



Netherlands Space Office

Harm van de Wetering
Director



Earth Observation Research in NL Cooperation & Integration



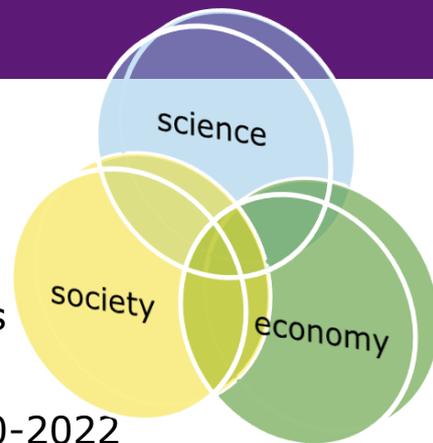
Or...

Can a giant learn from a dwarf?





About 'space' in NL



- ✓ NSO serving 3 Ministries
- ✓ Dutch Space Policy 2020-2022
- ✓ Cooperation with ESA, EU, NASA, CNSS,..BELSPO
- ❑ Message 1: Science is integrated part of space policy
- ❑ Message 2: science + society + industry = 4



Earth Science cooperation

Three examples of integration and cooperation:

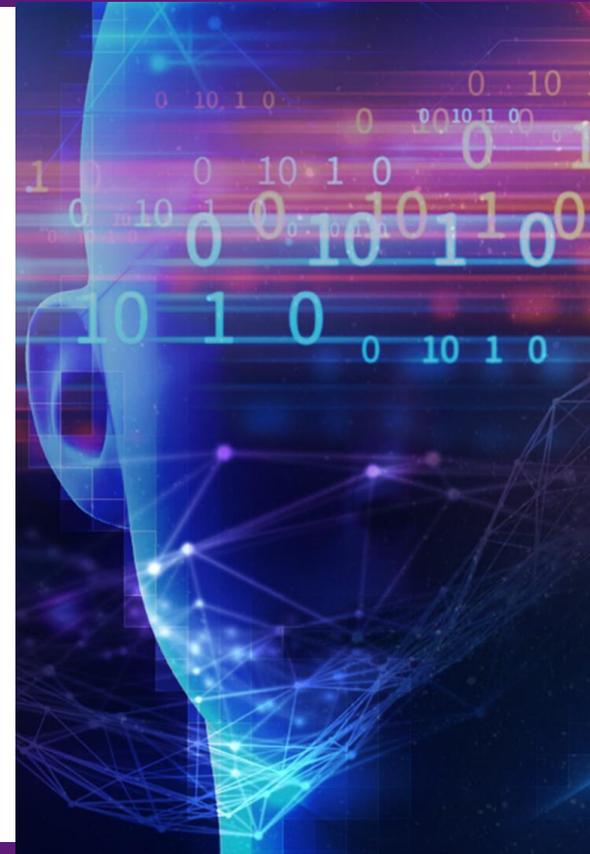
- ✓ Integration of disciplines -> system earth
- ✓ Cooperation of scientific community: Joint Earth Observation Research Strategy
- ✓ NL User Support Space Research Program (GO) open for all disciplines





Data Science 4 Earth Science

- ✓ Increasing EO-data
- ✓ Development of Data Platforms
- ✓ AI in space !
- ✓ Combined projects : Earth Observation Science + Data science:
 - Chasing shadows to investigate glacier change worldwide
 - Remote sensing of damage feedbacks and ice shelf instability in Antarctica
 - A new perspective on global vegetation water dynamics from radar satellite data





Science and Industry

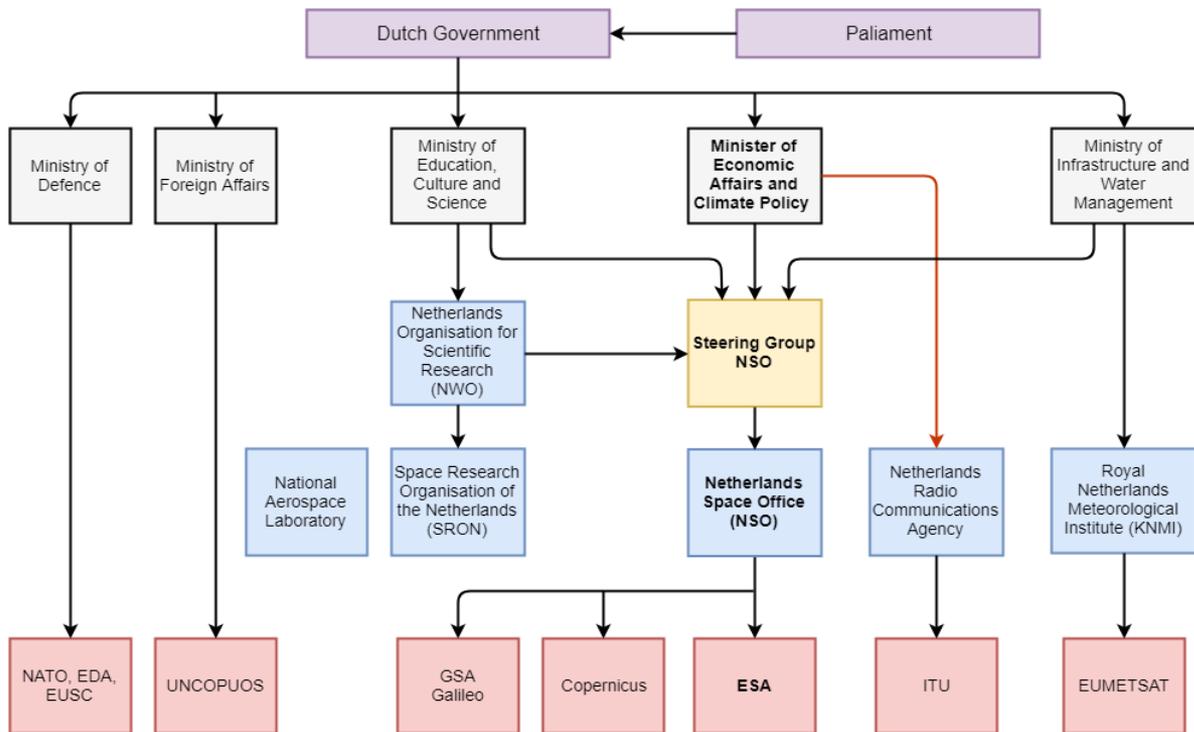
- ✓ Flagship programmes (tropomi, omi, PACE, ..)
- ✓ Instrument development programme
- ✓ Expertise networks
- ✓ EO Applications:
 - SBIR
 - BIC

- ❑ Message: Technology and knowledge transfer





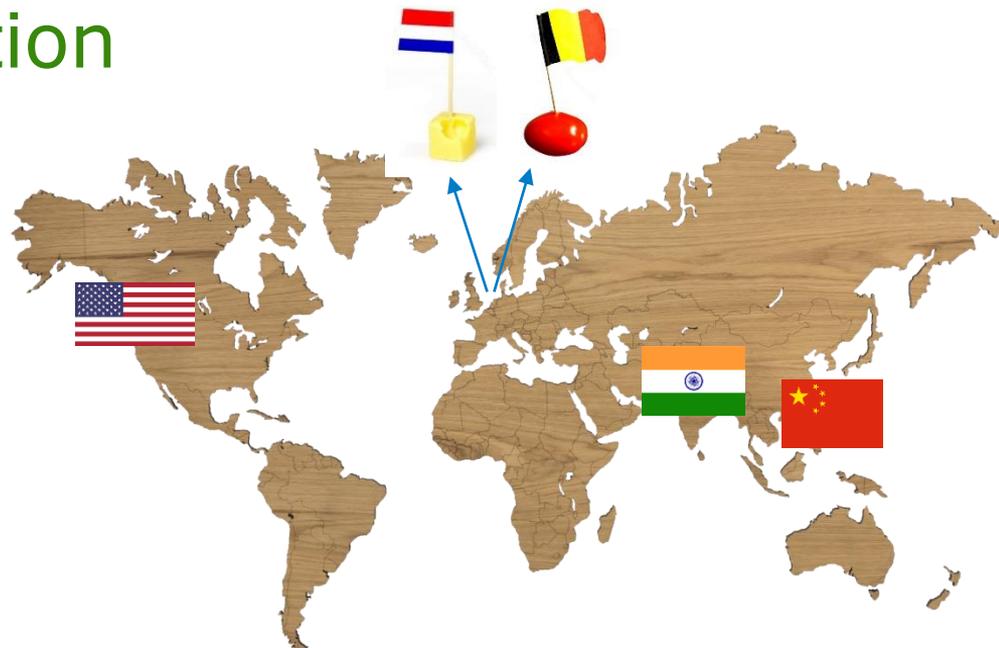
Government involvement





International cooperation

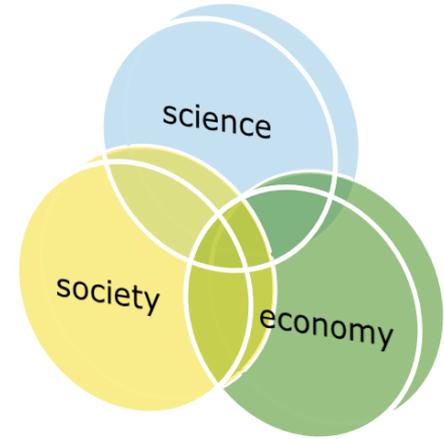
- ✓ NASA / CNSA / India / BELGIUM!
- ✓ BEODay 2020
- ✓ IGARSS 2021
- ✓ projects:
 - Tropomi: BIRA
 - WaPOR
- ✓ Other collaborations:
 - Participation in evaluation committees





Summary characteristics

- ✓ Focus in space **policy** on maximum impact for society, science and economy
- ✓ Within NL cooperation between **organisations** from government, knowledge institutes, industry
- ✓ Promote **interdisciplinary** science
- ✓ **Instruments** to challenge more synergy
- ✓ Increase **international** collaborative efforts





Thank you for your attention

Let's stay connected!

Netherlands
Space
Office

