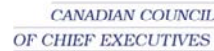


# Major Economies Business Forum

on Energy Security and Climate Change



Confederation of Indian Industry  
Since 1895



Confederation of Danish Industry



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## Major Economies Business Forum: Perspectives on Technology

### Key Messages

- The commercial adoption of cost-effective low-emitting technologies will be one of the most important factors in reducing greenhouse gas emissions, especially over the longer term.
- Commercial transactions in technology development and adoption, including those implemented with international support or through offset programs, are critically important in accelerating technology diffusion. International climate-related technology activities should complement and reinforce this role.
- Enabling frameworks for wider commercial use of clean technologies, including recognition of intellectual property rights, are a necessary prerequisite to technology development and commerce.
- The operating environment for technology is often overlooked. Technology activities should extend to enabling frameworks, building infrastructure and efficient energy systems, training, and capacity building.
- The activities of the proposed Technology Executive Committee and the Climate Technology Centre and Network should be technology neutral.
- Governments should take note of the experience of the Asia-Pacific Partnership, which has a strong private-sector component.
- An overly bureaucratic Technology Mechanism may not attract private sector participation.

## Introduction

Improving technology is of key importance in addressing climate change, supporting sustainably development, promoting secure energy supplies, and encouraging continued economic growth and development in developed, emerging, and developing economies.

Business has enormous experience in technology development and commercialisation. The halting progress of the climate talks has stalled many business plans. Technology choices and investment plans, in particular in the energy sector, will reach across decades. Politicians must move quickly to create the right frameworks and systems that allow business to develop and deploy useful solutions and to avoid the lock-in of current higher emission technologies.

While opportunities exist today, based on improving energy efficiency and accelerating deployment of existing technologies, efforts are needed to promote rapid improvement in rates of innovation if the globe is to achieve deep long-term emissions reductions.

The challenge is immense, and there are no quick and easy answers. Focusing on roles can assist business, governments, and institutions to step up to the climate change challenge. BizMEF represents companies with almost endless practical technology experience—and the group is more than willing to share views and discuss the next useful steps. At the end of the day, it is technology that will deliver economic growth and decouple it from emissions. Strong companies will be able to invest resources in developing and commercialising even better climate change solutions.

## Importance of technology

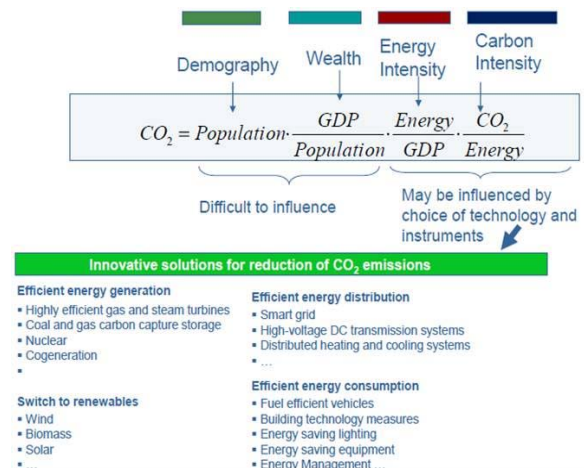
How rapidly advanced energy technologies develop and are adopted commercially will be one of the most important factors in determining how quickly and at what cost greenhouse gas emissions can be reduced.

Many low-carbon technologies are already at hand, and a major challenge is to find ways to accelerate the commercial use of those technologies, to build local skills and capacity, to develop systems that allow integration of alternate technologies, and lower their cost through experience.

Existing technologies can make a start, but they are not capable of achieving deep, long-term global emissions reductions at an acceptable cost. New and in some cases revolutionary energy and other technologies, many still years if not decades over the horizon, will have to be developed and adopted commercially along with the infrastructure to support them. But there is a great deal of uncertainty about how fast, or even if, these technologies will progress. An accelerated program to improve the performance and lower the costs of advanced technologies can, if successful, expand the range of economically and politically viable policy options available to decision makers.

The importance of technology can be expressed quite simply by using the so called Kaya Identity (Figure 1).

**Figure 1. The Kaya Identity**



Every community strives to increase its wealth to pursue a range of important priorities. Increasing wealth will increase greenhouse gas emissions unless steps that reduce energy intensity and carbon intensity of the economy are introduced. Technological change is a powerful tool for

decoupling economic growth from emissions growth. Developed regions and less developed regions are at different points on the technology curve, especially on deployed technology and infrastructure. In part this reflects legacy markets and national circumstances. Therefore two points are of particular interest:

1. how to deploy existing technologies; and
2. how to facilitate further development of current technologies and innovation and commercial use of new technologies?

As a group that represents millions of companies throughout the world, we strongly emphasize the role of commercial transactions in technology development and adoption, and the need for UN Framework Convention on Climate Change (UNFCCC) activities on technology to recognize, complement, and leverage this role. On a daily basis, businesses throughout the world engage in very concrete activities, both in home markets and further afield, to facilitate the full technology supply chain. These investments are major drivers for enhanced energy efficiency.

Thus the business community has invaluable hands on experience, not only of specific technologies, but also of supporting processes that assist technology development and diffusion. With this in mind, business encourages our respective governments to consider the following during their meetings and discussions on a new climate change framework.

### **Policies must facilitate rather than pick technologies**

Climate change is a long-term challenge that will need to be addressed over many decades. Some issues are immediate and should be addressed on a national basis, through national or regional policies; other issues will need long-term management and international cooperation. The international climate negotiations will not be able to, and should not, deliver detailed regulatory systems. What business asks for are predictability and the enabling conditions needed for practical and effective policies at the national level.

**The market can only function if basic market conditions are at hand.** Overall this requires establishing appropriate enabling frameworks that include: rule of law; honoring contracts; just and impartial judicial systems; stable fiscal and policy regimes; free and open markets; and protection of intellectual property rights (IPR). IPR in particular is a critical foundation for technology research, development, and commercial adoption, and should be maintained. Innovation and global deployment of cost-effective efficiency and low-emission technologies are essential to achieve global climate change goals as well as to maintain the competitiveness of companies and the necessary incentives for investment, growth, and employment.

In this context, retaining a strong IPR regime and other commercial market-based mechanisms is important to maintain incentives for private sector investment in research and development, and ultimately commercial adoption of advanced technologies. IPR and commercial, market opportunities are a key driver of investment in R&D, innovation, and dissemination of the results.

Effective IP protection allows innovators to capture the value of R&D activity and stimulate investment in innovation. Effective IPR policies that ensure predictability and legal certainty for all stakeholders are vital to facilitate joint ventures, licensing agreements and other commercial arrangements that are effective methods for technology diffusion, innovation sharing and the exchange of know-how and best practice. IPR has become a high-profile issue in the negotiations, especially in the technology transfer discussions. Some have challenged the IPR regime, arguing that IPR is a barrier to technology transfer and thus to climate-friendly economic growth.

However, this is not the case. Strong IPR, the removal of trade and other market barriers, and the deployment and dissemination of technologies go hand in hand. IPR is not a barrier to technology transfer but a necessity for developing the technologies worth transferring, and to facilitate the day-to-day transfer and dissemination of such

technologies through procurement, joint ventures, international cooperative business arrangements as well as licensing and basic, market-based sales. Adequate tools and processes exist—outside the role and responsibility of the UNFCCC—to assure this today and to evolve in the future. The UNFCCC should avoid deliberations and measures to address IPR.

**Any technology can only perform effectively if it is fitted into a system.** It is therefore not just about technologies as devices, but the systems in which they operate to provide the processes, goods, and services on which economies depend. Energy efficiency, for example, is as much about systems management as it is about the efficiency of individual pieces of equipment and appliances.

This applies for investment in buildings, production technologies, and national/regional infrastructure. All nations share this particular challenge. Developed nations that have relatively high marginal carbon dioxide reduction costs need improvement of infrastructure, in particular energy infrastructure, to reduce emissions, and must replace existing capital stock at the end of its economic life. Least developed regions that are about to build up basic infrastructure can leapfrog and make useful upfront choices by learning from developed regions.

The role of public investment and management is most prominent in the context of infrastructure. Therefore we urge politicians and climate change negotiators to focus on these basic requirements. Besides physical systems, such as pipelines and transmission lines, infrastructure also includes human capacity, such as education in essential skills and the ability to formulate effective policies in a timely fashion. Once these are in place further private investments in technology solutions can be utilized far better.

**Governments should point the direction by setting reasonable, clear, and realistic goals.** Reduction goals should be set based on reduction potentials, considering existing and realistically foreseeable technologies. The focus should be on

implementation and outcomes, not technologies (except as they provide guidance to feasibility). Governments should allow the widest range of technology flexibility to allow the market to be able to find the best solutions. We need politicians to realize that through innovation, the current performance of all technologies may improve significantly in unpredictable ways.

The efficient allocation of resources using markets and trade is therefore pivotal for business. A particular point for consideration is the catch-all phrase “Environmentally Sound Technology” (or alternatively “Climate Friendly Technology”). From the perspective of business, it is unclear what the phrase EST means or implies and what role governments will have in defining it. There is a risk that the definition governments settle on could unnecessarily restrict technology choices. Technology should be a bottom-up process—countries should be able to pursue technologies that meet their national needs and circumstances and that are politically and socially acceptable.

#### **What a Technology Mechanism should focus on**

Negotiators appear to have concluded that a Technology Mechanism will be part of the post-2012 agreement, though they have not agreed yet on its scope, functions, or composition. We fully recognize that such an institutional vehicle can be a key part of building constructive relations between partners and nations. Rightly designed, this mechanism can indeed form a useful stepping stone that will increase transparency and thus support business engagement and market performance. There are many suggestions under consideration proposing exactly how to construct it. BizMEF partners are interested in discussing with governments how the Technology Mechanism will work and what appropriate role the business community can have.

Further, it is not clear if the Technology Mechanism will focus on diffusion of existing technologies only, or if it will have an R&D aspect. No doubt the full technology value chain should receive attention, but a program focused on technology R&D would

need a different structure. Governments are discussing commitments relating to increased R&D funding. As important as these are, they should be considered separately. The group recommends that the institutional structures of the Mechanism focus on:

- assessment of needs;
- identification of gaps and capacity; and
- potential solutions that if established could promote accelerated adoption of existing technologies.

In particular some proposals in the formal negotiation texts suggest roles for the Technology Executive Committee (TEC) and the Climate Technology Centre and Network that seem to conflict in some cases with the technology neutrality criteria. All technologies face various constraints and challenges, many of which may be overcome through innovation.

**Capacity building is necessary.** Individual nations have different circumstances in which particular technology requirements must be shaped. In these cases focused capacity building and training is needed. Many developing countries in particular are ill-prepared to accept certain advanced, low-carbon technologies. While financing appears to be a big focus, the Mechanism's activities should extend to enabling frameworks, training, and capacity building. Project definition, selection and finance should not be included in the mechanism.

**Leave technology choices to the market.** However, the choice of particular technologies must align as closely as possible with research into potential technologies, developed in dialogue with business, recognising that ultimately, technology choices must be left to the market. And if the problem is a complete lack of market and infrastructure and other underpinnings, the focus of the technology mechanism must be on how to create a local market. In any case close dialogue with business is needed—any business will readily share knowledge that will enable them to reduce risk and improve the value added of their particular investment.

**Learn from valuable experience with existing public-private partnerships.** Another important matter is how we can learn from useful existing models. For example experience of the Asia Pacific Partnership (APP) should be included in the work, particularly the partnership with the private sector. While APP is not a perfect analog for the Technology Mechanism, it provides a good case study of what works and what does not. APP's sector-specific approach and focus on public-private partnerships may be a good model that drives practical solutions.

**Avoid burdensome bureaucracy.** Last but not least, the Technology Mechanism should avoid the bureaucracy that undermines the Clean Development Mechanism. The decision process should understand and reflect the realities of business decision timelines. This is absolutely key as experience shows that wrong choices upfront rapidly crystallize into routines and values that can be extremely difficult to change. Therefore we also recommend that the Technology Mechanism starts out as focused and simple as possible. It is better to build a light but well functioning vehicle that can be developed as experience and track record emerge, than to develop an overweight creature that will never be able to fly. Business will be able to spot such a bad case immediately - and useful time and investment opportunities will be lost.

### **Composition of Technology Executive Committee**

Business believes that the TEC should be composed of a workable number of representatives from national governments, drawn in a balanced fashion from developed and developing nation and regions. TEC should draw on the vast range of existing institutions and players for technology advice, including relevant government ministries and agencies, intergovernmental institutions (*e.g.*, International Energy Agency and International Renewable Energy Agency), sectoral and multi-sectoral business associations, professional societies, and others.

We do not believe that a small, unrepresentative handful of “business” appointees drawn from a limited pool with a limited range of views and experience could represent adequately the breadth of available information or be familiar enough with the dynamics that drive the modern global

economy. Such a narrow panel of experts could imply a business consensus where none exists. A key to success will be the ability of TEC to tap in to the full range of ever-changing technology information that is available from existing channels.

Australian Chamber of Commerce and Industry  
Australian Industry Group  
BUSINESSEUROPE  
Canadian Council of Chief Executives  
Confederation of British Industry  
Confederation of Indian Industry  
Dansk Industri  
Confindustria  
Federation of German Industries - BDI  
Iniciativa para el Desarrollo Ambiental y Sostenible – IDEAS (Mexico)  
Korea Chamber of Commerce & Industry  
Mouvement des Entreprises de France  
Nippon Keidanren (Japan Business Federation)  
US Chamber of Commerce, Institute for 21st Century Energy  
US Council for International Business

### **About BizMEF**

The Major Economies Business Forum on Energy Security and Climate Change (BizMEF) is a partnership of major multi-sectoral business organizations from major economies. Modeled after the government-to-government Major Economies Forum, BizMEF is a platform for these groups to:

- promote dialogue and exchange views on climate change and energy security across a broad spectrum of business interests including major developed, emerging, and developing economies;
- highlight areas of agreement among participating organizations on the most important issues for business in international climate change policy forums; and
- share these views with governments, international bodies, other business organizations, the press, and the public.

Organizations that have participated in BizMEF meetings represent business groups in Australia, Brazil, Canada, China, the European Union, Denmark, France, Germany, India, Italy, Japan, Kenya, Mexico, the United Kingdom, and the United States. Collectively, BizMEF organizations represent more than 25 million businesses of every size and sector. Because BizMEF partnering organizations represent a broad range of companies and industries—including energy producing and consuming companies as well as energy technology and service providers—the partnership is able to provide robust and balanced views on a range of issues.

For more information on BizMEF, please visit our website at: [www.majoreconomiesbusinessforum.org](http://www.majoreconomiesbusinessforum.org).