

HORIZON *2020*

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

Session d'information sur les appels à projets 2017 « Big Data »

Orsay – 19/01/2017

Introduction



1. Horizon 2020 en bref
2. Participation française
3. Focus LEIT/ICT et Big-Data

Horizon 2020 en bref

Horizon 2020: architecture

77,2 Md€ pour 2014-20

RDI

Défis sociétaux

- Santé, bien-être, vieillissement
- Sécurité aliment., bioéconomie
- Energies sûres, propres, efficaces
- Transports intell., verts, intégrés
- Climat, environnement, mat. 1^{ères}
- Sociétés inclusives et novatrices
- **Sociétés sûres**

Primauté industrielle

TIC

NMBP
Espace

Innovation dans les PME
(Eurostars)
Accès au financement à risque

*Recherche
fondamentale*

Excellence scientifique

Recherche exploratoire (ERC)
Technologies futures et émergentes (FET)
Infrastructures de recherche
Marie Curie

Euratom

Fission
Fusion

+ *Elargissement, Science et Société*

Institut européen
Innovation & Technologie
EIT / KIC

VENTILATION BUDGÉTAIRE

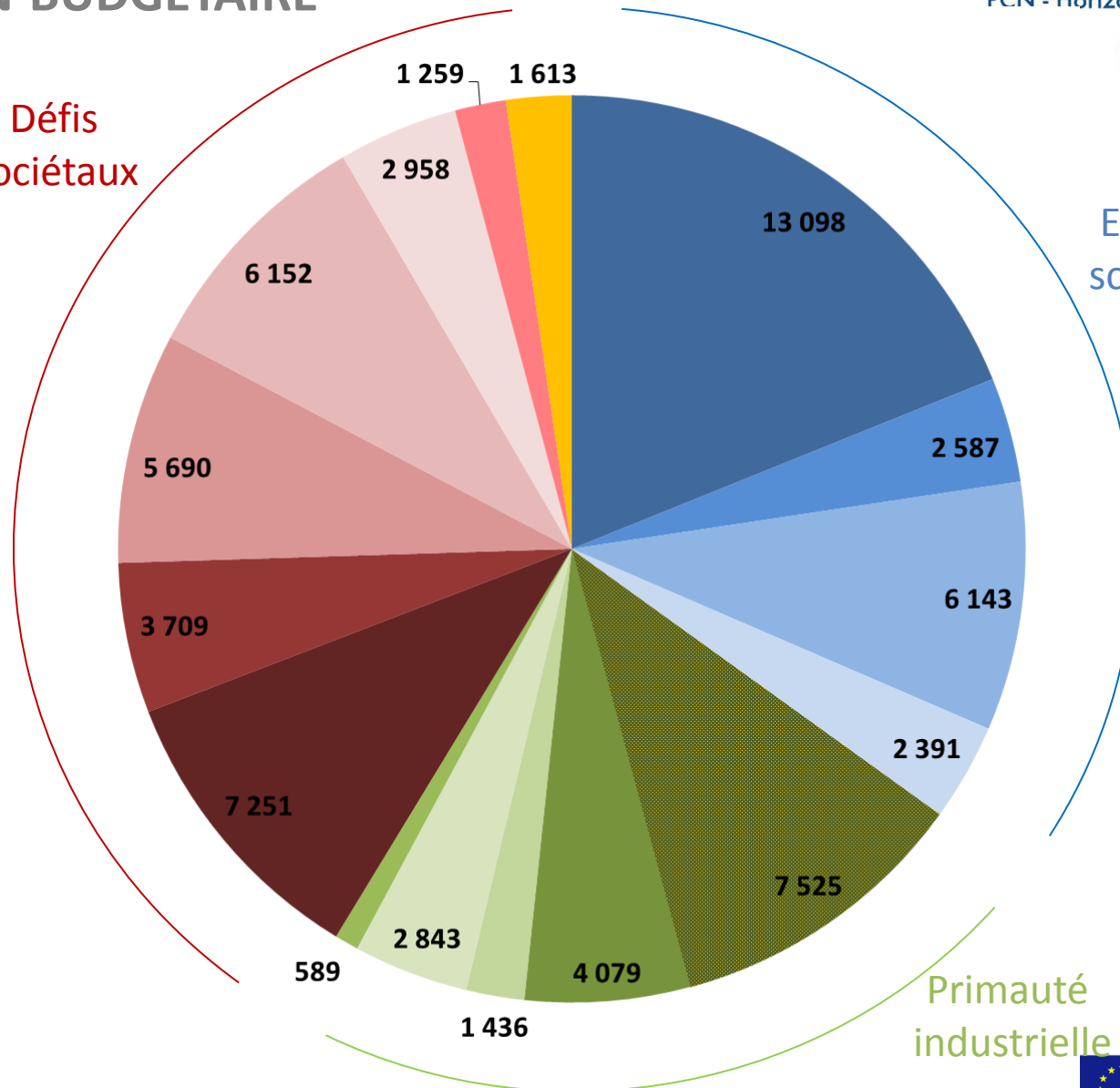


PCN - Horizon2020

- ERC
- FET
- MSCA
- RI
- TIC
- NMPB
- Espace
- RF
- PME
- Santé
- Food
- Energie
- Transport
- Climat
- Sociétés innov.
- Sécurité

Défis
Sociétaux

Excellence
scientifique

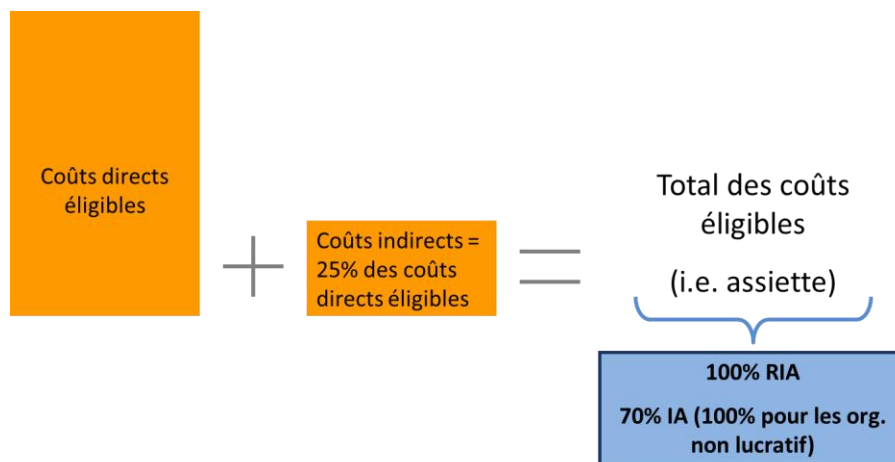


Primauté
industrielle

LES PRINCIPALES RÈGLES D'HORIZON 2020

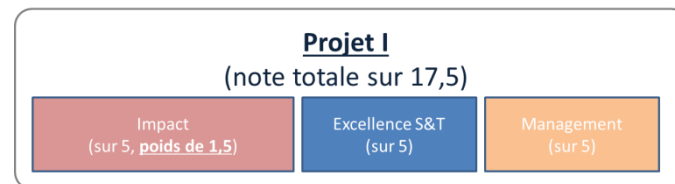
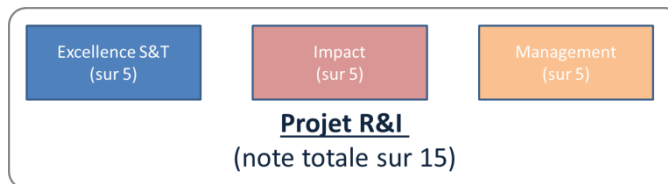
0. Des projets collaboratifs européens (min. 3 partenaires de 3 pays)

1. Des taux de subvention « simples »



A comparer aux taux nationaux !

2. Une évaluation différenciée



3. Une gamme d'« instruments » plus larges :

- De plus en plus en de PCP
- L'instrument PME
- L'instrument *Fast Track to innovation (FTI)*

4. Un « time-to-grant » de 8 mois max.

Le processus des appels



Association cPPP (feuille de route), ETP, groupes d'experts, coordinateurs...

Acteurs nationaux (GTN TIC, SEC + CoFIS)

Délégués

Délégués

WP: Consultation des acteurs clés

12 mois

Draft WP, PC consultation, validation

Appel: publication -> soumission

2-4 mois

Evaluation & préparation Grant

< 8 mois

PCN

Participants

Notre rôle

Informer



Journées
d'information

Mise en ligne
d'information

Lettre du PCN

Orienter



Adéquation idée de
projet

Opportunités de
financement

Conseiller



Relecture d'abstract

Discussion autour
d'idées de projets

Relecture
Instrument PME

Comment lire une ligne d'appel



PCN - Horizon2020

ICT-21-2016: Support technology transfer to the creative industries **Sujet - Année de l'appel**

Specific Challenge: SMEs represent 85% of all actors in the creative industry sector. They co-exist with global players and often face difficulties in adopting state of the art ICT technologies and accessing finance. Moreover, they operate on fragmented and localised target markets and have to bear high market costs which affect their international competitiveness. In this context, ICT tools and technological innovation are fundamental for the creative industries and their competitiveness. They widen creative possibilities and improve efficiency in all sectors.

The goal is to increase the competitiveness of the European creative industries by stimulating ICT innovation in SMEs, by effectively building up and expanding a vibrant EU technological ecosystem for the creative industries' needs and by fostering exchanges between the creative industries SMEs and providers of innovative ICT solutions.

Scope: Innovation Actions

Actions should support creative industries SMEs in leveraging emerging ICT technologies for the development of innovative products, tools, applications and services with high commercial potential. Proposals should ensure that creative industries SMEs are participants in the consortium and take on a driving role in the action, i.e. leading the innovation activities and liaising with end-users, ensuring that the work responds to a clear market demand. The draft business plan provided should demonstrate that the solutions are cost-effective, market-ready and targeted at existing markets with a potential for cross-border extension.

Proposals should make clear if the action would lead to impacts at European or international level and explain how the achievement of those impacts would be measured.

The Commission considers that proposals requesting a contribution from the EU between EUR 0.5 and 1 million for a period between 12 and 18 months would allow this specific challenge to be addressed appropriately. This does not preclude the submission and selection of proposals with a different budget or duration.

Expected Impact:

- For the project portfolio resulting from the Call: tens of innovative solutions with high market potential ready to be deployed by European creative industries SMEs.
- Stronger collaboration between ICT innovative technologies providers and creative industries SMEs to improve the competitive position of the European creative industries.

Type of Action: Innovation action

Le défi à relever

Le périmètre de l'action

Indication sur le budget

Les impacts attendus

Le type d'action financée

ICT 1 Smart Cyber-Physical Systems			56 000 000 €
a	Modelling and integration frameworks or smart cooperative and open CPS	100	37 000 000 €
b	Towards platforms and ecosystems or towards a "smart everywhere" society	70	17 000 000 €
c	Support action cross sectorial platform building structuring of constituencies and roadmapping	100	2 000 000 €



a. **Research & Innovation Actions** should cover one or both of the following themes:

- **Modelling and integration frameworks:** modelling techniques and comprehensive integrated tool chains for clearly defined use cases. Major aspects to be addressed include the holistic modelling of the system behavioural, computational, physical and/or human aspects of CPS; and the seamless interoperability between CPS tools. Solutions should ensure flexibility and tractability of systems.
- **Smart, cooperative and open CPS:** Methods for engineering Cyber-physical Systems that are able to respond in real-time to dynamic and complex situations while preserving control, system safety, privacy, reliability, energy efficiency and dependability features, and addressing security and privacy "by design" across all levels. This includes CPS that are aware of the physical environment, enabling effective and fast feedback loops between actuation and sensing, possibly with cognitive and learning capabilities; further CPS with cooperation and negotiation capabilities supporting distributed services, autonomous, reactive and targeted problem solving and/or improved man-machine interaction. Also covered are open and heterogeneous CPS and Systems of Systems to facilitate seamless connectivity, dynamic reconfiguration as well as handling of emergent properties. The developed methods should enable evolutionary, adaptive and iterative system life-cycles and guarantee Quality of Service at functional and extra-functional level.

Projects are expected to be driven by industrial requirements, to be well balanced between industry and academia, and to include a demonstration and validation phase with realistic use cases.

- b. **Innovation Actions** will stimulate innovation and connect innovators across value chains in view of broader adoption of novel embedded and cyber-physical systems technologies and their enablers in industrial and societal applications. Proposals should cover one or both of the following themes.
- **Towards platforms and ecosystems:** Prepare reference architectures and platforms

ICT 1 Smart Cyber-Physical Systems			56 000 000 €
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Expected impact:

- Reduction of development time for CPS by 30% as compared to the state-of-the-art in 2013 and significant reduction in maintenance costs.
- Stronger pan-European collaboration across value chains and technology levels from the components and hardware to higher systems level creating open innovation eco-systems and stimulating consensus building on open tools, platforms and standards.
- Development in Europe of a competitive offer for next generation core ICT platforms spanning from operating systems and middle ware to application development and deployment tools with built-in security. This should translate into a significant increase of Europe's market share in this area and in higher added value generated from embedded ICT.
- Uplifting Europe's innovation capacity and competitiveness across all economic sectors with the wider adoption of networked embedded ICT, notably in SMEs.

Types of action:

- a. Research & Innovation Actions – A mix of proposals requesting Small and Large contributions is expected
- b. Innovation Actions – A mix of proposals requesting Small and Large contributions is expected

Mécanismes de soutien

Aide au partenariat technologique (APT) -
Aider au montage d'un projet collaboratif européen (H2020, ERA-Net, Eurêka, Eurostars) ou national (FUI)

- Pour les PME et les entreprises de moins de 2000 salariés
- Plafonnement de la subvention à 50 k€ ; versement d'avances remboursables au-delà
- Dépenses éligibles : étude de faisabilité stratégique, recherche de partenaires, préparation des réponses aux appels à projets, assistance et conseil juridique

bpifrance

Accès aux programmes européens (APE) -
Diagnostic d'aide pour l'accès et l'orientation des

- Diagnostic flash, qui permet d'orienter la PME vers un programme de financement adapté à sa stratégie et à ses besoins – forfait de 1 k€ HT
- Poursuite de l'accompagnement – forfait de 4 k€ HT
 - Si la PME le souhaite, et sous réserve de l'accord de Bpifrance,
 - Pour la préparation d'un dépôt de candidature à la phase 1 de l'Instrument PME, voire pour approfondir une stratégie de participation à d'autres programmes européens

Agence Nationale de la Recherche
ANR

Aide au montage de réseaux scientifiques, européens ou internationaux (MRSEI)

- En cas de partenariat fort avec un organisme de recherche public, possibilité de recourir au MRSEI proposé par l'Agence nationale de la recherche (ANR).
- Aide s'élevant en moyenne à 30 k€ pour une durée allant de 18 mois max.

Sites à consulter



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



Participant Portal H2020

Éléments de la participation nationale

Horizon 2020: un programme devenu majeur au niveau national



Programmes (pérennes) de financement RDI
récurrents en 2014 et 2015 (en M€/an)



Positionnement de la France (1)

Chiffres donnés à titre de comparaison

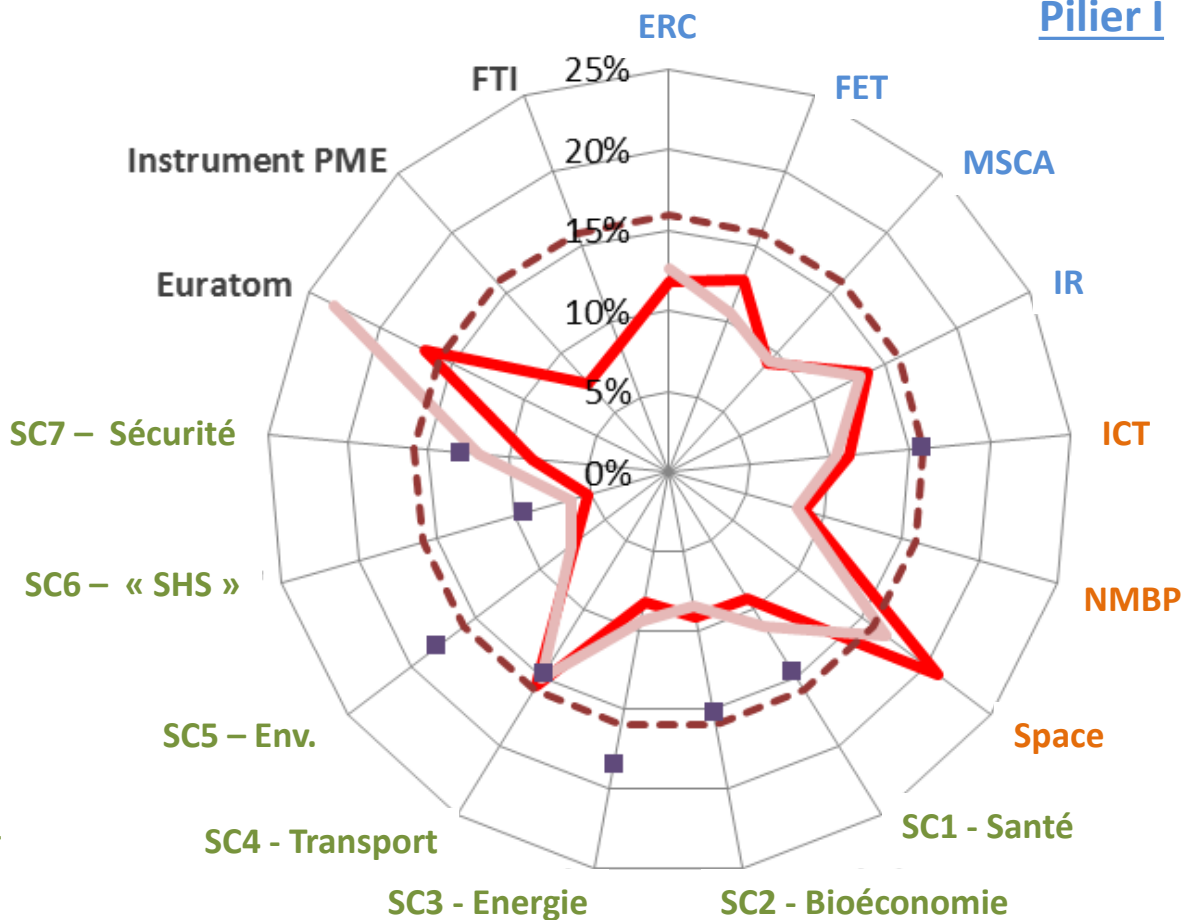
	Etat	% Horizon 2020	Contr. budget UE (2014-16)	Taux de retour
1	DE	16,1%	21,4%	77%
2	UK	15,2%	12,2%	127%
3	FR	10,7%	15,9%	69%
4	ES	9,1%	8,0%	117%
5	IT	8,4%	11,7%	74%
6	NL	7,8%	5,6%	142%
7	BE	4,3%	3,9%	114%
8	SE	3,5%	3,2%	111%
9	AT	2,8%	2,2%	130%
10	DK	2,5%	1,3%	199%

% GERD UE28 (2014)	% ETP pers. R&D UE28 (2014)	% ETP cherch. UE28 (2014)	% demandes brevet OEB UE28 (2013)	Intensité RDI (2014)
29,5%	21,8%	20,1%	39,3%	2,9%
13,5%	14,1%	15,6%	9,4%	1,7%
16,9%	15,3%	15,3%	15,8%	2,3%
4,5%	7,3%	7,0%	2,6%	1,2%
7,3%	8,9%	6,8%	7,3%	1,3%
4,6%	4,5%	4,3%	5,9%	2,0%
3,5%	2,5%	2,7%	2,7%	2,5%
4,8%	3,0%	3,8%	5,0%	3,2%
3,5%	2,4%	2,3%	3,3%	3,0%
2,8%	2,1%	2,3%	2,8%	3,1%

Sources: eCorda (après retraitement MENESR) et Eurostat

Positionnement de la France (2)

Pilier I



Pilier III

Pilier II

H2020

FP7

Benchmark €

% Publi à fort impact UE27 (2012)

Focus LEIT/ICT et Big-Data

Structure LEIT ICT

6 CHALLENGES

A new generation of components and systems

Advanced Computing and Cloud Computing

Future Internet

Content

Robotics and autonomous systems

ICT Key Enabling Technologies

Cross cutting activities



-Factory of the Future

-Internet of Things

-Digital Security



Horizontal activities



-Innovation and entrepreneurship support

International cooperation



International
UE Brazil

Une programmation par l'industrie: cPPP



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FP7

H2020



FUTURE INTERNET PPP & SME ACCELERATOR

Expansion of use cases

NETWORKING R&D



ADVANCED COMPUTING



CONTENT TECHNOLOGIES & INFO MANAGEMENT



Adobe Acrobat Document **SRIA**

ROBOTICS R&D



PHOTONICS R&D



FACTORY OF THE FUTURE



Quelques chiffres clés LEIT/ICT (2014-2016) (hors SME-INST)

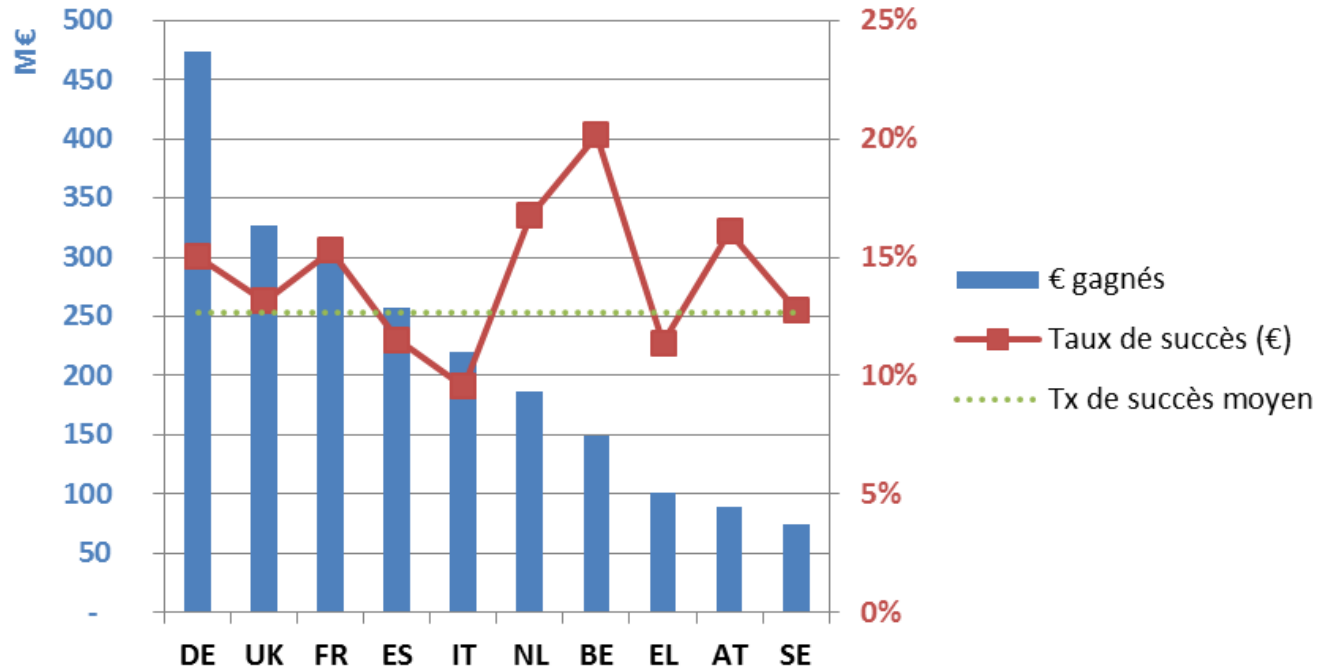


3500 propositions/an dont 1.400 à participation FR
160 projets retenus/an dont 80 à participation FR
4,4 Md€/an demandés pour 660 M€/an distribués
Soit un taux de succès (€) de 15%

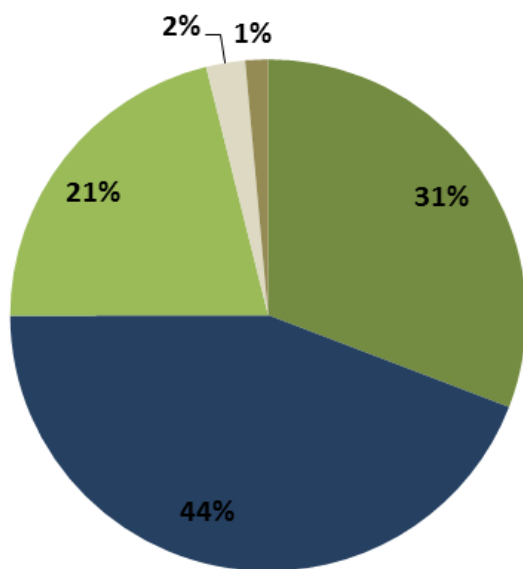
410 M€/an demandés par les équipes FR (9,2%)
81 M€/an gagnés par les équipes FR (12,2%)
Soit un taux de succès (€) de 19,8%

Un total de 11.000 participants dont 1.750 FR
~ 280 bénéficiaires FR (après consolidation)

LEIT/ICT: comparaison pays

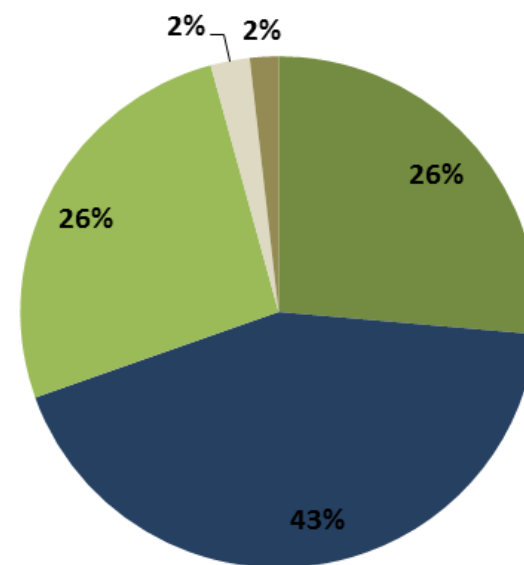


LEIT/ICT: un programme driven par l'industrie mais (très) ouvert au secteur académique



Propositions

- Higher or Secondary Education
- Private for Profit
- Research Organisations
- Other
- Public Body



Projets

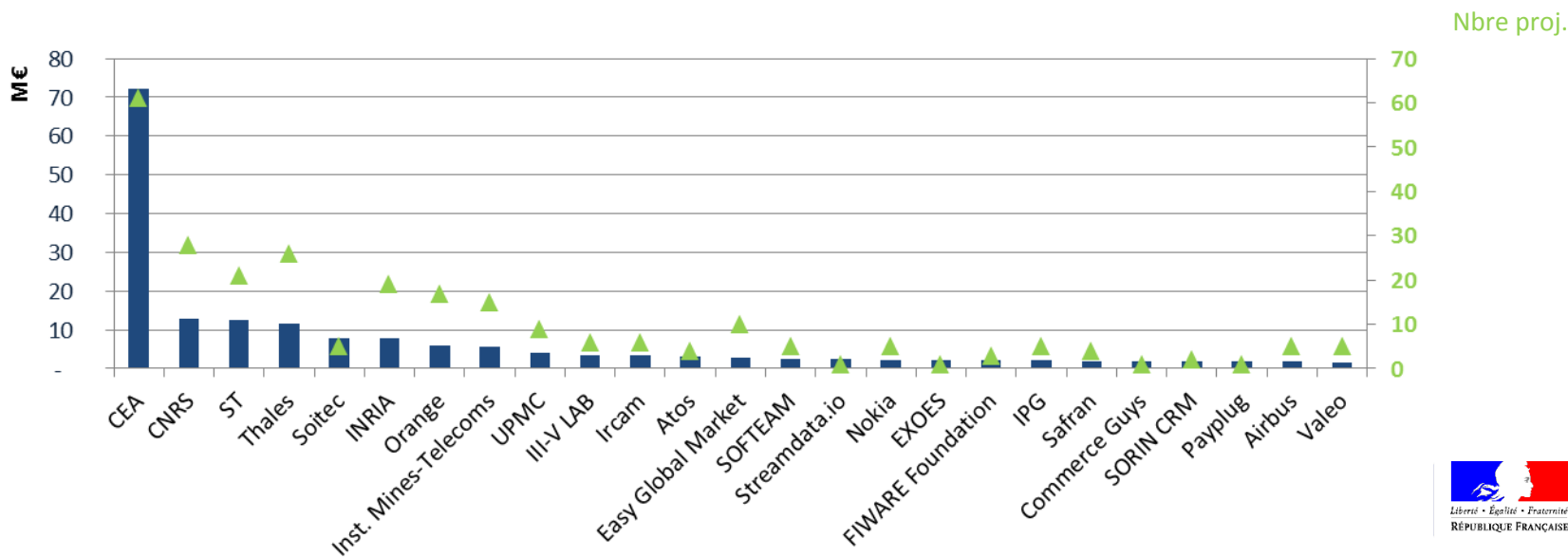
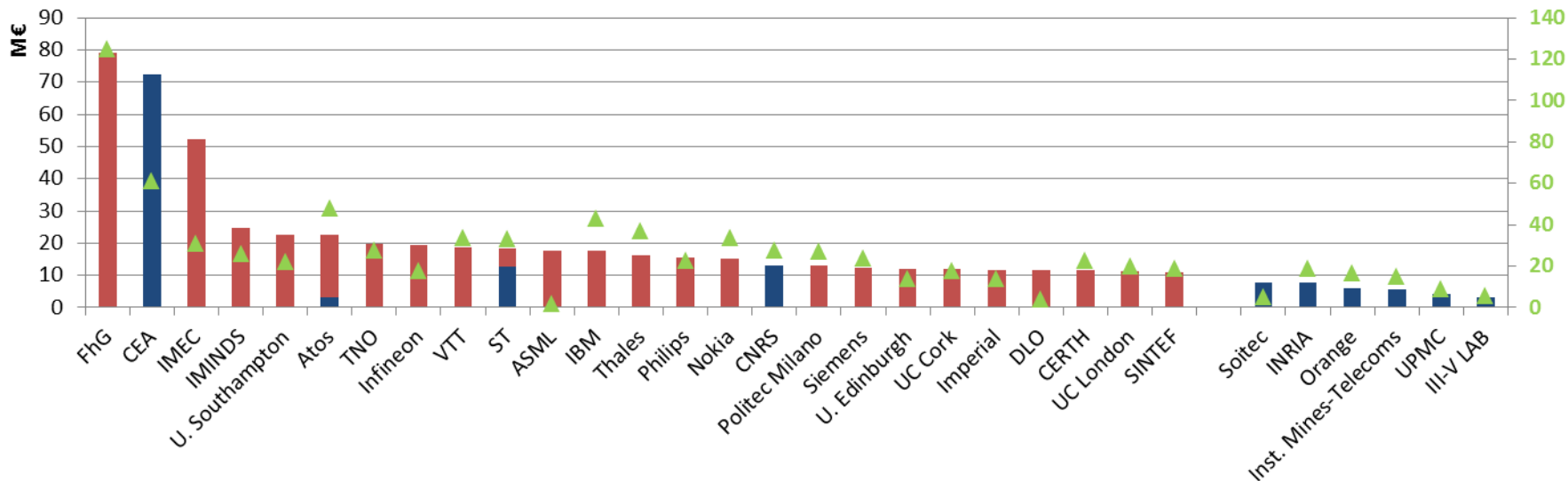
Chiffres hors Instrument PME

LEIT/ICT: grands bénéficiaires

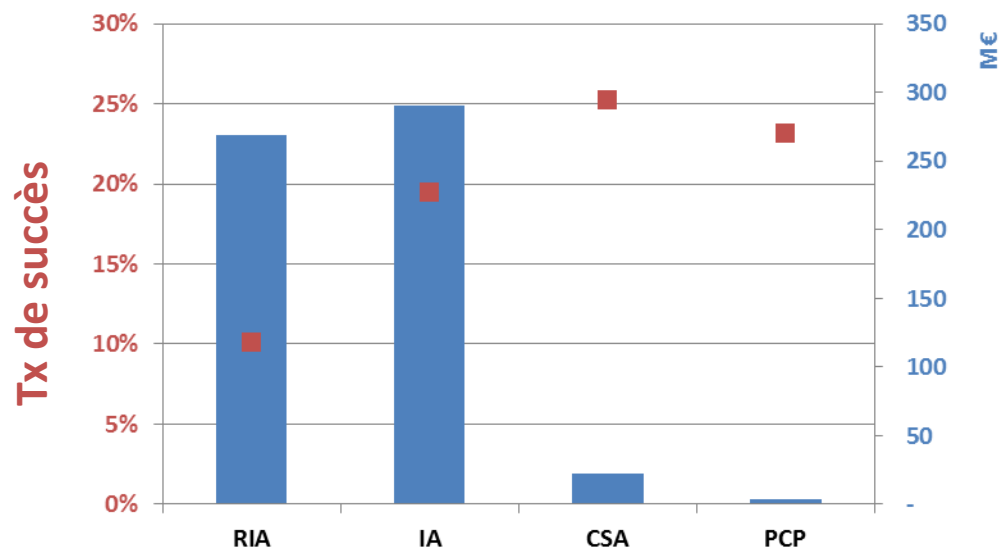


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Nbre prop.



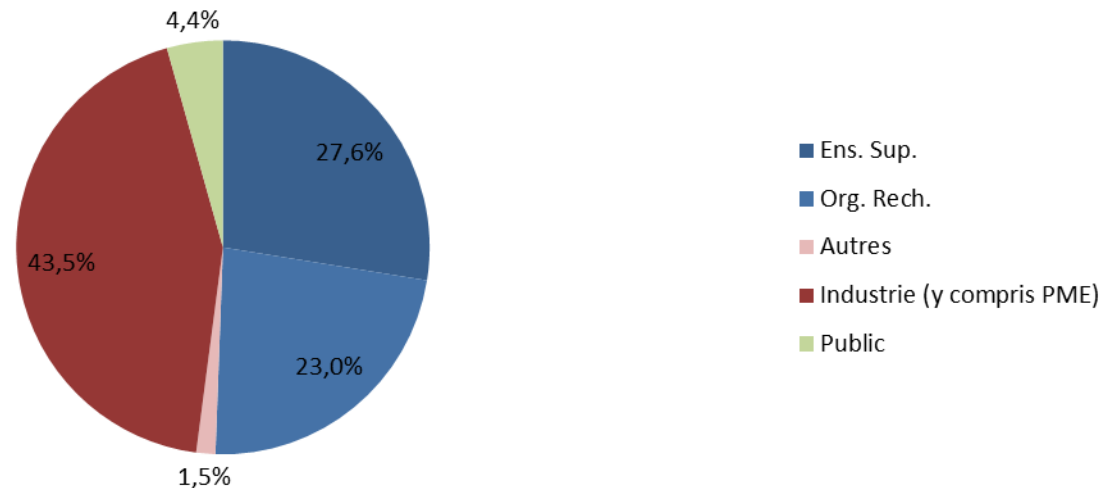
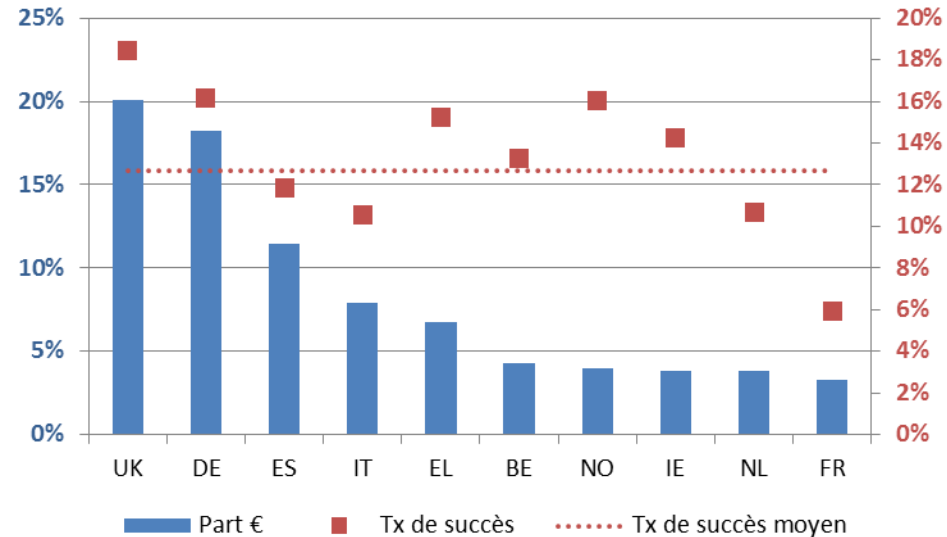
Ventilation par instrument



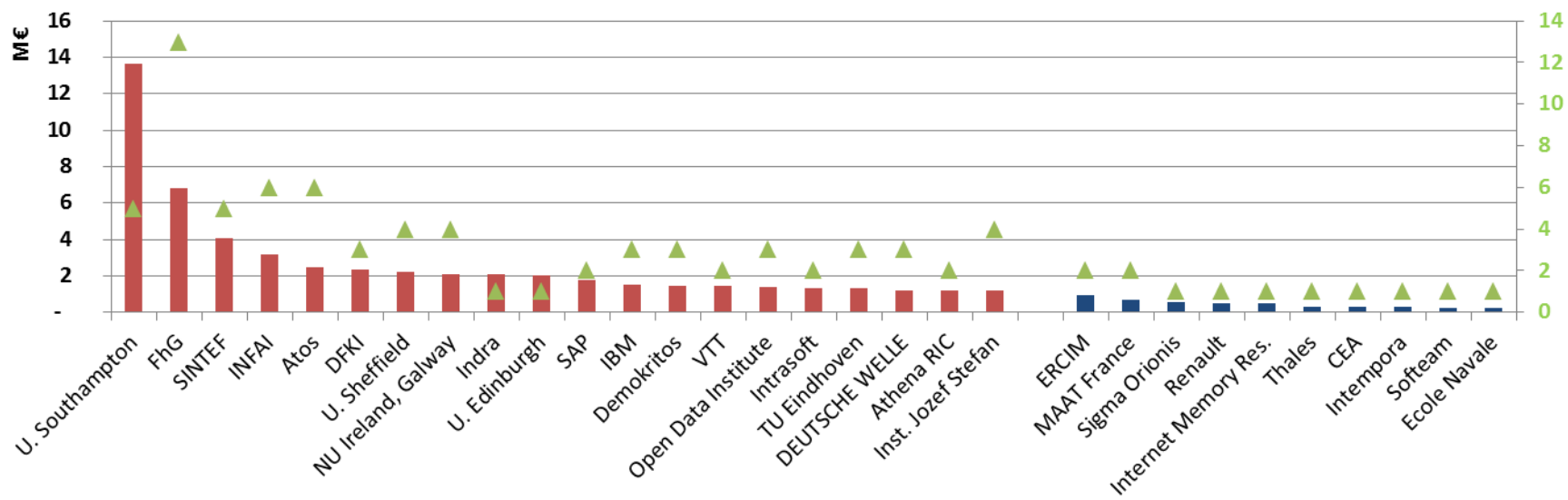
Big-Data 2014-2016 (1/2)

315 propositions éligibles dont 114 à participation FR
 2900 participations dont 188 FR
 1650 participants dont 120 FR
 1,3 Md€ demandés dont 90 M€ par participants FR (7,1%)

38 projets retenus (11 RIA, 21 IA, 6 CSA) dont 13 avec FR
 411 participations dont 18 FR
 316 bénéficiaires dont 4 FR
 161 M€ alloués dont 5,3 M€ pour bénéficiaires FR (**3,3 %!!**)
 Taux de succès global: 12,7%



Big-Data 2014-2016 (2/2)



Appels Big-Data 2017

Big Data PPP: The overall challenge

- The main objective is to roll out an **industrial strategy** to develop Europe's data driven economy as outlined in the **EC Communication 'Towards a thriving data-driven economy'** COM(2014)442
- The WP2016-17 implements the Big Data PPP's **Strategic Research and Innovation Agenda:**
http://www.bdva.eu/sites/default/files/EuropeanBigDataValuePartnership_SRIA_v2.pdf

H2020-LEIT/ICT-2017 (Big Data)

- **ICT 14** Big Data PPP: cross-sectorial and cross-lingual data integration and experimentation (IA) - **Budget 27 M€**
- **ICT 15** Big Data PPP: large scale pilot actions in sectors best benefitting from data-driven innovation (IA) - **Budget 25 M€**
- **ICT 16** Big Data PPP: research addressing main technology challenges of the data economy **Budget 31 M€**
- **ICT 17 b)** Big Data PPP: benchmarking and evaluation (1 RIA) - **Budget 2 M€**
- Inducement Prize: Ground-breaking Horizon Prize on Big Data technologies (Other action 7) - **Budget 2 M€**

ICT 14 cross-sectorial and cross-lingual data integration and experimentation – "Innovation Spaces"

Problem statement:

- no systematic transfer of knowledge and technology across different sectors
- lack of data sharing and linking culture – data remains within sectorial "silos"
- lack of agreed standards and formats; low rates of publishing data assets in machine discoverable formats
- textual data appears in many languages creates an additional challenge for sharing and linking such data.
- lack of secure environments where researchers and SMEs can test innovative services and product ideas based on open data and business data.

ICT 14

Overall Objective

To foster the exchange, linking and reuse of data assets.
To integrate data assets from multiple sectors across languages and formats in a safe environment for experimentations of innovative services and product ideas.

ICT 14 a) Data Integration activities

- Innovation Actions addressing **cross domain/cross-lingual data integration** challenges of EU industries arranged along **data value chains**.
- Wide range of technical issues to be tackled (i.e. data models, entity identifiers, standards, multilingual support, brokerage schemes, data quality, privacy, etc...)
- Indicative project size: 1-3 MEUR

ICT 14 a) - Impact

Expected Impact: a. Data integration activities

- Data integration activities will simplify data analytics carried out over datasets independently produced by different companies and shorten time to market for new products and services;
- Substantial increase in the number and size of data sets processed and integrated by the data integration activities;
- Substantial increase in the number of competitive services provided for integrating data across sectors;
- Increase in revenue by 20% (by 2020) generated by European data companies through selling integrated data and data integration services offered.

ICT 14 b) Data experimentation incubators

Incubator(s) addressing big data industrial challenges in a cross-sectorial, cross-lingual and/or cross-border set-up. Experimenters: SMEs and start-ups. At least 50% of experiments to be defined by data providers.

The incubator will offer access to cross-sectorial, cross language data pools, computing infrastructure and open software tools in addition to an organizational, legal, IPR support environment.

Cascading Grants scheme – indicative size: 7 MEUR

ICT 14 b) - Impact

- At least 100 SMEs and web entrepreneurs, including start-ups, participate in data experimentation incubators;
- 30% annual increase in the number of Big Data Value use cases supported by the data experimentation incubators;
- Substantial increase in the total amount of data made available in the data experimentation incubators including closed data;
- Emergence of innovative incubator concepts and business models that allow the incubator to continue operations past the end of the funded duration.

ICT 14 DOs and DON'Ts

- DO NOT mix ICT-14 a) and b) in one single proposal: they are standalone
- DO NOT mix ICT-14 a) or b) with other ICT Topics in one single proposal, they are all standalone
- DO clearly explain at the BEGINNING of the proposal what is the industrial requirement motivating the whole proposal and who is the industrial partner in the proposal giving and responsible for that requirement
- DON'T: loosely coupled or vague 'use cases' will put your proposal at a competitive disadvantage
- DO make sure to have datasets ready for day 1 of the project

ICT 14 DOs and DON'Ts (continued)

- Unless really important and relevant, do not build artificially new 'use cases'. One, robust, meaningful, substantiated – real* -well developed industrial requirement

**real means that a company has a business need to be solved by Big Data technologies to improve its products and services, create new ones, or to improve its operations. Such company is interested in teaming up with partners in a EU project to solve such a problem and to transfer the project results into its commercial offer.*

ICT 15: Large scale pilot actions in sectors best benefitting from data-driven innovation - "Lighthouse Projects"

Problem statement:

- European R&D results in data technologies are not yet deployed at large scale in a systematic manner.
- Need to stimulate effective piloting and targeted demonstrations in large-scale sectorial actions ("Large Scale Pilot actions"), in data-intensive sectors, involving key European industry actors.

ICT 15 (aka Lighthouse Projects): objectives

- Large Scale Pilot Actions **in data intensive sectors** involving key European industrial actors.
- Their objective is to demonstrate how industrial sectors will be **transformed** by putting big data technologies at their core.
- The Large Scale Pilot actions are meant to serve as best practice examples to be **transferred** to other sectors.

ICT 15: characteristics & requirements

- Possible industrial sectors for Large Scale Pilot actions include (but are not limited to) health, energy, environment, earth observation, geospatial, transport, manufacturing, finance and media.
- Large Scale Pilot actions are expected to exhibit substantial **visibility, mobilisation, and commercial and technological impact**. Proposals must demonstrate that they have access to appropriately large, complex and realistic data sets.
- Indicative project size: 10-15 MEUR

ICT 15: characteristics & requirements

- A **Consortium** where **industrial partners** are represented by professionals who work in **core business operations** (as opposed to research laboratories)
- Develop a plan that is consistent with the business strategy of the industrial partners concerned (**e.g. avoiding committing to technologies that the decision makers in the respective companies have no intention of deploying**)

ICT 15 a) **DOs and DON'Ts**

- DO NOT mix ICT-15 with other ICT Topics in one single proposal, they are all standalone
- DO provide detailed information on the IT/Big Data platform on which the project will run on
- DO explain how the project will credibly reach the impact goals set in the Work Programme (i.e. it is not sufficient to state 'we will reach the impact goals set in the Work Programme')
- DO explain how the private investment of the Consortium partners (additional to the EU funding) is connected to the participation of company X in the project (i.e. generally providing information on company X's investment in R&D does not really address the Work Programme requirement of leveraging the EC investment)

ICT 15 – Industrial Requirements

- Describe the **industrial strategy and development plans** of the commercial companies in your consortium.
- State **explicitly** and in quantitative, verifiable detail what amount of **own resources** the company intends **to invest to leverage the grant received**, if selected for funding.
- If a company has no concrete/verifiable plans to invest additional/own resources, note so explicitly.

ICT 15 - Impact

- Demonstrated increase of productivity in main target sector of the Large Scale Pilot Action by at least 20%;
- Increase of market share of Big Data technology providers of at least 25% if implemented commercially within the main target sector of the Large Scale Pilot Action;
- Doubling the use of Big Data technology in the main target sector of the Large Scale Pilot Action;
- Leveraging additional target sector investments, equal to at least the EC investment;
- At least 100 organizations participating actively in Big Data demonstrations (not necessarily as partners of the projects).

ICT 16: research addressing main technology challenges of the data economy

Problem statement:

Low value generation from (Big) Data assets because the **available software and IT architecture solutions** are not adapted to the processing, analysis and visualisation of data in a situation where the volume, velocity and variety of the data are increasing rapidly (=Big Data).

ICT 16: objective

To fundamentally improve the technology, methods, standards and processes, building on a solid scientific basis, and responding to real needs.

ICT 16: characteristics

Address cross-sector and cross-border problems or opportunities of clear industrial significance. These will include (but are not limited to):

- Software stacks designed to help programmers and big data practitioners take advantage of novel architectures in order to optimise Big Data processing tasks;
- Distributed data and process mining, predictive analytics and visualization at the service of industrial decision support processes;
- Real-time complex event processing over extremely large numbers of high volume streams of possibly noisy, possibly incomplete data.

Indicative project size: 2-5 MEUR

ICT 16: requirements

- All human factors claims (e.g. usability, maintainability) concerning software to be developed will need to be **rigorously tested by methodologically sound experiments** with clear plans to recruit **adequate numbers of appropriate experimental subjects**
- **Access to appropriately large, complex and realistic data sets.**
- Make best possible use of large volumes of diverse **corporate data** as well as, where appropriate, **open data** from the European Union Open Data portal and/or other European open data sources
- Make appropriate use of and/or contribute to data exchange and interoperability **standards.**

ICT 16: expected impact

- Powerful (Big) Data processing tools and methods that demonstrate their applicability in real-world settings, including the data experimentation/integration (ICT-14) and Large Scale Pilot (ICT-15) projects;
- Demonstrated, significant increase of speed of data throughput and access, , as measured against relevant, industry-validated benchmarks;
- Substantial increase in the definition and uptake of standards fostering data sharing, exchange and interoperability.

ICT 17 b) – benchmarking and evaluation – problem statement

Need for widely recognised benchmarks and performance evaluation schemes to **avoid fragmentation or overlaps**, and to allow **measuring progress** in (Big) Data challenges by solid methodology, especially in emerging areas where the significance of Big Data is rapidly increasing.

ICT 17 b) – benchmarking and evaluation

- The benchmarking action will identify data management and analytics technologies of European significance:

Define benchmarks and organise evaluations that allow following their certifiable **progress on performance parameters** (including energy efficiency) of industrial significance,

Liaise closely with data experimentation/ integration (ICT-14) and Large Scale Pilot (ICT-15) projects **to respond to key European industries real needs**, and to provide a basis for measuring success of the PPP.

ICT 17 b) – benchmarking and evaluation

Indicative project size: 2 MEUR

"European significance" of industry/technology sectors should be determined by objective criteria such as turnover, world-wide market share and growth rates of the European companies who provide or use such technologies.

Action shall address areas of activity **that do not yet have a benchmarking/evaluation scheme**. We already have:

- LDBC: benchmarking for Graph Databases
- HOBBIT: benchmarking for Linked Big Data

ICT 17 b) – Requirements

- Benchmarks proposed **must be of industrial relevance**, i.e. relevant for European developers and providers of data technologies,
 - European developers should continuously improve their performance (=competitiveness) as **measured against benchmarks**,
 - Consortia should identify **industrial actors that have expressed interest** in the technology for very specific business reasons, and involve them in the definition of benchmarks and performance goals.

ICT 17 b) – Requirements (II)

- Benchmarks are invited for **those technologies for which they do not exist** already.
- Technology benchmark initiatives must give reasonable **guarantees that they will continue to exist** throughout the entire life-cycle of the relevant technology,
 - Consortia should **secure industrial involvement**,
 - Benchmarks are expected to help European technology providers to become globally competitive, consortia should **involve potential clients** in the definition of the benchmarks.

ICT 17 b) – what is expected

(see background note)

- Provide a precise definition of the Big Data technology for which you intend to develop a benchmark,
- Develop benchmarks for specific technology which deserves it,
- Ensure the sustainability of the benchmarking activities past the end of Horizon 2020 funding.

ICT 17 b) – Expected impact

- Availability of solid, relevant, consistent and comparable metrics for measuring progress in Big Data processing and analytics performance;
- Availability of metrics for measuring the quality, diversity and value of data assets;
- Sustainable and globally supported and recognized Big Data benchmarks of industrial significance.

Inducement Prize: Ground-breaking Horizon Prize on Big Data technologies

- A "place holder" for this prize can be found on page 130 of the current WP2016-17
- A more detailed description will appear in the summer update of WP2016-17
- Disclaimer: the following two slides present provisional information, subject to the adoption of the summer update of WP2016-17. In case of any inconsistency, the most recent adopted work programme will prevail.



Indicative Budget: €2M over several categories

Stages	Indicative date and time
Opening of the contest	Second quarter 2017
Deadline for submission of application	Fourth quarter 2017
Award of the Prize	Second quarter 2018

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:298:0001:0096:EN:PDF>

Autres appels Big-Data

Orientations principales du WP16-17 (1)

Une participation obligatoire des utilisateurs finaux (en tant que partenaires), dont les missions incluent :

- Les spécifications fonctionnelles et la validation de la solution (haut du cycle en V)
- La mise à disposition de composants de démonstrateurs (locaux, logiciels, systèmes, etc.)
- La quantification des impacts estimés pour améliorer la sécurité

Orientation du programme vers des pilotes et des missions de sécurité

- Démonstrateurs avec des TRLs généralement élevés (atteignant le niveau 8)

Prise en compte accrue de la dimension sociale

- Les SHS doivent être complètement intégrées dans le projet
 - Sociologie des usagers
 - Mécanismes de l'innovation, etc.

Soutien à l'industrie de l'UE pour être compétitive

- Les business plans et les analyse économiques doivent être expliquées

Orientations principales du WP16-17 (2)

Une structure sur 3 appels principaux

- Protection des infrastructures critiques (DG CNECT + Home)
- Sécurité (DG Home)
- Digital security (DG CNECT)

Budget:

- ~175 M€ en 2016
- ~197 M€ en 2017

Les principaux changements par rapport au WP14-15:

- Un nombre de sujets plus limité (~33 vs. 55)
- Des enveloppes réservées pour une majorité de sujets (i.e. pas de compétition entre ces sujets)
- Des budgets par projet plus prescriptifs
- Des sujets plus resserrés ou au contraire très ouverts (et un texte globalement de meilleure qualité)
- Une plus grande participation des utilisateurs finaux/practitioners attendue
- Des règles *Special modalities* (fortement) assouplies et en nombre (très restreint)

Thèmes des appels 2017

CIP

~~Water Systems~~

~~Energy~~

~~Infrastructure~~

(power plants and distribution)

~~Transport~~

Infrastructure and means of transportation

Communication Infrastructure

Health Services

Financial Services

SEC-DRS

Broadband
Comm. Systems

CBRN cluster

SEC-FCT

Human Factor
(with subtopics)

Tools for forensic
laboratories

Detection and
data fusion
(in sewage
networks)

Prevention
Investigation
Mitigation (with
subtopics)

SEC-BES

Information system
to EU external
policy

Risk-based
screening border
crossing

Through-foliage
detection

Big Data for
customs

No gate crossing
point solutions

DS

Cryptography

Advanced threats

Privacy, data
protection

SEC-GM

Clusters of
practitioners

SME-Inst

Engaging SMEs
in security R&D
(SMEInst-13)

Integration of detection capabilities and data fusion with utility providers' networks



Deployment of detection systems in utility networks (e.g. to measure energy consumption, characteristics of used waters, air quality, etc.), for instance for the detection of explosive precursors and illegal chemicals (drugs)

- **Innovation Action**
- Outcome TRL: **7 to 8 for the sensors deployed**
6 for the information system and mobile platform
- Budget: **8 M€ per project**
- Total budget: **16 M€ → 2 funded projects**

- Coordination with activities of the EDA may be considered

- A minimum of 2 independent utility network operators; and a minimum of 3 Law enforcement agencies (LEA) in charge of counter-terrorism, or bomb squad units, from 3 different EU Members States
Additional participation from LEAs from Associated Countries is encouraged

- Demonstrations must take place in at least 2 agglomerations: One of over 1000000 inhabitants, and another of between 100000 and 300000 inhabitants, located in 2 different Member States, and using different types of sewage systems

SEC-17-BES-2017:

Architectures and organizations, big data and data analytics for customs risk management of the international goods supply chain trade movements



Improving customs risk management and supply chain security.

A need for customs to acquire quality data on supply chain movements, to exploit them for risk assessment purposes, and to make checks more efficient

- **Research and Innovation Action**
- Outcome TRL: **not provided**
- Budget: **5 M€ per project**
- Total budget: **10 M€** → 2 funded projects

- At least 3 border guard or custom authorities from 3 EU or Schengen Member States or Associated Countries