



# 2nd Helix Nebula Workshop on Interoperability among e-Infrastructures and Commercial Clouds

## *Interoperability Requirements Framework*

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& Engagement - 16/01/2013

# Outline

- ☉ Interoperability Requirements
  - ☉ Process and Timeline
  - ☉ Interoperability Framework

*GOAL 1: Establish HELIX-NEBULA – the Science Cloud – as an infrastructure addressing the needs of the ERA. The project will provide a cost-effective way of supporting extremely large or highly distributed and heterogeneous scientific databases (including service architectures, applications and standardisation) in order to manage the upcoming data deluge*

- Interoperability of Helix Nebula with existing e-Infrastructures is crucial to allow smooth migration of data and applications and effective use of resources by users.

# Interoperability Requirements Report

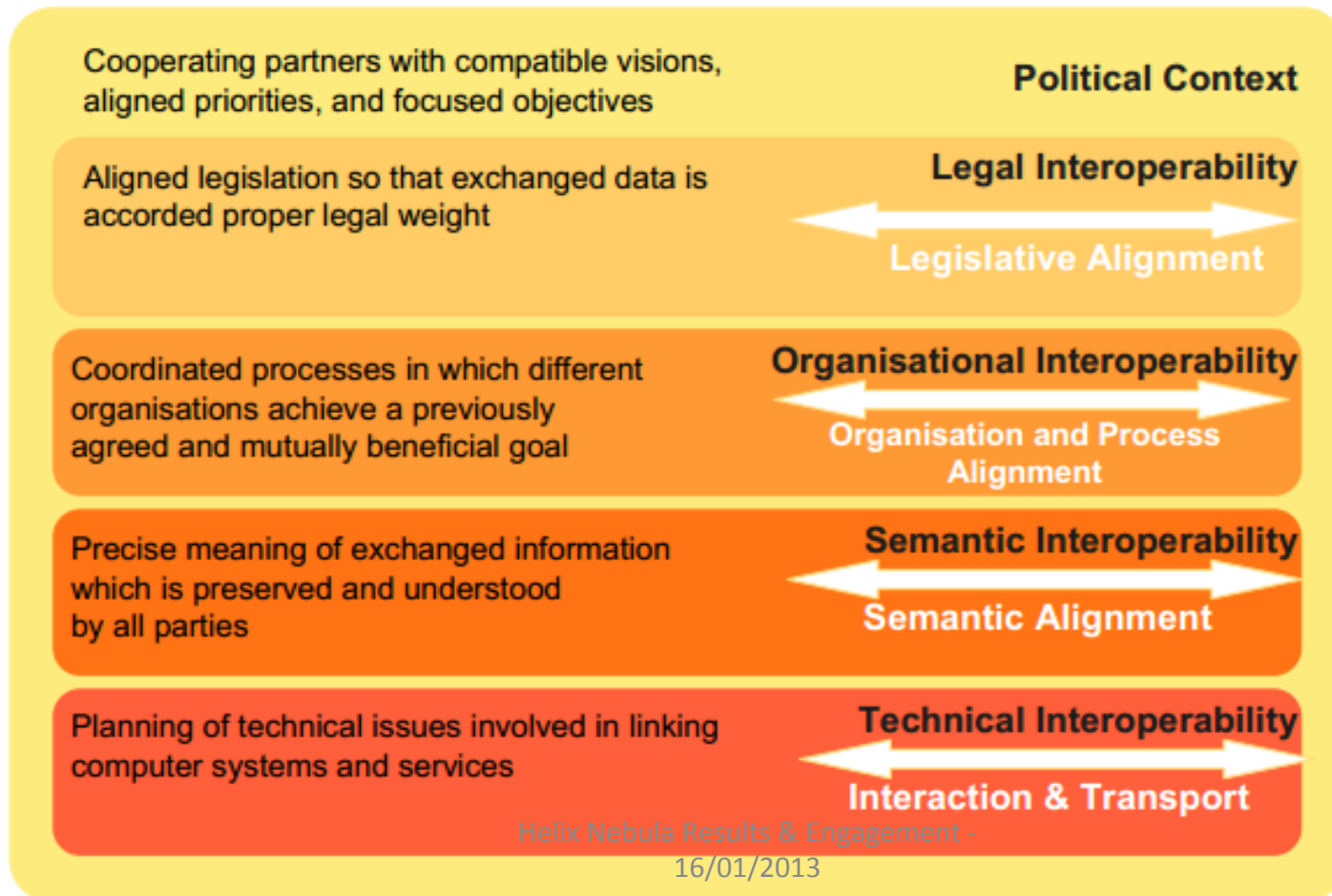
- HN has to submit a report on Interoperability requirements by end of 1st year
- The report is in progress to analyse interoperability issues across technical, policy and operation areas.

Survey in March  
2013 to collect  
contributions and  
define priorities



# Interoperability Levels

- European Interoperability Framework (EIF) for European public services  
[http://ec.europa.eu/isa/documents/isa\\_annex\\_ii\\_eif\\_en.pdf](http://ec.europa.eu/isa/documents/isa_annex_ii_eif_en.pdf)
- Action 26 of Digital Agenda for Europe invites Member States to implement EIF



# Political context at EU level

- EU cloud strategy
- ETSI acting on standards in areas such as security, interoperability, data portability and reversibility
- ENISA with a role on Cloud Risks Assessment, Information Assurance and Procurement activities

Need for active engagement with EU/national players in the political context

# Legal Interoperability

- Compliance with the new EU Data Protection Package
- Harmonisation of Terms of Use
- Clear definition of service provider liability
- Possible issues with applicability of extra-EU legislations

# Organisational Interoperability

- Uniform access to service catalogues
- Uniform processes to request/allocate/consume/pay services
- Common change management processes
- Harmonised user management processes
- Contract management
- Service Level Agreements
- User support



# Semantic Interoperability

- Inter-disciplinary glossary of terms
- Common definition of service attributes
- Common identifiers of services offered

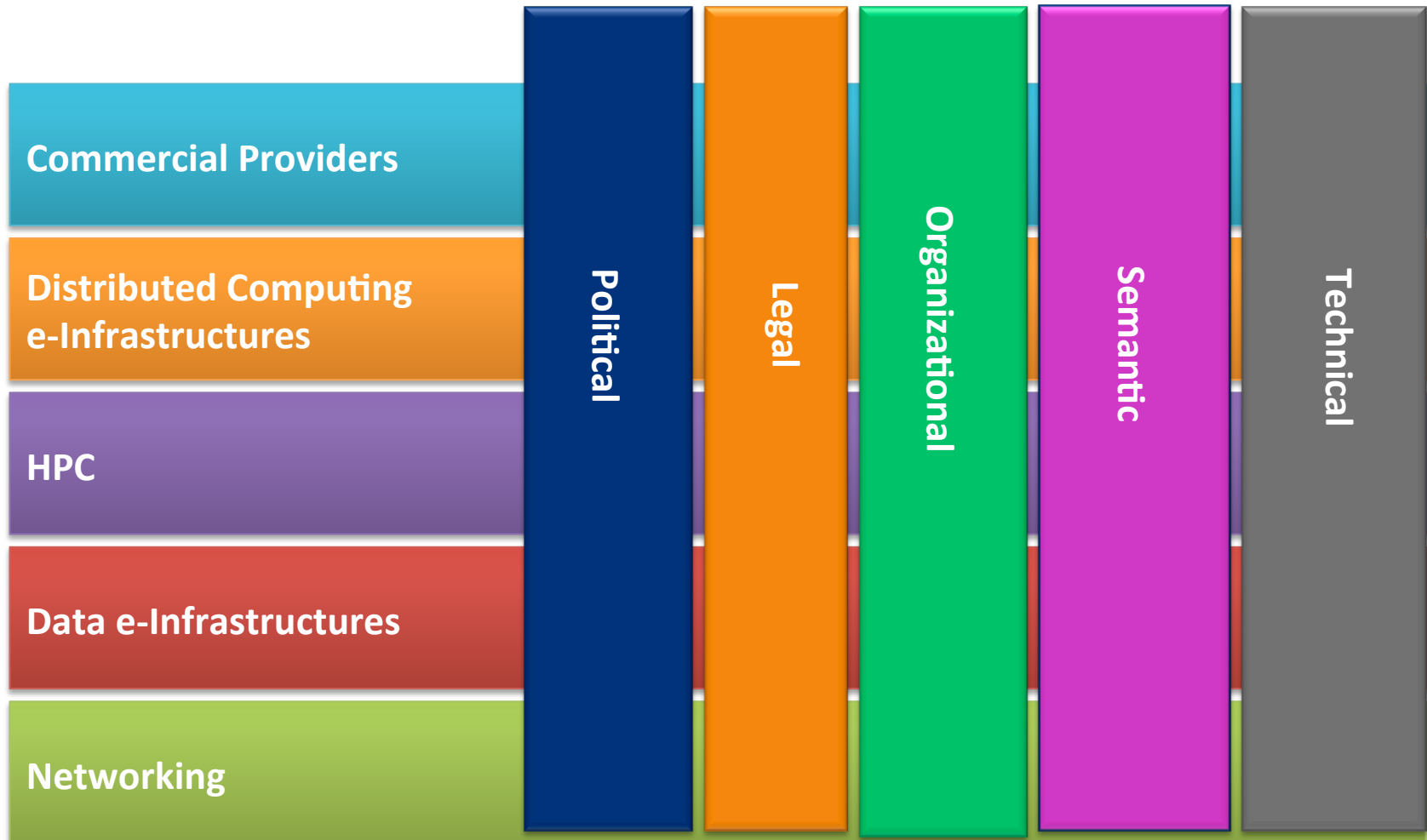
# Technical Interoperability

- Portability of VM images across different providers with no manual intervention from users
- Access to infrastructure through a unique authentication/authorisation mechanism
- Adoption of open standards for cross-organisation interfaces

# Integration

- For each Interoperability level considering specific aspects of integration with different e-Infrastructures:
  - Networking
  - Distributed Computing
  - Data
  - HPC
  - Commercial Providers

# Levels vs. Domains



# Call for Action

- The definition of the interoperability requirements in the various levels/domains require different expertise
- We propose to define 4 task forces:
  1. political-context
  2. legal-interop
  3. organisational-interop
  4. technical-interop (to include semantic interop)

# Conclusion

- We have presented a framework to discuss/organise interoperability requirements for integrating commercial providers with e-Infrastructures
- We have proposed an open process and working groups for the stakeholders to engage
- Participate by writing to [policy@egi.eu](mailto:policy@egi.eu) your name, organisation and WG of interest
- Contribute to the vision of an interoperable and integrated multi-cloud infrastructure that boost synergies between public and private sectors

# Thank You!