

e-infrastructures vision as a world-wide collaboration and innovation factor

- Welcome acknowledge of VIPs and thanks for the invitation to the coordination committee
- **1. R&I&E**
- We believe that **research, education and innovation are central to Europe's future prosperity and well-being.** New solutions resulting from research, development and innovation will be essential for Europe in improving its global competitiveness, tackling the societal challenges such as ageing and better public services, and building a green and sustainable future.
- This is why "**smart growth**" is at the centre of the EU2020 strategy.

- **Horizon2020.** EC has recently presented a new 80b€ programme for R&I for 2014-2020, to boost innovation and competitiveness. This programme is intended to help Europe become competitive in the global knowledge economy by
 - producing knowledge through research
 - diffusing it through education
 - applying it through innovation

- The Commission proposes **H2020 to be 46% bigger** than the current FP7, at a time of financial crisis and proposed EC budgets that remain roughly constant. This shows that we walk the talk on R&I.

- President X of Rwanda said that "if you think education and research are expensive try ignorance"

- **2. e-Infrastructures**

- Europe's ambitions for research and innovation can only be met by ensuring that European researchers carry out world-class science. This requires **access** to world-class instruments and research infrastructures, **access** to their peers wherever they are around the world, and **access to knowledge resources** – publications and data of all sorts. This is of course true not just for Europe but for any country.
- **Collaboration, access to information and instruments.** This is the name of the game today for progress in science. This is because **ICT is changing everything in the scientific process** by allowing the transmission and processing of massive amounts of information with no constraints in terms of distance or time.
- We call the ICT-based infrastructure that supports this new scientific process the **e-infrastructure**. E-infrastructures include network, computing, software and data infrastructures, but also organisational, social and even cultural elements. They allow the

sharing of powerful instruments and computational resources (hardware and software), remote access to massive datasets, publications and educational resources, the remote operation of research facilities and the use of digital platforms for research collaboration.

- **Recognising this need**, Horizon2020 foresees the further development of European priority research infrastructures for 2020 and beyond, and suggests to devote about 1b€ for e-infrastructures.

- **3. Going global**

- **e-infrastructures need to be global infrastructures:** This is because, more than ever, scientific collaboration needs to be carried out at a global scale: only by bringing together the best minds and resources around the world can we effectively address the major challenges faced by our societies and our planet. The more people, machines and data are connected to a global e-infrastructure, the more is the value of the research and the easier cooperation gets.

Whether we are talking about the discovery of new drugs, modelling global climate change, or elementary particle experiments in physics.

- This was stressed by the GÉANT expert group report, which envisioned a society where creativity flourishes in a **digital open space for knowledge and talent**. This digital space is created by research and education networks and other e-infrastructures.
- “GÉANT 2020” would become the European **communications commons**, where talent **anywhere** is able to collaborate with their peers around the world and have instantaneous and unlimited access to any resource for knowledge creation, innovation and learning, unconstrained by the barriers of the pre-digital world.
- **4. e-infrastructures as an instrument for development**
- For already more than 10 years, the EC supports the emergence and consolidation of regional e-infrastructures in developing regions, RENs in particular. We can claim that **cooperation to**

build e-infrastructures has been a success as a platform for development: it has created pools of local and regional ICT expertise, has promoted research collaboration within the regions and with Europe and is helping to alleviate the brain drain and to bridge the digital divide.

- Furthermore, as pointed out by the Final Report of the **UNESCO Working Group on Broadband and Science** chaired by Vice President Kroes, e-Infrastructures in emerging economies – e.g. REN – **can be leveraged to provide services in many other areas than research**, such as e-Health, e-Learning or e-Government. This adds value to public and private activities in the surrounding society, and it stimulates society's demand for better infrastructures and services.

- **5. e-infrastructures in the Mediterranean region**

- The EC has provided long standing support to cooperation with the South and East Mediterranean through different policies and instruments such as the European Neighbourhood Policy and the Framework Programmes. We are glad to see that cooperation to deploy e-infrastructures in the region has achieved significant progress in the recent months: in particular, the continuation of EUMEDCONNECT in its third phase and the establishment and consolidation of the Arab States Research and Education Network (ASREN).
- More recently, and following the Commission communication of 8 March 2011 to the European Council and Parliament on "A PARTNERSHIP FOR DEMOCRACY AND SHARED PROSPERITY WITH THE SOUTHERN MEDITERRANEAN", we have been working on concrete measures related to e-infrastructures that hopefully will be part of the new instrument "Support for partnership, reforms and inclusive growth" (SPRING) for the southern Neighbourhood region programme.

- We also **hope that other neighbouring countries in the Arab region will be willing to participate and collaborate to further integrate the regional e-infrastructures** and to ensure its long term sustainability. We believe that **ASREN has a fundamental role to play** in this, gradually building its own administrative and technical capabilities and **becoming a key actor** in supporting research, education and innovation in the whole region.
- Let me point out one of the biggest challenges ahead: Low awareness of managers in education and research institutions and in public authorities in general of the need for a high-quality e-Infrastructure. We need to give the **highest political visibility and bring e-infrastructures, and research and education more generally, to the top of the political agenda**. In particular, the message "no high quality research and education are possible without a high-quality network connecting to the world" must be well understood and followed with concrete actions.

- Finally, in view of the recent and ongoing events of historic proportions that are unfolding in this region, allow me to state our belief that the changes now underway carry the hope of a better life for the people of the region, and that the digital infrastructures of knowledge, the e-infrastructures, have also a very important role to play in providing benefits to the people and society at large.