



Overview Netherlands Space activities 2015





National framework

- **National Space Office ('NSO')**
 - Advises on and implements national space policy;
 - Represents the Netherlands in ESA and towards Space Agencies;
 - Manages national programs.
- **Netherlands Radiocommunications Agency**
 - Performs execution of the policy and enforcement (ITU RR and Spacelaw);
 - Has sole responsibility for Dutch radio frequency spectrum;
 - Acts as Notifying Administration for Dutch satellite operators.



Netherlands Space Office (NSO)

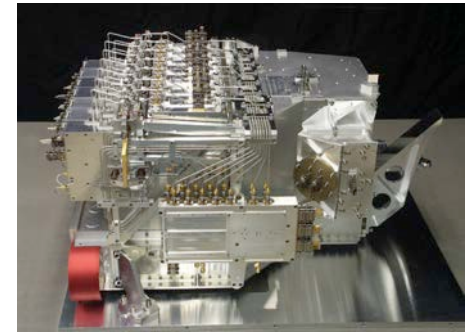
- Developed the NL Space Vision: a change in focus;
- Space technology and satellite data are key to global solutions, scientific breakthroughs and new markets;
- Societal needs and market opportunities are drivers for space technology and applications development;
- Space technology no longer unique in complexity;
- This vision requires:
 - Demand driven developments;
 - More synergy space and non-space;
 - More and broader international cooperation.
- European policy milestones drive NL space policy:
 - ESA & EU Space Council, May 2016;
 - ESA Ministerial Conference, December 2016.





Main NL capabilities in Science, Technology & Applications are:

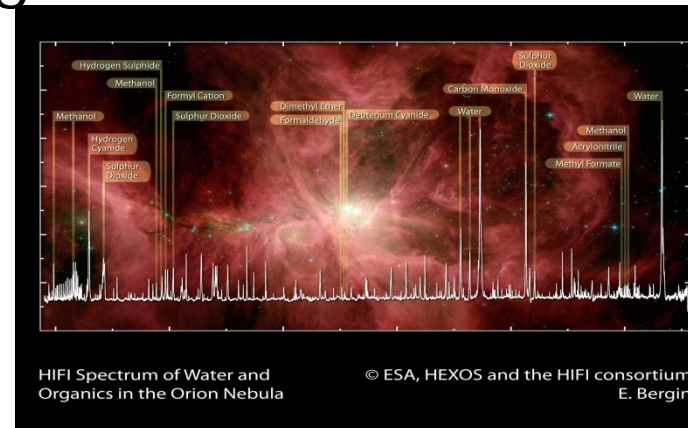
- Science: Astrophysics (IR, Submm), planetary research & Atmosphere (UV, IR);
- Hardware: Instruments, Solar arrays, Structures, Sensors, Electronics;
- Applications: Agriculture, Water, Land use, Logistics.





Spending figures 2015

- Total Government space spending 2015: M€ 124
- Spent on, among other things:
 - *ESA:* M€ 73
 - *Eumetsat:* M€ 15
 - *National:* M€ 36
- Netherlands priorities in ESA:
 - Science, Launchers, Earth Observation and technology development for ESA and commercial market.
- National projects: Tropomi (atmosphere instrument for Copernicus/Sentinel-5P), G4AW (Applications for Agriculture & Water, use in Third World countries).





Netherlands Radiocommunications Agency

- Responsibility as Notifying Administration (ITU RR) for five satellite operators;
 - 2 geostationary- and 3 cubesat satellite operators;
 - 14 satellites operating under Netherlands jurisdiction.
- Increasing interest from satellite operators for settlement in the Netherlands;
- Increasing number of satellites operating under Netherlands jurisdiction.





Netherlands Radiocommunications Agency

The NL Space activities Act and Registry for space objects in force per 1 January 2008:

- Launch, flight operation & guidance;
- Implementation by Netherlands Radiocommunications Agency;
- Generic license, no fee, decision within 6 months;
- A license is granted for the duration of the activity, supervision is therefore very relevant;
- Mandatory third party liability insurance for all types of satellites for the operational lifetime of the satellite;
- Satellites have to comply with de-orbiting < 25 years;
- NL fully adheres to the relevant Space Debris Mitigation Guidelines.



Netherlands Space highlights 2015 (1)

- Delivery of Tropomi instrument in May 2015 (launch June/July 2016);
- G4AW: 2nd Call/ selection of projects;
- Program for government use of EO data: start of 2nd tender for pilot projects;
- Extension of Satellite Data portal (free data of Netherlands for EO applications) approved;
- Founding of NEVASCO (Netherlands Value Adding Services Companies) platform.





Netherlands Space highlights 2015 (2)

World Radiocommunication Conference 2015:

- Stations on board sub-orbital vehicles: study item for WRC-19 jointly initiated by Netherlands and Switzerland;
- Additional spectrum Fixed Satellite Services;
- Study item WRC-19 for frequencies for “short duration mission satellites” (nano/pico satellites);
- Primary frequency allocation for Global Flight Tracking.



Netherlands Space highlights 2015 (3)

Dutch Space Act:

- per 1 July 2015 the scope of the Space Act was extended and applies also for Dutch cubesat operators;
- Three license requests were received from Dutch cubesat operators in September 2015;
- Licenses will be issued in Q2 – 2016 if the results of the audit process are positive.



Thank you for your attention!

