FOSTER THE ECONOMIC GROWTH OF SPACE SECTOR ACTIVITIES IN LINE WITH THE UN SDGS

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UNOOSA SPACE ECONOMY WEBINAR
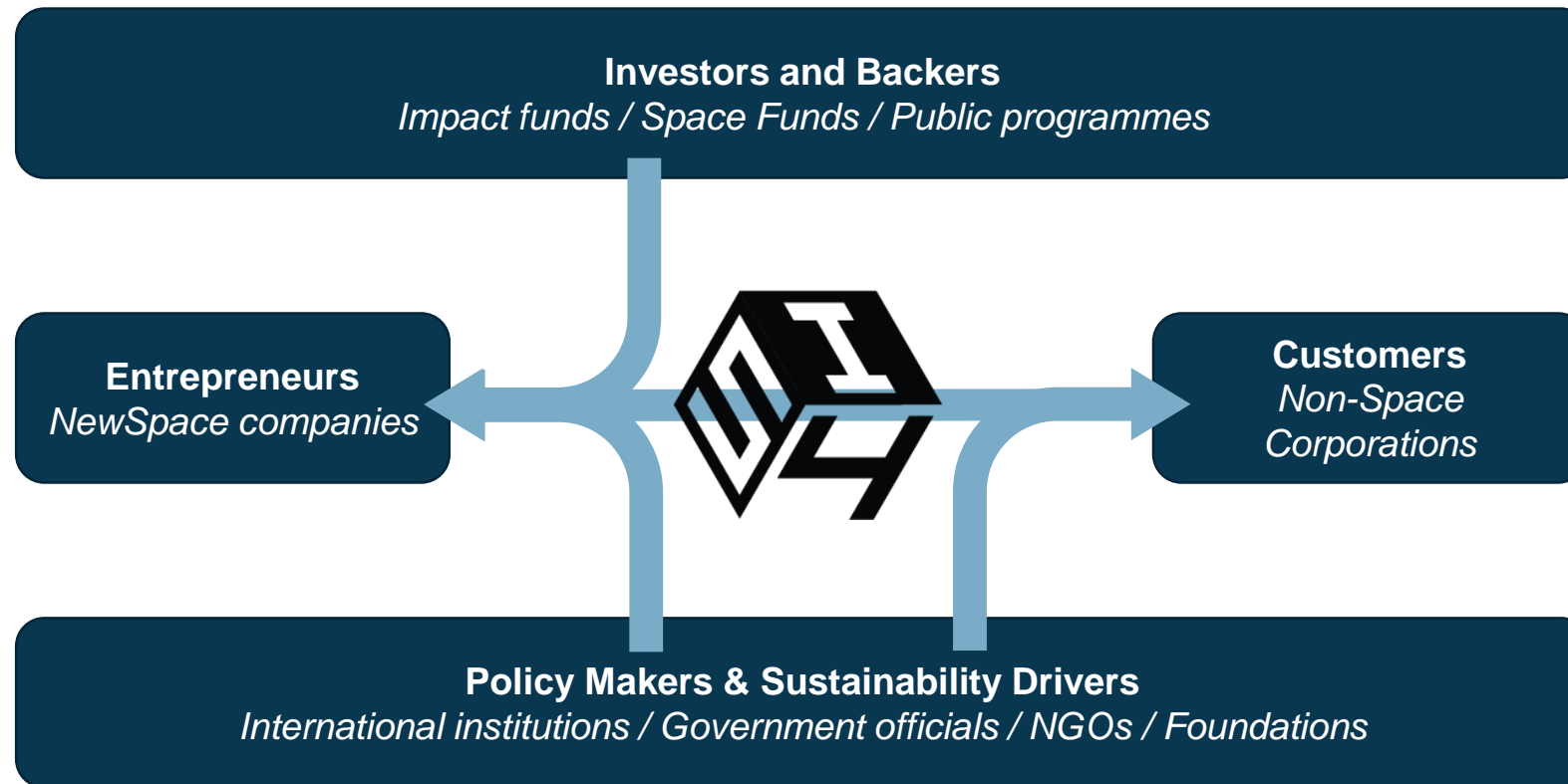
SPACE 4 IMPACT

SPACE4IMPACT INITIATIVE
WHAT WE DO AS A NON-PROFIT ORGANISATION

Raise awareness, Bring technologies to market & Attract funding

NewSpace Companies ⟶ Non-Space industry verticals

PROMOTE

DISCOVER

Promote worldwide New Space companies and their technologies
- Organise an event to bring policy makers, investors, entrepreneurs & customers together
- Startup competition (*find new entrepreneurs*)

CONNECT

ACCELERATE

Answer corporations needs with specific space technologies
- Non-space industrial verticals case studies (*find new customers*)
- New space companies pilot projects

NEW SPACE COMPANIES
NON-SPACE CORPORATIONS APPLICATIONS

astr**O**cast

Astrocast – Astronode™ (solder-down bidirectional communication module)

Industry: **Maritime applications**

Customer: **Marine Instruments** (Spanish electronic equipment adapted to the marine environment)

- Connecting environmental and fishing buoys, smart feeding systems
- Project: connect all buoys globally

Industry: **Infrastructure Monitoring**

Customer: **Aartesys** (Swiss IoT infrastructure company)

- Remote monitoring of all types of infrastructures and natural hazards such as falling stones, avalanches, debris flow, flood, etc.
- Project: connect infrastructures in remote areas of Europe

NEW SPACE COMPANIES
NON-SPACE CORPORATIONS APPLICATIONS

INVOLI – Safe integration of drone in the airspace thanks to complete air traffic awareness

Industry: **Commercial drone operators**

Customer: **World Bank** (international financial institution) using senseFly drones

- **Need**: enhanced situational awareness while operating drones, to ensure safe operations even close to aircraft or helicopters
- **Space**: Gathering air traffic signals from aviation coming from ground sensors completed by satellite-based data
- **Project**: mapping the international airport of Dar-Es-Salaam by drone for high-resolution maps, a project supported by the World Bank

Industry: **Telecommunication industries**

Customer: **Swisscom Broadcast** (Swiss telecommunication provider)

Need: Capitalizing on existing infrastructure while entering a new business opportunity in the drone market

- **Space**: Gathering air traffic signals from aviation coming from ground sensors completed by satellite-based data
- **Pilot**: Installation of a network of INVOLI air traffic receivers over the whole country of Switzerland to power safe drone missions everywhere
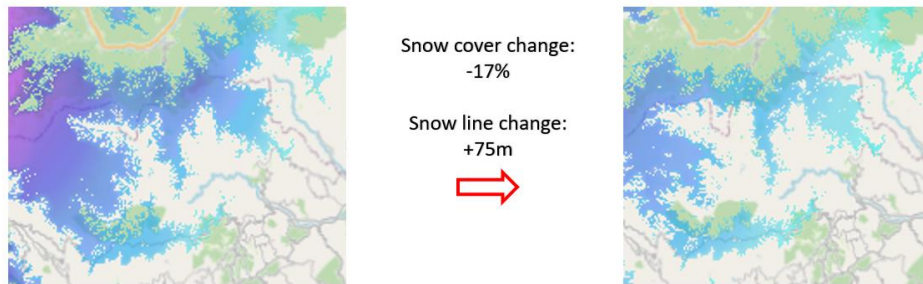

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NEW SPACE COMPANIES
NON-SPACE CORPORATIONS APPLICATIONS

WeGaw – Snow/Water monitoring for flood/rapid melt early diagnosis and water management

Snow cover change: -17%

Snow line change: +75m

Industry: **Snow reduction monitoring for early flood/rapid melt diagnosis for hydropower generation optimization**
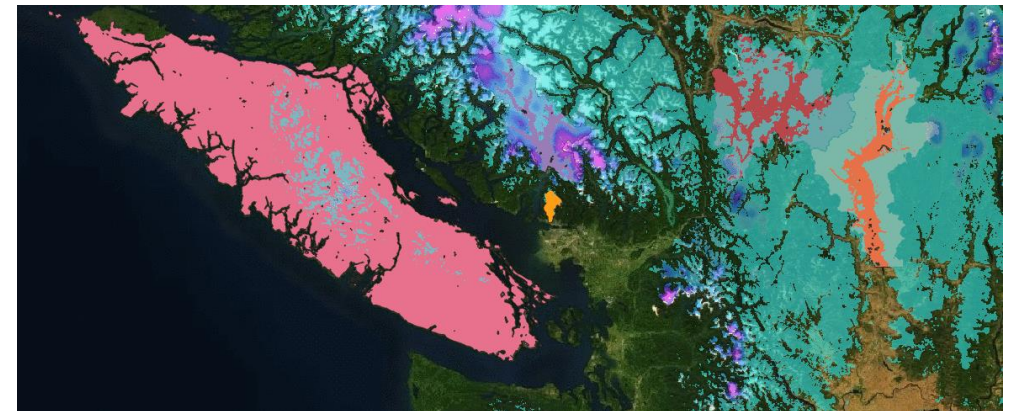
Customer: Spanish **Energy Company** (under NDA)

- Avoid water spill in rapid snow melting event scenarios = 10% increase in revenue potential for hydropower use cases
- EO based snow monitoring to understand snow melt over time
- Snow melt analysis of 2 catchment areas in 2018 spring

Industry: **Water availability seasonal forecast through snow monitoring**

Customer: Canadian **Water Service Company**

- Obtain daily snow data information to improve season planning, optimization and field work cost reduction.
- Total snow depth analysis (EO + ground sensors + Meteo data) per catchment area for water availability forecasting in spring.
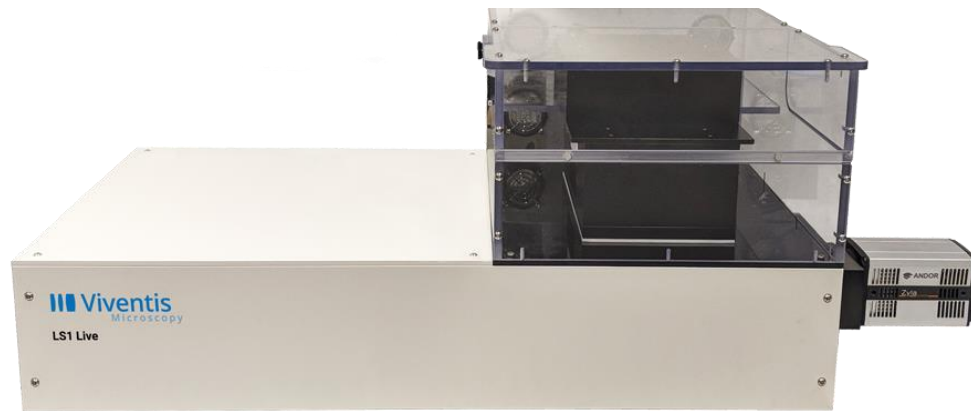

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Dotphoton– Validated Image compression for Earth observation and Artificial Intelligence

Industry: **Camera manufacturers in Biomedical imaging**

Customer: **PCO AG** (German Pioneer in Cameras and Optoelectronics)

- Faster image acquisition for cameras and enable lossless compression 10:1 for end-users

- Reuse of ESA GSTP E1 activity to adapt the developed compression algorithm for biomedical application

- Integration of the core technology with the camera manufacturer to then offer a stand-alone compression software to microscopes manufacturers and users

Industry: **Light sheet microscope manufacturers**

Customer: **Viventis microscopy** (Swiss Light sheet microscope for live imaging)

- Reduce storage costs for end-users in order to sell more microsocopes

- Reuse of space image format standard and compression

- Integration into microscopes for faster data handling and offer reasonable costs for IT infrastructure

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NEW SPACE COMPANIES
NON-SPACE CORPORATIONS APPLICATIONS

Picterra - AI-powered platform that makes geospatial imagery analysis easy and cost-effective.

Industry: **Forestry / Environment**

Customer: **SGS** (Inspection, verification, testing and certification company)

The application allows to monitor a region of interest (outlined in green) via sentinel-2 imagery every 3 to 5 days and visualize potential deforestation locations (seen here in yellow)

Project's objective:

Monitor illegal deforestation across large regions of Liberia for tax declaration (forest concessions) and conservation purposes (protected areas)

Use of free 10m resolution satellite imagery (Sentinel-2) to detect high probability regions of new deforestation as the imagery becomes available, allowing for fast response.

Provide a machine learning powered web application that can highlight where new illegal deforestation has occurred. The Deep Learning model can be improved by the customer via the UI.

Contact us for additional information: info@space4impact.org

Call for NewSpace companies: https://space4impact.org/our-activities/call-for-newspace-companies/

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