



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
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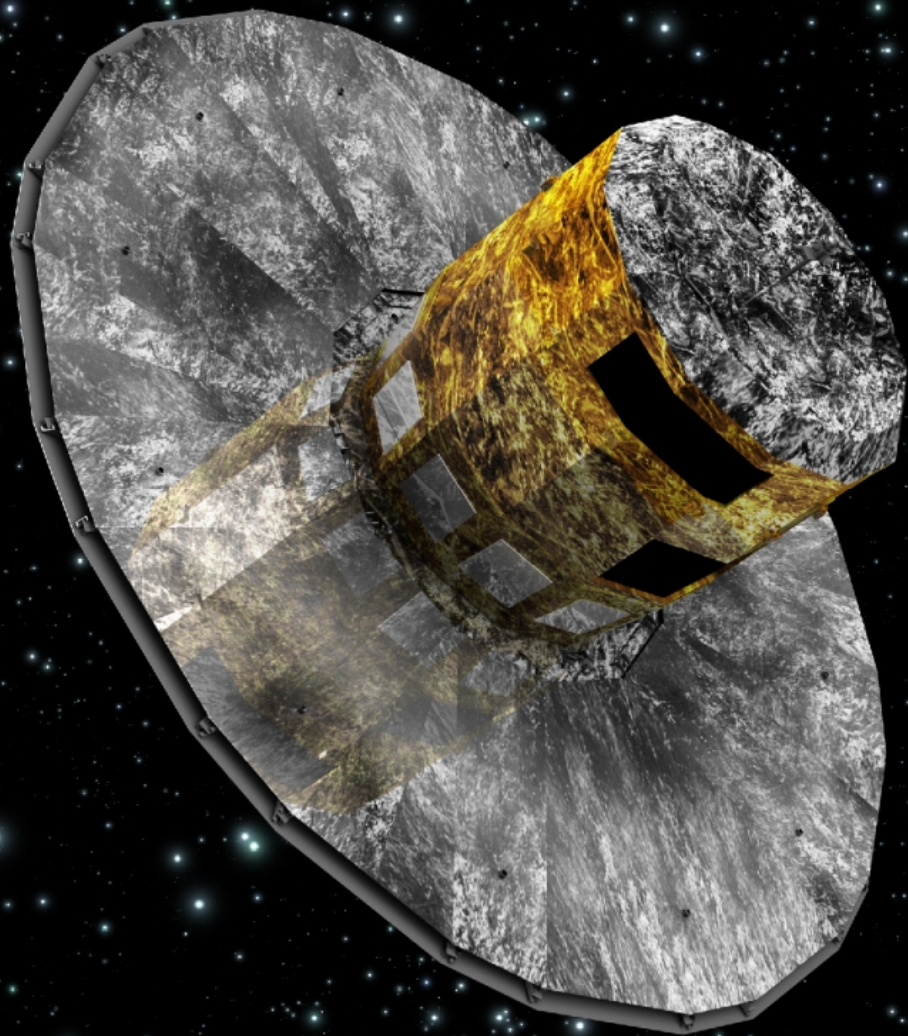
Federal Department of Economic Affairs,
Education and Research EAER
**State Secretariat for Education,
Research and Innovation SERI**

Swiss Confederation

Funding through space-related programmes

SBFI/ARF, 28.11.2016

Why Space ?!?





Why Space ?!?

„... the future of satellites lays in Photonics...“

- Sensors for Science, Exploration, Earth Observation a.o.
- Sub-systems for payload management
- Optical up- and downlinks
- Photonic elements for the transportation segment
- Tools and instruments for the Space industry.



The Environment

- **Swiss Space Office**
(not a space agency)
- **European Space Agency**
(CH is founding member)
- **European Union**
(Space Policy, Copernicus, Galileo and H2020)
- **International stakeholders**
(NASA, Roscosmos, CSA, JAXA and others)
- **Increasing part of private „Space“ companies**
(SpaceX, Amazon, Google etc.)



National activities

- **Mesures de Positionnement**
to reinforce the technological and scientific capabilities
- **Call for Ideas**
to foster low Technology Readiness Level (typically TRL 1-2)
research and development studies

as well as other selective initiatives/measures

Small missions, parabolic flight, PlanetS, ASAP call etc



ESA opportunities

- **Technology Research Programme (TRP)**
to explore new ideas from the very earliest stages, starting with the first time they ask themselves 'what would happen if...?'
- **Innovation Triangle Initiative (ITI)**
in support of potential candidates for technology innovation
- **Core Technology Programme (CTP)**
to ensure early and effective preparation of future science missions
- **PRODEX**
to provide national payloads, i.e. scientific instruments and experiments



ESA opportunities

- **General Support Technology Programme (GSTP)**
to convert promising engineering concepts into mature products
- **Advanced Research in Telecommunications Systems (ARTES)**
to transforms research and development investment into successful commercial products
- **Business Incubation Center Switzerland**
to offer support packages for innovative ideas exploiting space technologies for non-space business

as well as other specific or selective programmes.



EU opportunities

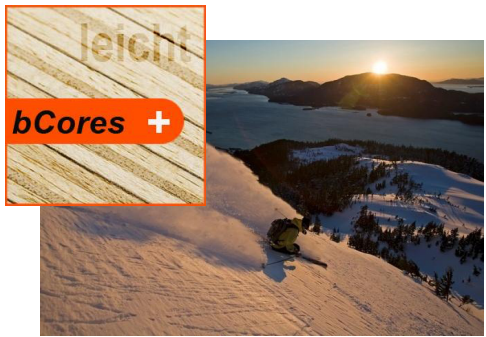
- **Copernicus**
in parts implemented through ESA
 - **Galileo**
in parts implemented through ESA
 - **H2020-Space**
through the second pillar that is „Leadership in Enabling and Industrial Technologies“
- as well as other specific or selective programmes.



What it needs ?



PRODUCTS AND SERVICES



- Skis
- Snowboards
- Skateboards



- Sports & Leisure
- Design
- Acoustics
- Mobility



- Automotive
- Bicycle frames



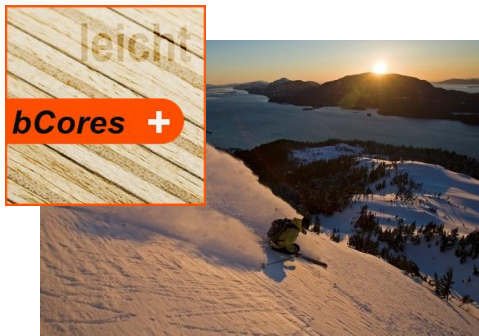
- Product development
- Projects
- Prototyping



It needs ideas and ...



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- Automotive
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- Space
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- Product development
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... committment ...

Markets	Sports and leisure	Automotive	Space
Time to market	1y	5y	10y
Technical level	Low	Medium	High
Cost pressure	High	Very high	Low
Volumes	Medium	High	Low



The Entrepreneurial view:

- Space seems not a very attractive market, **but**
 - It allows doing in depth funded studies, and thus **increase the knowledge** of the technology
 - The know-how acquired can be **transferred** to other markets (eg damping, temperature behaviour)
 - It gives access to **passionate** experts
 - It increases the **credibility** of the company
 - It is space!





Get involved ...

- **Good ideas**
and not simply looking for money
- **Convinced of being competitive/disruptive**
and not simply interested in selling more stuff
- **Interested in cooperation**
and not in staying in your lab/company/community

then get in touch to receive detailed information.



Get involved ...

- Swiss Space Office
Johann.Richard@sbfi.admin.ch
- Swiss Space Center
Gregoire.Bourban@epfl.ch
- ESA BIC Switzerland
startups@esabic.ch
- European Space Agency
Contact points on request (ask SSO)



Get involved ...

- www.sbf.admin.ch/space
- space.epfl.ch
- esabic.ch
- www.esa.int
- www.euresearch.ch
- ec.europa.eu/programmes/horizon2020/en/h2020-section/space