



PCN - Horizon2020

# HORIZON 2020

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

## Session « *Industries créatives* »

*Leadership in enabling and industrial technologies  
Information and Communication Technologies*

**Paris – 17/12/15**

# Agenda



09:30 - 10:00 Enregistrement

10:00 - 10:20 Ouverture

**Frédéric LAURENT et Rémi ARQUEVAUX, représentants au comité de programme TIC**

10:20 - 10:30 Comment être aidé à monter son projet

**Nadia ECHCHIHAB, CAP DIGITAL**

Présentation des outils d'aide pour les PME

10:30 - 11:20 Présentation des appels à projets 2016

**Albert GAUTHIER**

Scientific Officer, CONNECT G2 - Creativity

- **ICT-20-2017: Tools for smart digital content in the creative industries**
- **ICT-21-2016: Support technology transfer to the creative industries**
- **ICT-36-2016: Boost synergies between artists, creative people and technologists**
- **CULT-COOP-08-2016: Virtual museums and social platform on European digital heritage, memory, identity and cultural interaction**

**PCN TIC**

- **ICT-22-2016: Technologies for Learning and Skills,**
- **ICT-24-2016: Gaming and gamification**

**Questions/Réponses**

11:20 - 12:00 Témoignage projet en cours

**Stéphane Donikian, GOLAEEM**

Projet **POPULATE**

12:00 - 12:30 Témoignage évaluateur

**Pierre Alliez, INRIA**

Retour d'expérience évaluation H2020

12:30 - 13:30 Brokerage session avec la présence d'entreprises grecques

# INTRODUCTION

R. ARQUEVAUX & F. LAURENT

# Sommaire



Horizon 2020 en bref

Le programme LEIT/ICT

Les performances françaises dans Horizon 2020

Éléments statistiques sur les objectifs

- *Cloud computing*
- *Software technologies*

# HORIZON 2020

## (EN RÉSUMÉ)

# Horizon 2020: architecture



PCN - Horizon2020

**77,2 Md€<sub>courant</sub> pour 2014-20**  
**...à comparer à ~58 Md€<sub>courant</sub> sur 2007-13**

**RDI**

## Défis sociétaux

- Santé, bien-être, vieillissement
- Sécurité aliment., bioéconomie
- Energies sûres, propres, efficaces
- Transports intell., verts, intégrés
- Climat, environnement, mat. 1<sup>ères</sup>
- Sociétés inclusives et novatrices
- Sociétés sûres

## Primauté industrielle

TIC  
Technologies clés génériques:  
microélectronique, photonique,  
nanotechnologies, matériaux avancés,  
systèmes de production, biotechnologies  
Espace  
Innovation dans les PME  
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 EU  
Innovation & Technologie  
EIT / KIC

# Quelques chiffres clés

52.000 propositions dont 10.000 à participation FR  
5.800 projets retenus dont 1500 à participation FR  
105 Md€ demandés pour 11,6 Md€ distribués  
Soit un taux de succès (€) de 11,1%

8,6 Md€ demandés par les équipes FR (8,2%)  
1,287 M€ Soit un taux de succès (€) de 11,1%  
Soit **~865 M€ !**

49.000 participants  
~3.400 participants FR (après consolidation)  
Près de 950 bénéficiaires FR (après consolidation)

Plusieurs *success stories* pour des PME FR:

- Energie: CIMV (16 M€), Fondroche (8,3 M€)
  - Instrument PME phase 2:

SC1: TcLand expression et Amoneta diagnostics (5 M€)

12 autres PME hors consulting (sub.: entre 1 et 3,5M€)

Près de 140 PME bénéficiaires (hors consulting)

# Horizon 2020: un programme majeur au niveau national



## Financement non-récurrent des équipes nationales de RDI en 2014





# Positionnement de la France

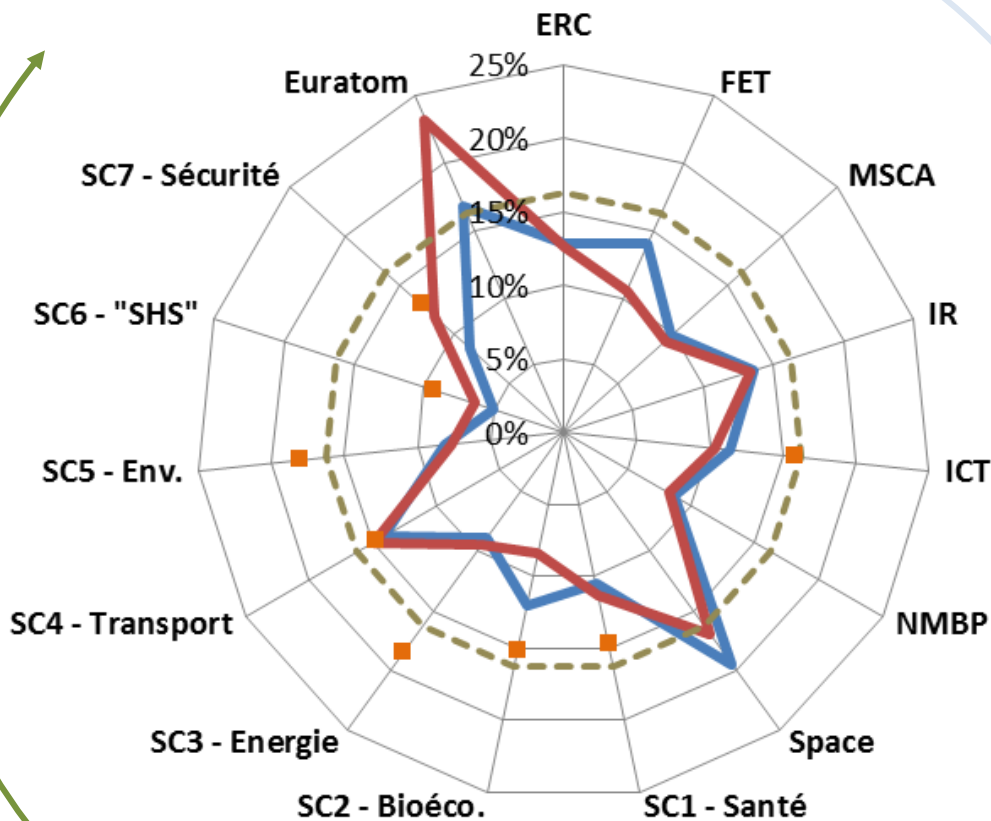
	Pays	%	Contr. budget UE (2014)	Taux de retour	% GERD UE28 (2013)	% ETP pers. R&D UE28 (2013)	% ETP cherch. UE28 (2013)	% demandes brevet OEB UE28 (2012)
1	DE	16,9%	21,3%	80%	29,5%	22,2%	20,9%	40,1%
2	UK	15,6%	11,0%	142%	12,1%	13,3%	15,0%	9,4%
3	FR	11,2%	16,3%	69%	17,4%	15,5%	15,4%	15,7%
4	ES	8,6%	8,1%	105%	4,8%	7,5%	7,1%	2,8%
5	NL	8,0%	5,6%	144%	4,7%	4,5%	4,2%	6,0%
6	IT	7,9%	12,2%	65%	7,4%	9,3%	6,8%	7,5%
7	BE	4,3%	4,0%	108%	3,3%	2,4%	2,6%	2,6%
8	SE	3,7%	3,4%	109%	5,3%	3,0%	3,6%	4,9%
9	AT	2,8%	2,3%	122%	3,3%	2,4%	2,3%	3,2%
10	DK	2,5%	1,3%	192%	2,8%	2,2%	2,4%	2,6%

*Sources: eCorda (après retraitement MENESR) et Eurostat*

# Performances FR par programme



Pilier I



Pilier II

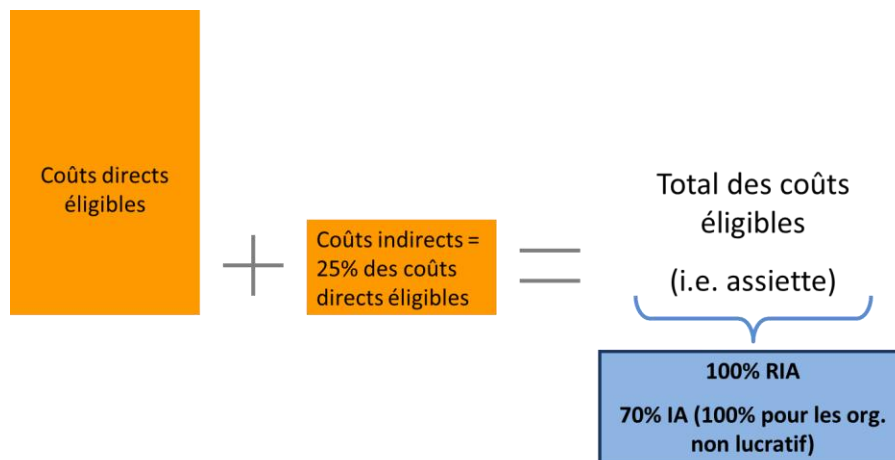
Pilier III

— H2020 — FP7 - - - benchmark € ■ % Publi fort impact UE 27 (2012)

# LES PRINCIPALES RÈGLES D'HORIZON 2020

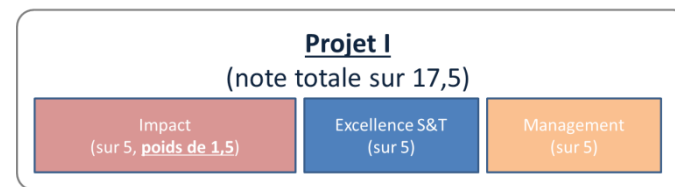
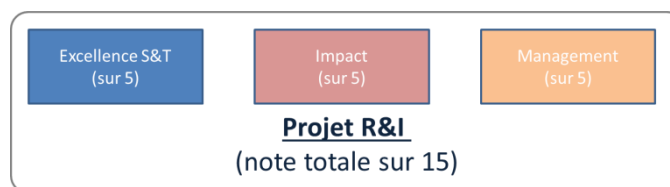


## 1. Des taux de subvention modifiés



**A comparer aux taux nationaux !**

## 2. Une pondération des critères modifiée

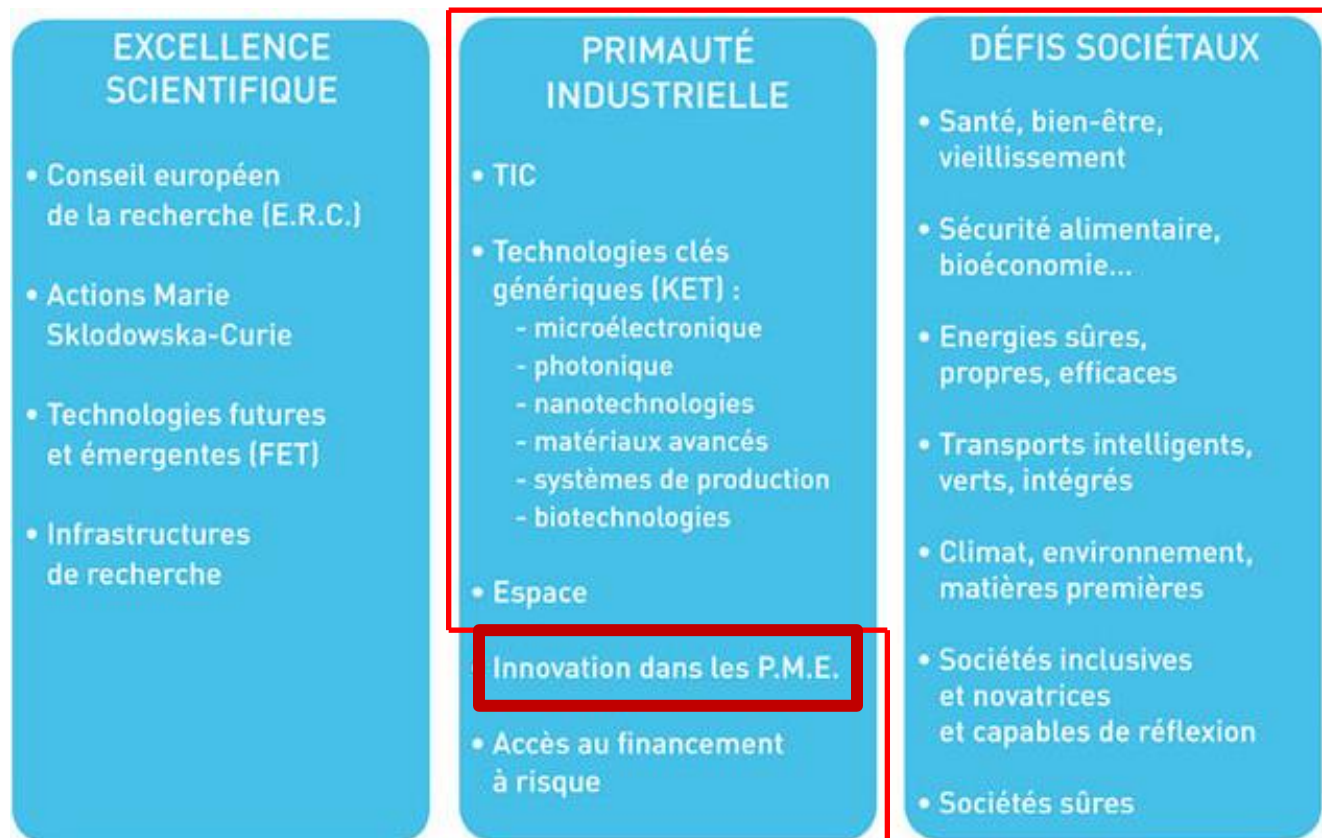


## 3. Une gamme d'« instruments » plus larges :

- 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.

# Attention accrue portée aux PME



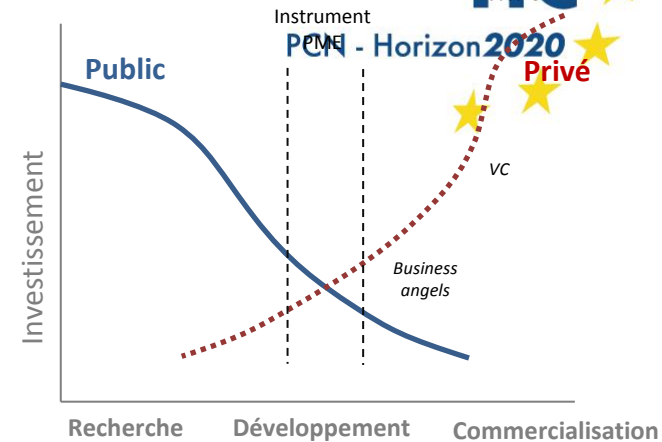
**Objectif politique d'allouer 20% du budget aux PME**

**A terme, 7% du budget alloué au nouvel instrument PME**

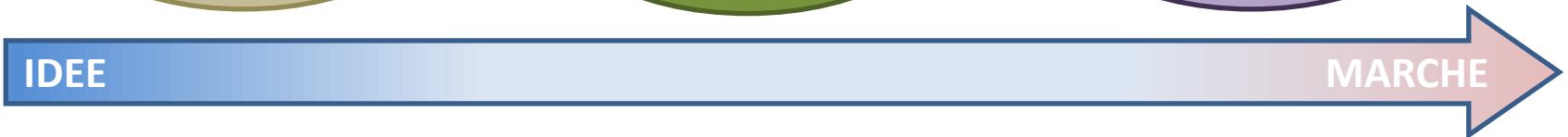
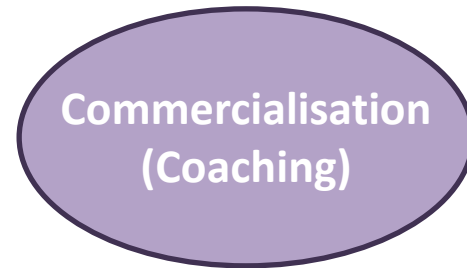
E  
U  
R  
A  
T  
O  
M

- Diffusion de l'excellence et élargissement de la participation
- Science pour et avec la société
- Institut Européen d'Innovation et Technologie (I.E.T.)
- Centre commun de recherche (Joint Research Center - J.R.C.)

# Instrument PME



- ☐ Phase 1: idée/concept,
  - Input: Business plan I (10 p.)
  - Activités: faisabilité, analyse risques, IP, recherche partenaires, pilote...
  - Output: Business plan II
  - 50 k€, ~ 6 mois
- ☐ Phase 2: R&D, démonstration, *market replication*
  - Input: Business plan II et description des activités de la phase 2 (30 p.)
  - Activités: développement, prototypes, test, pilotes, miniaturisation, scale-up...
  - Output: investor ready Business plan III
  - 1-3 M€, 12-24 mois
- ☐ Phase 3: Commercialisation
  - Coaching sur l'accès aux financements, formation, IP management...



**10%**

**30-50%**

**Taux de succès envisagé**

# Fast Track to Innovation Pilot

THE ULTIMATE BOOST FOR OUTSTANDING BUSINESS INNOVATORS WITH A NEED FOR SPEED...

## PREPARE YOUR PROPOSAL

Build your industry-intensive consortium\*  
minimum 3 partners - maximum 5 partners  
(all based in the EU and / or in Horizon 2020  
associated countries)

Proposal



Outstanding Business Innovation Concept  
(high-readiness level / TRL 6, meaning  
demonstrated in a relevant environment)

Continuous open call  
until end 2016

6 months time-to-grant

## DEVELOP YOUR INNOVATION

Receive an EU grant of EUR 1 million to 3 million  
(70% of funding, 100% of funding for non-profit entities)

From Mature R&D  
Demonstration  
Market-Oriented  
R&D  
to Market-Mature Innovation

12-24 months for implementation

## HIT THE MARKET!

Start your commercial activities



The Market  
Market-Maturity to Market  
Launch



Market-ready result  
(finished product, service,  
process/ TRL 9)

At most 36 months from grant to market

\*In a consortium with 3 or 4 partners, at least 2  
should be industry, and in a consortium with 5  
partners, at least 3; alternatively at least 60% of  
the project budget should be allocated to industry  
(i.e. private for profit entities)

... AND EAGER TO COMPETE ON GLOBAL MARKETS...!

## ACTIVITIES SUPPORTED

Systems validation in real working conditions – Testing – Piloting – Business model validation – Standard setting – Pre-normative research – EU quality label

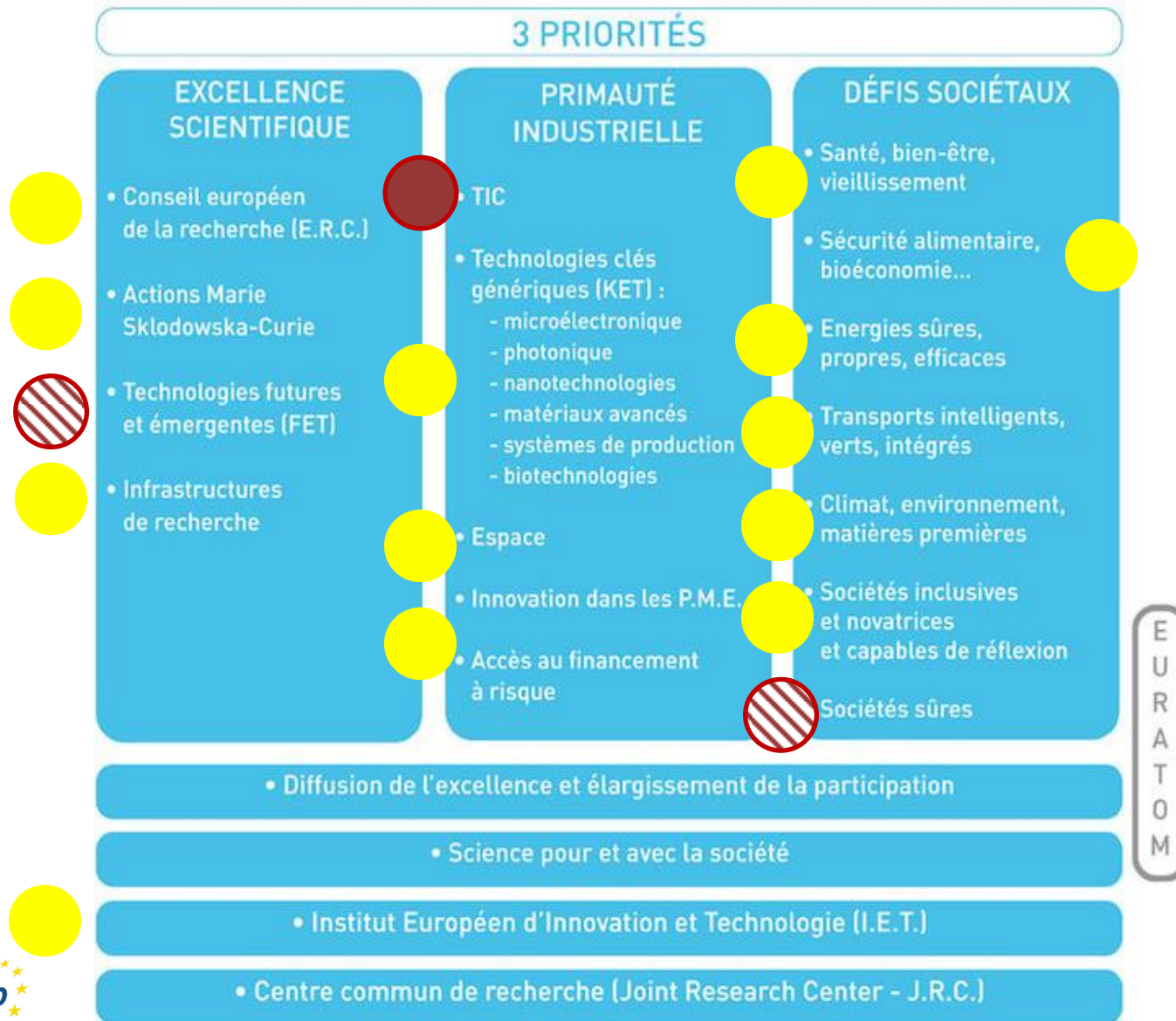


# Le programme LEIT/ICT

# Attention: il y a TIC ailleurs dans H2020



PCN - Horizon2020



EURATOM



# Un programme *drivé* par l'industrie



**FP7**

**H2020**



**FUTURE INTERNET PPP & SME ACCELERATOR**

**Expansion of use cases**

**NETWORKING R&D**



**ADVANCED COMPUTING**



**CONTENT TECHNOLOGIES & INFO MANAGEMENT**

**BIG DATA PPP**



**ROBOTICS R&D**

**ROBOTICS PPP**



**PHOTONICS R&D**

**PHOTONICS PPP**



**FACTORY OF THE FUTURE**





# STATISTIQUES

Statistiques globales

# H2020 – WP14-15: analyse (1)

*(tous les appels sauf ECSEL 2015 et SME 2015)*



## Quelques chiffres « bruts »:

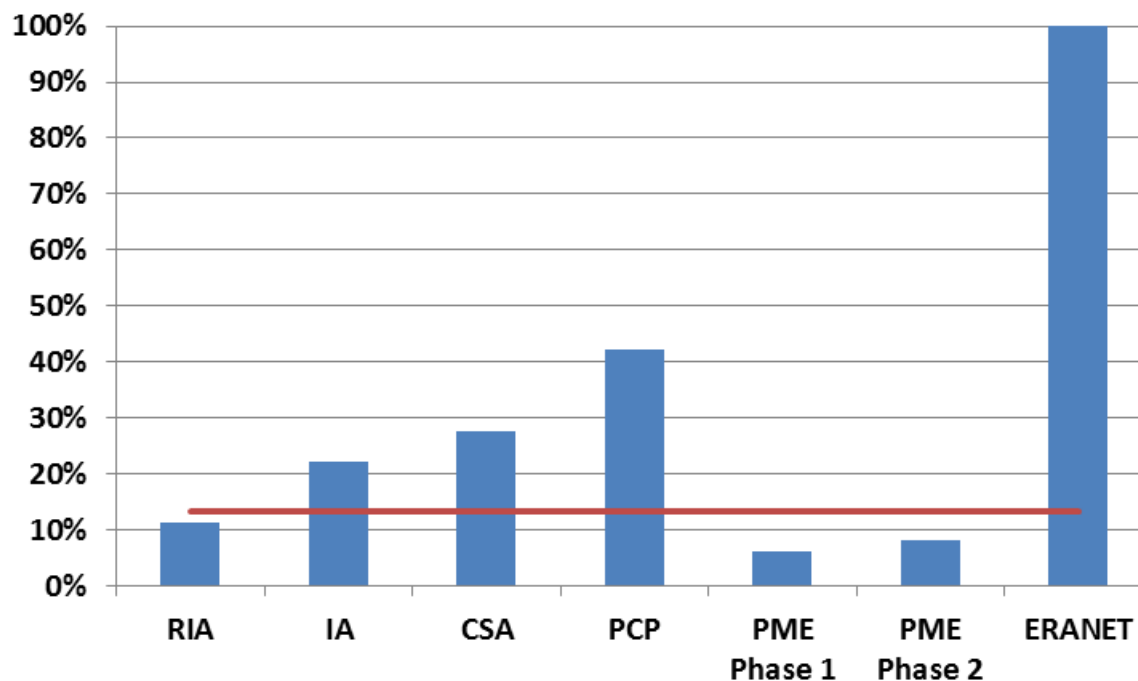
- 5650 propositions (dont 2203 PME phase 1 et 364 phase 2) réunissant 11500 participants pour une demande totale 12,1 Md€
- 562 projets retenus (dont 125 PME phase 1 et 28 phase 2) réunissant 2200 bénéficiaires ayant obtenu un total de 1,6 Md€
- 850 participants FR ayant demandé un total de 1,1 Md€
- + de 200 bénéficiaires FR, se partageant 184 M€ (soit 92 M€/an!), dont 5 instruments PME phase 2



# H2020 – WP14-15: analyse (2)

(tous les appels sauf ECSEL 2015 et SME 2015)

Une concurrence (très) variable entre instruments

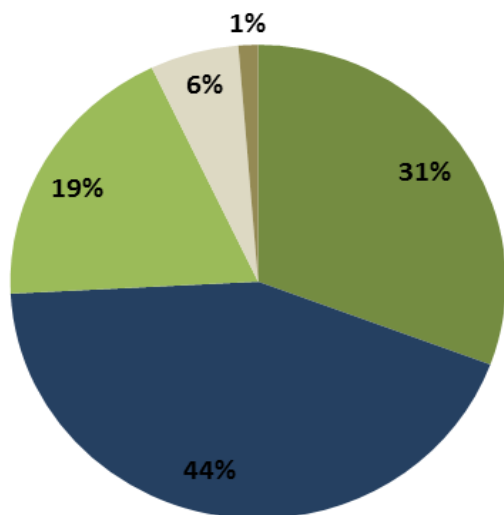


# H2020 – WP14-15: analyse (3)

*(tous les appels sauf ECSEL 2015 et SME 2015)*

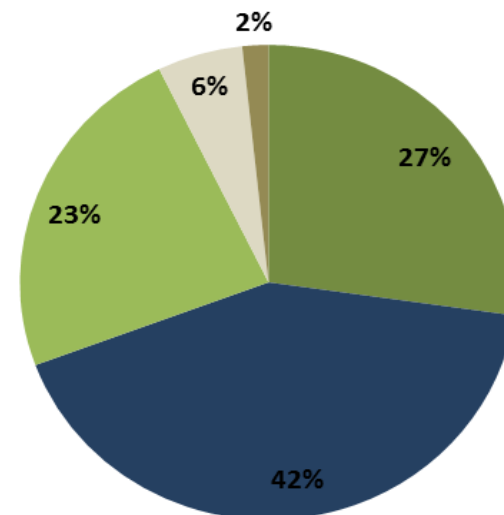


## Une dimension industrielle forte



**Propositions**  
*(part des € demandés)*

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

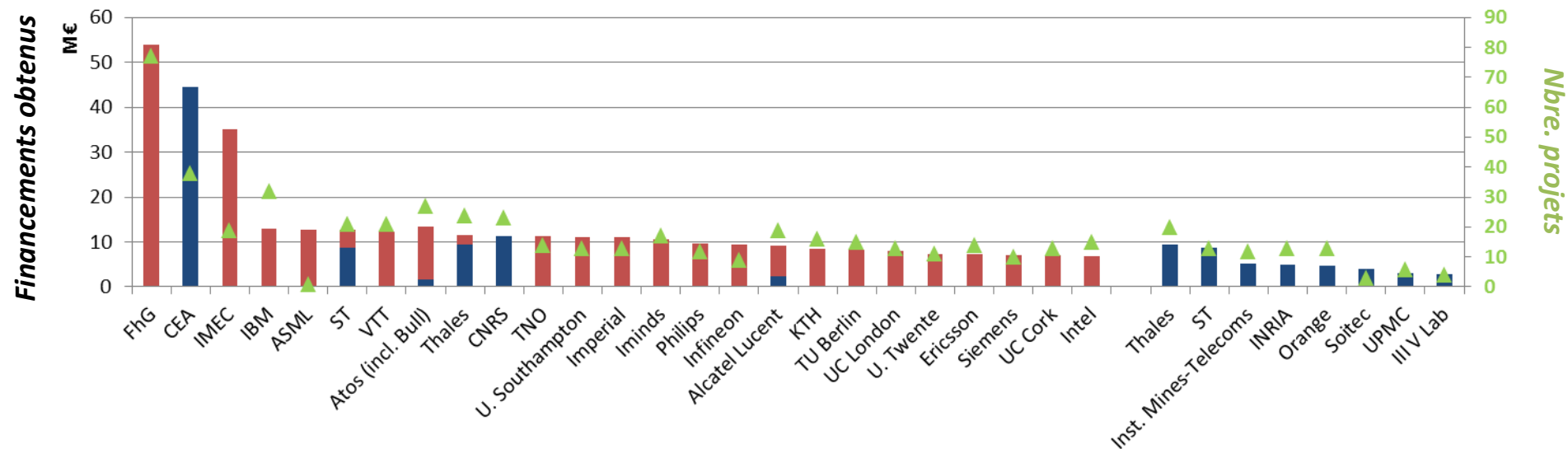


**Projets**  
*(part des € distribués)*

# H2020 – WP14-15: analyse (4)

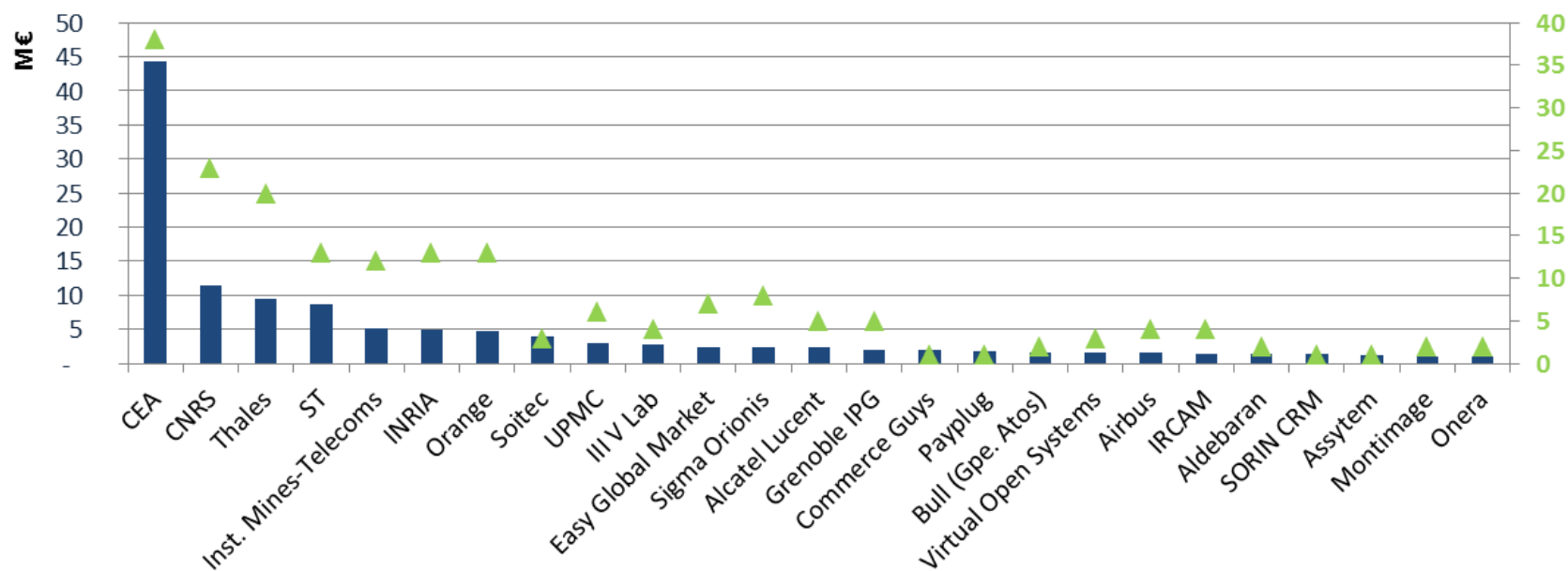
(tous les appels sauf ECSEL 2015 et SME 2015)

## Grands bénéficiaires (monde et FR)



# Participation française

## Grands bénéficiaires



**Une concentration toujours très (trop?) marquée**  
**Top 10 = 83%**

# WP14-15: Content tech. and information management

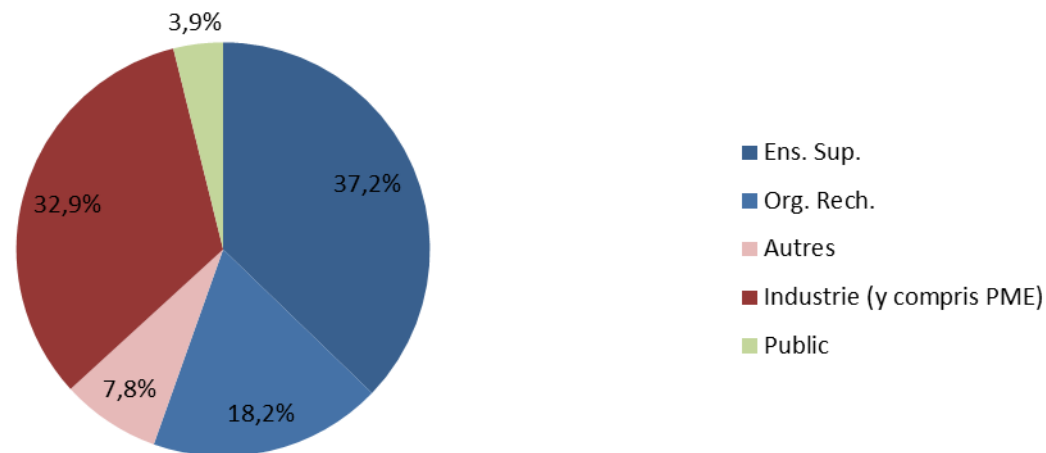
## Éléments statistiques

852 propositions pour 2,8 Md€ demandés  
86 projets pour 268 M€

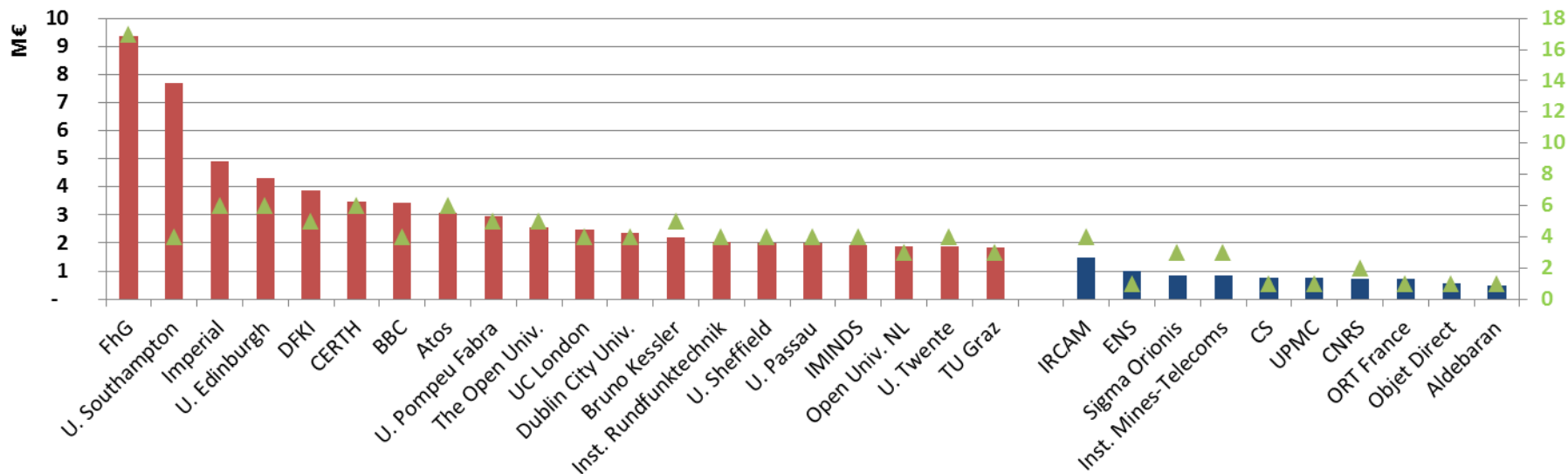
~950 participants dont 237 français

560 bénéficiaires dont 54 français

Part FR: 7%



€ gagnés





# WP14-15: Eléments sur les résultats : ICT - 18 à 21



Détails sur ICT 18 : IA, 14 M€ - Support the growth of ICT innovative Creative Industries SMEs

Note du dernier projet financé : 11/15

1 projets à coordination française, non financé  
30 participations françaises. 8 participations financées.

Topic	Proposals submitted to evaluators	Above thresholds proposals		Funded projects	
		Count	Percentage	Count	Percentage
ICT-18	72	20	28%	15	21 %

# WP14-15: Eléments sur les résultats : ICT - 18 à 21



**Détails sur ICT 19 : Technologies for creative industries, social media and convergence.**

**RIA – 18 M€ - Note du projet financé : 14/15**

**8 projets à coordination française, non financés  
64 participations françaises. 4 participations financées.**

**IA – 20 M€ - Note du dernier projet financé : 13/15**

**1 projets à coordination française, non financé  
25 participations françaises. 6 participations financées.**

Topic	Proposals submitted to evaluators	Above thresholds proposals		Funded project	
ICT- 1 -2014 -19A RIA	91	54	60 %	6	7 %
ICT- 1 -2015 -19B IA	44	18	41 %	5	11 %

# WP14-15: Éléments sur les résultats : ICT - 18 à 21



PCN - Horizon2020

**Détails sur ICT 20 : Technologies for better human learning and teaching**

**RIA – 14 M€ - Note du projet financé : 11/15**

**2 projets à coordination française, non financés (6,5 et 7)  
28 participations françaises. 2 participations financées.**

**IA – 27 M€ - Note du dernier projet financé : 11,5/15**

**1 projets à coordination française, non financé  
24 participations françaises. 6 participations financées.**

Topic	Proposals submitted to evaluators	Above thresholds proposals		Funded project	
		Count	Percentage	Count	Percentage
ICT- 1 -2015 -20A RIA	126	41	33 %	7	6 %
ICT- 1 -2015-20B IA	45	13	29 %	5	11 %

# WP14-15: Eléments sur les résultats : ICT - 18 à 21



PCN - Horizon2020

## Détails sur ICT 21 : Advanced digital gaming/gamification technologies

**RIA – 9 M€ - Note du projet financé : 15/15**

**3 projets à coordination française, non financés (7 et 9,5)  
30 participations françaises. 2 participations financées.**

**IA – 8 M€ - Note du dernier projet financé : 13,5/15**

**1 projets à coordination française, non financé  
11 participations françaises. 0 participations financées.**

Topic	Proposals submitted to evaluators	Above thresholds proposals		Funded project	
ICT- 1 -2014 -21A RIA	48	26	54%	1	2 %
ICT- 1 -2014 -21B IA	42	23	55 %	3	7 %



# WP LEIT ICT 2016-2017

# Vue d'ensemble



## Programme de travail 2016-2017

- Plus de 50 sujets ouverts sur les 2 années (vs 46)
- De nombreux appels à venir:
  - TIC 2016/2017, FoF 2016/2017, Coopération internationale, EU-Japon, UE-Corée, EU-Brésil, IoT 2016/2017, 5G + ODI et FTI
- Pour 2016
  - Ouverture : 15/20 octobre 2015
  - Clôture : 19/21 janvier 2016 et 12 avril 2016
- Budget global de 1 570,2 M€

# Sa structure

## 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
- Food Security
- Cross KET Topic



## Horizontal activities



- Innovation and entrepreneurship support
- Responsibility and Creativity

## International cooperation



- International
- UE Brazil
- UE Japan
- UE Korea



# Budget 2016/2017



PCN - Horizon2020

Topics	M€ 16/17	M€ 14/15
A new generation of components and systems	84	142
Advanced Computing and Cloud Computing	71	57
Future Internet	253,2	395,5
Content technologies and information management	276	260
Robotics and autonomous systems	157	157
ICT Key Enabling Technologies	176	206
Factory of the Future	116	102
Internet of Things	229	51*
Coopération internationale	35,8	27



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



The screenshot shows the homepage of the French portal for Horizon 2020. At the top left, there are logos for the French Republic and the Ministry of National Education, Higher Education, and Research. The main banner features a globe and the text "HORIZON 2020 LE PORTAIL FRANÇAIS DU PROGRAMME EUROPÉEN POUR LA RECHERCHE ET L'INNOVATION". Below the banner is a navigation bar with buttons for "ESPACE EUROPÉEN DE LA RECHERCHE", "HORIZON 2020", "COMMENT PARTICIPER ?", "POUR VOUS AIDER", "AUTRES PROGRAMMES", and "PME". A search bar is located below the navigation bar, with a search icon and the text "RECHERCHER...". To the right of the search bar is a breadcrumb trail: "Accueil > Horizon 2020 > Primauté industrielle > TIC". Below the search bar is a section titled "AGENDA" with a sub-section "22 SFP".

# Liens utiles



## INFORMATION

[Site français H2020 TIC](#)

[Digital Europe](#) - EUROPA

## PROJET

[Portail du participant](#)

[Projet de programme de travail TIC 2016-2017](#)

## RECHERCHE DE PARTENAIRE

[IDEAL-IST](#) plateforme d'idée de projet TIC

[CORDIS](#)

## RESULTATS

[CORDIS](#)

# COMMENT ÊTRE AIDÉ À MONTER SON PROJET

NADIA ECHCHIHAB, CAP DIGITAL ET RÉMI ARQUEVAUX, MEIN/DGE

# Les opportunités pour les PME

## Instrument PME (ODI) – taux de succès inférieur à 1/10:

- Pas besoin de collaborer
- 3 phases : faisabilité (6 mois – aide forfaitaire de 50k€), R&D (IA de 0,5 à 2,5 M€), commercialisation
- Plusieurs appels par an
- 60 M€ en 2016 (dont 10 % pour la phase 1). Même chose en 2017
- <http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/6112-smeinst-01-2016-2017.html>

## Dates limites de dépôts 2016 :

### Phase 2 :

- 3 Feb 2016
- 14 Apr 2016
- 15 Jun 2016
- 13 Oct 2016

### Phase 1 :

- 24 Feb 2016
- 3 May 2016
- 7 Sep 2016
- 6 Nov 2016

## Eurostars (prochain appel ferme le 18 février 2016 à 20h) – taux de succès de 1/3:

- Projet mené par une PME réalisant de la R&D (conditions sur les ETP/le CA dédié à la R&D)
- Au moins 2 entités légales de 2 pays participants à Eurostars
- Financement des PME françaises participantes par Bpifrance
- <https://www.eurostars-eureka.eu/>
- Contact : [patrick.cornet@bpifrance.fr](mailto:patrick.cornet@bpifrance.fr)

Les projets collaboratifs H2020

Et aussi : les clusters Eurêka, les **instruments financiers...**

# Orientation et conseil



•PCN PME H2020 : [pcn-pme@recherche.gouv.fr](mailto:pcn-pme@recherche.gouv.fr)

- MENESR et MEIN
- Bpifrance
- ASRC
- Pôles de compétitivité
- Instituts Carnot
- ANRT

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

[http://www.linkedin.com/groups?home=&gid=7410574&trk=anet\\_ug\\_hm](http://www.linkedin.com/groups?home=&gid=7410574&trk=anet_ug_hm)

•Réseau Entreprise Europe (agences régionales et CCI):

[http://een.ec.europa.eu/index\\_fr.htm](http://een.ec.europa.eu/index_fr.htm)

# Accompagnement au montage de projet (1/2)

## Bpifrance :

### - DIAGNOSTIC et INSTRUMENT PME Phase 1 : accès aux programmes européens (APE)

- Diagnostic flash pour cibler le programme en adéquation avec votre stratégie (1000 €)
- Préparation d'un dépôt de candidature à la phase 1 de l'Instrument PME (4000 €) :
  - PME
  - Contact : [doriane.dumondelle@bpifrance.fr](mailto:doriane.dumondelle@bpifrance.fr)

### - INSTRUMENT PME Phase 2 : Aide à la faisabilité

- Aide à la faisabilité (comparable à la phase 1 de l'Instrument PME) pouvant inclure la préparation d'un dépôt de candidature à la phase 2 de l'Instrument PME (avec un consultant privé) :
  - Entreprises de moins de 2000 salariés
  - Subvention entre 15 et 50k€
  - Contact : PCN PME ou votre direction régionale ([www.bpifrance.fr](http://www.bpifrance.fr))

### - COLLABORATIF : Aide au partenariat technologique (APT)

- Octroi d'une subvention pour aider au montage d'un projet collaboratif européen, transnational, intergouvernemental ou national. Dépenses éligibles : étude de faisabilité stratégique, recherche de partenaires, préparation des réponses aux appels à projets, assistance et conseil juridique
  - Entreprises de moins de 2000 salariés
  - Subvention entre 15 et 50k€
  - Contact : PCN PME ou votre direction régionale ([www.bpifrance.fr](http://www.bpifrance.fr))

# ***CREATIVITY***

***ICT-20, ICT-21, ICT-36, CULT-COOP-08-2016***

**ALBERT GAUTHIER, EC/DG CONNECT /G2**



The EU Framework Programme for Research and Innovation

**HORIZON 2020**

**ICT work programme**

**2016-2017**

**ICT 21 – CALL 3**

**Albert GAUTHIER**

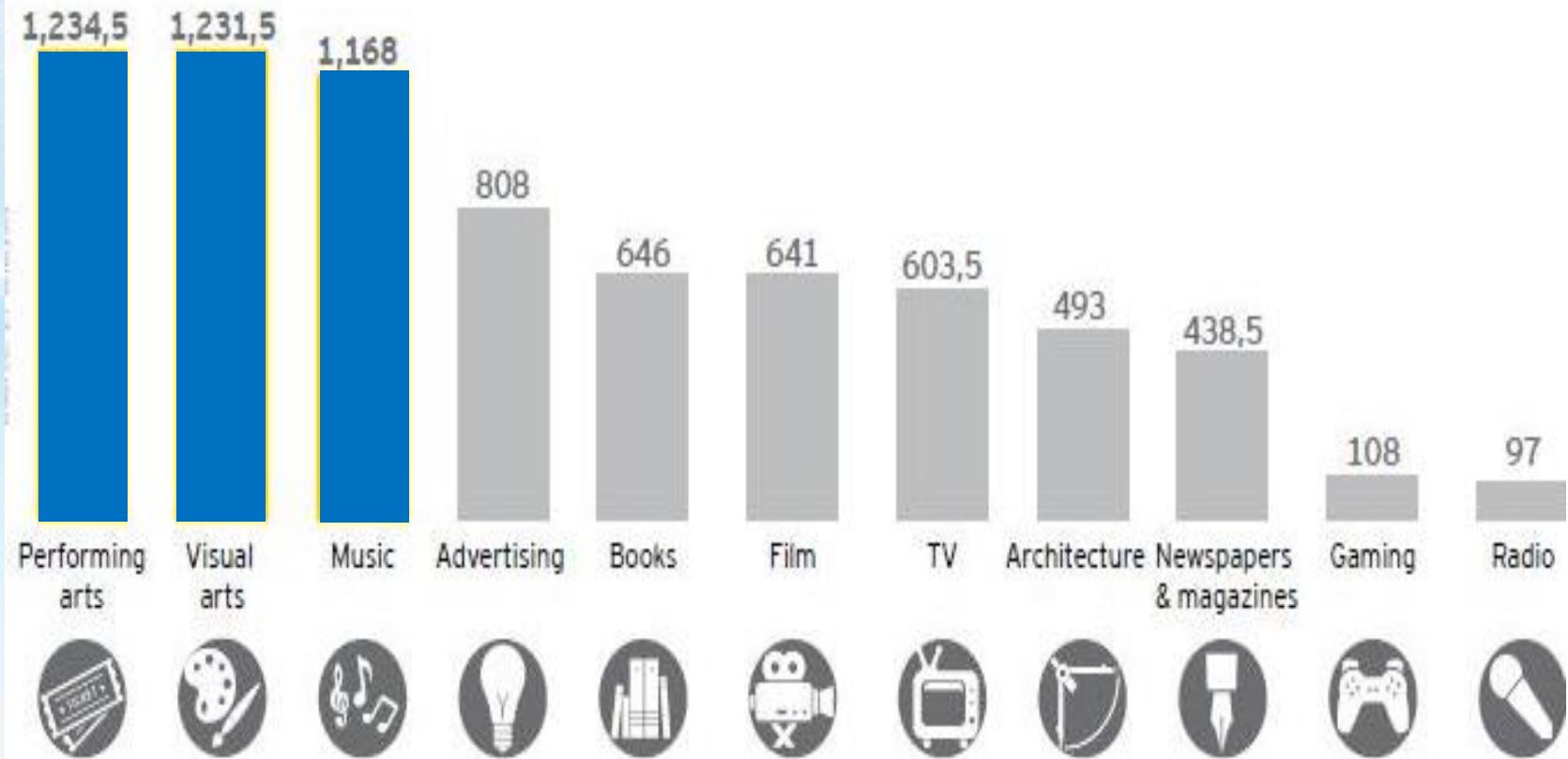
DG Connect Unit G2 Luxembourg







Employment (in thousands) - 2012



# Why ?

To increase the competitiveness of the European creative industries

SMEs represent 85% of all actors in the creative industry sector, but they often face difficulties in adopting state of the art ICT technologies

=> stimulating ICT innovation in SMEs,

+ fostering exchanges between the creative industries SMEs and providers of innovative ICT solutions.

# What ?

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.

*(No further guideline)*

# How ?

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**.

# Support technology transfer to the creative industries

**Action:** Innovation Actions

**Project duration:** expected 12<-> 18 month

**Project funding:** expected 0.5 <> 1 Mio €

**Total budget:** 14 Mio €

**Opening:** 20 October 2015

**Deadline:** 12 April 2016 at 17.00 Brussels time

**ICT work programme 2016-2017**

**ICT 36 – CALL 3**

**Boost synergies between artists, creative  
people and technologists**

**(Unit G.2 – Creativity)**

# Why?

Innovation, today, is as much about novel solutions that technology and design can provide as it is about understanding needs of society and ensuring wide participation in the process of innovation.

In this context, the Arts are gaining prominence as a catalyst of an efficient conversion of S&T knowledge into innovative products, services, and processes.

The challenge is to accelerate and widen the **exchange of skills of artists and creative people with entrepreneurs and technologists**, thus creating a common language and understanding.

*This topic supports the STARTS (S&T&ARTS) initiative, fostering innovation at the nexus of 'Science, Technology and the Arts'.*



# How?

The activities are structured as follow:

- A. Innovation Action** establishing a structured dialogue between creative people and technology developers:
1. Develop a Network
- AND**
2. Organise a competition for Creative & Technologist to build prototypes.
- B. Coordination and Support Action** encouraging artists' integration into research and innovation projects, providing visibility of good practices and rewarding them
1. Brokerage service for artists in research and innovation projects
- OR**
2. Implementation of a 'STARTS prize'

# How?

The activities are structured as follow:

**A. Innovation Action** establishing a structured dialogue between creative people and technology developers:

1. Develop a Network

**AND**

2. Organise a competition for Creative & Technologist to build prototypes.

**B. Coordination and Support Action** encouraging artists' integration into research and innovation projects, providing visibility of good practices and rewarding them

1. Brokerage service for artists in research and innovation projects

**OR**

2. Implementation of a 'STARTS prize'

# A 1 Develop a Network

It will identify the relevant regional, national and international agencies active in education, research and economic support of the Creative Industries

- Establish a Europe wide sustainable structured dialogue, ensuring the synchronisation of the efforts
- Promote the replication of successful initiatives across other industries and European countries.

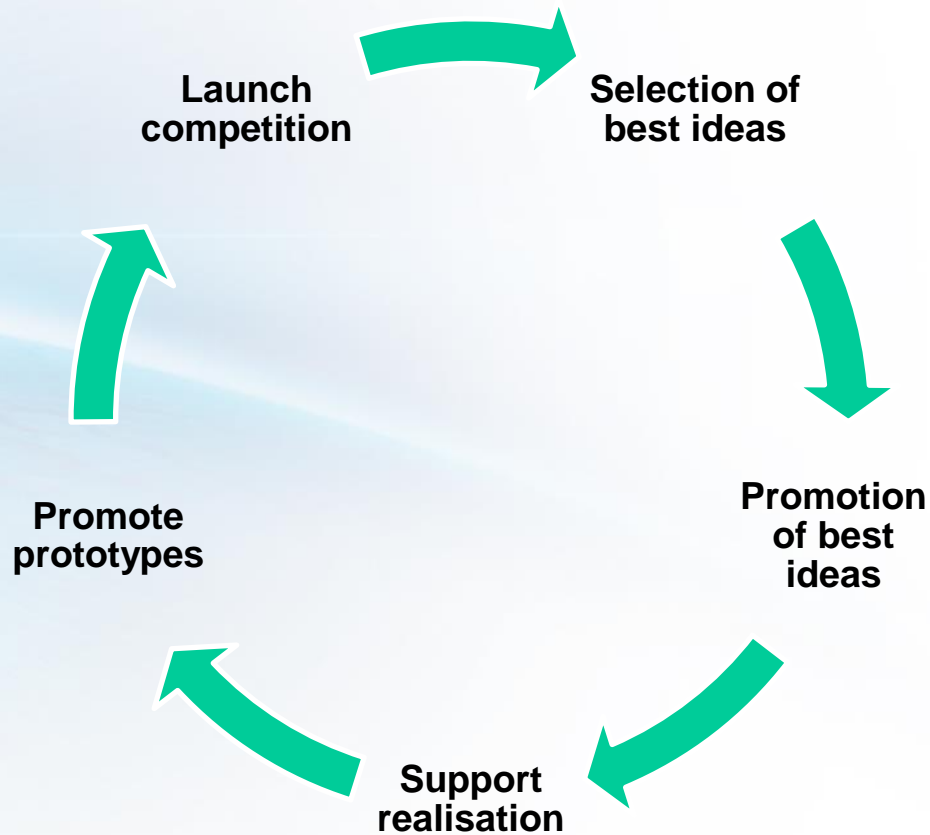
# A 2 Competition

Taking advantage of existing structures such as fab labs, creative and innovation hubs.

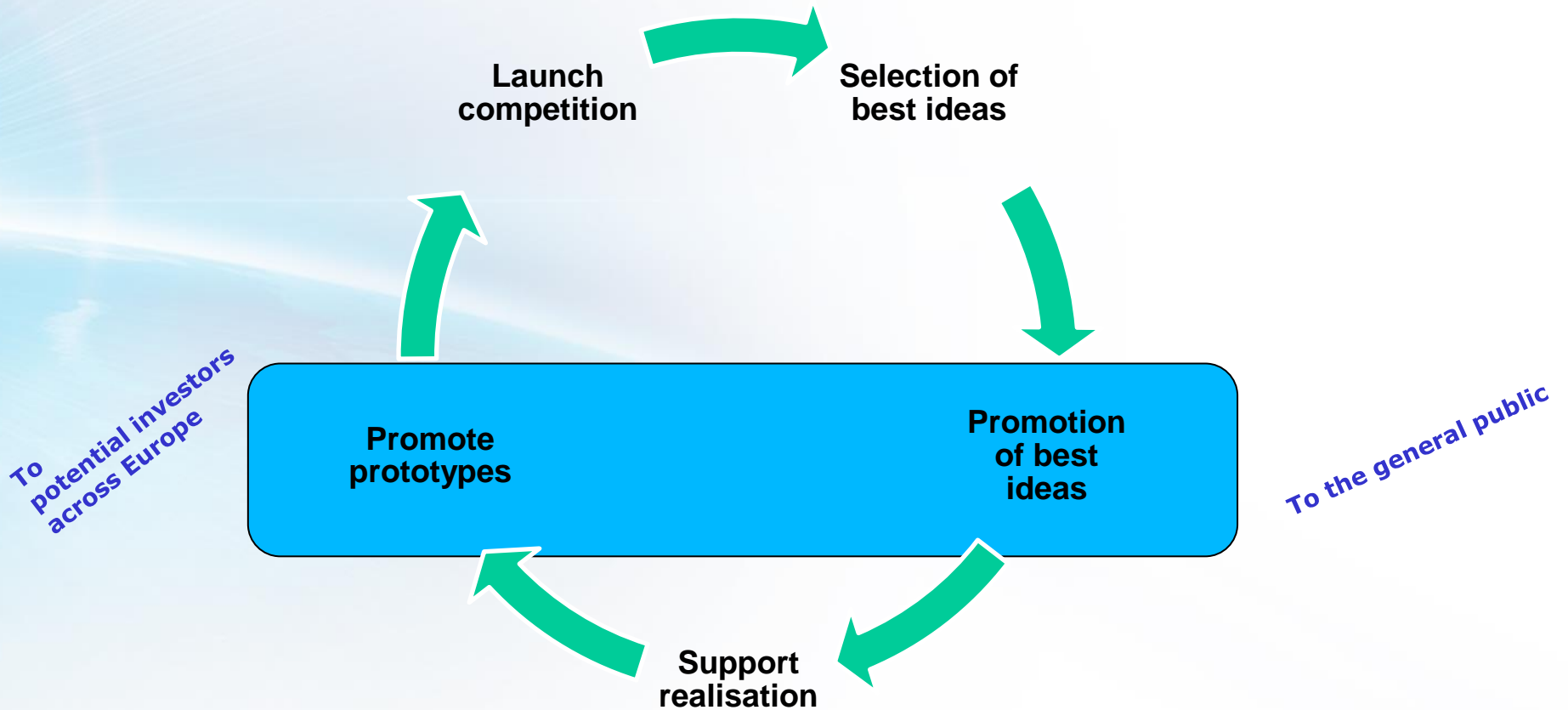
Combine the following activities:

1. Launch a yearly Europe wide competition for the best creative product ideas
  2. Promote the newly selected ideas
  3. Ensure the financial support of their realisation.
  4. Promote the prototypes resulting from the selection of the previous year
- Develop a sustainability strategy to ensure the persistence of the experiences gained and the coordination mechanisms set up during the action beyond the funding period.

# A 2 Competition



# A 2 Competition



# A 2 Competition

Teams of creative individuals and technologists providing novel ideas

Evaluation criteria:

- Originality
- Feasibility
- Economic or social value potential.

# A 2 Competition - Resources

The consortium will define the process for selecting the prototype developments

Typical financial support per experiment: < 50.000 € (+/- 50 prototype)

Estimated Total Grant: about EUR 3 million

At least 80% of the funding should be dedicated to the prototype developments.

It is recommended to also use established networks reaching out to SMEs like the Enterprise Europe Network and the NCP network for calls publications and awareness raising towards SME's. NEM ???????



# How?

The activities are structured as follow:

**A. Innovation Action** establishing a structured dialogue between creative people and technology developers:

1. Develop a Network

**AND**

2. Organise a competition for Creative & Technologist to build prototypes.

**B. Coordination and Support Action** encouraging artists' integration into research and innovation projects, providing visibility of good practices and rewarding them

1. Brokerage service for artists in research and innovation projects

**OR**

2. Implementation of a 'STARTS prize'

# B 1 Brokerage service

**Coordination and Support Action** to provide a **brokerage service** that will:

- **Fund short-term residencies/fellowships** in running H2020 projects or in institutions and sponsor ‘matchmaking events’ (workshops, hackatons, etc.) that will allow artists and ICT experts to develop common work practices and address concrete problems.
- **Set up an online platform** to match partners from the ICT and the Arts, identify concrete R&D&I problems that artistic practices could help address.
- **Organise an annual high visible STARTS event** with international outreach bringing together H2020 projects, industrial players and artists and showcasing successful interactions between industry, technology and the Arts.

**Budget:** 4 Mio € (*estimated*)

**Duration:** 4 years (*estimated*)

# B 2 "STARTS" prize

**Coordination and Support Action** to implement a 'STARTS prize'

STARTS == Science, Technology and the Arts

Reasoning:

- Showcase vision and innovation in technology rooted in links with the Arts by giving visibility to the most forward- looking collaborations and the impact on innovation that they have achieved.
- Rewarding outstanding contributions to innovation resulting from collaborations of technology with the Arts.

# B 2 "STARTS" prize

**Coordination and Support Action** to implement a 'STARTS prize'

Two annual prizes (20.000 € each):

- One honouring artistic exploration where appropriation by the Arts has **altered** (the use, deployment, or perception of) technology
- One honours works linking ICT and the Arts (technological or artistic) that open new pathways for innovation and/or society.<sup>2</sup>

# B 2 "STARTS" prize

**Coordination and Support Action** to implement a 'STARTS prize'

The support action will ensure:

- Publicising the prize,
- Handling of submission in a scalable manner,
- Establish the evaluation procedure for the prize in liaison with the EC services,
- Organise the award ceremony together with an exhibition and a (travelling) exhibition of shortlisted works.

# encouraging artists' integration

**Coordination and Support Action** to implement a 'STARTS prize'

Visibility and impact:

- Be a long-term commitment,
- Must reach out to both technology/industry and to the art world.

*(Might therefore be best linked to an existing high profile prize allowing leveraging existing resources and credentials.)*

**Budget:** 1 Mio € *(estimated)*

**Duration:** four years *(estimated)*

# Boost synergies between artists, creative people and technologists

## A) ICT-36 IA

**Action:** Innovation Actions

**Project Size:** 3 Mio €

**Budget:** 3 Mio €

## B) ICT-36 CSA

**Action:** Coordination and Support Actions

**Project duration:** expected 4 years

**Project size:** 4 Mio € (Brokerage) and 1 Mio € (Prize)

**Budget:** 5Mio €

**Opening:** 20 October 2015

**Deadline:** 12 April 2016 at 17.00 Brussels time

# How to keep in touch?

**ICT- 21 & ICT 36 IA:**

**CNECT-CREATIVITY@ec.europa.eu**

**Twitter account: @ICTCreativityEU**

**ICT-36 CSA : Ralf.Dum@ec.europa.eu**



**The text of the call are available:**

**ICT- 21**

<https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/5099-ict-21-2016.html>

**ICT 36**

<https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/5092-ict-36-2016.html>





The EU Framework Programme for Research and Innovation

**HORIZON 2020**

**SC6**

**CULT-COOP-08-2016**

**Virtual Museum**



**Albert GAUTHIER**

DG Connect Unit G2 Luxembourg

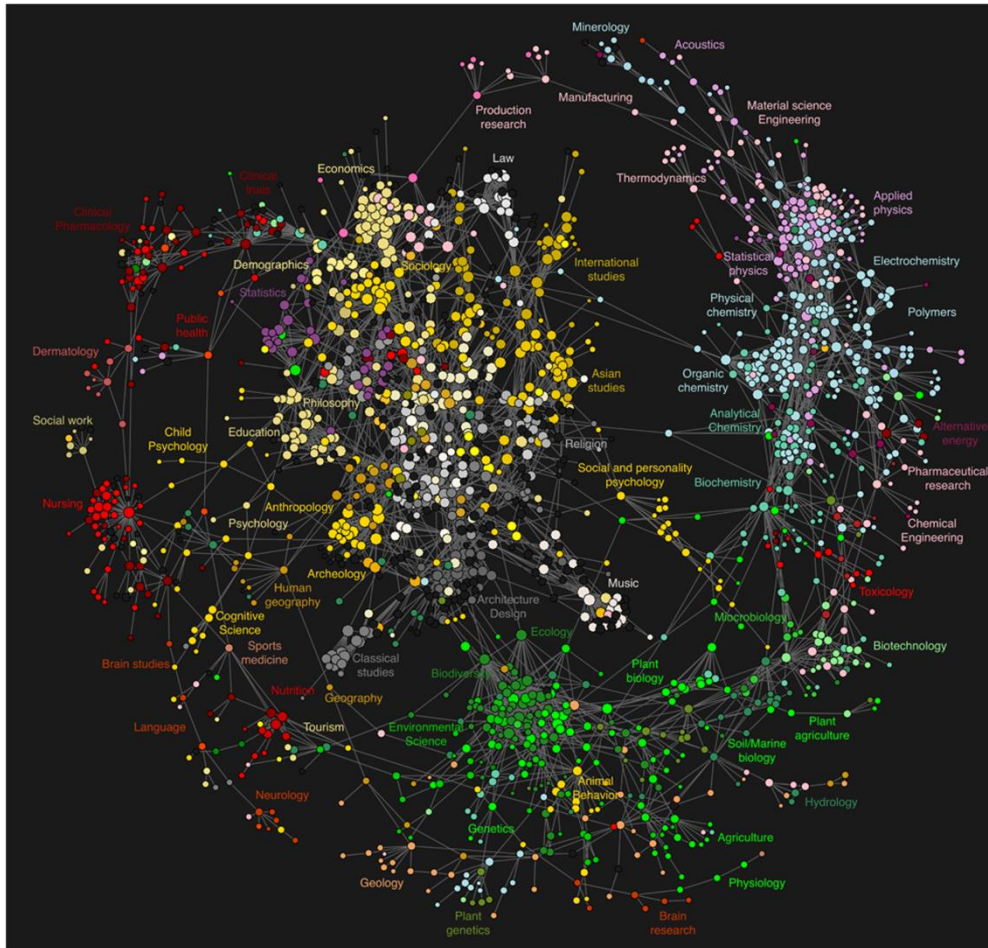
Research and  
Innovation

# WHY DO WE NEED VIRTUAL MUSEUM ?

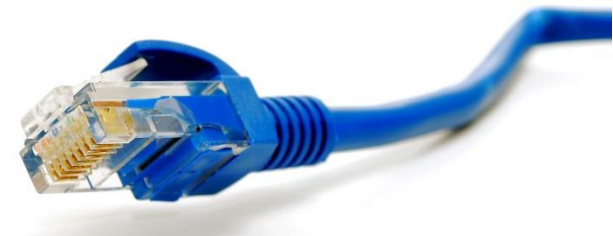
- **Accessibility (+/- 20%)**
- **Conservation**
- **Usage**
- **Re-use**
- .....



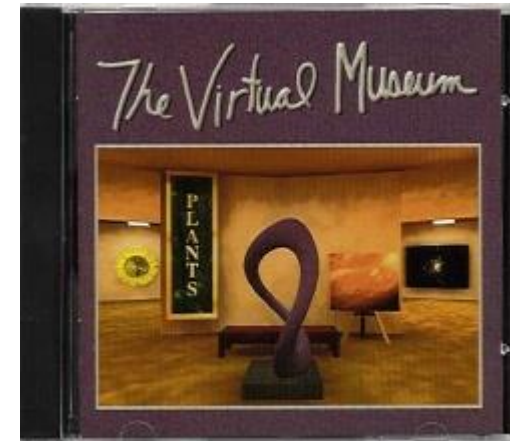
# Where do you find a Virtual Museum ?



**Ticket?**



# NEW ? Not really...



**APPLE**  
**Siggraph 1992**

**CULT-COOP-08-2016: Virtual museums and social platform on European digital heritage, memory, identity and cultural interaction.**

**PROGRAMME AVAILABLE AT**

**<https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/3089-cult-coop-08-2016.html>**



**CULT-COOP-08-2016: Virtual museums and social platform on European digital heritage, memory, identity and cultural interaction.**

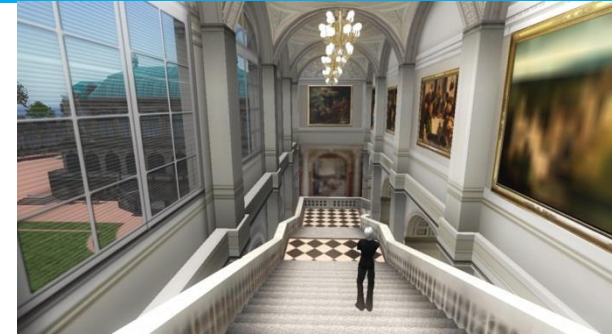
**The Virtual Museum (VM) is not a real museum transposed to the web, nor an archive or a database of virtual digital assets but a provider of information on top of being an exhibition room.**

**The challenge will be to give further emphasis on improving access, establishing meaningful narratives for collections and displays and story-led interpretation by the development of VM. It will also address the fundamental issues that are required to make this happen e.g. image rights, licencing and the ability of museums to support new ICT technology.**



## CULT-COOP-08-2016

a)



The real potentiality of a virtual museum is in the creation of a personalized, immersive, interactive ways to enhance our understanding of the world around us. The audio-visual narrative is one of the best means to effectively communicate about objects in a museum to the ordinary visitor.

Therefore, actions will focus on the development of highly innovative technologies, methods and ICT tools to significantly improve the 'digital encounter' including quality of images, sonic narratives, the display and interactivity with digital objects. Besides, actions should research and create new ways of personalised storytelling, interactivity and adaptive guidance, bridging the physical and the digital world.

The technology resulting from the research should be validated in real life environments. During test and validation phases, due attention has to be paid to scalability, portability, transmedia and interoperability of the technologies proposed and the support needed when implemented. Furthermore, social media tools should be integrated into the VM platform in order to facilitate exchange of information among users.

## CULT-COOP-08-2016



**b)**

The scope of this action is to develop and maintain a sustainable platform engaging a large number of key actors, stakeholders and communities of practices on how to improve the collaboration and comprehension among the entire community, in order to build up a common roadmap for future activities and explore how these new encounters can be evaluated to understand the models.

The platform should engage - and be open to all - practitioners and stakeholders wishing to contribute to decision making processes, agree on objectives and priorities, share experiences, policies and practices. Partnership and collaboration between public and private stakeholders should be encouraged.

The platform will concretise its action through the organisation of workshops, conferences or any other awareness-raising actions.

## CULT-COOP-08-2016

### Expected Impact



Virtual Museums and Social Platform are accessible for everyone, breaking the restrictions of geography and time.

VM & SP will help to increase European citizens' curiosity for art and their understanding of cultural heritage. VM & SP will support access to culture and citizens' engagement with culture in less developed regions.

Researchers and scholars will benefit from the new possibilities to shape, access and study European Culture.

Synergies between virtual and traditional museums and cultural institutions will support the economic growth of the sector as measurable impacts will be achieved beyond the beneficiaries of the funded projects.

## CULT-COOP-08-2016

**a) Research and Innovation actions. 10M€ (2,5M€)**

**b) Coordination and Support actions. 1 M€**

### CALENDAR

**CULT-COOP-08-2016**

**Publication date: 27/10/2015**

**Deadline: 04/02/2016**





**Thank you!**

**How to keep in touch:**

**emails: [CNECT-CREATIVITY@ec.europa.eu](mailto:CNECT-CREATIVITY@ec.europa.eu)**

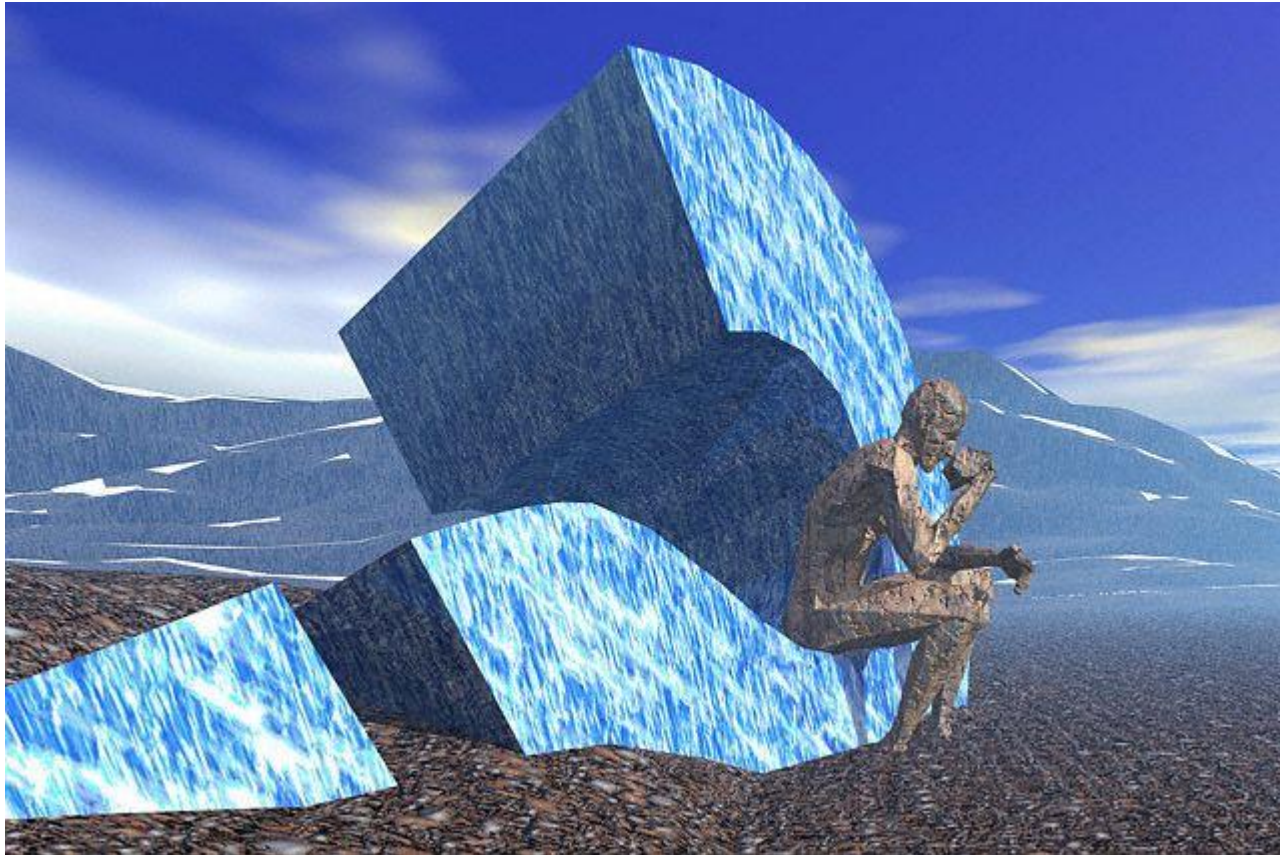
**Twitter account: @ICTCreativityEU**

**Work Programme**

**<https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/3089-cult-coop-08-2016.html>**



European  
Commission



Research and  
Innovation

# *ICT-22 & ICT-24*

F. LAURENT

# Horizon 2020 Work Programme 2016

- **ICT-22-2016: Technologies for Learning and Skills**



# ICT-22-2016: Technologies for Learning and Skills

## Overall Aim:

Promote modernization and excellence in education and training through pervasive access to digital learning and 21st century skills

## Scenario:

- New interactions between formal and informal learning, changing role of teachers, social media, students attitudes, strong demand innovation

## Obstacles:

- Silo-products, low interoperability, no cross-border adoption

## Baseline:

- Research and Innovation Action: theoretical models, personalisation, learning analytics
- Innovation Actions: innovation, grassroots (ODS), pilot projects (skills)

# ICT-22-2016: Technologies for Learning and Skills

## Challenges

- Creation of an **innovation ecosystem** that facilitates open, more effective and efficient **co-design, co-creation, and use** of digital content, tools and services for **personalised learning and teaching**.
- And which allows co-creation and co-evolution of **knowledge and partnerships** to develop the appropriate components, services and leading learning technologies, which will empower teachers and learners and facilitate **innovation in education and training**

# a. Innovation Action

- Develop and test **open, interoperable** components for a **flexible, scalable** and cost effective **cloud-based digital learning infrastructure** for **primary and secondary education (K12)**
- **Personalised, collaborative** or experimental learning and skills validation

## Solutions should enable:

- Easy creation, mix and re-use of content, services, applications and contextual data for interactive learning processes;
- New learning experiences and experimentation;
- Innovative educational support services (e.g. learning analytics collecting, storing, sharing learner data in a systematic, secure way)

## Solutions should:

- Have clearly defined learning context, integrate dynamic real-time assessment of learner's progress;
- Be tested through very large pilots in several European countries

**Budget € 20 million *expected proposals €5 million***

# b. Research & Innovation

## Technologies for:

- deeper learning of Science, Technology, Engineering, Mathematics, combined with Arts (STEAM)
  - ✓ improving the innovation and creative capacities of learners and supporting the new role of teacher as a coach of the learner

## Activities cover:

- Foundational research and/or component and system level design with pilot testing
  - ✓ to support (user-driven) real-life intervention strategies with new enabling technologies

**Budget € 11 million *expected proposals of €2.5 million***

# Horizon 2020 Work Programme 2016

- **ICT-24-2016: Gaming and gamification**

# ICT-24-2016: Gaming and gamification

## Overall Aim

To mainstream the application of gaming technologies, design and aesthetics to non-leisure contexts, for social and economic benefits.

## Current Scenario:

- Fast growing games business, but entering at **significant lower scale** non-entertainment contexts

## Obstacles:

- Fragmentation of markets and research communities. Slow time to market for SMEs.

## Baseline

- Research and Innovation Action: **Rage** (9M) **ecosystem** for re-using advanced technologies from games industry into assets for developing applied games easier, faster and more cost-effectively.
- Network of Excellence: **Gala** contributed in building a European **virtual research centre** integrating, harmonizing and coordinating research on **Serious Games**

# Innovation Action

- **Technology transfer** through small scale experiments applied to non-leisure situations and scenarios for training and motivational purposes

## **Activities shall integrate:**

- Contributions from game developers, researchers from social science disciplines and the humanities, publishers, educational intermediaries and end-users
- Work on gaming technologies, learning and behavioural triggers and social science aspects

**Budget :€11million *expected proposals of €1million***



Trinity College Dublin  
Coláiste na Tríonóide, Baile Átha Cliath  
The University of Dublin



This project has received funding from  
the European Union's Horizon 2020  
research and innovation programme  
under grant agreement No 644655



[www.populateproject.eu](http://www.populateproject.eu)

# AN EXAMPLE OF ONGOING PROJECT

STÉPHANE DONIKIAN, GOLAEM



# EVALUATION: EXPERIENCE FROM AN EXPERT

PIERRE ALLIEZ, INRIA

# Evaluator in H2020

Pierre Alliez

Inria Sophia Antipolis - Méditerranée

<https://team.inria.fr/titane/pierre-alliez/>  
pierre.alliez@inria.fr

# Participations

## **Consultant:**

- Working group « creativity »: [future of ICT for creativity and the creative industries](#) (2014).
- Advisory board “Societal challenge 6: Europe in a changing world - Inclusive, innovative and reflective societies” (2013-14). Includes economists, SSH, industrial, civil societies, think tanks.

**Evaluator** : FP7 / H2020

## **Partner / PI :**

- Network of Excellence (Workpackage Leader)
- Coordination action (site leader)
- ERC consolidator

# Testimony

- **Calls** are prepared *after consultation* (structured, iterative).
- **Important:**
  - Understanding « genesis » of calls : e.g., sections « situations », [ICT Competitiveness Week reports](#), work programmes (e.g., « [Europe in a changing world](#) », official journal (harder to digest), reports from [European Forum on Forward Looking Activities](#)).
  - Reports of [workshops](#)/consultations.
  - Mission statement from DG authoring call, e.g., [DG Connect](#) : « help creative sector to prosper & be competitive », and unit « creativity ».
  - Check also, e.g., Digital Culture & Europeana.

[Call ICT-18-2014](#) : support growth of ICT innovative & creative industries & SMEs

- **Context:** creativity sector has real potential for growth (6% between 2011 and 2012), and SMEs are 85% of creative industry.
- **Challenges** : adoption of technologies & finances from ICT, fragmented market, competitive sector.

[Call ICT-18-2014](#) : support growth of ICT innovative & creative industries & SMEs

**Two tools:**

- Innovation Actions : leverage emerging ICT technologies for new products and services.
- Coordination & Support Actions : stimulate growth of industries exploiting ICT via supports : standardization, dissemination, increasing awareness, communication, networking, political dialog, mutual learning.

# Observations

## **Innovation**

- Increasing importance but notions of « market ready » greatly differ, same for engaging with the market.
- Important: justify well TRL (technology readiness level), be specific and tailored.

## **Impact**

- Not just potential impact but rather path (activities) to reach impact.
- Distinguish from the viewpoint of final user or partners of the project.
- Important: impact *other* domains.

# Observations

## Call

- « Proposals must be driven by end users ». End users are not only the “customers” of the creative industry, but mainly the creative practitioners.
- **Clarify terminology:** e.g., the creative chain comprises tasks that are not creative (repetitive), but the practitioners are part of the creative industry.
- **Eligible:** contribute to the «standard toolbox » of the creative practitioners.



# « Winning » Combo

- Cover well scope of call, with no excessive distortion to yield complete coverage.
- Specific and focused: illustrate!
- Realistic: no exaggeration.
- Pedagogy on terminology.
- Include SME if clear role and substantial involvement.
- Path to impact *well connected* to the work programme (several WPs).

# « Winning » Combo

- **Academic impact:** yes *if* impact disciplines outside your own scientific niche.
- **Final selection:** kind of « set cover problem » (projects are also selected to cover the scope of call).

