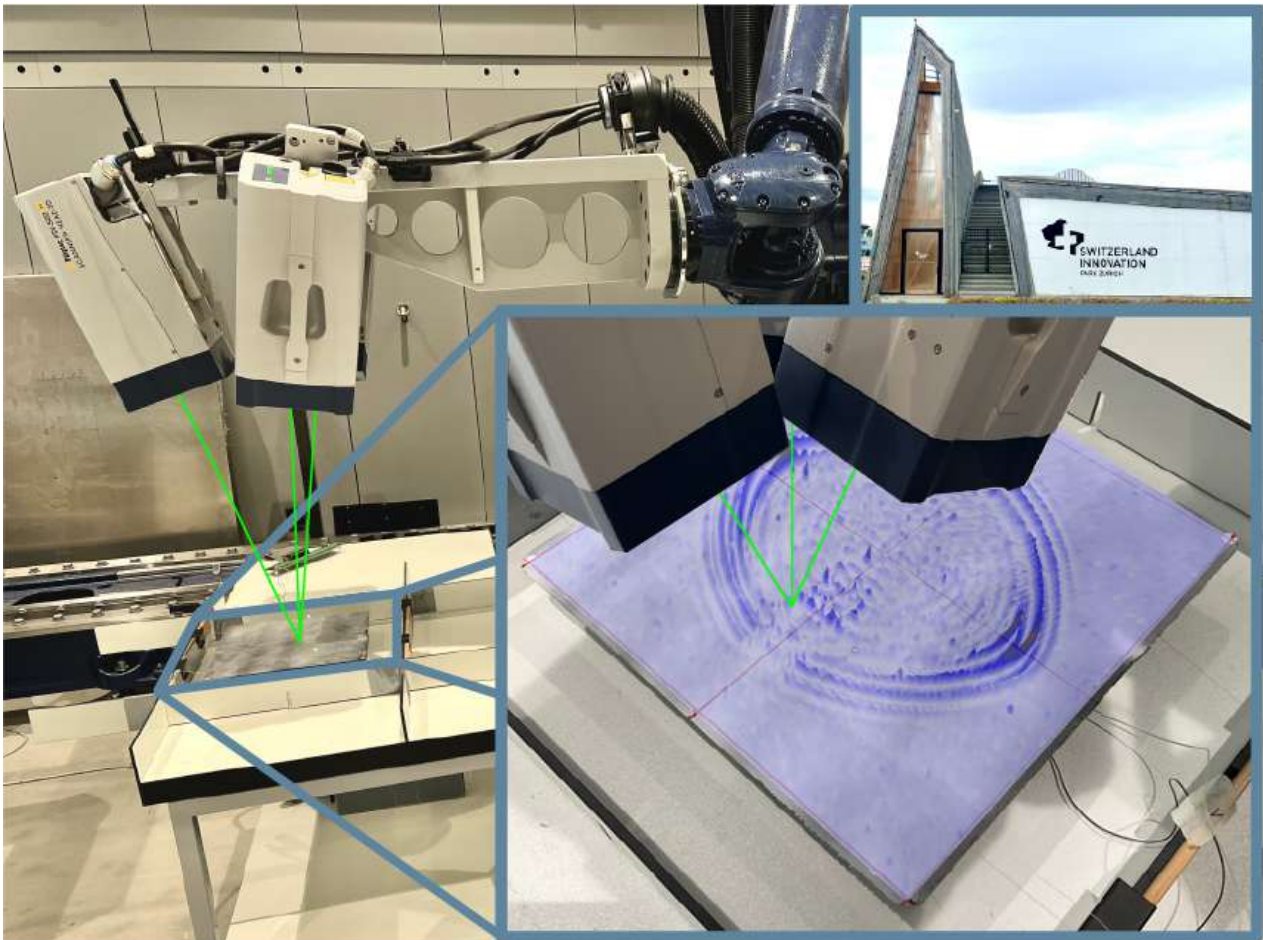


Composites United Innovation Day

Structural Health Monitoring meets Non-Destructive Testing



When: Wednesday, 31 January 2024

Where: [Innovationspark Zürich](#), Wangenstrasse 68, 8600 Dübendorf, Switzerland

Presented by: Theo Sandu – Composites United Switzerland
Christian Boehm – Mondaic AG, Zurich

Focus/Details

In the ever-evolving world of aerospace applications, the demand for strong, reliable, and lightweight materials continues to shape design and quality assurance processes. Moreover, the increasing need for long lifetimes and reusable components has driven the development of non-destructive test methods and structural health monitoring.

We are thrilled to extend to you a special invitation to the upcoming "Innovation by Cooperation: Non-Destructive Testing meets Structural Health Monitoring" event, which we have aptly named the Composite United Innovation Day. This event promises to be an engaging and informative gathering that explores the synergy between two pivotal fields in the world of aerospace, materials and structural engineering.

This event is open to all members of CU, as well as non-CU members.

The focus of the event is on the following topics:

- Keynotes about the state of art in NDT and SHM
- Presentations from stakeholders in the field of NDT and SHM for composites focusing on
 - o Digital twins and simulations
 - o Best practices and emerging trends
- Tabletop exhibitions of service and hardware providers
- Tour through the Immersive Wave Lab and working groups at the Innovationspark Zürich

We will schedule a total of 2 Keynotes (25 minutes) and 9 presentations (10 minutes), each followed by a short and dynamic panel and Q&A session.

The final program with the confirmed presentations will be communicated by Monday, 15 January at the latest.

If you are interested in presenting, please apply with Theo Sandu (theo.sandu@composites-united.com)

For all further details, the updated agenda and to register, please use this [link](#) .

Confirmed Keynote Speakers

Tobias Gerngross
Beyond Gravity

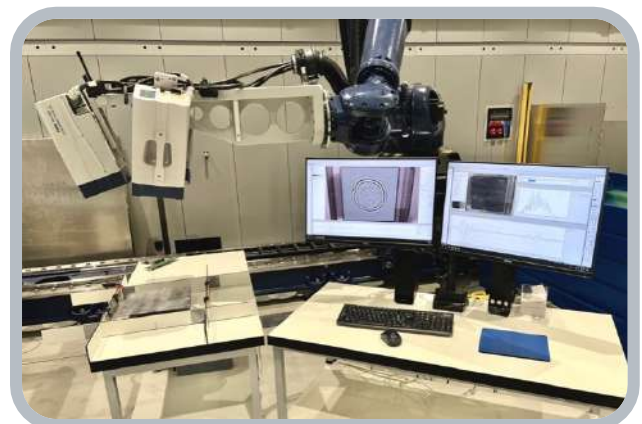


Martin Bach
Airbus Operations GmbH

Participants of the “Innovation Day” will have the opportunity to tour the “[Centre for Immersive Wave Experimentation](#)” (CIWE) and other working groups located at the [Innovation Park](#), including “[AMZ Racing](#)”, “[Aris](#)”, “[Celsius/e-Sling](#)” and “[Swissloop](#)”.

The CIWE was built to study both elastic and acoustic wave phenomena. The laboratory is run by the “Institute of Geophysics” of ETH Zürich. Research conducted here aims to establish a fundamentally new approach to wave experimentation that involves fully immersing a physical experiment within a virtual numerical environment, literally connecting the disciplines of laboratory wave experimentation and numerical modelling.

A key component of the facility is a robotized 3D laser Doppler vibrometer. The device enables a wide range of elastic experiments, such as non-destructive testing, small scale physical modelling, or the non-contact characterization of metamaterials.



Agenda	
09:30	Welcome coffee
10:00	Welcome, news from CU Network and goal of the day Theo Sandu, CU Switzerland and Christian Boehm, Mondaic
10:10	Keynote 1 Martin Bach, Airbus
10:40	Confirming Readiness for Space Tobias Gerngross, Beyond Gravity
11:10	Structural Health Monitoring of Cryogenic Tanks Michael Koerdts, Björn Maack, Faserinstitut Bremen
11:25	Guided Wave-based SHM for Aircraft Composite Structures under Loads Maria Moix-Bonet, DLR
11:40	NDT of healable composites Cecilia Scazzoli / Robin Trigueira, CompPair
11:55	A novel method for ultrasonic inspection using physics-augmented digital twins ETH Zurich / Mondaic
12:10	Understanding Materials – Using X-rays and AI Roger Herger, maXerial AG
12:25	Lunch break
13:30	Tour Immersive WaveLab and Innovation Park, Networking and Tabletop Fair
14:30	Compensation-Technique in Lock-in-Thermografie - a big step towards high resolution thermal imaging Marc Kreuzbruck, IKT University of Stuttgart
14:45	Application-orientated inspection concept of large-scale composite components using active thermography NDT Marco Müller, Fraunhofer-Institut für Angewandte Polymerforschung IAP
15:00	Acoustic and Ultrasonic Non-Destructive Testing and Monitoring Technologies for Composites Henning Heuer / Kilian Tschöke (Fraunhofer IKTS, Dresden, Germany)
15:15	On the Feasibility of Full Waveform Evaluation in Ultrasonic Testing Simon Schmid, Technische Universität München
15:30	Networking Aperero and Tabletop Fair
16:30	End of the event

Registration Types and Rates

Participation is **free of charge for members of Composites United**.

Academic members and students will be charged the **discounted price of 190 €**.

Non-members are charged a **participation fee of 390 €**.

Space at an accompanying **table fair** is available for **290 €**.

	Member	Academic / Students	Non-Member
Innovation Day	Free of charge	190 €	390 €
Table Fair Booth	290 € (in addition to entrance fee)		

all prices are net prices, excl. tax

Please note that the available number of participants is strictly limited. Don't miss your spot and register soon.

This "Composite United Innovation Day" is organized in cooperation with:



Centre for Immersive Wave Experimentation
Institute of Geophysics
Department of Earth Sciences
ETH-Zurich



Mondaic is an ETH spin-off
focusing on innovative software
solutions for digital twins,
simulations and quantitative
imaging.

Travel to the Event









Flight times to Zürich from the German airports Frankfurt/Main, Munich, Hamburg, Cologne/Bonn and Hamburg, as well as public transport options from the airport in Zurich to the Innovation Park in Dübendorf, were taken into account for the event planning.

Public transport (Bus 759) from Zürich airport to the bus stop “Dübendorf, Innovationspark” runs every 15 minutes (30 minutes journey time). The venue can also be reached by foot (approx. 700 m) from the Dübendorf train station.

Free parking for participants is available at the location.

There are return flights to all the airports mentioned above in the evening. To ensure that all participants reach these flights, the end of the event has been set for 16:30 with the possibility for networking until 17:30.

Flight recommendations from/to Germany

<input checked="" type="checkbox"/>		7:20 – 8:15 FRA Frankfurt/M...-ZRH Zürich	Nonstop	0:55 Std.
<input checked="" type="checkbox"/>		19:10 – 20:15 ZRH Zürich-FRA Frankfurt/M...	Nonstop	1:05 Std.
<input checked="" type="checkbox"/>		7:50 – 8:45 MUC München-ZRH Zürich	Nonstop	0:55 Std.
<input checked="" type="checkbox"/>		19:15 – 20:10 ZRH Zürich-MUC München	Nonstop	0:55 Std.
<input checked="" type="checkbox"/>		7:40 – 9:05 HAM Hamburg-ZRH Zürich	Nonstop	1:25 Std.
<input checked="" type="checkbox"/>		20:10 – 21:40 ZRH Zürich-HAM Hamburg	Nonstop	1:30 Std.
<input checked="" type="checkbox"/>		7:00 – 8:00 CGN Köln Bonn-ZRH Zürich	Nonstop	1:00 Std.
<input checked="" type="checkbox"/>		20:25 – 21:30 ZRH Zürich-CGN Köln Bonn	Nonstop	1:05 Std.

If you have any questions about the event and its content, please contact Theo Sandu, theo.sandu@composites-united.com