e-IRG Workshop

Future skills in the new European Research Area

State Secretary Tome Antičić, Ph. D.
10 largest companies in the world, by market valuation

- Most of these are new, high-tech companies
- None from EU
- Future skills, future jobs
Number of artificial intelligence startups in 2018

Reasons?

• Lack of a sufficiently motivating environment for excellence in R&I system, not enough systemic support for grass-root initiatives and university/research-industry cooperation

• Insufficiently flexible labour policies that hinder the formation and expansion of high-tech start-ups

• Too much emphasis on protecting existing technological companies and research initiatives

• EU is losing the fight for talents to US, China, Canada etc.

• Misbalance of research quality in EU: wasted talents/lack of mobility/internal brain drain...
The future is uncertain.

- The future of the labor market, which is influenced by factors which individuals and countries cannot control, is particularly difficult to predict.

- Although people are becoming better qualified, some may not find jobs in line with their expectations and qualifications in the short term.

- As much as half of existing jobs can be at least partially automated by adapting existing technology (McKinsley Global Institute, 2017).

- However, realistic assumptions can be made to provide insights on what the future, including the future labor market, may look like.

- Decisions made today will shape that future and forecasts can, therefore, be particularly valuable in helping to decide the right thing to do.
OECD: “it is essential to prepare young people for the jobs of the future by having the right type of skills to succeed in a constantly changing and technology-filled work environment”.

- **Research and development** is a key factor in creating the jobs of the future and the basis of the productivity and competitiveness of the European economy.
• A shining light in the EU inadequate response to the rapid shift to electric vehicles.

Mate Rimac (1988 -)
Rimac concept One electric car by Rimac Automobili introduced in 2011 included company’s 24 patented innovations
Supporting ERC grantees – creators of jobs of the future.
Brain circulation - one of two priorities of the Croatian presidency

- Brain circulation has become one of the most important factors that influence the economic development and competitiveness since learning, research, innovation creation and collaboration with other countries is essential for the country's development.

- An open labour market encouraging free and balanced circulation of researchers has been at the core of ERA from an early stage of its implementation.

- The Presidency believes that it should remain one of the cornerstones of ERA post-2020, which is why we put it high on the
A tremendous amount of lost potential for the entire EU

Top 500 universities

Need an effective brain circulation system

ERA: what kind of change needs to take place?

- Strong commitment of all member states for a higher percentage of investment in R&I

- Poorly performing countries in R&I that implement structural changes in their research and higher education system should be supported by additional investments of large research projects – through structural funds - synergies
  - Widening participation grants for potential for excellence, more extensive Seal of excellence – supporting the best in each country
  - System of brain circulation and mobility of researchers, linked to Research infrastructures, future European Universities,…

- Promotion of excellence in the research and higher education systems (European Universities Initiative,…), and flexibilty of research across EU
92% of the new job openings will relate to high-skilled occupations.
• HR-ZOO: building new core components of the national e-infrastructure:
  • data centers/computer rooms at major Croatian universities
  • HPC & HTC systems
  • Cloud systems and services for general purpose computing
  • Storage resources
  • New high-speed backbone of the national academic and research network
  • Team of experts / e-science engineers to support efficient usage of HR-ZOO resources

• HR-ZOO is a key prerequisite for a competitive Croatian research and higher education area, as well as a key instrument of participation and integration into the European Research Area and the European Higher Education Area.