Hassan sees the positive effect of small project networks when cross-learning activities are considered. He underlined the power of fellowships, and the increasing importance of South-South or triangle research partnerships to redress the 'scientific imbalance', and to support low-income countries in their efforts.

Limited efforts for the implementation of the SDGs

The second session, moderated by **Elisio Macamo**, focussed on regional perspectives. Panellists discussed the need for stronger support systems for science and the potential of research partnerships for the Agenda 2030 in South America (**Maria Balarin**, Group for the Analysis of Development, GRADE), China (**Xiao-Nong Zhou**, National Institute of Parasitic Diseases) and Kenya (**Boniface Kiteme**, Centre for Training and Integrated Research, CETRAD). The session's participants found limited evidence of efforts to implement the SDGs, particularly in South America, while China is focussing on poverty. Panellists also emphasised the importance of research partnerships when applying for and utilising research funds (Balarin and Kiteme), but also for knowledge sharing and mutual learning. They noted that many cultures do not favour evidence-based policy-making. Moreover, the relationship between science and policy-making is often unclear. Many statements during the sessions pointed out how the 'quick selling' of scientific results to the public have often compromised the overall quality of research findings.

Make bottom-up research more transformative and transboundary

The afternoon session, moderated by **Peter Messerli** (University of Bern), focussed on adaptations in science policies and funding systems. **Helen Fletcher** (Global Challenge Research Fund, GCRF) stated that the £1.5 billion allocated to research partnerships had had a significant impact on the university system. Within some programmes of the GCRF overseas project leaders can be funded, an important stepping stone towards building more equitable research partnerships. **Matthias Egger**, president of the Research Council of the Swiss National Science Foundation, highlighted the strength of the current system that sees 75 percent of funding disbursed to bottom-up, discovery science projects. His vision for the future is to make the funding system more accessible to transformative and transboundary research. **Mohammed Hassan** underlined the problem-solving power of sustainability science. He sees the need for more integrated innovation institutes, where science, business, society and policy work more closely together. Finally, **Tatjana von Steiger** (Swiss Agency for Development Cooperation) pointed to more agile thinking and planning, as well as active reaching out to other partners as essential components of sustainable research, including social innovation. She is convinced by the great potential in long-term cooperation between the international and scientific communities, if both engage in new transformative ways of cooperation, which would also imply new funding models and sources.

The panelists concluded that while science is relevant for the SDGs, achieving the goals set by the international community will require working across existing research silos. The 2030 Agenda must do more to respond to societal needs, which can be in part achieved by undertaking more transformation research. The Panel was not in full agreement whether a new balance in current science funding systems between bottom-up defined research and

transformation-oriented research is needed, or realistic. However, there was consensus that stronger integration and dialogue across academia, policy, society and business is needed, including a re-evaluation of the current research assessment and reward system.

Thomas Breu highlighted some topics discussed during the conference, pointing in particular to the importance of engagement and science quality. “Within science we need a debate around transformation triggers for sustainable development. Among others, there should be more cooperation among funders to support the scientific system in developing countries. Finally, we have to break down and out of the research silo mentality, develop more transboundary approaches, and upscale solutions that already exist.»

The conference ended with the premiere of KFPE’s short movie “Out of Laboratories: Research Partnerships in a Changing World” (<https://youtu.be/LauuQJhf4Ho>.) The film’s focus: How have transboundary research partnerships evolved over the last decades and what are important milestones looking ahead into the future? It underlined some important statements made during the conference.