North Rhine-Westphalia in the Heart of Europe

Geographically central position in Europe – 17.5 million people – Gross Domestic Product (GDP) of 599,8 billion Euros (21,9 % of German GDP) – economic hub of Europe – region with the highest density of universities and research institutions in Europe: 72 universities, over 50 non-university research institutes jointly funded by Federal and State governments – among them 12 Max Planck Institutes, 13 Fraunhofer Institutes, 11 Leibniz Institutes, 3 Helmholtz centres, 13 Johannes Rau research institutes plus approx. 100 university research institutes and faculties of medicine and teaching hospitals in 7 locations.

www.wissenschaft.nrw.de

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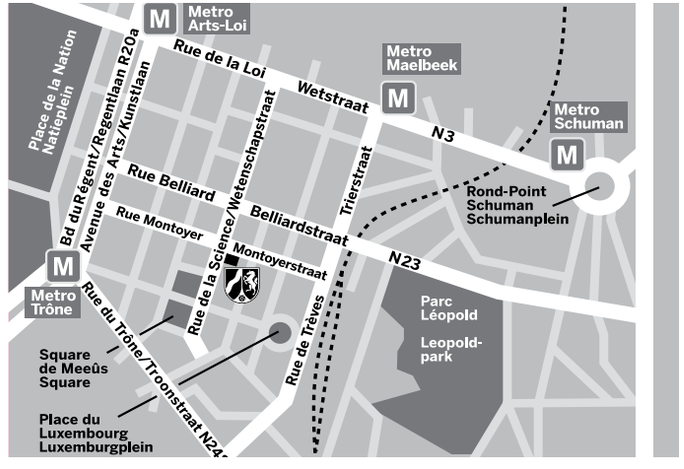
The Grand Challenges range from climate change to the ageing society to the efficient use of energy resources – issues of great complexity which require the full commitment of research and innovation across Europe. North Rhine-Westphalia is putting in considerable effort, aiming in particular at strengthening 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
Montoyerstraat 47 Rue Montoyer, B-1000 Brussels
Metro 2 and 6, station: Trône/Troon
Telephone: +32 27 39 17 75, Fax: +32 27 39 17 02
email: event@lv-eu.nrw.de
www.europa.nrw.de



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The State Government
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Grand Challenges: Answers from North Rhine-Westphalia

Flexible power plants for the Energiewende

5th March 2015, Brussels

Invitation

Grand Challenges: Answers from North Rhine-Westphalia
Flexible power plants for the Energiewende

5th March 2015, Brussels

11:45 am **Welcome**

12:00 pm **Beginning**
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

Dr. András Siegler
Director Energy, DG Research and Innovation, European Commission

Dr. Jeroen Schuppers
Deputy Head of Unit for Advanced Energy Production, DG Research and Innovation, European Commission

Challenges for the conventional power supply
Margit Thomeczek
Rhein Ruhr Power e.V., Deputy Chairwoman of the Board

Economic challenges and outlook
PD Dr. Dietmar Lindenberger
Director of Applied Research and Member of the Management Board of the Institute of Energy Economics at the University of Cologne

Steam Power Plants as partner for renewable energy systems
Hans-Joachim Meier
VGB PowerTech e.V., Head of Environmental Technology, Chemistry, Safety and Health

Following projects and further aspects and synergies
Prof. Dr.-Ing. Klaus Görner
Head of Environmental Process Engineering and Plant Design, University Duisburg-Essen

Moderation:
Dr. Stefan Ulreich
E.ON SE, Political Affairs and Corporate Communications

1:30 pm **Get-together and buffet**

The conference will be held in English.

Flexible power plants for the Energiewende

In Europe the use of renewable energy resources (RES) makes considerably progress, while the installation of high capacity electrical storage systems in the range of GWh of electricity cannot follow. For this transitional period, thermal power plants on the basis of gas and coal must perform important grid regulation tasks. Thus, they are essential partners for renewable energies. Existing thermal power plants are only restrictedly suitable to compensate the increasing fluctuating supply from RES. To clearly improve this, thermal power plants have to be modified. The joint R&D project "Partner Steam Power Plant" North Rhine-Westphalia aims at the development of a high-flexible coal and gas fired power station.

The research project "Partner Steam Power Plant" North Rhine-Westphalia is designed to develop new technical concepts to master the challenges for the integration of large proportion of RES. This might guarantee a reliable power supply at any time.

Which properties power plants must have for this project? They must have a quick start-up and shut-down time and have to be operated at extreme minimum loads. At low loads they shall have a high efficiency, too and all that with an extremely environmental compatibility and economic efficiency.

The federal state North Rhine-Westphalia (NRW) is home to a large industry for power plants manufactures and power plant operators. The state can boast an extensive and unparalleled network of partners from the research and business communities who work together closely along almost the full length of the value chain. NRW therefore gives strong support to the EU`s energy policy by supporting important R&D projects to cope the challenges in Europe together.