

## ExIS Newsletter, December 2009

### ExIS starts co-operation with Pegasor

In the summer 2009, ExIS and Pegasor initiated a mutual co-operation, which was later manifested in an agreement. Pegasor is a Finnish company based in Tampere. Their main product is the Pegasor Particle Sensor (PPS), which is based on novel technology. Exhaust is sampled by using a built-in ejector and the exhaust is returned to the tailpipe downstream of the sampling point to enable a pressure balanced operation with no influence of back pressure. The operating principle of PPS is based on particle charging and electrical detection. PPS does not collect particles and the charger is shielded by clean air, implying an extremely long time between cleaning. The sensitivity of PPS is high enough for measurements after a diesel particle filter (DPF). PPS has a potential sampling rate of up to 100 Hz making it a “true” real-time instrument. Besides stand-alone operation, PPS will be used in the future as a component in integrated measurement systems, e.g., for on-board PM measurement systems and to extend particle number measurements according to PMP requirements by enabling also measurements of particle mass emissions in real time. More information will be published shortly at the [Pegasor home page](#).



### Services

Apart from sales of instruments and the after sales support linked to that, ExIS can offer you four types of services:

- Leasing of instruments for periods of minimum one week
- Measurement services
- Consultancy and training
- Instrument maintenance

Examples of instruments include the following: Since the summer of 2009, ExIS has an ELPI instrument available for demonstration and leasing and through our cooperation with Dekati we can also provide dilution equipment. For ambient air quality and working environment we can offer optical particle counters (OPC) from Grimm. Other fields are on-board measurements on vehicles and instrumentation and equipment for clean room applications.

The ExIS web site has now been updated with more information about the services mentioned above. This information can be accessed via the link below:

[ExIS Services](#)



## **UNEP focus on Black Carbon**

With the UN climate change convention meeting in Copenhagen this week and next week on the agenda, it is of interest to also look at some of the background information currently under discussion in this field. One of the relatively recent topics on the agenda has been the role of black carbon in global warming.

Achim Steiner, Director of the UN Environment Programme (UNEP), held a speech on the 3<sup>rd</sup> World Climate Conference on 3 September 2009. With reference to the meeting in Copenhagen, Steiner stated that there is growing scientific interest in the health, agricultural, ecosystem and climate impacts of so called non-CO<sub>2</sub> pollutants such as so-called "black carbon" particles. Inefficient burning of biomass and dung for cooking and in diesel engines and coal-fired power stations were a number or sources listed. On the UNEP's web page it is recognized that: "Fitting or retrofitting particle traps to diesel vehicles, ideally in combination with the introduction of ultra-low sulfur fuels, can also reduce black carbon emissions while improving air quality and public health".

With the increase in interest for particulate matter, we are pleased to note that we can offer a wide range of instruments and equipment in areas such as, biomass and coal combustion, diesel engine emissions and air quality.

Sources: <http://www.unep.org>

<http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=596&ArticleID=6297&l=en&t=long>

## **Many European Member States will not meet the 2010 air quality limits**

The EU National Emission Ceilings Directive (NEC Directive) requires all 27 Member States of the European Union to report information annually concerning emissions and projections for four main air pollutants: sulphur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), non-methane volatile organic compounds (NMVOCs) and ammonia (NH<sub>3</sub>). Particulate matter (PM) is not yet on this list. The latest report has just recently (September 30) been published. It is estimated that only 14 of 27 Member States expect to meet all the 2010 air pollutant limits set in this directive.

Following a revision of their projected emissions during the course of 2008, Denmark, Hungary and Italy now also anticipate meeting their emission ceilings for all four pollutants.

The NO<sub>x</sub> target appears most difficult to meet (12 Member States). Sweden is among the member states that project to miss the NO<sub>x</sub> target.

A proposal from the European Commission - not yet published - is expected to include stricter emission ceilings for 2020, and for the first time, national limits on the emissions of fine particulate matter PM<sub>2.5</sub>.

Source: [www.eea.europa.eu/publications/nec-directive-status-report-2008](http://www.eea.europa.eu/publications/nec-directive-status-report-2008)

## More flexible pricing of Grimm EDM

The Grimm Environmental Dust Monitors, i.e. instruments in the 100 to 999 series, have a modular layout. Therefore, upgrades and amendments of existing instruments can be made easily, implying that the customer can always find a solution for his/her needs. The pricing of these instruments have now been updated for 2010 in a way that provide more flexibility that before regarding a customized compilation of a measurement system based on the EDM series of instruments.

More information about the Grimm EDM product line can be found in the 2010 general catalogue, which is downloadable from our home page using the following link:

[Grimm EDM general catalogue.](#)



## Conferences, exhibitions and workshops

### NOSA 2009

The poster presentations by Jürgen Spielvogel from Grimm at NOSA 2009 are now available on the web site of ExIS. The presentations were titled:

- *A New Real-time Exposure Monitor for Measuring Airborne Nanoparticles*
- *Comprehensive Measurement of Atmospheric Aerosols with a Wide Range Aerosol Spectrometer*

Links for downloading the poster presentations are provided below:

- [Nanocheck](#)
- [WRAS](#)

### ELPI Training/workshop

We are investigating the interest for training/workshop of the mostly used instruments we represent, e.g. the ELPI. This training would be held in Stockholm in the spring 2010 (mainly) by experts from Dekati but also with contribution from experienced users. Some customers we have been in contact with have already expressed interest in participating in this kind of training. If you are also interested, please contact us using the e-mail address in the link below.

[ELPI training 2010](#)

### Customer seminars in 2010

In September 2009 customer seminars were held in co-operation with Dekati and Grimm. In spring 2010, similar seminars will be held with Grimm and Topas and in autumn 2010, a seminar will be held with Dekati. We will come back with more details about these seminars later.

## Christmas greetings

We would also like to take the opportunity to wish you a Merry Christmas and a Happy New Year.

2009 has been a tough year for many companies but we hope that the tide will change for 2010.



During the days in between Christmas and New Years Eve, we will be in office only sporadically but, maybe with some delay sometimes, we will continuously read and answer our e-mails.

## ExIS AB

ExIS represents the Finnish companies DEKATI and PEGASOR, the German company TOPAS, the Swiss company MATTER ENGINEERING, the Italian company CONTROL SISTEM and the French company ECOMESURE in the Scandinavian and/or Nordic countries. We also represent the German company GRIMM AEROSOL TECHNIK in Sweden. Detailed information about these companies and their products can be found at our [home page](#).

ExIS provide equipment and instruments for sampling, dilution and measurement of particles in air, exhaust and other gases. Our customers are at universities, research institutes, municipalities, hospitals, automotive industry, shipping companies, combustion applications, electronic industry, mechanical industry, metallurgical industry, process industry, pharmaceutical industry and filter manufacturers.

### [More information](#)

If you do not want to receive our newsletter in the future, just send an e-mail with the heading “unsubscribe” to the e-mail address you find [here](#).

Do you have questions or comments? Send an e-mail to: [info@exisab.com](mailto:info@exisab.com) or phone +46-8-647 45 99

You are always welcome with questions and we are happy to send you our newsletter.

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Best regards,

Peter Ahlvik and Staffan Larsson

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