



e-Infrastructures

within Horizon 2020

**European Commission - DG INFSO
GÉANT & e-Infrastructure Unit**

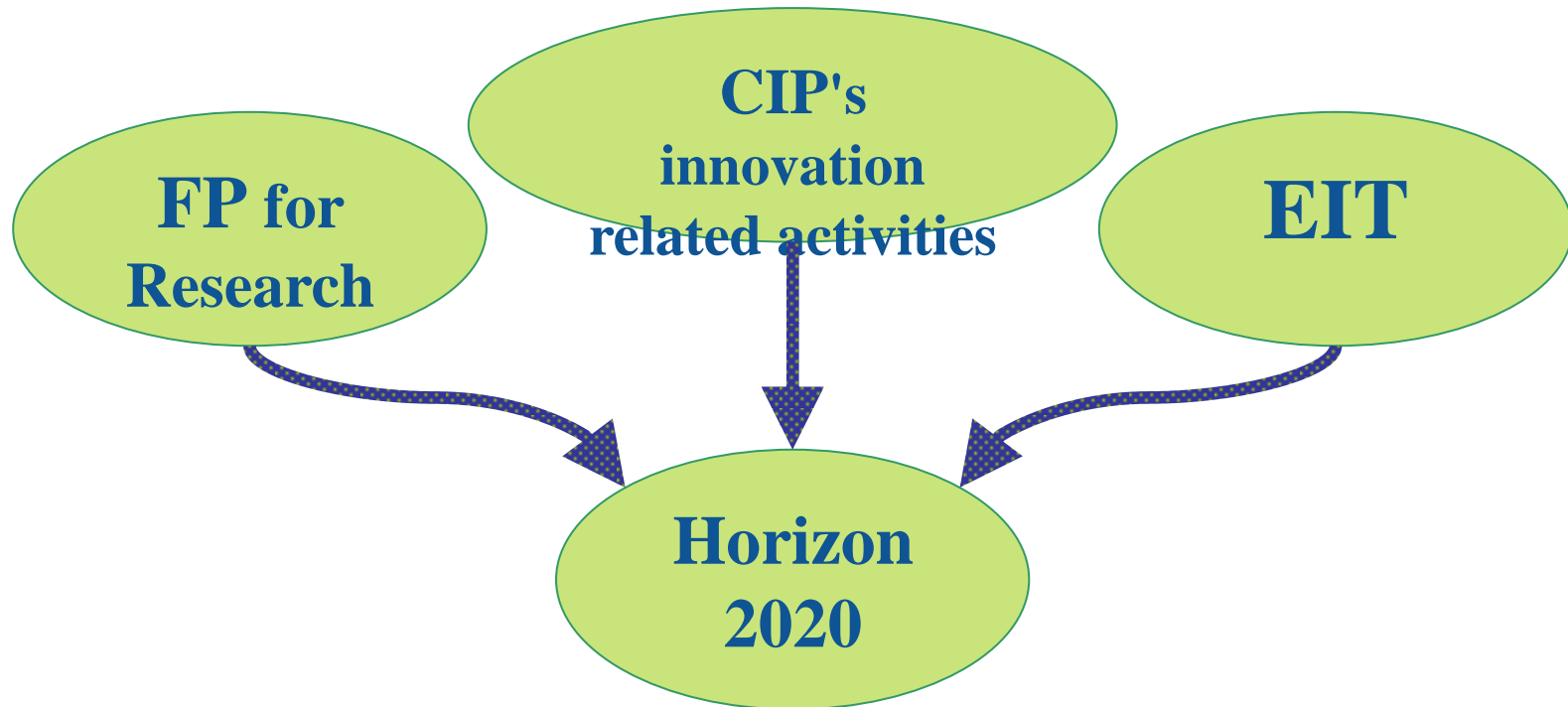
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Slides on Horizon 2020

- **Context and overarching goal of H2020**
- **Budget**
- **Priorities**
- **Excellent science**
- **Key novelties**

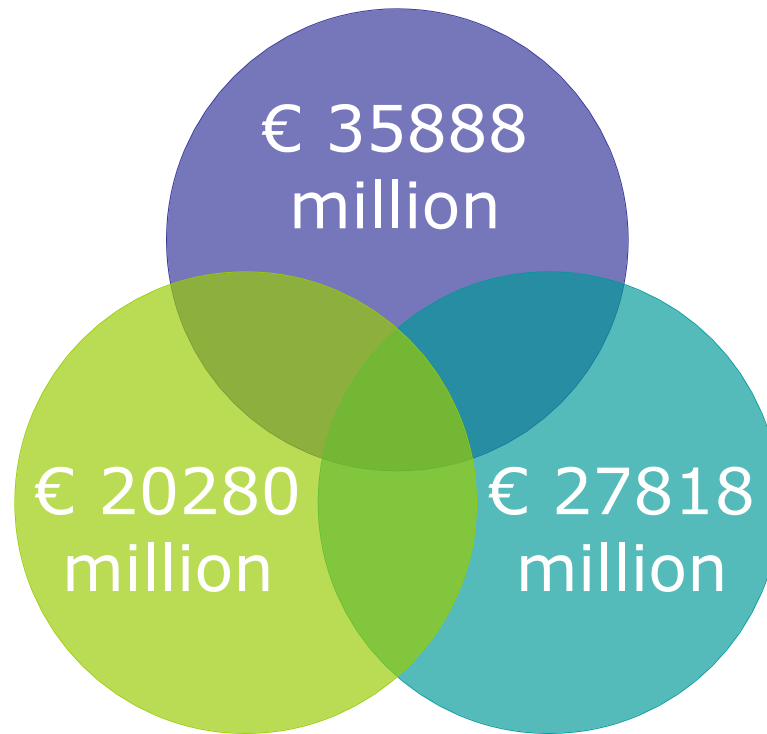


Union R&I funding





Societal challenges



Industrial leadership

Excellent science



Indicative breakdown of budget (in EUR million)

I Excellent science, of which:	27818
1. The European Research Council	15008
2. Future and Emerging Technologies	3505
3. Marie Curie actions on skills, training and career development	6503
4. European research infrastructures (including e-Infrastructure)	2802
II Industrial leadership, of which:	20280
1. Leadership in enabling and industrial technologies	15580
2. Access to risk finance	4000
3. Innovation in SMEs	700
III Societal challenges, of which:	35888
1. Health, demographic change and wellbeing	9077
2. Food security, sustainable agriculture, marine and maritime research and the bio-economy:	4694
3. Secure, clean and efficient energy	6537
4. Smart, green and integrated transport	7690
5. Climate action, resource efficiency and raw materials	3573
6. Inclusive, innovative and secure societies	4317
European Institute of Innovation and Technology (EIT)	3194
Non-nuclear direct actions of the Joint Research Centre	2212
	87740

Supporting our Excellent Science Base

Supporting world leading scientists in blue skies research (ERC)



Providing training and career development opportunities (Marie Curie)



Development of future and emerging technologies (FET)



*Research infrastructures
(incl. e-Infrastructures)*





1. *Developing the European Research Infrastructures for 2020 and beyond*
 - **Developing new world-class RIs**
 - **Integrating and opening existing national RIs of pan-European interest**
 - **Development, deployment and operation of ICT based e-Infrastructures**

2. *Fostering the innovation potential of Research Infrastructures & their human capital*
 - **Exploiting the innovation potential of RIs**
 - **Strengthening the human capital of RIs**

3. *Reinforcing European Research Infrastructures policy and international cooperation*
 - **Reinforcing European policy for RIs**
 - **Facilitating strategic international cooperation**

**In complementarity with
Cohesion, Structural & Social
Funds**



Role of e-Infrastructures goes beyond *Excellent science* -> *Industrial Leadership*

Key Enabling Technologies

- Information and Communication Technologies (ICT)
Next generation computing: advanced computing systems and technologies

- Advanced materials

- Biotechnology

Boosting cutting-edge biotechnologies as future innovation drivers

Innovative and competitive platform technologies

are examples of successful use of e-Infrastructures in scientific fields with high innovation impact



Role of e-Infrastructures goes beyond *Excellent science* –> *Societal Challenges*

HEALTH, DEMOGRAPHIC CHANGE AND WELLBEING

- Improving diagnosis
- Using in-silico medicine for improving disease management and prediction
- Treating disease
- Better use of health data

SMART, GREEN AND INTEGRATED TRANSPORT

- Resource efficient transport that respects the environment
- *Making aircraft, vehicles and vessels cleaner and quieter will improve environmental performance and reduce perceived noise and vibration*

CLIMATE ACTION, RESOURCE EFFICIENCY AND RAW MATERIALS

- Developing comprehensive and sustained global environmental observation and information systems

INCLUSIVE, INNOVATIVE AND SECURE SOCIETIES

Closing the research and innovation divide in Europe

- Linking in a competition emerging institutions, centres of excellence and innovative
- Supporting access to international networks for excellent researchers and innovators
- Supporting the development and monitoring of smart specialisation strategies.

are areas where e-Infrastructures are and will be of fundamental importance



An **increased budget**, from 1715 M€ (FP7) to 2802 M€ (Horizon 2020)

- **DG RTD part: from 1133 M€ to 1785 M€**
- **DG INFSO part (e-infrastructures): from 582 M€ to 1017 M€**

New activities to support the **implementation and operation** of world-class infrastructures such as **ESFRI** infrastructures

Continuation of the successful FP7 **Integrating Activities**

Reinforcement of the support to **e-infrastructures**

New objective of better exploiting the **innovation potential and human capital** of infrastructures



**Single set of rules
for all participants**

**Simpler funding rates
for projects**

**Easier access
to applicants**

**Uniform evaluation
criteria**

**Easier grant
management**

Simpler rules

**Fewer and more
targeted audits**

Spare slides