



Villes durables et bâtiments Dans les programmes : Energie, NMBP, TIC, Sécurité

Journée sur les financements européens pour
la R&I pour la ville durable et intelligente

Paris, le 10 novembre 2017

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Ville et bâtiments dans Horizon 2020

Excellence scientifique

ERC
(13,1 Mds€)

Actions Marie Skłodowska-Curie
(6,2 Mds€)

FET
(2,7 Mds€)

Infrastructures
(2,5 Mds€)

24,4 Mds€

Primauté industrielle

TIC
(7,6 Mds€)

NMP + Biotechs
(4,3 Mds€)

Espace
(1,7 Mds€)

Accès au financement à risque
(2,8 Mds€)

Innovation PME
(0,6 Md€)

17 Mds€

Défis sociaux

Santé, bien être et vieillissement
(7,5 Mds€)

Sécurité alimentaire, bioéconomie
(3,9 Mds€)

Energies sûres, propres, efficaces
(5,9 Mds€)

Transport intel., verts, intégrés
(6,3 Mds€)

Climat, env., matières premières
(3,1 Mds€)

Sociétés inclusives et novatrices
(1,3 Md€)

Sociétés sûres
(1,7 Md€)

29,7Mds€

Efficacité énergétique
Réseau/Stockage
Smart Cities

Euratom

Institut européen d'innovation et de technologie (EIT)

Centre de recherche commun (JRC)

Diffusion de l'excellence et élargissement / Science



Programme Energie

Smart Cities and Communities SCC-1-2018-2019-2020

= Lighthouse projects (IA)

- Consortia de 2 villes phares + au moins 5 villes suiveuses.
- La ville phare doit avoir validé i) Sustainable Energy Action Plans (SEAP) ou ii) Sustainable Energy (and Climate) Action Plans (SECAP) or iii) a similar, at least equally ambitious, plan.

2014

GROWSMARTER
Köln, Barcelona, Stockholm
& Graz, Cork, Valletta, Porto, Suceava

REMOURBAN
Valladolid, Tepebaşı, Nottingham
& Seraing, Miskolc

TRIANGULUM
Eindhoven, Stavanger, Manchester
& Prague, Leipzig, Sabadell

2015

REPLICATE
San Sebastián/Donostia, Firenze, Bristol
& Lausanne, Essen, Nilufer

SHAR-LLM
Milano, Lisboa, London (Greenwich)
& Burgas, Bordeaux, Warsaw

SMARTENCITY
Sønderborg, Tartu, Vitoria/Gasteiz
& Asenovgrad, Lecce

SMARTER TOGETHER
Wien, München, Lyon
& Sofia, Santiago de Compostela, Venezia, Yokohama,
Kiev

2016

mySMARTlife
Hamburg, Helsinki, Nantes
& Varna, Palencia, Rijeka, Bydgoszcz

RUGGEDISED
Rotterdam, Úmea, Glasgow
& Brno, Parma, Gdansk

2017

STARDUST
Pamplona, Tampere, Trento
& Cluj-Napoca, Derry, Kozani, Litoměřice

IRIS
Utrecht, Göteborg, Nice Côte d'Azur
& Vaasa, Alexandroupolis, Santa Cruz de Tenerife, Focșani

MatchUP
Valencia, Dresden, Antalya
& Ostend, Herzliya, Skopje, Kerava



Challenge

- **COP21, EU Energy/Climate goals**
- **Role of cities**
- Necessary **energy transition in cities**
- Increase **energy systems integration** and to push **energy performance levels** significantly

Scope

- Deploy and test integrated innovative solutions for **Positive Energy Blocks/Districts** in the Lighthouse Cities.
- Carry out extensive **performance monitoring** (ideally for more than **2 years**)
- **Interaction and integration** between the **buildings**, the **users** and the larger **energy system**.
- Implications of increased **electro-mobility**, its impact on the energy system and its integration in planning.

Projects should also deliver:

- **Effective business models** for sustainable solutions
- **Practical recommendations** arising from project experience on:
 - regulatory, legal aspects and **data security/protection**;
 - gender and socio-economics (Social Sciences and Humanities);
 - **storage** solutions (from short-term to seasonal);
 - **big data**, data management and digitalisation;
 - **electro-mobility**: i) its **impact** on energy system and ii) appropriate **city planning** measures to support large scale roll-out;

Eligible costs

- are primarily those that concern the **innovative elements**

Non eligible costs

- Costs of commercial technologies are **not eligible**, for example building purchase, retrofitting, electric vehicles, charging stations, etc.

Cooperation

- Projects are expected to cooperate with **other Smart Cities and Communities projects** funded under Horizon 2020 as well as the **European Innovation Partnership on Smart Cities and Communities** (EIP-SCC).
- earmark appropriate collaboration resources (5% of the requested EU contribution)

Expected Impact

- **Meeting EU climate mitigation and adaptation goals** and national and/or local energy, air quality and climate targets, as relevant;
- Significantly increased share of i) **renewable** energies, ii) waste **heat recovery** and iii) appropriate **storage** solutions (including batteries) and their **integration** into the energy system and iv) **reduce greenhouse gas emissions**;
- Lead the way towards wide scale roll out of **Positive Energy Districts**;
- Significantly **improved energy efficiency**, district level optimized **self-consumption**, reduced curtailment;
- Increased uptake of **e-mobility** solutions;

Research and Innovation
Action
EU funding per project
12 - 18 MEur
2018: 40 MEur

**Submission
deadline:**
05 April 2018

Programme Energie

Démonstrations locales

Réseaux intelligents et stockage de l'Energie



ES-3
Integrated
Local Energy
Systems

2018 - 2020
Demo

ES-8
European
Island Facility
financing and
investments

2019
Support

ES-4
Decarbonising
Energy
systems of
Islands

2018-2020
Demo



Programme Energie

- EE-1 -2018-2019-2020 : Decarbonisation of the EU building stock: innovative approaches and affordable solutions changing the market for buildings renovation (IA)
- EE-2 – 2018-2019 : Integrated home renovation services (CSA) (possible un seul participant)
- EE-4 – 2019-2020 : Upgrading smartness of existing buildings through innovation for legacy equipment (IA)
- EE-11-2018-2019-2020 : Aggregation - Project Development Assistance (CSA) (possible un seul participant)
- EE-16-2018-2019-2020 : Supporting public authorities to implement the Energy Union (CSA)
- EE-17-2019 : European City facility - European Cities as key innovation hubs to unlock finance for energy efficiency (CSA) (possible un seul participant)

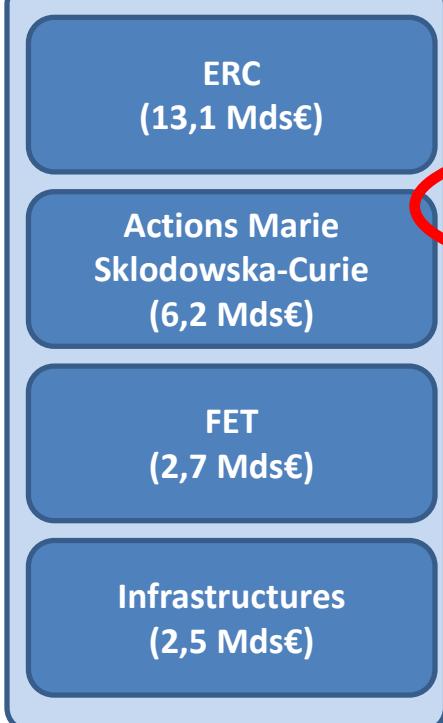


Programme Energie

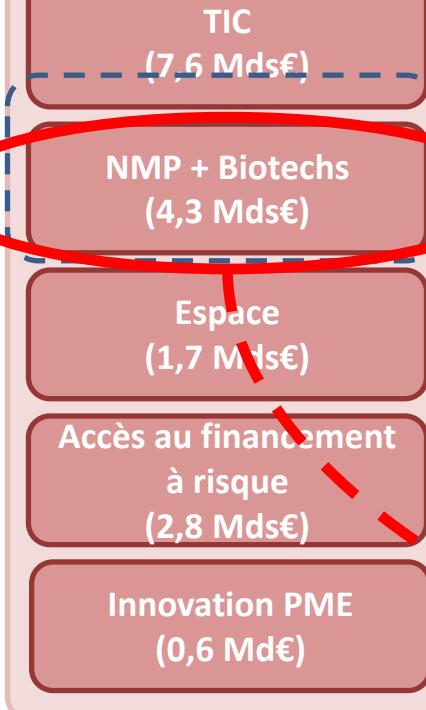
- EC-1-2018-2019-2020 : The role of consumers in changing the market through informed decision and collective actions (CSA)
- EC-2-2018-2019-2020 : Mitigating household energy poverty (CSA)
- EC-3-2020 : Consumer engagement and demand response (CSA)

Ville et bâtiments dans Horizon 2020

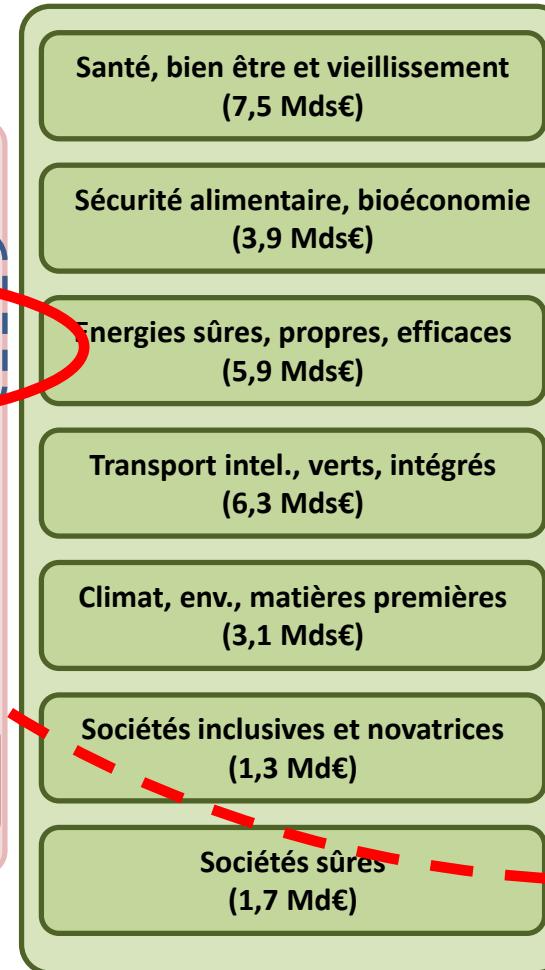
Excellence scientifique



Primauté industrielle



Défis sociaux



EeB = Energie Efficient Building
NMP = Euratom



Programme NMBP

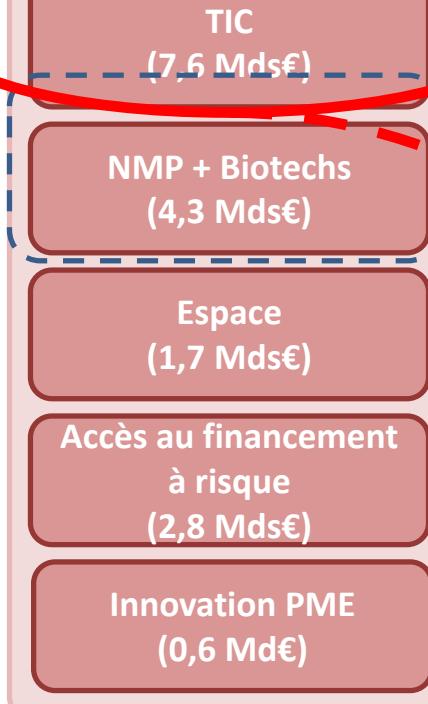
- LC- EeB 01 L'intégration des matériaux intelligents dans les bâtiment tertiaires (IA)
- LC-EeB 02 : Building information modelling adapted to efficient renovation (RIA)
- LC- EeB 03 Les innovations dans le domaine des maisons à énergie positive (IA)
- LC- EeB 05 Les systèmes de stockage d'énergie intégrés dans les bâtiments résidentiels (IA)
- NMBP-33-2018: Innovative and affordable solutions for the preventive conservation of cultural heritage (IA)

Ville et bâtiments dans Horizon 2020

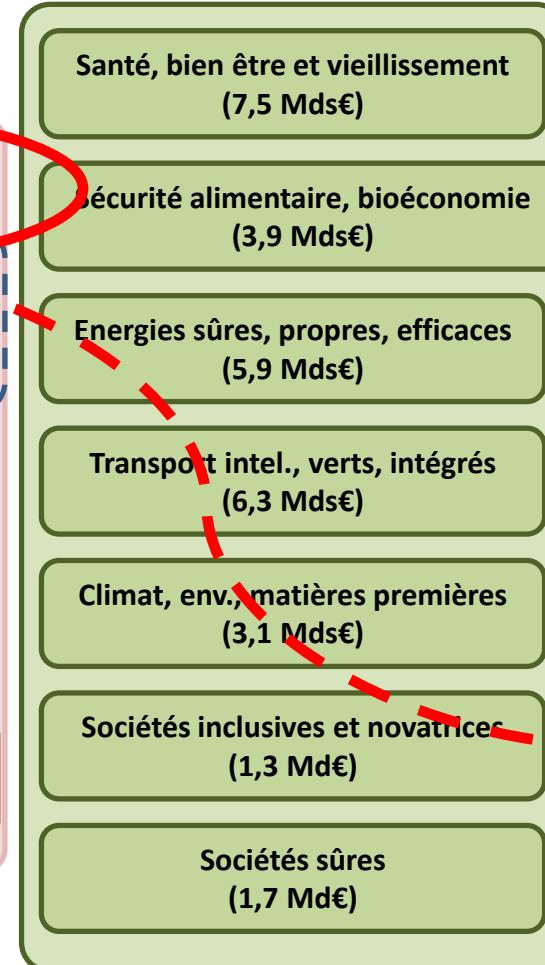
Excellence scientifique



Primauté industrielle



Défis sociétaux



Euratom



Programme TIC

- DT-ICT-10-2018-19 (IA): Interoperable smart homes and grids
- DT-ICT-11-2019 (IA): Big data solutions for energy

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Sécurité des villes et infrastructures

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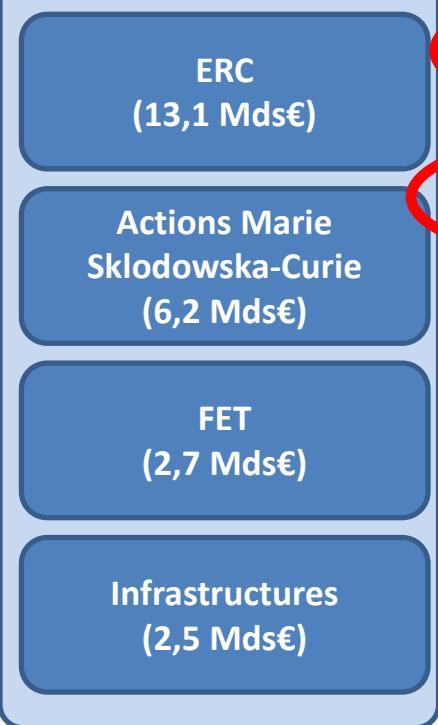


Programme Sécurité

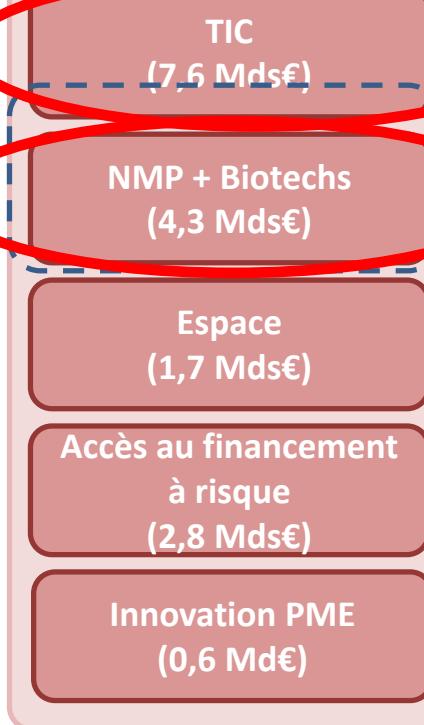
- SU-DS04-2018-2020 (IA): Cybersecurity in the Electrical Power and Energy System:
- SU-INFRA02-2019: Security for Smart Cities and "soft" targets in Smart Cities
- SU-INFRA01-2018-2019-2020: Prevention, detection, response and mitigation of combined physical and cyber threats to critical infrastructure in Europe
- SU-DRS01-2018-2019-2020: Human factors, and social, societal, and organizational aspects for disaster-resilient societies
- SU-DRS03-2018-2019-2020 Pre-normative research and demonstration for disaster resilient societies - Sub-topic 1: [2018] Pre-standardisation for the security of water supply

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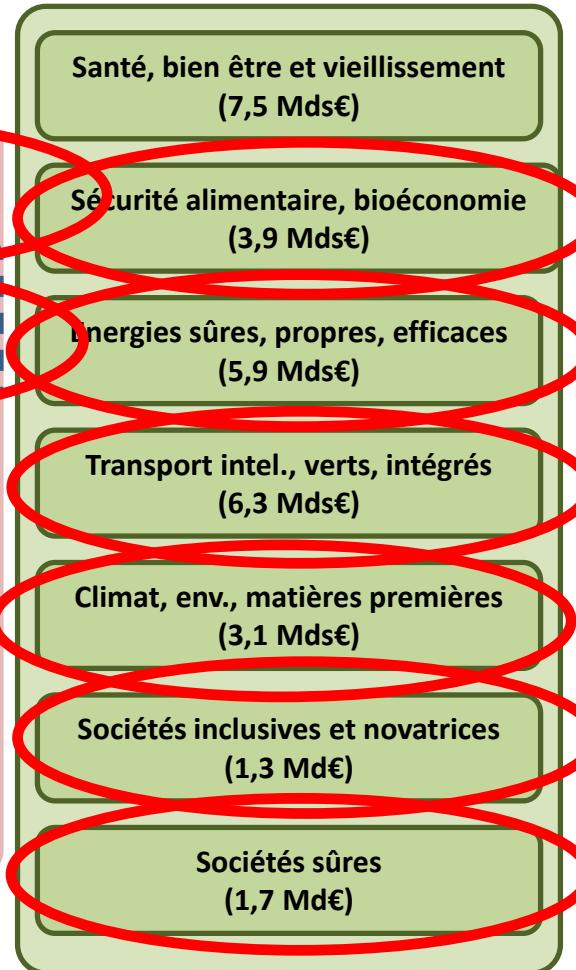
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