

# e-INFRASTRUCTURES and digital ERA

#### e-IRG Workshop

May 22-23, 2013

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### 1. Digital ERA

- What it means
- Where we are now
- Next steps

#### 2. H2020

- Progress report
- Next steps

## 3. Work programme e-Infrastructures 2014-2015

Thoughts for the future ...



## Digital dimension of ERA

- towards a seamless online space for research
  - Most knowledge creation and transfer use digital means
  - ➤ All barriers preventing seamless online access to digital research services for collaboration, computing and accessing scientific information should be removed
  - > **Digital ERA** is this seamless online space for the circulation of knowledge and technology
  - ➤ The objective of Digital ERA is to make it possible that all researchers in Europe could benefit from e-Infrastructures and Digital Science



## Vision for Digital Science



**Democratization of research** 

Transparent replicable research

New research methods

- Big data management and analysis
- Simulations, remote instrumentation

Engagement of society

- Engaging citizens into scientific processes
- Society included in scientific discussions

Transformation of science

Open access to research

- OA to publications and underlying data
- Transparency of research processes

Collaboration in research

- Data sharing based collaboration
- Crowdsourcing, social media in research

Symbiosis of science, society and policy

nnovation

New disciplines, new research topics





# ERA Communication Actions on Digital ERA (1): Support provision of e-infrastructure to all researchers

Actions in Communication

EC: Work with e-IRG to promote the alignment of EU and national approaches to e-infrastructure development

MS: Harmonise access and usage policies for research and educationrelated public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners

#### Expected related outcomes

>e-IRG task force report on legal issues (2013)

Study report on policy options for aligning EU and national e-infrastructures policies on e-infrastructures provision and use (2014)



# ERA Communication Actions on Digital ERA (2): Improve access to digital research services

#### Actions in Communication

MS: Adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services

SHO: Implement and promote the uptake of electronic identity and digital research services

#### Expected related outcomes

- ➤ Study on AAA infrastructure (federated identity) (2012)
- >Launching a pilot of implementing federated identity services (2014)



#### **ERA Communication Actions on Digital ERA (3):**

## Support uptake of e-infrastructures and digital research services

#### Actions in Communication

EC: Propose a roadmap for e-infrastructure development to support e-Science through open access to research tools and resources.

EC: Facilitate a <u>Member State forum</u> for regular exchange and reporting on national developments on the provision, take-up and use of digital research services

EC: Support activities to raise stakeholder awareness of open access and e-Science

#### Expected related outcomes

- ➤ Framework for action on Data infrastructures for Open Science (2013)
- ➤ Joint statement of a MS forum on the status of Digital ERA and recommendations (2014)
- Support in Horizon 2020 through specific actions on open access and e-Science (2014)



## Follow up of Digital ERA

- Joint effort between DG CONNECT and DG RTD
- ➤ Closely linked with Open Access and the follow-up of Scientific information package (COM(2012)401 final and C(2012)4890 final)
- Linkage with Member States through
  - MS forum on Digital ERA, managed by DG CONNECT, meeting twice a year
  - National reference points for Open Access
  - Collaboration with e-IRG and ESFRI
- Linkage with SHOs through
  - > ERA stakeholder platform
  - Horizon2020 related consultations and events



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## State of play

- Multiannual Financial Framework (and its overall budget ) still under discussion (~70 B€ for H2020 TBC)
- Trilogue (EP/Council/Commission) on legislative H2020 proposals ongoing
- Advisory Groups are being setup
- Commission services have set up internal governance structure
- WP drafting has started



### **EP/Council State of Play**

#### Three Partial General Approaches reached by Council in 2012 on :

- -Framework Programme Regulation (31 May 2012)
- -Rules for Participation and Dissemination (10 October 2012)
- -**Specific Programme** (11 December 2012)

The European Council conclusions from 8 February on the MFF present the political agreement of Heads of State and Government on the MFF as a whole with indications on specific parts such as Heading 1a that includes Horizon 2020. The European Parliament must still give its consent.

## <u>The ITRE Committee adopted on 28 November 2012 four reports of the Horizon 2020 package</u>:

Framework Programme Regulation (Rapporteur: Ms Riera Madurell); Specific Programme (Rapporteur: Ms Carvalho); Rules for the participation and dissemination (Rapporteur: Mr Ehler); Euratom (Rapporteur: Mr 11 Skinner)



## **Trilogues on Horizon 2020**

#### 10 January - Kick-off trilogue

<u>31 January - Second Trilogue:</u> Co-legislators discussed key issues linked to the FP/SP and the Rules, in particular widening participation, synergies, scientific coordination, science for society as well as the funding model.

<u>5 March - Third Trilogue:</u> Consensus reached on a number of less controversial articles in the **FP** (definitions, general objectives, gender equality and open access). Progress made on important issues such as synergies with the Structural Funds and the issue of strategic scientific panels. The institutions agreed to come back to on a number of issues including the SME instrument, the fast track to innovation instrument where a significant gap remains. A number of issues including the EP's role in the work programme and public-private partnerships were advanced but will finalising at technical level.

<u>9 April - Fourth Trilogue:</u> Co-legislators endorsed the compromise proposals prepared in the technical meetings covering large parts of the **Rules for Participation**. On the more important issue of time to grant, while the positions of the Council and COM on one hand and the EP on the other hand remain apart, the EP showed some flexibility with view to finding a compromise. During the discussion, a provisional agreement was also reached on a number of more technical issues such as the provisions on guidance and information, time-to-bid, sex and gender analysis, etc. Other outstanding points were referred back to the technical meeting.



### **Trilogues on Horizon 2020**

<u>16 April – Fifth Trilogue:</u> Co-legislators made progress on a number of open issues under the **Framework Programme Annexes** including the precautionary principle, FEST versus FET, neglected diseases and water and agreed to settle the details in technical meetings. Concerning the structure of the programme, the Council and EP agreed to work towards a wider package deal in which concessions in one area are compensated in another area. On the **funding model**, the institutions exchanged the well-known arguments without moving from their respective positions. In response to the EP's threat concerning the ambition to reach a first-reading agreement, the Presidency proposed an informal high-level meeting to find a way forward on the funding model but also on the other open issues.

Further Trilogues: 7 May (on the Rules), 27 May, 4 June, 17 June



### 1. Digital ERA

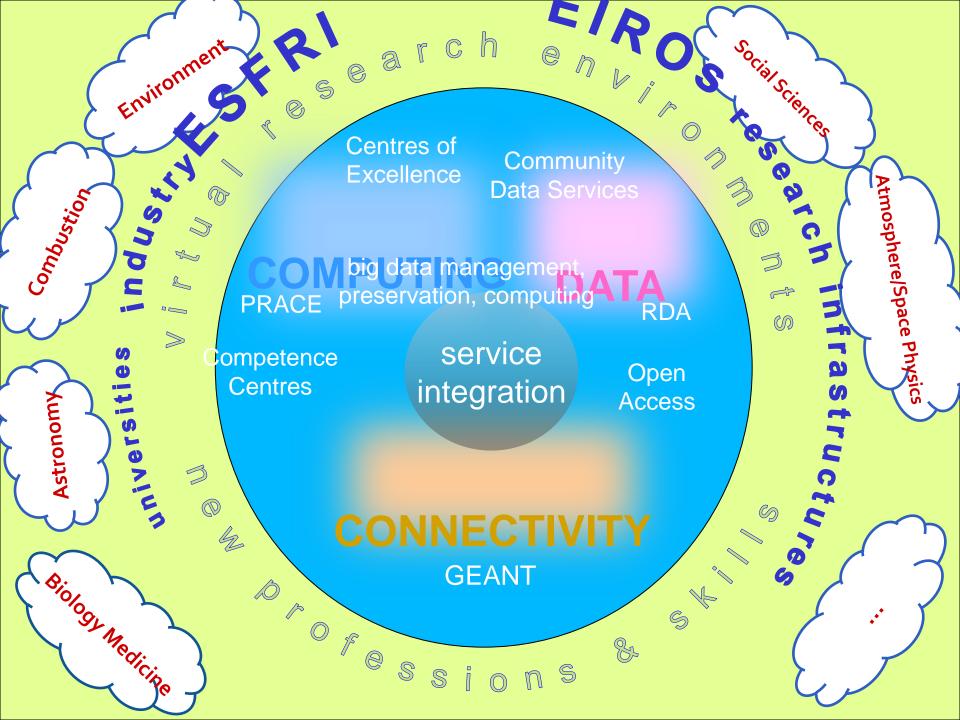
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## Managing, preserving and computing with big data

## Ensure capacity to manage, store and analyse very large, heterogeneous & complex datasets

- Federated e-infrastructure for data management and long term preservation across disciplines (multiple functionalities, federation of services and tools, certification mechanisms...)
- Open computing platforms, on-demand computing with virtualisation of resources, European grids,...
- Databases for extremely large datasets

- ....



## **Integration of Core and Basic Operations Services**

# Harmonise core infrastructure services to support a seamless user experience and avoid duplication

- Pan-European identity federation pilot
- Provenance services through DIs
- Accounting, monitoring, security,...

- ...



### Timeline towards adoption (tentative!)

- Preparation of the draft work programmes: April-June 2013
- Meeting of Advisory Group: 3 July 2013 (tentative)
- Preparation of a consolidated draft: July-September 2013
- Consultation of Programme Committees: October-November 2013
- Adoption by Commission: 10 December 2013
- Publication of calls for proposals: 11 December 2013



#### **CONCLUSIONS**

Closely working together with member states and stakeholder organisations essential to make progress in e-Infrastructures

> e-IRG (and ESFRI) importance

H2020 will focus more sharply on user-led service integration, long-term sustainability, big data and policy challenges (openness, innovation, seamless ERA)



## Thank you!