



## North Rhine-Westphalia in the Heart of Europe

Geographically central position in Europe – 17.6 million people – Gross Domestic Product (GDP) of 582.1 billion Euros (22 % of German GDP) – economic hub of Europe – region with the highest density of universities and research institutions in Europe: 71 universities, more than 40 research centres jointly funded by Federal and State governments – among them 12 Max Planck Institutes, 13 Fraunhofer Institutes, 10 Leibniz Institutes, 3 national research centres of the Helmholtz Association and some 100 research facilities attached to universities.

## Contact

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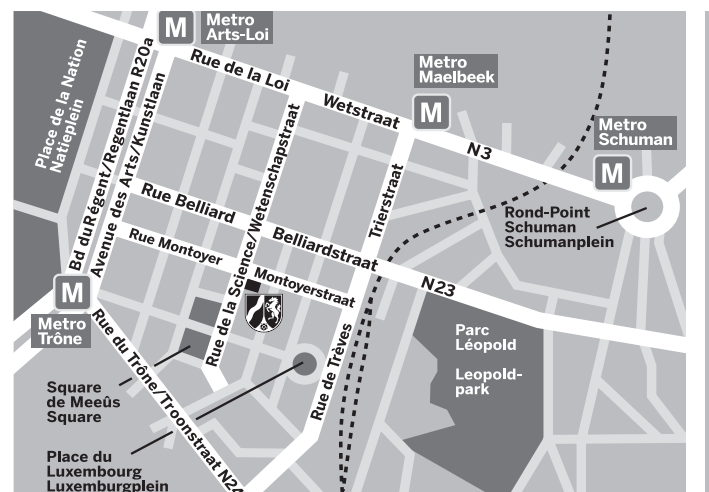
**The Grand Challenges** range from climate change to the ageing society to the efficient use of energy resources – issues of great complexity which require the full commitment of research and innovation across Europe. North Rhine-Westphalia is putting in considerable effort, aiming in particular at 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  
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[www.europa.nrw.de](http://www.europa.nrw.de)



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## Grand Challenges: Answers from North Rhine-Westphalia Safeguarding Europe's Raw Materials Demand

13th February 2014, Brussels



## Invitation

Grand Challenges: Answers from North Rhine-Westphalia  
**Safeguarding Europe's Raw Materials Demand**

13th February 2014, 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

**Gwenole Cozigou**

European Commission, Director Resources  
Based, Manufacturing and Consumer Goods  
Industries, DG Enterprise and Industry (tbc)

**Challenges and opportunities for economy-  
wide sustainable resource management**

**Prof. Dr. Stefan Bringezu**

Director, Material Flows and Resource  
Management, Wuppertal Institute

**Open Innovation Cluster for the Metals  
Industry**

**Prof. Dr.-Ing. Wolfgang Schneider**

Head of Research & Development, Hydro  
Aluminium Rolled Products GmbH

**Recycling 2.0 – Challenges for research and  
application**

**Prof. Dr.-Ing. Thomas Pretz**

Department of Processing and Recycling,  
RWTH Aachen University

**Moderation:**

**Prof. Dr.-Ing. Dr. h.c. Bernd Friedrich**

Director of IME Process Metallurgy and  
Metal Recycling Department, RWTH Aachen  
University

**1:15 pm Get-together and buffet**

The conference will be held in English.



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## Raw Materials as a Key Driver for the Modern Society

The availability of raw materials is the fundamental basis of the modern industry. In Europe at least 30 million jobs depend on them. Technological innovation as a driver for societal progress is not possible without them, in particular with regard to global challenges such as climate change and others.

The increasing demand and the strong challenges to the supply of some raw materials cannot be tackled using only yesterday's knowledge and time-honoured solutions. A wide range of technological and non-technological innovations is necessary throughout the whole value chain, from exploration and extraction over recycling and recovery up to substitution techniques for critical materials.

A huge variety of specialised know-how is already available. To tap this potential it is necessary to look at research, development and implementation in the raw materials value chain in its entirety. Specialised knowledge has to be exchanged in order to apply it to all relevant areas. The know-how from ore dressing can for example also open up new solutions for urban mining and recycling.

Traditionally North Rhine-Westphalia is a core region for mining and recycling with many companies from SME up to worldwide key players and a strong support by worldwide leading research institutes. Successful initiatives have been established, such as the Open Innovation Cluster for the Metals Industry, regional skills and knowledge have been pooled and potential solutions have been worked out. On top of that, North Rhine-Westphalia is contributing to various interregional, Europe-wide and global activities, in order to develop new value chains and strengthen long-term competitiveness.