

# 6<sup>th</sup> International Space Debris Re-entry Workshop – WS2 Science of re-entry

**ESA Space Debris Office** 

15/01/2025

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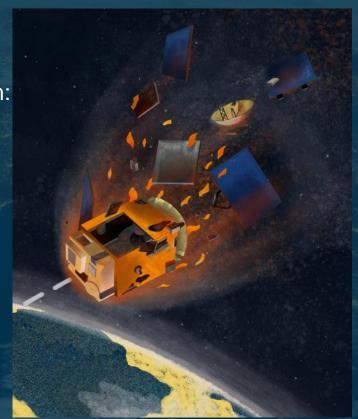


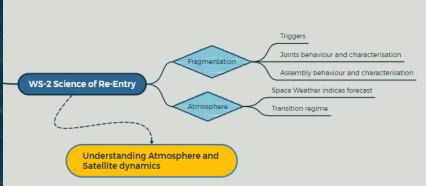
## What to expect from WS-2: Science of Re-Entry



Re-entry phenomenon characterisation and big picture understanding:

- Fragmentation process trigger mechanism: small vs. big SCs, type of re-entry...etc
- Joints and assembly behaviour and characterisation
- Atmosphere characterisation: space weather indices forecast
- Transition regime between free molecular and continuum aerothermodynamics





### **Questions**



How will the ISS break-up?

Fragmentation process triggers

Joints and assembly behaviour and characterisation

Probabilistic assessments

How to characterise secondary fragmentation process in simplified models?

Does it make sense to pursue for a semi-empirical atmosphere model? How does the flow influence the trajectory?

What remains unknown from the transition regime?

## WS2: Which data are you interested in?



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#### **ANSWERS**



