Written Submission of the General Electric Company

Regarding the Transatlantic Innovation Dialogue

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Overview

General Electric Company ("GE") supports the establishment of the Transatlantic Innovation Dialogue (TID) formed by U.S. and EU leaders in the Transatlantic Economic Council (TEC) as a senior-level government-to-government forum. We are pleased to provide these comments on priorities for the Dialogue.

Innovation in the modern world is inherently a collaborative process that thrives on interactions among diffuse groups of firms and individuals working together to craft solutions to the world’s biggest challenges. Any barrier or regulation that inhibits the free movement of human capital or intellectual property, or otherwise compromises the ability of innovators to collaborate efficiently, is an impediment to innovation. The overall objective of the TID should be to identify and eliminate the policies and barriers that inhibit collaboration and therefore innovation. A robust framework for innovation and collaboration between the U.S. and EU is necessary to strengthen commerce and bolster trade, economic growth, productivity and job creation.

The Federal Register Notice of December 31, 2009 identified five specific questions for consideration in preparing comments on the work plan for the TID. The comments below discuss each of these questions, with emphasis on the first three.

1. What governmental policies that enable innovation should the U.S. and EU address?

TID can improve transatlantic innovation in two ways: by identifying and strengthening those governmental policies that enable innovation; and by identifying and eliminating those governmental policies that inhibit innovation. While affirmative measures that foster innovation are important and should be encouraged, it is at least equally important to address those policies that stand in the way of establishing a single trans-Atlantic market for innovation. GE recommends that TID undertake a comprehensive review of such policies that includes the following:
Collaborative Research & Development Funding

GE operates corporate research and development centers on both sides of the Atlantic – in Niskayuna, New York and in Munich, Germany. Our preferred model for conducting research and development projects is to harness the unique skills and capabilities of research teams across centers such as those in Munich and New York. However, funding policies in both jurisdictions inhibit or prevent such collaboration for projects that are funded by either. In the case of EU funded projects, Framework Program 7 prohibits the use of EU funds to support work performed outside the EU. Similarly, the requirements of the U.S. Federal Acquisition Regulations inhibit the use of U.S. funding for collaborative projects with researchers in the EU. Moreover, transatlantic differences in cost sharing expectations and the treatment of rights to intellectual property developed through funded research are serious obstacles to the coordination of government-funded research across the two jurisdictions. TID should work to achieve a framework under which funding from the U.S. or the EU could support collaborative projects within firms or between firms on both sides of the Atlantic.

Export Controls

Effective collaboration depends on the free flow of technical information among innovators. TID should examine whether export control regulations strike the correct balance between the protection of sensitive technology and the facilitation of innovation. In particular, TID should examine whether licensing requirements could be eliminated for most dual-use goods and technologies that are exported from the U.S. to the EU. Furthermore, the U.S. and EU should strive to formulate workable and effective intracompany transfer exceptions. Multinational firms like GE currently experience many impediments in sharing goods, technology and research with subsidiaries and businesses located internationally. GE’s Global Research Centers in Munich and New York could better conduct transatlantic research if export control schemes were reformed to create more efficient intracompany exceptions.

Intellectual Property Rights

Intellectual property rights remain a cornerstone of the incentives required to foster innovation and development. However, a lack of alignment of patent protection creates challenges to establishing a more collaborative transatlantic innovation environment. The U.S., for example, is unique in maintaining Best Mode and First to Invent policies. Swift adoption of long pending U.S. patent legislation based on the Senate bill and corresponding reforms in Europe are important to create a single, transatlantic innovation marketplace.
Interoperability of Technical Standards

Companies that compete in both the American and European markets often have to conform to two distinct sets of technical standards. Harmonizing standards in certain critical sectors would facilitate innovation by allowing the creation of a single marketplace, thereby reducing the cost of technology and product development. GE recognizes that national governments on both sides of the Atlantic have standards in place for meeting certain thresholds in safety and effectiveness. However, a more open dialogue between the U.S. and EU would create economic efficiencies, resulting in more capital being available for the kinds of innovative R&D needed to address global challenges.

2. **What specific technology areas and industry sectors should the U.S. and EU focus on.**

It is important that projects to develop and demonstrate improvements in transatlantic innovation be focused on addressing the biggest societal challenges currently confronting the U.S. and EU. To that end, GE recommends that TID develop demonstration projects in three technology areas: 1) Clean Energy; 2) Healthcare and 3) Water Reuse.

**Clean Energy**

The U.S. and EU are both moving toward widespread adoption of clean and renewable energy technologies given concerns about emissions, climate change and energy security and independence. Research and development in the clean energy sector is critical to ensure that economically viable and environmentally compliant technologies can be deployed. Within the energy sector, two specific areas that would benefit from transatlantic innovation are Smart Grid and Grid-scale Energy Storage.

Smart grid technologies span many areas and include renewable generation, transmission, distribution and end-use. Modernizing the power grid gives energy suppliers and users information about the generation and consumption of energy, enabling more efficient, less-costly generation and use of energy. Smart grid meter installations, for example, could alert a user that energy consumption during certain peak times is more expensive, thereby incentivizing the user to decrease peak energy consumption. Similarly, power plants could assess and track the real-time demand of the grid so that the most efficient amount of energy is being produced at any given time. As smart grid technologies develop, it is important to ensure operational compatibility over as wide a market as possible, in order to facilitate cooperative research and development, and the development of new devices and applications.
New methods of grid-scale energy storage are critical to the effective wide-scale integration of renewable energy sources into the power grid. Renewable energy sources such as wind and solar are intermittent, and technologies to harness and store the energy would address one of the biggest pitfalls of current renewable energy: the inability to capture energy when it is not currently needed on the grid.

**Healthcare**

Improving the quality, affordability and access to healthcare are major public policy goals on both sides of the Atlantic. Innovation and the development of new technologies are critical in these endeavors. Mutual recognition of medical device approvals and a harmonized healthcare information technology system are two specific initiatives that could be advanced by the TID. Establishing interoperable standards for healthcare IT would create a single market for innovation in the development of applications thereby accelerating the pace of innovation and reducing its cost. Implementing a framework for the widespread adoption of IT standards in the healthcare sector would help healthcare professionals in both the U.S. and EU avoid costly mistakes due to human error, as well as provide a wider database where patients’ records could be anonymously analyzed to spot trends and improve the accuracy of diagnoses.

In the absence of substantive and speedy progress in the Global Harmonization Task Force, policymakers in the U.S. and EU could develop a system that allows for the mutual recognition of medical devices. Subjecting the manufacturers to multiple sets of medical device standards by autonomous sets of regulators in the U.S. and EU increases the cost of developing such technologies. These varying regulations act as a barrier to their adoption, hindering patient benefit.

A dialogue between the governments on both sides of the Atlantic would help both sets of policymakers and consumers understand the benefits of adopting a universal, interconnected IT solution.

**Water Reuse**

Water scarcity is a truly global problem that affects the living standards, industrial productivity and efficiency and sustainability of the world’s cities and communities. The efficient reuse of water sources is critical to addressing water scarcity. The United Nations, for example, estimates that by 2025, 65% of the world’s megacities will be in high or severe water-stressed regions. It is this impending challenge of water scarcity that should drive innovation and collaboration in developing solutions.

American and European policymakers should create a broad framework for water reuse regulations and include governments, industry, NGOs and
research institutions. This framework would determine the appropriate standards, technologies and funding needs for specific initiatives.

3. For the topics identified, what form should cooperation take?

Intergovernmental cooperation is essential to identify and address the policy impediments to more robust transatlantic innovation. At the same time, new policy prescriptions must be developed in consultation with the industrial and academic communities that are the drivers of innovation, and evaluated against their ability to foster change. In order to accomplish real improvement, GE recommends that, to the extent possible, cooperation take the form of a public-private collaboration to identify truly transatlantic projects that will demonstrate how regulators and the private sector can work together to reduce barriers to innovation.

For example, a “Twin Cities” pilot project could be developed to show how two existing metropolitan areas, one on each side of the Atlantic, and each with differing renewable energy potential and energy infrastructure systems, could be retrofitted to demonstrate the sustainable energy system of the future and to build a roadmap from the current to the future system. This generic platform could become a “living laboratory” to develop interoperable standards, foster transatlantic cooperation in the development of new technologies, and test current and future sustainable technologies. The project would tackle the realities of existing metropolitan energy infrastructure and provide a platform to apply the “Smart Energy” concepts in a well-connected and real-life demonstration. Given the high profile and emerging importance of the renewable/sustainability agenda across the two continents, a well selected technology demonstration project could provide a platform from which these challenges could be closely examined and appropriate solutions developed.

4. What should the short and long term objectives be for each identified project?

5. What specific outcomes should the U.S. and EU try to achieve by 2011?

Specific objectives and outcomes from the projects should be determined as projects are identified and developed together with private-sector participants. We look forward to working with members of the TID to propose and develop specific projects.

Conclusion

The TID should work to address the four major policy concerns in the three critical technologies and industries to bolster transatlantic innovation and collaboration. TID should work with interested private-sector participants to select
5 – 10 specific projects that would advance solutions to the public policy challenges outlined. Actionable projects should be developed as public-private partnerships to maximize transatlantic collaboration.