



CNES INITIATIVES TOWARD ECONOMIC DEVELOPMENT



**20th EISC
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Frédéric ADRAGNA**

What is (still) the role of a National Space Agency in 2018, in Europe ?

- 1. Discover Space :** vacuum, weightlessness, radiations, orbits, ...
- 2. Develop suited Technologies :** launcher, satellite PF, payload, ground segment, ...
- 3. Conduct Programs and Operations :** satellite missions, launches, control, ...
- 4. Develop a European Space Industry :** able to answer the market needs, to export, ...

All of this has been done !

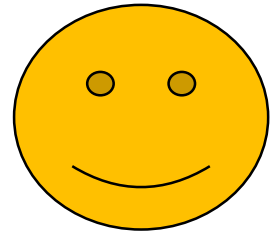
Do we still need a Space Agency ?!?

- 1. Technologies are standards, miniaturised at low cost : nano-sat, ...**
- 2. Launch costs are affordable**
- 3. Democratisation of space solutions : Telecom', GeoLoc, Big data, Cloud, IA ...**
- 4. News actors : the « big » digital actors (GAFA) without any complex regarding use of Space (no more an exclusive sovereign use), ...**

Space is now accessible to everyone !

Do we still need a Space Agency ?!?

The answer is YES !...



DO WE NEED A NATIONAL SPACE AGENCY ?

Yes, at least for :

- **Science : exploration, climate, environment, ...**
- **Upstream : R&D, new technologies, disruptive concepts and infrastructures, ...**
- **Downstream : foster the use of space solutions and space technologies, development of downstream services**

Participating to the Economic Development

CNES actively supports any entity (SMEs, Groups) integrating Space in its innovation

- ❖ a product & service fostering Space data uses
- ❖ disruptive Space Tech changing a paradigm: Nanosat, Space Tug, Active Optics, Electric Propulsion, Generic & transverse novel technologies



Partnering with regional clusters & incubators

- ❖ **End-to end support:** from the initial to the acceleration phase
- ❖ **Aerospace Valley, Safe, ASTech** for Space Tech, etc.
- ❖ **Cap Digital** for Digital, **Lyon Biopôle** for Health, **BOOSTERS** for Space Downstream Apps & Services, etc.

Fulfilling this mission through **CONNECT**, *by CNES* initiative (started in February 2018)

- ❖ Partnership with “**FRENCH TECH**” to be visible among the entrepreneur & startup communities in France
- ❖ Office spaces at **Station F**, the World largest startup Campus (~1200 startups), in Paris
- ❖ At **Station F**, a dedicated team of CNES’ experts advises innovative startups developing novel Downstream Space Applications and Technologies
- ❖ Supportive financing means available through dedicated CNES R&T programs, IAP program and a coming national FR Space seed fund
- ❖ Tech Co-development is possible with start-ups on a case to case basis
- ❖ Regular MasterClasses & Seminars on specific Space topics organised by CNES at **Station F**
- ❖ **Downstream Apps & Services** - markets of interest: **Energy, Mobility, Smart City, Digital, Health & Tourism**
- ❖ **NewSpace** - areas of interest: **Nanosat, AI / Robotics, Stratospheric Tourism (Balloon)**





connect *by* cnes



CNES PLAN TO SUPPORT INFRASTRUCTURE INNOVATION

Innovation program :
objective is to
stimulate the emergence of a
French disruptive Space ecosystem

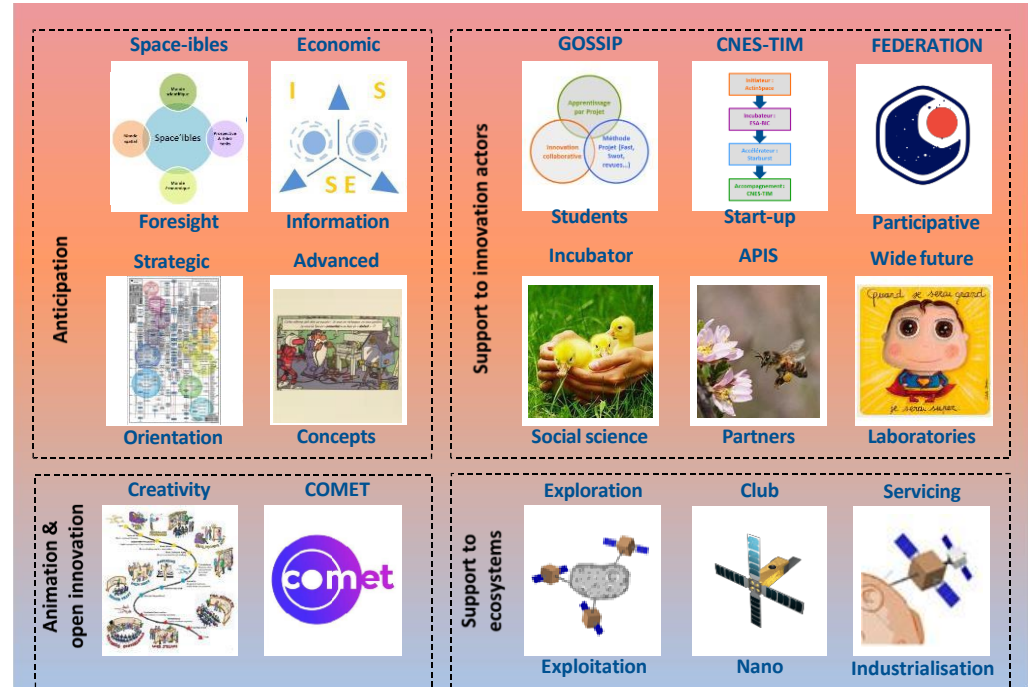


A set of tools are developed in order to :

- ❖ **Support all kinds of contributors (from citizens to start-up and main groups)**
- ❖ **Anticipate trends and long term evolution of the space domain and its correlated ecosystems**
- ❖ **Sustain creativity and process transformation inside CNES**
- ❖ **Manage open innovation (spin-in and spin-off)**

These tools are consolidated through pilot actions and gathers inside an

« Innovation Hive »



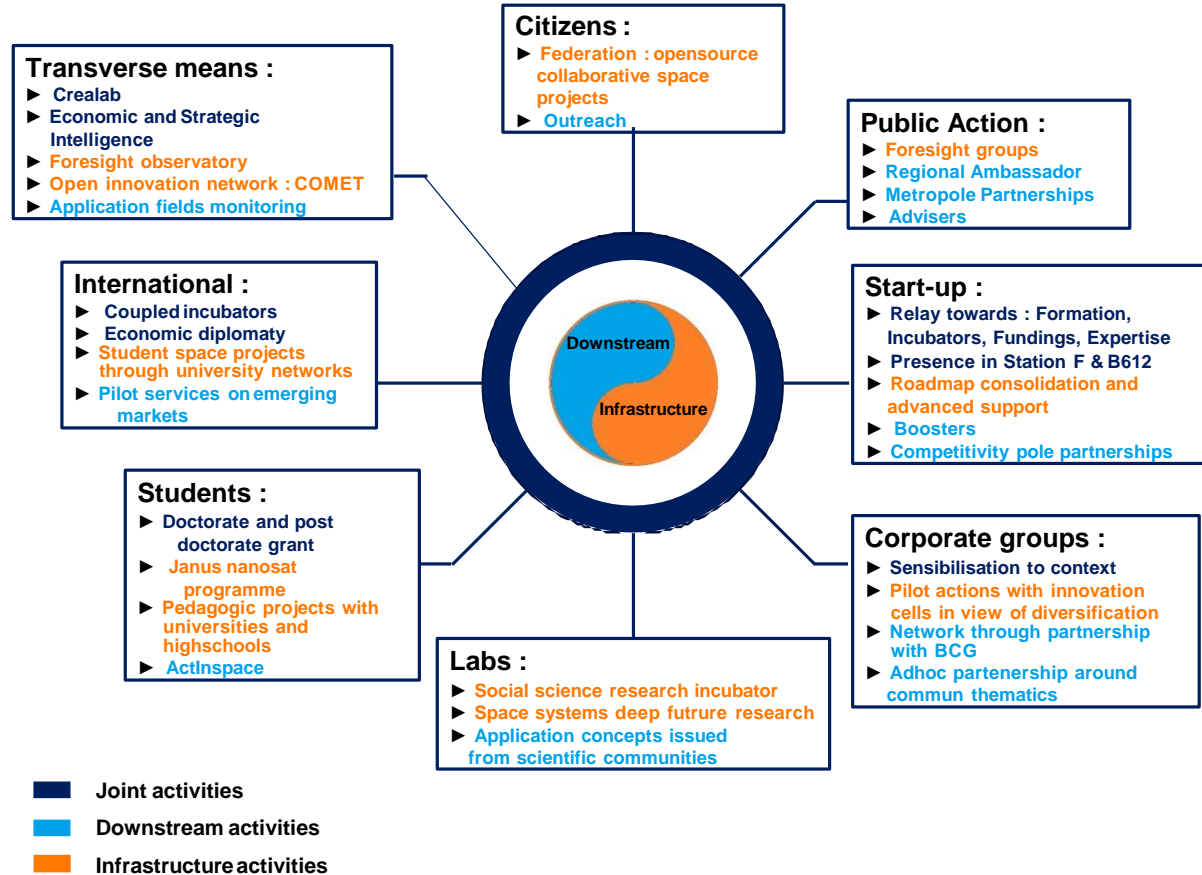
IN PROGRESS

Space domain is changing towards more and more verticalisation

Social and economic development become crucial targets



CNES Innovation Activities focused on Downstream and Infrastructure domain are handled according to specific dynamics but in a fully intricate organization





*CapDecisif selected by CNES
amongst 40 Venture Capital firms
to manage CosmiCapital*



A unique venture capital fund dedicated to space

The first **European VC fund supported and sponsored by CNES**
focusing exclusively on private companies in **space and related applications.**

Investments will range from **early stage to growth rounds** with an aim
to grow a portfolio of **diversified breakthrough space startups** and
ultimately unleash the potential of space.