



GE innovation barometer

A perspective from
EU opinion formers on the state
of innovation in Europe

A REPORT PREPARED BY STRATEGYONE EU - SEPTEMBER 2010



GE imagination at work

90% of respondents believe innovation is the main lever to create a more competitive and greener economy

86% of respondents believe investing in innovation is the best way to create jobs in the EU

91% of respondents would like the EU to use structural funds to speed up the uptake of innovation products and services

78% of respondents believe the Energy Industry would be one of the sectors creating the most jobs if supported by an improved innovation policy; Health Industry ranked 2nd at 66%

83% of respondents believe that public / private partnership are essential to develop a more innovative Europe

Only 41% of respondents believe that the current IP system allows innovation to flourish in the EU



Innovate or stagnate

The European Commission in its EU 2020 Strategy places great emphasis on the role that Innovation can and must play in reinvigoration and growth of the European economy. The creation of an 'Innovation Union' will be central to ensuring that Europe remains a strong and competitive force in the global economy in the decades ahead.

Economic globalization has led to a shift in the economic order and that poses both an opportunity and a challenge for the EU. If Europe is to compete and maintain its position as a major economic force it needs to become more innovative and respond to the changing market conditions. We have a choice; to innovate or stagnate.

Innovation can be the catalyst for Europe's economic renewal but that will not happen in a vacuum. We need to create an environment that promotes, incentivises and rewards innovation in its broadest sense, by both the public and private sectors.

GE believes strongly that those companies and economies that invest in innovation today will emerge from the current economic difficulties strongly positioned for growth. Throughout our history, from Thomas Edison's invention of the first practical light bulb to today's advances in aviation, energy and healthcare, we have grown the company through creating innovative technologies and solutions. We continue to invest heavily in R&D and innovation.

This research provides a unique perspective on the views of EU opinion formers and leaders from across the spectrum of stakeholders. We hope that it will add to the current discussions on the development of an 'Innovation Union'. As an employer of over 90,000 people across Europe this is an objective that we support. We believe that this can be best achieved through partnership between the public and private sectors.

Nani Beccalli-Falco
President and CEO GE International

Methodology

2010 marks a period of new ambitions for the European Union (EU) with the hope of achieving a “picture of the future” for citizens of Europe that is not marred by economic crisis, but flourishing under a new plan that allows for long term and sustainable development. EU priorities have been outlined with the hope that they will be well received by individuals with responsibilities in shaping and animating the debate on future EU decision making.

With the EU placing innovation at the core of its 2020 strategy, and in advance of the publication in the coming weeks of the European Commission’s Innovation Strategy, GE commissioned an independent research study to investigate the way Brussels opinion formers view the current state of innovation policies within the Union. The survey was managed by StrategyOne, an independent research institute. Fieldwork took place between April and July of 2010.

The objective of the survey was to evaluate the Brussels opinion formers’ insights on the current state of innovation policies in the EU in terms of:

- Allocated resources and budget
- Impact and benefits on the EU economy
- Impact and benefits on EU citizens
- Deterrents to innovation
- Possible improvement in supporting innovation policies

The survey combines quantitative and qualitative data.

— **The quantitative phase consisted of a survey of 240 Brussels opinion formers.** All respondents to the online / telephone survey matched the following criteria:

- High awareness and interest for EU policies
- Full awareness of the EU 2020 Strategy
- At least 5 years of professional experience in their area of expertise
- Active media consumption and a particular interest in EU policies news

The respondents represent a wide array of innovation stakeholders both in the private sector and in Brussels based EU organisations including: the European Commission, European Parliament, Permanent representations of the Member States, NGOs, Media, Think-Tanks, Universities, Trade Associations, and Businesses.

— **To provide an additional and more in-depth perspective, 12 qualitative interviews were conducted with high level innovation stakeholders such as:**

Members of the EU Parliament, senior officials in various DGs of the European Commission (Enterprise, Education & Culture, Research and Innovation) as well a senior editors in Brussels based media, academics and think-tank leaders.

Executive summary

Innovation is one of the most discussed topics in the “Brussels Bubble” nowadays. Talking with members of the European Parliament, European Commission officials, leaders from EU based businesses, NGOs or think-tanks, one realizes how great expectations are about the forthcoming EU innovation strategies, the Innovation Union Action Plan and related policies.

These expectations are high, because innovation tends to become synonymous with hope; hope for future growth and jobs, for a greener and more competitive economy, for market shares and increased profits as well as a hope for a better society and for better quality of life for EU citizens.

There is a conviction that EU decision makers are aware of these expectations and have decided to switch gears from ambition to implementation. To that extent, it’s interesting to note that most Brussels opinion formers tend to look quite favorably on the way the EU has engaged its resources and efforts to support innovation.

However they also share the fear that innovation might become only a shallow mantra for change if not converted into pragmatic, action oriented decision making.

Making decisions and, most of all, defending, promoting and implementing them in the coming months, EU leaders will first need collaborative agreement on essential notions such as:

- **How can we define innovation?** In this research most stakeholders believe in a broad and inclusive definition of innovation that goes beyond technical research to embrace innovative processes, relationships, use of existing resources and funds.
- **What is the core purpose of innovation?** Is it only economic growth or is it important to also consider improved and overall well being for EU citizens? From the answers given to this question will emerge the key performance indicators and measurement approaches used to gauge trends and create results.
- **How can we address the factors that hinder innovation?** An overwhelming majority of respondents agree on the need for more public / private partnerships, more consistency in the EU / Member States policies and incentives and fighting bureaucracy at all levels. However, the most important point made was the need to change the processes allowing companies to access structural funds.
- **How can we develop innovation if the intellectual property (IP) environment is not well balanced between rights protections, collaboration and open innovation incentives?** Most respondents advocate for a single EU patent, easing the complex and costly challenge of dealing with the current system. They also stress the need for a more positive vision of IP that is less defensive and more collaborative.

There is a sense of emergency around these issues, Brussels opinion formers expect fast, concrete, realistic measures to be taken and implemented.

Beyond the need for measures and political will, a striking consensus among innovation stakeholders is the need for a cultural paradigm shift. When talking about what is required to unlock innovation potential, most stakeholders talked about culture and education. In addition they also talked about the capacity from women and men in Europe to be creative, freed from a fear of failure and supported in endeavors they wish to pursue with partners they wish to collaborate with.

Innovation in Europe needs public funding and venture capital, support of the innovation chain from research to market as well as more flexible and consistent regulations; but it also demands a shared passion for innovation among current and future generations of European citizens.

“Innovation is a fantastic instrument for competitiveness and crucial in our economy’s future. Innovation needs to be included in policies but also in society. I see other countries like the United States as not so much having good policies on innovation but creating an environment that fosters an innovative spirit.”

EU THINK-TANK LEADER

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INNOVATION FOR A BETTER EUROPE



EU opinion formers expect a clear engagement of EU resources, budget and policies to move from speeches about innovation to concrete action

In the conclusions of the European Council of the 17th of June 2010, great emphasis was put on research and innovation as a lever for sustainable growth. In other words, innovation is confirmed to be one of the cornerstones of the EU 2020 Strategy.

"We adopt 'Europe 2020', our new strategy for jobs and smart, sustainable and inclusive growth. It constitutes a coherent framework for the Union to mobilise all of its instruments and policies and for the Member States to take enhanced coordinated action. It will promote the delivery of structural reforms.

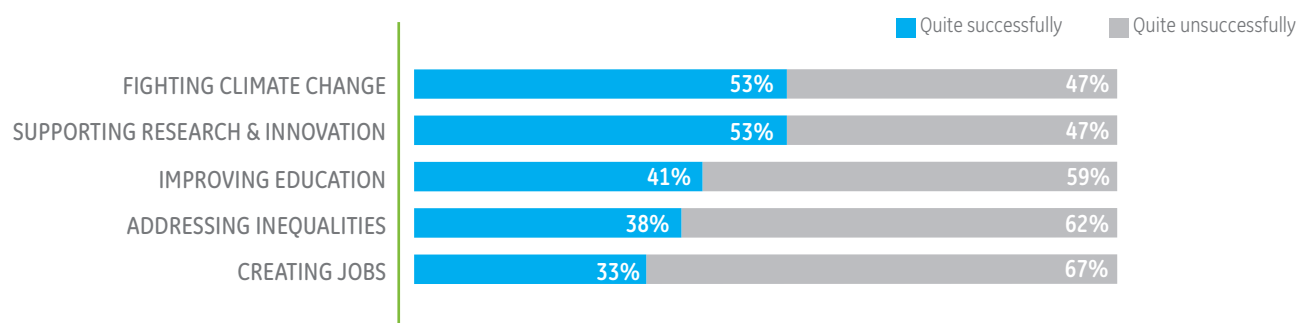
The emphasis must now be on implementation, and we will guide and monitor this process. We will discuss further, over the coming months, how specific policies can be mobilised to unlock the EU's growth potential, starting with innovation and energy policies."

The EU 2020 objectives are ambitious, general and considerably extensive, so it came as no surprise that **most of our respondents challenged policies around these objectives as well as questioned how the EU plans to allocate resources to address them.**

However, it is interesting to note that **in comparison to goals around creating jobs or addressing inequalities, supporting research and innovation is an objective where the allocation of resources is acknowledged as more successful.** In addition, the EU's conviction in supporting innovation and research is better perceived by respondents.

In fact, some believe innovation has a tendency to become a "magic word" that dominates every conversation on the EU's future, almost to the point where it has become a mantra that is less supported by concrete measures or actions.

How successfully do you feel the EU is allocating its policies, resources and budget to address the following priority areas?



"There is no meeting in the EU galaxy where the word 'innovation' is not pronounced 15 times... it's like a magic word. Now what's important is to convert speeches into concrete and pragmatic actions or innovation will only be a buzz word." - JOURNALIST

"The Lisbon strategy had a lot of great ideas but nothing was implemented so what we need to move forward - results. We need implementation, not just blah blah." - A EU COMMISSION REPRESENTATIVE

Only a broad definition of innovation can lead to a greener, healthier and more competitive EU economy

90% of respondents believe innovation is the main lever to create a more competitive and greener economy

A majority of respondents and interviewees believe innovation is considered a “societal challenge”. Generally, respondents defend a broad vision of innovation:

- Innovation is not only about technology but also about processes, productivity, policies, etc
- Innovation is a “spirit”, promoting “out of the box” thinking, entrepreneurship and acceptance of failure
- A society that allows innovation to flourish, understands that innovation, research and education are linked to one another in a sort of “knowledge triangle”. To be effective this triangle model must also include financing, market access facilitation and entrepreneurship

“A societal challenge approach has been adopted by the EU and climate change and sustainable energy as well as other green policies are high on the agenda and innovation is really in these domains. This is the future. [...] These are the themes innovation will tackle.” A EUROPEAN COMMISSION REPRESENTATIVE

“Tackling climate change, health security, food security, the Millennium Development Goals, all of these are tied to innovation. It is going to take the introduction and invention of new goods and services to help tackle these problems and its not just the EU but the EU working with other people around the world.” A EUROPEAN COMMISSION REPRESENTATIVE

“Innovation is a fantastic instrument for competitiveness and crucial in our economy's future. Innovation needs to be included in policies but also in society. I see other countries like the United States as not so much having good policies on innovation but creating an environment that fosters an innovative spirit.” THINK-TANK

*“Innovation is the only way for a stronger and more competitive Europe. I have been fighting for a broader understanding of innovation because limiting it to technology is a misunderstanding. Innovation is a **new out of the box way of thinking** for me and it includes reaching out to new technologies but also processes.”* - MEP

To reach their full impact and create jobs innovation policies should foster a continuum between innovation and market access

Once again the general consensus covers several sub-dimensions as well as caveats:

- Innovation can create jobs, but it can also improve productivity and “green” existing jobs
- To create jobs, innovation has to reach the market. Policies should not only encourage innovation but also increase the chances that these innovations find a strong customer base
- Public regulation, tax incentives and public procurement are levers that should be activated by public authorities both at the EU and Member States levels

“When innovative products or business are brought to the marketplace it builds a better society in the EU and in a global context. For a politician it might mean jobs and for businesses it might mean profit, but in reality it’s a mixture of many things that ensures that we make society a better place.” A EUROPEAN COMMISSION REPRESENTATIVE

*“It has focused peoples’ minds on the absolute imperative of removing the political and economic obstacles that stand in the way of putting in place a proper innovation ecosystem, **the bottom line is, if we want to create new and greener jobs we have to remove these obstacles.**”* A EUROPEAN COMMISSION REPRESENTATIVE

86% of respondents believe investing in innovation is the best way to create jobs in the EU

PERSPECTIVE

With a value of 17% of EU GDP, public procurement is recognised as a powerful tool to encourage innovation. In March 2010, European Commission President J.M. Barroso addressed public procurers with this call to action: *“It is time to harness the power of government procurement to promote innovation”*.

“Employment in high-tech KIS (Knowledge Intensive Services) and in high-tech manufacturing increased between 2003 and 2008 at average annual rates of 2.8% and 0.4% respectively.” **Science, technology and innovation in Europe - Eurostat pocket book 2010**

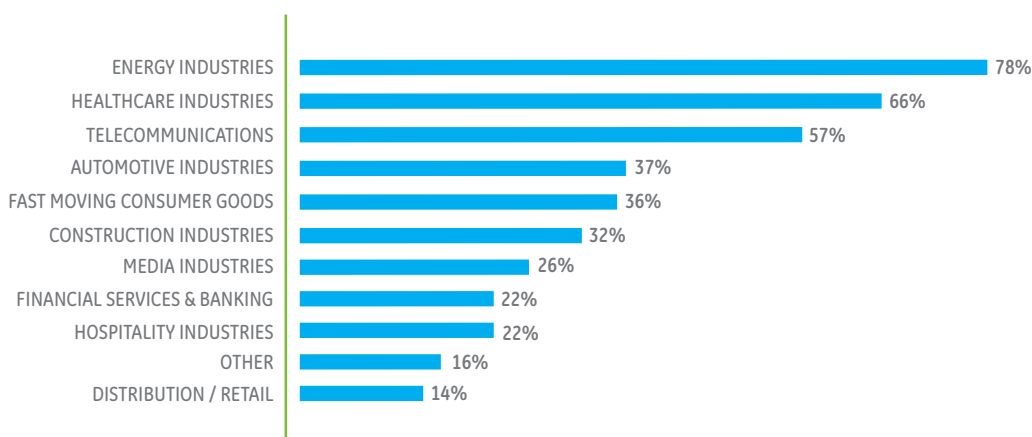
*“Innovation is the key to a durable economic recovery and our only means of creating **cleaner, greener and smarter jobs** to replace those which have been lost.”*

COMMISSIONER GEOGHEGAN QUINN, SPEECH TO THE EUCC. 02/18/10

Innovation policies could lead to more jobs and growth in all sectors, but most notably in energy and healthcare industries

- Thanks to its direct connection to climate change and green technology, the energy industry is said to have the greatest potential for growth through innovation
- Respondents rank the healthcare industry second as the sector with the most innovation growth potential. EU demographic trends and overall public health risks make this sector a reservoir for potential new jobs and increased profits for EU economies
- Even if convinced that innovation can come from any sphere, most respondents feel nanotechnologies, clean-tech, smart grids, and biotechnologies are fields in which innovation potential is the greatest in both the short and mid-term

What sectors would benefit most from a more efficient EU innovation policy? (In terms of job creation and increased profits)

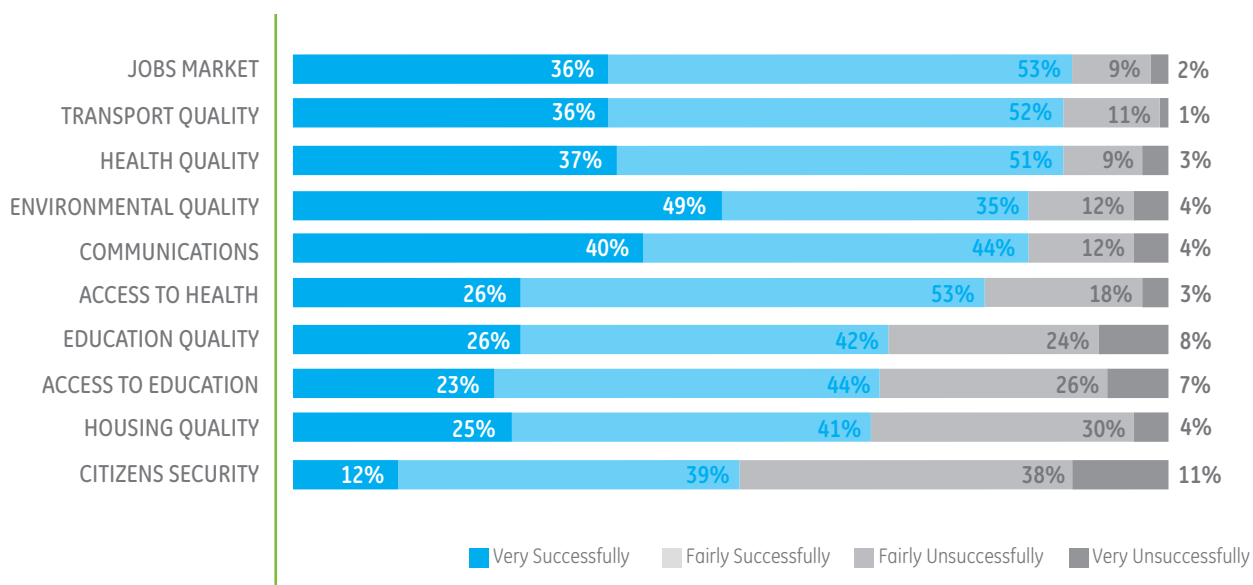


*"All sectors could have a strong return on innovation. The sectors that would have the greatest returns on innovation would be **the industries that are creating the innovations, ICT, new energy, pharma.** The industries that would have the greatest productivity gain would be those that use technology. That's **electricity, health, financial services, retailing, all of that.**" - JOURNALIST*

Beyond economic growth, innovation could change EU citizens lives. This belief should be part of an overall appreciation of the value brought by innovation

- A very large majority of respondents believe a better innovating Europe would induce change in several important dimensions of the lives of EU citizens, particularly related to the quality of their environment and health
- Even more strongly than the interviewees working in EU institutions, respondents from the private sector felt that access to health would improve greatly with a strong innovation policy
- There is a general agreement that the overall contribution from innovation policies to EU citizens lives should be communicated, explained, and demonstrated better to EU citizens
- Most respondents stress the importance of measurement and the impact it could have on decision making and prioritisation processes at both the EU level and local level. Most agree that innovation results and outcomes should not only be assessed through GDP growth but through the contribution brought to a citizen's quality of life

How successfully do you think innovation could improve European citizens lives in each of the following areas in the near future?



*"I am passionate about fostering an innovation culture in Europe because **it can change people's lives and transform our society**. For example, it can deliver better treatment for diseases such as Alzheimers and diabetes. And it will help us to meet our growing energy needs in sustainable ways."*

COMMISSIONER GEOGHEGAN QUINN, SPEECH TO THE EUCC. 02/18/10

UNLOCKING EU INNOVATION POTENTIAL



There is an array of innovation deterrents in Europe. These factors form a system of negative influences that need to be addressed as a whole

Brussels opinion formers quite consistently identify several factors hindering innovation in Europe. These results can be organised in several buckets:

1/ Cultural reasons

- Culture of moderate risk
- Uncultivated spirit of entrepreneurship
- Unsupported promotion of collaboration between players (universities and corporations, corporations and small to medium sized enterprises (SMEs))
- Low levels of cross regional collaboration

"It's a long and slow process to change the European spirit and introduce more appetite for innovation, risk and entrepreneurship. [...] We need to make entrepreneurship desirable!" - JOURNALIST

PERSPECTIVE

"Karen Wilson of the Organisation for Economic Cooperation and Development (OECD) called for bankruptcy laws in Europe to be changed in order to give SMEs a greater chance of starting up again and overcoming their 'fear of failure'."

www.Euractiv.com, Entrepreneurs 'forgotten' in the EU innovation policy, 07/07/10

Most of the venture capital is invested in already mature projects and companies. Funding a project at early stage is much more of a challenge: *"In 2008, venture capital investment (VCI) at an early stage in the EU 15 totalled almost EUR 2.5 billion (0.02% of GDP). This was far below the EUR 36.2 billion (0.31% of GDP) invested in buyouts and the EUR 12.5 billion (0.11% of GDP) for VCI at the expansion and replacement stage."* **Science, technology and innovation in Europe - Eurostat pocket book 2010**

2/ Political reasons

- Slow decision making processes (from assessment to implementation) and delicate relationships between EU institution and Member States
- Inconsistency between Member States policies
- Lack of funds, competition between innovation and other needs (infrastructure, agriculture....)
- Turf wars between Member States and between Member States and EU institutions
- Unrealistic targets
- Innovation not as popular as it could be among citizens
- Dominance of the public economy
- Market barriers

"We must put an end to the fragmentation of national research efforts and avoid duplication. I know of one case where 72 research centres were doing the exact same research on the exact same bacteria. This makes no sense!"
COMMISSIONER GEOGHEGAN QUINN,
SPEECH TO THE EUCC - 02/18/10

3/ Regulation reasons

- Access to funding. Regulations regarded as not flexible and not diversified enough
- IP protection and enforcement, EU patent expectation
- Lack of unity between different policies and their focus

“Several policies compete one with another and when making the arbitrage leaders often consider innovation is not the most popular dimension among citizens, so it tends to be prioritised at a low level.” - ACADEMIC

PERSPECTIVE

*“The money provided is not easily accessible. Researchers are forced to spend weeks preparing funding applications which have to comply with a number of protocols. **The level of bureaucracy has reached a point where it is difficult to manage without a dedicated member of staff.**”*

Alfred Kleinknecht, Professor in the Economics of Innovation at TU Delft, interview on the Dutch newspaper “Trouw”, 07/22/2010

4/ Contextual reasons

- World economic downturn / weak growth
- Public and private research and development budget cuts
- Low involvement of the private sector into R&D
- Weakness of venture capital in Europe
- Aging population
- Brain drain

*“The problem with **the crisis is that it has dried out venture capital** for a while and that it also **stalled some of the progresses made on PPPs.**” - JOURNALIST*

PERSPECTIVE

*“R&D spending in Europe is below 2%, compared to 2.6% in the US and 3.4% in Japan, mainly as a result of **lower levels of private investment** It is not only the absolute amounts spent on R&D that count – Europe needs to focus on the impact and composition of research spending and to improve the conditions for private sector R&D in the EU. Our smaller share of high-tech firms explains half of our gap with the US.”*

“Europe 2020: a strategy for smart, sustainable and exclusive growth”, European Commission

5/ Conceptual reasons

- The definition of innovation is too narrow: innovation is not yet perceived a “societal challenge”
- Difficulty in measuring the impact of innovation
- Innovation complexity: a system of actors / multitude of variables / levers

*“When you have a choice between building a road and risking money for an innovating project, **most people will build a road!**” - MEP*

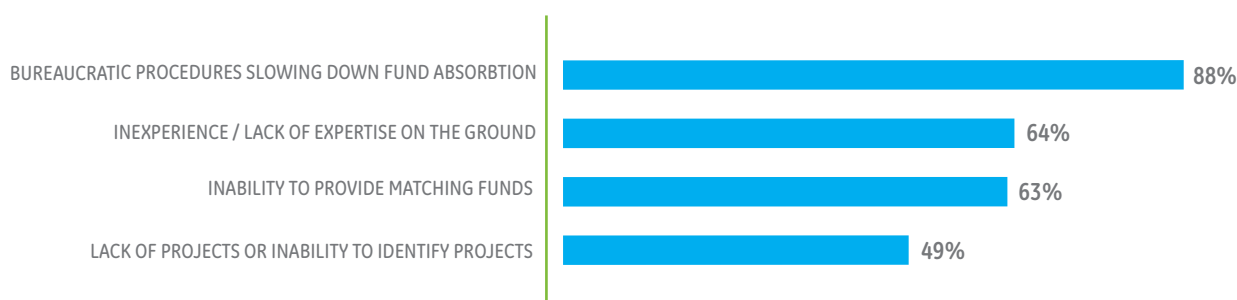
PERSPECTIVE

*“A high degree of innovation is not driven by research but by changes in processes, business models and workplace organisation. And it’s precisely in these areas where Europe has weaknesses. [...] we should finally recognise that **innovation is at least as much as management and organisational challenge as it is a research challenge.**” - Ann Metler, The Lisbon Council, 02/28/10*

Fighting bureaucracy is a top priority of Brussels opinion formers in order to permit the uptake of structural funds for innovative products and services

- The question of funding innovation in the EU is quite complex. Even though the economic crisis has clearly put a drain on resources, most respondents agree that the difficulty in accessing funds is a greater issue than the amount of money available
- Most respondents agree on the fact that private funds are missing in Europe and that the venture capital system needs to be encouraged especially in the context of co-funding projects
- Structural funds are perceived as having a central part to play in funding innovative projects in Europe. 87% of respondents believed that using structural funds would be beneficial. However these funds are often said to be failing in contributing fully to the uptake of innovative services and products. Respondents said this was mostly because of bureaucratic procedures and “competition” between projects that are perceived as “easier” to implement and more innovative projects that are seen as riskier and harder to measure in terms of success

What prevents the uptake of structural funds to develop innovative services and products at the national level?



Several factors are said to impact the way structural funds can support the development of innovative projects but bureaucratic procedures and the complexity of supporting and measuring the success of innovative projects are by and far listed as the top deterrents to this development.

“The innovation chain approach is the new way to go. To get there you need a new governance arrangement and you also need a new financing arrangement. We have a lot of financing available, 80 billion earmarked for innovation in structural funds, there is funding available, but the emphasis now is on co-funding, for example, public private partnerships and it’s about how to put all these people together. That is where the EU and innovation is going at the moment.” A EUROPEAN COMMISSION REPRESENTATIVE

“There is too little emphasis on innovation. We are spending money on agriculture and infrastructure that supports traditional, not green, businesses. We should put emphasis on innovation in terms of knowledge as well for education initiatives. How can we do this? Through (e)government and (e)education. These are innovative new solutions for the health and education sectors that help to avoid bureaucratic procedures.” THINK TANK

“The overwhelming picture is that most EU governments don’t get research development and innovation. At the EU level there continues to be a huge problem in terms of lack of coordination and heavy bureaucracy.” JOURNALIST

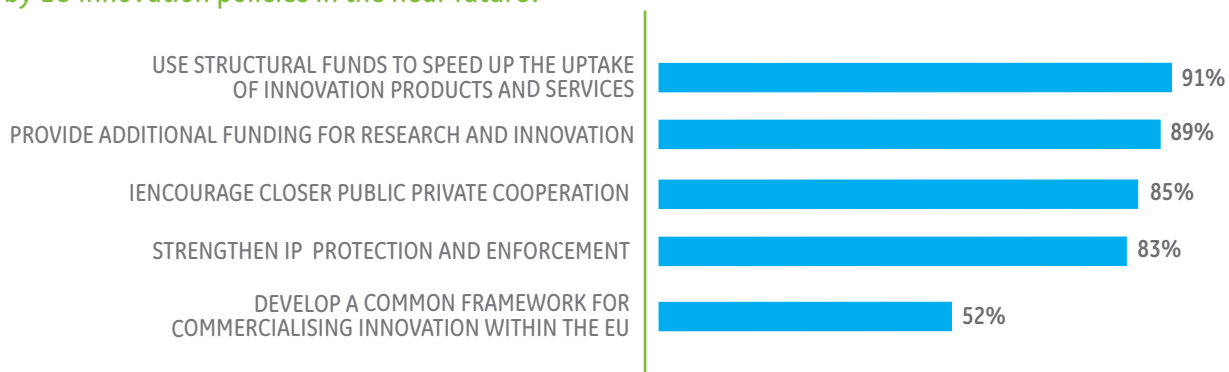
In the mid-term report on the spending of structural funds, the EU reported that **only 27% of the funds available have been allocated to projects**. This means that more than 70% of the funds allocated for a 6 year period will have to be allocated in the next 3 years.

"The difference [between local funding sources and EU funds] is that when I send an application for finance to my local authority, it may need modification or re-writing before being accepted. When I send an application to the EU, it is simply rejected", Piet Verhoeve of Televic explained." - www.Euractiv.com, **Entrepreneurs 'forgotten' in the EU innovation policy, 07/07/10**

"EU credit for research and innovation could be used in a more unified way and with less bureaucracy to help EU companies stay in the global race for new technologies. Since the negotiations on the EU budget are imminent, we need to start thinking about how we can 'spend better' instead of just asking for more in the budget."
FRANÇOIS FILLON, FRENCH PM, HUMBOLDT UNIVERSITY, MARCH 2010

Respondents' main suggestions for a more innovative EU society

Among the following directions which ones do you feel should be pursued by EU innovation policies in the near future?



— A large majority of interviewees, 83%, believe that public/private partnerships are essential pieces of a more innovative Europe. Interviewees want to see partnerships between a host of different actors including companies, universities and governments

"This is not easy to have everybody sit at the same table, SMEs, Big Corps, universities, it's quite early to measure the value it adds but you can tell by the enthusiasm and the number of projects that this is really working out."

JOINT UNDERTAKING OFFICIAL

— A cultural paradigm shift through education is also perceived as important. The EU should encourage its students be more innovative and work closer on real world projects with governments and companies

"The missing link for us has been higher education and business and we want these actors to work together in multidisciplinary teams that are strategic and have strict monitoring and they compete for funding and really generate results and I think this is the bottom line."

A EUROPEAN COMMISSION REPRESENTATIVE

— Venture Capital should be encouraged in the EU

"We have a great lack of private money. When you compare the EU with the situation in the US you realise how far behind we lag on this."

JOURNALIST

— Respondents believe that tax incentives for existing and potential businesses and entrepreneurs would greater support innovative products and services

"We should cut taxes to incentivise both large and small enterprises for innovation. Perhaps this is more important for small companies and less politically unlikely but that's what they should do. It's the one thing that they never address. There is a laundry list of other things they should do and have been talking about doing such as reform of intellectual property law, creation of a community patent, encouraging mergers with universities but the taxes are the most important."

MEP

— SMEs are considered to be the backbone of a prosperous and innovative Europe. It was agreed that they should be supported more through incentives such as tax breaks and a progressive IP framework

— The public sector also has an essential part to play *"There is definitely room for a more innovative and reinvented public sector in Europe. It has such a weight in the EU economy; it should lead the way."*

THINK TANK

"We miss capital and funding, both from the EU and private sector. We need encouraging business angels and tax incentive are probably good ways to do it."

JOURNALIST

PERSPECTIVE

Tax incentive harmonisation, a running debate: *"Currently, tax incentives have grown to become one of the major instruments used by many Member States to increase business R&D. [...] However, the diversity of schemes introduced has resulted in an increasingly complex landscape for R&D tax treatment in Europe hindering trans-European collaboration. [...] The Commission also invites Member States to work together when considering the tax treatment of a number of issues of common interest – in particular the funding for large-scale trans-national R&D projects; the growth of young innovative enterprises; the cross-border mobility of researchers and the treatment of philanthropic funding of research."* – European Commission Press release, "Tax incentives: Commission promotes an effective use of tax incentives for R&D", 11/22/2006

To flourish, innovation needs an intellectual property (IP) framework that combines protection and flexibility

- Most respondents agree that a single and united EU patent would be a progressive way of helping innovation to prosper and that the current system is too complicated and expensive, making it difficult to both safeguard and encourage innovative ideas
- However, solutions related to the best structure of a supportive IP framework are not simple. Certain interviewees stressed the fact that IP should not be a limit or a barrier to innovation
- Policies that encourage innovation such as public private partnerships and collaboration between companies of different sizes demand the IP system to be both flexible and protective, defensive and collaborative

Only **41%** of respondents believe that the current IP system allows innovation to flourish in the EU

PERSPECTIVE

*"Within Europe the key challenge is fragmentation of the patent system, where national patent offices and jurisdictions have the ultimate power to grant or invalidate patents [...] In other words, **the European patent system and the work of the EPO are currently being undermined by the high degree of patent fragmentation in Europe.**"*

"Lost property: the European patent system and why it doesn't work", B. V. Pottelsberghe, 06/29/2009

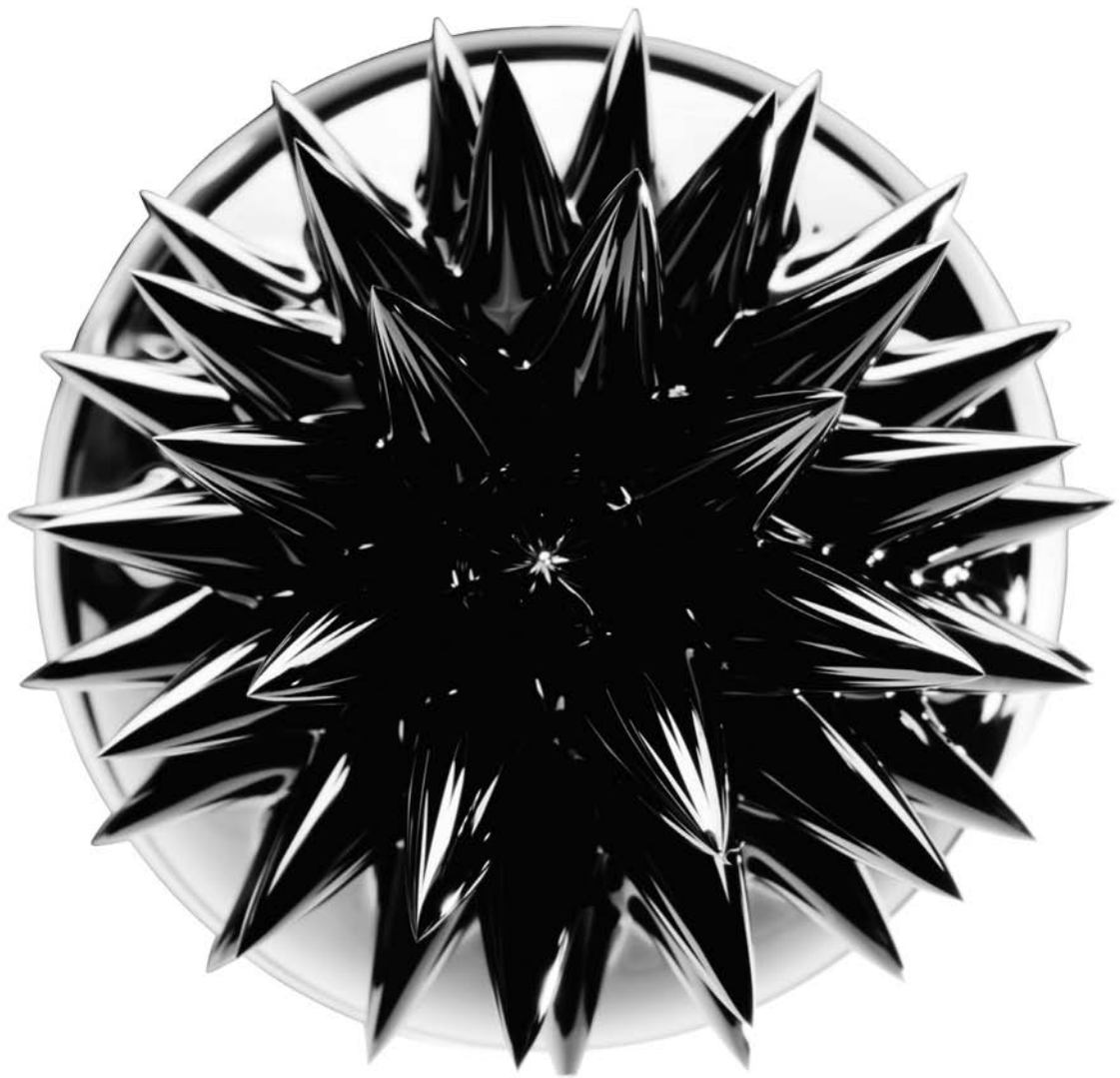
"The first thing would be to have the European Patent. Some more solid guidelines for the forthcoming years would be also very helpful so that the market knows what it is that is going to be discussed; and I don't think there is much clarity about that." THINK TANK

"There is a growing realisation that the EU needs to streamline its structures to make it easier for companies to register patents with the EU. At the moment it takes 20 times more to maintain a patent in the EU than in the USA. There is no one size fits all solution to the IP question. Some people say IP protection is needed for new medical products that have come into the marketplace because they have invested a lot of money. Others say publicly funded research programs should have an open platform." A EUROPEAN COMMISSION REPRESENTATIVE

"I think IP rights should be protected. This is a no brainer! The problem is in international relations, we still have spots in the world where it is not the case so that is discouraging and is putting our companies at a disadvantage when they go to places like China. We need to feel safe that our ideas are protected against abuse." MEP

"We need to start thinking differently about IP; this is not only a defensive set of rules but a collaboration and sharing tool. Sometimes SMEs and research labs feel they can only be in an unfair position when working with large companies. It's true that in the past these used to be quite unfair, but it's changing for the best I think." EUROPEAN COMMISSION / INDUSTRY JOINT UNDERTAKING REPRESENTATIVE

THE EU AND GLOBAL INNOVATION COMPETITION



Innovation is in the EU's DNA, but needs to be better supported in order to bridge the gap between research and the market

- There is a common feeling among respondents that the EU is less committed to strong innovation support than other countries. This belief is mostly based on the GDP % indicator that shows EU is far from the best in its class

"31% of all patents in the world emanate from the EU and 31.4% emanate from the USA. That statistic tells that the EU has invented and brought a lot of technology. The first obstacle is a need for the increase of private sectors involvement in the area of innovative research in science and technology. At the moment the intensity of involvement stands at 1.15% GDP. In the US its 1.67% and it's even higher in other countries such as Japan and South-Korea . We need a higher level of involvement if we want to reach 3% by 2020." A EUROPEAN COMMISSION REPRESENTATIVE

- ... but at the same time, there is an understanding that some EU regions do better than others and that everything depends on political will

"I don't think we have been taking [Innovation policy] seriously over the last decades. We have been in general lagging behind. But we have regions in Europe that are much more advanced than the US or Japan and are on top of the global list of the most innovative. We have Sweden, Finland, and Denmark that are the most innovative states in the world. Very often it depends on authorities having a good leadership. It also depends if you have a good university in your region or a good company. Policies are where we are lagging that would support the innovation process." MEP

- It seems that more than the issue of funding, one of the most important deterrents could be the cultural factor (entrepreneurship / cooperation) that is held responsible for the unfavourable level of international competition

"I don't think the US has more extensive or better policies than we do but the society is more receptive; that's maybe why the EU should invest in developing it. I think [innovation] is clearly an instrument for competitiveness; this modernisation process needs to happen in all Europe to be competitive; we need to create value in a more intelligent way; it should be in the agenda in a more permanent basis: innovation targets it's crucial." THINK TANK

"We need to become a YES society, with acceptance of failure. This is far from being true in Europe." ACADEMIC

*"Europe has a large and an excellent knowledge base. It is the largest producer of scientific publications. **But we are not good at transforming our inventions into commercial successes.** For example, the MP3 standard for compressing audio data was invented in Europe, but commercialised in America – as was Apple's iPod. This has to change. Europe is in fact nearly level pegging with the US in terms of the number of patents registered."*

COMMISSIONER GEOGHEGAN QUINN, SPEECH TO THE EUCC, 02/18/10

***"We are not less innovating, this is not the issue. The real issue is how we exploit and develop innovation.** How can an innovating SME raise money? How can it showcase its capacity to change a market? **There are possibilities in Europe but they are far less diversified than in the States.** At the end of the day this goes back to a culture of risk. **Unfortunately the EU tends to consider there is not enough money available to take risk with what we have.**" - ACADEMIC*

A perspective from US and China on innovation in the EU

EXTRACTS FROM INTERVIEWS CONDUCTED WITH TWO INNOVATION EXPERTS FROM LARGE COMPANIES IN THE UNITED STATES AND CHINA

United States of America

— There is a favourable opinion of the US Intellectual Property framework and a hope that the EU will adopt a similar system to make it easier for those who would like to innovate

"I think the certainty of IP rights, if it's regulated in the right way; it makes it easier to innovate and to protect the ideas behind your innovation. I think IP rights should encourage innovation. If you had one patent for all 27 countries it would make it easier for a small innovator to create an idea, patent it and get the protection s/he needs and then develop the idea or expand it."

— An international collaboration effort with partners in the EU and other countries is considered important for innovation to continue to flourish

"The US is looking into the regulation of new technologies so it would make it easier for the US and Europe to work together and it's now easier than it ever has been before. There is something called the High Regulatory Cooperation Forum and it is made up of government officials from the US and Europe and they are talking about transatlantic economic policy and innovation policy. This info is then shared with important stakeholders in businesses and so on. Communication is key to working together. The challenge is putting aside our theoretical differences on regulations so we can have more trade and stepping away from our differences and looking at what we agree on."

— Lack of money is perceived as a great deterrent to innovation in both the US and the EU

"[One great challenge to innovation is] money. It's tight for companies, people, governments and it's so vital to invest in innovation in a time where you really need it. It's a hard thing to justify but if you don't you stagnate and other economies that don't have the challenges we have, like the Asia economies, are going to innovate and if we don't keep up with them we are going to be far behind."

"I think the [US] president is focused on innovation as a job creation tool. The administration is spending more money on independent research and institutions that are helping innovation. I think we have forever been leaders in innovation and I suspect we will continue to be that but as resources are difficult to come by, that is going to be the challenge."

— Other than money, another important incentive for innovation is encouraging risk and tolerating failure

"In the US and even more in the EU we need more corporate support for failures. If you have fear of doing something wrong or outside the box, there will never be innovation. You need more support for innovation in the corporate culture and also general culture."

China

— Innovation in China is focused on matching the market needs and not necessarily with breakthrough technology

"Innovation is technical but it's often a question of the business model, for the Chinese market we have no choice but to be pragmatic and directly connected to the market demand."

— Innovation in China is challenged by the quick pace of market evolution

"The market changes very fast, customers change very fast, so it has to be very specific to the market, for instance banks have been very innovative just by using SMS to communicate with their clients. This is quite an old technology but a very innovative use."

— In China, both the government and industry support innovation and face similar issues to Europe

"The government is spending more and more in R&D, they also fight the brain drain which is a reality. The overarching objective is to move from being a factory country to an innovative leader. Education is a big challenge for this, creativity as well."

— The partnership between universities and companies seem to be working well, especially for SMEs

"SMEs don't have the means for R&D so they go to the universities. SMEs provide the funding so they own the outcome of the research. Of course they tend to keep their competitive advantage quite secret, this is more for general research."

“A YES society is one where there is general support to entrepreneurs, where acceptance of failure is a reality, where people can find partners and are encouraged to bring their ideas to life. To me that’s the biggest challenge: sharing a passion for innovation, the courage to dare!”- ACADEMIC



About GE

GE is a diversified global infrastructure, finance and media company that's built to meet essential world needs. From energy water, transportation and health to access to money and information, GE serves customers in more than 100 countries and employs more than 300,000 people worldwide.

GE employs over 90,000 people in Europe across the portfolio of its businesses many of which are headquartered in the region. Its international headquarter is located in Brussels.

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StrategyOne is a full service strategic research and measurement consultancy. Created in 1999 in New York. With offices in London, New York, Paris, Brussels, Washington, Chicago, Silicon Valley, Abu Dhabi, and Atlanta, we routinely conduct projects with global perspective. In Europe, StrategyOne provides companies and organisations with opinion research, stakeholder research, marketing research and measurement of communications and public affairs initiatives. Contact: Antoine Harary, Director Europe. antoine.harary@strategyone.net

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