

SusPoly Urethane 2016

A UTECH Conference

5th & 6th October 2016
Novotel Amsterdam City,
The Netherlands



Driving polyurethane sustainability Conference Programme

Featuring keynote sessions from:

Richard Northcote, Chief Sustainability Officer, Covestro

Munjal Patel, Manager Global Market Support Polyurethanes, ICL-IP

Michael Costello, Director of Sustainability, Stahl Holdings

Angela Austin, Associate, Omni Tech International

Dario Pigliafreddo, Product Manager Composites, CANNON SPA

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Following on from the success of the **SusPolyUrethane 2013** conference, *Urethanes Technology International* magazine is pleased to announce the return of the two-day conference to be held at Hotel Novotel Amsterdam City, Amsterdam, The Netherlands on 5th and 6th October 2016.

Polyurethanes, because of their versatility, are materials of choice which can satisfy multi-purpose design objectives. They can be tailor-made to fit into applications where advanced performance standards respond to the expectations and needs of sustainable development.

This conference will examine sustainable materials and routes to sustainable polyurethane raw materials as well as the increasing opportunities offered by polyurethane recycling and the growing circular economy in the European Union.

We expect to look at the commercial opportunities, regulatory framework and the latest technological developments in the EU and Greater Europe.

Companies active in these areas will present the current status of their technologies, highlighting the commercial opportunities now opening up as polyurethane producers seek to improve their environmental sustainability by moving to the wider use of raw materials from renewable resources.

If you want to hear the latest developments in these key technologies offering to improve the sustainability of the polyurethanes industry, book your place at the **SusPolyUrethanes 2016** conference, taking place on 5th and 6th October 2016 in Amsterdam.

Who will attend?

Previous attendees have included senior officials working in the following industries:

- Automotive & transportation
- Building & construction
- Furniture & bedding
- Paints & coatings
- Footwear & clothing
- Marine & offshore
- Household goods (refrigerators etc)
- General engineering
- Aerospace
- Electrotechnical
- Sanitary ware

Company activities

- Polyurethane systems manufacture and supply
- Raw materials manufacture and supply (polyols and/or isocyanates)
- Research & Development
- Processing machinery (liquid mixing/dispensing units)
- Ancillary materials manufacture and supply (catalysts, surfactants, flame retardants)
- Market research
- Laboratory and testing equipment
- Analytical and testing services
- Laboratory Institute / University

Day One • 5th October 2016

08.30

Registration and networking

09.15

Welcome and introduction

Simon Robinson, Editor, *Urethanes Technology International*

09.30

Keynote address: Are we getting the most out of our resources, or can we improve?

Richard Northcote, Chief Sustainability Officer, **Covestro**

- By investing carbon in the right way, we can save more of it
- By using carbon more wisely, we create as much value for society from as little resource as possible
- We believe carbon productivity is a way of ensuring we focus on sustainable growth while reducing related emissions

Recycling

10.00

Manufacturing of polyols out of alternative sources

Frank Dürsen, Director of R&D Future and Sustainability, **RAMPF Holding GmbH & Co. KG**

- Conversion of PU and PET scrap back into polyols through chemical recycling (chemolysis)
- Usage of these kind of polyols in new applications
- Closed loop recycling
- Construction and sale of tailor-made recycling plants
- Usage of bio-based waste streams like wood bark as new building blocks for polyol and PU manufacturing

10.30

CRÉSIM – an industrial process for the use of recycled carbon fibres

Dario Pigliafreddo, Product Manager Composites, **CANNON SPA**

- Reuse of recycled carbon fibre through innovative technologies
- State-of-the-art industrial pilot plant for impregnation of recycled carbon fibre with thermoset resins
- Production of automotive and industrial parts with aesthetic and mechanical characteristics comparable to virgin carbon fibre

11.00

Refreshment break and networking

11.30

Glycerol from biodiesel, a sustainable recycling agent for polyurethane wastes

Juan F. Rodriguez, Director/Head – ITQUIMA-Instituto de Tecnología Química y Medioambiental, **University of Castilla-La Mancha**

- The use of crude glycerol from biodiesel production make the recycling of polyurethanes more sustainable and cheaper
- The employment of glycerol from biodiesel allows to obtain a rich polyol phase that can replace the fresh one and a glycerol rich phase that can be directly employed in rigid foam formulations

Renewable feedstocks

12.00

Breakthrough catalyst and process technology enabling drop-in renewable polyols, isocyanates and polyurethanes – without compromising performance

Gary Diamond, Vice President, Product Development, **Rennovia Inc.**

- Discuss the new processes for the production of bio-based adipic acid (ADA), 1,6-hexanediol (1,6-HDO) and hexamethylenediamine (HMD) from glucose
- Combining bio-based adipic acid and 1,6-HDO will allow for the production of 100% bio-based aliphatic polyester polyols
- How bio-based HMD can be converted to hexamethylene diisocyanate (HDI) with at least 75% bio-based carbon content, which when combined with 100% bio-based aliphatic polyester polyols will enable the production of aliphatic polyurethanes with very high bio-based content

12.30

Palm oil-based natural oil polyol – the sweet spot between green and affordability

Jens Eulitz, Int. Marketing Director, **PolyGreen Chemicals (Malaysia) Sdn Bhd**

13.00

Lunch break and networking

14.00

Biosuccinium – a sustainable alternative to adipic acid

Lawrence Theunissen, Global Manager Application Development, **Reverdia**

- As a near drop-in for adipic acid, Biosuccinium can be used to produce bio-based polyester polyols for polyurethanes
- By replacing one kilo of petro-based adipic acid with Biosuccinium, manufacturers can reduce their carbon footprint by over 8 kg CO₂e

14.30

Soybean oil modified polyester polyols for flexible urethane foam

Matt Terwilliger, Account Manager, **Myriant Corporation**

- Improved compression modulus and compression strength
- Improved SAG factor
- Higher tensile strength
- Improved tear resistance
- Compatible with conventional polyether polyols

15.00

Refreshment break and networking

Natural oils

15.30

Rigid polyurethane foams from polyols based on tall oil and/or rapeseed oil in combination with PET

Ugis Cabulis, Director, **Latvian State Institute of Wood Chemistry**

- Polyols for rigid polyurethane / polyisocyanurate foams as combination of renewable (rape seed oil) and recyclable (PET) resources
- Content of renewable / recyclable raw materials in polyol up to 50%
- Novel synthesised polyol is completely soluble in hydrofluorocarbon blowing agents

Product Innovation

16.00

Bio-based polyurethanes for coating applications in auto interiors

Michael Costello, Director of Sustainability, **Stahl Holdings**

- Much of the current high performance coatings used for automotive interior leather and flexible plastics applications is based on aqueous polyurethane dispersions, made with raw materials derived from petroleum-based sources
- The growing need for higher performing, cost competitive and renewable alternatives

- This presentation outlines the main building blocks used in the manufacture of polyurethanes and introduces the concept of bio-based polyurethanes based on renewable raw materials which can provide equal or better performance vs petrochemical based alternatives

16.30

Use of soy polyols in flexible foam formulations

Speaker to be confirmed

17.00

Closing remarks and networking drinks reception

Day Two • 6th October 2016

08.30

Registration and networking

09.15

Welcome and introduction

Simon Robinson, Editor, *Urethanes Technology International*

09.30

Keynote Address 1 – The European Commission's circular economy proposals – what does it mean for polyurethane foam?

Michael Baumgartner, Secretary-General, **Europur**

Shpresa Kotaji, Chair - Environment Committee, **PU Europe**

- Focus on discussing the likely impact of the current initiatives taken at EU level on PU foam (flexible and rigid), as well as on foam-containing products
- New legislative proposals and a roadmap for future action which are currently being discussed in the European Parliament
- PU foam industry to think about the lifecycle and sustainability of its products

Regulatory update

10.00

Keynote address 2 – Sustainability along the PU supply chain – past, present and future

Angela Austin, Associate, **Omni Tech International**

- Throwing light on various aspects of sustainability affecting the PU industry such as; phase out of various blowing agents, evolution of renewable raw materials including NOPs, biotech products such as succinic acids, PDO and BDO and CO₂ polyols.
- Examples of their use in polyurethanes will be provided along with a discussion of the drivers that will promote their future use, including pressure from B2B customers to be more sustainable and the need for regulations to encourage manufacturers to meet agreed levels of renewability

10.30

Presentation to be confirmed

11.00

Refreshment break and networking

Sustainability

11.30

Sustainable FRs for polyurethanes

Munjal Patel, Manager Global Market Support Polyurethanes, **ICL-IP**

- This presentation documents a series of evaluations using laboratory bench-scale and full-scale tests to show improvements in flame retardant and emission properties with these new product-offerings for flexible polyurethanes in automotive and furniture applications, as well as rigid polyurethanes in building and construction applications

12.00

US sustainability protocol and use by soy bean farmers and processors as well as the food vs chemicals issue

Speaker to be confirmed

12.30

Bio-based succinate polyols for sustainable PU adhesives

Patrick Piot, VP Strategy & Marketing, **BioAmber Inc.**

- Throw light on the largest bio-succinic acid production facility, located in Sarnia, Ontario
- Produced by fermentation of renewable feedstocks, bio-based succinic acid offers much more favorable carbon footprint than petro-derived adipic acid
- When reacted with conventional glycols, succinates polyols lead to interesting technical features, which can be very useful for PU adhesives

13.00

Lunch break and networking

14.00

Panel discussion – The myth and reality of sustainable raw materials: testing, specification and performance

Speakers to be confirmed

15.00

Refreshment break and networking

Bio Polyols from CO₂

15.30

Dream production – CO₂-polyols: new sustainable raw materials for polyurethanes

Karsten Malsch, Venture Manager CO₂-Polyols, **Covestro**

- A technology that allows us to use CO₂ as a raw material in the production of polyols
- Throw light on the construction of a start-up 5.000 t/a plant at Germany supporting this technology
- It will be the first commercial utilising CO₂ for PUR raw materials in Europe
- Target markets include flexible foam as well as CASE applications and TPU

16.00

Future of CO₂-based polyols

Simon Waddington, Market Development Manager, **Novomer Inc.**

- CO₂-based polyols are a new generation of materials utilising up to 50% of CO₂ as a material
- The process does not require an excess of energy and therefore gives a significantly lower carbon footprint than existing polyols.
- The resulting polyols also demonstrate improved performance in many applications as a result of the different backbone structure

16.30

Chair summary of the conference and close

Programme may be subject to change. Please visit the website for the latest agenda.

Bookings

The delegate rates are:

- Before 10th September 2016 – Early bird delegate rate of €695 + Dutch VAT
- On or after 10th September 2016 – Normal delegate rate of €795 + Dutch VAT.

You can book online www.polyurethanes-conferences.com/suspolyol2016 or by contacting **Kinga Gradalska** on Tel: **+ 44 (0) 208 253 9640** Email: KGradalska@crain.com

EARLY BIRD OFFER

For the discounted rate
book your place before
10 September 2016

Why attend?

Attending the SusPolyUrethane conference is a must for anyone working in the polyurethane industry hoping to:

- Understand the latest developments in the sustainable manufacture of raw materials
- Explore the use of various plant and animal sources to produce reliable polyols
- How to turn scrap from current production to yield raw materials for further use
- Discuss new commercial opportunities that are arising
- Network with industry experts and fellow professionals
- Take part in interactive discussions and debates giving you an opportunity to get your point of view heard and your questions answered



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