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PCN - Horizon2020

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Rappel des règles de participation

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Rappel Horizon 2020

- Horizon 2020 dans le paysage national
- Structure du programme et budget
- Règles de participation

Spécificités du programme LEIT/ICT

EIC Pilot

Horizon 2020: un programme majeur pour les ressources externes des équipes FR

Programmes (pérennes) de financement non-récurrent des équipes nationales de RDI entre 2014 et 2017 (en M€/an)

Règles de base:

- Collaboratif: min. 3 part. de 3 pays (sauf Instrument PME et ERC)
- Taux attractifs
  - Assiette = 125% des coûts directs
  - Sub = 70%/100% de l'assiette
- Contractualisation sous 8 mois

- Répondre à un WP!

H2020 FUI ANR

Taux de retour FR de 11% vs. potentiel de ~16%
Soit un potentiel d'~450 M€/an additionnel!

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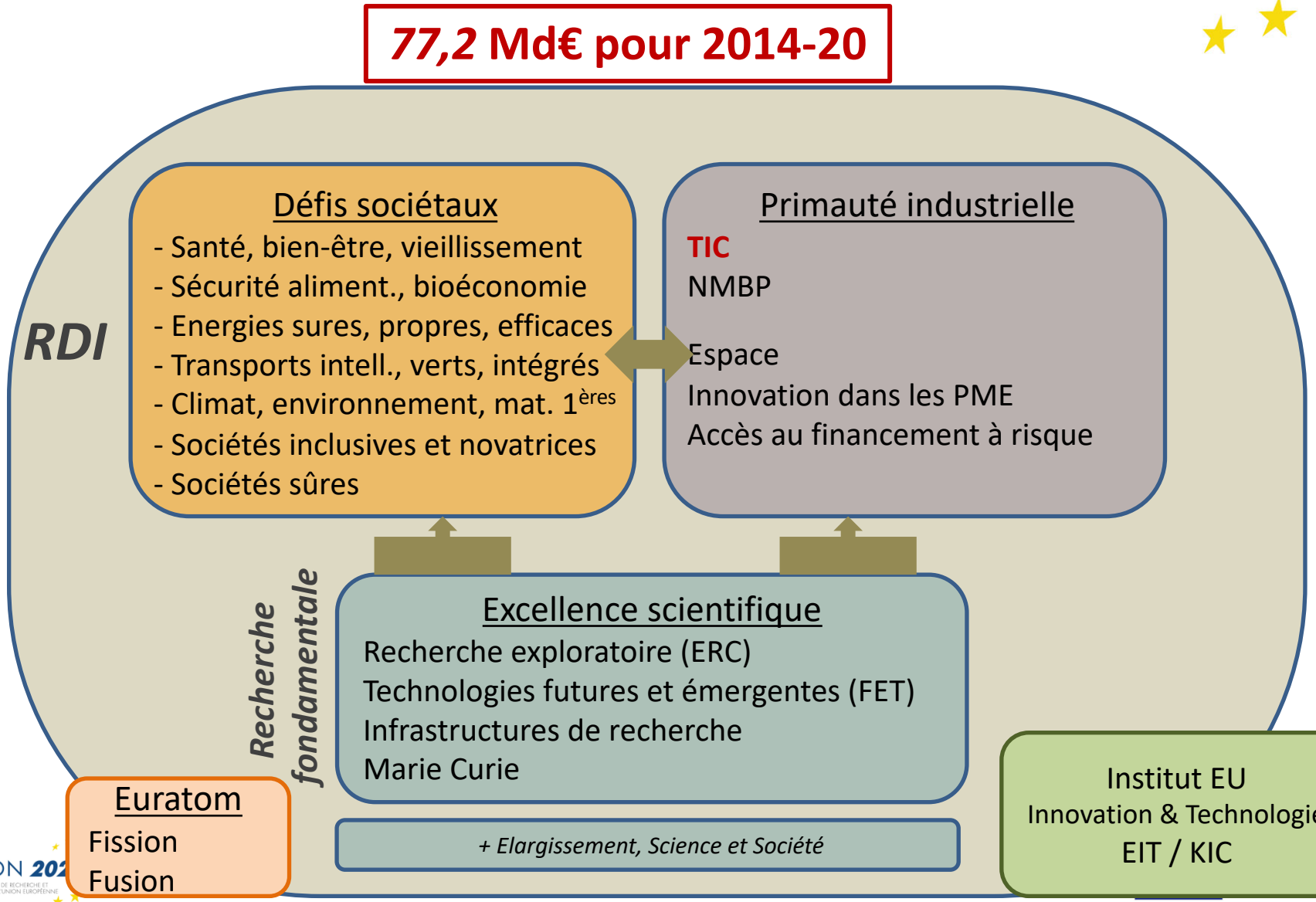
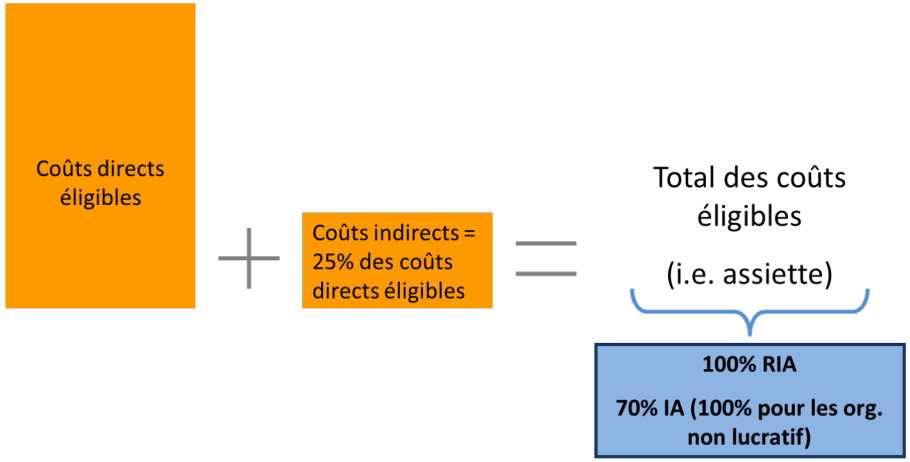
Horizon 2020: architecture



Horizon 2020: les règles de base

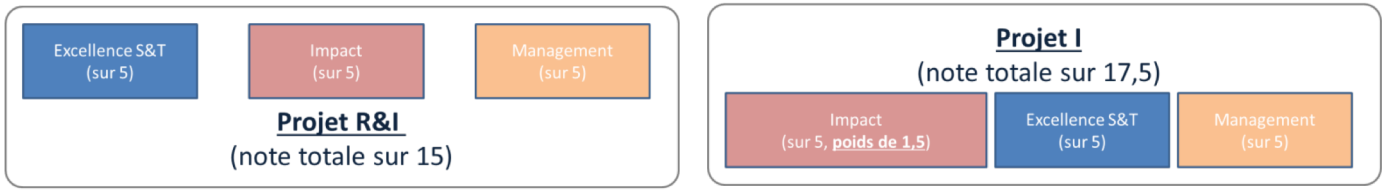
0. Des projets collaboratifs européens (min. 3 partenaires de 3 pays)

1. Taux



A comparer aux taux nationaux !

2. Critères



3. Quelques autres « instruments »:

- PCP and PPI
- SME instrument, bourses (ERC, MSCA)
- *Fast Track to innovation (FTI)*

4. « *time-to-grant* » garanti!

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Quelques chiffres clés (appels 2018)

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Propositions soumises

- 774 propositions éligibles dont 365 à participation FR (47%)
- 5,3 Md€ demandés dont 536 M€ demandés par FR (10%)
- 9101 participations dont 735 FR (8%)
- 3920 participants dont 358 FR (9,1%)
- 53 coordinations FR (6,8%)

Projets retenus

- 125 projets retenus dont 76 à participation FR (60%)
- 1,3 Md€ distribués (tx de succès: 24%!!) dont 182 M€ à des partenaires FR (14,4%)
- 1757 participations dont 197 FR (11%)
- 1355 bénéficiaires dont 139 FR (10,2%)
- 8 coordinations FR (6,4%)

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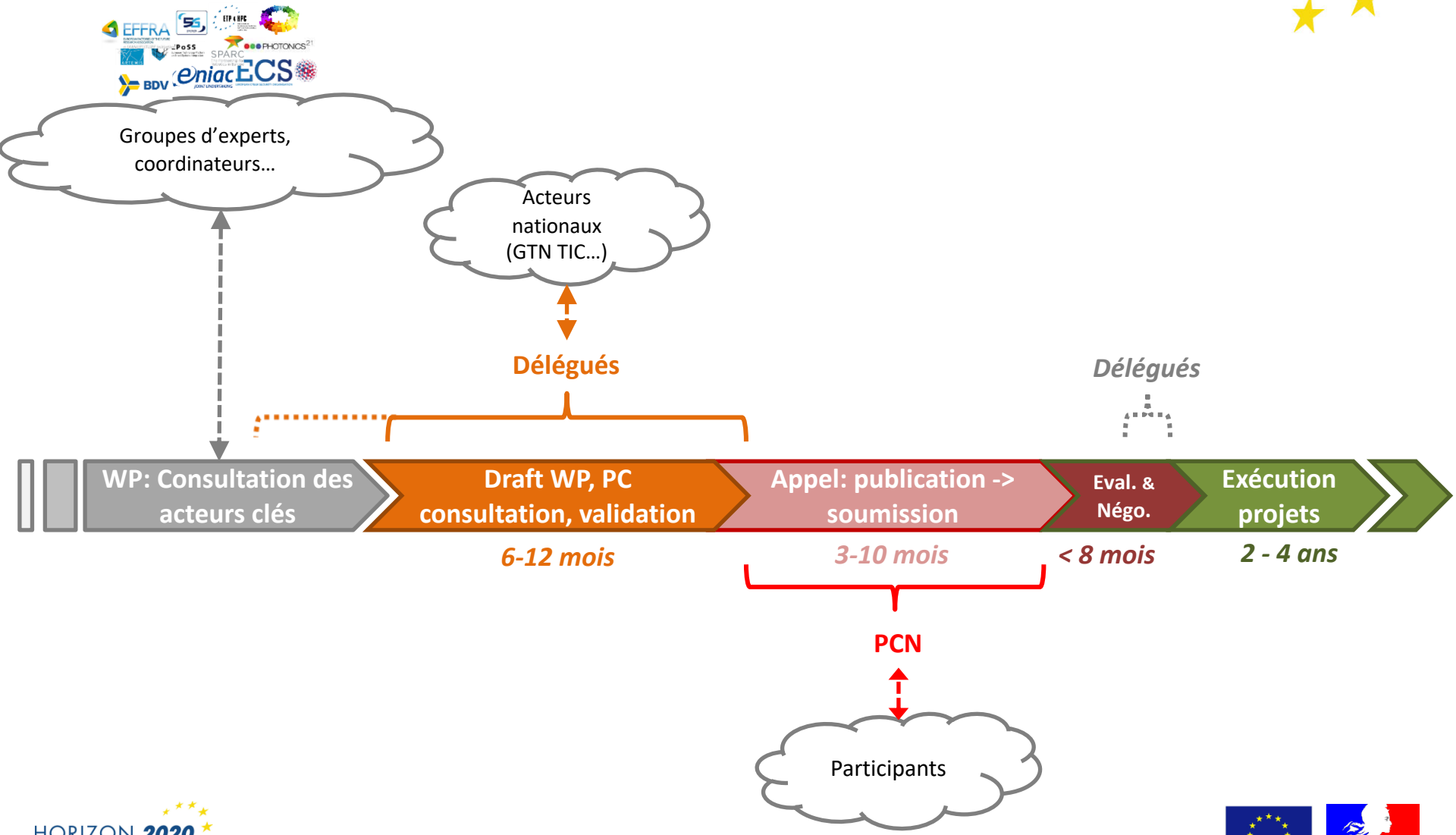
Mise en œuvre H2020:
Le mécanisme des appels à propositions



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Une programmation par l'industrie: cPPP

TIC

FP7 H2020

Depuis 2017: Soutien ANR sur les bas TRL

eniac JOINT UNDERTAKING · EPoSS European Technology Platform on Smart Systems Integration · ARTEMIS · ECSEL JU

FUTURE INTERNET PPP & SME ACCELERATOR → Expansion of use cases

NETWORKING R&D → 5G PPP

IoT

ADVANCED COMPUTING → ETP 4 HPC THE EUROPEAN TECHNOLOGY PLATFORM FOR HIGH PERFORMANCE COMPUTING

CONTENT TECHNOLOGIES & INFO MANAGEMENT → BDV

ROBOTICS R&D → SPARC Robotics in Europe

PHOTONICS R&D → PHOTONICS21

FACTORY OF THE FUTURE → EFFRA EUROPEAN FACTORIES OF THE FUTURE RESEARCH ASSOCIATION a MANUFUTURE initiative

Cyber ECS EUROPEAN CYBER SECURITY ORGANISATION

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Exemple SRIA

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5.i. Information and Communication Technologies

DRAFT

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Comment lire une ligne d'appel

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ICT-21-2016: Support technology transfer to the creative industries

Sujet - Année de l'appel

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

Défi à relever

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

Scope: **Innovation Actions**

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

Périmètre de l'action

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

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

Budget indicatif du projet

Expected Impact:

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

Impacts attendus

Type of Action: Innovation action

Type d'action financée

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

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

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

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

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

- **Towards platforms and ecosystems:** Prepare reference architectures and platforms

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

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

Types of action:

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

Conseil européen de l'innovation : Financement d'innovation de rupture de leur émergence jusqu'à leur déploiement

Soutien aux innovations de nature radicale et disruptive ayant un potentiel d'expansion qui sont trop risquées pour les investisseurs privés

Conseil européen de l'innovation

Aider les innovateurs à créer les marchés du futur, à mobiliser des fonds privés, à développer leurs sociétés,

Gestion et suivi proactifs, centrés sur l'innovation, agiles et qui sous-tendent la prise de risques

Réorganisation d'instruments existants avec deux instruments complémentaires comblant l'écart entre l'idée et le projet dans lequel il est possible d'investir

Bas TRL : Pathfinder

Pathfinder : subventions
(des premiers stades de développement technique aux stades précédant la commercialisation)
Programmes FET

Haut TRL : Accelerator

l'Accélérateur :
subventions et financement mixte
(des stades précédant la commercialisation à l'introduction sur le marché et à l'expansion)
Instrument PME phase 2 et 3

❑ **Gouvernance: EIC Advisory Board**

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Enhanced EIC Pilot

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Pathfinder = FET Open + Proactive

Accelerator = SMEINSTR2 + Blended finance

- Subvention 0,5m€-2,5m€ / 70% (phase 2 : 2019-2020)
- Option capital risque à partir de septembre 2019 jusqu'à 15m€: option à cocher
- TRL 6-8 : subvention phase 2
- TRL 6-9+: subvention phase 2 + capital risque
- Accompagnement(coaching) : levée de fonds / export / mise en relation grands groupes

Enhanced EIC Pilot

Financement mixte ("*Blended Finance*") mis en œuvre dans le cadre de l'Accélérateur:

Financement TRL 5/6 to 8 d'un projet sélectionné	Financement TRL 9 d'un projet sélectionné
Subvention représentant jusqu'à 70% du budget pour les activités de recherche et d'innovation (principes de la politique de concurrence); sans limitation à € 2,5 M comme c'est actuellement le cas avec l'instrument PME phase 2	Prise de participation au capital ("*Equity shares*")
Prise de participation au capital ("*Equity*")	

Accelerator / SME Instrument

Evaluation

- Excellence (33%) : innovation, achieved results, commercial aspects, regulatory aspects, innovation management…
- Qualité, efficacité mise en oeuvre, risques (33%): team, organizational-financial and legal aspects, IPR, major focus on how the team will drive the compaany all the way to the global stage
- Impact(33%): market opportunities, organizational-financial and legal aspects, high impacts in term of jobs, growth and social impact

Projets acceptés : Innovation significative, projet risqués mais crédibles, trajectoire de croissance importante, opportunités de marché +++, impact important à l'international

- Le SPV analysera :
  - Effort financier pour déployer l'innovation sur le marché
  - Données financières, structure de capital, la gouvernance de l'entreprise
  - Qualité et risques liés aux contrats dans lesquels l'entreprise est impliquée
  - Futurs revenus de l'équity, types de participation, tranches d'investissement

En pratique pour 2019 2020

- **Dates dépôts Phase 1**
  - 07 May 2019
  - 05 September 2019

- **Dates dépôts phase 2**
  - 05 June 2019 – Subvention
  - 09 October 2019 – Subvention + option capital
  - 08 January 2020 – Subvention + option capital
  - 18 March 2020 – Subvention + option capital
  - 19 May 2020 – Subvention + option capital
  - 07 October 2020 – Subvention + option capital

Merci de votre attention !

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