VI WORLD MATERIALS SUMMIT

MATERIALS INNOVATION FOR THE GLOBAL CIRCULAR ECONOMY AND SUSTAINABLE SOCIETY

Council of Europe Strasbourg – 20th & 21st November 2017

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VI WORLD MATERIALS SUMMIT
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INTRODUCTION

The Economic and Innovation Background to the Series of World Materials Summits.

Today it is well recognized that INNOVATION is the driving force for increasing the GNP in every country in the world. It is also well recognised that today it is MATERIALS that are the key to unlock worldwide sustainable economic growth; for it is only the development of new materials that will facilitate the new key enabling technologies.

In a recent interview published in FORTUNE (fortune.com/2016/07/27/bill-gates-robert-gordon) Bill Gates was quoted as saying “we are quite close to some really important advances in MATERIALS SCIENCE, perhaps the one area that would have the widest effect on the global economy...”. It is clear that there are critical world level challenges or problems that urgently need answers: water, energy, health, ... all of which can only be addressed and solved globally.

It is of course equally clear that the world has limited raw materials for man to exploit and therefore entering into the era of the circular economy is becoming, not just an option, but an absolute necessity. Since Materials Science is by its very nature multidisciplinary truly active cooperation and collaboration between Academia and Industry is an essential requirement.

The biannual World Materials Summit was the brainchild of, and initially organised, by E-MRS. We had two main objectives: -contribute to the creation of a world scientific Materials Community; -to inform policy makers of global world issues. The Summit rapidly developed as a tri-societies event involving C-MRS, (China) and MRS (USA). The International Union of Materials Research Societies (IUMRS) was invited to join, as well as several additional international partners, including EUREKA/Metallurgy Europe.

The Summit meetings have become an established forum for discussing and debating the latest global research, development, innovation and business issues involving advanced materials focusing on a specific area of world concern. The Summits have brought together leading industrialists, politicians, research directors and policy makers to discuss problems and identify the materials and related business models that will undoubtedly shape the future economies of every nation. In addition, the summit involves the participation of the outcomes of a two day Young Researchers Forum which precedes the summit.

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- The inaugural World Materials Summit (I.WMS) was held in LISBON (PORTUGAL) on October 4th and 5th, 2007.

- This was followed by the 2nd World Materials Summit on Advanced Materials in Energy Applications and Sustainable Society Development in Suzhou / SHANGHAI (CHINA) between 12nd -15th October 2009.

- The 3rd event was held in WASHINGTON DC (USA) on the 8th -12th October 2011. The Summit increased its impact by including an invited group of 36 Young Researchers, selected worldwide, to participate in the Summit following two days of lectures by an international team of eminent scientists.

- The 4th World Materials Summit was held in STRASBOURG (FRANCE) 15-17th October 2013. Again an identical forum for the next generation of researchers was included.

- The 5th WMS on Advanced Materials for Sustainable Society Development took place in RIZHAO/SHANDONG (CHINA) 18th-20th October 2016.

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The 6th WORLD MATERIALS SUMMIT will be held at the Council of Europe in STRASBOURG (FRANCE) on 20th-21st November 2017.

The Summit will focus on five key sectors of materials and the Circular Economy for a Sustainable Society and a sustainable environment.

The topics on which attention will be focused are:

1. ENERGY SUPPLY FOR THE FUTURE FOR MEGACITIES (including renewable and nuclear generation, nuclear waste storage, smart grids, large energy storage, ...)

2. ENERGY SUPPLY FOR DEVELOPING COMMUNITIES (including renewable sources and energy storage)

3. CIRCULAR ENERGY ENHANCEMENT (raw materials, rare earths, solar fuels from CO₂, catalysts, batteries...)

4. FROM MATERIALS TO SYSTEMS FOR THE ICT SOCIETY (smart buildings and cities, flexible electronics, transportation...)

5. DISRUPTIVE MATERIALS FOR THE FUTURE (3D additive, Nanohealth...)

The Summit will include ROUND TABLE events involving specialists together with the views and perspective of the young researchers, all of which will be included in the agenda and report on the outcome of the Summit which will be distributed worldwide.

Degree of recycling in Europe

**DEFINITION of SUSTAINABILITY**

« Development which meets needs of present days without compromising the ability of future generations to meet their needs »

World UNO Commission on Environment and Development, (The Brundtland Commission)

**FROM OUR COMMON FUTURE**

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