



## In this issue

Editorial.....	1
A Silver lining .....	1
News from EFCA .....	3
6th TFTEI Annual Meeting held virtually on 22-23 October 2020 .....	3
Ultrafine Particles – Air Quality and Climate .....	3
News from EFCA Members .....	4
COVID-19 pandemic swept through Scotland ...	4
EPUK in 2020.....	6
PIGE Activities in 2020 .....	8
Activities Commission on Air Pollution Prevention of VDI and DIN (KRdL) 2020/2021...	8
Calendar .....	10

## Editorial

## A Silver lining

by Andrzej Jagusiewicz, president of EFCA

The editorial of our Newsletter from March 2020 was titled « The global spread of an unknown and deadly enemy ». It was and still is SARS-CoV-2 a type of coronavirus, which escaped from Chinese laboratory in late 2019 and is causing Covid-19 illness. I wrote in it that « *All of a sudden we have become exposed to its ultrafine particles. But how they are different from our core business dealing with classic UfPs* ».

Indeed, they are different but make a synergistic alliance with air pollution, and particularly by particulate matter, exposing population living in highly polluted area at greater risk to get Covid-19 and experience more severe symptoms. This is the conclusion from many studies around the globe, so let's look at a few conclusions from them.

The Harvard study analysed 120 cities in China and 66 regions in Italy, Spain, France and Germany and found a significant association between air pollution and the coronavirus deaths, because 78% of cases occurred in five of the most polluted regions, including Lombardia. *“If you're getting Covid, and you have been breathing polluted air, it's really putting gasoline on a fire,”* said Francesca Dominici, a Harvard biostatistics professor.

Own Italian studies fully confirm this outcome calling even a rapid acceleration of Covid-19 in the North of Italy, a highly polluted region, as abnormal and come to the same conclusion that fines particles are a conveyor belt to coronavirus. *« It's a highway to transport it »* said Leonardo Setti, professor at the University of Bologna.

Risk of death from Covid-19 is almost 84 % higher among population effected by pollution. This may also explain high mortality from coronavirus in the South of Poland, traditional host of smog during the heating season.

And still the researchers from Max Plank Institute (Germany) attribute to long-term exposure to polluted air, 19 % more mortal cases from Covid-19 in Europe, even 27 % in the South-East Asia and in general 15 % around the globe.

Scientists explain that phenomenon in three ways. First, needless to prove that pre-Covid-19 long-term exposure to air pollutants are damaging our lung, heart and brain. Second, inflamed lungs by pollution are more vulnerable and receptive to coronavirus, and finally, fine particles can act as a physical carrier and be responsible for airborne spread of Covid-19.

It's very sad to repeat after WHO that 9 out of 10 peoples in the world are living in overpolluted areas and that around 7 million die every year from exposure to polluted air. Also in Europe, air pollution continues to have significant impacts on the health particularly of urban citizens and according to the EEA we had 379 000 deaths in 2018 only due to **PM<sub>2,5</sub>** in the EU-28 (still). But if we add mortality associated to other pollutants, mainly nitrogen dioxide and ground-level ozone the death toll reach almost 450 000 cases.

As to Covid-19, so far it infected 70 million people in the world and 20,5 million in Europe, and took almost 1,6 million lives around the globe and 465.000 on our Continent. Surprisingly, we can state that Covid-19 is as deadly as air pollution because their annual fatalities are almost equal. But there is a big difference between the two enemies of our health and well-being.

When I am writing this text the first person, UK citizen, has been vaccinated against Covid-19 and I am convinced that we all European will be shortly immune to coronavirus. So by next Summer, this pandemia may be over. But what about the air pollution? What about our daily killer **PM<sub>2,5</sub>** as deadly as nicotine? What about standardizing finally black carbon and other ultra-fine particles (UfPs)? It's true that we don't have any vaccine against the air

pollution, but we have a lot, and even too many instruments to stop emissions polluting the air we breathe.

You remember that in March many countries started imposing lockdown, which drastically cut and/or even totally eliminated emissions from main industrial sectors and almost totally immobilized transport. As result only in Europe there had been 11000 avoided deaths from air pollution. And the cleaner skies were seen almost everywhere in the world. Even the Himalayans were more visible again from heavily polluted cities in India. But today, this idyllic pictures are over as lasting lockdown can put our economies at risk and increase poverty. Really true?

We have just got the new EU budget for 2021-2027 and as integral part of it the Recovery Plan for Europe. The latter totaling € 1.8 trillion will be the largest stimulus package ever financed through the EU budget and is intended to rebuild a post-COVID-19 Europe. « *It will accelerate the green transformation* » stated Charles Michel, the President of the European Council. So we can! And as a starter, to reduce the GHG emissions by 55 % till 2030.

Let's hope that the lesson learnt of this deadly alliance Covid- 19-Air Pollution, will guide our recovery activities to depollute the air and slow down the climate changes. So called « Maximum Feasible Technical Reduction of Emissions » scenario should become a reality when decarbonizing and greening European economy. In the meantime, the new generation power fuels like a clean hydrogen could be used in transport and particularly in shipping and aviation. And we at EFCA should continue with our « Trojan Horse-UfPs » in order to provide a full scientific evidence and finally get its metric.

This pandemic year is coming to its end together with its screen-to-screen meetings. Therefore, it's the best occasion to thank you all for extending my presidency for the next term and particularly warmly thank to Joop van Ham for his efforts to transfer

safely our account from the Netherlands to Germany and to Thomas Reichert for finding the way to locate our treasure in a secure place.

I wish you a Merry Christmas and Happy and Healthy New Year, and of course a lot of fruitful face-to-face meetings.



---

## News from EFCA

### 6th TFTEI Annual Meeting held virtually on 22-23 October 2020

*by Andrzej Jagusiewicz, president of EFCA*

The meeting has been planned to hold in Warsaw (Poland) and offered the occasion to host the EFCA Assembly. However, the restrictions forced the organizers to have it as a virtual event and EFCA under such circumstances also had its virtual Assembly later on the 7th of November 2020.

The TFTEI meeting was preceded by informal technical session on Maritime Transport emissions and Agriculture Residue Burning. Both emission sources, emitting Ultrafine Particles (UFPs) are of vital interest to EFCA advocating since long-time a necessity to introduce a metric on UFPs.

The technical document on maritime shipping emissions, reduction techniques and determination of their costs has been finalized at the session and

now it's posted at

<http://www.unece.org/index.php?id=52975>,

an official site of the UNECE. The document is important for us as we consider shipping as an aggressive sector emitting a lot of UFPs.

Concerning the Annual Meeting as such, it was attended by our Honorary President Thomas Reichert and by myself. It was also an occasion to contribute to it and present by myself a report on « UFP-Integrating action for cleaner air and climate protection, fraction-by-fraction approach with focus on ultrafine particles ».

Among the agenda items of particular interest to EFCA I would like to mention such presentations as « Technologies for PM and Black Carbon » and guidance documents to address Black Carbon Emissions from domestic heating in the Arctic and on Agriculture Residue Burning. All three presentations are very supporting our action on UFPs and you can get them from CITEPA [gregoire.bongrand@citepa.org](mailto:gregoire.bongrand@citepa.org), the organizer of the virtual TFTEI meeting.

Let's hope that next TFTEI Annual Meeting will be held as f2f event and also in Warsaw. Another occasion to host EFCA Assembly. You are welcome !



---

### Ultrafine Particles – Air Quality and Climate

*by Thomas Leisner; Chairman*

**Online Meeting 2021, May 18th  
2 p.m. – 5 p.m. Central European Time**

#### *Meeting Organization Information*

Due to the pandemic situation and its impact on planning and scheduling of conferences and gatherings in 2021 the traditional Ultrafine Particles Symposium, held in Brussels every second year, will be postponed to 2022. But to maintain the scientific

and societal contact and exchange on that issue a very condensed three-hours online meeting of the community will be organized free of charge. Meanwhile all around the globe there is now enough experience with digital tools for teaching and conferencing. Nevertheless, this online meeting 2021 does not replace the Symposium in presence.

### Ultrafine Particles

Ultrafine particles (UFP), the Nano fraction of airborne particulate matter, are considered to be causing serious health problems and environmental effects. Combustion is a major source, also by producing volatile organic pollutants which are converted in the atmosphere through photo-chemical reactions. Increasing applications of man-made nanomaterials add to the problem. A further interest results from their specific role in atmospheric processes such as cloud formation and precipitation and, in fact, in climate. The relation between UFP and human health and that of UFP and climate are both areas of active research and cross-links between these fields are found nowadays.

### Scientific Focus of the 2021 Online Meeting

The scientific focus of the 2021 online meeting will be on interactions between air quality and the Corona pandemia, recent findings, hypothesis, monitoring results, health and impact assessments. Volatile particles and toxic effects, release of UFP e.g. by aircraft emissions, exposure assessment and the effect of lock-down episodes shall be treated.

### Proposed Contributions

Due to the possibilities for the live-participation of a global audience the time window has been selected between 2 p.m. and 5 p.m. Central European Time (CET). Within this meeting time a few lectures by invitation only will be presented. Therefore, this is not a call for papers, but proposals for contributions are welcome, will be selected and speakers invited.

### Chairman of the Meeting

Thomas Leisner, KIT

Registration on: <http://ufp.efca.net/>

---

## News from EFCA Members



### COVID-19 pandemic swept through Scotland

*by John Bynorth, Policy and Communications Officer; Environmental Protection Scotland (EPS)*

REMARKABLE short-term improvements in air quality, as car use dropped significantly and reductions in noise levels from aviation, were the big environmental stories of 2020 as the COVID-19 pandemic swept through Scotland.

As 2020 ends, we should now be celebrating Glasgow's role on the world stage with an ambitious new treaty to cut emissions at the 26<sup>th</sup> United Nations Conference of the Parties (COP) climate change summit.

However, as the COVID-19 pandemic took hold in the UK the conference was postponed until November 2021 and the few people living or working in Scotland's towns and cities during the national lockdown witnessed improved air quality and quieter streets. Workers furloughed from work spent their time on healthier activities such as walking and cycling instead of driving.

Major cities such as Glasgow, Edinburgh, Aberdeen and Dundee experienced large falls in NO<sub>x</sub> and NO<sub>2</sub> as private car journeys fell by 75% during the first national COVID-19 lockdown announced at the end of March by Scotland's First Minister. The rules, backed up by police fines for breaches, barred most of the 5.4 million population from leaving their homes, except for one piece of daily exercise or to make an essential trip to the shops.

Although car journeys and air pollution crept up again during the summer as the Scottish Government allowed bars, restaurants, hotels and shops to reopen, fresh lockdowns for the central belt (an area of some two million people) designed to combat COVID-19's so-called 'second wave' as we headed into winter meant that car journey levels are currently 20% lower than the usual levels.

Once thriving cities were deserted with few cars and buses and people were warned by the Scottish Government not to use public transport unless they worked for the National Health Service or were another type of essential worker.

Rail, bus companies and Caledonian MacBrayne, which provide a lifeline ferry service for the Scottish islands, drastically cut back services or restricted passenger space to comply with the two-metres social distancing rule. Transport Scotland's data analysis from early April 2020 showed a 95% fall in the number of people using trains or ferries and concessionary bus journeys (Scotland offers free public transport for people over the age of 60) fell by 90%.

But many people had time on their hands after they were furloughed from their jobs and took up cycling and walking.

A survey of independent cycling shops carried out by EPS found an upsurge in cycle sales and purchases of e-Bikes, from the Isle of Skye to Edinburgh.

The charity, Cycling Scotland, recorded a spike in the numbers of people cycling in towns and cities across Scotland. Within two weeks of the national lockdown, the number of trips made on bicycles doubled.

A 199% increase in cyclists were recorded using one particular Glasgow street between the start of lockdown in March and September 2020. Figures showed 3.44% of all journeys were made by bicycle in Scotland in 2020, up from 0.67% the previous year.

Transport Scotland, working with sustrans cycling charity, launched the 'Spaces For People' scheme with £30 million given to Scottish local authorities to fund temporary cycle lanes and pedestrian space, primarily designed to encourage social distancing. Campaigners are calling for more funding to make

the measures permanent and to lock in the health and air quality benefits accrued from cycling and walking.

There are concerns too about rising air pollution levels once the pandemic is over. Will people simply go back to their cars? Indoor air pollution is another issue, with many people working from homes, which might not be properly ventilated, and, with COVID-19 a respiratory illness, companies are looking at how to ensure offices are properly ventilated to avoid infection.

A briefing document published by Public Health Scotland examined transport, health and health inequalities and the measures being taken to suppress COVID-19.

The report warned that one million people in Scotland are at risk of 'transport poverty' without access to public transport. Almost one-third (29%) of households in Scotland do not have access to a car, yet children and adults from the lowest-income sections of society suffer the higher levels of road collisions and are at increased exposure to air and noise pollution.

Breathe London, a hyper-local air monitoring program, carried out analysis at its 140 roadside sensors across the UK capital. It found improvements in NO<sub>2</sub> during the first national lockdown as traffic levels were, on average, down by between 20% and 24%, but found no clear reduction in PM<sub>2.5</sub> levels. In fact, there were examples of elevated PM<sub>2.5</sub> levels as two air pollution 'episodes' occurred during the first national lockdown. These incidents are believed to have been caused by trans-boundary air pollution from industrial and agricultural emissions from mainland Europe, as well as wood burning.

The study suggests that weather and other factors, such as domestic burning, can have more impact on air quality than interventions to curb traffic use.

Around 90% of flights were cancelled in the UK at the start of the pandemic and British Airways planes

were parked up, mothballed on a runway at Glasgow Airport.

However, this brought some relief for people who live under busy flightpaths. Before the pandemic, Aberdeen Airport was home to the world's busiest heliport with some 500,000 journeys per year to and from North Sea oil platforms. In April, Iain Chirnside, who lives under the flightpath, told *The Guardian* newspaper that he had been able to hear the birdlife for the first time, adding: "I hope we hold on to that spirit when we go back to our, inverted commas, 'normal life'."

Most industrial plants continued to operate during the lockdown, but reductions in traffic flows, may have resulted in specific industrial type noise seeming more intrusive for neighbouring residents. A study by Transport for London in March found that the significant drops in traffic flows at the time had resulted in a six dB reduction in background sound levels.

Clean Air Day, coordinated by EPS on behalf of the Scottish Government, was delayed from June until October 8<sup>th</sup> due to the pandemic. Over 134 organizations and people, including Dr. Mark Miller, an air pollution scientist at the University of Edinburgh (pictured with his daughters)



participated and EPS/Clean Air Day arranged for bandanas/face coverings to be given out those who got involved. Schools pupils across Scotland took part, with pupils at Cowdenbeath Primary School in Fife, designing air quality posters.



The Cabinet Secretary for the Environment, Climate Change and Land Reform, Roseanna Cunningham, launched our 'Clean Air Day and the Triple Win' webinar on October 8<sup>th</sup> with a video message in which she discussed the links between air quality and climate change.

The year ended with the Scottish Government's draft consultation on the 'Cleaner Air For Scotland 2' ('CAFS 2') strategy promising new policies to deal with emissions from agricultural, industrial and domestic burning sources as well as looking at new ways to tackle traditional problems from transport.

With climate change policies set to figure strongly in the political manifestos at the Scottish Parliament elections in May and the rescheduled COP26 summit in November, 2021 promises to be a busy year in Scotland.



## EPUK in 2020

by John Murlis; EPUK

EPUK's activities in 2020 have been affected by the Covid-19 pandemic, as have those of other EFCA member organizations. We have however, remained productive in pursuit of our mission; working towards a cleaner, more healthy and tranquil UK environment. We have continued to focus our efforts on our three main topics, air quality, land quality (contaminated land) and noise. These are the three areas of delivery of environmental policy delegated to Local Authorities in England and Wales



(our main membership group). However, given the close links between air quality and climate policy, we have continued to work towards better integration of environmental policies to improve coherence and more cost effective outcomes.

As the UK is leaving the EU in 2021, new environmental legislation is needed to ensure continuity of environmental protection. We have been much concerned about the shape this will take and have lobbied for stringency of requirements and for an independent body to take over the review and enforcement powers currently held by the European Commission. Our approach to this is summarized in our “12 Asks” <https://www.environmental-protection.org.uk/?s=12+Asks>, prepared by the Chairs of Policy Committees. This makes our concerns about potential “roll backs” and loss of independency of our environmental agencies post Brexit. Our President, Lord Larry Whitty, has pressed these points in debates in Parliament, but the Government’s responses so far have not been encouraging. We anticipate a difficult challenge in ensuring that the provisions in the new legislation match Government rhetoric about achieving environmental standards at least as good as those in the EU.

Following a series of talks on the topic of ultra-fine particulate (UfP) pollution at our 2019 National Conference, in particular on the evidence of serious and systemic health impacts, the EPUK Air Quality Policy Committee is considering what approach it should take towards a policy response. The Committee has provided robust responses to a series of consultations on National Plans for improving air quality and has made a major submission to a parliamentary select committee on air pollution highlighting our concerns. A full description of the Committee’s work is at <https://www.environmental-protection.org.uk/policy-areas/air-quality/>

The Land Quality Committee this year published a guidance note for local planning authorities on the management of petrol station. We anticipate that the government’s aim to replace current road fuels

will lead to a large number of current petroleum retail sites closing. This may become a problem as the sites fall to redevelopment unless steps are taken so that adequate remediation become part of the development process, the guide describes the construction operation and decommissioning of petrol stations and suggests where further guidance on good practice would be helpful. Many practical tips and case studies are included. There is a link to the guide at

<https://www.environmental-protection.org.uk/epuk-petrol-stations-guide-june-2020/>

The Noise Committee has continued its work on neighbourhood noise and on noise mapping but at a reduced level because of the difficulties of meeting during the pandemic. There are, however, plans for a revival of the National Noise Awareness week in 2021. This event gives a week-long focus to Local Authority efforts to publicize their efforts in noise control, both environmental noise from, for example, aviation and construction and nuisance noise from noisy neighbours. EPUK provides resources, information and coordination, including an event website, and has published a series of leaflets explaining noise, its origins, impacts and regulation for local residents.

This year we have invested heavily in improvements to our website, including in the resources pages, which now include a set of revised leaflets for covering air, land and noise issues. These leaflets are available to members for download and are used in local information campaigns. Recent additions to the series include leaflets on wood and coal for home heating, garden bonfires and fireworks. We have also published notes on air quality during the UK Covid-19 lockdown and on investigation of contaminated land. <https://www.environmental-protection.org.uk/resources/>

The Covid-19 restrictions this year made our normal National Conference an impossibility but EPUK Board of Trustees decided that it was essential to maintain this valued Member service and arranged a virtual conference. This created an added administrative burden but, thanks to our excellent

Secretariat and Financial Advisor the event went well and was well received by delegates. This has encouraged us to use more virtual conferencing in future to deliver Policy Committee meeting seminars and local regional meetings.

For 2021, we hope that it will be possible to hold our annual conference in person and we will be planning for this in the new year. Our policy committees have a full agenda with continued campaigning for a robust and fit-for-purpose post Brexit Environment Bill. We also expect to find more connections between our work on local environmental policy and local delivery of climate policy in the run-up to UNFCCC COP 26, which will be in Glasgow in November 2021.

- « European Green Deal in Poland », digital conference organized on 7-8 October 2020 in Wroclaw by the Silesian Institute of Energy Systems and
- Webinar on « Dispersed Hydrogen Generation Technologies and their Economics » organized jointly by the Polish Hydrogen Association and US Company Biotech on the 3rd of December 2020 .

Unfortunately, were cancelled our ecological contest « Green Laurel », postponed to Spring 2021 and the planned EFCA Assembly back to back with the TFTEI Annual Meeting on 22-23 October 2020. The TFTEI meeting took place as digital event and will be again organized in Poland in Autumn 2021, provided the pandemic restrictions will be over.



## PIGE Activities in 2020

by Andrzej Jagusiewicz, EFCA

Due to pandemic restrictions, most of the planned activities were canceled or postponed. However, the Chamber was able to publish its study in February on « **The impact of wind farms on health and related requirements on their location close to human settlements** », which clearly indicated that under the current Polish legislation (minimum distance from any building is equal to 10 times of height of the pylon) 95 % of the territory is unsafe for such renewable energy sources. The study may be used when considering the update of the current laws.

Also as a success the Chamber considers the election of its Board, face-to-face type, which took place on the 8th of October 2020 and resulted inter alia on re-electing the current President Krzysztof Zareba for next 4-year-term,

The Chamber gave also its patronage to a few events, of which worthy to mention are two:



## Activities Commission on Air Pollution Prevention of VDI and DIN (KRdL) 2020/2021

by Rudolf Neuroth, VDI

In 2020, the VDI/DIN Commission on Air Pollution Prevention (KRdL) - Standards Committee (KRdL) published more than 60 new Technical Rules despite the Corona burden, to keep "fit" the VDI/DIN Handbook "Air Pollution Prevention" for answering the current questions of air pollution prevention. The VDI expert forums and workshops organised by the KRdL in 2020 with more than 150 participants also made an important contribution to this.

The six volumes of the VDI/DIN Handbook "Air Pollution Prevention" today comprise more than 500 VDI standards and over 160 DIN standards of the KRdL and provide answers to almost all questions on the subject of "Air Pollution Prevention". The spectrum of topics ranges from measurement technology, e.g. for nitrogen oxides or mercury, to the acquisition and provision of plant data for support of the BAT (Best Available Techniques)



process in Seville, as well as meteorological measurements and dispersion modelling, up to environmental medical assessment and measurement of bioaerosols, and the requirements for mobility management manager.

---

More than 1,200 honorary experts from business, science and administration are currently active in about 170 working groups in the preparation of VDI standards and DIN standards of the KRdL. Over 35 national and international standardisation projects were discussed and approved in 2020 in the four expert advisory boards of the KRdL. In 2020, the publication of a VDI standard Man and Technology (VDI-MT) on the qualification of personnel for work on wet separators and the sampling of bioaerosols according to DIN EN 17359 was also included. At the European level, the quotation for the validation work within the framework of the EC/EFTA mandate for the determination of ozone precursors could be submitted to the European Commission. The allocation, and thus the start of the validation and standardisation work, is expected in 2021.

In 2020, the results of the KRdL's work were brought to a wider public through e.g. blog or internet contributions and VDI webinars. KRdL standardisation activities on climate change and urban development, sensor measurements/Citizen Science, heating with wood, mobility management, green spaces in cities or ultra-fine particulate matter (UFP) could thus be communicated beyond the expert's public in an easily understandable way. Ventilation and the use of ventilation technologies in the corona pandemic were the subject of an internal KRdL workshop in December 2020, the results of which will be published in 2021. A VDI position paper with the question whether climate change will increase the allergy problem is also in preparation for publication in 2021.

For more information on the KRdL and its standardisation activities see [www.vdi.de/krdl](http://www.vdi.de/krdl).

## Calendar



EFCA



### **Ultrafine Particles –Air Quality and Climate**

#### **Online Meeting 2021, May 18th**

2 p.m. – 5 p.m. Central European Time

The scientific focus of the 2021 online meeting will be on interactions between air quality and the Corona pandemic, recent findings, hypothesis, monitoring results, health and impact assessments. Volatile particles and toxic effects, release of UFP e.g. by aircraft emissions, exposure assessment and the effect of lock-down episodes shall be treated.

**Registration on:** <http://ufp.efca.net/>



VDI/DIN-Kommission Reinhaltung der Luft (KRdL)-Activities 2021

[www.vdi.de/krdl](http://www.vdi.de/krdl) and [www.vdi.de/veranstaltungen](http://www.vdi.de/veranstaltungen)



United Nations Economic Commission for Europe  
Convention on Long-range Transboundary Air Pollution

### **Working Group on Strategies and Review, 59<sup>th</sup> session**

2021, May 17<sup>th</sup> - 20<sup>th</sup>

Geneva, Switzerland

<http://www.unece.org/info/events/meetings-and-events.html#/>

### **Second International Day of Clean Air for Blue Skies**

2021, September 7th

### **41st session of the Executive Body**

2021, December 6<sup>th</sup>-10<sup>th</sup>

## **EFCA**

**President** Andrzej Jagusiewicz (PIGE, Poland)

**Vice Presidents** Gordana Pehnec (CAPPA, Croatia)  
John Murlis (EPUK, UK)

**Past Presidents** Thomas Reichert (GUS, Germany)  
Giuseppe Fumarola (CSIA, Italy)

**Administrative Officer** Sabine Aref (GUS, Germany)

## **Newsletter**

**Editor** Sabine Aref and Thomas Reichert (on behalf of  
the executive committee)

## **Published by**

European Federation of Clean Air and Environmental Protection Associations

E-mail: info[at]efca.net

Website: <https://efca.net/>