



**Testing**  
Test infrastructure design for autonomous systems



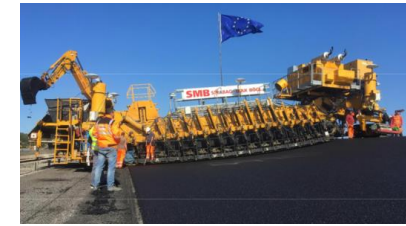
MBE Nils Katzorke  
(Daimler PG Immendingen)



**Technical Center Nardo**  
Virtual visit of the Porsche Proving Ground Nardo Italy



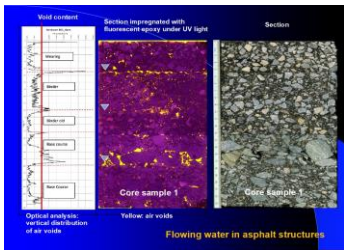
Matthias Köstner  
(NTC Porsche Engineering)



**High Speed Track**  
Rebuild of the banked High Speed Track in the Porsche Proving Ground Nardo/Italy



Dr.-Ing. Michael Schmalz  
(fb)



**Water: Pest of Asphalt**



Dr. rer.nat. Rainer Hart  
(Hart Consult International GmbH)



**Bad Roads Well Built**  
Schlechte Straßen gut gebaut

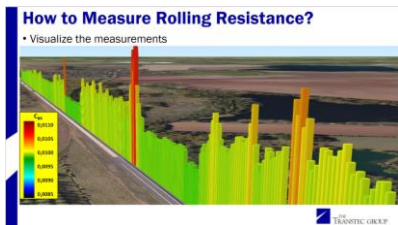
**Online Workshop**  
26. February



**TRANSPOLIS Proving Ground**  
The Transpolis PG in Saint-Maurice-de-Rémens/France



MBA François de Boussiers  
(TRANSPOLIS)



**Rolling Resistance:**  
Rolling Resistance as a Key Parameter for Asphalt Design



Dr. Robert Rasmussen  
(The Transtec Group, Inc.)



Thanks to all lecturers and the whole BRWB support team who made the online event so successful.

Let's meet again 2022



**Traffic Control for PG**  
Interaction between Traffic Control and Infrastructure



Dipl.-Ing. Rainer Staron  
(mm-lab)



The workshop “Bad Roads Well Built 2021” was organized for the ninth time by the Institute of Road and Pavement Engineering at the Technische Universität (TU) Darmstadt/Germany.

Due to COVID-19 the BRWB-Team discussed, how to organize the workshop BRWB 2021. After careful consideration we decided to host an online event and a virtual proving ground tour.

The online event took place February 25/26<sup>th</sup> 2021.

Prof. Dr. J. Stefan Bald, head of the Chair Road and Pavement Engineering gave opening remarks for the workshop, which was moderated by Dr. Gerhard Faust and Dr. Rainer Hart.

More than 140 experts from 64 companies and institutes based in 14 countries met virtually. Six presentations given by well known experts from the industry provided an overview about newest developments of test track design, construction and maintenance. The experts, engineers, users and operators discussed their experience with proving grounds and test tracks.

A day prior to the workshop, a virtual visit to the Technical Center Nardo (NTC), the Porsche Proving Ground in South Italy, was organized by Matthias Köstner and Tatiana Sanchez, both Porsche Engineering Group GmbH and the BRWB Team.

Verena Dreyer and Antonio Leuzzi - experts from Nardò Technical Center S.r.l. - introduced the test tracks and special functions. They also guided the audience through a virtual tour of the Nardo Technical Center.

The first day of the workshop ended with a virtual get-together in the evening.



## Bad Roads Well Built 2021

Sharing Experiences on Constructing Test Tracks for the Automotive Industry

Organizer: Dr.-Ing. Gerhard Faust  
Dr. rer.nat. Rainer Hart

Virtual Workshop Friday 26<sup>th</sup> February 2021



Time	Speaker	Topic
09:15 am - 09:30 am	Prof. Dr.-Ing. J. Stefan Bald Dr.-Ing. Gerhard Faust	Welcome, Opening and Introduction
09:30 am - 10:00 am	MBE Nils Katzorke (Daimler PG Immendingen)	<b>Testing</b> Test infrastructure design for autonomous systems
10:00 am - 10:30 am	Dr.-Ing. Michael Schmalz (Ifb)	<b>High Speed Track</b> Rebuild of the banked High Speed Track in the Porsche Proving Ground Nardo/Italy
10:30 am - 11:15 am	-----	Break
11:15 am - 11:45 am	Dr. rer.nat. Rainer Hart (Hart Consult International)	<b>Water: Pest of Asphalt</b>
11:45 am - 12:15 am	M.Eng/MBA François de Boussiers (TRANSPOLIS)	<b>TRANSPOLIS Proving Ground</b> The Transpolis PG in Saint-Maurice-de-Rémens/France
12:15 am - 01:30 pm	-----	Break
01:30 pm - 02:00 pm	Dr. Robert Rasmussen (The Transtec Group, Inc.)	<b>Rolling Resistance</b> Rolling Resistance as a Key Parameter for Asphalt Design - how to design low resistance Asphalt.
02:00 pm - 02:30 pm	Dipl.-Ing. Rainer Staron (mm-lab)	<b>Traffic Control for Proving Grounds</b> Interaction between Traffic Control and Infrastructure
02:30 pm - 03:00 pm	Prof. Dr.-Ing. J. Stefan Bald Dr.-Ing. Gerhard Faust	Final Discussion and Closure
03:00 pm - .....	-----	Break



For more information please see: [www.brwb.org](http://www.brwb.org)

## Technical Center Nardo

Virtual PG-Visit Thursday 25<sup>th</sup> February 2021

04:00 pm - 06:00 pm	Dipl.-Ing. Mathias Köstner (Porsche Engineering Group) Tatjana Sanchez (Porsche Engineering Group) Dipl.-Ing. Antonio Leuzzi (NTC Porsche Engineering) Verena Dreyer (Porsche Engineering Group)	<b>Proving Ground Nardo</b> Virtual visit of the Porsche Proving Ground Nardo in South Italy
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