

WORKSHOP NOMAD

CNES Paris

15th-17th May 2013

Céline Bouhey-Klapisz
DSP/ABM



CNES missions

CNES (French Space Agency):

agency for space programmes & technical centre

- a public, industrial and commercial, scientific and technical institution, which is financially-independent
- responsible for advising the Government and implementing French space policy, for the benefit of Europe,
- and leading, as project owner, the system architecture for innovation
- and designing new space systems.

CNES' mission is to provide an overall vision of space solutions through its systems skills and to innovate

- Remaining attentive to users and their requirements,
- At the crossroads of scientific/ technological laboratories, and industrial & service enterprises,
- To stimulate scientific, technological and industrial research and innovation, for institutional and commercial requirements.

CNES missions



At Europe's service:

To provide end-to-end space expertise.

To be a driving force in constructing Europe in Space.

An ambitious

French space

policy

5 major strategic fields

- Access to space
- Applications for the public
- Earth, Environment, Climate
- Sciences for Universe and preparation for the future
- Security and defence



CNES' Partners

Ministry of Higher
Education and Research

Ministry of Defence
The DGA

Ministry of Ecology, Sustainable
Development, and energy

International
partners
(NASA, JAXA,
CNSA, ISRO,...)

 European
Union
ELIMETSAT

Other
Space users



Scientific
laboratories

INDUSTRY

CNES' European Partners

A leading role in the construction of space at European level thanks to the European triangle



The member STATES

CNES leads
a multinational programme to complement
European programmes.

The European Space Agency

CNES represents France within the European Space Agency, and is the number one contributor to the ESA budget.



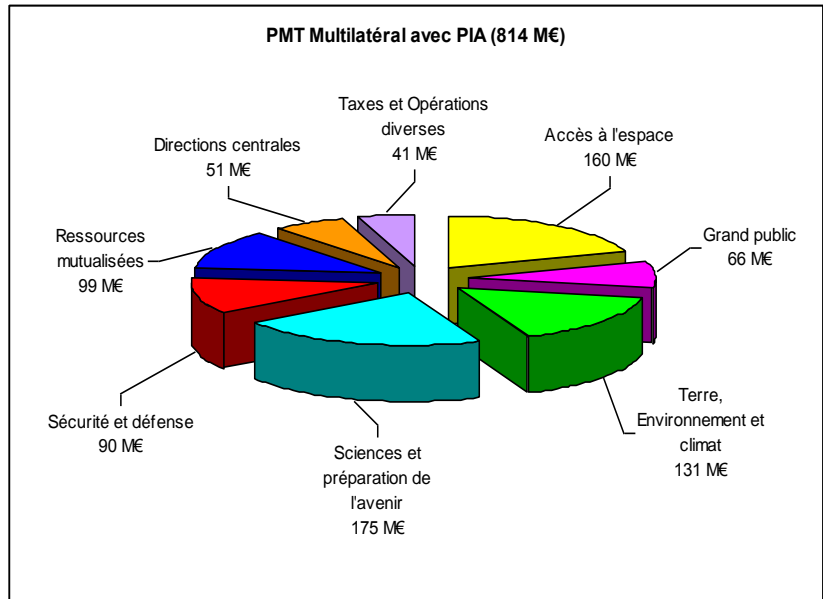
The European Union

CNES, the driving force in the construction of Europe in space according to the guidelines adopted by the French Government.

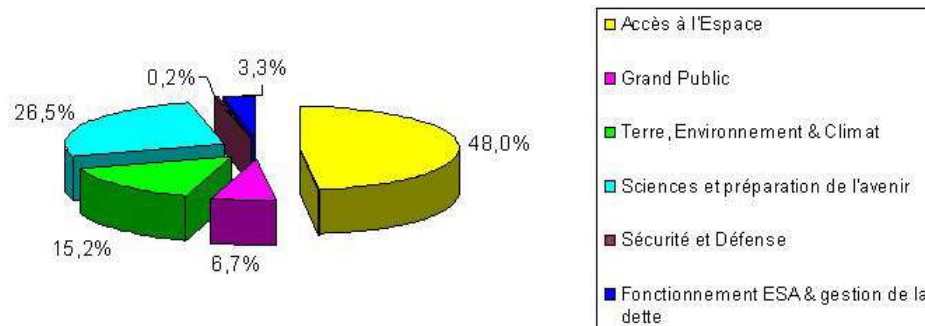
CNES Budget (2013)

**Budget for multilateral
814M€**

**Budget delegated to ESA
799M€**



ESA - Répartition par thèmes de la contribution française 2013
(799 M€)



Space Applications in CNES

2 calls for proposals in 2009 & 2011

-Launched and co-funded by CNES

-Implemented by SMEs for innovative space services

Objectives:

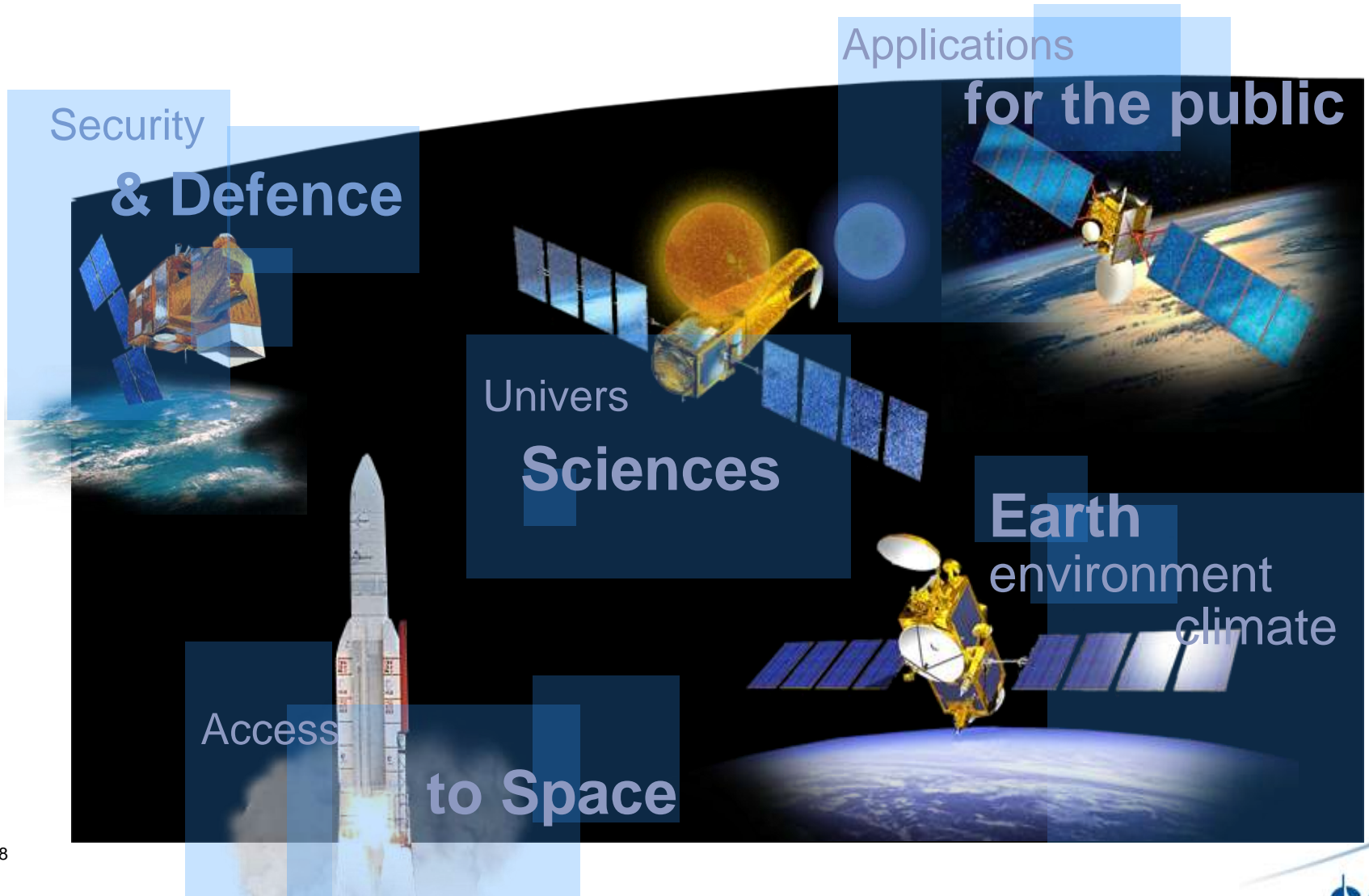
- Create new innovative services
- Enlarge the network of CNES partners
- participation of end users

→**15 projects selected (including NOMAD)**

New orientation in 2012

- No more call for proposals
- CNES' expertise to institutionals (ministries)

5 Strategic Fields



Access to Space

The range of launchers



10 t (GTO)

Ariane 5



3 t (GTO)

Soyouz

at GSC



1.5 t (SSO)

Vega

Applications for the Public

Search
& Rescue
Navigation

Data collection

Space &
Health



Earth, Environment, Climate

"Sentinel" Satellites of the Earth

Combination with in situ observations and digital simulations, for understanding, monitoring and predicting the state of the planet to adapt locally and globally to climatic changes



Land areas (Spot 5, Pléiades, Venüs).

Atmosphere, ocean, climate, chemistry, meteorology (Polder/Parasol, Calipso, IASI, Megha-Tropiques).

Ocean, sea level (Jason 2, Smos, SARAL, CFOSAT).

Solid earth, geodesy, geomagnetism (Déméter, Swarm, Goce).

Sciences of the Universe

A background image of space featuring a large view of Earth on the left, a smaller Earth in the lower center, and several other celestial bodies (a yellow one, a blue one, and a grey one) in the upper right. The background is filled with stars.

Preparing the future

In order to better understand the origin of the Universe, increase our knowledge and understanding of its constituent objects and to understand the origin of life.

- **A**stronomy and Astrophysics
- **S**olar system
- **S**un, heliosphere, magnetosphere
- **E**xobiology
- **F**undamental physics
- **S**cientific contribution to the use of the
- International Space Station