

# INVESTING IN INNOVATION TO ACHIEVE THE SUSTAINABLE DEVELOPMENT GOALS

The role of the next EU Framework for Research and Innovation FP9

## The Importance of Science, Technology and Innovation for Sustainable Development



In September 2015, 193 Member States of the United Nations committed to achieving a better world for all through the Sustainable Development Goals (SDGs), a comprehensive set of 17 global goals to be reached by the year 2030. Already, the European Union has demonstrated commitment to being a frontrunner in implementing the SDGs.

Science Technology and Innovation (STI) will play a central role in accomplishing the SDGs<sup>1</sup>, which cannot be achieved with today's technologies. **Supportive policies, bold investment, and coordinated financing in the area of STI** will be critical to ensuring the EU's leadership in sustainable development<sup>2</sup>.

## Catalysing FP9 Funding for Societal Challenges

Through its next Framework Programme for Research and Innovation (FP9), the EU has a unique opportunity to ensure that Europe remains a world leader in science, while simultaneously supporting **human wellbeing and development, environmental stability, and economic sustainability**.

It is essential that funding be protected and prioritized for the societal challenges where there is often a lack of profitable commercial markets to drive STI. For example, investments in innovation for global health<sup>3</sup>, food security and climate change, where **public funding is critically needed<sup>4</sup>, play a vital role in bridging funding gaps and leveraging private sector investment**.

## Recommendations for FP9

- **Increase the overall FP9 budget to at least 120 billion euros** to allow for more high quality proposals to be funded
- **Prioritise funding for societal challenges** where there is often a lack of commercial markets to drive STI, both through a stronger societal challenges pillar and by mainstreaming societal challenges into the other pillars of EU R&I funding
- **Maintain the grant-nature of EU research funds**, as not all R&D areas are economically viable (in the short term), and many research entities are not allowed to accept loans
- **Mainstream all dimensions of sustainable development**, with concrete targets<sup>5</sup> and a robust monitoring system<sup>6</sup>
- **Ensure appropriate metrics to measure impact<sup>7</sup>** on all dimensions of sustainable development, including human development
- **Strengthen international cooperation** on sustainability-related STI, in particular with low- and middle-income countries (LMIC)<sup>8</sup>
- **Ensure promising products are supported throughout the entire development pipeline**, and mechanisms are in place to support successful products as they advance

## CASE STUDIES

### Global Health



Recent evidence<sup>9</sup> shows that we will not reach the ambitious health targets for saving mothers and children and ending the epidemics of HIV, TB, malaria, and other **poverty-related and neglected diseases (PRNDs)** with today's health tools. New and improved health technologies, including vaccines, drugs, diagnostics and devices, are needed across the continuum of care, to prevent and treat PRNDs, rehabilitate those affected, as well as to address **emerging threats like antimicrobial resistance**. All too often the poorest and most vulnerable lack access to essential technologies. To accomplish the SDGs and leave no one behind, new effective tools have to be **available, accessible, affordable, acceptable, and inclusive**.

The European Union is a leader in global health innovation. Horizon 2020 and the European & Developing Countries Clinical Trials Partnership (EDCTP) have demonstrated success in **leveraging public sector funding, improving the health of millions around the world**, and building research capacities in low- and middle-income countries (LMICs), while greatly contributing to the **economic and scientific development in Europe**: for every euro spent by the EU on PRND R&D, 80 cents is reinvested back into Europe, to laboratories, universities, researchers and companies.



Picture by IBBL

### Climate Change



**Climate change severely affects ecosystems and people worldwide, especially poor and vulnerable populations.** It causes, inter alia, rising sea levels, more frequent extreme weather events, and widespread health problems. There are also complex and wide-ranging links between this crisis and other global challenges, such as forced migration and gender inequalities.

**Safeguarding ambitious climate change objectives on the EU's research agenda** is key to transitioning to a low-carbon economy, replacing emission-intensive basic materials processes, and developing clean energy- and mobility-solutions. There is a need for cross-disciplinary examinations of the instruments to aid an **inclusive, fair and socio-economically just transition** for high-carbon regions to sustainability. The European Commission should assess the EU's collective, and MS's individual responsibility for cutting emissions, in order to make a 'fair' contribution to meeting the **Paris Agreement goals of keeping global warming well below 2 degrees**, and pursuing efforts to keep it below 1.5 degrees.

The European Union has demonstrated leadership in supporting innovation in this field, and set a target of 35% climate-related research expenditure under Horizon 2020. The future framework programme should continue to **support research and innovation that effectively combats climate change, contributes to pursuing the 1.5 target, and protects the environment**, and foster the cooperation with LMICs to mitigate and adapt to climate change.

### Food Security



Globally, 800 million people are still hungry due to deep power imbalances and lack of access to resources. More investment is indeed required if the agriculture sector is to meet a growing list of expectations, from increased food security to rural poverty reduction, stewardship of natural resources, and climate resilience. In addition, the agriculture sector has a strong multiplier impact on local economies: **massive and qualitative investment in agriculture in Africa will be 5-11 times more effective at reducing poverty than growth in other sectors**<sup>10</sup>.

With high and volatile food commodity prices in recent years, governments have increased commitments to public investment in agriculture. Yet much of the recent investment is from commercial investors rather than from governments - which requires sufficient social, environmental and economic safeguards to be in place. The **quality of the investment and its ability to deliver on policy goals related to food security and rural development is critical**.

EU research activities can contribute to ensuring that **farmer-led, bottom-up knowledge and research agendas and systems** are in place and revalued. This will require that research is conducted based on farmers' needs, and that research institutions adopt **participatory research approaches that value local know-how**.



Picture by Neil Palmer (CIAT)

### FOOTNOTES

- 1 Cf. chapter IIG of the Addis Ababa Action Agenda, available at: [http://www.un.org/esa/ffd/wp-content/uploads/2015/08/AAAA\\_Outcome.pdf](http://www.un.org/esa/ffd/wp-content/uploads/2015/08/AAAA_Outcome.pdf), and Cf. The European Commission's Expert Group 'Follow-up to Rio+20, notably the SDGs': "The Role of Science, Technology and Innovation Policies to Foster the Implementation of the Sustainable Development Goals (SDGs)", available at: [http://ec.europa.eu/newsroom/horizon2020/document.cfm?doc\\_id=12065](http://ec.europa.eu/newsroom/horizon2020/document.cfm?doc_id=12065)
- 2 Idem.
- 3 Cf. Dieleman, J. et al. Development assistance for health: past trends, associations, and the future of international financial flows for health. The Lancet. 2016
- 4 Cf. 60% of the budget to sustainability-related research under Horizon2020
- 5 Cf. 60% of the budget to sustainability-related research under Horizon2020
- 6 Assessment of Horizon 2020 Programme. Directorate General for Internal Policies. Policy Department D. Budgetary Affairs. 2016, available at: [http://www.europarl.europa.eu/RegData/etudes/STUD/2016/572678/IPOL\\_STU\(2016\)572678\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2016/572678/IPOL_STU(2016)572678_EN.pdf)
- 7 "A recent independent evaluation report confirmed that "the knowledge and evidence on impacts of FP7 and HORIZON 2020 on society in general and on SDGs in particular is still very limited". Cf. Ex-Post-Evaluation of the 7th EU Framework Programme (2007-2013). European Commission. 2015, p.759.
- 8 Horizon 2020 Annual Monitoring Report. European Commission. 2015, p.234, available at: [https://ec.europa.eu/research/evaluations/pdf/archi-ve/h2020\\_monitoring\\_reports/second\\_h2020\\_annual\\_monitoring\\_report.pdf#view=fit&pagemode=none](https://ec.europa.eu/research/evaluations/pdf/archi-ve/h2020_monitoring_reports/second_h2020_annual_monitoring_report.pdf#view=fit&pagemode=none)
- 9 Cf. Chapman, N. et al. Neglected Disease Research and Development: a pivotal moment for Global Health. G-FINDER Survey Report. 2016.
- 10 Cf. Food and Agriculture Organisation of the United Nations: The State of Food Insecurity in the world 2012, available at: [www.fao.org/docrep/016/i3027e/i3027e04.pdf](http://www.fao.org/docrep/016/i3027e/i3027e04.pdf)

