

24th January 2014
08:30 - 16:00

Taj Samudra Hotel
Crystal Room
(Upper Floor)
Colombo 3, Sri Lanka

Horizon 2020: EU Framework Programme for Research and Innovation South Asia Launch

Societal Challenges

Horizon 2020 is the largest EU Research and Innovation programme ever with nearly €80 billion of funding available over 7 years (2014 to 2020) in addition to the private investment that this money will attract. By coupling research and innovation, Horizon 2020 is helping to achieve the aim of securing Europe's global competitiveness with its emphasis on excellent science, industrial leadership and tackling societal challenges. Accordingly, the programme consists of three separate pillars, addressing key priorities where there is clear Union added value.

1. Excellent Science

2. Industrial Leadership

3. Societal Challenges

By 2050, the world population may reach nine billion people, and two fifths of that population will be over 50 years old. Three quarters of the global population will live in cities, and over 60% will live in small households - alone or with just one other person. These profound demographic changes will take place in the course of just a few decades. How can we find sustainable solutions to problems such as energy supplies, global warming, public health, security or water and food resources?

Investing in quality and relevant research and technological development is the key to supporting resource efficiency and diversity, protecting the environment, combating poverty and social exclusion... in short, to creating a better society for citizens.

Horizon 2020 reflects these policy priorities of the Europe 2020 strategy and addresses major concerns shared by citizens in Europe and elsewhere. A challenge-based approach will bring together resources and knowledge across different fields, technologies and disciplines, including social sciences and the humanities. This will cover activities from research to market with a new focus on innovation-related activities, such as piloting, demonstration, test-beds, and support for public procurement and market uptake.

Horizon 2020 provides €31.5 billion of research funding under seven societal challenges:

1. Health, demographic change and wellbeing	2. Food security, sustainable agriculture and forestry, marine and maritime and inland water research, and the Bioeconomy	3. Secure, clean and efficient energy
4. Smart, green and integrated transport	5. Climate action, environment, resource efficiency and raw materials	6. Europe in a changing world - inclusive, innovative and reflective societies
		7. Secure societies - protecting freedom and security of Europe and its citizens

The European Commission website contains detailed information about Horizon 2020 Societal Challenges:
ec.europa.eu/programmes/horizon2020/en/h2020-section/societal-challenges

w: www.cascade-inconet.eu

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Horizon 2020: Societal Challenges

Challenge 1 - Health, Demographic Change and Wellbeing

Responding to this challenge, research and innovation (R&I) under Horizon 2020 is an investment in better health for all. It aims to keep older people active and independent for longer and supports the development of new, safer and more effective interventions. R&I under Horizon 2020 also contributes to the sustainability of health and care systems. During the first two years (Work Programme for 2014/15), the EU will invest in Personalising health and care, and Coordination activities.

R&I supported by Personalising health and care will:

- improve EU's understanding of the causes and mechanisms underlying health, healthy ageing and disease;
- improve EU's ability to monitor health and to prevent, detect, treat and manage disease;
- support older persons to remain active and healthy and
- test and demonstrate new models and tools for health and care delivery.

R&I supported by Coordination activities will leverage Member State activities in areas including neuroscience, cancer, systems medicine. Several activities not included in the 2014/15 work programme will also be part of this challenge, notably the Innovative Medicines Initiative, the European and Developing Countries Clinical Trials Partnership (EDCTP), and the Active and Assisted Living Programme.

Challenge 2 - Food Security, Sustainable Agriculture and Forestry, Marine and Maritime and Inland Water Research, and the Bioeconomy

The EU has recognised that a transition is needed towards an optimal and renewable use of biological resources and towards sustainable primary production and processing systems. These systems will need to produce more food, fibre and other bio-based products with minimised inputs, environmental impact and greenhouse gas emissions, and with enhanced ecosystem services, zero waste and adequate societal value. Agriculture, forestry, fisheries and aquaculture, together with the bio-based industries, are integral parts of the European economy and society. Relying on the use of limited natural resources, these sectors produce and process biological resources to satisfy the demand of consumers and a wide range of industries for food, feed, bio-energy and bio-based products. While they enhance Europe's self-reliance and provide jobs and business opportunities essential for rural, coastal and marine areas, these sectors are also facing significant challenges which require solutions based on research and innovation.

Challenge 3 - Secure, Clean and Efficient Energy

The Energy Challenge is designed to support the transition to a reliable, sustainable and competitive energy system. To make the transition to a competitive energy system, the EU needs to overcome challenges such as increasingly scarce resources, growing energy needs and climate change. The Challenge is structured around seven specific objectives and research areas:

- reducing energy consumption and carbon footprint
- low-cost, low-carbon electricity supply
- alternative fuels and mobile energy sources
- a single, smart European electricity grid
- new knowledge and technologies
- robust decision making and public engagement
- market uptake of energy and ICT innovation

Challenge 4 - Smart, Green and Integrated Transport

This Challenge aims to boost the competitiveness of the European transport industries and achieve a European transport system that is resource-efficient, climate-and-environmentally-friendly, safe and seamless for the benefit of all citizens, the economy and society. The Challenge will contribute to four key objectives, each supported by specific activities. They are;

- a resource efficient transport that respects the environment
- a better mobility, less congestion, more safety and security
- a global leadership for the European transport industry
- a socio-economic and behavioural research and forward looking activities for policy making

Challenge 5 - Climate Action, Environment, Resource Efficiency and Raw Materials

Activities in this Challenge will help increase European competitiveness, raw materials security and improve wellbeing. At the same time they will assure environmental integrity, resilience and sustainability with the aim of keeping average global warming below 2°C and enabling ecosystems and society to adapt to climate change and other environmental changes. This Challenge funds research and innovation with the following specific objectives:

- to achieve a resource – and water - efficient and climate change resilient economy and society
- the protection and sustainable management of natural resources and ecosystems
- a sustainable supply and use of raw materials, in order to meet the needs of a growing global population within the sustainable limits of the planet's natural resources and eco-systems

Research and innovation under this challenge will cover the broad lines of activities of Fighting and adapting to climate change; Protecting the environment, sustainably managing natural resources, water, biodiversity and ecosystems; Ensuring the sustainable supply of non-energy and non-agricultural raw materials; Enabling the transition towards a green economy and society through eco-innovation; Developing comprehensive and sustained global environmental observation and information systems; and Cultural heritage.

Challenge 6 - Europe in a Changing World - Inclusive, Innovative and Reflective Societies

Europe faces huge challenges in reducing inequality and social exclusion. Reducing inequalities and social exclusion in Europe (80 million people at risk of poverty, 14 million young people not in education, employment or training), overcoming the economic and financial crisis and tackling unemployment (12% in EU and above 20% of youth unemployment in 2012) are crucial challenges for the future of Europe. Supporting inclusive, innovative and reflective societies is a prerequisite for a sustainable European integration. In this context, this Societal Challenge of the Horizon 2020 programme aims at fostering a greater understanding of Europe, by providing solutions and support inclusive, innovative and reflective European societies with an innovative public sector in a context of unprecedented transformations and growing global interdependencies. This will promote coherent and effective cooperation with third countries.

Challenge 7 - Secure Societies – Protecting Freedom and Security of Europe and its Citizens

This Challenge is about undertaking the research and innovation activities needed to protect citizens, society and economy of the EU as well as its infrastructures and services, prosperity, political stability and wellbeing. The primary aims of the Secure Societies Challenge are:

- to enhance the resilience of EU society against natural and man-made disasters, ranging from the development of new crisis management tools to communication interoperability, and to develop novel solutions for the protection of critical infrastructure
- to fight crime and terrorism ranging from new forensic tools to protection against explosives
- to improve border security, ranging from improved maritime border protection to supply chain security and to support the Union's external security policies including through conflict prevention and peace building
- and to provide enhanced cyber-security, ranging from secure information sharing to new assurance models

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