



# **EXDCI workshop**

## **CoEs: Way forward**

**Prague, 9<sup>th</sup> May 2016**

**Andrea Feltrin, DG CONNECT, European Commission**

## Maximise Value

**Press release** (project as a whole and also by at least by some of the partners locally)

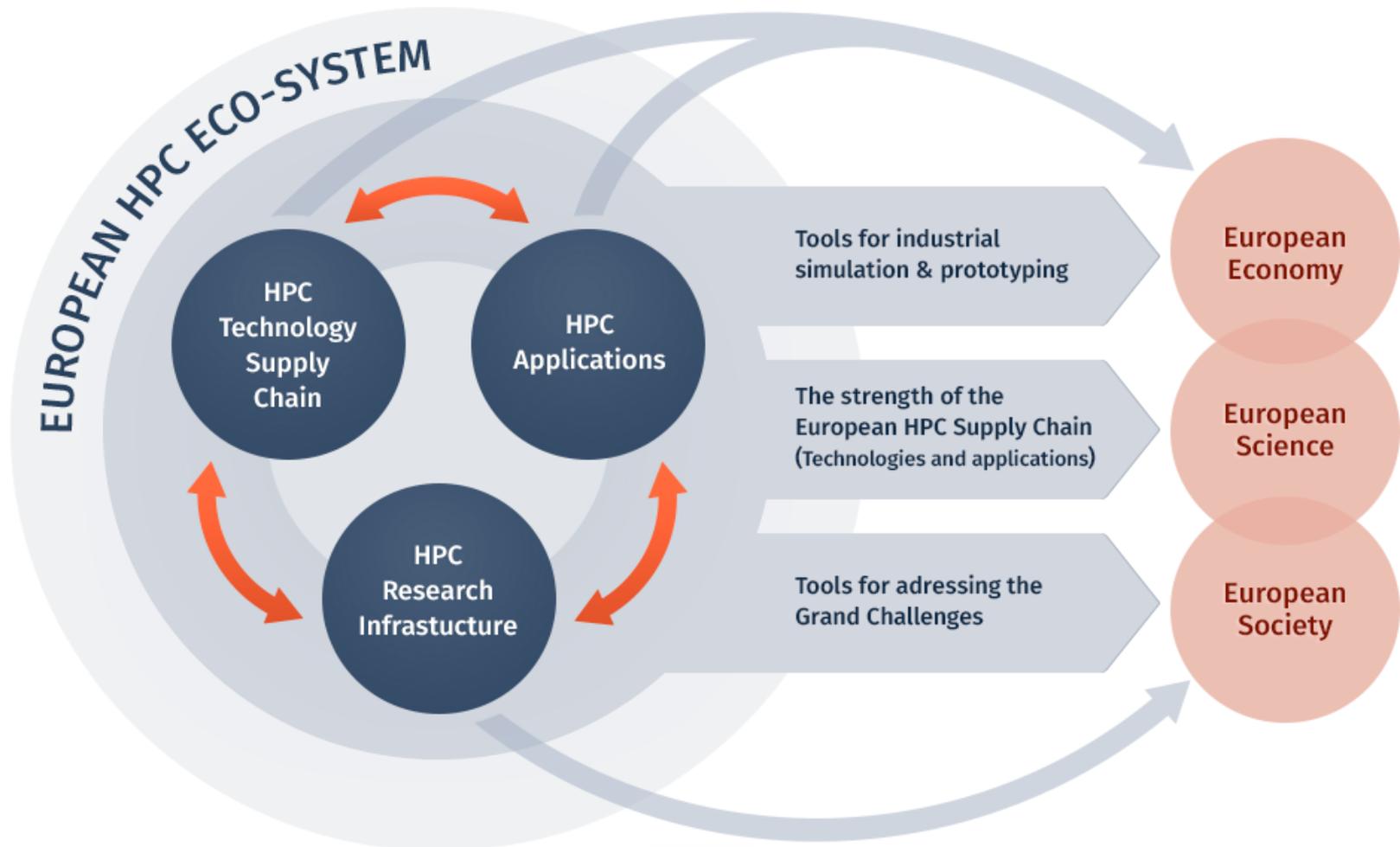
**Website for the project** ( as soon as the project starts)

**Brochure** and easily understandable information of the project

**Mobilise** the stakeholders/constituents

**Critical mass** (ie how the project can stand out as a major force in that sector, and identify steps to be taken to build it)

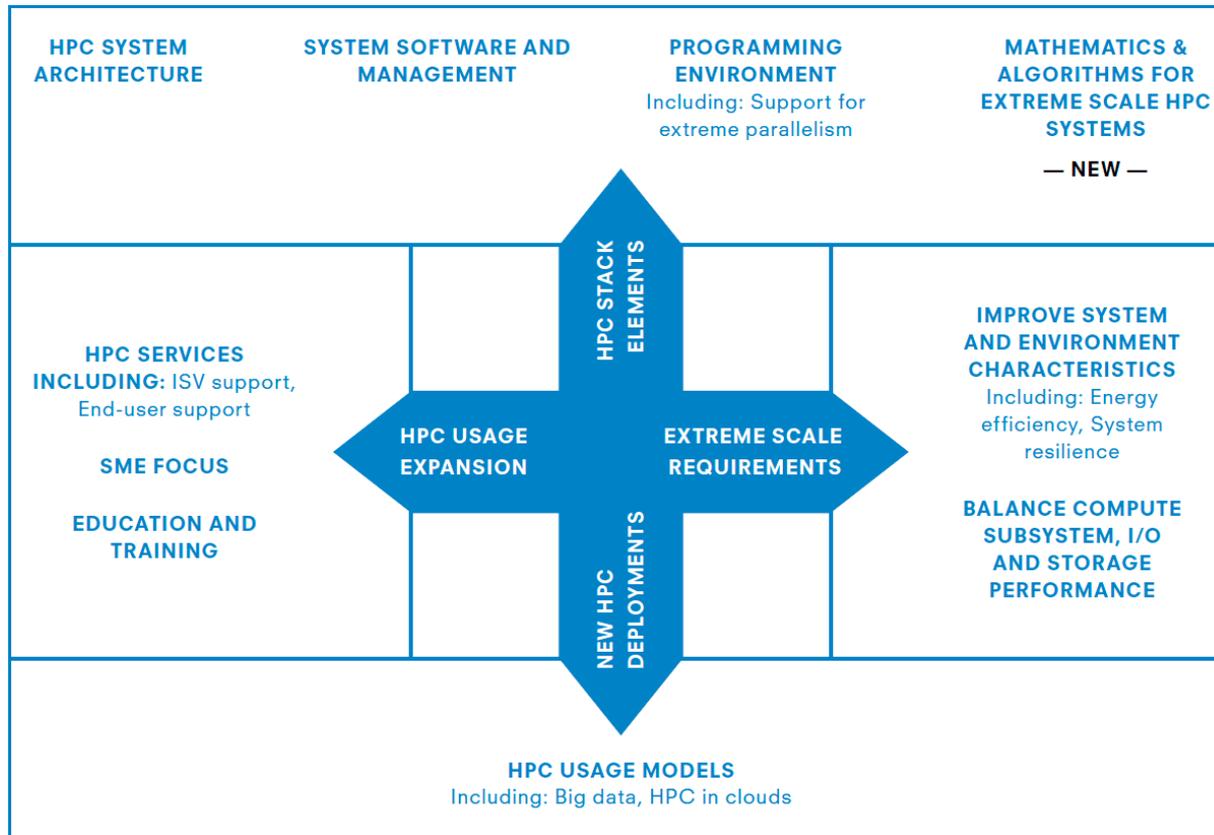
# CoEs role in HPC ecosystem



# World-wide HPC revenue (IDC) 15.5B\$ by 2019

WW High-Performance Systems Revenue by Verticals/Application Areas			
	2015	2019	CAGR 14-19
Bio-Sciences	1,097,528	1,378,060	4.0%
CAE	1,307,487	1,726,271	8.1%
Chemical Engineering	189,023	220,766	6.8%
DCC & Distribution	709,349	871,773	6.6%
Economics/Financial	618,338	850,892	19.9%
EDA / IT / ISV	812,236	1,100,507	11.2%
Geosciences	843,387	1,149,844	10.4%
Mechanical Design	61,460	64,136	4.2%
Defense	1,147,661	1,559,968	10.0%
Government Lab	1,999,262	3,018,993	8.2%
University/Academic	2,056,107	2,759,222	8.6%
Weather	496,854	626,445	6.4%
Other	95,495	142,916	8.2%
<b>Total Revenue</b>	<b>11,434,186</b>	<b>15,469,792</b>	<b>8.6%</b>

# Input to HPC Strategic Research Agenda



# Considerations for the future

CoEs to reflect on:

- the experience of the call organized in 2015
- sectorial roadmaps in collaboration with ETP4HPC

Window now to give input over the next months and contribute to the next work programme 2018-2020.



# European Cloud

Communication published by the European Commission on April 19th 2016.

Key elements relating to HPC:

**HPC infrastructure with exascale capacity to process data**

**Storage capacity to access & preserve large and complex data and software**

**High-speed connectivity to link and access data and software**

The objective is to endow Europe with a trusted and world class data infrastructure.

# Type of actions

## High Performance Computing

- European native knowledge base to build key basic components and associated software (low power chip)
- Prototype EUHPC pre-exascale systems followed by fully operational HPC exascale machines
- Connect/upgrade HPC Tier 0 nodes and link them with the data infrastructure
- Support HPC centres of excellence for software and platforms adaptation to exascale

## Data and software

- Rationalise and upgrade data centres and link them to HPC software centres of excellence
- Install the EU Data/CoE exascale storage node
- Operate a pan-European long term preservation infrastructure
- Support core services across domains (discoverability, long term preservation, access control)

## Networking

- Upgrade network capacity from backbone to the campus and researcher desk to respond to the exascale challenge
- Rooted European platform for innovative big data-driven services in different application areas
- Balance better and extend geographic coverage



*"Notre ambition c'est que d'ici 2020, l'Europe se classe dans le top 3 mondial du calcul à haute performance."*

***"Our ambition is that by 2020, Europe is in the world top 3 of high performance computing."***

27 October 2015

European Commission President  
Jean-Claude Juncker



**Thank you for your attention**