



Institut Mines-Télécom

INSTITUT MINES-TELÉCOM



AND ITS RESEARCH & INNOVATION ECOSYSTEM

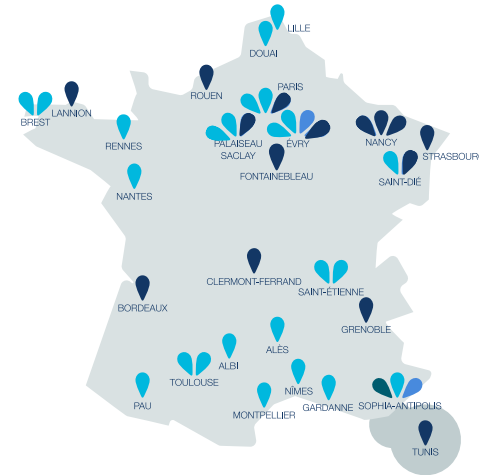
Françoise PRÊTEUX, **Hakima CHAOUCHI**, Marc Delage, Ivan Messeguer
Presented by Hakima.Chaouchi@imt.fr
Brokerage event 6G-IA/JU SNS January 25th 2024 (Online)




January 25, 2024

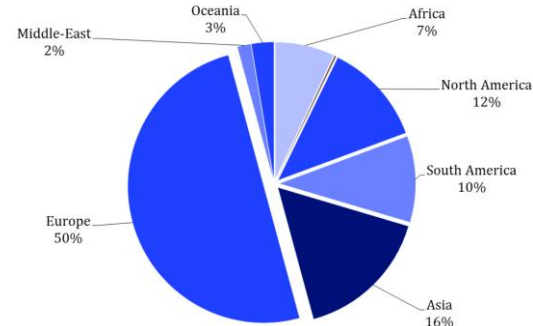


- ▶ Under the tutelage of the Ministry of *Economy, Finance, Industrial and Digital Sovereignty*
- ▶ N°1 public Institute of Technology in France, with territorial anchorage
- ▶ Together, to imagine and build a sustainable future and train its actors
- ▶ Partner-orientated research



- ▶ 1st public network of incubators supporting entrepreneurship & scaleups
- ▶ International influence



-  **8** Engineering & management graduate schools
-  **2** Subsidiary schools
-  **15** Affiliated schools





1 100

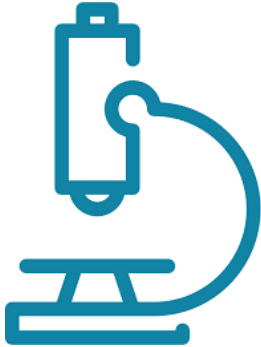
Professors & researchers

13 250

Students

5 000

Degrees awarded/Yr



2 000

Rank A publications

60

Research chairs

1 000

PhD students/Yr



9 000

Industry partnerships

20

Joint labs with industry

35

Technological platforms

Top 10

Patent applicants
of HERI institutions



11

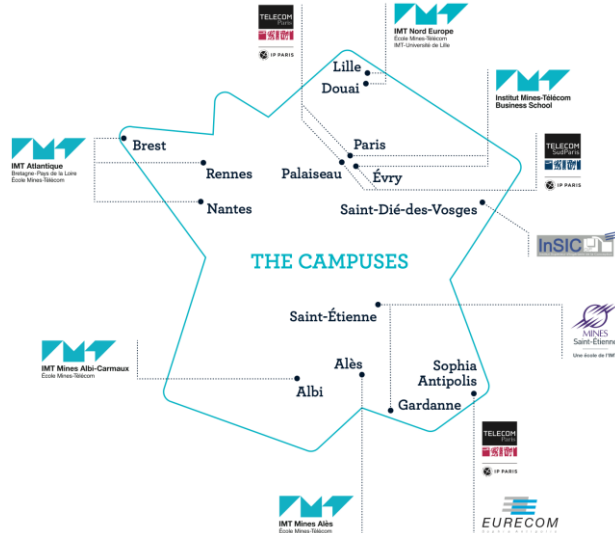
Startup incubators

70

Startups created / Yr

80%

5-year survival rate



#1/IMT EDUCATION: 8 SCHOOLS MINES &

TÉLÉCOM

IMT Mines Albi – Albi-Carmaux

IMT Mines Alès - Alès, Montpellier, Pau

IMT Nord Europe – Douai, Lille

IMT Atlantique – Brest, Nantes, Rennes, Toulouse

Mines Saint-Etienne - Saint-Etienne, Gardanne

IMT Business School - Évry, Paris

Télécom Paris - Paris, Sophia Antipolis, Palaiseau-Saclay

Télécom SudParis - Évry, Palaiseau-Saclay

Eurecom - Sophia Antipolis

INSIC – Saint-Dié

~ 14 000 GRADUATED STUDENTS

~ 1 200 RESEARCHERS

11 INCUBATORS

#3/ IMT Innovation and economical Development

A network of incubators with startups linked to research labs

Innovation industrial partnerships

others

#2/ RESEARCH:

IMT co-pilote with CEA and CNRS of the national academic research program on 5G/6G (PEPR)

IMT Research in Telecom and digital Sciences and Mines sciences:

Research Centre in collaboration with INRIA (PEPR 5G, PEPR Cloud, others)

Collaboration with EURECOM

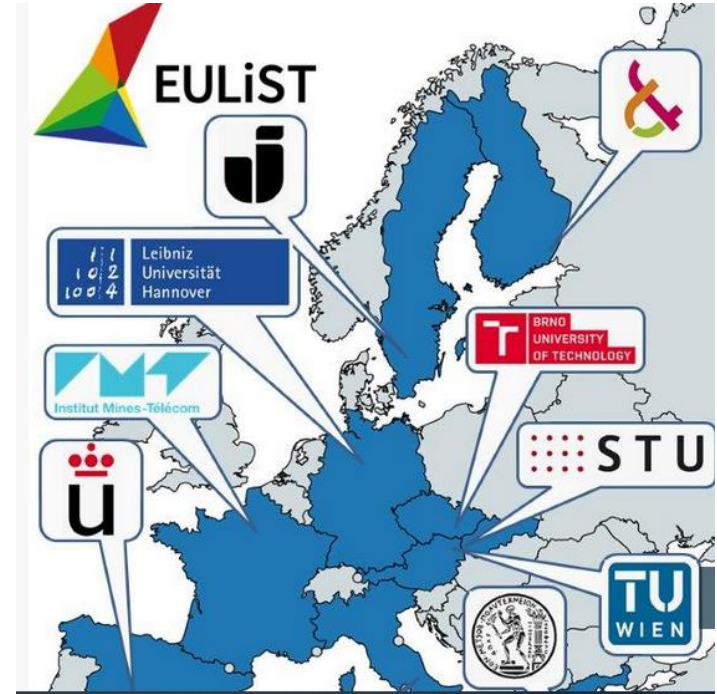
Digital Sustainability

Others

INSTITUT MINES-TÉLÉCOM: IN EUROPE

Member of European Universities Linking Society and Technology (EULiST)

Executive Director: Odile Gauthier



■ IMT is a major actor in large European research programs

- 60 projects in Horizon Europe (40M€),
- 3 ERC Grants.



■ IMT works with major French and European industries in European Public-Private Partnerships (PPP) & is located in Brussels

- Big data (BDVA Association – Big Data Value Association)
- 6G-IA (6G Infrastructure Association)
- Cybersecurity (ECSO – European Cyber Security Organisation)
- Industry of the future (MadelnEurope)
- Alliance for Internet of Things Innovation (AIOTI)
- Joint technological initiative for electronic components and systems (ECSEL / AENEAS)
- Sustainable Process Industry (Process4Planet)
- IMT Member of standardization bodies : ITU, 3GPP, ETSI..



Some topics for SNS Brokerage event

Research Topic 1: AI and 6G

Contact : IMT

WP1 : Distributed AI required for 6G and the use cases

WP2 : Performance optimisation for 6G network using distributed AI

WP3 : Distributed AI for energy efficiency

WP4 : Holistic security and privacy approach using distributed AI

WP5 : Demonstrator and validation of use cases

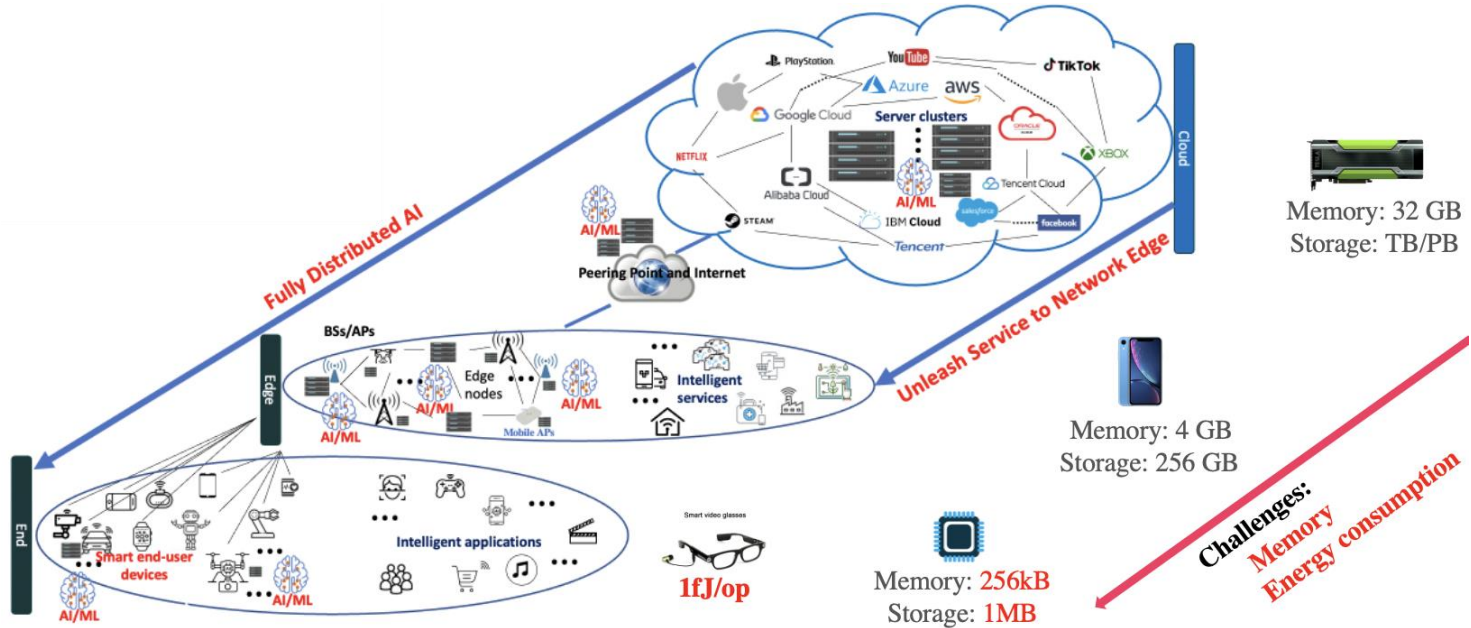


Target Call

Reliable AI for 6G Communications
Systems and Services
HORIZON-JU-SNS-2024-STREAM-B-01-
08

FULLY DISTRIBUTED AND RELIABLE AI FOR 6G

Concept



Some topics for SNS Brokerage event

Research Topic 2: On Flexible and Modular RAN

Contact : IMT, 2 SMEs, Research Infrastructure
hakima.chaouchi@imt.fr

Heterogeneity at the Base Station,

Interchangeable HW for Flexible RAN for interoperability management and Sustainability

Cloud based telco network management

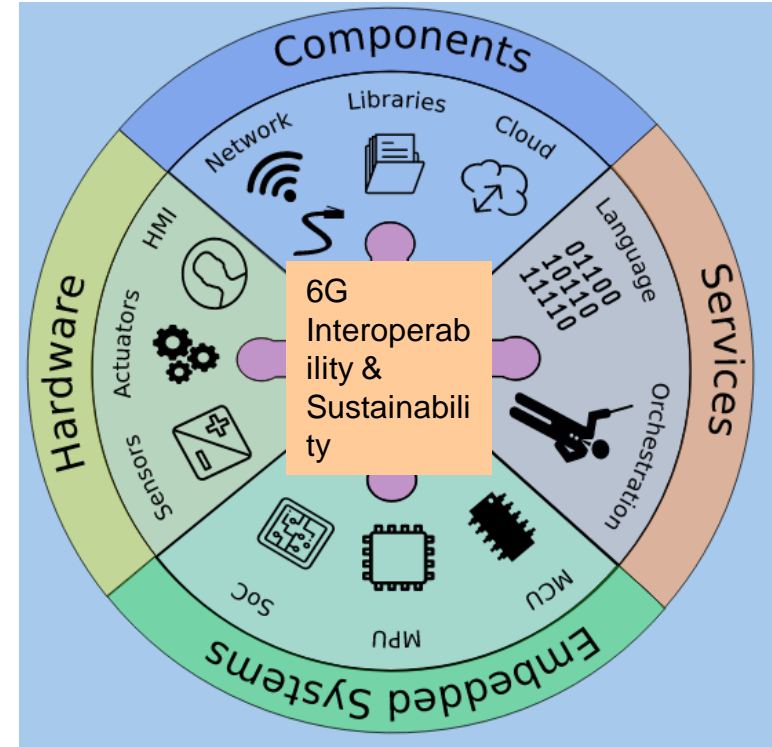
Target calls:

International Collaboration – EU-JP

HORIZON-JU-SNS-2024-STREAM-B-01-05

Sustainability Lighthouse

HORIZON-JU-SNS-2024-STREAM-B-01-07



- 6g and cybersecurity
- New radio interface
- NTN
- JCAS/ICAS
- Interoperability
- Cloud and Edge cloud based 6G architecture design
- Sustainable 6G using modular design
- End to end 6G reliable and resilient architecture
- 6G related verticals research challenges
- Others

