FRANCE GRILLES

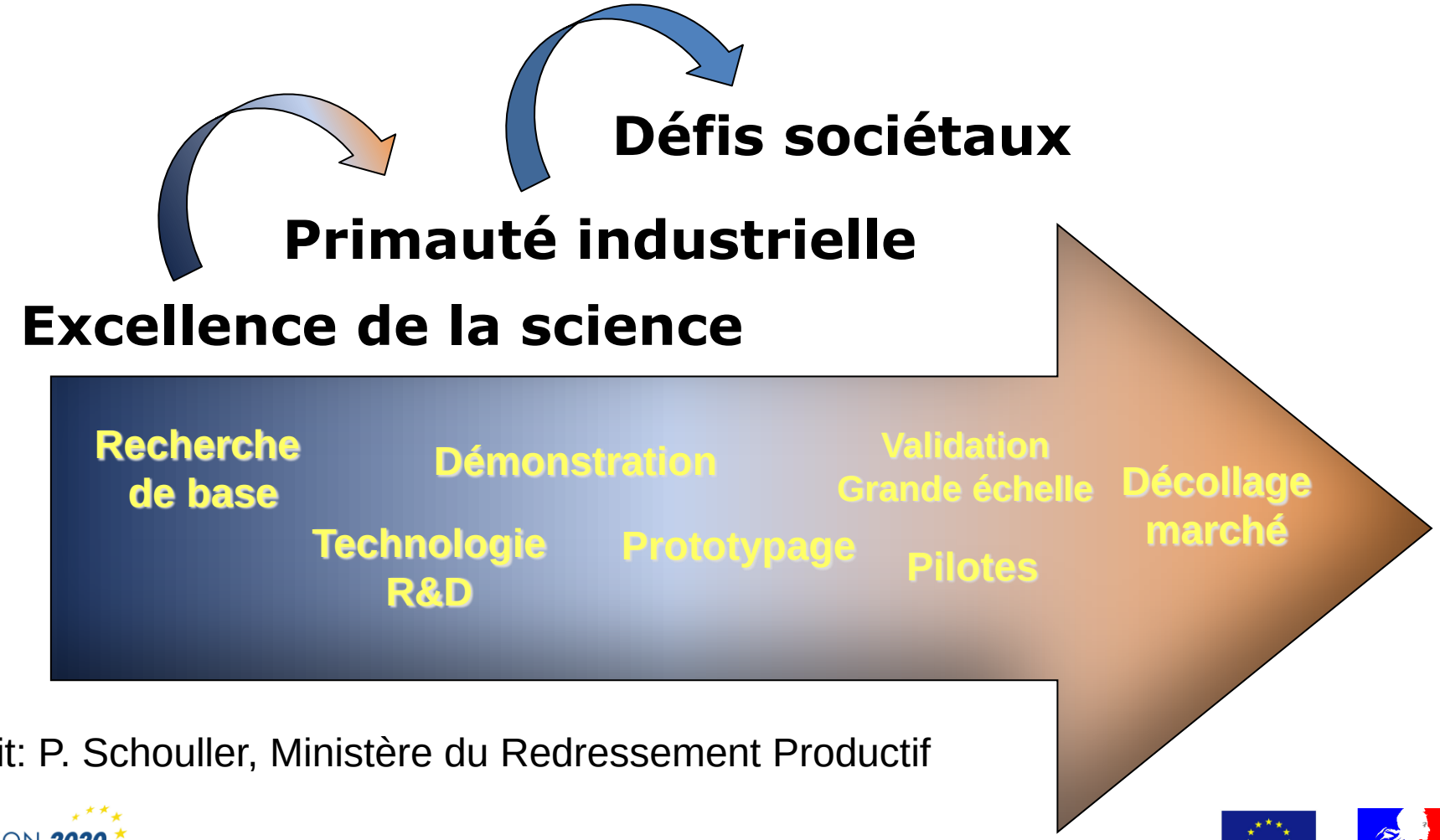
Horizon 2020: enjeux et opportunités

Contexte

- Démarrage du nouveau programme-cadre de recherche de la Commission Européenne
- Premier appel à projets : mi-Décembre 2013
- Trois façons de participer :
  - Porter un projet
  - Participer à un projet
  - Devenir expert

http://www.horizon2020.gouv.fr/

Couvre la chaîne entière de l'innovation



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HORIZON 2020
LE PROGRAMME DE RECHERCHE ET D'INNOVATION DE L'UNION EUROPÉENNE

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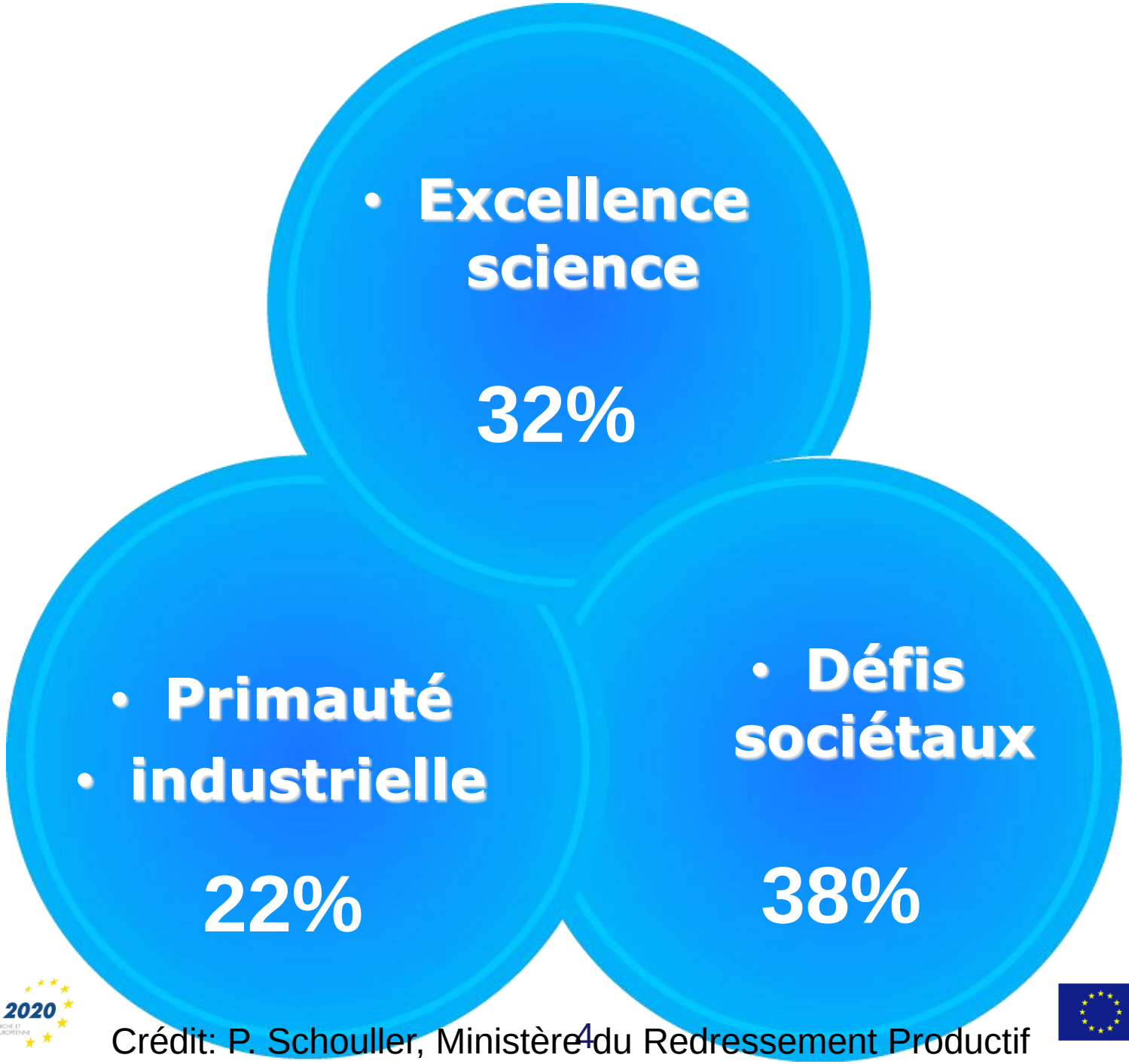

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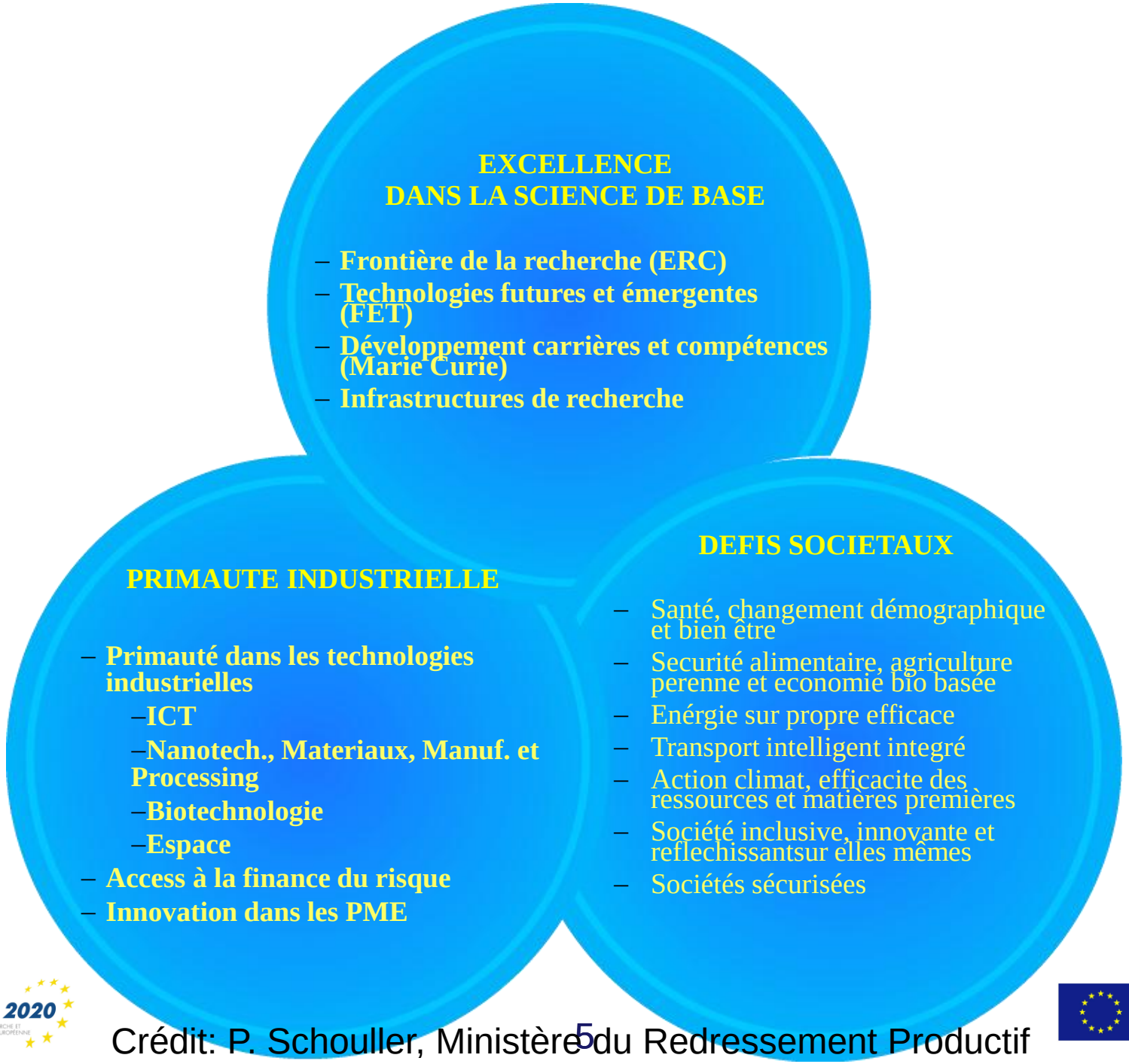

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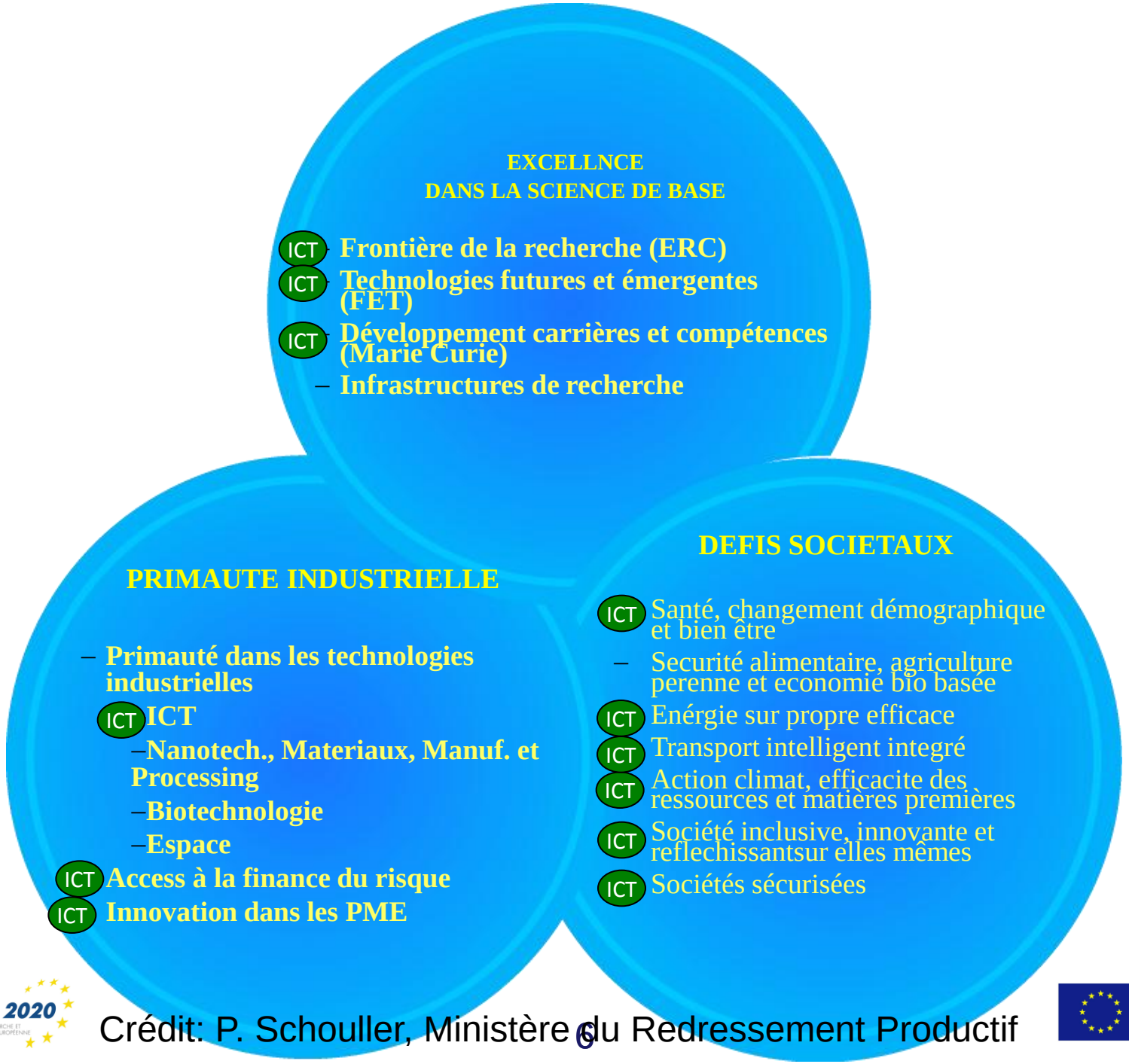

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24.4 G€

EXCELLENCE SCIENTIFIQUE

- Conseil européen de la recherche ERC — 13,095 G€
- Technologies futures émergentes FET et FET Flaghsip — 2.696 G€
- Actions Marie Sklodowska Curie — 6.162 G€
- Infrastructures de recherche européenne — 2.488 G€

HORIZON 2020 LE PROGRAMME DE RECHERCHE ET D'INNOVATION DE L'UNION EUROPÉENNE

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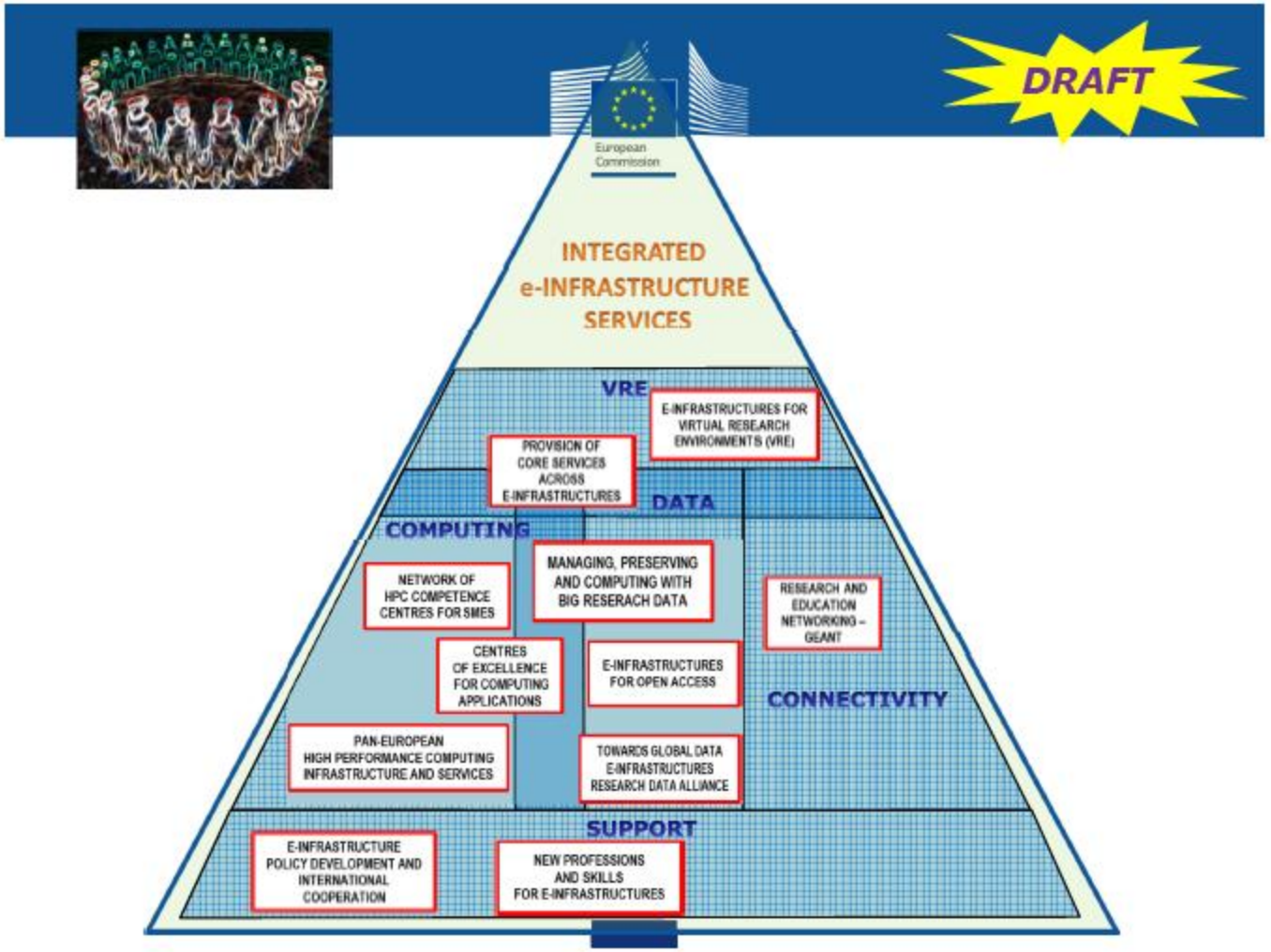
e-infrastructures: programme de travail 2014-2015



Credit:
K. Glinos

European Commission

DRAFT

1. Managing, preserving and computing with big research data

MANAGING, PRESERVING AND COMPUTING WITH BIG RESEARCH DATA

- Federated pan-European infrastructure for data manag't
  - **Access, replication, annotation, search compute, analysis, preservation**
- Services for quality and reliability
  - **including certification mechanisms and services**
- Federating data management and curation tools
- Large scale virtualisation of data/compute centre resources
- *Standards-based open platform for scientific computing*
- *Support the evolution of the European Grid Infrastructure*
- *Proof of concept and prototypes of enabling software*
- *Enabling aggregation of content for textual analysis*

Credit:
K. Glinos

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http://www.france-grilles.fr

European Commission

DRAFT

E-INFRASTRUCTURES FOR OPEN ACCESS

2. e-Infrastructure for Open Access

Robust e-infrastructure supporting Open Access policies in Europe, providing reliable and permanent access to digital scientific records

TOWARDS GLOBAL DATA E-INFRASTRUCTURES RESEARCH DATA ALLIANCE

3. Towards global data e-infrastructures

Consolidating Europe's contribution to the Research Data Alliance (RDA) and ensuring that RDA serves to foster research data interoperability at global level

Credit:
K. Glinos

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PAN-EUROPEAN HIGH PERFORMANCE COMPUTING INFRASTRUCTURE AND SERVICES

4. Pan-European High Performance Computing (HPC) infrastructure and services

- *Pool and rationalise Tier-0 resources to offer state-of-the-art services to both industry and academia*

5. Centres of Excellence for computing applications

CENTRES OF EXCELLENCE FOR COMPUTING APPLICATIONS

- *Computational science enabling discovery and innovation*
- *Focus on scientific, industrial or societal challenges; new or emerging applications*
- *Integrated, multidisciplinary, user-driven and distributed*

6. Network of HPC Competence Centres for SMEs

NETWORK OF HPC COMPETENCE CENTRES FOR SMES

- *Exchange best practice and promote services for SMEs*

Credit:
K. Glinos

European Commission

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PROVISION OF CORE SERVICES ACROSS E-INFRASTRUCTURES

7. Provision of core services across e-Infrastructures

Harmonise and/or deploy core infrastructure services:

- Development and promotion of the uptake of a **Digital Identifier** e-infrastructure **for digital objects** (articles, datasets, collections, software, nomenclature, etc) **and authors**;
- Deployment and promotion of a pan-European **identity federation** for researchers, educators and students
  - **Implementing an ERA Communication action**

Credit:
K. Glinos

NB! *Core services: those needed across a broad range of communities and e-infrastructures and ensure their interoperation*

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9. New professions and skills for e-infrastructures

Establishment of and support for emerging professions such as

- **e-Infrastructure operators**
- **Research technologists**
- **Data scientists/librarians**

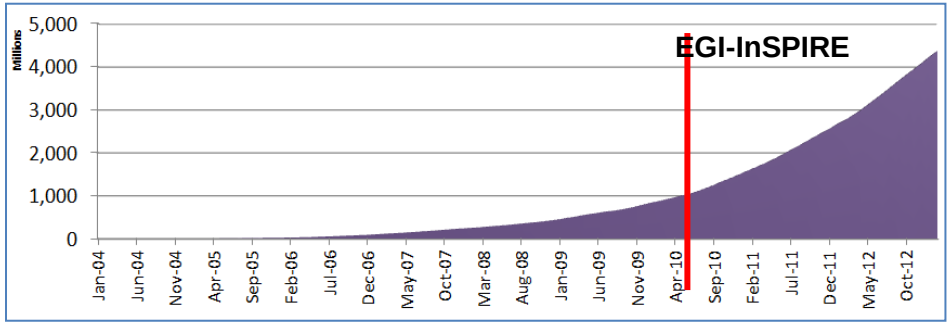
Through development of

- **University curricula** – definition, updating and adoption
- **Training programmes** – lifelong learning
- **Reference model / alternative means for recognition** – establishment as distinct professions
- **Networking** and information sharing amongst professionals
- **Awareness raising** – promotion of champions, advocate new skills' needs

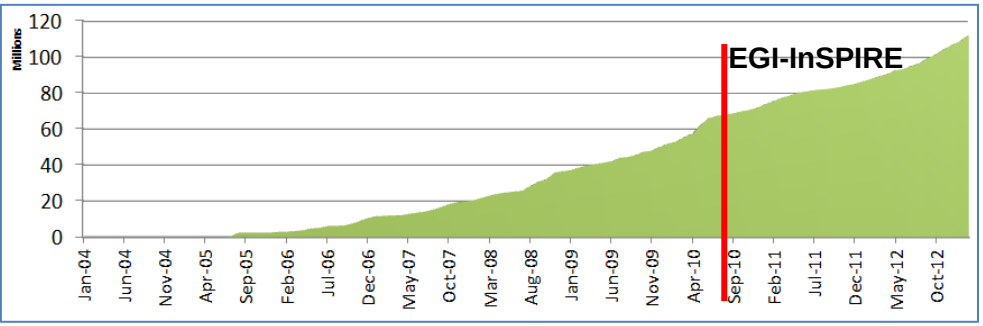
Credit:
K. Glinos

EGI à l'horizon 2020

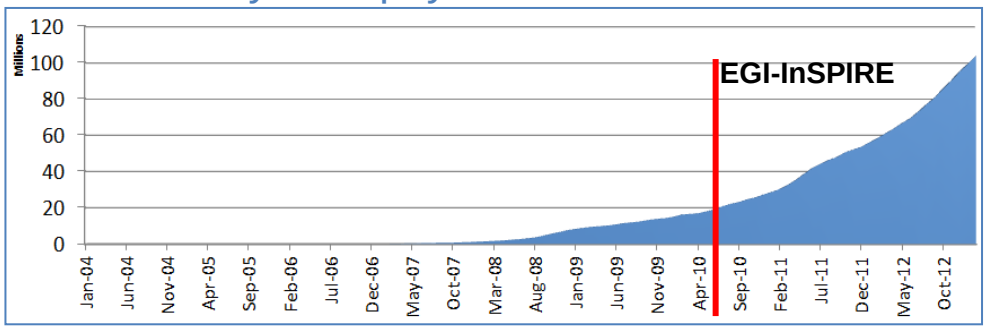
High Energy Physics: 4.5 Billion hours



Life Sciences: 116.7 Million Hours



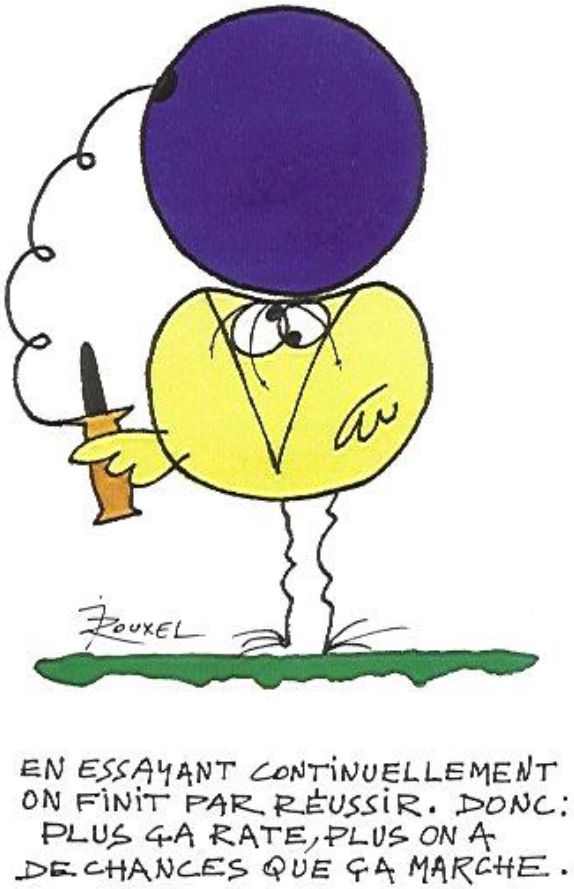
Astronomy Astrophysics: 110.3 Million hours



- EGI inscrit dans la stratégie européenne pour les e-infrastructures
  - 8 Millions € fléchés pour EGI dans le WP 2014-2015
  - Recherche de synergies avec les autres e-infrastructures (PRACE, EUDAT)
- Mais…
  - harmonisation des politiques nationales (Allemagne)
  - Prise en compte des besoins des communautés (EIRO Forum)

Où trouver de l'info et/ou de l'aide?

- Programme de travail pour les infrastructures de recherche
  - http://ec.europa.eu/research/horizon2020/pdf/work-programmes/european_research_infrastructures_draft_work_programme.pdf#view=fit&pagemode=none
- EC official documents, draft work programmes 2014-2015 : http://ec.europa.eu/research/horizon2020/index_en.cfm?pg=h2020-documents
- Site du ministère du redressement productif: http://www.horizon2020.gouv.fr
  - Très complet et régulièrement mis à jour
- Ecouter intro et table ronde des journées SUCCES http://webcast.in2p3.fr/videos-JSFG2013_horizon_2020
- CNRS – universités: cellules Europe
- France-Grilles / IdGC :
  - Aide administrative (G. Fettahi)
  - Conseils (Y. Legré)

100% des porteurs de projets ont tenté leur chance !

Les devises Shadok