

## Turning Europe into a true Innovation Union

See also [IP/10/1288](#)

For the full text of the Innovation Union communication, please see [here](#).

### What is innovation?

There is no one single definition. But innovation as described in the Innovation Union plan broadly means change that speeds up and improves the way we conceive, develop, produce and access new products, industrial processes and services. Changes that create more jobs, improve people's lives and build greener and better societies.

### What is the Innovation Union?

The Innovation Union is key to achieving the goals of the Europe 2020 Strategy for a smart, sustainable and inclusive economy. It aims to improve conditions and access to finance for research and innovation in Europe, to ensure that innovative ideas can be turned into products and services that create growth and jobs.

The Innovation Union focuses on major areas of concern for citizens such as climate change, energy efficiency and healthy living. It pursues a broad, balanced concept of innovation, both technological innovation leading to efficiency gains in production processes and improved performance of products and innovation in business models, design, branding and services that add value for users. It includes public sector and social innovation as well as commercial innovation. It aims to involve all actors and all regions in the innovation cycle.

The policies in the Innovation Union Plan aim to do three things: make Europe into a world-class science performer; revolutionize the way public and private sectors work together, notably through Innovation Partnerships; and remove bottlenecks – like expensive patenting, market fragmentation, slow standard setting and skill shortages - that currently prevent ideas getting quickly to market.

### Why do we need the Innovation Union?

Boosting our research and innovation performance is the only way for Europe to support sustainable growth and create good and well-paid jobs that will withstand the pressures of globalization.

Currently Europe has many strengths but is in danger of lagging behind the US, while other countries are catching up fast (see annex).

We are spending 0.8% of GDP less than the US every year and 1.5% less than Japan in Research & Development (R&D). We have not yet achieved our target of investing 3% of GDP in research and innovation – instead the current rate is under 2%. Private sector R&D is increasingly outsourced to emerging economies and thousands of our best researchers and innovators have moved to countries where conditions are more favourable. Although the EU market is the largest in the world, it remains fragmented and insufficiently innovation-friendly. Too few of our innovative SMEs grow into large, globally successful companies. Other countries like China and South Korea are catching up fast.

### **What is there to gain from the Innovation Union?**

Achieving our target of investing 3% of EU GDP on R&D by 2020 could create 3.7 million jobs and increase annual GDP by €795 billion by 2025<sup>1</sup>. To be able to achieve the target, Europe would require at least one million more researchers in the next decade.

Of course, Europe can create many more jobs if all the other changes put forward in the Innovation Union Plan can also be put into practice.

### **What will the Innovation Union do that has not been tried before under the Lisbon Strategy?**

This is the first time the European Commission has presented a comprehensive innovation strategy from research to retail. The Innovation Union is one of the seven flagship initiatives of the Europe 2020 Strategy which was agreed by Member States in June 2010 and which builds on the progress made under the Lisbon Strategy.

Its over thirty action points include groundbreaking proposals like the European Innovation Partnerships, to tackle major societal challenges and give the EU first-mover advantage in the markets of the future. The Partnerships are a new way of bringing together actors at EU, national and regional levels and of combining supply and demand-side tools for innovation (see below).

The Innovation Union also introduces the strategic use of public procurement budgets to finance innovation, a comprehensive Innovation Scoreboard based on 25 indicators, and a European knowledge market for patents and licensing.

It includes measures to reinforce successful existing initiatives like the Risk Sharing Finance Facility, which has attracted in stakeholder funding so far 15 times the combined Commission and EIB contribution of over a billion euro. Another central element is measures to revitalize and speed up efforts to build a European Research Area.

### **What are the main obstacles to innovation in Europe?**

First, unfavorable framework conditions: private investment in research and innovation is being held back and ideas prevented from reaching the market by poor availability of finance, costly patenting, market fragmentation, outdated regulations and procedures, slow standard-setting and the failure to use public procurement strategically.

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<sup>1</sup> P. Zagamé, (2010) *The cost of a non-innovative Europe*, [http://ec.europa.eu/research/social-sciences/policy-briefs-research-achievements\\_en.html](http://ec.europa.eu/research/social-sciences/policy-briefs-research-achievements_en.html)

Second, fragmentation of effort: national and regional research and innovation systems are still working along separate tracks, which leads to costly duplication. By better pooling our efforts and focusing on excellence, and by creating a true European Research Area, the EU can enhance the quality of research and Europe's potential for major breakthroughs. And through Innovation Partnerships and other measures, the EU can rebuild broken links in the chain that links research with the market.

### **What is a European Innovation Partnership?**

European Innovation Partnerships are a new approach to EU research and innovation. They will each tackle a specific societal challenge that is shared across the EU, and where there is a large new market potential for EU businesses.

The Partnerships will have clear and measurable goals, bringing important benefits for citizens and society as a whole before 2020. The Partnerships will bring together all relevant actors at EU, national and regional levels – across policy areas and industrial sectors - in order to: (i) step up research and development efforts; (ii) coordinate investments in demonstration and pilots; (iii) anticipate and fast-track any necessary regulation and standards; and (iv) mobilise demand in particular through better coordinated public procurement to ensure that any breakthroughs are quickly brought to market.

### **What will Innovation Partnerships make happen that does not happen now?**

The Partnerships will create a strong political and commercial focus on specific final objectives and divide work towards those goals into smaller "work packages". They will have a governance framework (see below) which can make things happen and pool resources from EU, national and regional, public and private sources in way never possible before. This will make it easier to co-operate and achieve better and faster results compared to what happens now. They will streamline and simplify existing instruments and initiatives (e.g. Joint Programming of national research efforts, Joint Technology Initiatives) and complement with new actions where necessary. The Partnerships will integrate all initiatives into a single coherent policy framework as well as implementing new ideas, such as joint procurement schemes.

### **How will the Innovation Partnerships work concretely?**

Each partnership will be led by a representative Steering Board chaired by the European Commissioner or Commissioners with lead portfolio responsibility for the policy area or areas concerned and supported by a secretariat which the Commission will provide. The Board will be composed of a limited number of high level representatives of Member States (Ministers), members of Parliament, industry leaders, researchers and other key stakeholders. The Board's first task will be to draw up a multi-annual strategic work plan, containing concrete targets, research and demand-side activities, assessing funding requirements, allocating responsibilities and defining milestones to monitor progress.

All stakeholders involved in a Partnership will be expected to contribute to its financing; the Commission will seek to leverage the EU budget to provide "seedcorn" funding.

## **What will be the first Innovation Partnership and when will it start?**

The Commission proposes to launch a pilot project on active and healthy ageing by the beginning of 2011. Its aims should be, by 2020, to enable citizens to live longer independently in good health by increasing the average number of healthy life years by two. Achieving this target will improve the sustainability and efficiency of our social and healthcare systems and create an EU and global market for innovative products and services, with new opportunities for EU business.

## **Why active and healthy ageing?**

The ageing of the population is a pressing societal challenge having significant social and economic implications. Looking ahead to the period between now and 2060, age-related expenditure is expected to increase to 4.75% of GDP on average in the EU. It is therefore critical to renew our commitment to expand the lifespan spent in activity and good health, as well as contribute to improving the sustainability of our welfare systems, through more efficient healthcare and long-term care spending.

As ageing of the European population is expected to have consequences across the whole of society, we need to bring together all relevant actors to tackle and use this momentum to its best.

## **How will you achieve and measure an increase by two years of more healthy life?**

We will need to put in place better preventive measures, medical advances to combat chronic diseases, innovative and more integrated care systems, and develop and deploy innovative products and devices specifically aimed at elderly people.

To measure and monitor the development of healthy life years we will use the Healthy Life Years (HLY) indicator that is one of the European Structural Indicators. Given the differences between genders and Member States in baseline values for the HLYs, the EU HLY target should be complemented by national HLY targets for men and women, agreed by Member States.

## **What kind of solutions could this partnership help bring to the market?**

The i2HOME project (<http://www.i2home.org>), was originally financed by the EU's 6<sup>th</sup> Framework Programme for Research and Development, and developed a simple platform allowing elderly people who become forgetful to control home appliances in a very simple and centralised way.

In practice, users are reminded to take medicines, close windows and turn the heating off, helped in their itineraries outside of the home and to control their energy consumption through a very intuitive interface, accessible through their TV set or mobile phone for example. This Universal Remote Control (URC) technology is now being integrated into mainstream products.

The partnership aims to shorten the time between the blue-sky research needed to develop these solutions in the first place and their integration in the daily life of individuals who want to benefit from them.

## **Why is there only one pilot, given the urgency? When will further Partnerships come forward?**

Innovation Partnerships are a novel concept, which the Commission first wishes to test through a pilot partnership before launching a further set of partnerships. But it also intends to move fast.

There are a number of societal challenges identified in the Europe 2020 Strategy which European Innovation Partnerships can help tackle.

Active and Healthy Ageing was chosen as a pilot case because it involves a clear and balanced action plan for addressing a major societal challenges within the Europe 2020 strategy –one which affects every family and every citizen.

By the end of 2010, the Commission will develop a robust set of selection criteria and a rigorous and transparent selection process for future partnerships. These criteria and this selection process will be operational from January 2011. Based on this process, and the application of these criteria, and a confirmation of the readiness of the potential partnerships in areas such as energy, "smart cities", a sustainable supply of raw materials, water efficiency, smart mobility and agricultural productivity and sustainability, the Commission will from February 2011 onwards present the further proposals for partnerships to the other institutions.

## **How can governments invest in innovation at such a time of austerity?**

The OECD and others have strongly urged governments to maintain and increase research and innovation investments even at difficult times, because these are pro-growth, anti-crisis investments. The Commission absolutely shares this position and the Innovation Union Communication makes that clear. Research and innovation investments will speed up economic recovery, create jobs and improve European competitiveness.

But the Innovation Union is not only about investing public money, it is above all meant to better use public money to release private sector investment and to put smarter regulation in place to drive innovation. Given the need for value for money, the Innovation Union aims to avoid costly duplication and overlap by pooling efforts and expertise on research and innovation.

## **What about the 3% R&D target?**

Raising investment in R&D to 3% of the EU's GDP is one of the five priorities of the Europe 2020 Strategy. This target is for the EU as a whole and is based on 1% public investment (a target already met or nearly met in many MS) and 2% private investment (a target nowhere near met in most – the gap in private investment is about €100 billion).

The European Commission is currently, as agreed at the European Council in June 2010, working with each Member State bilaterally to finalise ambitious but realistic national targets. Member States will include those and initial indications of how to get there in their draft National Reform Programmes to be submitted mid-November 2010 - these will be firm commitments as part of Europe 2020 governance.

### **What is the role of education in the Innovation Union?**

Excellence in education and skills development is essential to ensure that Europe has a sufficient supply of highly qualified workers. The Commission will support business-academia collaborations to develop new curricula addressing innovation skills gaps and promote e-skills for innovation and competitiveness. In 2011, it will present the results of a feasibility study to develop an independent, multi-dimensional international ranking system to benchmark university performance, which will allow the best performing European universities to be identified.

### **What does the Innovation Union propose for researchers' careers?**

The Innovation Union recommends that, by the end of 2011, Member States put strategies in place to train enough researchers to meet their national R&D targets – this will require a million more researchers across Europe - and to promote attractive employment conditions in public research institutions.

Completing the European Research Area will also mean removing current obstacles to cross-border careers, notably difficulties in transferring pension and social security rights.

The Eighth Research Framework Programme – including Marie-Curie actions aimed at promoting mobility for promising researchers, and European Research Council grants for both experienced and younger top researchers to undertake specific frontier research work - will also be crucial to the Innovation Union and the role of the researchers within it.

### **Does the Innovation Union contain proposals for getting more women into science?**

The Innovation Union prioritises a gender balance in research careers in the European Research Area framework. It recommends that Member States fully take gender and dual career considerations into account in their national R&D strategies.

### **What will be the role of the European Institute of Innovation and Technology (EIT)?**

By mid-2011, the European Institute of Innovation and Technology should set out a Strategic Innovation Agenda to expand its activities as a showcase for the Innovation Union. This should map out its long term development within the Innovation Union, including the creation of new Knowledge and Innovation Communities (KICs), close links with the private sector and a stronger role in entrepreneurship. It should also build on the EIT Foundation being set up in 2010 and on the introduction in 2011 of the "EIT degree" as an internationally recognised label of excellence.

(See also [IP/09/1950](#))

## **How will the role of the European Research Council (ERC) be further developed? Will it get more money?**

The ERC, launched by the Commission in 2007, has been a resounding success and will play a central role in FP8. Excellence in frontier research is a must. Many of the inventions we now take for granted and which have driven economic growth are the result of research that had no apparent immediate commercial purpose. The internet is the outstanding example. A greener and smarter economy and many other societal challenges also require knowledge and massive research breakthroughs.

Given that EU budget negotiations for the period post 2013 have not begun, it is impossible to speculate about the future size of any part of the EU budget, including the ERC's allocation. What is more the comprehensive review of FP7 and the ensuing public consultation on FP8 will not conclude until well into 2011.

But the Commission will sustain in the negotiations the view that research and innovation, central to the Europe 2020 Strategy agreed by the Member States, should be top budgetary priority.

Meanwhile, the ERC will continue to fine-tune its approach in line with the Innovation Union concept. For example, in order to strengthen its role in the innovation chain, from blue sky research to commercialisation, the ERC plans to launch next year a "proof of concept" funding option with the aim of covering a funding gap in the earliest stage of an innovation. ERC grant holders will be given the option to apply for additional funding to establish the innovation potential of ideas arising from their ERC-funded frontier research projects. They will be able to use the funding for activities such as technical validation, market research, clarifying IPR position and strategy or investigating commercial and business opportunities.

## **What is the role of the Commission's Joint Research Centre (JRC) in the Innovation Union?**

In the JRC, the Commission possesses a valuable source of scientific expertise in areas relevant to many of the societal challenges that the Innovation Union will tackle. This will be exploited by providing scientific evidence to underpin policy choices. By reviewing scientific developments in particular areas and undertaking forward looking activities, the JRC will also highlight areas where policy responses are needed. The JRC will contribute to the implementation of innovation partnerships falling within its areas of competence and will further strengthen Europe's capacity to assess the impact of various research and innovation policies on jobs and growth.

## **Which role can regions play in increasing innovation potential?**

The accompanying Commission Communication - 'Regional Policy contributing to smart growth in Europe 2020' - shows how EU regional funding is essential to achieve growth, by targeting investment in innovation in all regions. A key plank of this is to encourage national and regional governments to design 'smart specialisation strategies' to help regions identify their best assets. Concentrating resources on a limited number of priorities will ensure a more effective use of public funds and help to lever in higher levels of private investment.

### **How is the Innovation Union going to stop the brain drain?**

The Innovation Union proposes that, by 2012, the European Union and its Member States put into place integrated policies to ensure that the best academics, researchers and innovators reside and work in Europe and to attract a sufficient number of highly skilled third country nationals to stay in Europe for limited periods of time, exploiting the possibilities under the Scientific Visa Package and the Blue Card Scheme.

Also, a key actor in tackling and reversing brain drain is the European Research Council, which aims to keep top talent in Europe as well as to attract to Europe first-rate researchers from anywhere in the world.

### **What do you mean by a European Research Area and what progress has been made towards it?**

The creation of a European Research Area (ERA) was proposed by the European Commission in January 2000 to improve the coordination of research efforts across Europe and avoid costly overlaps and unnecessary duplication.

Progress has already been made in five main areas: human resources, research programmes, research infrastructures, knowledge transfer and international science & technology cooperation. But Europe's researchers, research institutions and funding agencies still face many legal and practical obstacles that prevent them from working and operating freely, particularly across borders. In 2012, the Commission will propose a European Research Area framework and supporting measures to remove these obstacles. The Innovation Union proposes to set the deadline of end 2014 for achieving a genuinely unified European Research Area in which all actors, both public and private, can operate freely, forge alliances and gather critical mass in order to compete and cooperate on a global scale.

### **What about research infrastructures?**

Resources must be pooled to provide Europe with world-class infrastructures which enable ground-breaking research and innovation. The Innovation Union recommends that, by 2015, Member States together with the Commission have completed or launched the construction of 60% of the priority European research infrastructures currently identified by the European Strategy Forum for Research Infrastructures (ESFRI). (See [IP/09/856](#))

### **How should the EU collaborate with the rest of the world in the research and innovation fields?**

The Innovation Union proposes that the EU and the Member States treat scientific cooperation with third countries as an issue of common concern, and that, with their third country partners, they develop common approaches, notably on intellectual property protection and standardization. This should contribute to global approaches and solutions to societal challenges and to the establishment of a level-playing field. By 2012, agreement should also be reached with international partners on the development of research infrastructures which, given their cost/complexity, can only be developed on a global scale.



### **How will the Innovation Union be taken into account in EU programmes?**

Future EU research and innovation programmes will focus on Europe 2020 objectives and particularly the Innovation Union. In 2011, the Commission will set out ways for future research and innovation programmes to focus more on societal challenges, streamline funding instruments, broaden access and radically simplify procedures through a better balance between a control-based and a trust-based system. There will be a full open consultation before the Commission comes forward in late 2011 with a formal legislative proposal for the Eighth Research Framework programme.

### **How will the Innovation Union enhance access to finance for innovative companies?**

The Innovation Union aims to release private sector investment and proposes among other things to increase European venture capital investments which are currently a quarter the level of the US. Current EU schemes show that a contribution from the EU budget can leverage more than twenty times the amount of investment from private capital. The Commission proposes scaling up these successful schemes and creating a regime to allow cross-border Venture Capital Funds.

The Commission will strengthen cross-border matching of innovative firms with suitable investors. It will appoint a leading figure to lead the process. In addition, in the context of the SME Finance Forum, the Commission will focus inter alia on the particular financing problems faced by small, innovative companies.

### **How will the Innovation Union address the needs of European SMEs, many of which do not perform research?**

Many of the measures announced in the Innovation Union will benefit European companies independently of their size, such as the measures aimed at improving the intellectual property regime in the EU and at modernising standard setting. Other measures are expected to benefit European SMEs in particular, such as the measures proposed to improve access to finance for innovation, to re-orientate public procurement in favour of innovation and to simplify future research and innovation funding programmes. Yet other measures aim at broadening the scope of European innovation policy beyond technological innovation, such as the European Design Leadership Board – aimed at better integrating design, user and non-technological aspects into innovation – and the Social Innovation Pilot.

### **What are the Risk-Sharing Finance Facility (RSFF) and the Competitiveness and Innovation Framework Programme (CIP)? What is their role in the Innovation Union?**

The RSFF is a credit risk sharing scheme jointly set up by the Commission and the European Investment Bank (EIB) to improve access to debt financing for private companies or public institutions promoting R&D and innovation activities which can yield major public benefits but have a financial risk profile that may deter private investors unless there is public backing. It was set up by European Commission and European Investment Bank. To date, contributions for the RSFF of €430 million from the EU budget and €800 million from the EIB, as risk-sharing partners, have supported over € 18 billion in investments (15 times the combined contribution to the RSFF and 42 times the EU budget contribution).

The CIP financial instruments cover loan guarantees and venture capital, and are managed by the European Investment Fund (EIF) whose majority shareholder is the EIB. To date, the €400 million contribution to the CIP financial instruments up to the end of 2009 has leveraged investments of €9 billion (22 times the budget contribution), benefiting some 68000 SMEs.

### **What further role could the European Investment Bank (EIB) play in the Innovation Union?**

Working with the EIB, the Commission proposes to scale up both the RSFF and the CIP. The Commission will also work on further proposals with the European Investment Bank Group, national financial intermediaries and private investors, for example to address investment in knowledge transfer and start ups and guarantee venture capital for fast growing firms expanding on EU and global markets.

### **Why is the creation of a single market for innovation so important?**

The EU market is the largest in the world but the reality is too often one of fragmented national markets with costly procedures. The Innovation Union proposes to create a genuine single market for innovation which would attract innovative companies and businesses. To achieve this, several measures are proposed in the fields of patent protection, standardization, public procurement and smart regulation. An EU patent alone, on the lines proposed by the Commission already but so far not agreed by all Member States - would save innovative businesses an estimated €250 million.

### **What exactly does the Innovation Union propose regarding the EU Patent?**

The Innovation Union recommends that the European Parliament and the Council should take the necessary steps to adopt the proposals on the EU Patent, including on the language regime, so that the first EU patents can be delivered in 2014.

## **How will the Innovation Union ensure that the exploitation of Intellectual Property Rights is growth and jobs-friendly?**

Economic benefits flow from the exploitation of Intellectual Property Rights (IPRs, including patents, design and copyrights) in innovative products and services. The markets for trading IPRs need to become less opaque and fragmented so that IPR buyers and sellers can find each other efficiently, financial investments are made in IPR assets, and transactions take place on fair terms. By the end of 2011, the Commission will make proposals to develop a European knowledge market for patents and licensing. The Commission will also facilitate effective collaborative research and knowledge transfer and promote open access to the results of publicly funded research. make open access to publications the general principle for projects funded by the EU research Framework Programmes.

## **Why is slow standard setting currently a problem and what is the Innovation Union proposing to speed it up?**

The development of common standards is essential. Today innovation cycles have become much shorter than the time it often takes to develop a European standard. These deficiencies have wide ramifications for the EU's position in global markets. The Commission will present by early 2011 a legislative proposal on standardisation. Its aim is to speed up standard-setting to enable interoperability and foster innovation in fast-moving global markets.

## **What is the role of public procurement?**

Public procurement accounts for some 17% of the EU's GDP. It represents an important market for innovation, particularly in areas such as health, transport and energy. From 2011, Member States and regions should set aside dedicated budgets for pre-commercial procurements and public procurements of innovative products and services. This should create procurement markets across the EU starting from at least €10 billion a year for innovations that improve the efficiency and quality of public services. This refers to procurements of R&D services (pre-commercial procurement) and of new technologies and innovations as identified by the European Innovation Partnerships. The ambition will be to increase these levels over time towards the level in the US, which is around 50 billion dollars per year.

## **What about eco-innovation?**

By early 2011, the Commission will propose an eco-innovation action plan, an example of smart regulation to drive innovation. Stricter environmental standards, for example CO<sub>2</sub> emissions for cars, which provide future predictability, provide a major boost for eco-innovation.

## **How will the Innovation Union affect public services?**

To meet the evolving needs and expectations of public service users against a backdrop of fiscal austerity, the public sector needs to innovate more than ever and is under pressure to provide "more for less". Starting in 2011, the Commission will support a substantial research programme on public sector and social innovation. As an immediate step, it will pilot a European Public Sector Innovation Scoreboard as a basis for further work to benchmark public sector innovation.

## **What is social innovation and its role in the Innovation Union?**

Social innovation is about tapping into the ingenuity of charities, associations and social entrepreneurs to find new ways of meeting social needs which are not adequately met by the market or the public sector. It can help bring about the behavioural changes needed to tackle the major societal challenges, such as climate change. Social innovations empower people and create new social relationships and models of collaboration. They are thus innovative in themselves and good for society's capacity to innovate.

Examples of social innovation include citizen participation in public budget decisions, social networks to provide community-based support to the elderly and ethical financial products. In 2011, the Commission will contribute to scale up ongoing and new social innovation policies and programmes at EU level and in Member States, regions and municipalities. It will launch a European Social Innovation pilot which will provide expertise and a networked 'virtual hub' for social entrepreneurs and the public and non-governmental/voluntary sectors. The Innovation Union proposes that social innovation becomes a mainstream focus in the European Social Fund (ESF) programmes.

## **How will the social partners be involved in the Innovation Union?**

As most innovation happens in the workplace, the role of both employers and workers will be central.

In particular, the Commission will consult the social partners to examine how the knowledge economy can be spread to all occupational levels and all sectors, including by encouraging "bottom up" employee-led innovation. It will ask the social partners for proposals on how to develop a sectoral labour market strategy for the "caring sector", which will continue to grow as populations get older.

## **Will the Innovation Union benefit all Member States?**

Yes. The Innovation Union aims to involve all regions to avoid an "innovation divide" between the strongest innovating regions and the others. A better use of the Structural Funds (€86 billion for the period 2007-2013) will have a critical role to play. The Commission will propose a framework for post 2013 Structural Funds with more focus on innovation. Already starting in 2010, the Innovation Union proposes that Member States considerably increase and improve their use of existing structural funds for research & innovation projects, helping people to acquire the necessary skills, improving the performance of national systems and implementing smart specialization strategies and trans-national projects. Funding overlapping projects should be avoided.

## **What is Joint Programming and what is its role in the Innovation Union?**

Joint Programming is the process whereby Member States engage on a voluntary basis in the definition, development and implementation of a common research agenda addressing today's major societal challenges such as climate change, energy supply, food supply or big diseases. The Innovation Partnerships will build on the experience of joint programming (gained for example in the first Joint Programming on neurodegenerative diseases) and better connect the research agenda to the innovation end of the chain, so that scientific progress can be translated more quickly into new products and services.

## **How will progress be measured?**

Starting immediately, the Commission will monitor overall progress on innovation performance using an Innovation Union scoreboard bringing together 25 key indicators. This will allow much more in-depth and clearer comparisons than before.

These indicators are set out in the annex to the Innovation Union Communication. They are as comprehensive as is possible at this stage. But further work is needed to develop indicators on aspects such as non-technological innovation, design, service innovation, and performance at regional level.

What is more, the European Council requested the Commission to develop a new Innovation indicator, complementing the 3% of GDP target, that would be reliable, internationally comparable and cover all forms (technological and non-technological) of innovation. A high-level panel chaired by Professor Andreu Mas-Colell was set up to explore this and concluded that the best single indicator to meet the European Council's request would be the share of fast-growing innovative firms in the economy. However, it will take around two years to develop this indicator in full. The development of such an indicator would require the agreement of EU Member States to make available the necessary data and cooperation with the relevant international fora such as the OECD to ensure international comparability.

## **What does the Commission expect from the European Council?**

The Commission expects the European Council to endorse its proposals for an Innovation Union at the first European Council meeting devoted to research and innovation in December 2010. In particular, the Commission will be calling on the Member States to endorse the concept of the European Innovation Partnerships and to approve the pilot project on active and healthy ageing.

## **The Commission brought out a communication on simplifying research funding in April - what has been done since then?**

This communication on simplification (See [IP/10/472](#)) triggered a wide debate with Council, Parliament and many other stakeholders. There is consensus on several measures bringing quick progress, in particular on the financial management of projects. The Commission is determined to implement these short term measures in the coming months. More profound improvements require a decision by the Parliament and Council on the revision of the Financial Regulations proposed by the Commission. Those changes will be included in the Commission proposal for the Eighth Framework Programme.

## **What are the implications of the Innovation Union for FP8?**

Through the Europe 2020 strategy and its Innovation Union flagship initiative, the political context for the EU's research and innovation policy has now been firmly set for the years to come. A strong focus on tackling societal challenges through more impact and innovation will be key to delivering on Europe 2020. In addition, this new policy context puts a strong emphasis on creating socio-economic impact through innovation. FP8 will need to be designed against this backdrop and be able to deliver more effectively than its predecessors on these aspects.

## Annex – Key statistics

- Achieving our target of investing 3% of EU GDP in Research and & Development by 2020 could create 3.7 million jobs and increase annual GDP by up to €795 billion by 2025 (Source: P. Zagamé, L. Soete (2010) The cost of a non-innovative Europe)
- The EU will need at least 1 million new research jobs if it is to reach the R&D target of 3%. More researchers are needed primarily in the business sector (Source: European Commission (RTD-Eurostat))
- Business R&D in the EU is 66% lower than the US and 122% lower than Japan, as a share of GDP (Eurostat)
- In 2008, EU-27 accounted for 24% of the total world R&D expenditure against 33% for the USA, 12% for Japan and 11% for China (Source: STC Key Figures Report 2010/2011; primary data sources: Eurostat, OECD, DG ECFIN)
- In real terms, R&D expenditure has increased by about 50% in the EU and 60% in the USA since 1995 but it has more than tripled in Asia-5 (China, Japan, South-Korea, Singapore, Taiwan). (Source: STC Key Figures Report 2010/2011; primary data sources: Eurostat, OECD, UNESCO)
- Private firms investment in R&D should be in 2020 at least €150 billion more than in 2008 for EU to reach the Europe 2020 target of investing 3% of GDP in Research and & Development. Source: European Commission (RTD-Eurostat; primary source: Member States preliminary R&D intensity targets)
- In 2009, EU-27 produced 29% of the scientific publications in the world, the USA 22%, Japan 5% and China 17%. Of the top-10% most cited scientific publications (2007), EU-27 produced 32%, the USA 34%, Japan 4% and China 9%. (Source: STC Key Figures Report 2010/2011; primary data sources: Science-Matrix/Scopus (Elsevier))
- In 2007 both the EU and USA represented 31% each of patent inventions filed under the Patent Cooperation Treaty (PCT). By 2020, the situation is forecast to be approximately: EU: 18%; US 15% and 55% for Asia-5 (China, Japan, South-Korea, Singapore, Taiwan). (Source: STC Key Figures Report 2010/2011; primary data source: WIPO, OECD)
- An SME must disburse €192.000 of legal fees to obtain and maintain a patent protection for all 27 EU Member States. It would cost only €4.400 for a protection of the same duration in the USA. (Source: European Patent Office (EPO) and EU National patent offices, US Patent and Trademark Office (USPTO))
- Venture capital funds in Europe are at a quarter of the level in the US ((2008 data from EVCA/ Eurostat)
- To date, contributions for the Risk Sharing Facility Fund of €430 million from the EU budget and €800 million from the European Investment Bank, as risk-sharing partners, have supported over € 18 billion investments (15 times the combined contribution to the RSFF and 42 times the EU budget contribution). The €400 million contribution to the CIP financial instruments up to the end of 2009 has leveraged investments of €9 billion (22 times the budget contribution), benefiting some 68000 SMEs. (Source: EIF report to the European Commission on CIP [http://ec.europa.eu/cip/eip/access-finance/index\\_en.htm](http://ec.europa.eu/cip/eip/access-finance/index_en.htm))
- The EU's Seventh Framework Programme for Research is the largest in the world with a budget of more than €50.5 billion, excluding Euratom, for 2007-2013.
- According to the Eurobarometer on Science and Technology (June 2010), 66% of Europeans think that science and technology make our lives healthier, easier and more comfortable.