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# *Horizon 2030 - Visions and Challenges in GI*

## *Wrap Up*

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# The past, the presence at the future

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”Heraclitus of Ephesus: „the one thing that is constant is change“

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public static final boolean CHANGE = true;
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# The focus of the past

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- GI a niche with a promising value proposition
- GI stakeholders were evangelists and had to join forces to “GI-enable” application domains in the public and private sector
- Strong focus on INSPIRE and public spatial data infrastructures
  - Establish a culture of sharing and to break up spatial data silos
  - Make spatial data sharing and re-use more efficient
  - Offer to a broad user community far beyond the “inner GI circles”
- GI Science had to emancipate and establish an academic discipline
- EUROGI supported and all these change and innovation processes



# The present

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- GI is now an integral part of of the IT landscape
  - Vertical and horizontally integrated in many domains
  - Geospatial IT industry successfully operates and grows in the market
  - Strong uptake by the non-GeoIT industries (system integrators, social media etc.)
  - GI experts are lacking
- Well established academic GI domain (education, research)
- INSPIRE and NSDIs are established and part of public information infrastructures
- Strong shift towards “open” data policies
- Big focus (and budgets) on Copernicus, which generates many new opportunities for the public and private sector as well as citizens



# The present - changes everywhere

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- Technology is changing dramatically / disruptively
  - Big data processing capabilities
  - Real time data (stream) processing
  - Artificial Intelligence
  - New data collection technologies like drones etc.
- New spatially enabled information hubs are emerging
  - Copernicus DIAS, Open Data, ...
  - Amount of data is dramatically growing (EO, IoT, citizen data ...)
- GI community is getting more and more fragmented
  - Mapping, EO, Industry, ... are represented by their own professional organisation



# The present - challenges

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- Ensure (spatial) digital innovation in the public and private sector
  - Establish process and structures to ensure easy and low level access to innovation support (> digital innovation hubs”)
- Generate more GI experts for the labour market
  - From the basic tale to market-oriented academic education (GISc vs CompSc)
- Bring data to use (don't be stuck in “phase 2”)
  - We are collecting an enormous amount of (spatial) data, but we are not able to valorise it and thus unlock its full potential
  - Strengthen data access and use by beneficiaries, ( “GI can be an enabler for the use of Copernicus”)
  - Focus on people and applications - no cares about GI, information are needed
  - For optimizing decision-making on beneficiary, MS and EU level
  - Introduce feedback loops (listen to each other)



# The present - challenges

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- See the whole picture
  - We not only outside above the surface - focus also on underground, indoor, air, sea data
- Have a (single) face again
  - Federate GI actors > (re-) build a community and a representing organization
  - Cooperate and talk with interest organisations, politicians ...
  - Make spatial information (including EO) part of European / national policies
  - European / national agencies in charge for geo-information?
- Deal with (spatial) data / IT ethics
  - Certification
  - How to ensure privacy
  - Control and use artificial intelligence in the right way



# The future (of EUROGI)

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- The GI community and EUROGI is within and part of a constant change process
  - Shape it as much as possible!
  - Managing change means communication, developing common vision and ensure to work towards common goals
  - Bring together focus and vision
    - > Provide a platform to exchange and develop common perspectives, best practices, challenges and opportunities
    - > Establish a well functioning interface between GI stakeholders across Europe, independent from the “niche” they are active in
    - > Flatten the layers of networks, hubs, proxies, ---
    - > Stimulate a (open) community building / coordination process
    - > Be an interface between the community and the COM





# The future (of EUROGI)

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- The potential of GI still is growing and becomes / could become more and more the Archilles heel for many applications and domains
  - Mediate between the various spatial and numerous non-spatial domains
  - Establish and develop cooperation with interest organisations and policy makers
  - Help to understand businesses and translate those into applications
  - Supporting the agile(!) experimentation for new applications / for transforming markets (construction, ...)
  - Help to ensure sufficient work forces (from education to mobility)
- Support the establishment of a better federation / cooperation of geospatial activities / roles within the the COM
  - Agency for GI

