



# **From Open access to Open Science: Open Science policies@EC**

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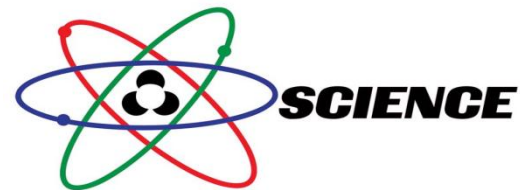
**Open science**

**Open access @EC**

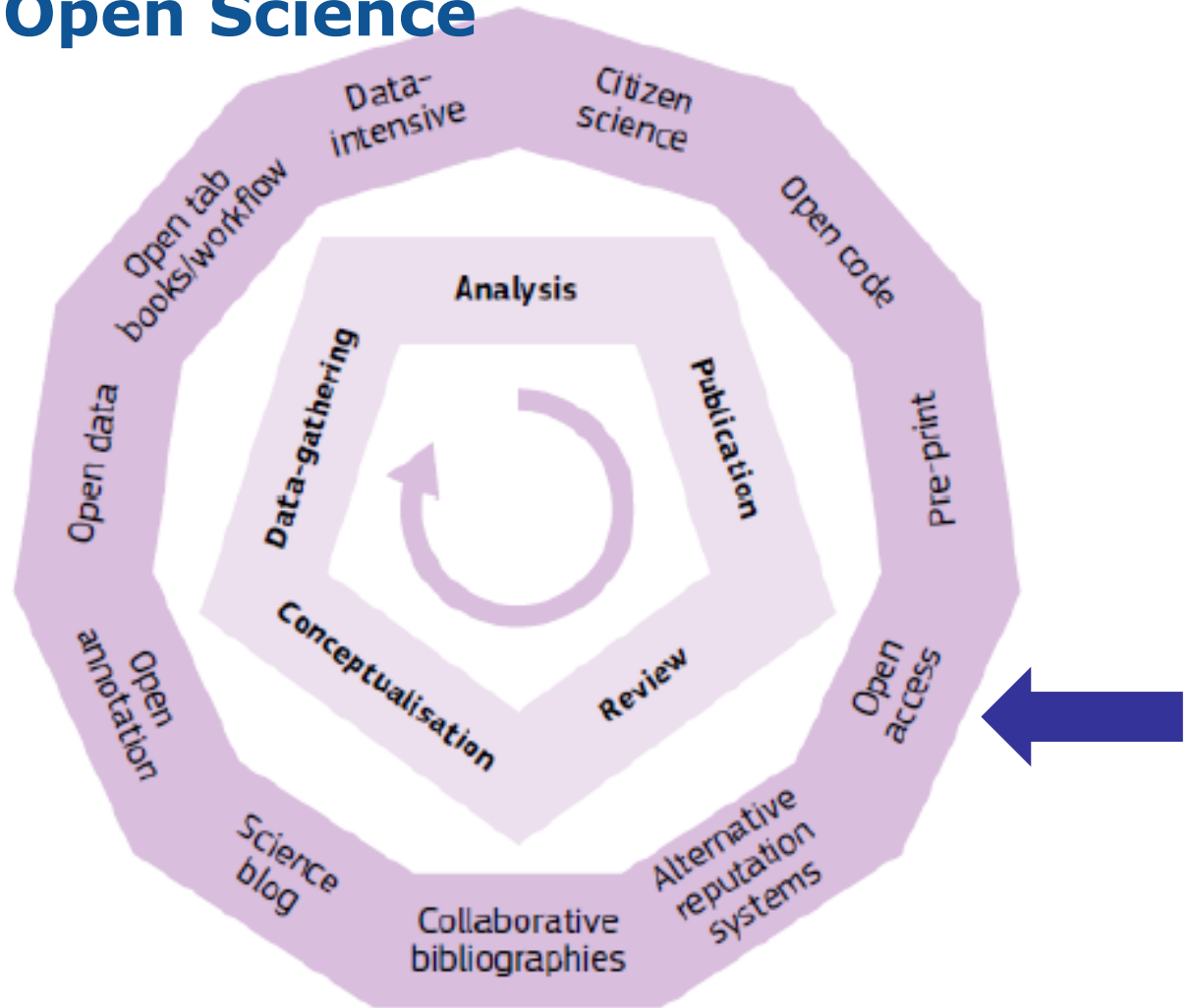
**Open Science policy @EC**

# What is open science?

Open science is the transformation and opening up of science, research and innovation through information and communication technologies.



# Conceptualizing Open Science



# Expected benefits of open science

- **Good for science**: efficiency, verifiability, transparency, interdisciplinarity
- **Good for the economy**: access to and re-use of scientific information by industry, innovation
- **Good for society**: broader, faster, transparent & equal access for citizens, increased societal impact of science and research

# European Commission policies

2007

- EC Communication on Scientific Information

2008

- FP7 OA Pilot

2012

- Recommendation on OA
- Communication on ERA

2014-

- Horizon 2020 OA and ORD policies

2015

- Digital Single Market (DSM) strategy

2016

- Council Conclusions on open science (Member States)

2016

- European Cloud Initiative Communication (ECI)

# Open Access (OA) in the FPs, I/II

## Why open access?

- To optimise the impact of publicly-funded research

## OA to what?

- peer-reviewed scientific publications (free online access)
- research data (access and re-use)

## Open Access in the R&I FPs

- FP7 Pilot on OA (best effort obligation)
- Horizon 2020 mandate on OA to publications (art. 29.2)
- Horizon 2020 Pilot on open access to research data (ORD) (art. 29.3)

**Open access as a driver for open science**

# Open Access (OA) in the FPs, II/II

## Policy developments

- From optional to mandatory
- New focus on data management
  - Data as open as possible, as closed as necessary
  - Data management plans (DMPs)
  - Linking publications to underlying data
- Infrastructure to support policy
- Enable new forms of research
  - copyright reform: proposed exception for TDM (text and data mining)
- Open access as part of a wider strategy

## H2020 Guidelines (revised 2017):

[http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-dissemination\\_en.htm](http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-dissemination_en.htm)



# Open Science Players in the EC



**Andrus Ansip, Vice-President, Digital Single Market**



**Marya Gabriel, Incumbent Commissioner  
for Digital Economy and Society (DG  
CONNECT)**



**Carlos Moedas, Commissioner for  
Research, Science and Innovation (DG RTD)**



# Digital Single Market Strategy (2015)

**DSM:** "Market in which free movement of goods, persons, services and capital is ensured and where individuals and businesses can seamlessly access and exercise online activities."

One of ten **Juncker priorities**

One of the DSM pillars: focus on maximising growth potential of the digital economy by building a **data economy**

**Themes:** Copyright, including text and datamining (TDM), open science, free flow of data, European open science cloud

# Member States: Council Conclusions on open science (May 2016)

## Member States support open science

The Council:

- ACKNOWLEDGES that **open science has** the **potential** to increase the quality, impact and benefits of science and to accelerate advancement of knowledge by making it [...] better understandable by society and responsive to societal challenges [...]
- AGREES to further promote the mainstreaming of **open access to scientific publications** by continuing to support a transition to immediate open access as the default by 2020
- "the underlying principle for the **optimal reuse of research data** should be: 'as open as possible, as closed as necessary'".
  - Open Science Policy Platform  
[http://ec.europa.eu/research/openscience/pdf/ospp\\_nominated\\_members.pdf#view=fit&pagemode=none](http://ec.europa.eu/research/openscience/pdf/ospp_nominated_members.pdf#view=fit&pagemode=none)

# European Cloud Initiative (COM(2016)178)

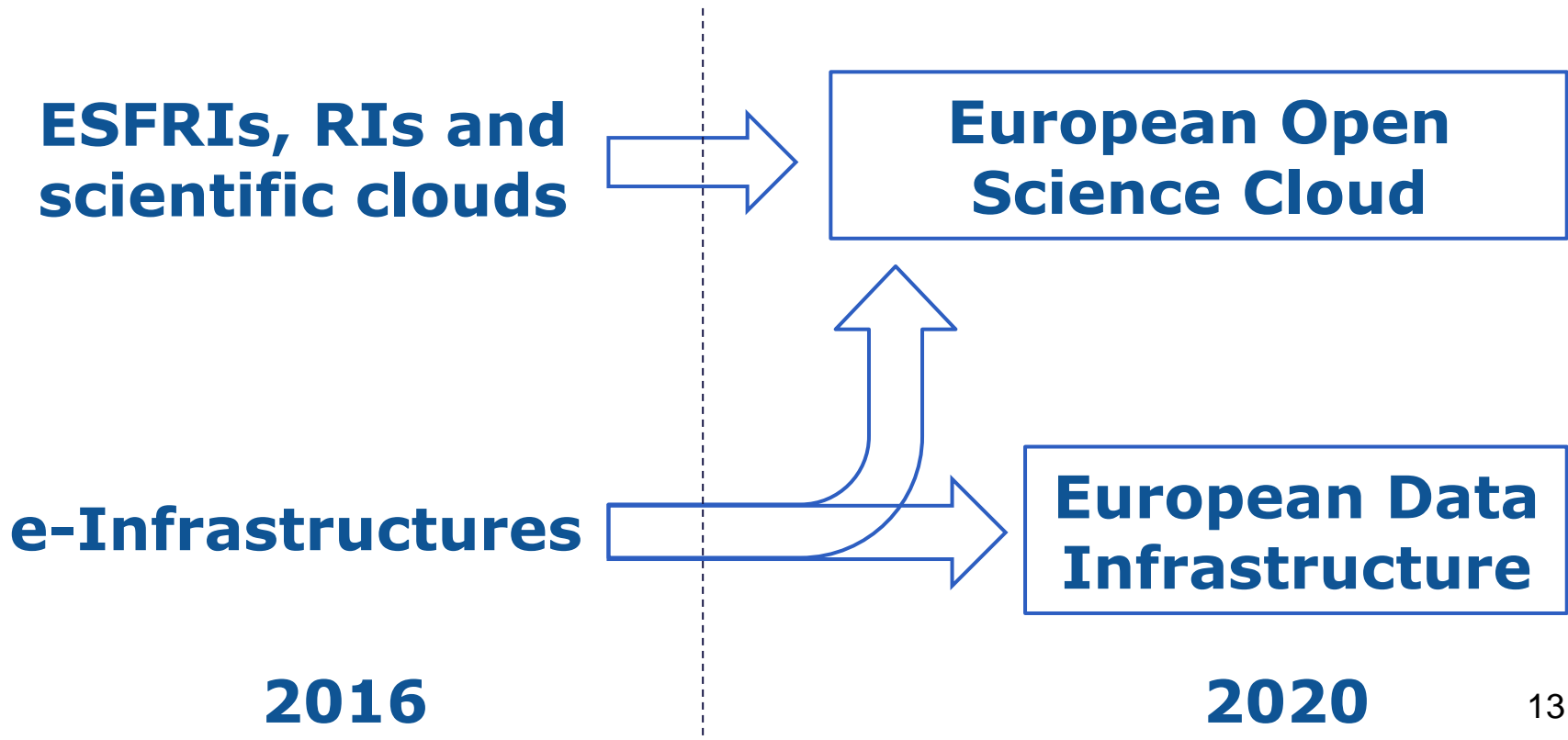
## Problems addressed:

Closed data; lack of re-use framework; lack of interoperability; fragmentation of infrastructure; lacking High Performance Computing (HPC)

## ECI pillars:

- **1. European Open Science Cloud**  
Federated environment for cloud-based research and access to data
- **2. European Data Infrastructure**  
Development and deployment of large-scale European HPC, data and network infrastructure
- **3. Widened user base (industry, e-gov, citizens)**

# EOSC & EDI: Dynamic View from 2016 to 2020 (over-simplification)



# Ongoing implementation

- Funded projects to start coordination in H2020 (EOSC Pilot, eInfraCentral)
- Consolidation and integration of eInfrastructures towards the EOSC (WP2017 and forthcoming WP) and funding of new services for the EOSC
- Participation of RIs in the EOSC (forthcoming WP)
- Blue Cloud Thematic Pilot with service offering through the EOSC (one of thematic clouds of the EOSC)

# Other issues being addressed

- Governance
- Funding
- Long-term sustainability of services
- EOSC Summit, Brussels 12<sup>th</sup> June 2017
  - EOSC Declaration and regular followup (more info soon)



**Thank you!**

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