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20 Years of e-IRG: Some Lessons Learned

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20 Years Ago

- 2003: EU Italian & Greek Presidencies → Birth of e-IRG, Role of GRNET
- Member States:
  - National Research & Education Networks (NRENs) - GÉANT
  - National Grid Initiatives – EGEE, EGI
  - High-Performance Computing (HPC) – PRACE, Clouds…
- European Commission:
  - DG INFSO, DG RESEARCH (ESFRI), EUROPEAID… (***Mario Campolargo***, ***Kostas Glinos***, ***Bernhard Fabianek***, ***Kyriakos Baxevanidis***…)
  - Regional Initiatives (EUMEDconnect, SEEREN/SEEGRID, Black Sea Initiative, AfricaConnect, RedCLARA, TEIN….) → **e-Science, an Equalized for Peace**
  - Transatlantic Connectivity (Internet2, NLR, CANARIE…)
  - Far-East (China, Japan, S. Korea…)
  - South Africa (TENET), Australia…
  - Ukraine, Russia (???)
- Leading Global Collaborations:
  - High Performance Computing & Networking - CERN, HEP, HPC/PRACE, ESA/Copernicus…
  - Big Science to the Desktop, **across Regions & Divides**
- Teleworking - Telepresence
  - Preparing the R&E Ecosystem for the years of COVID-19

Some Lessons Learned

- Need for e-Science policy orchestration across the EU and Globally → **e-IRG role** (and ESFRI roadmaps, NRENs/GÉANT, European Open Science Cloud - EOSC…)
- **Do not reduce public co-funding** (National Governments, federations, EC)
- Recall that government funding reductions in the 1990's left the mighty US R&E community behind in ***Internet*** innovations, in the name of leaving progress to the private sector
- The US bounced back by 2010, partially thanks to reverse policies of the Obama administration (e.g., ***Community Anchors***, NSF ***GENI***, Internet2 ***Next Generation Infrastructure Program***…)
- Need to encourage competition (away from frozen monopolies, public or private), promote smart management - control of multi-domain virtual organizations (across edge/core optical & 5G/6G networks), stir innovation via ***green***, sustainable, open, public research e-infrastructures
- Do not be inhibited by research risks; after all many innovations rely on cost-effective virtualized platforms (network programmability, softwarized value-adding monitoring & cyber-security advances, leveraging on Machine Learning - AI tools…)
- Encourage global collaborations among academic researchers & industrial concerns, give open access to ***massive data*** (with caution on privacy, e.g. anonymization), enforce federated AAI…
- Promote entrepreneurial spirit of young innovators to establish promising start-ups/spin-offs

Good luck and may the Force be with us!!!