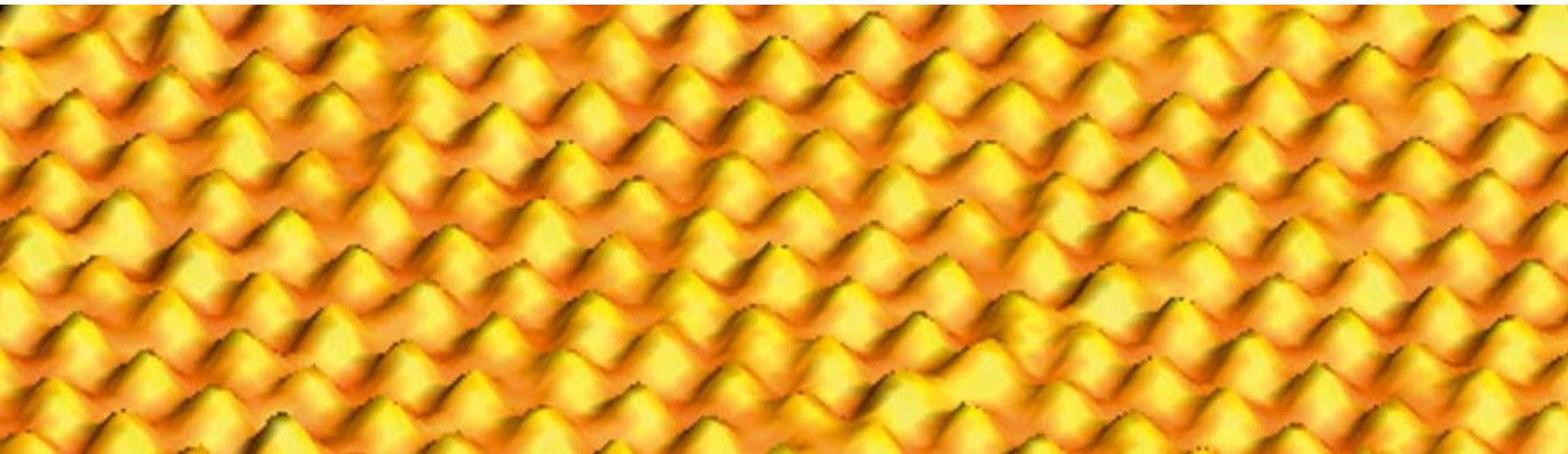
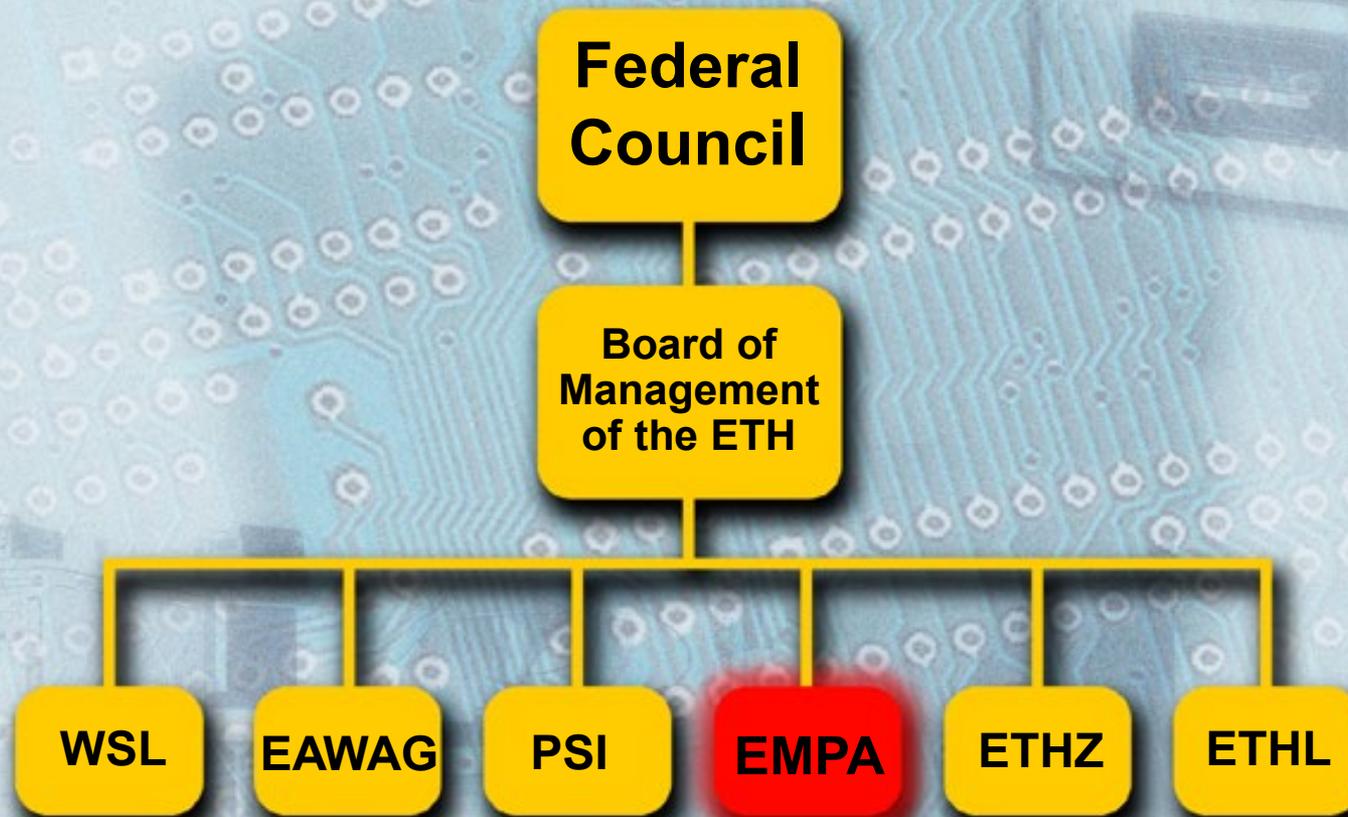


Empa. Materials Science and Technology.





- WSL - Swiss Federal Institute for Forest, Snow and Landscape Research
- EAWAG - Swiss Federal Institute of Aquatic Science and Technology
- PSI - Paul Scherrer Institute

Empa. Materials Science and Technology.

Applied research in materials science and technology

Empa an institution since 1880

www.empa.ch

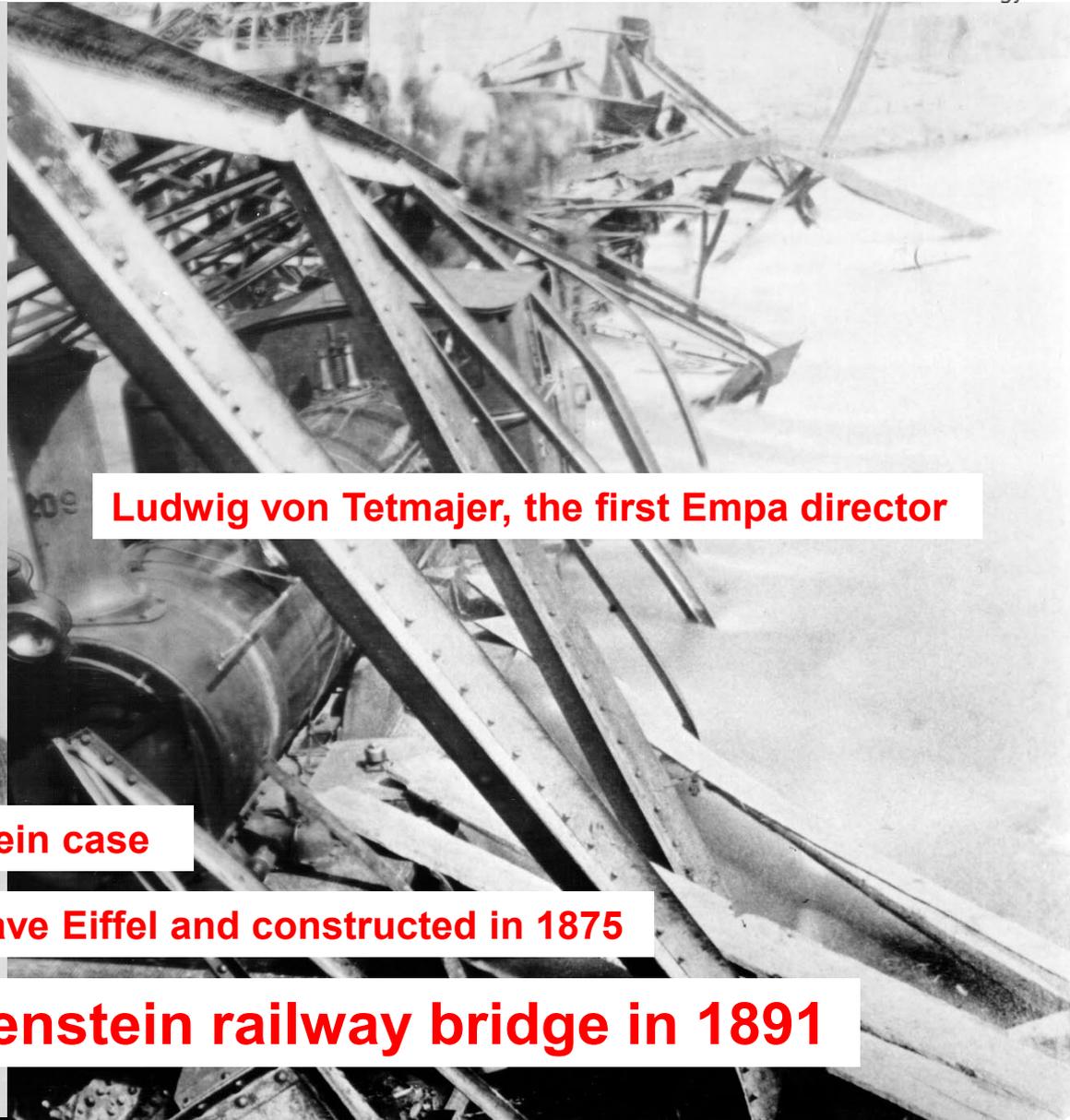


Collapse of the Münchenstein railway bridge in 1891



The bridge was designed by Gustave Eiffel and constructed in 1875

Collapse of the Münchenstein railway bridge in 1891



Ludwig von Tetmajer, the first Empa director

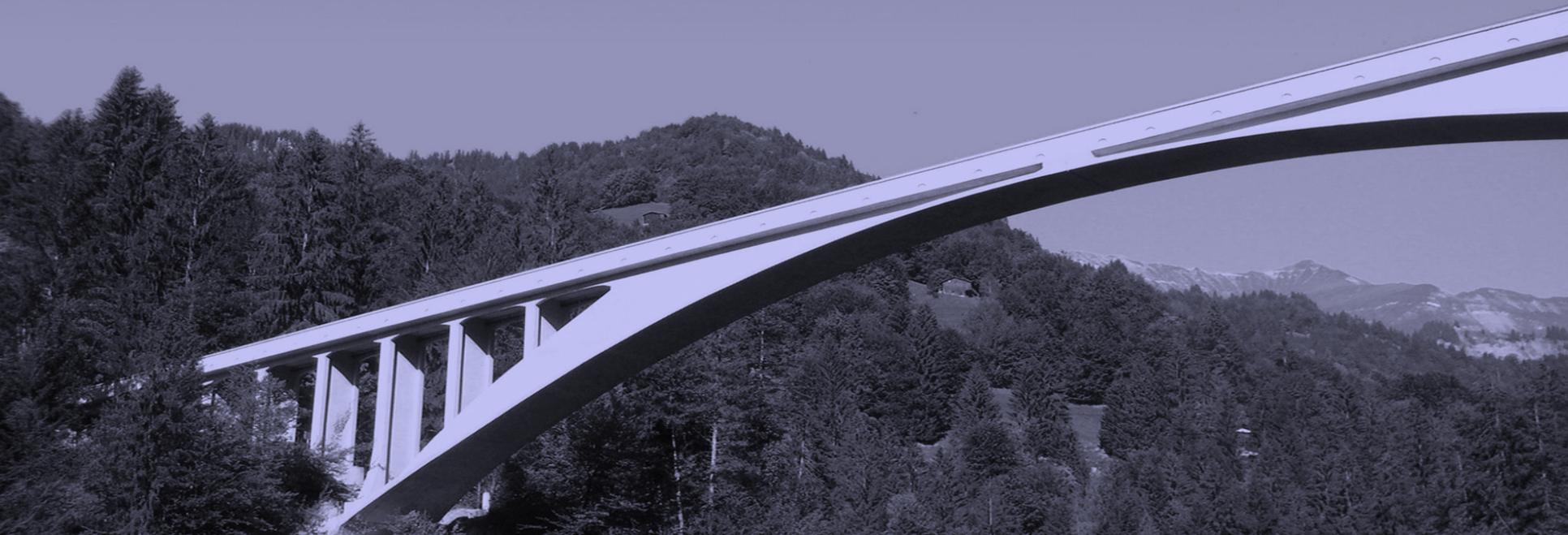
Empa investigated the Münchenstein case

The bridge was designed by Gustave Eiffel and constructed in 1875

Collapse of the Münchenstein railway bridge in 1891

Since those days Empa's mission is:

- building better bridges





Empa

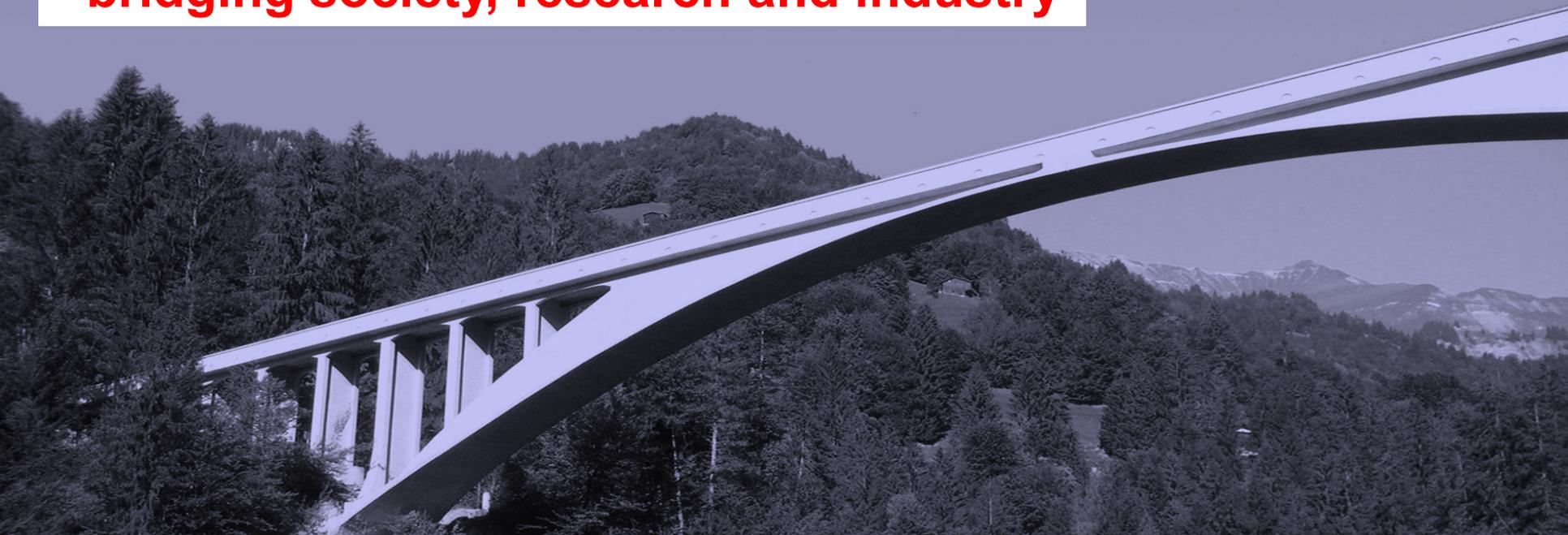
Materials Science and Technology

Since those days Empa's mission is:

- building better bridges

- bridging research and applications

- bridging society, research and industry





Empa

Materials Science and Technology



Collapse of the Genova motorway bridge in 2018



Empa also investigated the Genova case

The bridge was designed by Riccardo Morandi and constructed in 1963-1967

Collapse of the Genova motorway bridge in 2018



A need for NPTI, not only for vehicles

Empa also investigated the Genova case

The bridge was designed by Riccardo Morandi and constructed in 1963-1967

Collapse of the Genova motorway bridge in 2018

**A successful and productive collaboration
of Empa with you, the particle filter
industry at the VERT Forum.**

Welcome to edition 13.0

20 years VERT Filter test



Something to celebrate!

Celebration in 2018!

**9th VERT Forum: 20 years of VERT emission control certification
Empa, March 15, 2018**

25 years VERT Filter test



Something to celebrate!

Filter test on vehicles

NPTI of vehicles

GPFs for gasoline vehicles

13th VERT Forum: 25 years of VERT emission control certification
Empa, March 21, 2023

**A good colleague and dear
friend to remember!**



Dr. Andrea Ulrich

2. Nov. 1961 – 12. März 2013



A good colleague and dear friend to remember!

4. VERT FORUM

Advanced Diesel Particle Filter- and deNO_x-Technologies

Impact of Biofuels

2013



Empa, Dübendorf, Überlandstrasse 129
Friday, March 22, 2013, 09.00–16.30



A good colleague and dear friend to remember!

PROGRAM

- 09.00 Welcome
H. Vonmont, Empa
- 09.05 Welcome
L. Larsen, VERT
- ### RESEARCH AND TECHNOLOGY
- 09.15 Biofuels under Energy and Sustainability Aspects
R. Zah, Empa
- 09.30 Secondary Emissions with Biofuels and FBCs
N. Heeb, Empa
- 09.45 Particle Filter Retrofit (GPF) for Petrol Engines:
Why and how?
A. Mayer, TTM
- 10.00 Research on Metal Oxide Particles:
The GasOMeP-Project
A. Ulrich, Empa
- 10.15 TeVeNOx: Testing of Vehicles with
NOx Reduction Systems
J. Czerwinski, UASB



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