

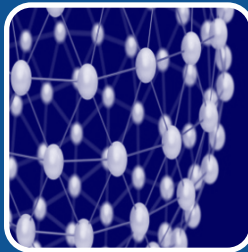


The contribution of e-Infrastructures to the European Open Science Cloud

EOSC and the ESFRI list

ESFRI INFO DAY, MALAGA, January, 17, 2017
Cristina Martinez, Deputy head of Unit
eInfrastructure and Open Science Unit
DG CONNECT

e-Infrastructure and Open Science in H2020



Excellent science

- ERC
- FET
- Marie-Slodowska Curie actions
- **Research Infrastructures, including e-Infrastructures**



Industrial leadership



Societal challenges



Other areas

Some of our policy challenges

- How to maximise the **incentives for sharing data** and **to increase the capacity** to exploit them?
- How to ensure that data can be **used as widely as possible**, across scientific disciplines and between the public and the private sector?
- How better to **interconnect** the existing and the new data infrastructures across Europe?
- How best to **coordinate the support** available to **European data and computing infrastructures** as they move to exascale?



Proposed solutions: the European Cloud Initiative communication (April 2016)

- **European Open Science Cloud (EOSC)**
 - Integration and consolidation of e-infrastructures
 - Federation of existing research infrastructures and scientific clouds
 - Development of cloud-based services for Open Science
 - Connection of ESFRIs to the EOSC
- **European Data Infrastructure (EDI)**
 - Development and deployment of large-scale European HPC, data and network infrastructure
- **Widening access and building trust**
 - SMEs, Industry at large, Government

e-infrastructure: the foundation of the European Open Science Cloud



OpenAIRE
Open Access Infrastructure for Research & Knowledge

OpenAIRE: Science set free

www.openaire.eu



OPEN DREAMKIT

OpenDreamKit: Open Digital Research Environment Toolkit for the Advancement of Mathematics

www.opendreamkit.org



openMINTED

OpenMintEd: Open Mining Infrastructure for Text and Data

www.openminted.eu



PhenoMeNal

PhenoMeNal: Phenome and Metabolome Analysis

www.phenomenal-h2020.eu



AARC

AARC: Authentication and Authorisation for Research and Collaboration

www.aarc-project.eu



BlueBRIDGE

BlueBRIDGE: Building Research environments fostering Innovation, Decision making, Governance and Education to support blue growth

www.bluebridge-vres.eu



EarthServer

EarthServer2: Big Earth Data at your fingertips

www.earthserver.eu



EDISON
building the data science profession

www.edison-project.eu



PRACE

PRACE: Partnership for Advanced Computing in Europe

www.prace-ri.eu



RDA
RESEARCH DATA ALLIANCE

RDA: Research Data Alliance

www.rd-alliance.org



READ

READ: Recognition and Enrichment of Archival Documents

read.transkribus.eu



sesameonet
SUPERCOMPUTING EXPERTISE FOR SMALL & MEDIUM ENTERPRISE NETWORK

SESAME Net: Supercomputing Expertise for Small And Medium Enterprises

www.sesametwork.eu



esi

ESI-Engage: Engaging the Research Community towards an Open Science Commons


noa.ei.eu/engage



e-IRG
e-Infrastructure Reflection Group

e-IRG: Paving the way towards a general purpose European e-Infrastructure

www.e-irg.eu



EUDAT

EUDAT: European Data Infrastructure

www.eudat.eu



everest

EVER-EST: A Virtual Research Environment for the Earth Sciences

www.everest-eu.eu



THOR

THOR: Technical and Human infrastructure for Open Research



VI-SEEM

VI-SEEM: Virtual Research Environment (VRE) for regional Interdisciplinary communities in Southeast Europe and the Eastern Mediterranean



VRE4EIC

VRE4EIC: A Europe-wide Interoperable Virtual Research Environment to Empower Multidisciplinary Research Communities and Accelerate Innovation and Collaboration



West-Life

West-Life: World-wide E-Infrastructure for structural biology



GÉANT
Networks · Services · People

GÉANT Project (GN4-1): Accelerating research, driving innovation and enriching education



INDIGO · DataCloud

INDIGO-DataCloud: Integrating Distributed data Infrastructures for Global Exploitation



learn

LEARN: LEaders Activating Research Networks

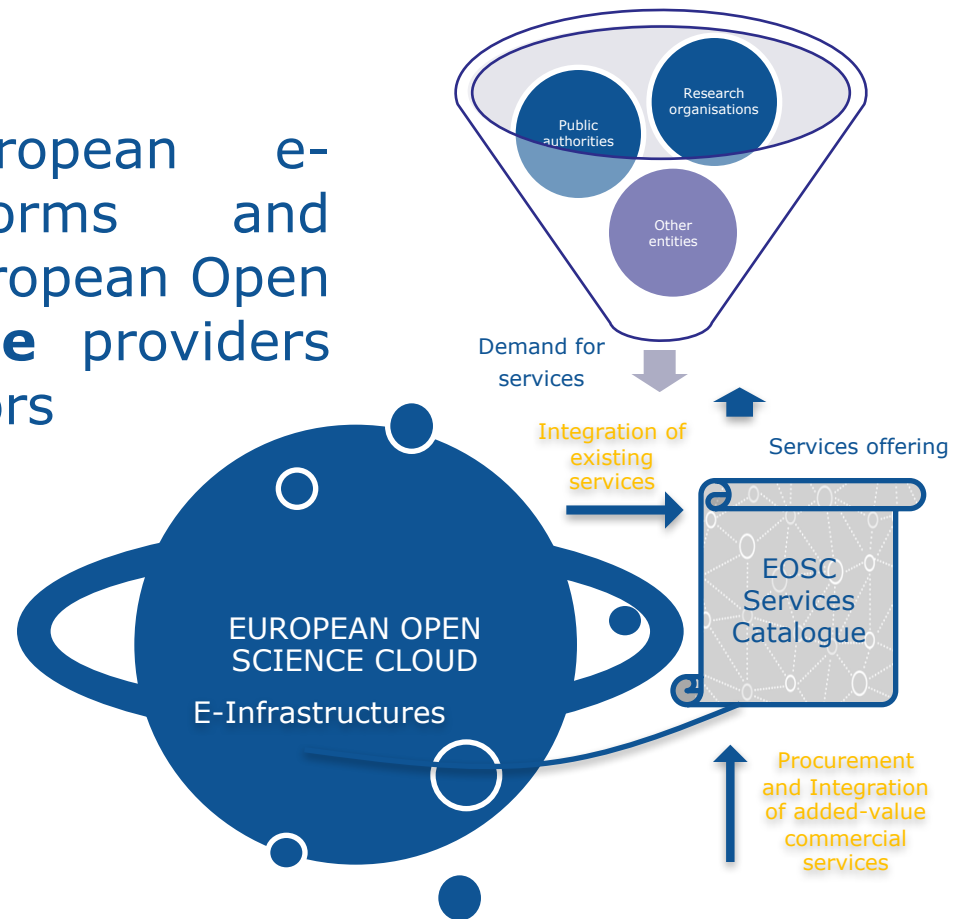


MUG

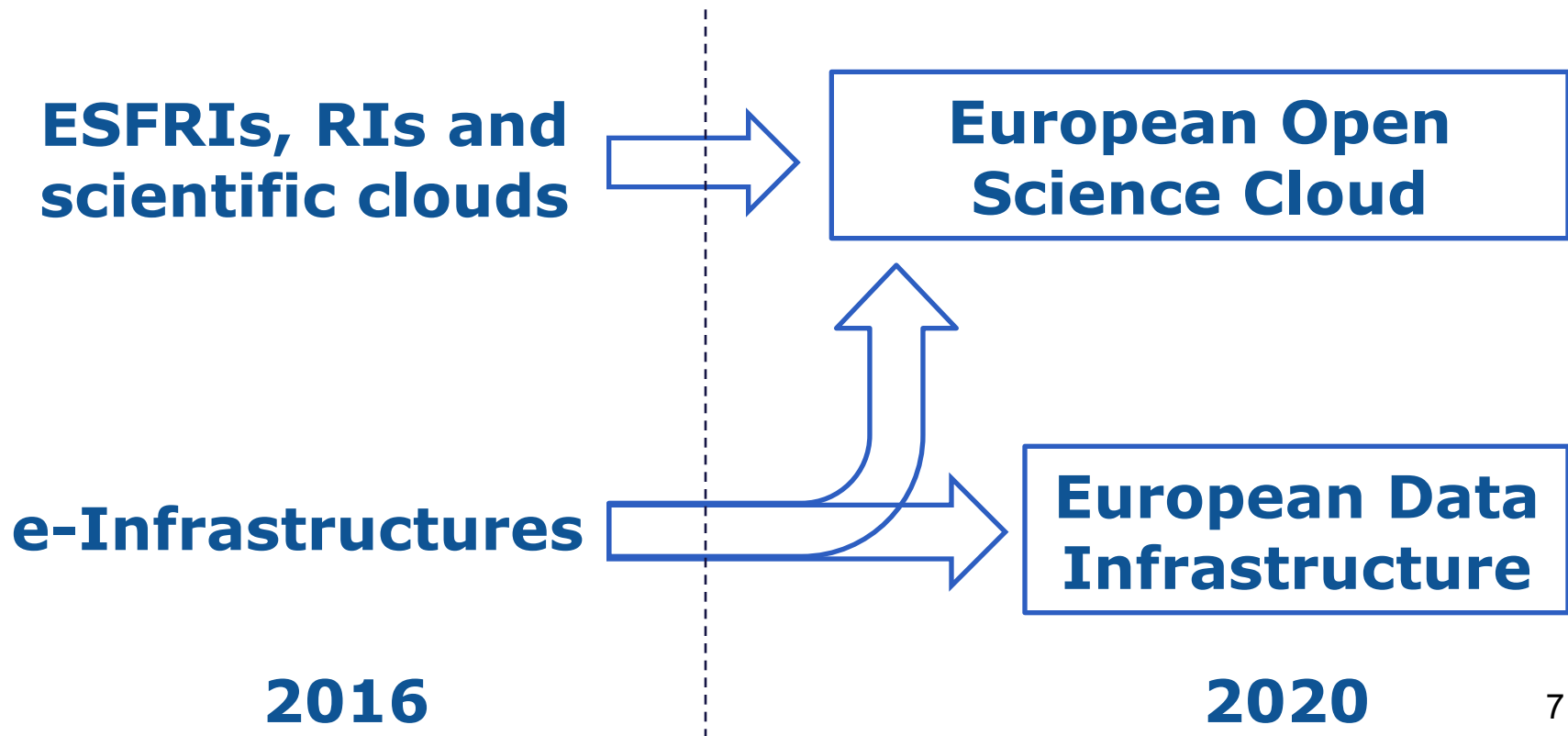
MUG: Multi-scale complex Genomics

How does our eInfrastructure WP contribute under H2020?

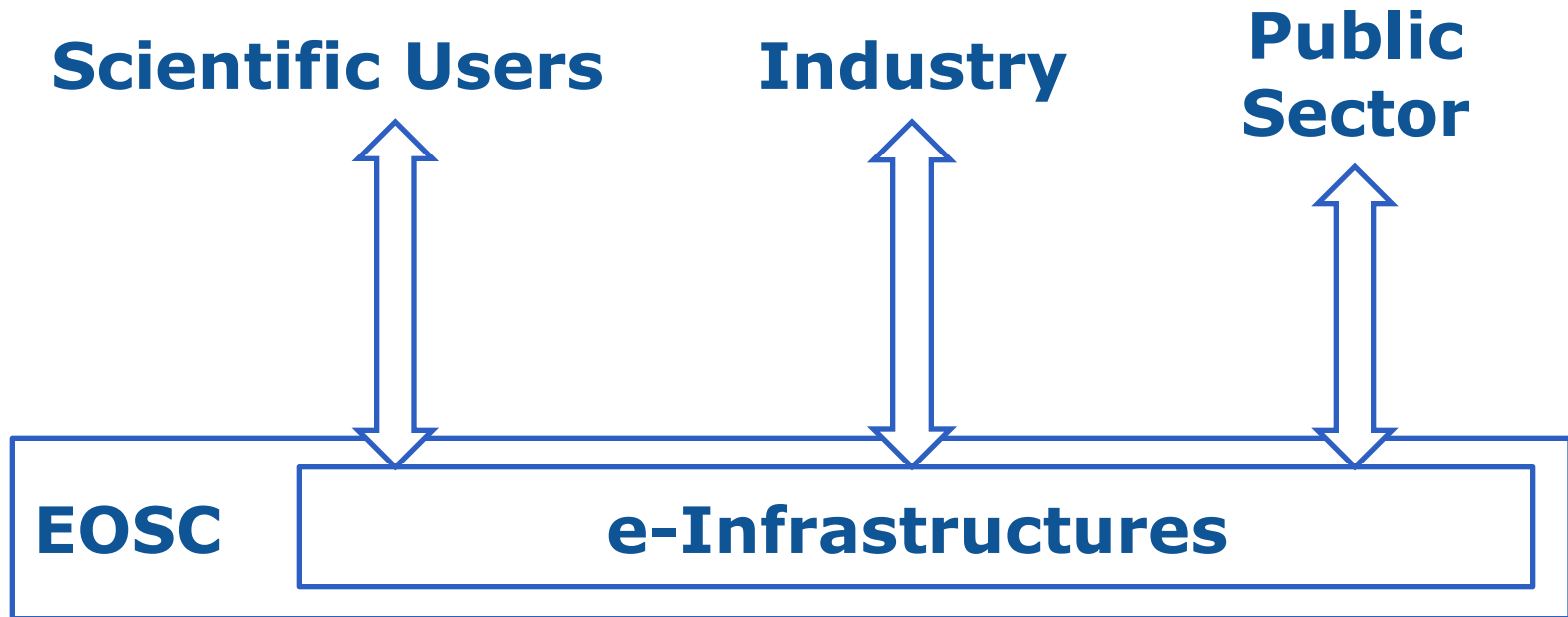
- By supporting European e-Infrastructure platforms and projects to become European Open Science Cloud **service** providers and demand aggregators



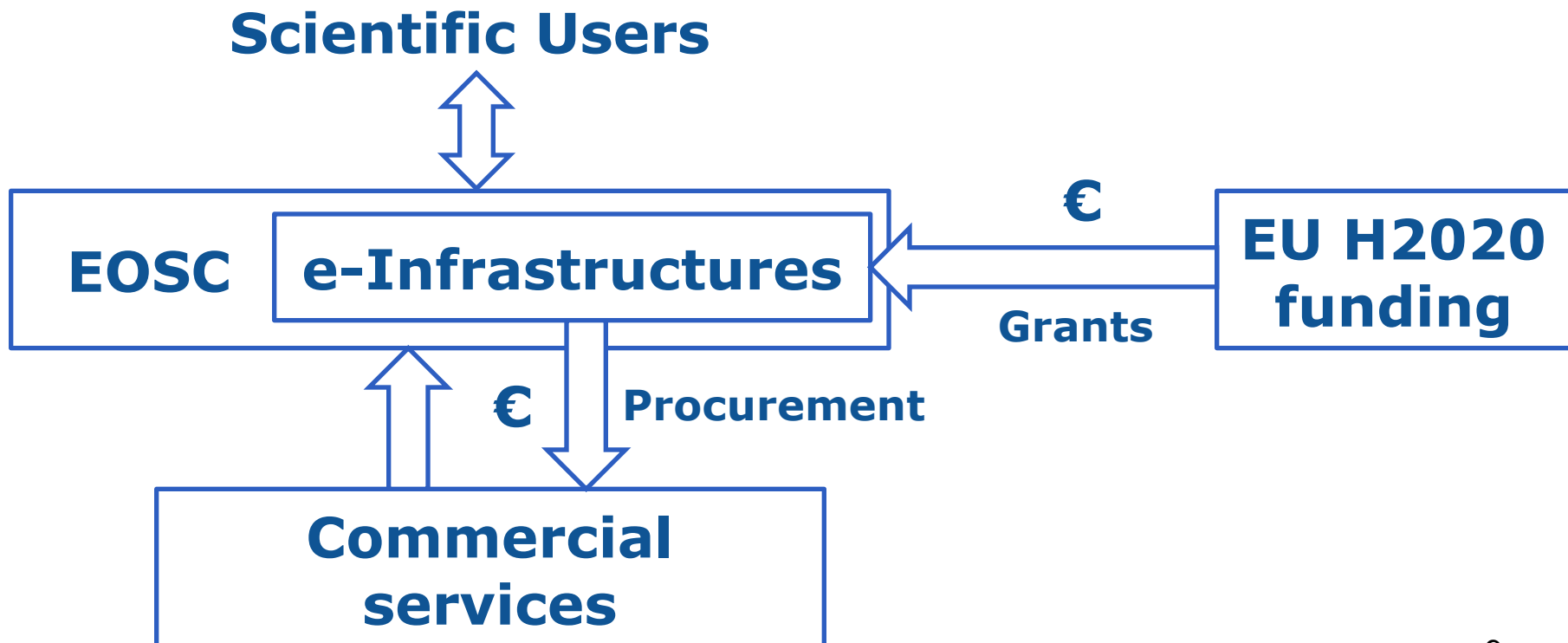
EOSC & EDI: Dynamic View from 2016 to 2020 (over-simplification)



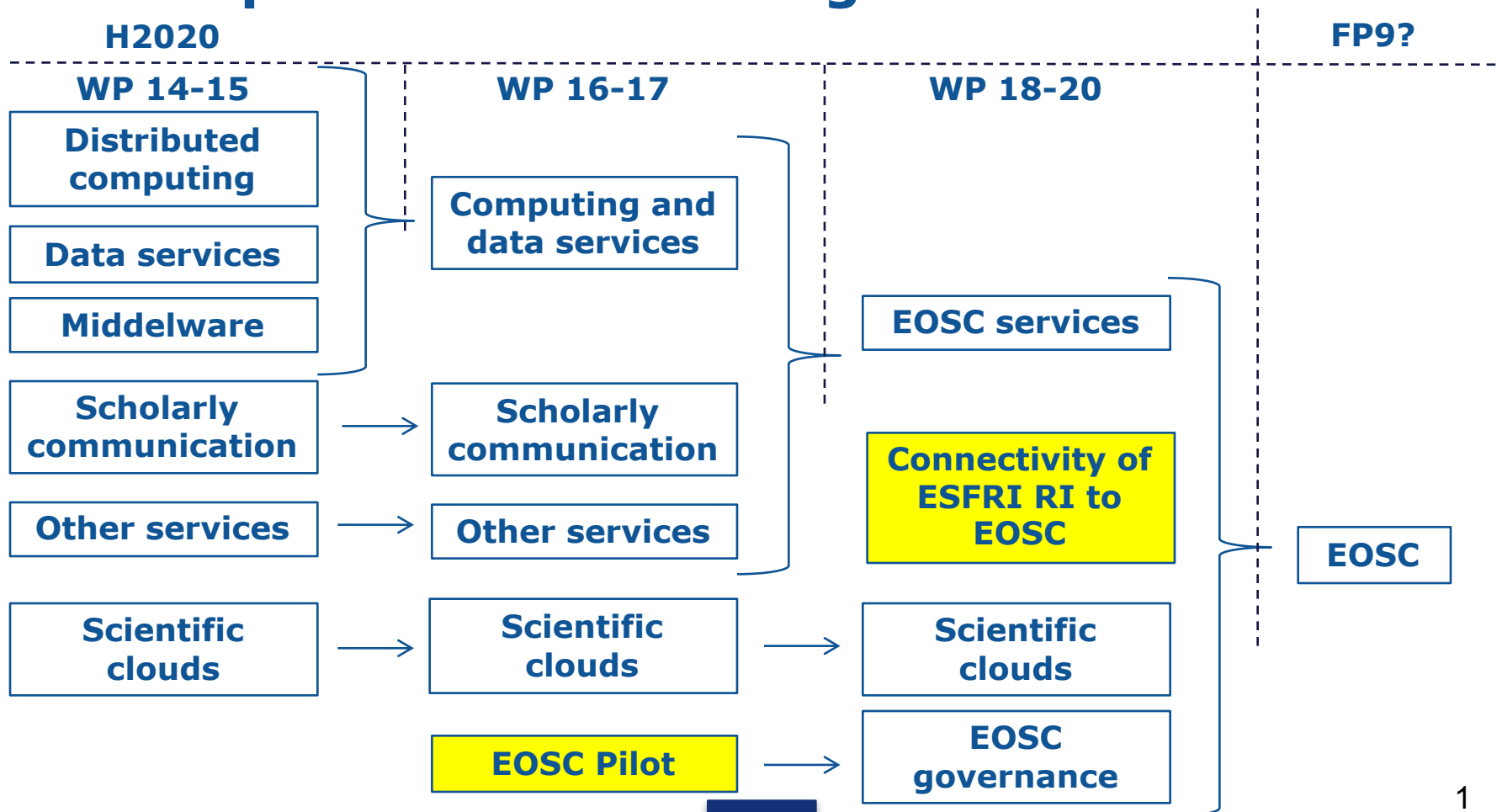
Widening access (1/2): e-Infrastructures as service providers



Widening access (2/2): e-Infras as aggregators of demand



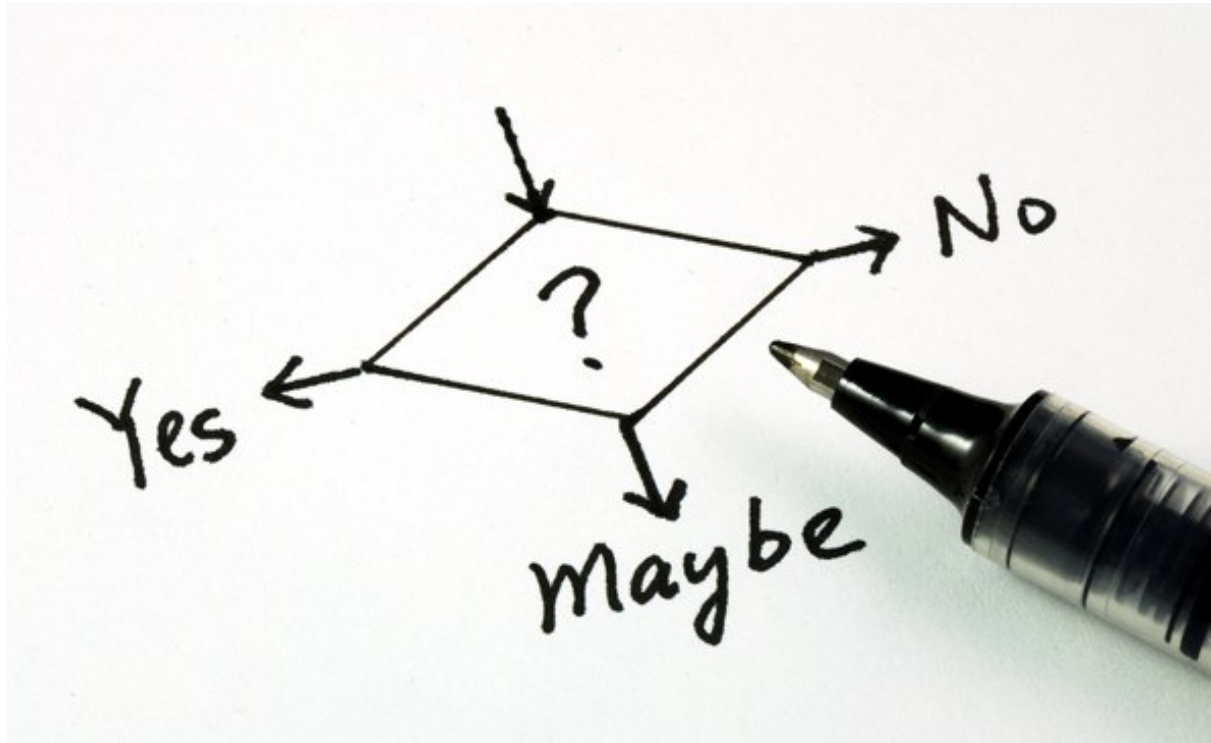
Building the EOSC through an integrated pan-european e-Infra catalogue of services





Question now is...

Should Member States consider EOSC as a potential applicant to the ESFRI roadmap?





More information? WP calls?

- Web page: <https://ec.europa.eu/programmes/horizon2020/en/h2020-section/e-infrastructures>
- Tweeter account: @eInfraEU
- Email: Cristina.Martinez@ec.europa.eu

THANK YOU FOR YOUR ATTENTION!