

TOWARDS HORIZON EUROPE
LAB-FAB-APP INVESTING
IN THE EUROPEAN FUTURE WE
WANT

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LAB – FAB – APP

**Investing in the European
future we want**

*Report of the Independent High Level Group
on maximising the impact of
EU Research & Innovation Programmes*



LAMY's High level group mandate

- Investing in the European future
- To formulate a vision for future EU Research and Innovation (R&I)
- To draw strategic recommendations on maximising the impact of EU R&I programmes in the future, i.e. how to fulfil that vision.

Mr. P. Lamy: „We need LAB-FAB-APP“

- We need to continue investing in science, whether disruptive or incremental – LAB.
- We need to become much better in fabricating added value products and services, converting the results of sciences into innovative solutions that generate value for economy and society – FAB.
- We need to ensure that these solutions find their application for the benefit of society, and with the more active participation of citizens – APP.

**Commissioner Moedas: „We do well in terms of science,
but not yet enough for innovation“**

R&I context challenges, to turn problems into opportunities

- EU added value for growth, competitiveness, jobs
- Continuing focus on impact
- Funding all the way from lab to market
- Enhanced involvement of business (SMEs)
- Synergies with EU financial instruments
- More industrial participation
- Societal Challenges missions coming from Interim H2020 evaluation + additional analysis + interviews ...(Methodology, LAB-FAB-APP, pp. 24)

THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION

HORIZON 2020

Excellent Science

European Research Council

Future and Emerging Technologies

Marie Curie Actions

Research Infrastructures

Industrial Leadership

Leadership in Enabling & Industrial Technologies

- > Information and communication technologies
- > Nanotechnologies
- > Advanced materials
- > Biotechnology
- > Advanced manufacturing and processing
- > Space

Access to Risk Finance

Innovation in SME

Societal Challenges

- > Health, Demographic Change and Wellbeing
- > Food security, sustainable agriculture, marine and maritime research and the bio- economy
- > Secure, clean and efficient Energy
- > Smart, Green and Integrated Transport
- > Climate Action, Resource Efficiency and Raw Materials
- > Europe in a changing world: Inclusive, Innovative and Reflective Societies
- > Secure Societies - Protecting Freedom and Security of Europe and its Citizens

Joint Research Centre (JRC)

Widening Participation

Science with & for Society

European Institute of Innovation and Technology (EIT)

Joint Programming P2P

Joint Technology Initiatives P2B

R&I context challenges and to turn problems to opportunities

- To invest in R&I as they are key drivers

Recommendation 1:

To Prioritise research and innovation in EU and national budgets.

Action: to double the budget of the post-2020 EU research and innovation programme.

Challenges:

- EU added value, growth, competitiveness, jobs
- Innovation-led growth builds prosperous and cohesive EU
- Multidisciplinary collaboration
- Increased funding (3% GDP) matched with public and private **xxx**

Recommendation 2:

Build a true EU innovation policy that creates future markets.

Actions:

- To foster ecosystems for researchers, innovators, industries and governments
- To promote and invest in innovative ideas with rapid scale-up potential through EIC, European Innovation Council.

Challenges:

- To invest as innovation deficit is as we do not capitalise
- Knowledge assets, based on science and research faster and intensively turned to innovations in the form of new products, services and business models as they generate value for economy and society
- Intangible sources investment and to capitalise equity
- Market driven innovation.

Innovation – most important driver

Innovation new definition

Innovation is more than technology. EU innovation policy must be based on a definition that acknowledges and values all forms of new knowledge – technological, but also business model, financing, governance, regulatory and social – which help generating value for the economy and society and drive systemic transformation.

Stronger focus on breakthrough than incremental innovation

Modern R&I policies and programmes with the highest potential for promoting breakthroughs are those that resolutely push and pull cross-disciplinary, cross-sectorial, cross-institutional and cross-border collaboration, responsive to market opportunities and societal expectations.

Recommendation 3:

Educate for the future and invest in people who will make the change.

Action: modernise, reward and resource the education and training of people for a creative and innovative Europe.

»Europe can have the most impressive talent pool on earth, but it will fail to capitalise on this if the education system does not foster a more innovative and risk-friendly culture«
Lab Fab App, pp. 13.

Challenges:

- Education system to foster innovative culture
- To embed innovation and entrepreneurship in education
- Everybody in a society should be creative
- University active in bringing together business, research centres and universities
- To help bridging the valley of death between fundamental research and commercialising products
- To promote open science, open innovation and openness to the world
- Development of curricula for the next generation

There is no excellency in R&I if there is no excellency in education.

Recommendation 4:

Design the EU R&I programme for greater impact.

Action:

To make the future programme's pillars driven by purpose and impact, fine-tune the proposal evaluation system and increase flexibility.

Challenge and Focus on:

- Purpose
- Impact
- Excellence in science, in industry, in society.

Recommendation 5:

Adopt a mission-oriented, impact-focused approach to address global challenges.

Action: set research and innovation missions that address global challenges and mobilise researchers, innovators and other stakeholders to realise them.

- Missions should have a breakthrough potential for science, technology, industry or society
- Unlock the innovation potential
- Involve all EU instruments
- Mobilise many actors in partnership and across sectors
- Design thinking

Recommendation 6:

Rationalise the EU funding landscape and achieve synergy with structural funds.

Action:

To cut the number of R&I funding schemes and instruments, make those remaining reinforce each other and make synergy with other programmes work.

Recommendation 7: *Simplify further.*

Action:

To become the most attractive R&I funder in the world, privileging impact over process.

Recommendation 8:

Mobilise and involve citizens.

Action:

To stimulate co-design and co-creation through citizen involvement.

Recommendation 9: *Better align EU and national R&I investment.*

Action: ensure EU and national alignment where it adds value to the EU's R&I ambitions and missions.

EU and a member state – complementarity

Common strategic reference agenda

„EU R&I programmes should focus on topics and objectives with high EU added value, beyond specific national priorities and interests.

EU Member States should develop multi-annual national R&I strategies outlining priorities for national R&I investments and their alignment with the EU R&I programme“. (pp. 20)

Recommendation 10:

Make international R&I cooperation a trade-mark of EU research and innovation.

Action:

To open up the R&I programme to associations by the best and participation by all, based on reciprocal co-funding or access to co-funding in the partner country.

Recommendation 11:

Capture and better communicate impact.

Action:

To brand EU research and innovation and ensure wide communication of its results and impacts.

Impact to be maximized

- Strong R&I system approach
- Move from high cost of IPR to investment in intangible assets and equity
- Business modelling and standardisation (in accountancy)
- Spend human resources effectively
- Empowerment managerial capacities

Industry 4.0 push innovation...

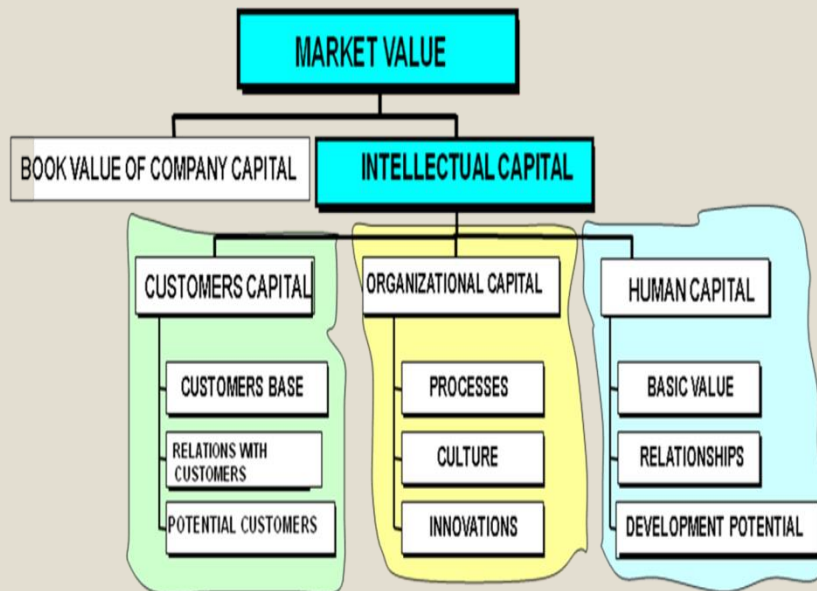
... as the first driver of growth and the main productive factor of added value. That is why the potential of human capital is to be properly considered. And business has two parts: marketing and innovation.

When investing in innovation there is more and more a possibilities to perform intangible property and its capitalisation, real economic added value.

To have under control: *Investment in knowledge and innovation to perform equity.*

Competences and skills
building for know how.

Push from costs (expenses) to
investment in intangible assets.



Knowledge production
means developing and
providing knowledge.

Knowledge transmission
is educating and developing
human resources

Knowledge transfer
is disseminating knowledge
and providing inputs in
problem solving.

We need to discuss and shape together...

Conference July 3rd 2017 R&I Shaping our Future

- How to capitalise on the current strengths of EU R&I
- How to face up to the challenges of a fast-changing world and rapidly evolving innovation dynamics?
- How to best create solutions for the future by seizing on the opportunities created by our research and innovation potential?
- What is the role of EU R&I and innovation in a global context?
- How can R&I shape the future of our citizens?

Talinn

Three main priorities:

1. Ensure investment in research and innovation

- Make research and innovation a real priority
 - Reaffirm research as a critical success factor and prioritize R&I in Europe's future
 - Increase budgets for R&I, both at national and EU level
 - Ring-fence and protect R&I funding in the next EU budget

2. Increase the impact of R&I investments

- Recognise a broad notion of impact that acknowledges the societal value of research for policy and practice
- Ensure that the right policies and frameworks are in place
- Broaden and improve research education
- Strengthen the role of research in policymaking

3. Build trust between research and society, and within the R&I system

- Improve the way research is communicated
- Engage people in the co-creation of the future



THANK YOU

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