

New and Renewable Energy for the Future

**European Conference for Renewable Energy
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Dear Mr. Jürgen Trittin - Federal Minister for Environment,
Nature Conservation and Nuclear Safety of Germany,

Mr. Mechtild Rothe - Member of the European Parliament,
President of EUFORES, and

Mr. Klaus Wowereit – Mayor of Berlin

Good morning, ladies and gentlemen,

I am delighted to join you for this conference, a conference with so many interesting topics and speakers. I would like to take the opportunity to congratulate the European Commission and the other co-organiser institutions, for bringing us together to talk about the crucial role of renewable energy strategies for Europe and the role of the European Union to increase the share of renewables at international level. I am also happy to be in this wonderful town of Berlin, and I am speaking for all of us in thanking our hosts very warmly for their hospitality.

Ladies and gentlemen,

I would like to share with you some thoughts about the worldwide prospects for renewable energy in the broader context of sustainable development over the coming decades and the role of Research and Development in the renewable energy market penetration.

Social and economic development of our society is largely dependent on energy, mainly on fossil fuels. Energy-related CO₂ emissions present a major ongoing challenge. If the world continues along the existing path of escalating energy consumption, global emissions are set to rise to very dangerous levels during the next decades. On the other side, there will be an important change in the geographic distribution of CO₂ emissions. While industrialised countries have been the traditionally largest emitters of greenhouse gases, it is the developing countries which will take the lead in 2030.

Ladies and gentlemen,

Research on combustion in the last three decades allowed great advance in reducing the emission of gas and particulates, but the issue of CO₂ remains very complex and of difficult solution. It is important, for sustainable social and economic development of the world, to search for ways to produce electricity in a cleaner and more efficient manner. With respect to CO₂, there are three alternatives:

- First, to take out carbon from the fuel (the use of hydrogen) or the use of renewables;
- Second, to eliminate CO₂ after fossil fuel utilization through separation and sequestration;
- Third, to use energy in a more rational and efficient way.

The solution relies on the integration of these three options.

However, renewable is one of the most advantageous option as:

- Renewables contribute to the diversification of energy sources and, therefore, security of the energy supply in Europe and in Developing Countries;

- The EU renewable energy industry is leader in the world in the development of new technologies;
- Renewables contribute to the creation of new jobs;
- Renewables contribute to regional and local development;
- Renewables are tailored to the needs as it constitutes a decentralised way of energy production; and
- Renewables are an optimal solution for isolated areas as islands and rural areas.

Furthermore, renewables are crucial for developing world. In many of the world's poorest regions, access to electricity and modern energy sources can be a major step in helping the economically vulnerable to overcome the vicious circle of poverty. It can open the way to less time-consuming and inefficient daily subsistence tasks in people's homes. It can generate more economically productive activities and jobs, thus making a major contribution to a nation's prosperity. In these regions, renewable energies have a special role to play in providing the vital electric power. This was reflected in several energy initiative voluntary partnerships involving renewables formed at the Earth Summit between UN agencies, governments, industry, intergovernmental organisations (IGO's).

In spite of the achievements in Research and technological development, the renewable integration into the energy systems is still far from the European and National targets in most of the countries. Technological and non-technological barriers still hamper the penetration of renewable technologies into the energy market. The main technological barrier is related to the costs of the kWh.

The use of Research, Development and Demonstration along with policy implementation is crucial for overcoming these barriers.

Special efforts should be place in reducing the cost of the kWh. This important target could be achieved by a combination of fundamental research and technological development on the technologies themselves, and by the research on production techniques and economies on scale resulting from market growth. Research and technological development and demonstration activities must be closely monitored and linked with promotion and market initiation activities at European Union. A strong support to

demonstration activities in order to further reducing costs and promoting the large-scale integration of renewable energy sources into energy systems and markets is required.

There is a close interaction between policy, market stimulation measures and research and technological development actions, which requires close partnerships between industry, academia, and local, national and EU institutions.

Governments will not be able to achieve their policy goals without the active participation and investment of the industry, which in turn needs to make use of the significant expertise available in research institutions and universities.

An integrated effort at European, National and third countries level is required which will involve all relevant actors: scientific and technological community, governments, central and local administrations, industry, NGO's and associations. This integrated effort will enclose research, demonstration and dissemination, market studies, creation of an enabling environment in terms of legislation,

regulation and taxation, creation of new energy infrastructures and creation of an international framework for cooperation with developing countries. The provision of funds for these activities requires congregate efforts between private and public sectors, combining national and European programmes with a common objective.

The transition to a knowledge-driven economy is the main point of the Lisbon agenda. The Barcelona Council in 2002 set up as the main goal to raise investment in research and development by 3% of GDP with two thirds of that investment to come from the private sector. European leaders have set numerous targets for growth of the European economy, for improving industry's competitiveness and for increasing investment in research. The European Initiative for Growth, launched at the last December Council, aims to mobilise investment in two key areas of the Lisbon agenda: The European transport, energy and telecommunication networks and in the area of knowledge.

Kick-start projects have been identified by the European Commission and Member States. The Platform of Hydrogen

will be launched tomorrow in Brussels. Efforts should be put together to promote similar activities for the renewables.

The 6th Framework Programme has been a key instrument for the achievement of the European strategies for development, contributing for the scientific and technological progress in Europe. By continuing the support to the sustainable energy systems, the 6th Framework Programme is boosting the renewable energy full integration.

The Demonstration projects are of utmost importance to prove the impact and advantages of these solutions. Special emphasis should be brought to the CONCERTO initiative. Through the involvement of actors from different areas – municipalities, policy makers, researchers, engineers, architects, SME's, citizens - this initiative promotes the demonstration of the new and advanced solutions for energy demand along with the involvement of all stakeholders in sustainable communities.

A special word to the new programme "Intelligent Energy for Europe", that we are launching here today. The "Intelligent Energy" programme aims at strengthening security of supply, fighting against climate change and stimulating the competitiveness of European industry. The new programme

reinforces the "renewable energies" (ALTENER) and "efficient energy" (SAVE) fields, and redirects the existing international action: "promotion on the international level of the efficient use of energy and the use of energy supplied from renewable sources" (COOPENER), and introduces a new field of action: "energy in transport" (STEER). It is indeed a very important initiative as it addresses technical and non-technical barriers for the clean energy and promotes the cooperation with developing countries. I congratulate the European Commission for the success of the previous related initiatives and for this new programme.

Portuguese Science and Technology Policy is in alignment with all of the above stated. I am proud to inform this conference that the Portuguese Government approved last Saturday the largest National Program for Science and Innovation - Initiative 'Knowledge and Innovation', having as main goal to bring science to all sectors of the Portuguese Society, from industries and enterprises to Public Administration, governance and strategic projects on systemic risks.

This programme runs from 2004 to 2006, identifying priority areas, and energy, environment and climate change are, of course, some of the most important.

This programme constitutes a structural reform and promotes the investment in knowledge and human capital and is a crucial step to boost growth and to improve the productivity and competitiveness of the Portuguese Society.

It is also an important step forward towards the European cohesion and to approach the Lisbon targets for 2010.

Only through Knowledge we will reach Prosperity, Social Justice and Security.