



**Recommendations
of the
EU-Japan Business Round Table
to the Leaders of the European Union and Japan**

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**Working Party E
Environment and Sustainable Development**

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List of Abbreviations

<u>Abbreviation</u>	<u>Meaning</u>
CCS	Carbon Capture and Sequestration
EIB	European Investment Bank
EBRD	European Bank for Reconstruction and Development
EITI	Extractive Industries Transparency Initiative
ETS	Emissions Trading System
EU	European Union
EV	Electric Vehicle
GHG	Greenhouse Gas
IAEA	International Atomic Energy Agency
ISDR	International Strategy for Disaster Reduction
NEA	Nuclear Energy Agency
NGO	Non-Governmental Organization
OECD	Organization for Economic Co-operation and Development
PHV	Plug-in Hybrid Vehicle
UN-ECE	United Nations Economic Commission for Europe
WP	Working Party

Recommendations from Both European and Japanese Industries

Natural Disasters and Safety Measures

WP-E / # 01 / EJ to EJ: Identification and prevention measures for natural risks

The EU and Japan should put in place appropriate mechanisms to identify the potential risks of natural disasters and the probability of their occurrence, and objectively verify their impact. Cost-effective measures should be taken to prevent and reduce the consequences of these risks.

WP-E / # 02 / EJ to EJ: Facilitating international support in case of disaster

International support is indispensable in times of a major natural disaster. The necessary measures need to be adopted to facilitate the swift acceptance of support from overseas.

WP-E / # 03 / EJ to EJ: Independent assessment of Fukushima accident

With regard to the Fukushima Daiichi nuclear power plant accident, we call strongly for the independent, objective, and immediate verification of the situation. In addition, we believe that the EU and Japan should promote discussions on improving the safety of nuclear energy in international fora.

<Background>

Natural disasters inflict crippling social, economic, and environmental damage. According to the United Nations International Strategy for Disaster Reduction (ISDR), 373 natural disasters occurred across the globe in 2010. The economic loss from natural disasters is particularly high for developing countries. This loss has become a major obstacle to sustainable development.

The Great East Japan Earthquake of March 11, 2011, and the accompanying tsunami caused great damage to the Fukushima nuclear plant.

The extent of damage caused by the earthquake and tsunami, as well as the situation at the crippled nuclear power plant, need to be verified objectively and independently before appropriate measures can be taken. We urge the Japanese government to commission such an evaluation and to swiftly implement appropriate measures to respond to this natural disaster.



Alternative and Renewable Energies

WP-E / # 04 / EJ to EJ: Enhancing high-level EU-Japan dialogue on energy

The EU and Japan should enhance their dialogue on energy policy, including the set-up of a dedicated high-level dialogue on nuclear energy.

WP-E / # 05 / EJ to EJ: Leadership role to establish world safety standards

The EU and Japan should take a proactive, leading role in supporting the establishment of world safety standards for nuclear power plants through the Ministerial Conference, the IAEA,... and more generally promote international cooperation on nuclear energy.

WP-E / # 06 / EJ to EJ: Nurturing skilled independent nuclear safety authority

Japan and EU member countries should maintain a highly skilled nuclear safety authority in each country and ensure its independence.

WP-E / # 07 / EJ to EJ: Cooperation on renewable energy development

Japan and the EU should cooperate on the development of renewable energies, such as wind and photovoltaic power generation, and on other low-carbon

WP-E / # 08 / EJ to EJ: Promoting reciprocal access to R&D facilities

The EU and Japan should support joint R&D activities or mutual access to unique, capital intensive R&D facilities located in either the EU or Japan.

WP-E / # 09 / EJ to EJ: Sharing best practices for safety and regulation with emerging nuclear power countries

The EU and Japan should position nuclear power as an alternative energy and provide assistance to each other and to other countries, giving priority to sharing best practices in the fields of regulation and safety. The EU and Japan need to effectively support emerging nuclear power countries through a combination of bilateral, regional, and cooperative activities through international organisations.

WP-E / # 10 / EJ to EJ: Promoting involvement of international institutions to finance capacity-building actions for nuclear safety

To achieve a high level of safety, Japan and the EU should encourage the World Bank, the European Bank for Reconstruction and Development (EBRD), and the European Investment Bank (EIB) to allocate funds for, and to promote the establishment of, dedicated nuclear safety programmes.

WP-E / # 11 / EJ to EJ: Ensuring fair competition in exports

The EU and Japan need to create equally competitive fields for export industries, including fulfilment of world safety standards, and strictly adhere to the OECD's Arrangement to Officially Support Export Credits. The EU and Japan should request other countries to make every effort to also adhere to these provisions.

WP-E / # 12 / EJ to EJ: Fostering international harmonization for EV safety and charging infrastructure

The EU and Japan should work together in UN-ECE WP 29 and other fora to develop internationally harmonized requirements for the safety and type approval of electrically charged vehicles and common standards for accessing the battery-charging infrastructure.

WP-E / # 13 / EJ to EJ: Cooperating on pre-commercial development of batteries

The EU and Japan should seek opportunities for partnerships between governments and research institutes to develop pre-competitive technologies for next-generation batteries (e.g., for lowering cost, improving battery life, enhancing safety, and raising energy density).

WP-E / # 14 / EJ to EJ: Sharing best practices for reuse and recycling of batteries

The EU and Japan should share best practices with respect to the reuse and recycling of rechargeable batteries to enhance their secondary use.

WP-E / # 15 / EJ to EJ: Promoting demo projects of smart cities and smart grids

The EU and Japan should promote demonstration experiments of smart cities and smart grids with respect to rechargeable batteries and related products and should

provide open access to allow each other's industry to participate in such experiments.

< Background >

As an alternative energy with a stable energy supply, excellent economic potential, and zero CO₂ emissions, nuclear energy is being reassessed by nations around the world. The serious accident at Fukushima's nuclear power plant, following the dramatic tsunami that struck Japan on 11 March 2011 also triggered a re-assessment of the safety measures and emergency response systems of nuclear power by all nations using or contemplating the use of nuclear energy.

Rising Expectations for Nuclear Energy calls for a Strengthened Safety Framework

According to the Nuclear Energy Agency of the OECD (OECD-NEA), nuclear power accounted for 14% of global electricity production in 2009. This figure is expected to rise to 24% by 2050. As of January 2010, the International Atomic Energy Agency (IAEA) estimated that 437 nuclear power reactors were in operation worldwide, while a total of 56 reactors were under construction.

"The Nuclear Energy National Plan", which was adopted by Japan in 2005, states that Japan expects nuclear power generation to continue to account for at least its present level of 30 to 40% of total power generation beyond 2030. "Energy 2020: A Strategy for Competitive, Sustainable and Secure Energy", an initiative announced by the EU in November 2010, says that the EU will intensify joint efforts by member states to finance activities related to technology roadmaps, including nuclear fission, from 2010 to 2020. More recently, the EU also issued a "Roadmap for moving to a competitive low carbon economy by 2050"; in this long term vision, the roadmap calls for a reduction of up to 95% of the CO₂ emissions of the power sector, and highlights that it can be achieved by using renewable energies as well as nuclear energy. There is also a growing interest in nuclear power generation in developing countries to prevent dependence on fossil fuels, and a continuous stream of construction projects for nuclear power plants is underway. These drivers will remain.

However, nuclear energy requires the highest safety standards. A lot has been done for several years at the national level, at the EU level, and at the international level (IAEA, Convention on Nuclear Safety,...). The industry has significantly improved the safety of its current reactor design. Now, the accident at Fukushima, caused by an extreme situation, demonstrates that safety must be continuously improved. The review launched in Japan, as well as in the EU (a "stress test"), to assess the consequences on existing nuclear power plants is welcome. The EU stress test will focus on risks associated with earthquakes, floods, cooling systems, back-up power,....

As nuclear power will remain an attractive energy source for a large number of countries in the world (contribution to energy security and a low-carbon society), it is even more important to define world safety standards. The EU and Japan must play an active role in promoting and defining such standards.

While enhancing safety, it will be necessary to deal with the ageing of existing plants, improve facility utilization rates, and properly manage the nuclear fuel cycle (e.g., the management of spent nuclear fuel). It will be essential to understand the mechanism of degradation of machinery and equipment as well as to conduct maintenance of ageing plants to maintain and restore their functions and performance. Therefore, the EU and Japan must promote, through international discussions like those held by the OECD-NEA, the exchange of information related to the technological assessment of ageing plants and to techniques associated with the appropriate maintenance of existing plants. As for the management of spent fuel, the recovery and recycling of plutonium and uranium remaining in spent nuclear fuel will lead to the effective use of resources and reductions in radioactive waste.

Rising Expectations for Rechargeable Batteries

Both the EU and Japan are developing next-generation lithium-ion rechargeable batteries. The rechargeable battery is a potential key component in the development of smart grids worldwide, such as the “Smart City Project” in Japan, as well as a groundbreaking advanced application technology contributing to the promotion of renewable energy.

When used in a smart grid, rechargeable batteries can be placed at stations for large-scale photovoltaic or wind-power generation. They can also be installed in commercial districts and large-scale apartment housing complexes to store off-peak electricity.

Rechargeable batteries are used in the electric and plug-in hybrid vehicles being developed and promoted by Japanese and European car manufacturers. European and Japanese industry is actively seeking to improve the performance and cost of next-generation vehicle batteries to enable the more widespread use of EVs and PHVs.

The commercialization of next-generation electrically charged vehicles, including fuel-cell vehicles, will contribute to the conservation of energy, as well as a reduction in CO₂ emissions. To facilitate their market acceptance, the EU and Japan should cooperate on developing internationally harmonized requirements for the type approval and safety of electrically charged vehicles and common standards for accessing the battery-charging infrastructure. The objective should be to ensure that electric vehicles can be charged everywhere, at all times.

Securing Supplies of Rare-Metal Resources and Other Raw Materials

WP-E / # 16 / EJ to EJ: Promoting level playing field for access to raw materials

The EU and Japan should promote a level playing field for access to raw materials. In this respect, they should identify common actions to take in international fora such as the OECD and WTO in order to promote a coherent set of rules on access to raw materials in their bilateral relations as well as in multilateral negotiations, including WTO membership negotiations.

WP-E / # 17 / EJ to EJ: Requesting practical commitment on governance

The EU and Japan should engage in partnerships with countries endowed with natural resources. In their development policies, they should promote the improvements of the governance of resource-producing countries by requesting specific commitments to effective natural-resource management in governance action plans and the strict enforcement of budget-support criteria. In addition, investments in infrastructure and actions to enhance a favourable business environment should be promoted.

WP-E / # 18 / EJ to EJ: Promoting adhesion and enforcement of EITI

The EU and Japan should work closely with other governments, industrial bodies, and NGOs to enable resource-producing countries to fulfil the EITI's "Principles and Criteria" and to advance from candidate to compliant EITI countries.

WP-E / # 19 / EJ to EJ: Following OECD guidelines when operating in or procuring minerals from conflict-affected area

The EU and Japan should prevent resource development from funding conflicts. When developing open and responsible supply chains, governments and industries should cooperate with each other to adopt acceptable and viable approaches and processes. The OECD's guidance for responsible supply-chain management of minerals from conflict-affected and high-risk areas provides a good basis.

WP-E / # 20 / EJ to EJ: Promoting action to minimize commodity price volatility

Japan and the EU should strive to reduce excessive price volatility in commodity markets and should accordingly identify common actions to take in international fora.

WP-E / # 21 / EJ to EJ: Supporting R&D for recycling and material substitution

Japan and the EU should encourage the recycling of raw materials in developed countries through R&D, industrial policy, and international cooperation as well as promote research aimed at the substitution of critical raw materials.

< Background >

The rising cost, price volatility, and unstable supply of raw materials are a concern for European and Japan business. The policies of resource-rich countries can alleviate or exacerbate such a concern. Stable access to rare metals is critical to expanding the production of rechargeable batteries, as well as to several other industries. There are diversified sources of supply of positive-electrode materials such as lithium, manganese, cobalt, and nickel used for rechargeable batteries. However, some other rare earths are currently only available from China. The EU and Japan



should reinforce their efforts to diversify their sources of supply and to secure a stable supply of rare metals.

The Escalation of International Competition

The rapidly growing demand for energy and natural resources mainly comes from developing countries, notably China and India. International competition to secure energy and natural resources is intensifying. Moreover, raw-material and energy-access diplomacy has been on the rise and has the potential to distort markets.

The inflow of financial funds has contributed to the price volatility of major mineral resources. The mining regulations and trade policies of the resource-rich countries can heavily influence the availability and price of some raw materials.

All these developments put pressure on the competitiveness and stable and profitable development of Japanese and European industry. Rapidly rising raw material prices could adversely affect corporate profits and the world economic recovery. Commodity-price volatility in the agricultural sector is also a threat to global growth and food security.

Responsible Development of Natural Resources

The “Extractive Industries Transparency Initiative” (EITI) adopted at the “World Summit for Sustainable Development” in Johannesburg in 2002 sought to promote the responsible development of natural resources by increasing the transparency of payments made by companies to government and government-linked entities in the extractive sectors. With good governance, these natural resources can generate large revenues that governments of resource-rich countries can use to foster economic recovery and reduce poverty. However, when governance is weak, revenues may be squandered, creating a downward spiral of poverty, corruption, conflict, and the unsustainable development of minerals and resources. As of November 2010, only five countries were EITI-compliant, and 28 others had achieved EITI-candidate status. In several other countries, there are concerns that the revenue generated by natural resources is funnelled to funding conflicts. European and Japanese business can support the EITI objectives by implementing the open and responsible supply-chain management of resources. At the government level, the EU and Japan should pursue common strategies to keep energy and mineral markets open, undistorted, and stable.

Global-Warming Issues

WP-E/ # 22 / EJ to EJ: Establishing new, fair, and effective international framework

The EU and Japan should promote a post-Kyoto framework that engages all major emitters of greenhouse gases to take a fair share of the burden of global CO₂ emission stabilization and reduction.

WP-E/ # 23 / EJ to EJ: Setting CO₂ emission targets in a fair and transparent way

The EU and Japan, when setting national targets, should take into account their international fairness, feasibility, and social impact on citizens. The setting of such targets should be done with a high level of transparency and in consultation with stakeholders.

WP-E/ # 24 / EJ to EJ: Facilitating transfers of green technologies

The EU and Japan should assist emerging economies in developing the necessary human resources and infrastructure so that they can smoothly absorb advanced technologies. To facilitate the transfer of technologies on a commercial basis, the EU and Japan should support the recipient countries in putting in place an appropriate regulatory framework and enforcement tools to ensure the protection of intellectual property rights.

WP-E/ # 25 / EJ to EJ: Continuously improving incentives and regulations to promote adoption of energy-efficient technologies and processes

The EU and Japan should continue to refine their regulations and incentives to promote the efficient use of energy (energy efficiency as well as energy savings). Setting norms for building and house insulation plays a major role in achieving a significant reduction in CO₂ emissions. Japan and the EU should also share best practices for eco-labelling.

WP-E/ # 26 / EJ to EJ: Cooperation on long-term innovative R&D projects to reduce GHG emissions

The EU and Japan should cooperate on joint R&D efforts by industry, academia, and government to develop innovative technologies to reduce greenhouse gas emissions. They should also allow access by their industries to their domestic pre-competitive, government-funded research projects because highly innovative technologies require lengthy timelines and very large budgets for basic research and development,

< Background >

There is an urgent need to reduce emissions of greenhouse gases to combat climate change. It is essential to establish a new, fair, and effective international framework with the participation of all major emitters. Designing such an international framework and setting targets at the national level must be done with due consideration for their short and mid-term economic impact, and take into account the opportunities and constraints of the global economy.

The Nippon Keidanren's "Commitment to a Low Carbon Society" sets out a vision for the Japanese business community to harness its technological prowess and assume

an instrumental role in achieving the target of halving global emissions of greenhouse gases (GHGs). It also requests its members to come up with voluntary energy plans in line with government targets.

The EU introduced the “EU Emissions Trading System” (EU ETS) in 2005 to tackle emissions of CO₂ and other greenhouse gases. It is now in Phase 2, which runs from 2008 to 2012.

The EU “Roadmap for moving to a competitive low carbon economy by 2050”, going beyond the 2020 horizon, sets indicative targets by sector and highlights some directions to achieve this goal. It envisions that green-oriented growth could create around 1.5 million additional jobs as early as 2020 in the EU.

These measures have helped the de-linkage of economic growth and CO₂ emissions in developed economies: in the EU, over the past two decades, emissions have fallen by 16% while the economy has grown by 40%.

Technology is essential to combat climate change while also achieving economic growth. Widespread use of existing technologies on a global scale will enable a major reduction in GHG emissions. In addition, innovative and advanced technologies are absolutely necessary. Japanese and European businesses are fully engaged in such endeavours through the improvement and promotion of existing technologies as well as research and development into new technologies and their market introduction.

Developing countries, investing in new infrastructure at a fast pace, have the opportunity to adopt the most efficient existing technologies. In this respect, they should benefit from the technologies developed and available from Japan and the EU.