

# 16<sup>th</sup> VERT Forum & VERT Focus Day

March 19<sup>th</sup>-20<sup>th</sup> 2026 – METAS, Berne

- *IAQ and New Nanoparticle Mitigation Principles*
- *NPTI Review and Mission*

Registration: Details on page 6



## Highlights of the 16<sup>th</sup> VERT<sup>®</sup> Forum

- **Nanoparticle Pollution Indoor and New Mitigation Principles for IAQ**
- **Cleaning breathing air in vehicle cabins**, the highest exposure to carcinogens → filling a high priority occupational health gap
- **Virus protection by cleaning indoor air** (schools and hospitals) from UFP and aggressive bioaerosols like viruses → to reach infection risk reduction of >95%
- **GPF-retrofit within HORIZON Europe AeroSofid Project** → to support EU for 5 Mio retrofits in LEZ 2025
- **NPTI-PN as unique solution** for emission control of not only Diesel but also Petrol engines of any application → to eliminate high emitters, support legislation and go global with new instrumentation

## What VERT<sup>®</sup> stands for

An association dedicated to the promotion of Best Available Technology for emission control and ultrafine and nanoparticle emissions reduction via filtration means

The core objective of VERT is the minimization of health effects caused by combustion engine emissions, especially the elimination of Ultra Fine Particles (UFP).

Members of VERT are international manufacturers of engines, testing devices, DPF and SCR systems, as well as of substrate producers, chassis builders, among others.

VERT stresses and recommends the application of particle number measurement against a pure particle mass metric. Ultra Fine Particles (UFP) cause a major threat to health.

VERT sets the highest quality standards for emission control technology by certifying emission control technologies and publishing the VERT filter list. [VERT-Filter list](#)

VERT supports traffic pollution reduction programs all over the world, especially in megacities, occupational health and indoor.

# Key Elements of the upcoming 16<sup>th</sup> VERT Forum – 19<sup>th</sup> March 2026

- **INDOOR AIR QUALITY (IAQ)**
- **NEW PERIODIC TECHNICAL INSPECTION (NPTI) FOR DPF AND GPF VEHICLES**
- **HORIZON EUROPE AEROSOLFD - VERT GASOLINE VEHICLE RETROFIT**
- **VERT AND LEGISLATION**



Dr. Laurretta Rubino  
VERT CEO



Lars Christian Larsen,  
VERT President

## Nanoparticle Pollution Indoor and New Mitigation Principles for IAQ

The VERT Association has been always working at international level to increase awareness of verified emissions reduction technologies, with focus on the best available technology (BAT) for combustion-generated nanoparticle applications and NOx emissions reductions. Increasing health concerns due to nanoparticle emissions, large in number but with very small sizes (nanoscale) are not just related to diesel but all type of engine combustion (i.e. gasoline) and need to be seriously monitored and controlled. Nanoparticle Pollution Indoor is also a big challenge and it needs immediate attention.

The VERT Forum is the perfect platform to discuss health, air quality and all emissions related issues in order to find the best solution by creating international collaborations with dedicated working groups, developing new strategies at national and international level and provide scientific evidence for policy makers and support emissions legislation.

This VERT FORUM this year is dedicated to Indoor Air quality and wants to address and discuss the best possible solutions to mitigate nanoparticle pollution indoor.

VERT introduced the particle number (PN) criterion for health reasons 1996, which is now the basis of European and Chinese legislation. VERT has successfully initiated the introduction of a New Periodic Testing Inspection (NPTI) system to ensure that products and technologies are not only functionable and efficient during test & validation but also during normal operation over time. NPTI for Diesel but also for Petrol with dedicated working groups discussions.

VERT by providing cost-efficient retrofit solution with Particle Filter to Diesel engines contributed over the years to reduce nanoparticle emissions, Black Carbon (BC) and CO2 emissions with positive effects on Global Warming; now VERT is taking the new challenge of Gasoline vehicle retrofit with GPF within the Horizon Europe AeroSolfd project.

VERT continues his missions and uses new tools for nanoparticle abatement not only at the tailpipe but also for non-tailpipe. VERT uses a holistic approach for nanoparticle abatement using the best technologies at the tailpipe and non-tailpipe emissions application for global warming, environment and health.

VERT will continue his traditional retrofitting activity extended to gasoline vehicles and will look also at new emissions-related areas where the VERT expertise can give a solid contribution with international collaborations, working groups and applied know-how discussing urgent emissions related issues every year in the VERT FORUM.

Join us at METAS!

## Nanoparticle Pollution Indoor and New Mitigation Principles

08:30 – 09:00 | door opening

09:00 – 09:20

### WELCOME

- Opening: K. Vasilatou, METAS
- Welcome: L.C. Larsen, VERT
- Chair: L. Rubino, J. Czerwinski, VERT

09:20 – 10:10

### 1. Global ultrafine particle number concentrations

- Ultrafine particle effects on mortality,  
S. Weichenthal, Uni McGill
- Ultrafine Particles and PM 2.5 – are they representative  
of each other? J. Cyrus, Uni  
München

### Coffee Break & Exhibition

10:50 – 11:50

### 2. Missing and Proposed Standards

- Weaknesses of the standardised approach to IAQ, J.  
Czerwinski, VERT
- Sources, levels, and determinants of indoor air  
pollutants in Europe, C. Martins - online

- The Go-IAQ White Book on global open air quality standards, S.  
Papathanasiou, Go-IAQ
- New orientation with WHO 2021 and EU-AQ Directive 2024, L.  
Larsen, VERT

11:50 – 12:20

### 3. Filter Systems available

- Automotive cell filters compared to standard fiber filters ,  
A. Mayer, NCA
- Smart Electrostatic Filters ESP for Ultrafines, A.H.  
Peterhans, CAE

### Lunch Break & Exhibition

13:20 – 14:05

### 4. Simulation Technology and Metrology available

- Simulations and experimental confirmation, Chr.  
Lämmle, CFS
- Detection of biogenic particles,  
Sousa. de Almeida, AMI
- Solid Nanoparticle Metrology for Research and Control, O.  
Bischof, TSI

### Coffee Break & Exhibition

14:35 – 15:50

### 5. VERT Solutions - Examples

- Solutions for vehicle cabins - R.Sa  
Bosmal TBD - online
- Solutions for hospital-rooms J.  
Mayer, NCA
- Solutions for class-rooms H.  
Burtscher, NCA
- Air purification in underground stations  
M+H TBC
- Application of NPIT counters indoors, R.  
Wilce, Wijs-Air

### Coffee Break & Exhibition

16:20 – 16:50

### 6. Petrol Vehicle Filters

- AeroSolfd Project Final Report, L.  
L.Rubino, VERT
- VERA Project with brake and tire-particle emissions  
, A. Dimaratos, LAT/AUTH

16:50 Group Photo

17:00 Exhibitor Reception

## ***NPTI Review and Mission***

**08:30 – 09:00 | door opening**

**09:00 – 09:10**

### **WELCOME**

- Opening: L.Rubino, VERT
- Chair: L.Rubino, J. Czerwinski, VERT

### **09.10 Key-Lecture**

*10 years of PN-PTI in Switzerland from Diesel to Petrol Engines - U.Trivanovic, METAS*

**9.30 - 10.30**

### **1. Status in the four pilot countries**

- *NPTI introduction in the Netherlands, critical review and plans , L. Zuidgeest, MINIENW*
- *NPTI introduction in Belgium, critical review and plans , P. Buekenhoudt, GOCA*
- *NPTI introduction in Germany, critical review and plans , S.Pratzler, PTB*
- *NPTI introduction in Switzerland, critical review and plans, S.Krähenbühl, BAFU*

### **Coffee Break & Exhibition**

**11:00 – 12:15**

### **2. NPTI Expansion into other markets**

- *Introduction to other EU countries – where are the obstacles? P. Szatmari, EU-Commission - online*
- *Introduction to Chile 2026, R. Fraser, VERT*
- *Introduction to Mexico 2027 , A. Multari, VERT*
- *Motivation of CITA to promote NPTI worldwide, A. Checa, CITA*
- *Update on vehicle particle emission control in the US and California, A. Ayala, CARB*

### **Lunch Break & Vehicle Test Demonstrations**

**13:30 - 14:45**

### **3. Metrology development**

- *Further Development of standards, P. Kok, NMI*
- *NPTI metrology for petrol engines with GPF , Engelmann –Zimmerli, BFH*
- *Dirty-Tail calls for extension of NPTI to all combustion engines, H. Burtscher, VERT*
- *VERT application criteria of NPTI instruments, Wilce, VERT*
- *Benefit/Cost for NPTI , A. Mayer, VERT*

### **Coffee Break & Exhibition**

**15:15-16:45**

### **4. Contributions by instrument manufacturers**

- *AVL, K. Schulte*
- *BARTEC, R. Wilce*
- *Capellec, G. Petelet*
- *KNESTEL, M. Farkas*
- *OPUS, A. Kumar*
- *RYME, A. Multari*
- *SCALE, P. Schwanzer*
- *SENSORS, M.Heuser*
- *TEN, M.D. Goede*
- *TOPAS, S. Grosse*

**16.45 - 17.20**

### **5. New applications for NPTI-Instruments**

- *NPTI-instruments for aircraft engines control, T. Rindlisbacher, BAZL*
- *NPTI for NRMM equally urgent, D. Jaussi, TECMOT*

### **Closing Remarks**

- R. *L.C. Larsen, VERT*

# Exhibition of NPTI Instruments and Filters



Hella Gutmann



TOPAS

**KNESTEL**



Qlean Air



# Information for Attendees

- The VERT Forum 2026 is an “in-person event”. Please take advantage of this opportunity and be part of a lively and active event that can make a difference for the environment.
- All VERT FORUM speakers will provide their presentation for distribution to the participants.
- For questions on the program and exhibition , please contact:  
Dr. A. Mayer [ttm.a.mayer@bluewin.ch](mailto:ttm.a.mayer@bluewin.ch)
- For any organizational topic please contact:  
Dr. L. Rubino [lauretta@my-lrconsulting.com](mailto:lauretta@my-lrconsulting.com)

## Registration

Please register under the following Email address:

[lauretta.rubino@vert-dpf.eu](mailto:lauretta.rubino@vert-dpf.eu)

Conference Fee= 400 CHF --- free only for VERT members

Payment via Bank Transfer to:

VERT-Verein – Address: Aemetstrasse 3, 8166 Niederweningen, CH

Zürcher Kantonalbank - Postfach 8010, Zürich, CH

Bankclearing-Nummer: 700

IBAN CH6800700110001986432

BIC (SWIFT) ZKBKCHZZ80A

For questions on the program and presentations , please contact:

Dr. A. Mayer [ttm.a.mayer@bluewin.ch](mailto:ttm.a.mayer@bluewin.ch)

For any organizational topic: and conference fee

Dr. L. Rubino - [lauretta@my-lrconsulting.com](mailto:lauretta@my-lrconsulting.com)

Bern Welcome: Willkommen in Bern

Location: Federal Institute of Metrology METAS

Lindenweg 50 - CH-3003 Bern-Wabern

Info at :<https://www.metas.ch/metas/en/home/metas/standort.html>

*VERT would like to highly thank Swiss SERI for their financial support with the EU HORIZON AeroSolfd Project and All Sponsors*





# Information for Attendees

## How to reach METAS

**Venue Address: Federal Institute of Metrology METAS**  
Lindenweg 50 - 3084 Wabern (Bern), Switzerland

### Travel Directions

#### By Plane (Closest Airports)

- **Bern Airport (BRN):** The closest airport (approx. 6 km). A taxi take roughly 15 minutes, or take the airport bus to Belp and then a train to Bern Main Station.
- **Zurich Airport (ZRH):** Most convenient for international travelers (approx. 100 km). Direct trains run every hour from Zurich Airport to Bern Main Station (approx. 1h 20m).
- **Basel EuroAirport (BSL/MLH):** Approx. 75 km away. A bus/train combination takes about 1h 30m to reach Bern.

#### From Bern Main Station (Public Transport)

- **Option 1 (Fastest):** Take **Tram No. 9** (direction "Wabern") to the "**Gurtenbahn**" stop. From there, change to **Bus No. 29** (direction "Lindenweg") and ride to the terminus station directly in front of the METAS entrance.
- **Option 2 (Walkable):** Take **Tram No. 9** to the terminus station "**Wabern**". From there, it is a pleasant 12–15 minute walk (approx. 1.2 km) to METAS.
- **Option 3 (Train):** Take the **S3 / S31 train** from Bern Main Station to "**Wabern bei Bern**" and then walk or take Bus 29.

#### By Auto (Car)

- From the **A1 / A12 motorway**, take the exit for **Bern-Bümpliz** or **Bern-Forsthaus** and follow signs for **Köniz / Wabern**.
- Follow the "Lindenweg" signs to METAS.
- **Parking:** Visitor parking is available on-site. Please follow the signs marked "**Besucher**" (Visitor).

