



FRENCH 6G R&D IN THE ACCELERATION STRATEGY FOR 5G & FUTURE NETWORKS TECHNOLOGIES

02/2023

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Contact : strategie-acceleration-5g.dge@finances.gouv.fr

Presented by: Prof. Hakima Chaouchi, French Ministry of High Education and
Research

French Acceleration Strategy on 5G & Future Network Technologies



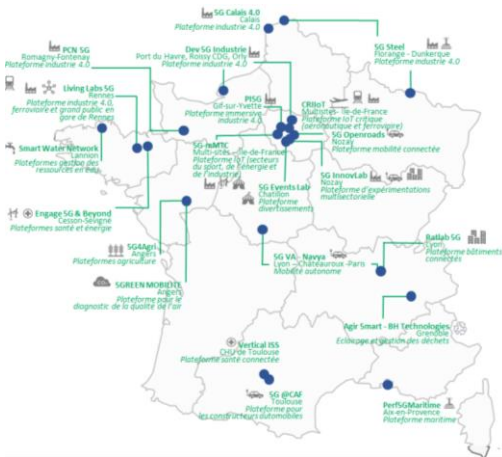
- Focused on 5G and **future telecommunications network technologies such as 6G**
- **Launched in 2021** by the French Ministry of Economy, Finances and Industrial and Digital Sovereignty
- **Coordinated at national level by the Directorate-General for Enterprise/Ministry of Economy and Finance**, in collaboration with other competent ministries, government agencies and the national telecoms regulatory authority (ARCEP)
- **Public support: €735M by 2025**
- By leveraging private investment, the ambition is to **reach €1.7B of total investment** by 2025
- **Head of Telco Network Technologies Unit at DGE : Marc Jamet**

Ministry of Economy, Finances & Industrial and Digital Sovereignty (DGE)



Projects launched so far :

#1 – New use cases



1 CFP 5G and B5G Experimentation

21 experimental platforms
 163 M€ of investment
 62 M€ of public support

#2 – Sovereign & innovative solutions

2 French-German CFPs on 5G private networks



20 M€ - 8 projects

27 companies/entities supported
 Create a European 5G Ecosystem

3 CFP Innovative Solutions for 5G and B5G

75 M€ of investment – 23 projects
 46 M€ of public support
 41 companies supported
 RAN, core, edge, private networks

4 IPCEI Microelec & Connectivity

~100 M€
 20 companies supported

#3 – R&D

5 PEPR 5G and future networks (Priority Research & Equipment Progr.)

Academic Research on 6G
 Agile network architectures, interoperability of heterogeneous systems, signal processing algorithms, advanced & intelligent hardware

CFP Innovative Solutions (R&D on B5G, 6G and future networks)

221 M€ of investment - 11 projects
 66 M€ of public support
 17 companies/entities supported
 6G, cyber, backhaul, submarine networks

6 CFP 5G and 6G and Future networks technology transfer and Maturation

Patent Factory Project

#4 – Training

7 EDEC (Diagnosis to anticipate the HR needs of the sector)

0,6 M€

Initiatives linked to 6G in the Strategy



#3 – R&D

#4 – Education

1 **CFP Sovereign & innovative Solutions (R&D B5G, 6G, Future Networks)**
projects already launched on B5G and 6G

2 **PEPR 5G and Future networks (Priority Research & Equipment Progr.)**

Academic research on B5G, 6G and future networks
Agile network architectures, interoperability of heterogeneous systems, signal processing algorithms, advanced & intelligent hardware

3 **CFP Skills & Professions of the Future**
Budget : TBD

Projects to design academic training courses of the future in the field of telecoms

4 **CFP Innovative Solutions (R&D B5G, 6G, Future Networks)**
~ 200 M €

- To support research projects on B5G, 6G and future networks
- To anticipate the emergence of 6G

Strong research and technological Links with 6G research and the AI, Cybersecurity, Cloud, MicroElectronics French national strategies.

5 **France 6G** 

Ministry of Economy & Ministry of Research are creating a national coordination of the ecosystem to connect all 6G projects in France

France : 6G in Europe

French actors are key partners of main EU projects on 6G



France takes part in international and regional collaborative research projects on 6G

27% of the partners involved in these European projects on 6G are french

RISE-6G

Reconfigurable Intelligent Sustainable Environments for 6G Wireless Networks

Leader



Partners



Duration : 01/01/2021-31/12/2023

Hexa-X

A flagship for B5G/6G vision and intelligent fabric of technology enablers connecting human, physical, and digital worlds

Leaders



Partners



Duration : 01/01/2021-31/06/2023

Dedicat 6G

Dynamic coverage Extension and Distributed Intelligence for human Centric applications with assured security, privacy and trust: from 5G to 6G

Leader



Partners



Duration : 01/01/2021-31/12/2023

6G Brains

Bring Reinforcement-learning Into Radio Light Network for Massive Connections

Leader



Partners



Duration : 01/01/2021-31/12/2023