

HOME ~ ABOUT EURISY ON SATELLITE APPLICATIONS EVENTS GOOD PRACTICES ~ WORK WITH US PUBLICATIONS

A non-profit association connecting space and society

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About Eurisy Eurisy conference From the blog Announcement Good practice of the week

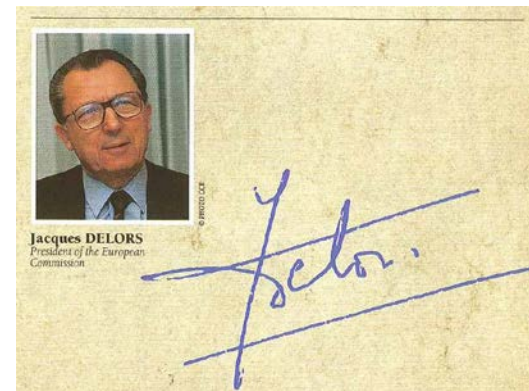
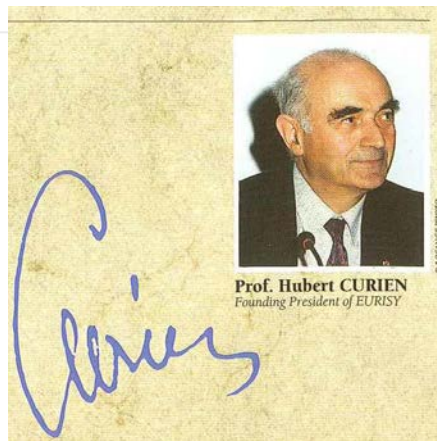
LOCAL AND REGIONAL AUTHORITIES SMEs SPACE COMMUNITY MEMBERS

Creating public awareness of the importance of these issues and informing young people in particular of **the humanly and vocationally rewarding prospects offered by satellite systems**: these are the tasks assigned to Eurisy.

Prof. Hubert CURIEN

My hope is that the activities of Eurisy will help to inform the public and the decision-makers of the results of collaboration between the European Space Agency and the Commission of the European Communities in the field of the environment and of Earth observation, with a view to **promoting the European space programmes for protecting the environment.**

Jacques DELORS



User Support Programme - 2014

- ✓ 253 organisations connected: 170 non-space, 83 space
- ✓ 145 testimonials of confirmed users disseminated
- ✓ 19 Eurisy events, 14 countries: more than 1600 participants
- ✓ 44 information sessions on invitation from non-space partners: 4000 participants





- About
- Co-organisers & Partners
- Programme outline
- Practical Details
- Online registration

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Islands can prove to be real labs for ICT-driven innovation. They are small and flexible. This means they can test ideas fast and implement only the best of them. Islands are confronted with specific needs – whether due to their remoteness, their vulnerability to climate change, or the scarcity of their resources. Such challenges call for creative solutions.

Big data, connectivity and location technologies – including those based on satellites - are some of the building blocks of such a digital economy.

This conference will discuss how island economies can leverage Europe's investments in satellite services to boost their economy and live up to current environmental and socio-economic challenges.

Co-organised by

The Future of Satellite Applications



The Future of Satellite Applications

- The User Perspective
- And what about satellites?
- SatCom / SatNav / EO
- Let's talk business
- Conclusions

The User Perspective

Future of Satellite Applications



**What does the
customer needs?**



LCD

- Location
- Connectivity
- Data

The User Perspective

- Location: wifi mapping; SIM Card tracking; cellular triangulation, ...
 - Connectivity: mobile communication, fibre cables, wifi homespots/hotspots...
 - Data: Aerial / UAV / ground measurements /databases / ...
- ➔ Private/commercial market is going FFW:
- Product cycles : 6 months vs many yrs
 - Significant investments

The Future of Satellite Applications



?

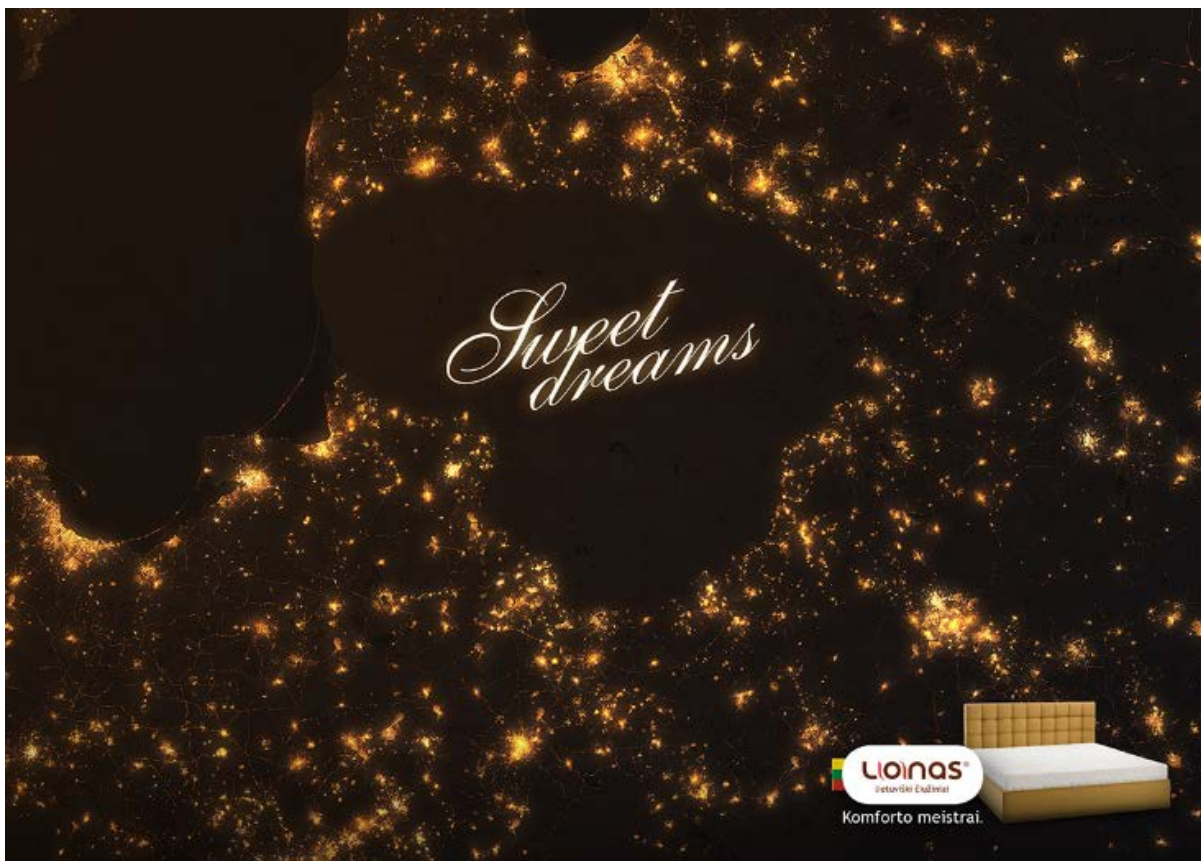


And what do satellites contribute?

- Costs?
- Rigid procedures?
- Space qualified hardware?

And what do satellites contribute?

– Inspiration





DECEMBER 25, 2014

Lunar Dream Capsule Project

**1. SatCom / 2.
SatNav / 3. EO**

1. Telecommunication

REGIONS, CITIES AND SMES SHARE GOOD PRACTICES

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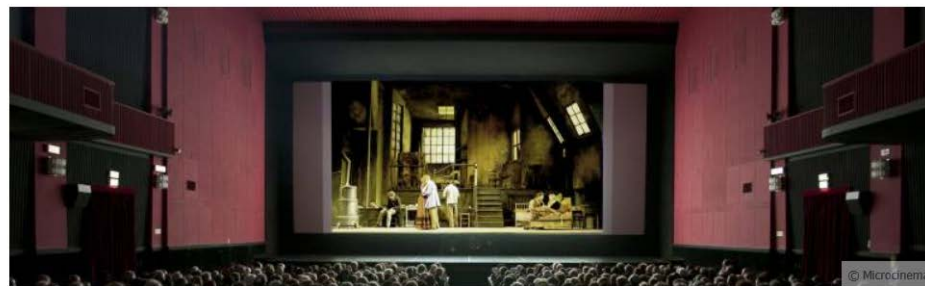


Solairedirect: managing solar energy production using satellite communication



Year of update: 2013 | **Country:** France | **Sectors of application:** Energy, infrastructure and utilities | **Technology:** satcom | **User type:** Private - SME

Microcinema: enhancing small and medium-sized cinemas' offer by using satellite communication



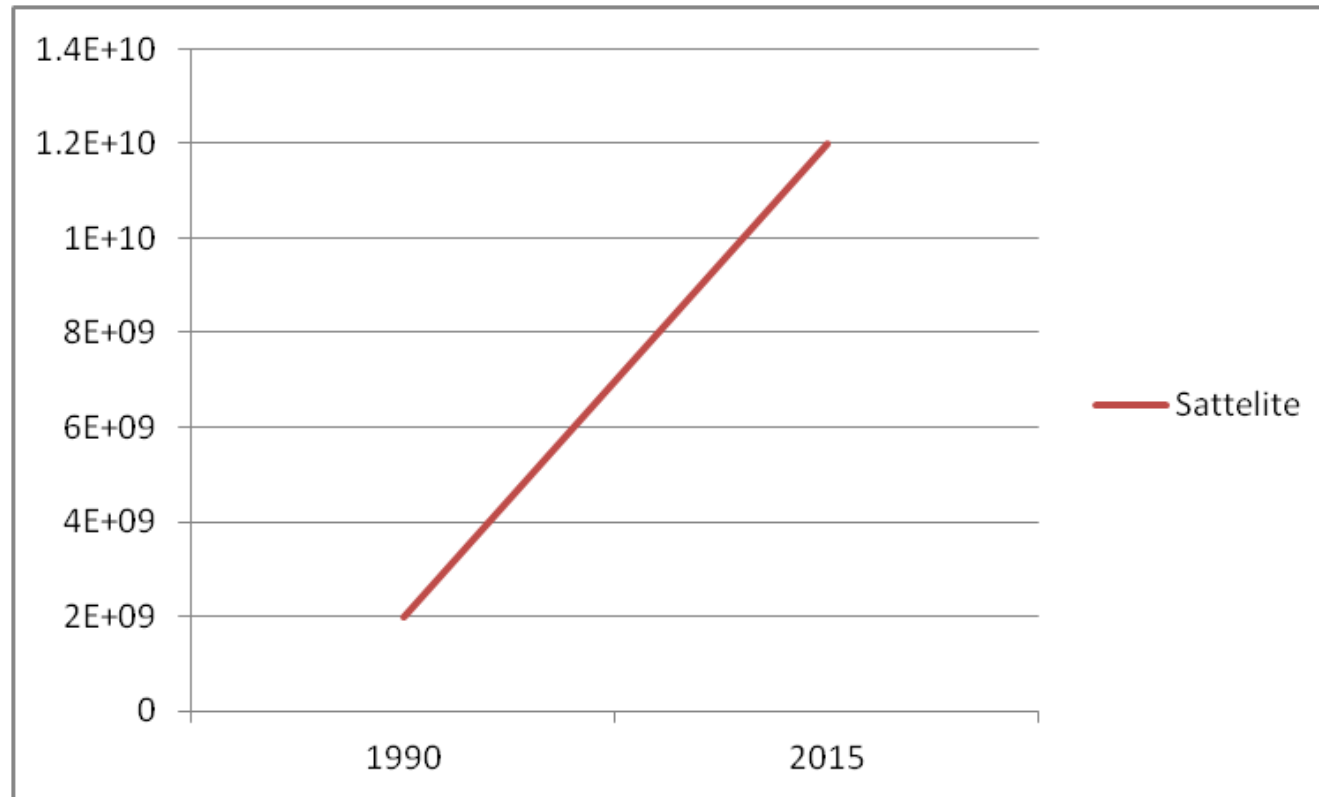
Year of update: 2013 | **Country:** Italy | **Sectors of application:** Tourism, culture and leisure | **Technology:** satcom | **User type:** Private - SME

Looking over the surgeon's shoulder thanks to satellite communication

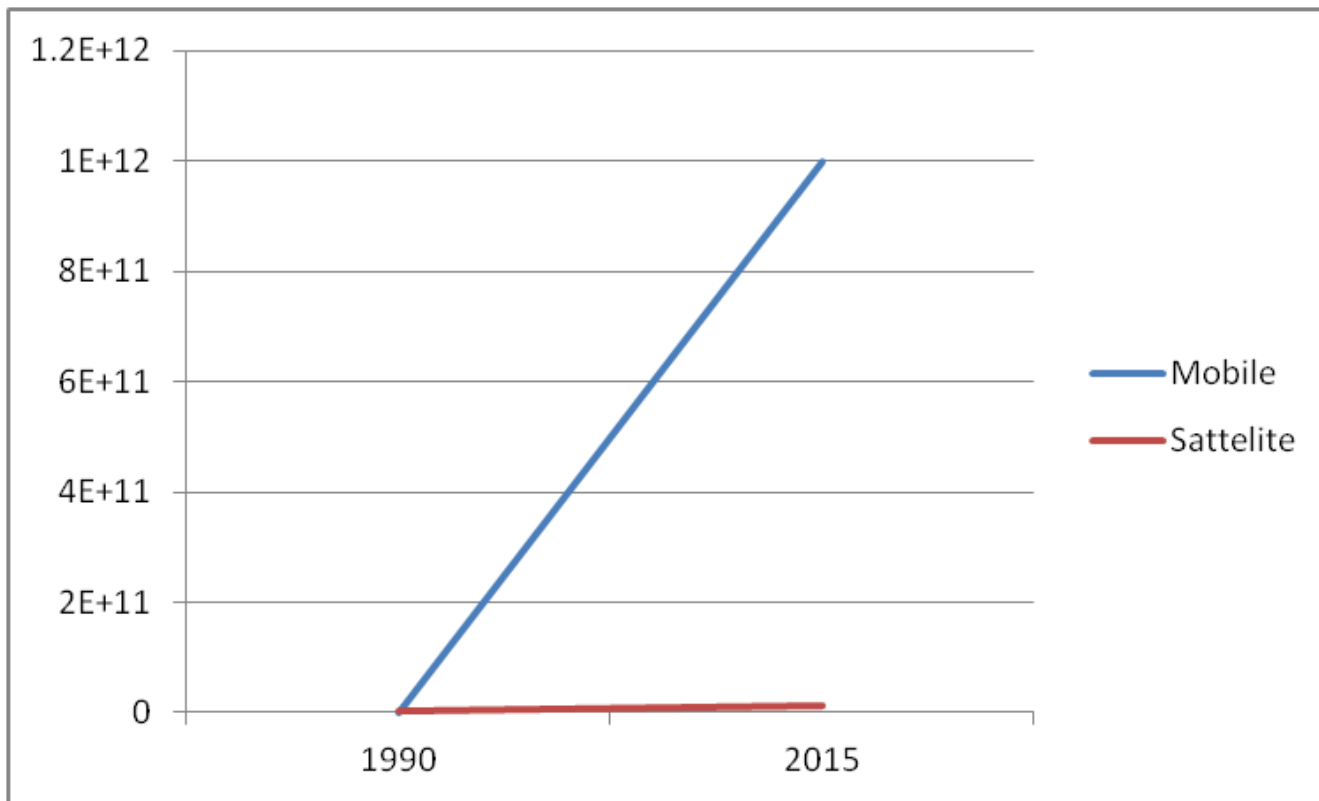


Year of update: 2014 | **Country:** Belgium | **Sectors of application:** Environment, climate and health; Communication and digital society | **Technology:** satcom | **User type:** Private - SME

1. Telecommunication



1. Telecommunication



1. Telecommunication

Explosion of demand for connectivity:

M2M communication, wearable technology, ...

➔ capacity issues terrestrial technologies are an opportunity for satellites moving from bridging the gap where mobile is not feasible & long distance to also covering local communication

INNOVATION



INNOVATION

Roaming
Coverage
Autonomy (batteries)
Safety (explosion)



<https://artes-apps.esa.int/projects/samolosa>

2. SatNav

Location Based Services

Technical issues: speed, LoS, indoor

Always as part of a bigger system/service

SWOT

Smart use of the signals

Water level measurement

Clock function

➔ INNOVATION REMAINS KEY



“FOR an industry that lurked in shadows for decades, satellite imaging’s transition into the mainstream has been dramatic.”

Smart cities



Libelium Smart World

Air Pollution

Control of CO₂ emissions of factories, pollution emitted by cars and toxic gases generated in farms.

Forest Fire Detection

Monitoring of combustion gases and preemptive fire conditions to define alert zones.

Wine Quality Enhancing

Monitoring soil moisture and trunk diameter in vineyards to control the amount of sugar in grapes and grapevine health.

Offspring Care

Control of growing conditions of the offspring in animal farms to ensure its survival and health.

Sportsmen Care

Vital signs monitoring in high performance centers and fields.

Structural Health

Monitoring of vibrations and material conditions in buildings, bridges and historical monuments.

Quality of Shipment Conditions

Monitoring of vibrations, strokes, container openings or cold chain maintenance for insurance purposes.

Smartphones Detection

Detect iPhone and Android devices and in general any device which works with Wifi or Bluetooth interfaces.

Perimeter Access Control

Access control to restricted areas and detection of people in non-authorized areas.

Radiation Levels

Distributed measurement of radiation levels in nuclear power stations surroundings to generate leakage alerts.

Electromagnetic Levels

Measurement of the energy radiated by cell stations and WiFi routers.

Traffic Congestion

Monitoring of vehicles and pedestrian affluence to optimize driving and walking routes.

Smart Roads

Warning messages and diversions according to climate conditions and unexpected events like accidents or traffic jams.

Smart Lighting

Intelligent and weather adaptive lighting in street lights.

Intelligent Shopping

Getting advices in the point of sale according to customer habits, preferences, presence of allergic components for them or expiring dates.

Noise Urban Maps

Sound monitoring in bar areas and centric zones in real time.

Water Leakages

Detection of liquid presence outside tanks and pressure variations along pipes.

Vehicle Auto-diagnosis

Information collection from CanBus to send real time alarms to emergencies or provide advice to drivers.

Item Location

Search of individual items in big surfaces like warehouses or harbours.

Waste Management

Detection of rubbish levels in containers to optimize the trash collection routes.

Smart Parking

Monitoring of parking spaces availability in the city.

Golf Courses

Selective irrigation in dry zones to reduce the water resources required in the green.

Water Quality

Study of water suitability in rivers and the sea for fauna and eligibility for drinkable use.

Turning the Potential of Copernicus into Reality

“Copernicus: 29,4 Billion Euros in 2030, 48.000 direct jobs will be created !”

- **From data to info**
- **Open and Free data:** yes, but the end-user requires expert information/services → does not come for free
- **What can SMEs do?**

Look for the business cases in (EU) sectoral policies: listen to end-user needs and embed your solutions in the existing procedures

- **What can governments do?**

Empower local end-users and/or accompany end-users via public procurement policies & (technical) procurement support programmes

**Alsace Region, France:
Protecting the
European hamster
from extinction**

REGIONS, CITIES AND SMES SHARE GOOD PRACTICES



**Agency9:
Dynamic urban
planning**



Vad tycker du?
Vision Industrilandskapet

Om | Läs | Tweets | ...

Vision för Industrilandskapet

Under 2017 genomför kommunerna ett arbete med att utvärdera visionen för Industrilandskapet som skedde på 2020. Kan du hjälpa oss att utvärdera om området blivit bättre än någonsin? Vad saknas i området? Hur förändras utvecklingen i området? Finns det platser som du uppskattar extra mycket eller platser som du tycker kan förbättras?

Information points

Send us your idea

Show submitted ideas

Do we need satellites?



[HOME](#) | [ABOUT THE PROJECT](#) | [PROJECT AREAS](#) | [PROJECT OUTCOMES](#) | [CONSORTIUM](#) | [OTHER PROJECTS](#) | [VISIBILITY AIDS](#)



[NEWS \(ARCHIVE\)](#)



Project outcomes

Here you will find different outcomes/ reports of the Project in electronic form.

- The MARMONI approach to marine biodiversity indicators 2015: [Volume I: Development of indicators for assessing the state of marine biodiversity in the Baltic Sea within the LIFE MARMONI project.](#)



FRAMEWORK
INVENTORY
BIODIVERSITY INDICATORS
MAPPING
BIODIVERSITY ASSESSMENT
THE SPATIAL
DIVERSITY
HOLDERS
INVENTORY

Let's talk business





**VISIONARY SILICON
VALLEY FUNDERS AND
THE SATELLITE INDUSTRY
COME TOGETHER TO
IGNITE A NEW ERA IN
SPACE
COMMERCIALIZATION**

**Don't Miss the following Pre-Summit Workshops on
Tuesday, September 8, 2015:**

- AM Pre-Summit Workshop:
» THE DATA BOOM FROM SMALLSATS –
SURVEYING NEW APPLICATIONS & MARKETS**
- PM Pre-Summit Workshop:
» ENABLING INNOVATIONS
FOR NEW ORBITAL NETWORKS**

Skybox, OneWeb, ...



THE SPACE ECONOMY: A MODERN DAY GOLD RUSH

Asteroid Mining Will Create A Trillion-Dollar Industry

As our **population grows** we need to find a **sustainable supply of natural resources** to fuel exploration in space and prosperity on Earth.

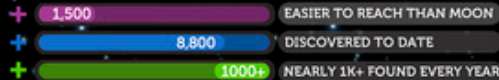


PLATINUM-RICH ASTEROID

Could contain more Platinum Group Metals than **what's been mined on Earth** in all of history

NEAR-INFINITE SUPPLY OF PRECIOUS RESOURCES

MORE ASTEROIDS DISCOVERED NEAR EARTH EVERYDAY



WATER-RICH ASTEROID

One water-rich asteroid could produce **enough fuel** for every rocket launched in history.

ONE SINGLE 500M water-rich asteroid

\$5 trillion would produce over \$5 trillion worth of water for use in space.

It currently costs \$20,000 to send a liter of water from Earth to Deep Space

USES OF PLATINUM GROUP METALS ON EARTH

REDUCE COST OF ELECTRONICS



ELECTRIFY TRANSPORTATION



DRIVE INNOVATION, AND CREATE A GREENER EARTH



ONE SINGLE 500M platinum-rich asteroid

At current market prices, one ounce of platinum is valued over \$1,500

Worth \$2.9 Trillion

174 times more than the yearly world output of platinum

50% More than the known world-reserves of PGMs

USES OF WATER IN SPACE

ROCKET FUEL

BREATHABLE AIR

DRINKABLE WATER

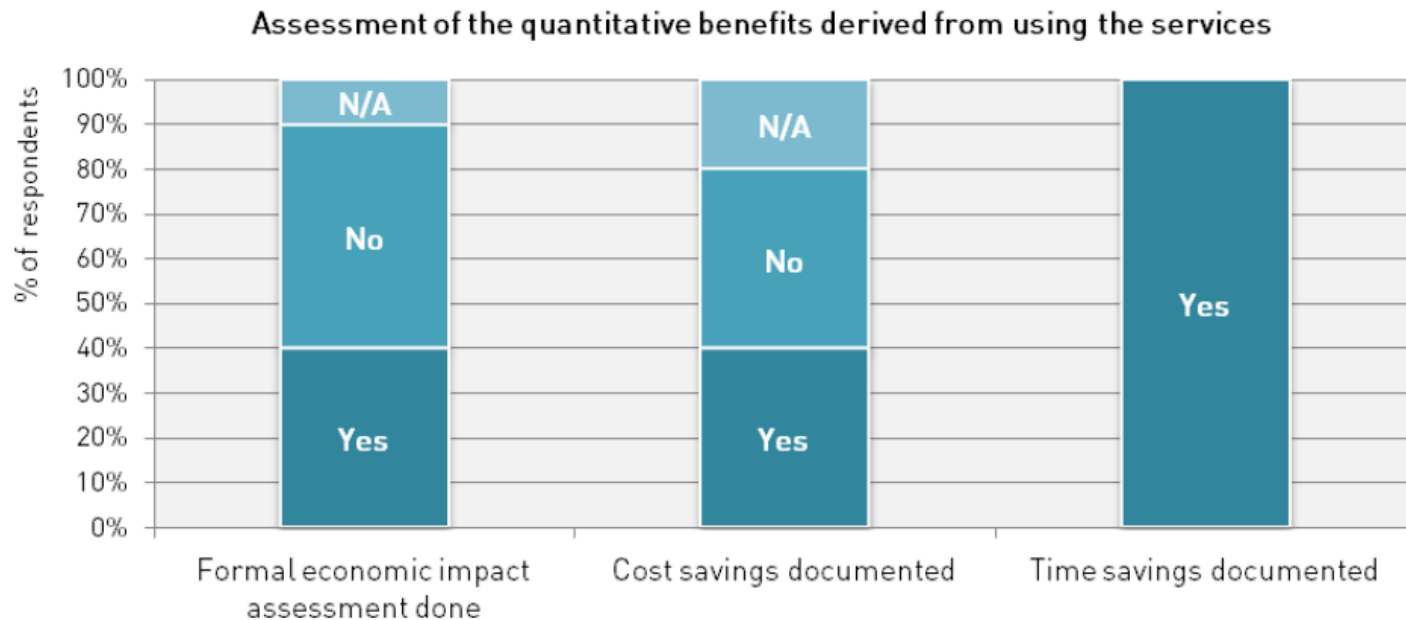
Asteroid mining will open a trillion-dollar industry and provide a **near-infinite supply** of Platinum Group Metals and water to **support our growth** both on this planet and off.



At Skybox, technology is a means to an end. We don't design and build our own systems for fun (though it is). We do it because it gives us the flexibility to address your needs in the way that works best for you and your organization. Our satellites and software are constantly evolving to better serve you. Reach out to tell us what you need. We don't believe in 'build it and they will come.' We do believe in building powerful high performance systems that match the real needs of real customers changing the world on a daily basis.

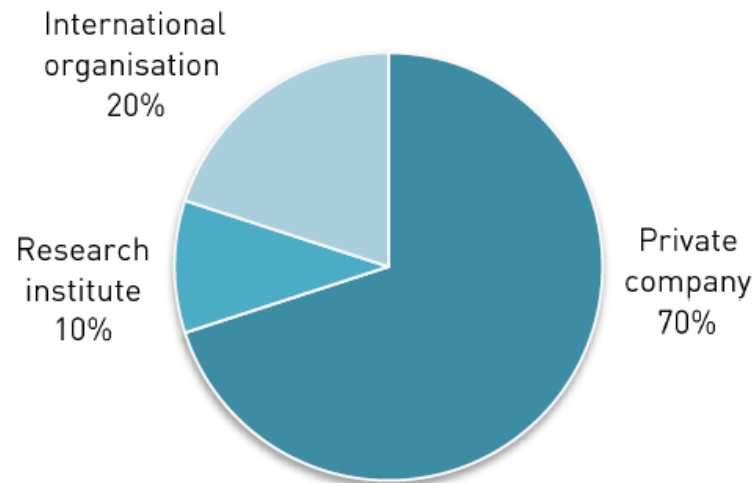
Survey on public use of SatApps

BENEFITS OF USING SATELLITE-BASED SERVICES



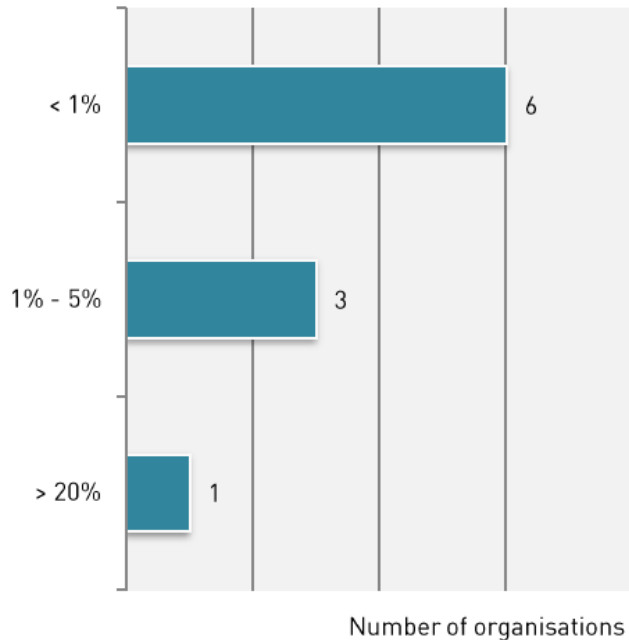
Survey on public use of SatApps

Main provider of the satellite-based service

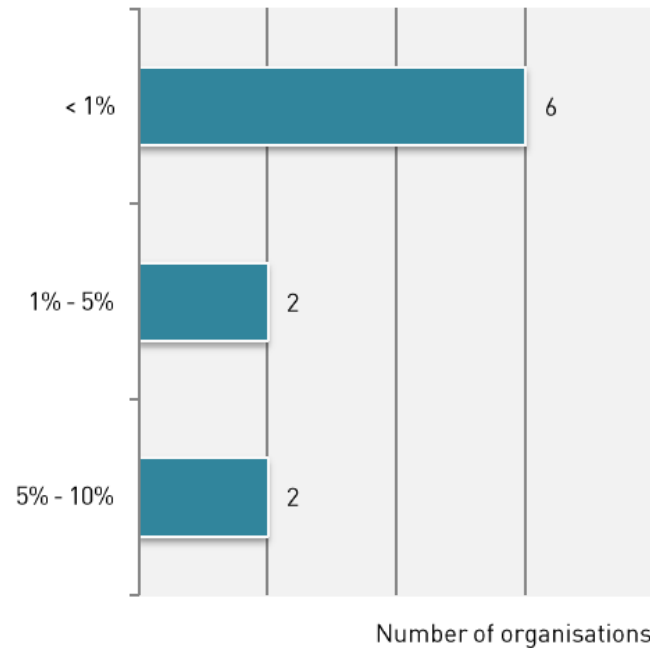


Survey on public use of SatApps

Initial investments as a share of annual budget



Annual operational costs as a share of annual budget



Conclusion

- Use of satellites is transparent for the end-user
- 1 or more satellite solutions as contributing components to a societal or economic challenge
- To deliver the potential of satellites in the Apps of the Future the sector needs innovation, innovation, and innovation in the technology, financing, processes, ...

Some observations and possible trends

- Traditional space industry and services
- Local SMEs serving local customers

Paradigm Shift?

- Satellites in the cloud: The virtual satellite?
- Affordable launches/satellites: CUBESAT4ALL