



Grand Challenges: Answers from
North Rhine-Westphalia
**Multimaterial Lightweight
Technologies – Pushing Resource
Efficiency beyond Horizon 2020**

30th January 2017, Brussels

Invitation

Grand Challenges: Answers from North Rhine-Westphalia
**Multimaterial Lightweight Technologies - Pushing
Resource Efficiency beyond Horizon 2020**

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11:45 am Registration

12:00 pm Word of Welcome

Rainer Steffens

Director of the Representation of the State of
North Rhine-Westphalia to the European Union

Svenja Schulze

Minister for Innovation, Science and Research
of the State of North Rhine-Westphalia

Keynote

Dr Peter Dröll

Director Key Enabling Technologies,
DG Research and Innovation, European
Commission

“With lightness to success – the industrial
and research landscape on lightweight tech-
nologies in NRW”

Prof Dr-Ing. Dipl.-Wirt. Ing. Thomas Gries

Institut für Textiltechnik der RWTH Aachen
University (ITA), Director of Institute

“Inter- and transdisciplinary research
safeguarding lightweight applications
resource efficiency and people´s technology
acceptance”

Prof Dr Thomas Tröster

Institute for Lightweight Design with
Hybrid Systems (ILH), Paderborn University,
Chairman of the board

“NRW´s industrial success stories: Steel,
Aluminium and Composites“

Prof Dr Hans Ferkel

thyssenkrupp Steel Europe, Head of Technology
and Innovation

Dr Klaus Vieregge

Hydro Aluminium Rolled Products GmbH,
Head of Research and Development

Dr Michael Schmidt

Covestro AG, Co-CEO Global Polycarbonate
Composites Business

Moderation

Dr-Ing. Harald Cremer, Clustermanager,
Cluster NanoMicroMaterialsPhotonics.NRW
(NMWP.NRW)

Résumé

Svenja Schulze, Minister for Innovation,
Science and Research of the State of North
Rhine-Westphalia

1:15 pm Get-together and buffet

The conference will be held in German. Interpretation
from German to English will be provided.

Registration

Please send us your registration via email to
event.nrw@lv-eu.nrw.de by **27th January 2017**
with the following information: surname, first name,
organisation, position, address, phone number

Multimaterial Lightweight Technologies – Pushing Resource Efficiency beyond Horizon 2020

Global challenges like coping with the impact of climate change, with the shortage of resources – and interlinked – with the necessity for resource efficiency as well as creating sustainable and affordable eco-friendly mobility solutions are some of the most urgent national and international objectives.

Lightweight technologies will be crucial in tackling these objectives. Following the physical law of motion – the less mass one moves, the more energy one saves – lightweight technologies contribute to energy-efficient transport. In fact, our future mobility is not possible without lightweight technologies. According to a recent McKinsey study, lightweight share in aviation is currently already at 80 percent. By 2030, the share of lightweight materials used in the automotive segment will rise from 30 to 70 percent.

Lightweight materials include high-strength steels, aluminium, magnesium and carbon fibre based plastics as well as various composite materials and different material systems. Noteworthy is that future lightweight technologies are multimaterial solutions that will also crucially depend on the successful combination of different materials.

With its vast materials sector, consisting of nearly 7.000 companies and research institutions, North Rhine-Westphalia (NRW) has excellent expertise in the field of multimaterial lightweight technologies. This unique regional concentration throughout Europe offers favourable prerequisites to address these grand challenges from a North Rhine-Westphalian perspective. The conference will give insights into how NRW companies and research institutes in the field of lightweight technologies deliver essential solutions to a variety of these global challenges by collaborating across different industry sectors and materials classes.



North Rhine-Westphalia in the Heart of Europe

Geographically central position in Europe – 17.7 million people – Gross Domestic Product (GDP) of 645.6 billion Euros (21.3 % of German GDP) – economic hub of Europe – region with the highest density of universities and research institutions in Europe: 70 universities, over 50 non-university research institutes jointly funded by Federal and State governments – among them 12 Max Planck Institutes, 14 Fraunhofer Institutes, 10 Leibniz Institutes, 3 Helmholtz Centres, 15 Johannes Rau Research Institutes plus approx. 100 university research institutes.

www.wissenschaft.nrw.de

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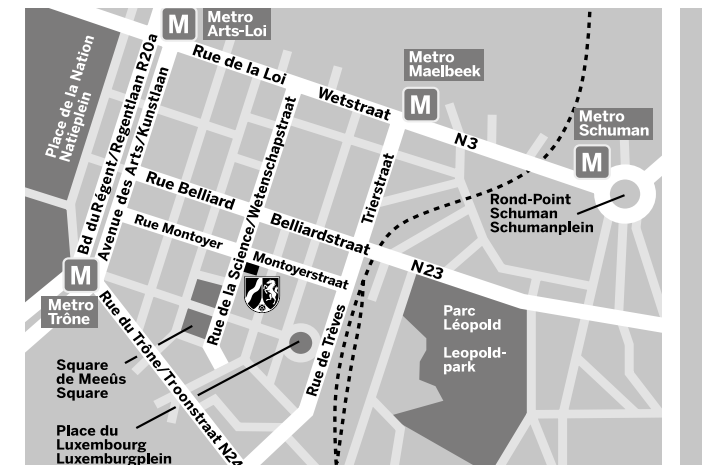
The Grand Challenges range from climate change to the ageing society to the efficient use of energy resources – issues of great complexity which require the full commitment of research and innovation across Europe. North Rhine-Westphalia is putting in considerable effort, aiming in particular at strengthening international links and utilising the instruments provided by the European Research and Innovation Area.

Grand Challenges: Answers from North Rhine-Westphalia

The conference series is directed to European decision-makers, with North Rhine-Westphalia presenting its proposals for addressing the key issues. There will be ample opportunity for dialogue amongst Europe's political leaders, innovative business operators and researchers.

Venue:

Representation of the State of North Rhine-Westphalia to the European Union
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