

## COMET MAT

New environmental constraints for space materials: how can we anticipate tomorrow's needs?

30-31 march 2026 ONERA Toulouse

30 March 2026		
<b>13h-13h45</b>	<b>accueil</b>	
<b>13h45</b>	<b>COMET + workshop Introduction</b>	
14h	o Environmental' risks on space materials	E. Laurent CNES
14h30	o Introduction to LEO Environmental Constraints: Strategy for the Selection of External Satellite Materials	T. Gineste ADS
15h00	o Induced particulate contamination due to atomic oxygen erosion of polymers: is it a critical issue?	D. Faye CNES
15h30	o Assessing the Criticality of Synergistic Effects with Atomic Oxygen (AO): Materials-Related Issues	S. Duzellier ONERA
<b>16h00</b>	<b>Coffee break</b>	
16h30	o Impact of Plasma Propulsion on Satellite Surface Elements—Erosion, Contamination, and Associated Effects	M. Villemant ONERA
17h00	<i>Thematic discussion (erosion)</i>	
<b>17h30</b>	<b>Closing</b>	

<b>31 March 2026</b>		
9h00	o Materials outgassing: impact of environmental conditions.	A. Ghodhbani CNES
9h30	o UV Aging of Contaminated Materials: Influence of Contaminant Deposit Morphology on Solar Absorptivity	D. Lansade CNES
10h	o Morphology of contaminant deposits: influence of surface roughness and chemical composition of materials	A. Zamo ONERA
10h30	o Experimental Assessment of Contamination-Repellent Coatings for Organic Molecular Contamination Mitigation on Spacecraft Sensitive Surfaces	A.Saverino TAS
<b>11h00</b>	<b>Coffee break</b>	
<i>11h30</i>	<i>Thematic discussion (contamination)</i>	
12h00	o ESA's materials test facilities for future space missions	A.Tighe ESA
<b>12h30</b>	<b>Lunch</b>	
14h00	o Polymers erosion by low energy heavy ions plasma, morphology changes and contamination risks.	L. Nicolas ONERA
14h30	o Numerical modelling of ion sputtering for space applications (metals, ceramics, polymers)	L. Chiabo ONERA
15h00	o Lunar dust and materials performance challenge	A.Suarez-Kahan ONERA
15h30	o End of life of spacecraft in LEO/VLEO : conditions of atmospheric re-entries and impact on design.	C. Puig ADS
16h	o Radiation shielding : Geopolymer an alternative to Lead-based materials	P. Jouanne TAS
<b>16h30</b>	<b>Wrap-up and closing</b>	