



Overview Netherlands Space activities 2016



National framework

- **Netherlands 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**
 - Regulates NL space activities (Dutch Space Act);
 - Role as Notifying administration (ITU-RR);
 - Sole responsibility for Dutch radio frequency spectrum.



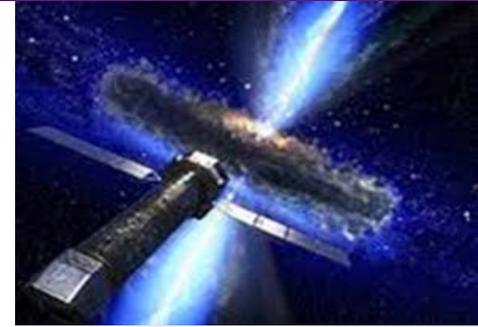
Netherlands Space Office (NSO)

- 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.





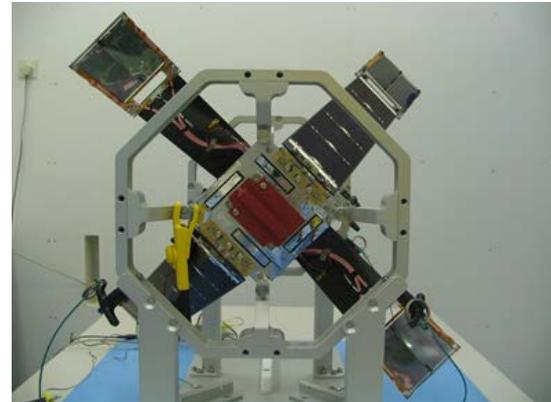
Spending figures 2016

- **Total Government space spending 2016: M€ 145**
 - ESA: M€ 109
 - National: M€ 36
(Excl. EUMETSAT, EU contr.)
- **Netherlands priorities in ESA:**
 - Science, Launchers, Earth Observation and technology development for ESA and the commercial market.
- **National projects:**
 - Tropomi (atmosphere instrument for Copernicus/Sentinel- 5P)
 - G4AW (Applications for Agriculture & Water)
 - National Satellite Portal.



Netherlands Radiocommunications Agency (1)

- 'Notifying Administration' for 7 operators:
 - 3 GSO and 4 NGSO satellite operators.
 - 2 new satellite operators in the Netherlands in 2016:
 - Magnitude Space BV planning 24 small LEO satellites;
 - Viasat Netherlands BV planning 3 satellites at GEO;
 - 14 satellites operating under Netherlands jurisdiction.
- Renewed Policy for foreign satellite operators.





Netherlands Radiocommunications Agency (2)

Dutch Space activities Act and Registry for space objects

- In force per 1 January 2008;
- Launch, flight operation & guidance;
- Generic license, no fee, decision within 6 months;
- A license is granted for the duration of the space activity;
- Mandatory 3rd party liability insurance for all types of satellites;
- NL fully adheres to the relevant Space Debris Mitigation Guidelines;
- Small Satellites in a low orbit have to comply with de-orbiting < 25 years after launch.



Netherlands Space highlights 2016 (1)

- Integration of the Tropomi instrument (launch mid-2017);
- G4AW: extension of program, 3rd call;
- Further Extension of the Satellite Data Portal (free data of the Netherlands for EO applications), transition to user funding;
- Instrument Cluster;
- Cooperation Chang'e4 with China initiated;
- Development of commercial instruments (e.g. for agriculture applications);





Netherlands Space highlights 2016 (2)

- NL EC chairmanship (Q1):
 - Informal ESA-EU Space Council;
 - European Space Solutions conference (May 2016).
- Space Policy '17-'19;
- Satellite coordination meeting with the People's Republic of China (May 2016);
- Satellite coordination meeting with the Russian Federation (June 2016);



Netherlands Space highlights 2016 (3)

- Election of Mrs Lilian Jeanty as the chairperson of the ITU Radio Regulations Board;
- 3 licenses granted in Q1 under the Dutch Space Act:
 - Innovative Solutions In Space BV;
 - Foundation AMSAT-NL;
 - Delft University of Technology.
- Supervision for licensee SES/New Skies Satellites BV;
- The Hague Space Resources Working Group.



Thank you for your
attention!