



Data Infrastructure **foundation of the European Cloud Initiative**

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Digital Single Market Strategy: Digital Economy and Society



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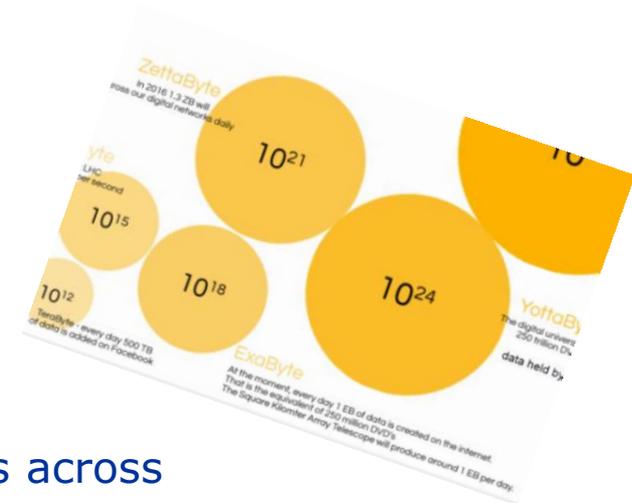
- ✓ A Juncker Commission priority
- ✓ Adopted 6 May 2015
- ✓ Element of DSM: building a data economy, including through open science

Digital Single Market extracting value from data

The **exponential growth of data** will drive societal challenges, scientific advances and productivity gains across the economy.

Digital technologies support more efficient production processes.

Europe has to **invest on its capacity** to be global player **extracting value from data** (science, industry, public sector).





responding to the challenges

Lack of interoperability of infrastructures
Fragmentation of deployment
Cost-efficiency

**Europe risks lagging behind world-class HPC
infrastructure to process data!**



European Data Infrastructure

will combine:

- processing data (**HPC infrastructure**)
- storing data (**Data infrastructure**)
- moving data (**Network infrastructure**)

**User-driven and Service Oriented approach
matching the Cloud Paradigm**

European *exascale* capacity

High Performance Computing

European capacity on components
prototype EU HPC pre-exascale node
followed by fully operational HPC exascale
machine

connect/upgrade HPC Tier 0 nodes and link
them with the data infrastructure

support centres of excellence for software
and platforms adaptation to exascale

Networking

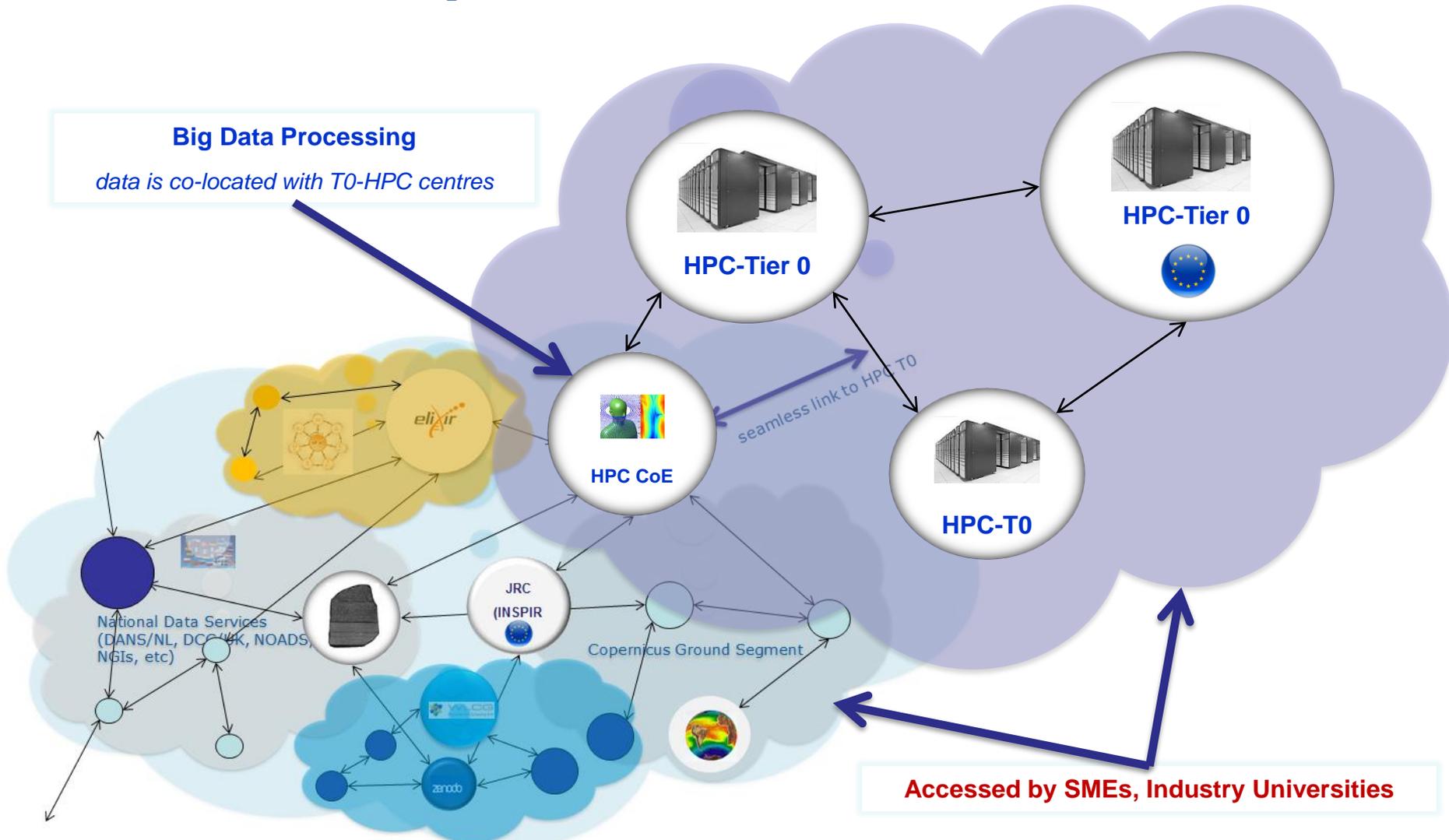
rooted European platform for
innovative big data-driven
services

extend geographic coverage
upgrade network capacity
from backbone to the campus
and researcher desk

Data and software

connect/upgrade Data and Software Centres of Excellence (CoE)
install the EU Data/CoE exascale storage node
long term storage (Tier-0/Tier-1 and long-tail seamlessly connected)
support core services across domains (store, preserve, access)

a seamlessly connected data infrastructure

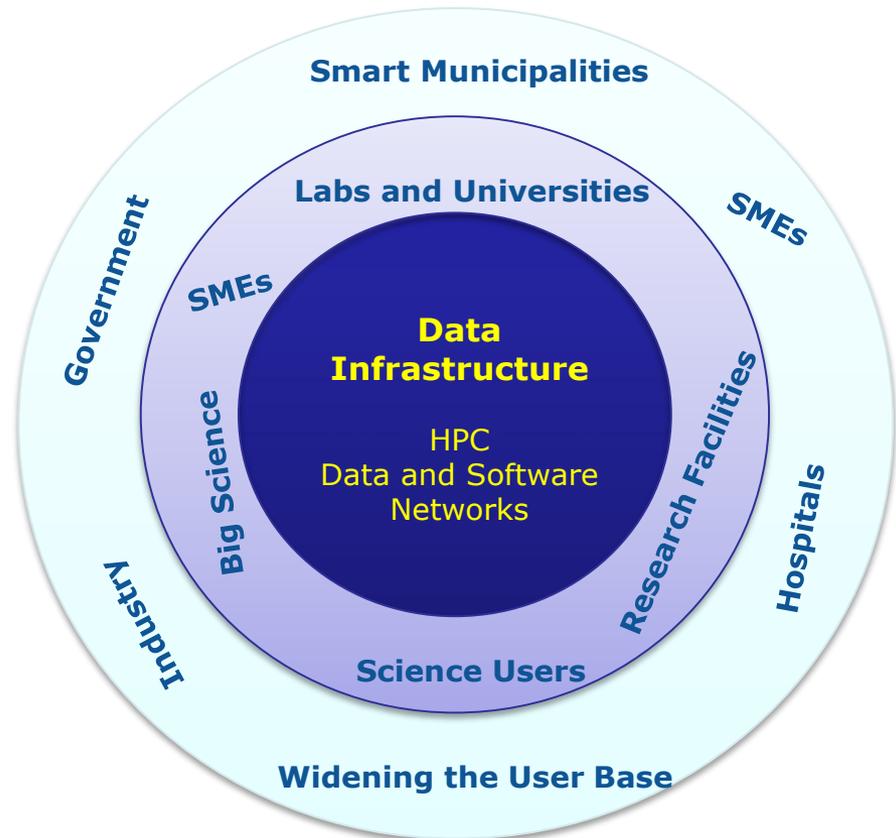


Widening Access and Building Trust

Data Infrastructure service delivery **empowered to serve all European users:**

scientists but also for other users from **industry** (including SMEs) and the **public sector**.

Data infrastructure will allow **unlocking the value of Big Data** and digital by default.



cloud and Data-Infrastructure



transparency





Call for coordinated European action

Important Project of Common European Interest (IPCEI) on HPC and Big Data enabled applications

Objective to support the development of new usages of HPC by the industry and to guarantee access to world-class HPC facilities for public and private research.

Blog post - by Günther H. Oettinger - 8 January 2016

<http://bit.ly/1ZLRPJ5>

No one can go alone in a connected economy.
It has to be an European Ambition!



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Thank You!