

SOLUTIONS

Winter 2016



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Editorial



Notice anything different? ESIG has a new logo and a totally new look to match that you'll discover in this first edition of our revamped newsletter. And if you think this looks good, browse to www.esig.org to experience ESIG online in a whole new way.

These changes are not simply cosmetic. They reflect our commitment to continuously evolve and reflect the excellence seen throughout the solvents industry in Europe.

ESIG has existed now for 20 years, growing to over 30 members with an extensive network throughout Europe. We have remained a valued resource for our industry and policymakers too because of our commitment to sound science and best practice.

The changes we've made will help ESIG reach new heights, a sentiment widely shared at our 20th anniversary celebration in Brussels this November. Remaining an effective voice for our industry is a priority for the future, and one that our new Director General (DG) must share.

Our previous DG, Alessandra Costigliola served a short term, but was instrumental in leading many of the positive changes you'll read about ahead. In the next Solutions edition, we look forward to introducing you to ESIG's future executive.

In the meantime, we hope Solutions continues to enhance your work and understanding of the issues facing our industry.

And finally, I would like to wish you a Merry Christmas and a Happy New Year. You can count on us to continue working as hard in 2017 as we have since our founding in 1996.

Dr. Robert Oades

ESIG Chairman

ESIG AT THE OSPA AND HSPA GENERAL ASSEMBLIES

November 8th was not only the presidential election in the United States with the results becoming known in Europe on November 9th, these two days were also when OSPA and HSPA held their General Assemblies in Brussels. On this occasion, members of ESIG's Steering Committee were present to discuss our recent achievements and the challenges ahead.

Since the '90s when solvents were under huge political pressure ESIG has championed impressive results. Our industry has made much progress in areas including air quality, REACH implementation, product stewardship and more. These achievements - based on sound science and best practice - reflect our effective collaboration with members and stakeholders, including European policymakers.

All participants agreed that our industry cannot rest on its laurels. New challenges are likely to emerge related to sustainability legislation, and ESIG members want to be constructive and responsible partners to find the best solutions.

When our new logo was unveiled at the evening event, it marked the beginning of the new chapter for ESIG described in this newsletter. Our 'new look' is a testament to our commitment to shaping an even more innovative and dynamic future for the solvents industry. Guest speakers at the evening ceremony included: Nigel Sarginson, ESIG Chair from 1998 to 2001; Yvonne Barcelona, ESVOC member and ECCA Managing Director; and Marco Mensink, Cefic Director General (pictured below).



NEW LOGO

Our fresh new logo reflects our heritage and the future we envision for ESIG. The diversity of colours represents the diversity of our members and the diversity of solvent applications. The vibrant shades are meant to evoke the exciting potential of solvents. The font style is simple and unassuming, setting a friendlier, more approachable tone. We hope you like it as much as we do.



NEW WEBSITE

Websites are among the most important communication channels in use today. Maintaining them requires constant work to adapt to the latest user demands and design trends.

That's why we have invested in a new website for ESIG. It builds on our strong foundation while launching us into a new digital future.

The new site is user-friendly, mobile ready and dynamic in all the right places. Overall, it is much easier to find the many resources we've produced and collected over the years.

And you don't need to be a solvent expert to appreciate the new site. All the content is written in simple and clear language that anyone can understand, no matter what your profession.

We've also taken 'discovering' the value of solvents in our daily lives to a whole new level. Visit www.esig.org to see all the changes yourself, and share it with your network.

WEBSITE HIGHLIGHTS

- **Discover solvents** page with videos that show the unexpected and practical value of solvents in our daily lives.
- **Product stewardship** section to help you protect health, safety and the environment.
- **Sustainability** section on the latest policy trends and solutions to promote sustainability.
- **Regulatory** section that identifies relevant European legislation and provides essential tools to help with compliance.
- Comprehensive **resources** page covering all our publications, videos, news and events.

GES, SMARTER AND SIMPLER

Our Generic Exposure Scenarios (GES) are the solvents industry standard in Europe today to comply with the EU's Registration, Evaluation, Authorisation and Restriction of Chemicals regulation, known as **REACH**.

Our NEW website makes finding the right GES for your application easier and faster. We've also ensured that all the latest files and resources are online and ready for use.

On the GES consumer page, **EGRET version 2** is now available along with an extensive User Manual.

SOLVENTS@WORK VIDEOS

For years, we have relied on DVDs to distribute our Solvents@Work videos that we created in partnership with SIA in the UK. Now, we are offering them all to you on a single USB stick. This way, transport is easier and you can watch them anywhere, anytime.

The videos make learning about technical subjects both educational and entertaining. Most are available in multiple European languages. You can also access these videos on our website and YouTube page.



VIDEOS TO WATCH AND SHARE

- Solvents, simply essential
- Safe handling of solvents
- Solvents and IBCs
- Solvents and static electricity
- Solvents and the safe use of gloves

CEFIC INSIGHT: GROWING PRESSURE ON COMPETITIVENESS

The chemical industry is still the EU's fifth largest industrial sector, generating a trade surplus of 44.8 billion euro in 2015. But other regions, particularly Asia, are intensifying pressure on European competitiveness.

Asia has become the fastest growing chemical market in the world. It continues to draw major capital investment and dominate world chemical investment in R&D.

As Cefic's new Director General, Marco Mensink explains, 'We're seeing what we've predicted for many years now: Asia's fast-growing market coupled with the US shale boom means Europe needs to act fast to stay competitive. What we need is demand from European markets to grow.'

Remaining competitive in the long-term requires continuous exploration of new markets and products.



Download Cefic's report for more industry insights at www.cefic.org/Facts-and-Figures.
Print copies available upon request at esig@cefic.be.

THE AIR QUALITY CHALLENGE

There are two main air quality challenges for Europe:

- Ozone formed by photochemical reaction between nitrogen oxides (NO_x) and volatile organic compounds (VOCs) in sunlight.
- Particulates, PM_{2.5}, which are primary such as emitted in diesel engine exhaust, and secondary formed by chemical reactions in the atmosphere such as ammonium sulphates, ammonium nitrates and secondary organic aerosols.

The two main bodies, the European Commission and the United Nations Economic Commission for Europe, are setting targets for emissions, including NO_x, NMVOC (Non Methane VOC), SO₂, NH₃ and PM_{2.5}. These take the form of ceilings on each of these emissions for all countries in the EU-28 for 2020 and 2030.

CONTROLLING OZONE

Ozone is not just an urban event. The relatively high levels of nitrogen oxides in cities, largely from vehicle exhausts, act to neutralise the effect of the sunlight on VOCs and reduce the formation of Ozone in urban areas. For this reason, Ozone peaks are usually found down-wind of towns and cities.

This article is an excerpt. Visit our website for the full text.



Since Ozone knows no international boundaries, Europe is also impacted by high levels of pollutants transported from Asia and the United States. As a result, background Ozone levels are increasing and European Ozone levels continue to exceed both the European Commission Ozone Directive and World Health Organization Ozone Standards.



Europe has reduced man-made VOCs substantially since the 1990s. Controls on solvent VOC emissions and mobile source emissions have each been reduced to some 2Mtonnes in the EU28. In contrast, biogenic emissions are now estimated at 13Mtonnes or more in the European Union.

European Industry has played an important role in reducing VOC emissions. Member States are now predominately NOx limited, which means that Ozone reduction responds more to NOx reductions. This reduction of NOx is the way forward.

The pressure is now on reducing vehicle exhaust emissions – particularly from diesel engines which contributes nearly 40% of European NOx.

CONTROLLING PARTICULATES

During the summer in Europe, urban particulates of small diameter (PM2.5) originate mainly from the tailpipe of diesel engines. These constitute approximately 50% of the total PM2.5.

Secondary particles, the most important of which are inorganic, are formed by the oxidation of sulphur dioxide and nitrogen oxides with ammonia. This process produces ammonium sulphates and nitrates.

These inorganic secondary aerosols are dominated by ammonium nitrates.

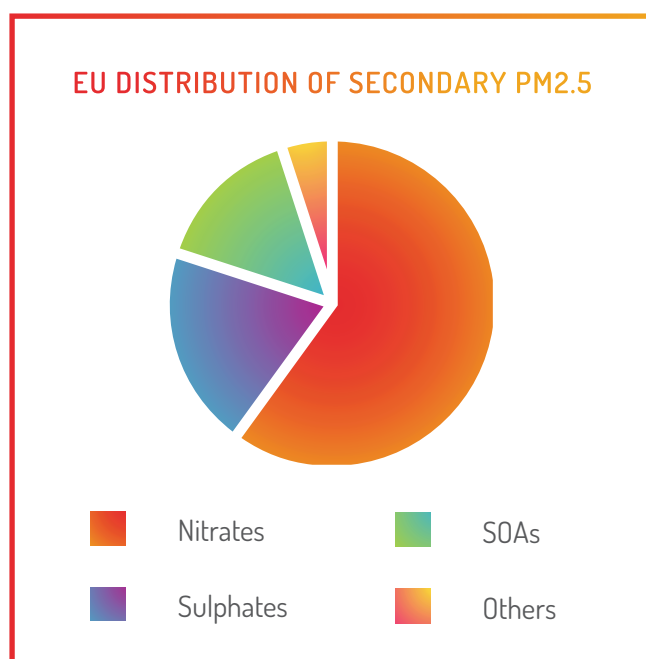
Secondary organic aerosols (SOAs) are formed in much smaller amounts from the chemical degradation of hydrocarbons (principally terpenes from biogenic sources) in the atmosphere.

The European Commission is encouraging the reduction of ammonia emissions, especially in agriculture, in its National Emissions Ceilings Directive (NEC).

Reductions in ammonia together with reductions in Nitrogen Oxides will enable substantial reductions in secondary PM2.5.

THE WAY FORWARD

- **Reduce Nitrogen Oxides from all Member States.** The reduction in NOx will reduce European Ozone and, importantly ammonium nitrates, a main component of secondary particulates (PM2.5).
- **Reduce ammonia from agriculture.** This will have a real impact on bringing particulates into line with European standards for PM2.5. (See the NEC Directive update).
- **Think globally, act nationally.** It must be understood that both ozone and PM2.5 know no international boundary, and all countries both within and outside Europe have to work together to improve air quality.



UPDATE: EU NATIONAL EMISSIONS CEILINGS (NEC) DIRECTIVE



On 30 June the Council and the European Parliament reached an agreement on the review of the NEC Directive, which sets emission reduction limits for Volatile organic compounds (VOCs) for EU member states. The NEC Directive is the EU's main instrument to control transboundary air pollutants.

Under the agreed text the 2020–2029 targets are identical to those agreed in the Gothenburg Protocol and included in the Commission proposal. New stricter reductions from 2030 have been agreed.

With the new commitments, the health impact of air pollution is estimated to be reduced by about 50% in 2030 (compared to 2005). The 2025 targets remain indicative and based on a linear trajectory between the 2020 and 2030 targets, despite efforts by the Parliament to make them binding.

The indicative 2025 EU target for VOCs is 34% compared to 2005 levels; whereas, the EU VOC target for 2030 is 40%, which is much closer to the original Council position (39%) than that of the European Parliament and Commission (50%).

The flexibility mechanism is another important issue. It allows EU Member States to reduce efforts to control emissions of some pollutants, as long as they go beyond the reductions required for others.

The compromise text that was agreed by Parliament and Council on 30 June was then voted on 12 July in the European Parliament's Environment Committee.

NEXT STEPS

On **November 23**, during the Plenary, the European Parliament voted in favour of the draft Directive. The text will be now adopted by the Environment Council and will be then published in the EU Official Journal and translated in all EU official languages. The Directive will enter into force 20 days after its publication and Member States will have until **Mid-2018** to transpose it into national law.

ESIG'S POSITION ON NEC

ESIG welcomes the NEC revisions and is in favour of the proposed emission reduction targets for VOCs for 2020. ESIG believes that longer term emission reduction targets should be based on comprehensive assessments of the environmental, health and economic impacts on all sectors.

ESIG has been working and will keep working with EU institutions to improve air quality and find common solutions that benefit the environment while preserving the competitiveness of the European solvents industry.

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THE EUROPEAN SOLVENTS INDUSTRY GROUP**

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