



Materials IQ Follow-up Workshop on  
“Challenges in the Sustainable Cleaning  
of Technical Component Parts”

Wednesday, 27 May 2026, 13.00h - 17.00h  
Empa, Überlandstrasse 129, 8600 Dübendorf

# Materials IQ – Workshop

## Materials & surfaces for space – future technologies & challenges

The event is aimed at scientific institutions, industry & technology providers and policymakers, as well as platform operators with future-oriented material concepts and surface technologies for space applications.



Materials Science and Technology

In cooperation with:



Wednesday, 27 May 2026, Workshop: 13.00h - 17.00h



## Materials & surfaces for space – future technologies & challenges

Registration until 20 May 2026: [info@innovativesurfaces.ch](mailto:info@innovativesurfaces.ch) /  
[www.innovativesurfaces.ch](http://www.innovativesurfaces.ch)

Workshop fees:

NTN Innovative Surfaces members CHF 50.- (excl. VAT)

Non-members CHF 120.- (excl. VAT)

Cancellation policy: Administrative fee CHF 50.- (excl. VAT)

Substitutes are accepted

Empa Überlandstrasse 129  
8600 Dübendorf



SCAN ME

Space technology is highly dependent on protective surfaces and innovative materials. In addition to light metals, materials that are resistant to radiation and temperature, as well as fatigue, abrasion and corrosion, are in particular demand. Space technology is a source of innovation because it sets requirements that are almost always much higher than in any terrestrial application. The event connects forward-looking research with Swiss industry, renowned for its precision technology and innovative surface engineering. Participants discuss new ideas for highly demanding environments.

12.45 Welcome coffee

13.00 **Welcome & introduction**

Patrik Hoffmann, Empa / EPF Lausanne

Markus Schölmerich, ESA Phi-Lab, Paul Scherrer Institut PSI

13.10 **Space activities @ Empa**

Lorenz Herrmann, Empa

13.25 **Keynote surprise speaker**

13.35 **Innovative materials for sustainable space application**

Ugo Lafont, European Space Research & Technology Centre ESTEC

14.10 **Space environment effects on optical instrumentation**

Nicolas Thomas, University of Bern

14.30 **4D Printing for shape morphing and passive, adaptive structures**, Kristina Shea, ETH Zurich

14.50 **Tailoring MXenes for durable friction control in extreme environments**, Manel Rodriguez Ripoll, AC2T research GmbH

15:10 **Coffee break**

15:40 **R<sup>4</sup>: Radiation-hard refractory robust rotation**

Max Erick Busse-Grawitz, maxon international Ltd.

16.00 **What goes up must come down**

Stephan Hellmich, Laboratory of Astrophysics EPF Lausanne

16.20 **High entropy oxide for extreme environments**

Rishabh Shukla & Michael Stuer, Empa

16.40 **From earth to space, small to large: technology bricks for space exploration**, Eleonore Poli, CSEM SA

17.00 **Closing remarks & network-apéro**

