

# First NEO and debris detection conference

22 – 24 January 2019 in Darmstadt, Germany

1 panel discussion

57 presentations

47 posters

5 exhibitors

>250 participants from 27 countries

Proceedings are being prepared for free access via  
[conference.sdo.esoc.esa.int/proceedings/list](http://conference.sdo.esoc.esa.int/proceedings/list)



European Space Agency

# Conference Results

- Upcoming large constellations will set a step change in utilising space
- Commercialisation of space also involves the sources for observational data and brings various business opportunities
- Need to better communicate risks to modern societies from NEO impacts and space debris
- Data is essential for warnings, ops, mitigation, regulation, removal, deflection, ...
- Panel key points
  - Importance of collaboration
  - Need for better data sharing
  - Adopting open data policies



# Conference Results



Rüdiger/Tim

There are similar challenges and capabilities in the two communities and there is a lot of enthusiasm to extend the collaboration!

*“Debris can learn from NEO about sharing data, NEO can learn from debris about complex observation patterns and searching for the unexpected...”*



# Conference Results



- Rapid and accelerating progress in observing and instrumentation (space-based sensors deliver results observing NEOs and space debris, large telescopes are on track, extension of sensor networks, technology increases the capabilities of small and automated sensors, laser ranging contributes to observing space debris, hope that EISCAT-3D can detect thousands of debris)
- Space Surveillance systems in Europe start to deliver
- Flyeye Telescope acquired the first test images at the production site in Milano
- Data processing takes the challenge to cope with new instrument developments, fusing data from various (many) sources of information,
- Astrodynamics research is strongly supporting NEO and debris needs
- Better standards for efficient exchange of information and efficient networking are central
- Managing risks from re-entering space debris and asteroid impact events is crucial; communication and general outreach will benefit from using social media for information flow
- ESA intends to propose a Space Safety programme at Space19+



# 8<sup>th</sup> European Conference on Space Debris



## See you at ESOC in Spring 2021!\*

[\*] or at one of the many occasions before: Planetary Defence Conference, KePASSA, International Astronautical Congress, International Orbital Debris Conference, IAA Conference on Space Situational Awareness, COSPAR Conference ...

[\*\*] for students: ESA Academy Space Debris Course; Natural Space Risks 2019 Summer School Paris

