TIC
PCN - Horizon2020

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

Funding opportunities for Big Data & IA in Horizon 2020

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12 décembre 2018, Paris, IMT

HORIZON 2020
Institut Mines-Télécom
Systematic Paris Region Digital Ecosystem
cap-digital
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Les appels « projets collaboratifs »

Excellent Science (24.4 B €)

- European Research Council (13.1 B €)
- Future and Emerging Technologies (2.7 B €)
- Marie Skłodowska-Curie Actions (6.1 B €)
- Research Infrastructures (2.5 B €)

Industrial Leadership (17 B €)

- LEIT = Leadership in enabling and industrial technologies
  - ICT
  - Nano, new materials
  - Biotechnology
  - Space
  (13.5 B €)
- Access to Risk Finance (2.9 B €)
- Innovation in SMEs (0.6 B €)

Societal Challenges (29.7 B €)

- Health (7.5 B €)
- Food (3.9 B €)
- Energy (6 B €)
- Transport (6.3 B €)
- Climate (3 B €)
- Inclusive Societies (1.3 B €)
- Security (1.7 B €)

Science → **Market**

- **Spreading Excellence (0.8 B €)**
- **Science for Society (0.5 B €)**
- **EIT (2.7 B €)**
- **JRC (1.9 B €)**
- **Euratom (1.6 B €)**

BDV BIG DATA VALUE ASSOCIATION

PPP
Big Data

TERALAB

BDV i-Space SILVER

➔**http://www.bdva.eu/**

BDVA operational structure: Task Forces and Subgroups

- TF1: Programme
- TF2: Impact
- TF3: Community
- TF4: Communication
- TF5: Policy & Societal
- TF6: Technical
- TF7: Application
- TF8: Business
- TF9: Skills and education

Big Data Value Multiple Dimensions of Big Data

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Industrial leadership - ICT Programme (European Data Infrastructure: HPC, Big Data and Cloud technologies)

- **ICT-13-2018-2019: Supporting the emergence of data markets and the data economy**
- **Deadline March 18th, 2019**
  - ICT 13 (IA): 48ME (around 8 projects)

➔**The lack of trusted and secure platforms and privacy-aware analytics method**s for secure sharing of personal data and proprietary/commercial/industrial data

➔**The lack of ICT and Data skills** seriously limits the capacity of Europe to respond to the digitisation challenge of industry.

➔Needs to be put in **involving SMEs and give them access to data**

➔Needs for **standards and interoperability.**

a) IA for setting up and operating platforms for secure and controlled sharing of "closed data" (proprietary and/or personal data). The actions should address the necessary technical, organisational, legal and commercial aspects of data sharing/brokerage/trading, and build on existing computing platforms. Proposals shall address one or both of the following sub-topics: *Personal data platforms and Industrial data platforms.* The actions are required to link to and bring in industrial data providers (not necessarily as consortium members) – Funding between EUR 4 and 6 million

DT-ICT-11-2019: Big data solutions for energy

➔**Specific Challenge**: Tomorrow's energy grids consist of heterogeneous interconnected systems, of an increasing number of small-scale and of dispersed energy generation and consumption devices, generating huge amounts of data. **The electricity sector, in particular, needs big data tools and architectures for optimized energy system** management under these demanding conditions.

Scope: Innovation Actions : **large-scale pilot test-beds for big data application in the electricity sector. Develop/pilot and deploy a reference architecture for large-scale multi-party data exchange, management & governance and real-time processing** (including distributed/edge processing) **in the electricity sector** and to translate this reference architecture into an open, modular data analytics toolbox for the safe and effective operation of grids and provision of innovative energy services.

Proposers should demonstrate that they have access to appropriate large-scale datasets, and should involve the following types of participants: network operators, suppliers, independent aggregators, ESCO's, power exchanges, building management and renovation sectors, software integrators/ developers.

Contribution from the EU of around 10 million EUR

Deadine: 02 April 2019

Budget: 30ME (3 projects)

SC1-BHC-13-2019: Mining big data for early detection of infectious disease threats driven by climate change and other factors

➔The use of next generation sequencing combined with surveillance data and societal data from informal/non traditional sources (e.g. social media) holds promise for improving individual and population health. Current advanced IT technologies offer the opportunity to integrate such big data sets and could enable the rapid and personalised treatment of infected patients, and bolster the detection, tracking and control of infectious disease outbreaks.

- **Pooling, access, analysis and sharing of relevant data,**
- **Modelling methodologies that enable risk modelling and mapping**
- **Analytical tools for early warning, risk assessment and monitoring of (re-)emerging infectious disease threats.**

Solutions for interoperability between different data sources should be addressed

Appropriate regulatory and governance mechanisms need to be foreseen

Contribution from the EU of between EUR 12 and 15 million

RIA; Budget: 30 ME (2 projects)

Deadline: 16th April 2019

SC1-DTH-01-2019: Big data and Artificial Intelligence for monitoring health status and quality of life after the cancer treatment

➔**Proposals** should focus and deliver on how to better acquire, manage, share, model, process and exploit big data to effectively monitor health status of individual patients, provide overall actionable insights at the point of care and improve quality of life after the cancer treatment.

Relevant solutions include for example systems for **determining and monitoring the combined effects of cancer treatment, environment, lifestyle and genetics on the quality of life**, **enabling early identification of effects that can cause development of new medical conditions and/or impair the quality of life.**

Information can be collected from traditional sources of health data (comprehensive electronic health records incl. genetic data, validated biomarkers for remission), from new sources of health data (mobile health apps and wearables) and from sources that are usually created for other purposes such as environmental data.

Contribution from the EU of between EUR 3 and 5 million

RIA, Budget: 35ME (around 7-8 projects funded)

Deadline: 24 April 2019

TRANSFORMATIONS-13-2019: Using big data approaches in research and innovation policy making

➔ **Specific Challenge**: To exploit the potential of big data approaches for research and innovation policy making by providing more timely and in depth information on the **performance of the research and innovation system and its links to productivity growth**.

RIA: Proposals should aim at exploiting the potential of big data to produce information on research and innovation activity, performance, output and/or impact which has the **potential to be available in real time, focusing notably on research and innovation investments in the private sector, public-private cooperation and technology diffusion between private actors**.

The Commission considers that proposals requesting a contribution from the EU in the order of EUR 1.9 million

1 project will be funded – RIA; Budget: 1,9ME

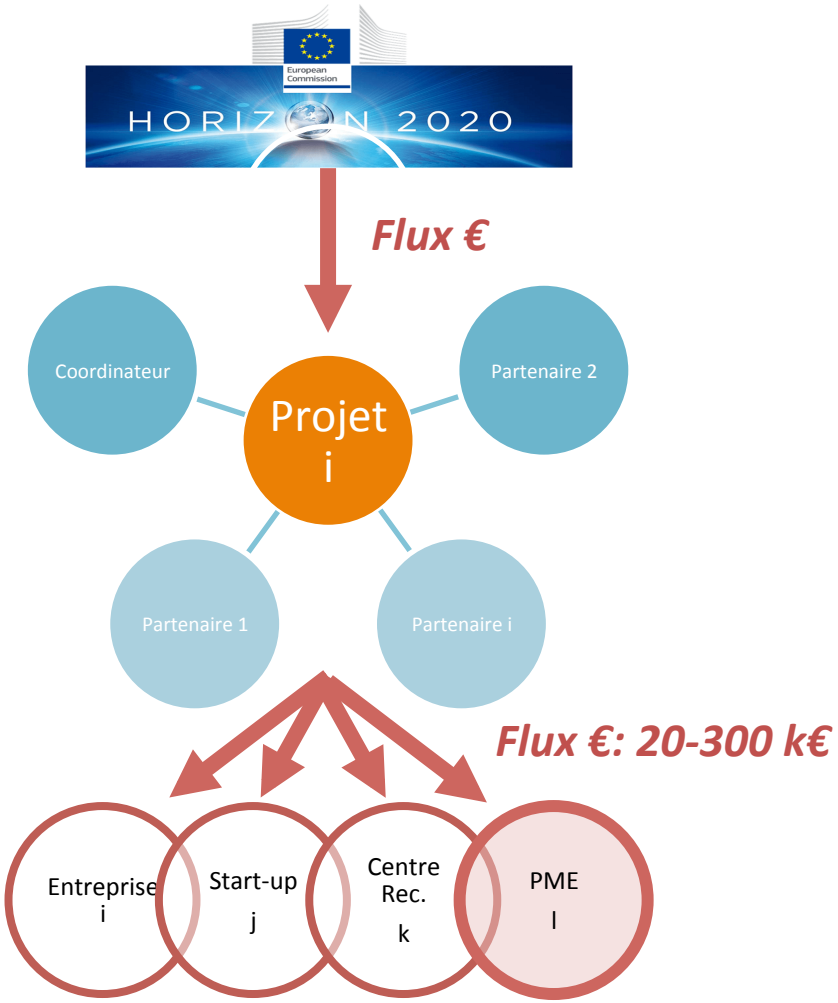
Deadline: 14 March 2019

Le soutien financier à des tiers (cascade funding)

Principes, types de soutien proposés, la pratique, sujets couverts

Nouveaux instruments
➔ *Cascade funding*

Le mécanisme de cascade funding



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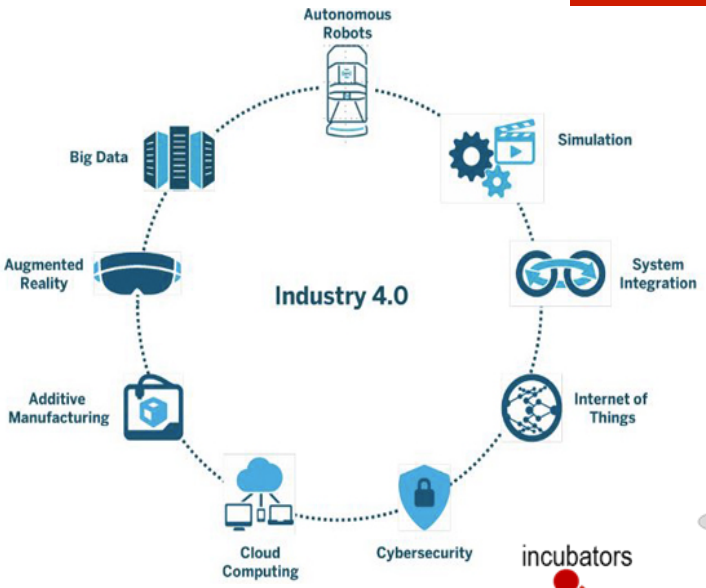
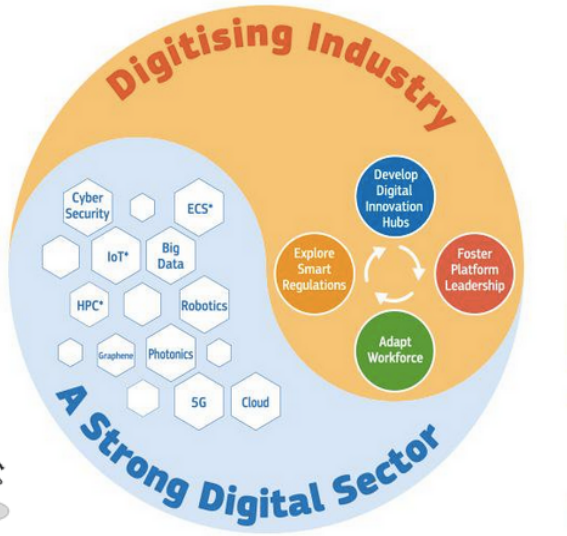
Les 4 types de projets cascade funding

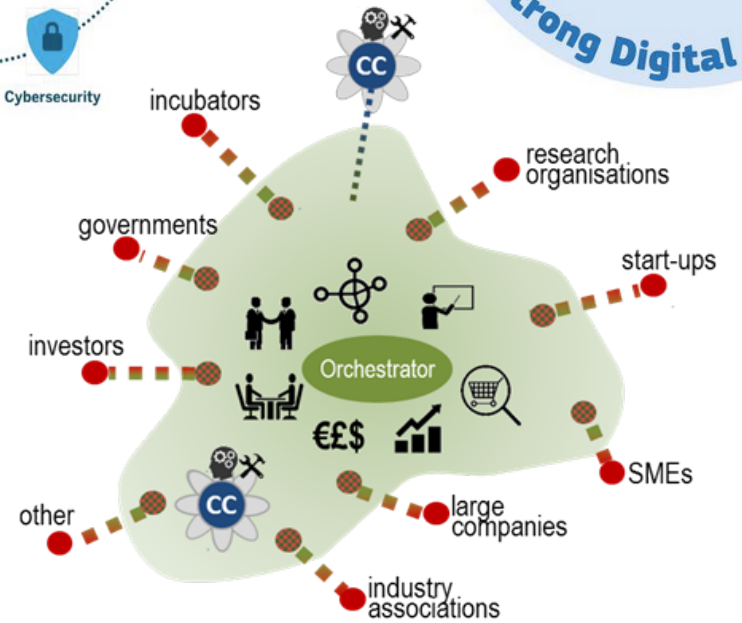
- Projets « traditionnels » IA (et un peu RIA)
- Les Projets DIH
- Les projets « Plateformes »
- Appels NGI (voir présentation Julia)

DIH

Objectifs:
➔Diffuser les connaissances
➔Offrir des compétences et de moyens







DT-ICT-05-2020: Big Data Innovation Hub

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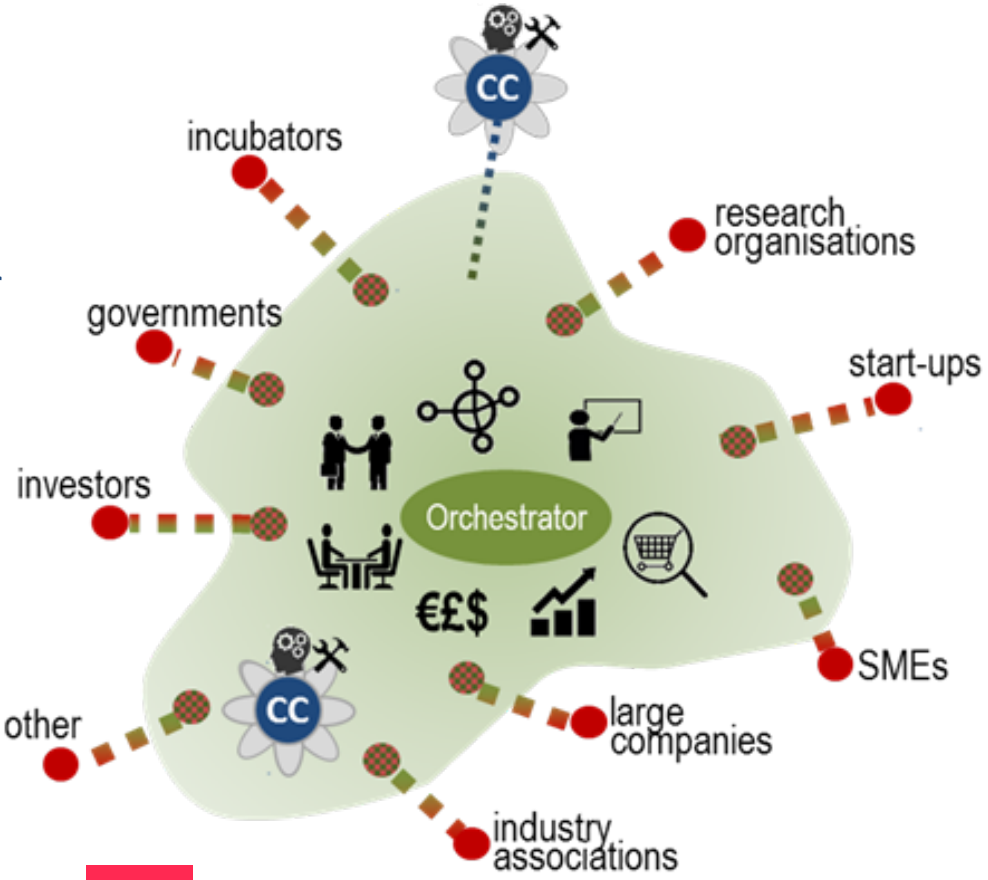
✪ To be defined, call in 2020

A one-stop-shop providing services to companies in the region through a multi-partner cooperation

- Awareness Creation around Digital Technologies
- Innovation Scouting
- Digital Maturity Assessment.
- Visioning and Strategy Development for Businesses:
- Brokering/matchmaking
- Access to Specialist Expertise and Infrastructure
- Mentoring
- Training
- Access to Funding and Investor
- Readiness Services
- Collaborative Research



Plateformes

Objectif: créer des « *B2B operating system* » sur certains secteurs verticaux

Doit réunir plusieurs briques clés:

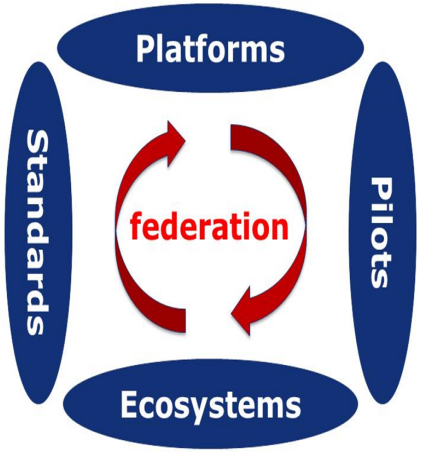
1. infrastructure technologique (e.g. Android)
2. Réseau/place de marché/communauté (e.g. Airbnb)
3. Données (e.g. webmethods)

Plusieurs étapes clés:

1. Intégration de la plateforme (*Interoperability frameworks; Reference, architecture*)
2. *LS piloting (labs and test beds)*
3. Développement des écosystèmes
4. Etablissement de standards mondiaux

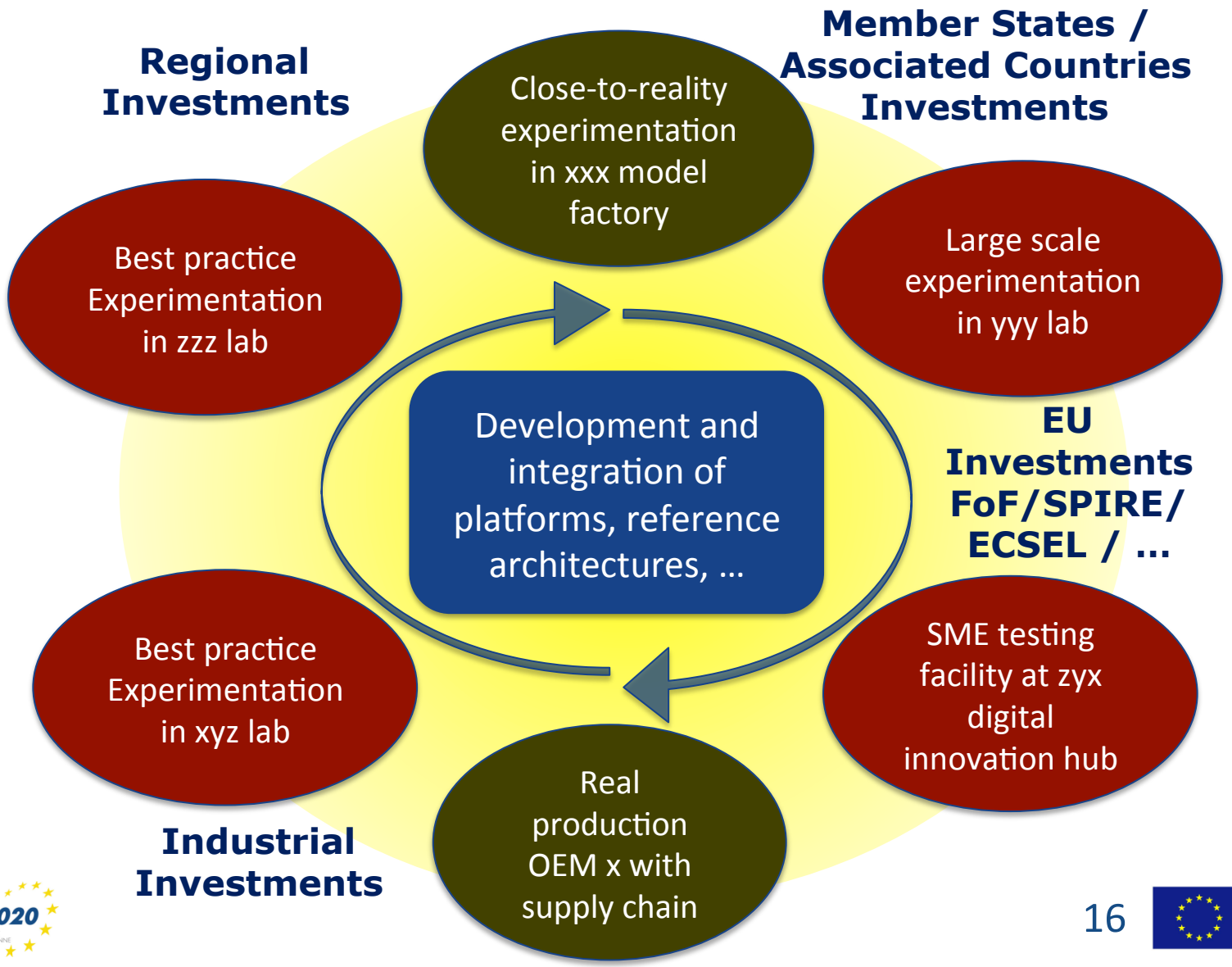
Réutiliser et intégrer des initiatives existantes!

Objectifs:
- Promouvoir l'adoption de plateformes européennes
- Diffuser l'innovation dans des secteurs traditionnels



Digital Industrial Platforms

Cooperation with other initiatives



WP 2018-2020

Platforms and Piloting

European Commission

DT-ICT-07-2018-2019: Digital Manufacturing Platforms

- 2018: Agile Value Networks: Lot-size One
- 2018: Zero-defect Processes and Products
- 2019: Machines & Human Competences
- 2019: Sustainable Value Networks

2018: 48 M€
2019: 47 M€

DT-ICT-08-2019: Agricultural Digital Integration Platforms
30 M€

DT-ICT-09-2020: Digital Service Platforms for Rural Economies
30 M€

DT-ICT-12-2020: Smart Hospital of the Future
25 M€

DT-TDS-01-2019: Smart and Healthy Living at Home
60 M€

DT-ICT-10-2018-2019: Interoperable and Smart Homes and Grids
30 M€

DT-ICT-11-2019: Big Data Solutions for Energy
30 M€

Cross-cutting issues, IoT, Big Data, Security…

DT-ICT-13-2019: Digital Platforms/Pilots Horizontal Activities, 4 M€
Including Preparation of a digital industrial platform for the construction sector, 1 M€

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Next Generation Internet
NGI

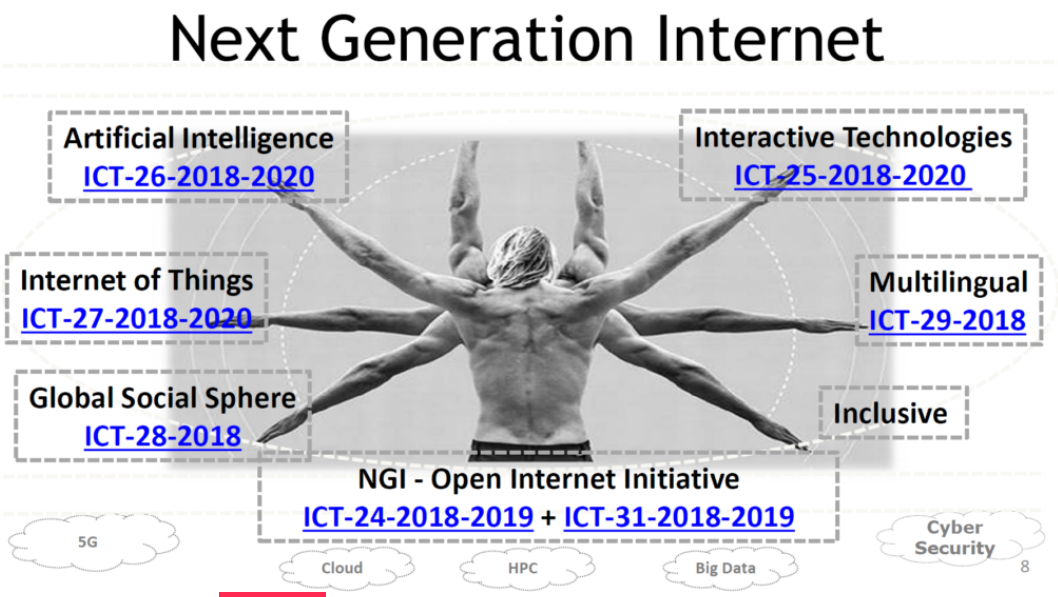
NEXT GENERATION INTERNET

https://www.ngi.eu

cap·digital Paris Region

National Contact Point NGI

*« Faire de **l'internet du futur** un écosystème de plates-formes interopérables qui **incarne les valeurs chères à l'Europe** : ouverture, inclusion, transparence, vie privée, coopération et protection des données. »*



Open Calls

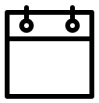
NGI Discovery and NGI PET by NLNet Foundation

➔www.nlnet.nl/discovery

2 thèmes

Technologies de protection de la vie privée et d'amélioration de la confiance

Recherche et découverte de la prochaine génération
(les données doivent être décentralisées et accessibles à tous)



Clôture de l'appel 01/02/2019

Tous types de candidats, chercheurs, individuels, PME

Les candidats peuvent candidater plusieurs fois jusqu'à 200k€ de financements.

NEXT GENERATION INTERNET

Open Calls

LEDGER FundingBOX

➔www.ledgerproject.eu

Un programme pour les entrepreneurs d'une durée maximale de 12 mois avec des mentors, des vouchers technologiques, des formations et des journées de démonstration.

Un chercheur expert en résidence pour accompagner les équipes sélectionnées tout au long du programme.

Accès au marché et soutien pour augmenter les investissements pour les meilleurs projets de la classe.

Jusqu'à 200k€

Pour les entrepreneurs.e.s qui ont des solutions permettant de résoudre des problèmes à l'aide de **technologies décentralisées** telles que **la blockchain, de pair à pair ou distributed ledger technologies**.

Ouverture de l'appel : février 2019
Clôture de l'appel : 01/04/2019

Open Calls

NGI Trust GEANT

➔https://www.ngi.eu

3 types de projet

- « Viability » jusqu'à 100k€ aucun co-financement
- Realisation jusqu'à 200k€, 1/3 de co-financement
- Transition vers la commercialisation jusqu'à 200k €, 50% de co-financement

Les projets pourront bénéficier **d'une aide supplémentaire** sous la forme d'**un coaching technique** ou d'un **mentorat**.

Ouverture des appels : 01/02/19 et 01/02/20

Entreprises

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