Programme de travail LEIT TIC 2016 – 2017

Leadership in enabling and industrial technologies

Information and Communication Technologies

Orléans 1er juillet 2015

Claire FERTE

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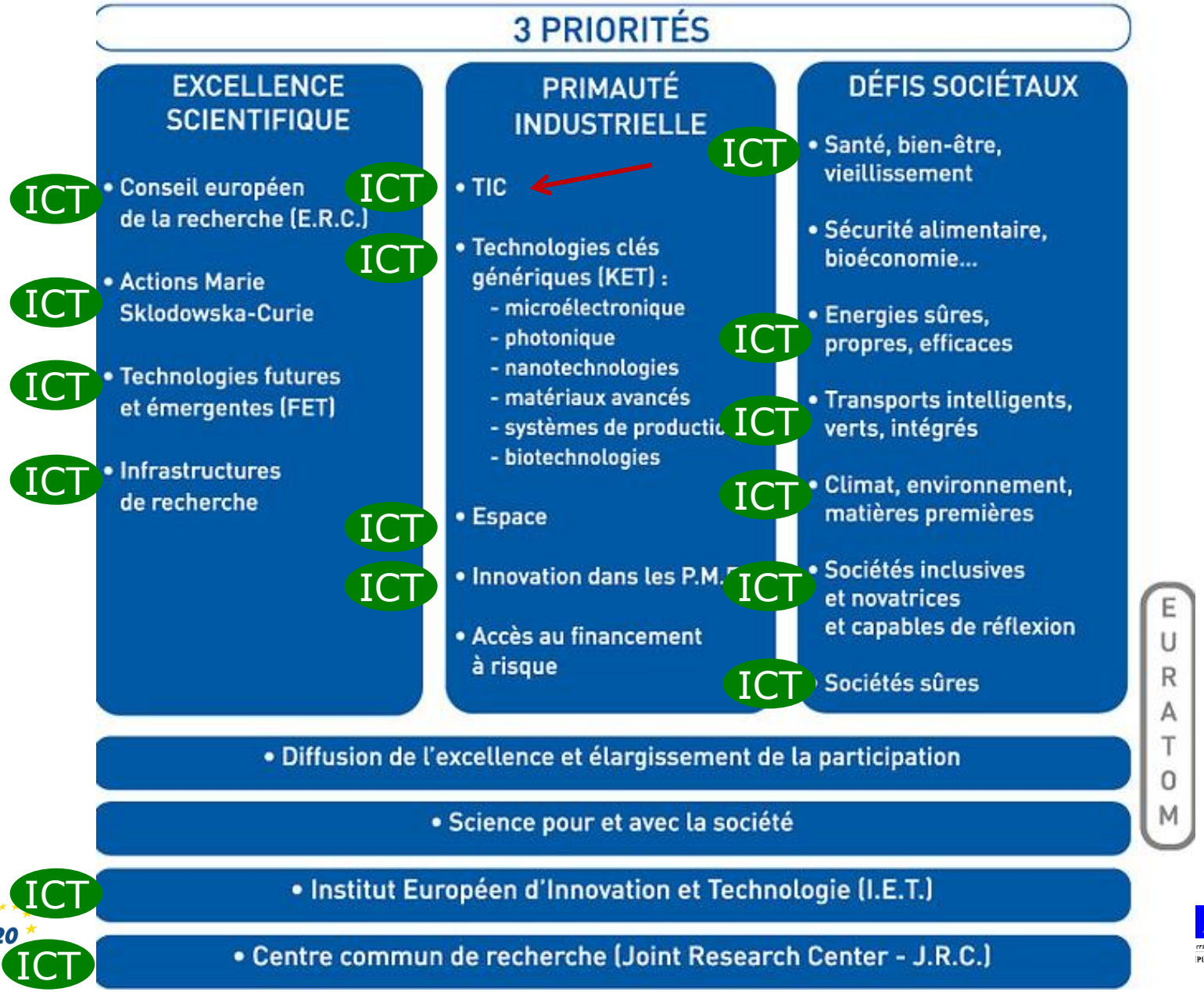
L'architecture d'H2020



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16/05/2015

STATISTIQUES

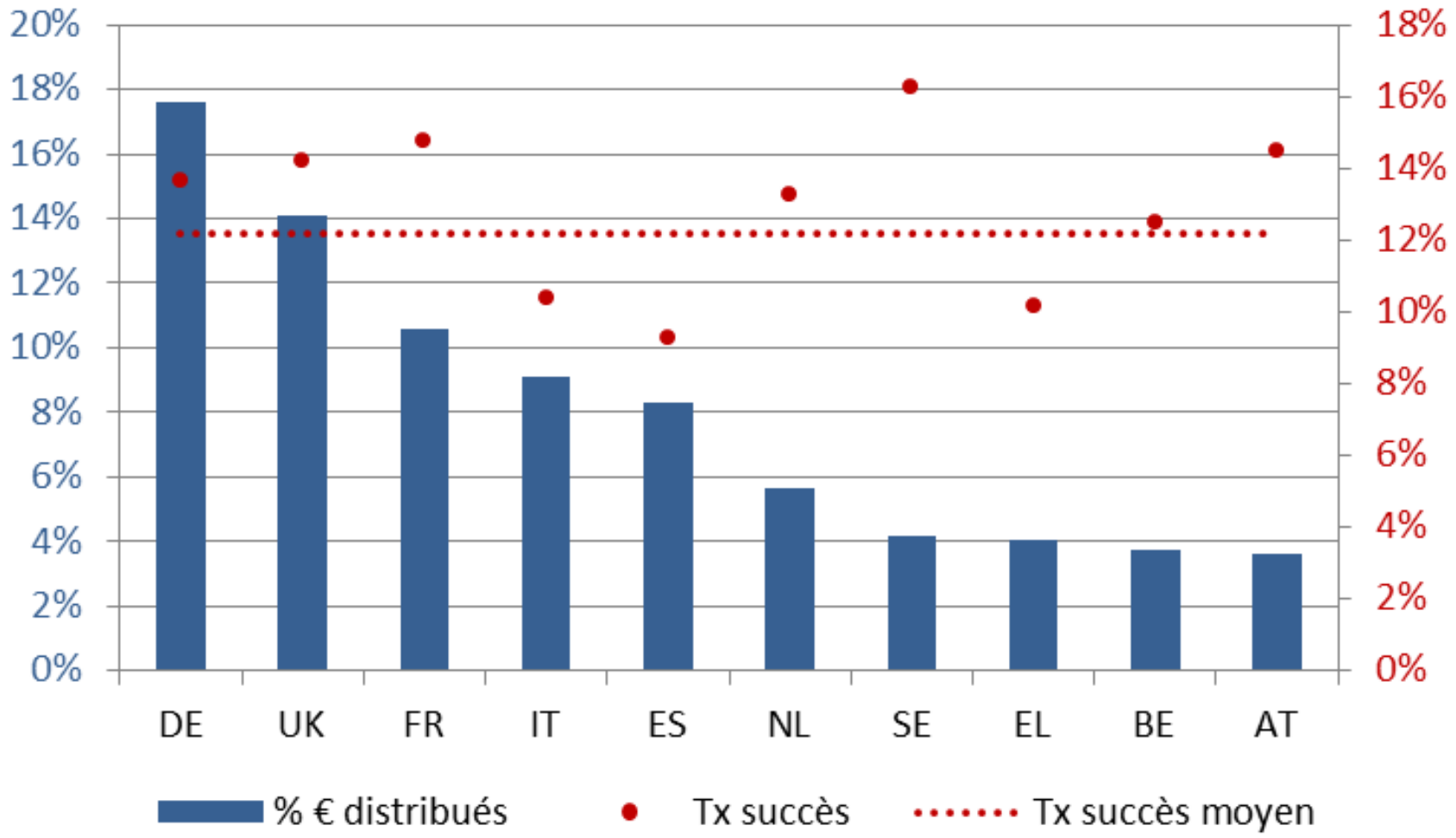
1er appel LEIT TIC 2014 - hors ECSEL

Quelques chiffres

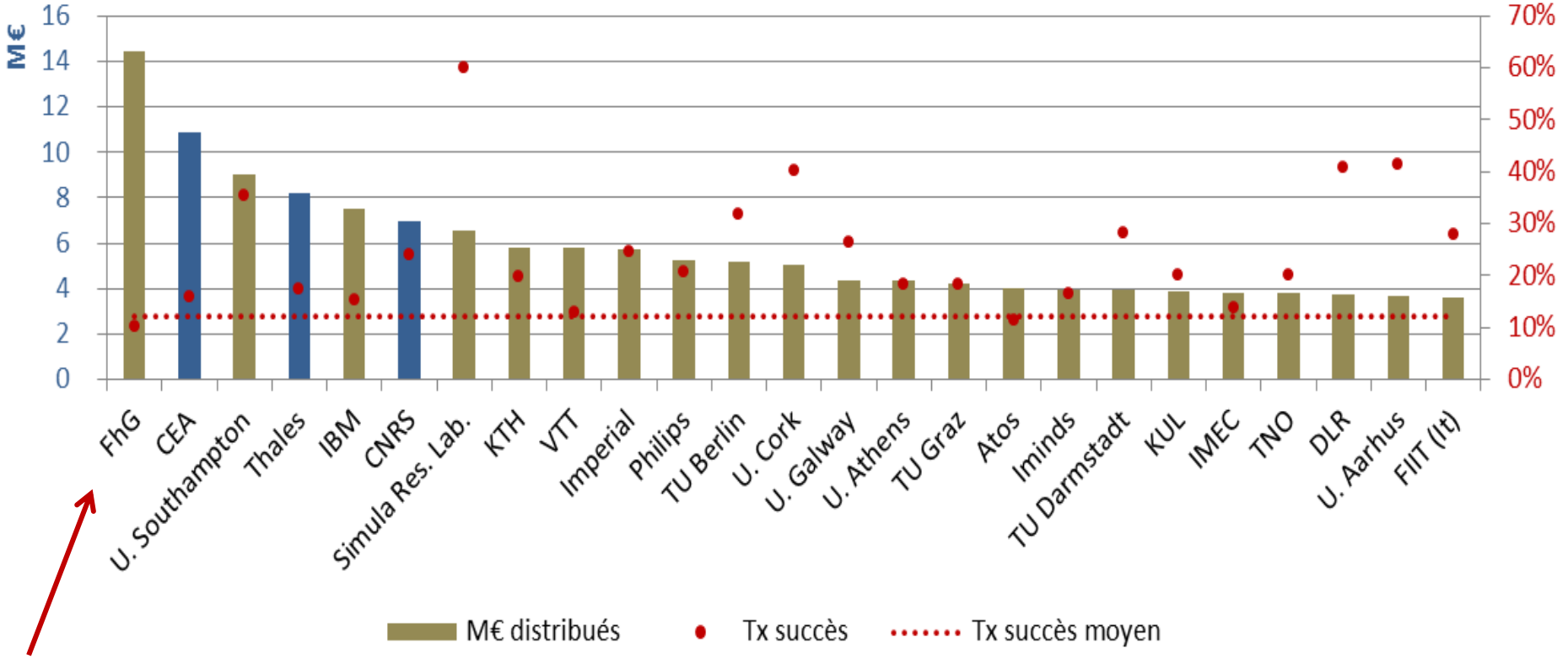
- 670 M€ engagés (vs. 5,5 Md€ demandés) soit 83% des engagements 2014
- Taux de succès: **12,1%** (RIA: 10,8%, IA: 17,3%)
- **211** projets retenus (hors ICT37) vs. 1636 propositions
- 30 projets ICT 37 (phase 1) retenus vs. 886 propositions

- 70,9 M€ (10,6%) obtenus par les équipes françaises (vs. 480 M€ demandés (8,7%))
- Taux de succès FR: **14,7%**
- **98** projets retenus à participation FR (vs. 681 propositions)
- 100 bénéficiaires FR (vs. 497 participants)

1er appel LEIT TIC 2014 - hors ECSEL

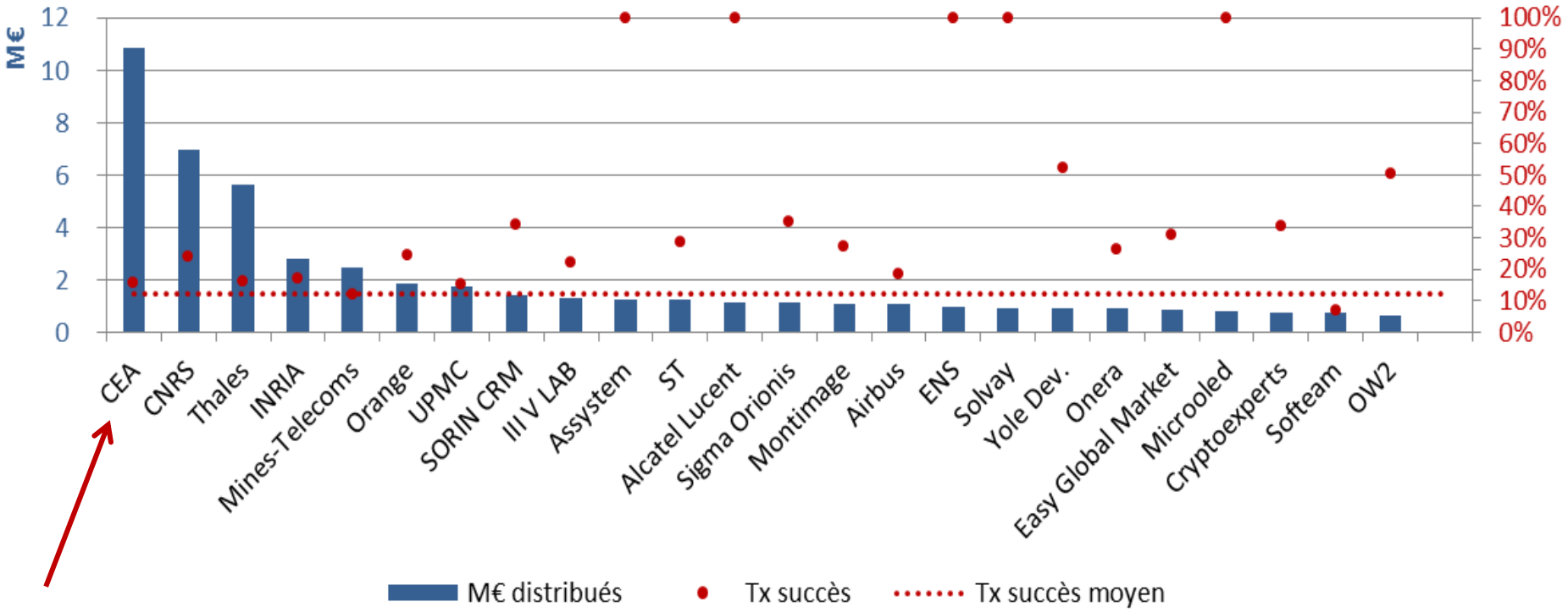


Grands bénéficiaires UE



Grands bénéficiaires FR

CEA = 15,3%
CNRS = 9,8%
TOP 10 = 51%
TOP 25 = 66%



TIC LEIT 2016-2017

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Programme LEIT TIC 2016-2017

H2020 ICT 2016-2017

- 60 Sujets ouverts sur les 2 ans (46 précédemment)
- Ouverture : Octobre 2015
- Clôture : Avril 2016/septembre 2016
- Budget global de 1 419,2 Mrd€ (un peu + de 680 M€ pour 2015)

Evènement de lancement du 20 au 22 octobre 2015 à Lisbonne

Structure du programme LEIT TIC

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

- Factory of the Future
- Internet of Things (IoT)
- Digital Security
- Food Security
- Cross KET topic

PRIZES
CONFERENCES

DRAFT

HORIZONTAL

- Responsibility and Creativity
- Innovation & Entrepreneurship support
- Open disruptive innovation (SME/FTI)

INTERNATIONAL

- International Cooperation Activities
- Eu Brazil
- EU Japan
- EU Korea

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A new generation of components and systems

DRAFT

This area addresses the broad range of system level integration from miniaturised smart components and large area organic electronics to cyber-physical systems and systems of systems.

Work is complementary to activities addresses in ECSEL.

Topic		84 m€
ICT1 – 2016: Smart Cyber-Physical Systems	RIA/CSA	20
ICT2 – 2016: Thin, Organic and Large Area Electronics (TOLAE)	RIA/IA	20
ICT3 – 2016: SSI – Smart System Integration	RIA/CSA	18,5
ICT4 – 2017: Smart Anything Everywhere Initiative	IA/CSA	25,5

Advanced Computing and Cloud Computing

Actions in this area will therefore address both further progress in the **design, programming and implementation** of advanced low power and customised computing as well as Cloud Computing infrastructures and services, enabling the delivery of a wide range of IT solutions as a service on a secure, flexible, on-demand and pay-per-use basis.

Topic		71 m€
ICT5 – 2017: Customised and low energy computing	IA/CSA	26
ICT6 – 2016: Cloud Computing	RIA/IA	45

DRAFT

ICT5 - 2017: Customised and low energy computing

Software development is the key challenge

What we ask for a. RIA 24M€

-Programming environments and toolboxes for low energy and highly parallel computing: Proposals will provide programming environments and tools optimised for specific application domains of significant economic value, covering the complete software stack from runtime systems to application programming.

Solutions will be demonstrated in real-life applications through at least two different and complementary use cases.

What we ask for b. CSA (2M€)

Support Activities for structuring and connecting the European academic and industrial research and innovation communities.

More information:
ICT 4 – 2015: Customised and low power computing,

DRAFT

ICT6 – 2016: Cloud Computing

DRAFT

The challenge is to address, from the research and experimentation perspectives, the necessary evolution in cloud architectures, cloud networking, deployment practices and run-time management as well as the associated security and privacy needs.

What we ask for a. RIA 35M€ (cover one or more)

-New paradigms:

Deployment and management of densely interconnected and decentralised cloud infrastructures

Cloud networking in the context of software-defined data centres

Techniques to deal with trust, security and privacy in decentralised cloud infrastructures and across multiple cloud providers

Evolution of cloud architectures

What we ask for b. IA (10M€)

Experimentation of cloud-based services and their deployment configurations in large-scale decentralised and federated environments

More information:

ICT 7 – 2014: Advanced Cloud Infrastructures and Services

Future Internet

DRAFT

The Future Internet challenge focuses on 4 complementary and interrelated areas: Networks, Software technologies, Experimentations and Innovation.

Topic	253,2 m€
ICT7 – 2017: 5G PPP Research and validation of critical technologies and systems	26
ICT8 – 2017: 5G PPP Convergent Technologies	45
ICT9 – 2017: Networking research beyond 5G	18
ICT10 – 2016: Software Technologies	31
ICT11 – 2017: Collective Awareness Platforms for Sustainability and Social Innovation	10
ICT12 – 2016: Net Innovation Initiative	20,2
ICT13 – 2016: Future Internet Experimentation – Building a European Experimental Infrastructure	26

Content

DRAFT

Topic	276 m€
ICT14 – 2016-17: Big Data PPP: cross-sectorial and cross-lingual data integration and experimentation	54
ICT15 – 2016-17: Big Data PPP: Large Scale Pilot projects in sectors best benefitting from data-driven innovation	50
ICT16 – 2017: Big data PPP: research addressing main technology challenges of the data economy	31
ICT17 – 2016-17: Big data PPP: Support, industrial skills, benchmarking and evaluation	7
ICT18 – 2016: Big data PPP: privacy-preserving big data technologies	9
ICT19 – 2017: Media and content convergence	39
ICT20 – 2017: Tools for smart digital content in the creative industries	17
ICT21 – 2016: Support technology transfer to the creative industries	14
ICT22 – 2016: Technologies for Learning and Skills	31
ICT23 – 2017: Interfaces for accessibility	12
ICT24 – 2016: Gaming and gamification	12

ICT14 – 2016-17: Big Data PPP: cross-sectorial and cross-lingual data ntegration and experimentation

The challenge is to break barriers and to foster exchange, linking and re-use, as well as to integrate data assets from multiple sectors and across languages and formats.

A more specific challenge is to create a stimulating, encouraging and safe environment for experiments where not only data assets but also knowledge and technologies can be shared.

What we ask for a. IA 27M€

-Data integration activities will address data challenges in cross-domain setups, where similar contributions of data assets will be required by groups of EU industries that are arranged along data value chains

-Data experimentation incubators should address big data experimentation in a cross-sectorial, cross lingual and/or cross-border setup

More information:
Big Data value association

DRAFT

ICT15 – 2016-17: Big Data PPP: Large Scale Pilot projects in sectors best benefitting from data-driven innovation

The challenge is to stimulate effective piloting and targeted demonstrations in large-scale sectorial actions ("Large Scale Pilot projects"), in data-intensive sectors, involving key European industry actors.

What we ask for a. IA 25M€

Large Scale Pilot projects should address domains of strategic importance for EU industry and carry out large scale sectorial demonstrations which can be replicated and transferred across the EU and in other contexts**.**

Possible industrial sectors for Large Scale Pilot projects include (but are not limited to) health, energy, environment, transport, manufacturing, finance and media

More information:
Big Data value association

DRAFT

ICT16 – 2017: Big data PPP: research addressing main technology challenges of the data economy

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

What we ask for a. RIA 31M€

Research & Innovation Actions are expected to 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.

More information:
Big Data value association

DRAFT

ICT17 – 2016-17: Big data PPP: Support, industrial skills, benchmarking and evaluation

The challenge is to support the newly created Big Data Value contractual public-private partnership (cPPP) needs.

What we ask for a. CSA 5M€

One Coordination & Support Action will perform all of the following tasks:

-support the community building, the administration and governance of the Cppp

-liaise with and build on related actions and support the establishment of national centres of excellence in all Member states, and exchange knowledge on the universities' data scientist programmes across all Member States; etc…

What we ask for b. RIA 2M€

Benchmarking activities

More information:
Big data value association

DRAFT

ICT18 – 2016: Big data PPP: privacy-preserving big data technologies

The challenge is to develop technologies that are inherently privacy-preserving and offer the basis for empowering the data subjects to understand and be informed of (and, where appropriate, control) the use of their personal data, and the entrepreneurs to develop and run their data driven business.

What we ask for a. RIA 8M€

Research & Innovation Actions will advance the state of the art in the definition of methods that will support protection of personal data for harvesting, sharing and querying data assets.

What we ask for b. CSA 1M€

A Coordination & Support Action will complement the research by exploring the societal and ethical implications and provide a broad basis and wider context to validate privacy-preserving technologies.

More information:
Big data value association

DRAFT

Robotics and autonomous systems

The main approach is to generate new robotics and autonomous systems (RAS) technical capabilities and system abilities and to move research results out of the laboratory and into the marketplace, engaging with SMEs and end users.

Application domains for robots: In addition to manufacturing, it will include healthcare, agriculture, civil, commercial or consumer sectors, logistics and transport.

Topic	157 m€
ICT25 – 2016/2017: Advanced robot capabilities research and take-up	64
ICT26 – 2016: System abilities, development and pilot installations	42
ICT27 – 2017: System abilities, SME & benchmarking actions, safety certification	46
ICT28 – 2017: Robotics Competition, coordination and support	5

ICT25 – 2016/2017: Advanced robot capabilities research and take-up

The specific challenge here is to develop robots that respond more flexibly, robustly and efficiently to the everyday needs of workers and citizens in professional or domestic environments, and which will also maintain Europe at the forefront of global research and development. The actions will address

What we ask for a. RIA 15M€ in 2016/2017

Research & Innovation Actions addressing generic advances and technical capabilities.

What we ask for b. IA 15M€ in 2016/ 19 in 2017

Innovation Actions driven by end users

Improving the deployment prospects of RAS through end user-driven application developments in domains and application areas with significant market potential

More information:

First robotics projects of H2020

DRAFT

ICT26 – 2016: System abilities, development and pilot installations

The challenge resides in the need for open development and dissemination of common development tools and the provision of wide access to realistic testing environments for the end user community, especially SMEs.

What we ask for a. & b. RIA 24M€

a. RIAs will focus on advancing the state of the art in the level of smart robotics system abilities.

b. RIA focuses on developing advanced multiple-actor systems which can operate in semi-structured, unstructured, dynamic or harsh environment.

What we ask for c. & d. IA 18M€

c. The action will address the open development and dissemination of integrated sets of tool chains and building-block applications which support the construction of complex robotics systems.

d. The action will develop and deploy access mechanisms and supporting infrastructure for single-site pilot installations outside the laboratory for robot testing, based on the needs of end users.

More information:

First robotics projects of H2020

DRAFT

ICT27 – 2017: System abilities, SME & benchmarking actions, safety certification

A key challenge is to revitalise Europe's robot-making capacity.

What we ask for a. & b. RIA 28M€

a. RIAs will focus on advancing the state of the art in the level of smart robotics system abilities.

b. Research & Innovation Actions for SME-based research and for benchmarks.

This action will stimulate SMEs in the robotics sector to develop novel and challenging technology and systems applicable to new markets

What we ask for c. IA 11M€

c. Innovation Actions on shared facilities for safety certification.

What we ask for d. PCP 7M€

d. Demand-driven PCP actions will be pursued in the area of smart cities.

More information:

First robotics projects of H2020

DRAFT

ICT28 – 2017: Robotics Competition, coordination and support

What we ask for CSA 5M€

Coordination Actions focusing on one or more of the following topic areas and taking into account ongoing actions:

a. Non-technical barriers to robotics take-up.

b. Standards and Regulation.

c. Community support and outreach

d. Competitions

More information:

First robotics projects of H2020

DRAFT

ICT Key Enabling Technologies

Topics in this area address research and innovation in the two ICT Key Enabling Technologies (KETs), photonics and micro- and nanoelectronics.

Topic	176 m€
ICT29 – 2016: Photonics KET 2016	66
ICT30 – 2017: Photonics KET 2017	87
ICT31 – 2017: Micro- and nanoelectronics technologies	23

DRAFT

ICT31 – 2017: Micro- and nanoelectronics technologies

It is essential to prepare for the future of the electronics industry the next wave of industry-relevant technologies to extend the limits (technological and/or economic) mainstream technologies will be facing in the medium term

What we ask for a. RIA 19M€

The work must be in the scope of one of the following topics:

- the development of new approaches to scale functional performance of information processing and storage substantially beyond the state-of-the-art technologies with a focus on ultra-low power and high performance.
- 3D sequential integration

What we ask for b. IA 3M€

assess and validate their prototypes or products

What we ask for c. CSA 1M€

promoting the attractiveness of careers in micro/nanoelectronics towards young people

More information:

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Innovation and Entrepreneurship support

Turning research results into innovative products and services often remains difficult in Europe and more needs to be done to foster a culture of entrepreneurship.

The topics of this section address these problems by reinforcing the involvement of end users, supporting digital entrepreneurship, strengthening support to start-ups and SMEs, facilitating the meeting between financial investors and start-ups, increasing the skills for future entrepreneurs.

Topic	20 m€
ICT32 – 2017: Startup Europe for Growth and Innovation Radar	12
ICT33 – 2016: Innovation procurement networks	4
ICT34 – 2017: Pre-Commercial Procurement open	4

DRAFT

Responsibility and Creativity

This section includes cross-cutting activities aiming at supporting the nexus between technology, social sciences, humanities and arts. The proposed topics address the need to engage:

- with social scientists and humanists on the development of responsible research and innovation agendas that meet citizens' civil society's concerns and expectations,

- and with artists, in order to better include them in innovation processes to foster creativity and help enhance user acceptance.

Topic	15 m€
ICT35 – 2016: Enabling responsible ICT-related research and innovation	7
ICT36 – 2016: Boost synergies between artists, creative people and technologists	8

DRAFT

International Cooperation Activities

The international dimension of Horizon 2020 supports the EU's research and innovation excellence and industrial competitiveness. Several objectives are pursued in the ICT area.

Topic	15 m€
ICT37 – 2017: CHINA Collaboration on Future Internet	1
ICT38 – 2017:MEXICO Collaboration on ICT	1
ICT39 – 2017: International partnership building in low and middle income countries	13

EU-Brazil Call	7 m€
EUB1 – 2017: Cloud Computing	2,5
EUB2 – 2017: IoT Pilots	4,5

DRAFT

International Cooperation Activities

EU-Japan Call	7 m€
EUJ1 – 2016: 5G – Next Generation Communication Networks	3
EUJ2 – 2016: IoT/Cloud/Big Data platforms in social application contexts	2,7
EUJ3 – 2016: Experimental testbeds on Information-Centric Networking	1,3

EU-South Korea Call	6 m€
EUK 1 – 2016: 5G – Next Generation Communication Networks	3
EUK 2 – 2016: IoT joint research	1,5
EUK 3 – 2016: Federated Cloud resource brokerage for mobile cloud services	1,5

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Instrument PME

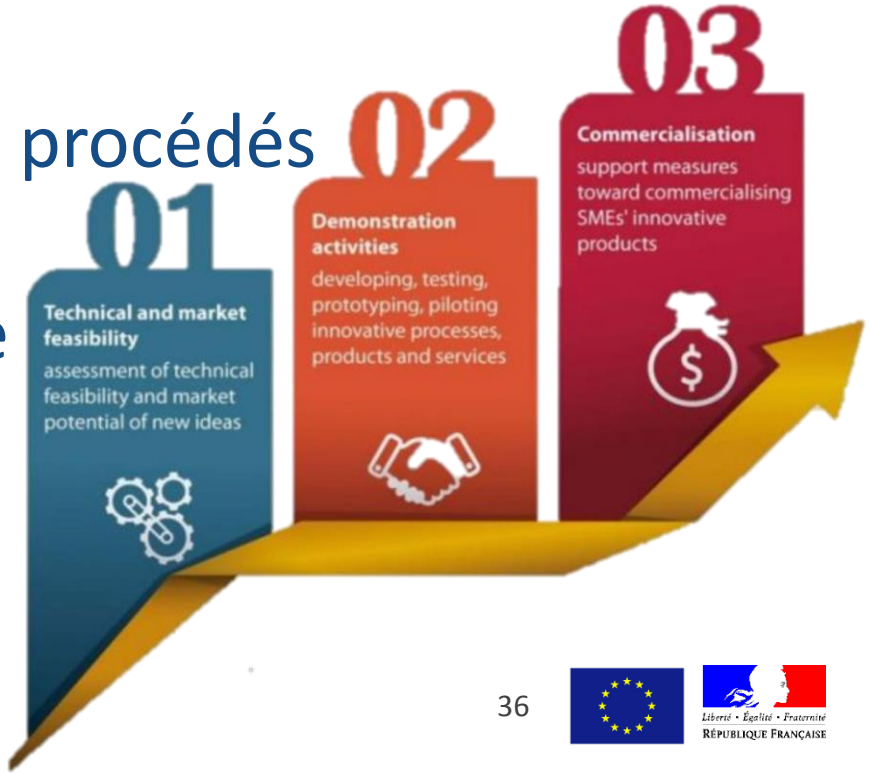
Projet d'innovation (pas de recherche, sauf si indiqué dans le programme de travail)

Phases d'innovation (à partir de TRL 6)

Nouveaux produits, services, procédés

Une PME peut déposer seule

Start-up?



3 Phases

Phase 3 & coaching ~ 2% budget

Phase 1: Concept and feasibility assessment

Input: Idea/Concept: "Business Plan 1" (~ 10 pages)
10% budget

Activities:
Feasibility of concept
Risk assessment
IP regime
Partner search
Design study
Pilot application
etc.

10-15% success

Output: elaborated "Business plan 2"

Lump sum: 50.000 €

~ 6 months

Phase 2: R&D, demonstration, market replication

Input: "Business plan 2" plus description of activities under Phase 2 (~ 30 pages)
90% budget

Activities:
Development, prototyping, testing, piloting, miniaturisation, scaling-up, market replication, research

~ 50 success

Output: "investor-ready Business plan 3"

1-2.5 M€ EC funding

~ 12 to 24 months

Phase 3: Commercialisation

Promote instrument as quality label for successful projects

Facilitate access to private finance

Support via networking , training, information, addressing i.a. IP management, knowledge sharing, dissemination

SME window in the EU financial facilities (debt facility and equity facility)

Possible connection to public procurement activities

No direct funding

Internet of Things (IoT) Focus Area Call

Internet of Things - Focus Area (IoT- FA) ambition is to foster the take up of IoT in Europe and to enable the emergence of IoT ecosystems supported by open technologies and platforms. It will be addressed through a complementary set of activities structured around Large Scale Pilots.

Topic	139 m€
IoT1 – 2016: Large Scale Pilots	100
IoT2 – 2016: IoT Horizontal activities	4
IoT3 – 2017: R&I on IoT integration and platforms	35

DRAFT

IoT1 – 2016: Large Scale Pilots

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The challenge is to foster the deployment of IoT solutions in Europe through integration of advanced IoT technologies across the value chain, demonstration of multiple IoT applications at scale and in a usage context, and as close as possible to operational conditions

What we ask for 100M€

Pilots are targeted, goal driven initiatives that will propose IoT approaches to specific real-life industrial/societal challenges.

The following areas have been identified to be addressed with Large Scale IoT Pilots.

Pilot 1: Smart living environments for ageing well

Pilot 2: Smart Farming and Food Security

Pilot 3: Wearables for smart ecosystems

Pilot 4: Reference zones in EU cities

Pilot 5: Autonomous vehicles in a connected environment

Pilot 6: Water management for resilient cities

More information:

Alliance for Internet of Things Innovation (AIOTI)

IoT2 – 2016: IoT Horizontal activities

DRAFT

The challenge is to ensure a sound coherence and exchanges between the various activities of the Focus Area, and notably cross fertilisation of the various pilots for technological and validation issues of common interest across the various use cases.

What we ask for CSA 4M€

The scope includes two support levels:

A1. Focused Action level coordination ensuring consistent exploitation of the outcomes of the various projects forming the FA

A2. Horizontal support: further development and exploitation of security and privacy mechanisms towards best practices and a potential label ("Trusted IoT");

B. RRI-SSH support: pilots shall be citizen-driven, involving existing and local communities at an early stage and addressing a combination of sustainability areas.

More information:

Alliance for Internet of Things Innovation (AIOTI)

IoT3 – 2017: R&I on IoT integration and platforms

The future design of the Internet of Things applications will depend crucially on the development of sophisticated platform architectures for smart objects, embedded intelligence, and smart networks

What we ask for RIA 35M€

Architectures, concepts, methods and tools for open IoT platforms integrating evolving sensing, actuating, energy harvesting, networking and interface technologies

IoT security and privacy.

Proposals should address above mentioned topics, verification and testing, and identify the added value of the proposed approach specific to IoT in comparison to generic solutions. They are expected to include two or more usage scenarios to demonstrate the practicality of the approach

More information:

Alliance for Internet of Things Innovation (AIOTI)

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Digital Security Focus Area Call

The main research & Innovation activities in Digital Security are grouped in a dedicated focus area cutting across LEIT–ICT and Societal Challenges parts of the work programme, including evidently the Societal Challenge 7 on "Secure Societies", but also the Societal Challenge 1 on "Health, demographic change and wellbeing".

Topic	41 m€
DS1 – 2016: Assurance and Certification for Trustworthy and Secure ICT systems, services and components	23,5
DS2 – 2017: Cryptography	17,5

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Factory of the Future

To improve Europe's ability to compete on the global markets, the three topics under this theme support the integration of digital technologies in all stages of the manufacturing process from cradle to grave, enabling Europe to stay at the forefront of delivering highly innovative, high quality products and services at competitive prices.

Topic	116 m€
FoF11 – 2016:Digital automation	53
FoF12 – 2017:ICT Innovation for Manufacturing SMEs (I4MS)	33
FoF13 – 2016:Photonics Laser-based production	30

DRAFT

FoF11 – 2016: Digital automation

The challenge is to fully exploit the digital models of processes and products and to synchronise the digital and physical world. This shall allow manufacturers to move from centralised production and logistics to de-centralised planning and control or hybrid combinations thereof.

What we ask for a. RIA 51M€

Proposals are expected to cover at least one of the two themes identified below:

-Collaborative manufacturing and logistics

-Novel architectures for factory automation based on Cyber-Physical Systems (CPS).

What we ask for b. CSA 2M€

CSAs shall support industrial consensus building both with suppliers and users across Europe, addressing future factory automation systems built on CPS and the IoT; pan-European platform building, and collaboration on manufacturing issues across all relevant PPPs.

More information:

DRAFT

FoF12 – 2017: ICT Innovation for Manufacturing SMEs (I4MS)

The topic will support fast adoption, and wide spread technology transfer of advanced ICT-based solutions for manufacturing across the business process chains – from "cradle to grave".

What we ask for a. IA 32M€

Innovation Actions must address all of the following three aspects

-Establishing across Europe networks of multidisciplinary competence centres / Carrying out a critical mass of cross-border experiments bringing together different key actors / Activities to achieve long-term sustainability of the competence centres and the eco-system.

Proposers should cover at least one of the following four areas of technologies for adoption in manufacturing: CPS and IoT, Robotics, Modelling, simulation and analytics and Digital design for additive Manufacturing,

What we ask for b. CSA 1M€

network of Innovation multipliers leveraging investment in research and innovation is to be reinforced

More information:
Phase 3 of I4MS (www.i4ms.eu)

DRAFT

FoF13 – 2016: Photonics Laser-based production

In order to increase the productivity of laser-based AM and to bring it a significant step further towards industrial manufacturing a better mastering of all stages of the process chain and their interaction is necessary.

What we ask for a. RIA 15M€

From "design to piece" – Excellence in laser-based additive industrial manufacturing: From Design to the final work piece, the topic addresses laser-based additive industrial manufacturing of metallic materials.

What we ask for b. IA 15M€

Rapid individualised laser-based production: Develop and set-up efficient, highly flexible high throughput pilot facilities on the basis of existing processes for laser-based production and to validate them in real settings.

More information:

DRAFT

Cross-cutting activities

Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy	7 m€
SFS5 – 2017: Robotic advances in precision farming (Joint Action)	7

Cross KET topic	15 m€
NMBP13 – 2017: Cross-cutting KETs for diagnostics at the point-of-care	15

DRAFT

TIC/SANTE

Active and healthy ageing

PM12	**2016**	***PCP-eHealth innovation in empowering the hospitalised patient***	***4***	***18***	***PCP***
		PCP for R&D of new services / integration of existing services Increasing the level of interactions between the user and the health professional, enabling users to controle their health conditions and adhere to prescribed medical plans. *Ex: telemedicines for follow-up of patient (chronic and rare diseases), e-mental healthfor patient empowerment, domestic rehabilitation (physical and cognitive) under remote professional supervision;* Key documents: eHealth action plan 2012-2020 + mHealth green paper.			
PM13	**2016**	**PPI for deployment and scaling up of ICT solutions for active and healthy ageing**	***2-5***	**9**	**PPI**
		= specify, purchase and deploy ICT-based solutions for active and healty ageing Key document: scaling-up road map of the EIP. Co-fund up to 40% of total costs			
PM14	**2016**	**EU-JAPAN cooperation on novel *ICT* Robotics based solutions for active and healthy ageing at home or in care facilities.**	**2-3**	**5**	**RIA**
		Developing and demonstrating ICT robotics based solutions for extending active and healthy ageing - multidisciplinary research (including behaviour/SSH) - Modularity, cost-effectiveness, reliability, flexibility (=adaptation to needs & lifestyle of older people) - Safety and acceptability - Test site in EU and Japan, with sufficient users (for validating) - Notion of spreading services (use of generalized infrastructure cloud systems, open source) + interoperability, standardization, open platforms, Internet of things approach - Max 36 months, no other third country partner, consortium agreement			
PM15	2017	Personalised coaching for well-being and care of people as they age	3-4	26	RIA
		= dvppt of radically new concept for a virtual coach (ex diet, physical activity, risk avoidance, leisure.from a physical, mental and cognitive, and social point of view) - Take into account gender and ethics aspects. - User-centred. Cost-effectiveness.			

Défi SANTE – WP 2016-2017
Personalized Medicine (PM)

Methods and data

PM16	2017	In-silico trials for developing and assessing biomedical products	4-6	19	RIA

To simulate human physiology and physiopathology at the relevant biological level (ex cell, tissue, organism) and the interaction with the product
To take into account the variability between individuals (genetics, gender, microbiota etc)
To build virtual patients or populations for predicting tratments outcomes >>Personalised medicine
Multidisciplinary approach: computational modelling, systems biology, tissue mechanismes, biology, pharmaceutics, medicine

- To be included: simulated trials; measures for validation (human trials, animal studies, validation in the cell cutlture)
- Contact with regulators
- Key document: Research and technological road map for in-silico trials.

PM17	**2016**	**Increasing digital security of health related data on a systemic level**	**4-6**	**11**	**RIA**

= security related to storage and exchange (including cross-border) of health/personal data protection of personal data and data collected via mobiles
Based on existing projects: DECIPHER, open NCP, EPSOS, STORK.

- Legal & societal aspects (for deployment)
- Respect national regulation regarding data protection + standards
- To be at least tested in 3 EU MS. Anticipate the technological deployment in other countries

PM18	2017	Personalised computer models and in-silico systems for well-being	4-6	19	RIA

= dvppt of computer models and simulations systems able to aggregate various informations (biochemical, imaging, medical, lifestyle, …etc) into robust predictors for resilience and recovery

- Multiscale (time and spatial scales) approach; patient-specific
- Multidisciplinary : medicine, SSH and ICT
- Based on existing large database (clinical medicine, biomedical/ocupational research, environmental sciences and SSH

Défi SANTE – WP 2016-2017
Personalized Medicine (PM)

Methods and data

PM19	**2016**	**Big Data supporting Public Health policies [CNECT]**	**3-5**	**10**	**RIA**
		= Acquisition, management, sharing, modelling, processing and exploiting big data into integrated solutions to support to health policy (decision marking): ex combined effect of environment, lifestyle and genetics on public health - Big data governance - Secury and privacy issues			
PM20	2017	PPI for uptake of standards for the exchange of digitalised healthcare records [CNECT]		8,26	PPI
		EHealth interoperability			
PM21	-	Development of new methods and measures for improved economic evaluation and efficiency measures in the health sector		9	RIA

Health care provision and integrated care

PM22	**2016**	**Implementation research for scaling-up of evidence based innovations and good practice**	**4-6**	**40**	**RIA**
		- Based on implementation research concept = « *scientific study of methods to promote the uptake of research findings ».* - Selected intervention to be scale up: to make health systems and services more responsive, person-centred, safe, effective and efficient. Large scope (in terms of content + geographical coverage) - Gender issues & Multdisciplinary research			

INSTRUMENT PME (CNECT)

SMEInst-06-2016-2017: Accelerating market introduction of ICT solutions for Health, Well-being and Ageing Well

Budget 2016: 18 M€	Budget 2017: 12,5 M€	phase 1: 50k€ /projet phase 2: 0,5 à 2,5 M€/projet

Taux de financement des couts directs **70%**

To help to overcome the current gaps in exploitation of promising research results in ICT for health, well-being and ageing well →market uptake of ICT products and services

This concerns

-Interoperable and secure e health solutions for consumers and institutional healthcare (see e health in digital Agenda)

-New ICT solutions and innovation ecosystems for ageing well building on open software platforms

LE PCN TIC

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Les missions et outils

"Nos Missions" :

- Informer et sensibiliser sur les opportunités offertes par H2020 (AAP, règles de base).
- Accompagner dans le montage de projets (éligibilité, pertinence) – animation atelier: lecture d'ESR, relecture de l'abstract.
- Soutenir la recherche de partenaires européens (diffusion offres/demandes - réseau PCN -Ideal-ist).
- Intermédiaire auprès du Ministère de la recherche française.

"Outils" :

- journées d'information, sessions thématiques
- site horizon2020.fr, mailings
- rendez-vous personnalisés
- atelier « corporate »
- hotline
- faciliter la mise en relation
- journée de mise en réseau
- réseaux transnationaux de PCN.
- remonter les informations recueillies auprès des participants potentiels.

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Recherche de partenaire - Ideal-ist

Etape 1
S'enregistrer et insérer une **recherche de partenaires** (PS)

Etape 2
Validation de la recherche par le **PCN** et par **l'équipe Qualité**

Etape 3
Publication et distribution de la recherche par les PCN à leur abonnés

Etape 4
Choix du ou des partenaires selon les **Expressions d'intérêts**

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Liens Utiles

Le site français:

http://www.horizon2020.gouv.fr

Le site de la commission:

http://ec.europa.eu/research/horizon2020/index_en.cfm

Le participant portal:

http://ec.europa.eu/research/participants/portal/desktop/en/home.html

La DG Connect:

http://ec.europa.eu/dgs/connect/en/content/dg-connect

Journées d'information

Ville	Date
Strasbourg	Semaine du 21/09/2015
Besançon/Dijon	17/09/2015
Nancy	22/09/2015
Méaulte	02/10/2015
Aix en Provence	13/10/2015
Clermont-Ferrand	13/10/2015
Reims	15/10/2015
Montpellier	17/11/2015
Caen	19/11/2015