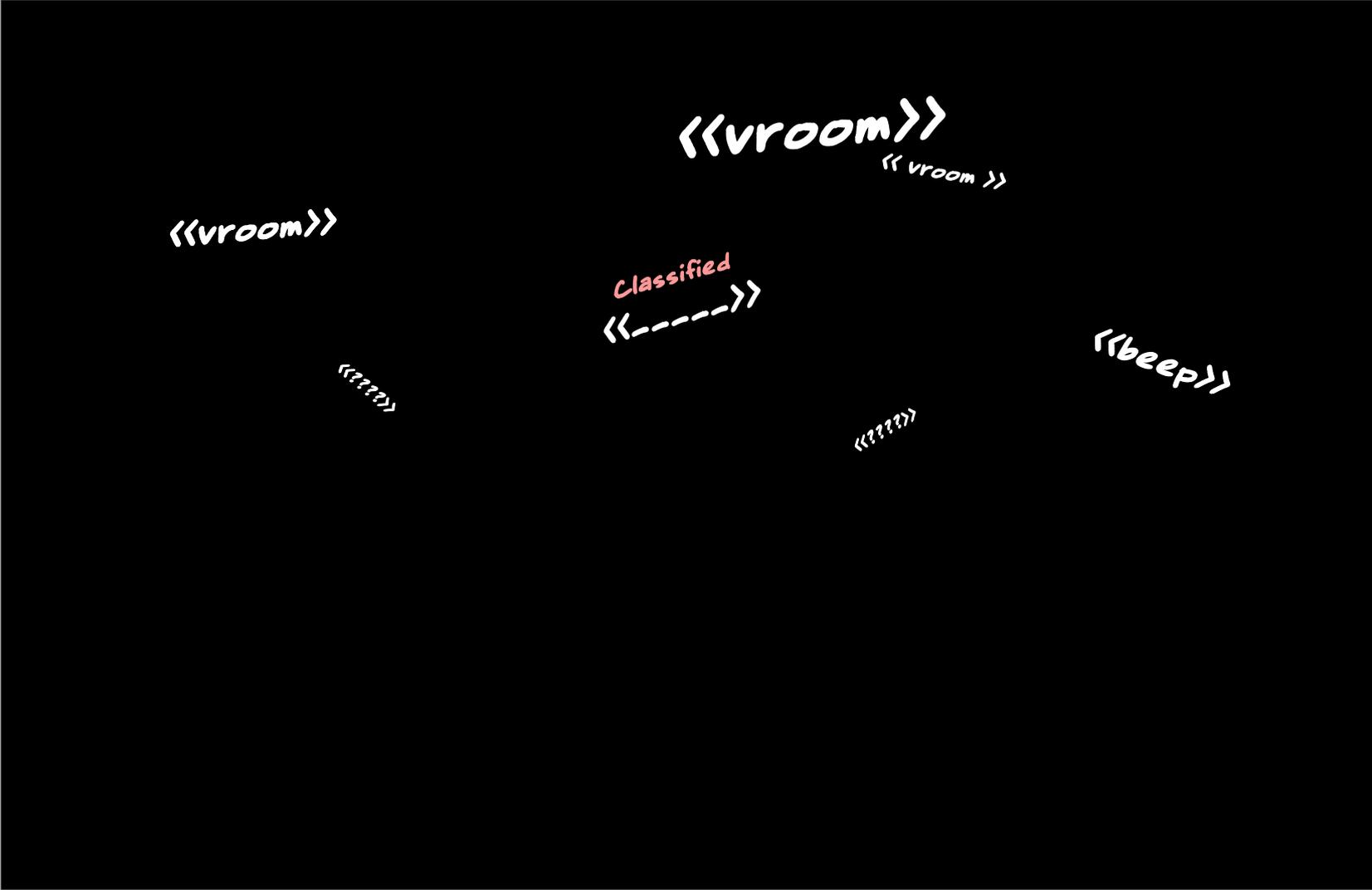
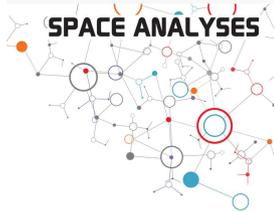


Data Analyses of and for Space Assets: Roles, Rules and Responsibility

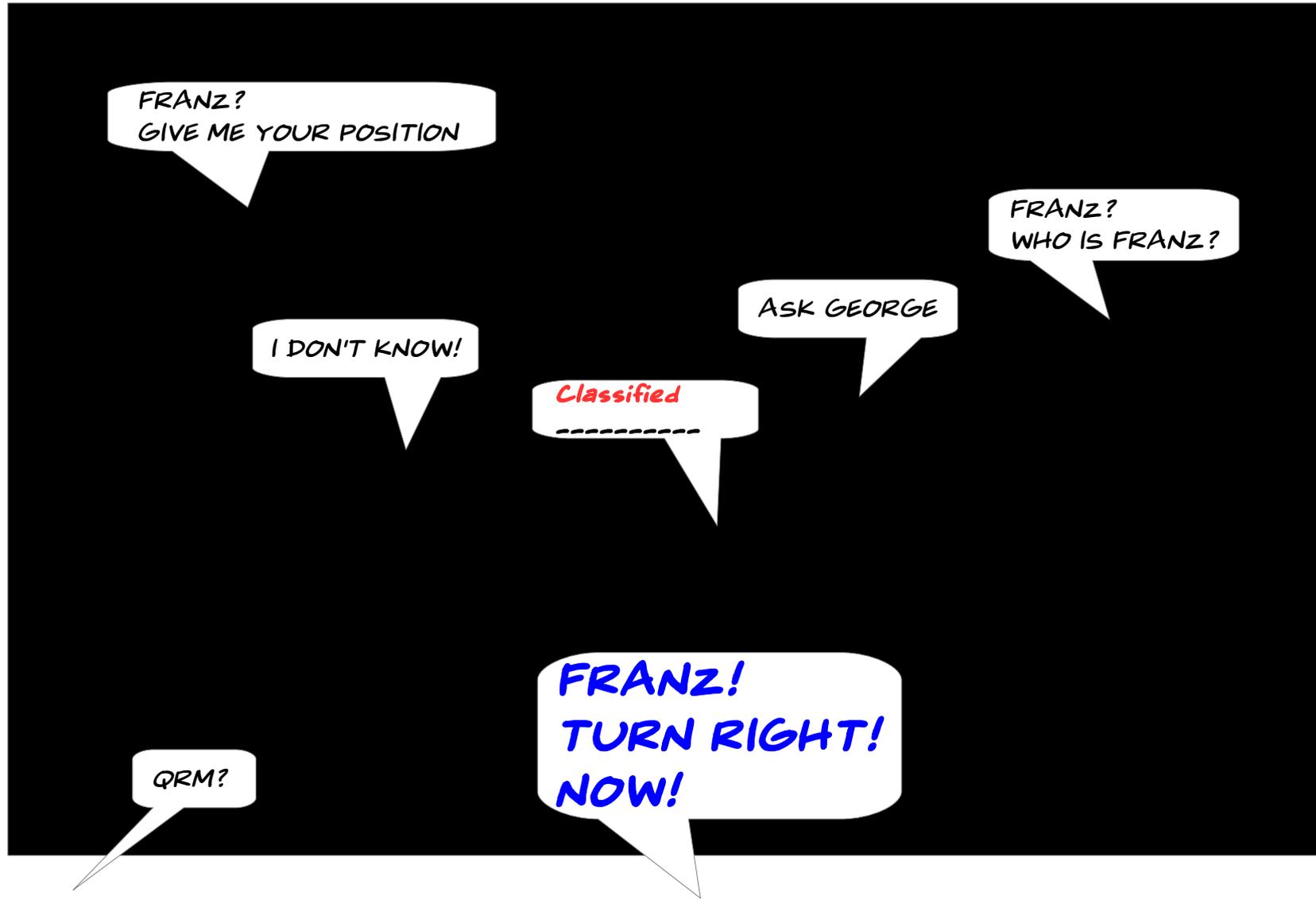
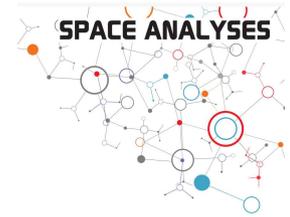
Enforcing Sustainability in Space

Christian Unfried, Valentin Eder
Space Analyses GmbH, Vienna, Austria

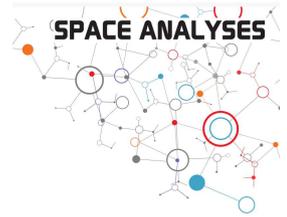
Is there Something in Outer Space?



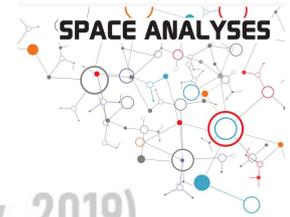
Is the Communication Working?



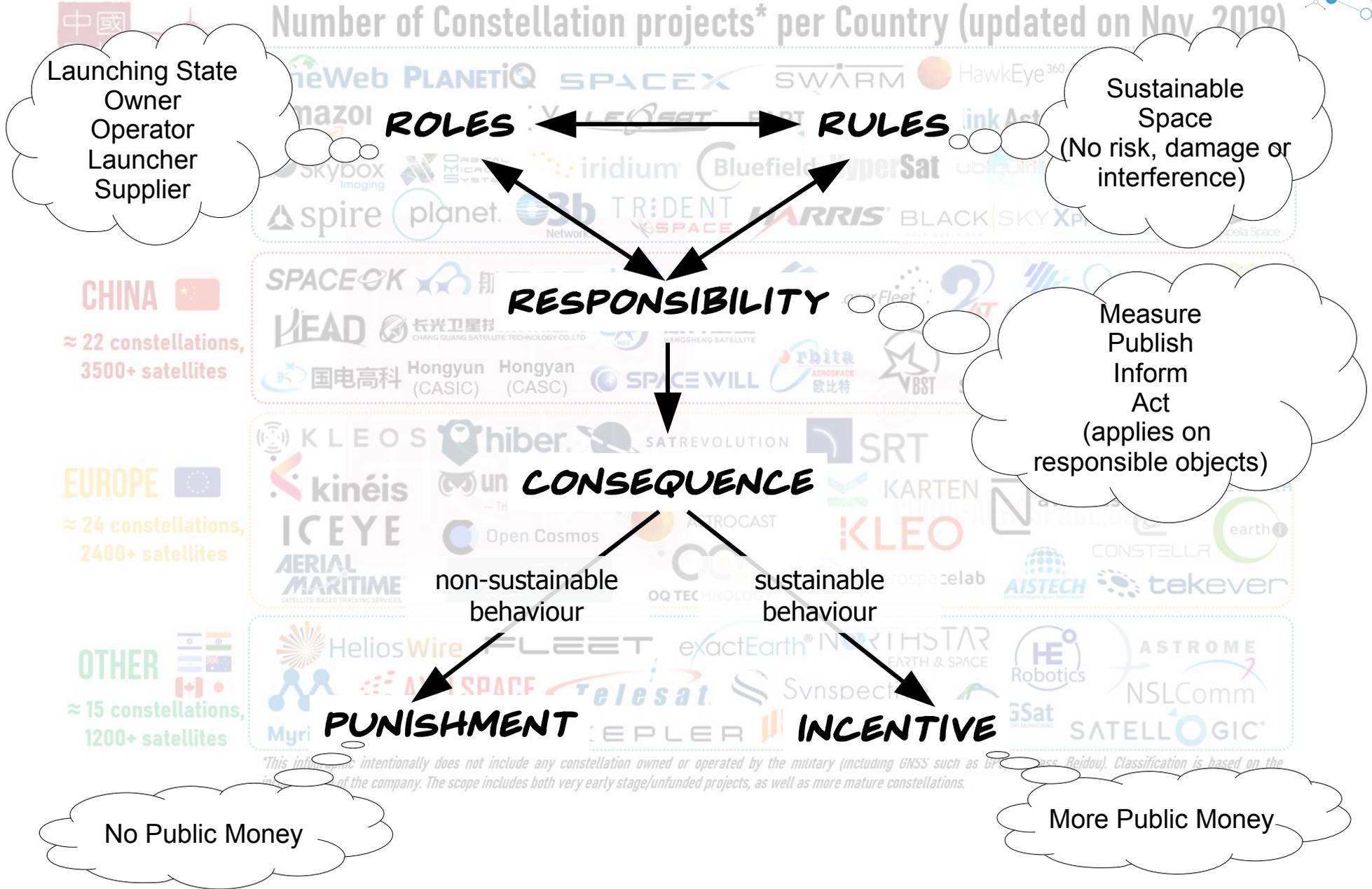
Is there a Responsibility towards Others?



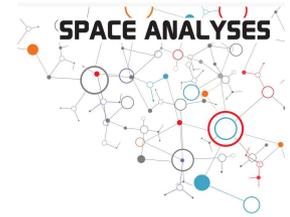
The Consequence



Number of Constellation projects* per Country (updated on Nov. 2019)



Background Figure Source: <https://china-aerospace.blog/space-industry-mapping/>



Internationally Banned Activities

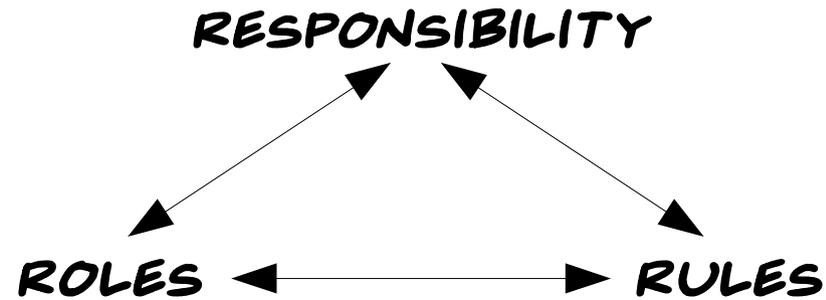
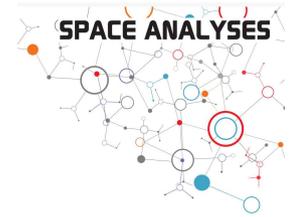
- Participation in a criminal organization
- Bribery and fraud
- Terrorism or offences linked to terrorist activities
- Money laundering or the financing of terrorism
- Child labour and all forms of human trafficking
- ...

AND WE SHOULD ADD

- **Non-sustainable, non-cooperative activities → in outer space**

We need to nudge or even push companies / organisations performing space activities to implement respective compliance rules.

The Impact to Space Sustainability Pillars



Diplomacy

Secured Sustainability

Society

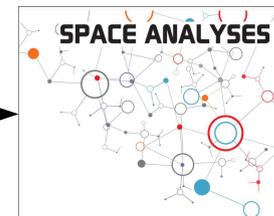
Reliable services

Accessibility

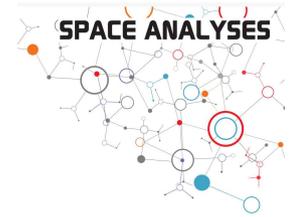
Secured on long run

Economy

**Risk reduction
Clear Responsibility
New services**



The Appeal to UNOOSA



**International Ban of any Public Money
to Companies or Organisations who violate the
UNOOSA Guidelines for the Long-term Sustainability of Outer Space Activities**

by

**enforcing the goal with the same importance
as the fight against money laundering or bribery**

Please Switch on the Light

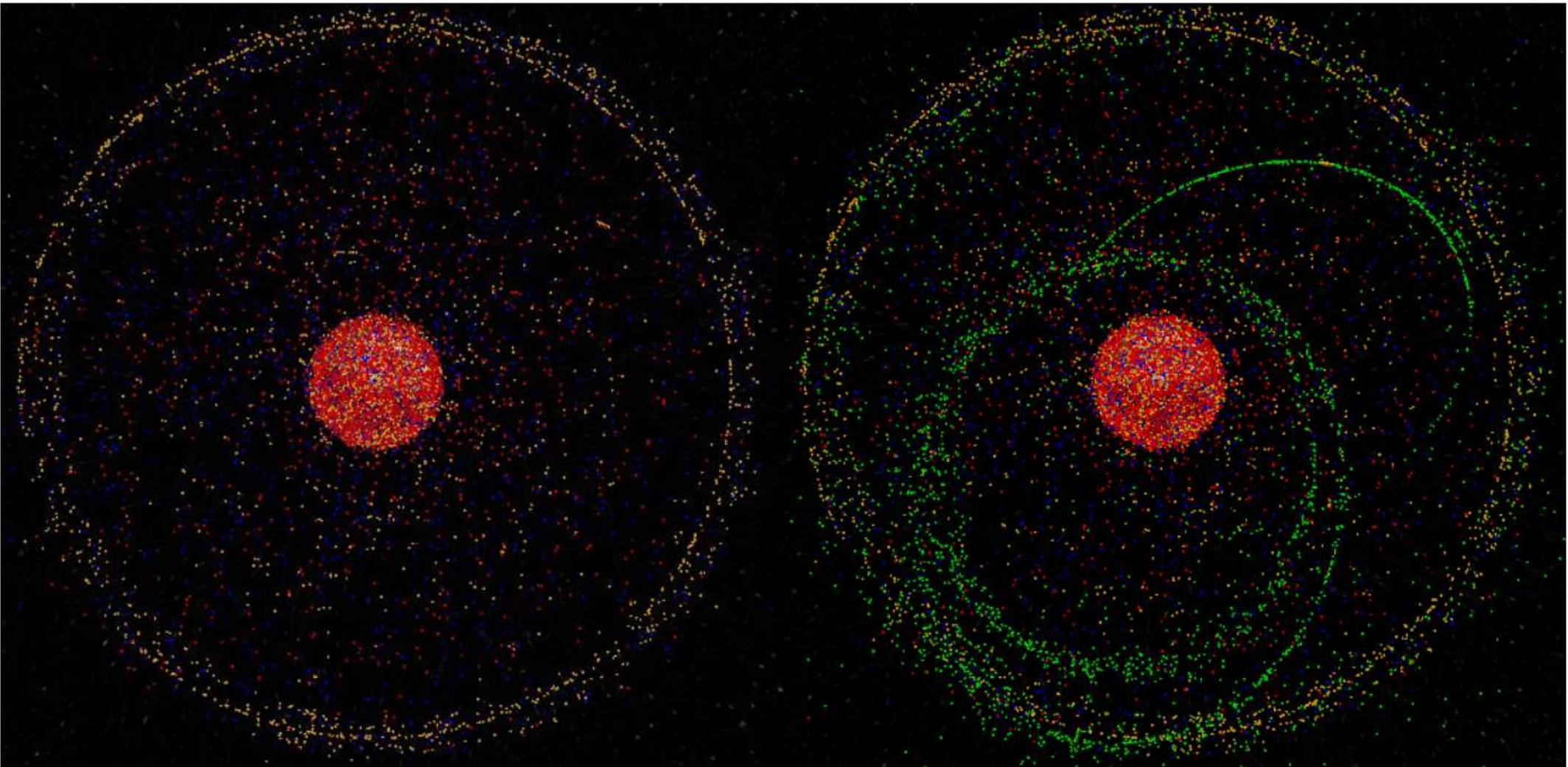
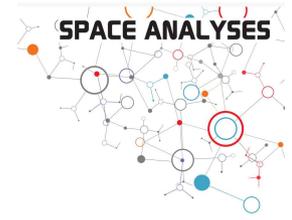
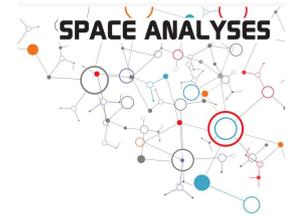


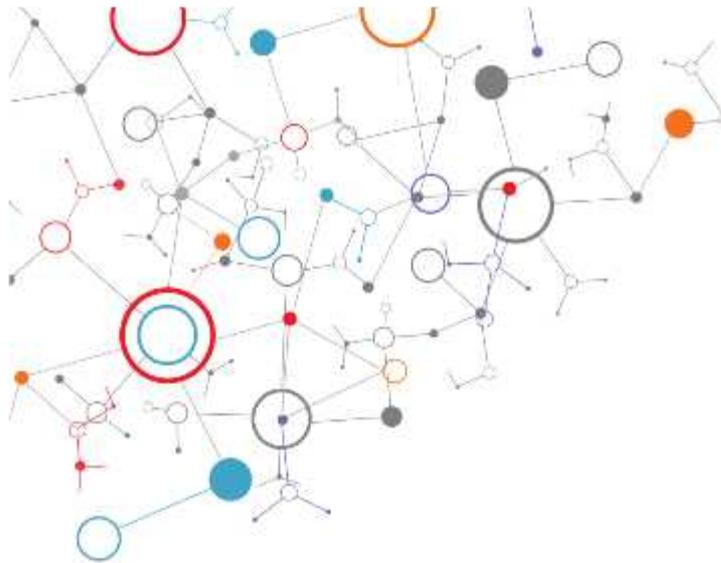
Image source: Schildknecht, T. et al,
ESA Optical Surveys to Characterize Recent Fragmentation Events in GEO and HEO , AMOS Conference, Maui, September 2019.



You can't manage what you don't know.

You can't know what you don't measure.

(greetings to Moriba Jah)



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