



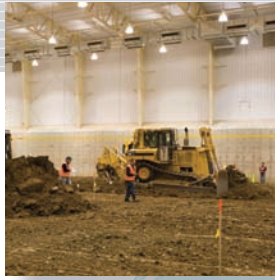
**Strategic Framework for
Regulatory Coherence in APEC:
An Impact Assessment of the Dairy, Electronics,
and Off-Highway Vehicle Industries**



Prepared for the National Center for APEC and APEC Business Advisory Council







About Regulatory Coherence

As international commerce has grown in recent decades, the private sector has often found itself facing trade barriers caused by an increasing variety of regulatory systems imposed by economies around the world. As a result, regulatory coherence is now playing a more prominent role on the international trade policy landscape as a means to address these regulatory inefficiencies.

Regulations are an integral part of a well-functioning economy and can be used to achieve desired economic, social, and environmental objectives. Regulations, however, can also have a significant impact on the flow of international trade and investment. When implemented properly and in concert with international trading partners, regulations can facilitate the trade of goods and services, encourage competitive economies, and enhance APEC's economic growth. Specifically, economic recovery and job creation depend significantly on our region's ability to work collaboratively to develop regulations that promote free and open trade and investment.

Regulatory coherence is not about less regulation nor is it about more regulation. It is about improving the process by which APEC economies develop regulations, generate best practices, and find common acceptable standards and timings in which to implement them. It doesn't require loss of regulatory power or sovereignty. It results in more effective regulation that does not distort markets. Regulatory coherence fosters an optimal regulatory environment that allows the market to be more open, competitive, and innovative.

Regulatory coherence also results in a higher degree of confidence that regulations are providing the appropriate safeguards which are properly enforced, including enhanced confidence in traded products and services. It reins in unintended consequences of regulation and increases consumer access to a wide choice of goods and services at better prices while boosting market competitiveness. It would also better facilitate Small, Medium and Micro Sized Enterprises (SMME) entry into foreign markets.

The Impact of Divergent Regulations

The trade costs that result from divergent regulations are significant. For consumers, regulatory divergence is tantamount to a concealed “inefficiency tax” that citizens pay on everything they purchase. This tax is the sum of the costs of duplicate regulations, cross border administration delays and fees, and other regulatory impediments. For businesses, and in particular SMMEs, higher costs of compliance hinder international competitiveness and complicate the most efficient deployment of economic resources.

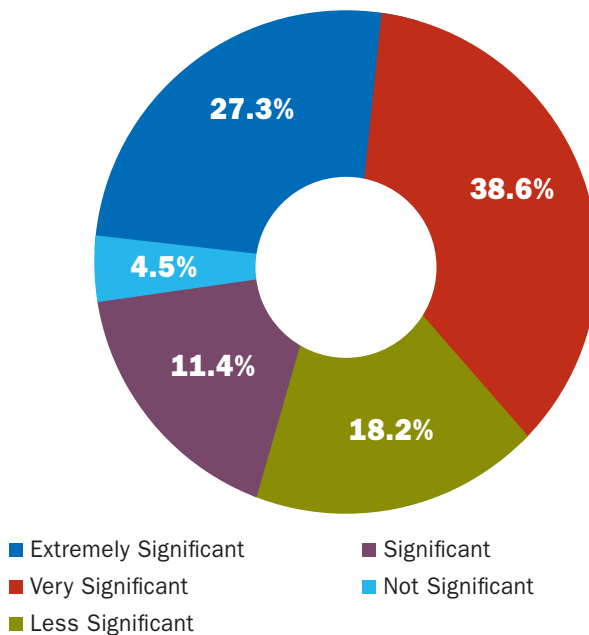
The United States Department of Commerce has described unnecessary differences in product regulations as one of the main impediments to greater trade and investment. A 2009 study on the results of efforts to reduce divergent regulation between the US and EU found that exports would increase by 2.1% for the EU and 6.1% for the US if 50% of Non-Tariff Measures between the US and EU were aligned. In South Korea, the OECD estimated that the value of gains to individuals of a one-year program to reduce the regulatory burden was an amount equivalent to almost 1 per cent of GDP, reflecting the opportunity cost of time. Regulatory reforms can also boost investment. For example, liberalizing entry can spur fixed investment in some industries. Removing numerous regulatory barriers to entry in South Korea was estimated to boost FDI by over \$26 billion over 5 years.

Regulatory divergence also acts as a drag on the competitiveness of an economy. The US Government’s Small Business Administration estimates the total US federal regulatory burden to be 1.75 trillion dollars. This translates to over \$15,000 per U.S. Household, just over \$8,000 per employee or over \$10,500 per employee in companies with less than 20 employees. These costs associated with unnecessary divergent regulations are ultimately borne by the consumers of regulated products.

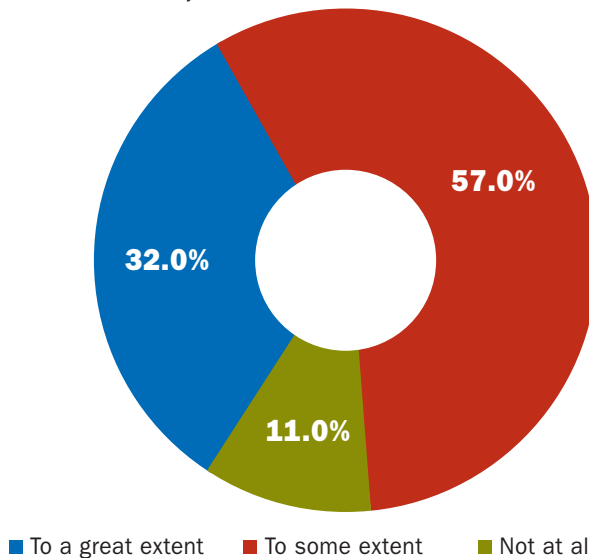
Higher costs due to regulatory inefficiencies or unnecessary divergences carry an economic penalty. Inefficient regulations that impose direct business costs often reduce economic performance, measured as business investment, employment generation, exports, and FDI inflows. Governments, and ultimately the taxpayers, face the cost of developing and enforcing regulations. Over the last decade in the United States, between 2000 and 2010, annual budget outlays for regulatory activities increased 75.5 percent in real terms, for a real dollar increase of \$21.7 billion. By eliminating these non-tariff barriers, bureaucratic inefficiencies are removed and trading costs for business are minimized.

Asia-Pacific Businesses Believe Inconsistent Standards and Regulations are a Significant Barrier to Trade

A University of Southern California Marshall School of Business survey of Asia-Pacific business leaders in APEC conducted on behalf of ABAC revealed that 77.3% of the business community saw inconsistent standards and regulations across the region as a significant barrier to trade.



A separate survey in 2011 of more than 4000 business and opinion leaders by the Pacific Economic Cooperation Council (PECC) cited regulatory impediments in overseas markets as the second biggest challenge to doing business in the region. The survey showed inconsistent regulations and standards across the region will represent a significant barrier to private sector growth over the next 3–5 years.



Regulatory Coherence and APEC

Regulatory coherence has become an emerging issue within APEC as mechanisms to further enhance free trade and investment are sought to ease the trade impediments faced by local businesses across the region. Eliminating divergent regulations reduces non-tariff barriers to Asia-Pacific trade and investment, generating growth, jobs and greater public protection in the world's most economically dynamic region. APEC has previously sought to improve regulatory coherence in the region through initiatives such as the APEC Principles to Enhance Competition and Regulatory Reform in 1999 and the APEC-OECD Integrated Checklist on Regulatory Reform in 2005. APEC's efforts to develop regulatory coherence have also played a significant role in the development of input into the Trans Pacific Partnership (TPP) negotiations on horizontal issues. Governments involved in the TPP negotiations have already indicated support for including a dedicated chapter on regulatory coherence within the TPP agreement that would establish principles, objectives and processes to encourage regulatory coherence.

“Regulatory reform, including eliminating unjustifiably burdensome and outdated regulations, can boost productivity and promote job creation, while also protecting the environment and public health, safety, and security. In addition, as trade and investment flows become more globalized, greater alignment in regulatory approaches, including to international standards, is necessary to prevent needless barriers to trade from stifling economic growth and employment.”

- 2011 APEC Economic Leaders' Declaration

While APEC has achieved significant success in removing tariffs and quantitative restrictions, there is an emerging recognition of the need to address behind-border issues, such as regulatory divergence, that represent unnecessary non-tariff barriers to free trade and investment. The growing complexity of globalization and modern supply chains makes these reforms all the more imperative. Inputs for goods are often sourced from multiple economies. Non-tariff barriers relate to the standards and qualifications set by government at the domestic level. Enhancing regulatory coherence within APEC economies will lower the costs of doing business, shorten supply chains and strengthen regional economic integration.

Our Approach to Regulatory Coherence

To advance APEC's work on regulatory coherence and in its capacity to provide the business perspective on specific areas of cooperation in the APEC process, the APEC Business Advisory Council (ABAC) commenced work on addressing regulatory coherence from a sectoral perspective with the objective of highlighting the impact that regulatory coherence best practices could have on improving the regulatory environment in which the private sector operates.

This paper utilizes six categories for improved implementation of regulatory coherence as identified in the *APEC Economic Committee's Good Practice Guide on Regulatory Reform*. Within each category ABAC identified 1-3 best practices that could be used to enhance regulatory coherence in APEC. Many of these best practices were sourced from the *APEC-OECD Integrated Checklist on Regulatory Reform*. ABAC assessed the impact of these best practices on:

- ◆ The off-highway vehicle industry;
- ◆ The dairy industry; and
- ◆ The electronics industry.



Enhancing regulatory coherence promotes international competitiveness, spurs innovation, and enhances the efficient deployment of economic resources.

Designing Regulations

Encourage use of Harmonized International Standards

At a macro level, international standards should be used, where possible, as the basis for establishing domestic regulation. Standards developed internationally provide a solution to fragmented regulatory systems. Provisions that differ from existing international standards should be based on genuine differences in regulatory objectives or in available means to achieve them.

- ◆ *What it means for Off-Highway Vehicle Industry Emissions Regulations:* Unique national standards represent an additional burden and conflict with the trend towards global coherence of emission standards. In addition to economy specific regulations, local or regional requirements further complicate products. For example, the United States has the California Air Resources Board which specifies requirements that are not necessarily harmonized with the rest of the economy. There are other areas in the world where local regulations are more stringent than national regulations. It is understandable that in certain areas, perhaps due to local air quality issues, that differing emission performance standards are desired. However, it is preferable to see adherence to such localized regulations be based on the use of verified or certified products because the development of those products can be leveraged elsewhere or leveraged at a later time, rather than force unique local product requirements, specific only to a certain locale.
- ◆ *What it means for Dairy Industry Regulations:* International standards are available in Codex and other forums. They are

not always applied as in allowing the use of some products in particular end uses. In FTAs international standards should be applied by all members. In some areas there are no international standards – then best practices should be applied. Best practice in this context should be defined as regulation that achieves the desired product safety or quality outcome while reducing complexity and facilitating the efficient movement of dairy products.

- ◆ *What it means for Electronics Industry Regulations:* International standards developed by International Electrotechnical Commission (IEC) are mostly introduced in the electronics sector as basis of the technical requirements in national regulations such as product safety and electromagnetic compatibility (EMC). However, national transposition process of the updated international standards differs from economy to economy. Introduction of “presumption of conformity” concept into the regulation, regardless of their version, is one of the solutions to achieve regulatory objectives in designing regulations.

Performance vs. Prescriptive Based Regulations

Regulations should be performance based and not prescriptive based. Where foreign regulatory measures differ from those developed domestically, but nonetheless adequately fulfill the domestic policy objectives, acceptance of these measures as functionally equivalent to the domestic measure, where possible, will encourage market openness and stimulate competition. Performance based regulations reduce regulatory rigidity and compliance burdens while promoting innovation and allowing for lower compliance costs. Producers and services suppliers should have an open, transparent, and accessible process available to them if they want to make a case for equivalence. Recognition can also be facilitated through adoption of mutual recognition agreements.

- ◆ *What it means for Off-Highway Vehicle Industry Emissions Regulations:* There are at least 9 emission regulations that non-road equipment manufacturers need to deal with in order to produce and sell product worldwide and that number is growing as more economies begin to regulate emissions. (US, EU, Canada, Japan, China, India, Korea, Russia, and Israel, all have different emissions regulations or implementations). And, in some instances, international organizations such as the International Maritime Organization (IMO) provide an additional measure of regulatory activity.

Even when emission levels appear to be the same, differences in test procedures and other certification requirements can require manufacturers to design for, and produce, different products

for different areas. There are at least fourteen typical aspects to a regulatory regime that are used in differing combinations by differing regulatory authorities, creating a challenging mix of requirements that inhibit product development and economic efficiency. The resulting variation in regulatory approaches drive limitations on consumer choice and innovation as manufacturers design to meet multiple market requirements, especially in product groupings characterized by low per-configuration unit volumes.

Manufacturers of specialized off-road machines such as mining trucks, track-type tractors or industrial power equipment are impacted particularly hard by lack of emissions regulation coherence due to the low volumes per individual product configuration and the high variability in product types and work

performed. For example, ABAC Member Caterpillar offers thousands of engine configurations and ratings used to power its over 200 different types of equipment and those of companies purchasing Caterpillar engines to power their own products. For them, regulatory coherence would result in hundreds of millions of dollars saved. Multiply that by the various engine and equipment manufacturers around the world and it is clear that a lack of regulatory coherence results in several billion dollars of unnecessary costs for industry and consumers.

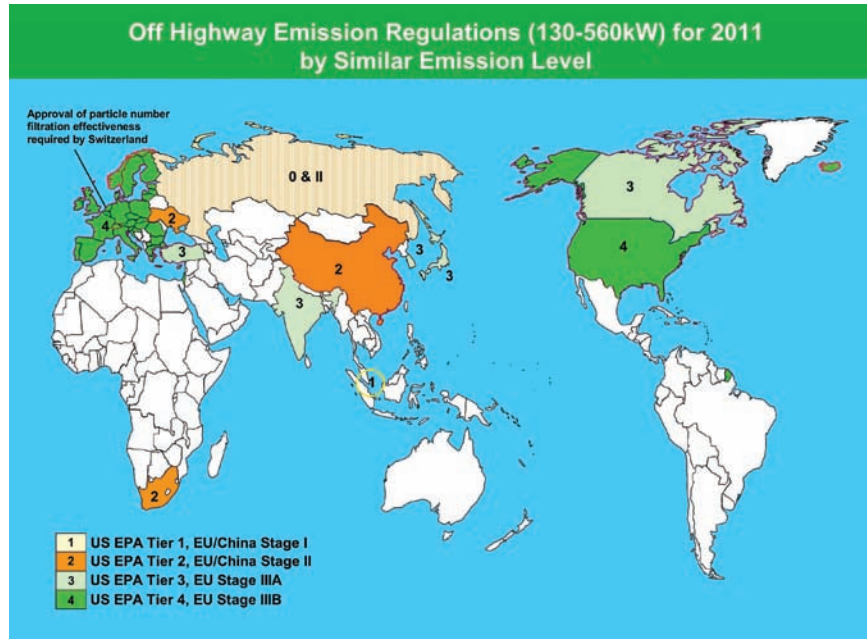
◆ What it means for Dairy Industry

Regulations: The dairy industry faces heavily prescriptive regulations in some markets that require very detailed adherence to specific processes. A much better approach is for acceptance of outcome based solutions or equivalence. Product testing procedures can differ and require significant costs and time before product can be cleared. Also, divergent systems of plant registration require multiple audits of the same dairy plants to export to different markets – ideally, these plant audits would not be necessary, and an international standard would be accepted which could be attested to by local authorities in the exporting economy. Harmonization of regulations is often a slow and difficult process – better outcomes can be achieved through the use of equivalence or mutual recognition. Regulatory coherence can address barriers to trade in such a way that facilitates trade without compromising product safety or quality assurance.

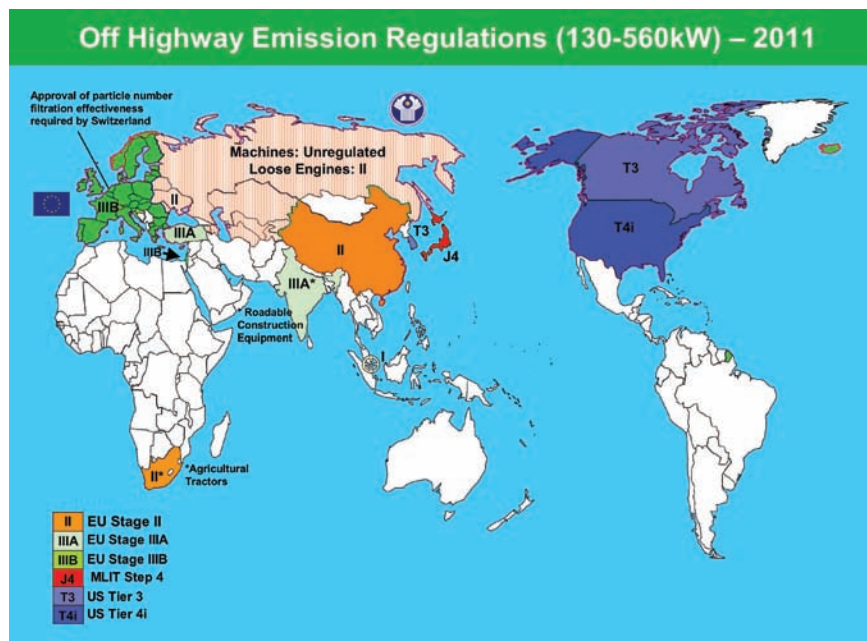
◆ What it means for Electronics Industry

Regulations: IEC standards referenced in the national regulations are generally understood as performance-based standards. In the product safety arena, IEC also has the system of conformity assessment to IEC standards, called IECEE-CB scheme that enables mutual acceptance of test result conducted by either one of the national certification bodies registered under IECEE. Currently 53 countries (11 APEC economies) are participating in this scheme and many of them recognize it as

compliance measures of the product to achieve safety objectives of the national regulations. The electronics sector expects additional economies will install the mechanism and accept the IEC standards and its conformity assessment procedure in designing national regulations in order to facilitate trade under the TBT agreement.



Without addressing specific certification requirements, there are broad similarities in emission level requirements of off-highway vehicles.



However, the regulatory environment that manufacturers face is far more complex. In subsequent years this map will become more fragmented as additional economies begin to regulate emissions. Hong Kong, Brazil, Chile, Australia, and others are expected to introduce specific certification requirements in the coming years.

Regulatory Institutions

Promote Trade-Friendly Regulations and Implementation

Manufacturers, service providers, retailers, SMMEs, and farmers face duplicative and oftentimes opaque regulatory processes which are often interpreted without consistency even within the same regulating authority and fail to take into account their views and experiences. Government regulatory institutions should promote approaches to regulation and implementation that are trade-friendly and avoid unnecessary burdens on economic actors by taking into account equivalence of foreign regulations, doing away with duplicative or outdated requirements, and embracing regulatory alternatives.

- ◆ *What it means for Off-Highway Vehicle Industry Emissions Regulations:* Efficient approaches by regulatory institutions benefit international commerce. A trade-friendly approach saves capital spent each year on materials and services for development, testing, manufacturing, inventory, and logistics in dealing with different levels of emissions regulations.
- ◆ *What it means for Dairy Industry Regulations:* Regulations are often more trade restrictive than necessary and do not meet TBT requirements of being least trade restrictive. Considerable cost savings can be made in relation to process costs. At present standard dairy products – milk powders, cream products and protein products – often need to be made to different product specifications, and have divergent tests applied to them, for export to different markets. This involves increased capital spend – manufacturing facilities need to have the capability to produce products for markets with different specifications. It also increases operational costs by reducing manufacturing efficiency (because the same plant needs to switch between

different product specifications) and there are increased costs to ensure compliance with differing standards.

- ◆ *What it means for Electronics Industry Regulations:* Although electronics sector welcomes the national transposition of IEC standards & conformity assessment procedures, geographical restriction for testing creates a barrier that reduces the value of introducing the international framework. In some economies, product testing is limited to the designated test houses located in their national territories. Not all test houses have the appropriate technical background, and rather than provide additional regulatory protection to the economy, only result in unnecessary regulatory burdens for economic actors. Technical competence of conformity assessment bodies such as test house/certification bodies can be assured by the compliance with ISO/IEC standards and guides, regardless of geographical location. Regulatory institution is to be based solely on technical justification, which can help create a trade-friendly environment among all economies.

Address Unnecessary Costs of Regulation

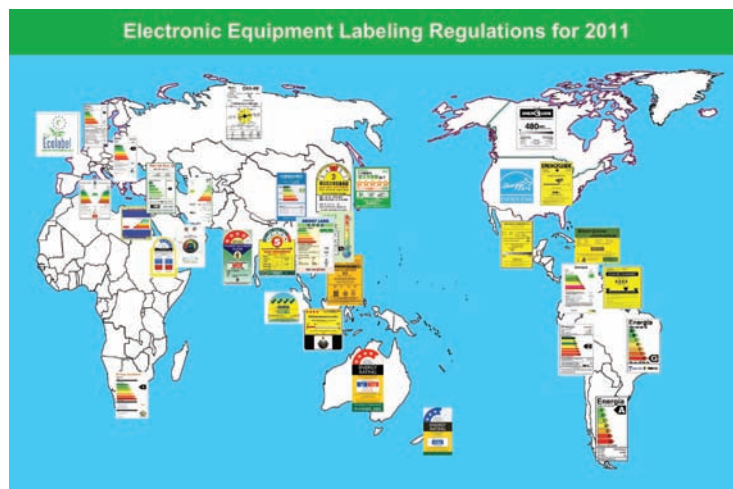
Regulatory institutions should address unnecessary costs of regulation to ensure that economic actors can manage risk and operate in a pro-competitive environment, allocate resources, and seek more efficient techniques over time. This will strengthen sustainable economic growth and enhance living standards.

- ◆ *What it means for Off-Highway Vehicle Industry Emissions Regulations:* In addition to certification testing costs, there are significant development, manufacturing and redundant conformance costs that could be eliminated with regulatory coherence. Product labeling, inventory, logistics of distribution, even regulatory affairs functions are currently repeated for the different regulations. International regulatory coherence is a means to promote the rapid introduction and deployment of cost-effective new technologies to reduce emissions, increase energy efficiency and promote safer vehicles in the future. Harmonized emission levels improve the efficiency of engine development, product manufacturing, and worldwide global trade.
Internationally harmonized test protocols for emission control contribute to reducing pressures on the environment and to

more efficient use of energy. They also facilitate innovation and competitiveness by allowing manufacturers to develop engine models that can meet internationally consistent emissions regulations.

- ◆ *What it means for Dairy Industry Regulations:* There are a wide variety of dairy regulations in most economies covering such areas as on-farm inspection, environmental standards, plant inspections, certification for export and labeling. All of these impose costs on exporters and are not always the best means of managing risks. International standards and best practice requirements should be the starting point with close assessment to control costs and the frequency of intervention. Product innovation should also be encouraged through regulatory systems which enable the efficient risk based assessment of new food products.

- ◆ *What it means for Electronics Industry Regulations:* The “Supplier’s Declaration of Conformity” (SDoC) is a type of conformity assessment that does not involve third party testing as a mandatory basis for low risk products such as information technology equipment. In the electronics sector, technology evolution is rapid and third party intervention as a regulatory requirement for new innovative products sometimes causes delay in timely market access due to the conventional assessment technique of designated certification bodies. Minimum regulatory intervention for the conformity assessment prior to the product marketing, with maximum post market supervision mechanism, can lead to a cost-efficient regulatory practice for both regulators and product suppliers.



Lack of coherence in electronic equipment labeling costs manufacturers billions of dollars each year.

Enhance Domestic and Regional Regulatory Cooperation

Regulatory institutions should advance both internal (domestic) and regional cooperation on regulatory issues to increase alignment of technical regulations, increase transparency, and identify mutually agreeable solutions.

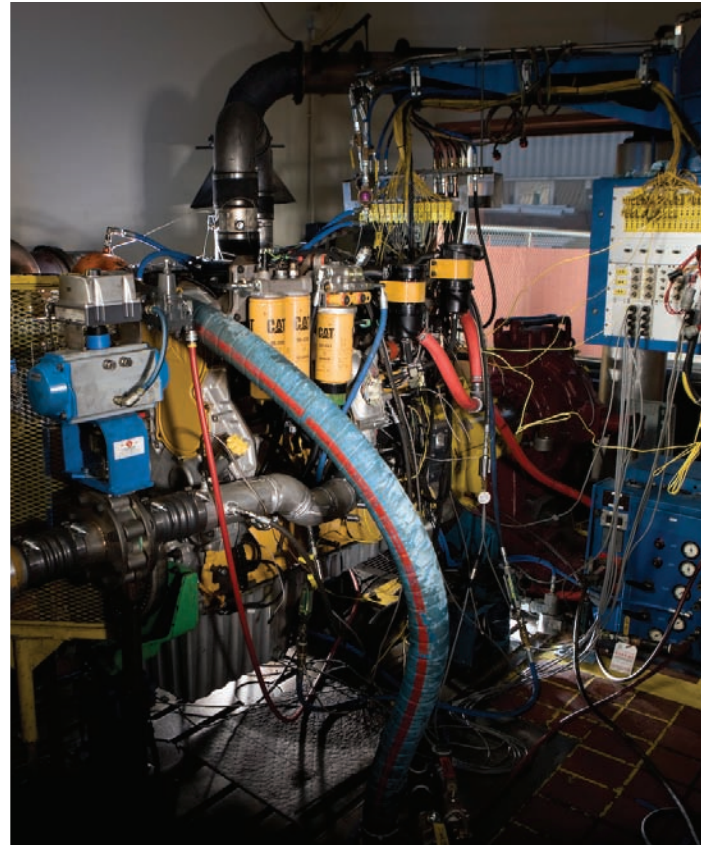
- ◆ *What it means for Off-Highway Vehicle Industry Emissions Regulations:* Equipment movements associated with increased global trade activity make transparent and technically consistent regulatory regimes an important asset to the development of trade. With specific regard to regional initiatives, aligned emission regulations amongst adjoining nations improve economic efficiency by allowing cross-border utilization of and trading of specialized off-highway equipment assets. When misalignment occurs, adjacent economies that may share air sheds can experience significant differences in the technical capabilities and emission reduction capabilities of equipment used within their borders, affecting both domestic and regional air quality.
- ◆ *What it means for Dairy Industry Regulations:* Establishing frameworks for regular contact and cooperation between regulatory agencies at the national and international level is crucial for the development of high quality regulatory outcomes for the dairy industry. Sharing information about food safety assurance testing methodologies and science based developments in relation to sanitary and phytosanitary (SPS) issues should be central to international regulatory cooperation. Some regulatory authorities do not have access to up to date information about dairy food safety assurance. Sharing this information and working collaboratively to develop domestic standards that conform to international best practice can facilitate trade while increasing skill levels and knowledge of regulatory institutions globally.

This formalized approach to regulatory cooperation can also build levels of mutual trust, which in turn can help to deal with issues and overly complex or unnecessary regulatory requirements as they arise. The development of cooperation between relevant agencies can therefore help to deal with issues such as customs clearance procedures and differing standards in relation to dairy trade. FTAs and other agreements can create mechanisms for consultation and the resolution of these technical issues. The ultimate intention should be to develop mutual understanding of different systems and to build trust – within the dairy sector there are examples of where this type of model currently works well.

- ◆ *What it means for Electronics Industry Regulations:* The WTO-TBT Agreement outlines that national standards and conformity assessment procedures for technical regulations should be based on international standards, and that the results obtained by such international frameworks should be mutually recognized to avoid duplications. The national transposition of IEC standards and the acceptance of the conformity assessment results to the IECEE CB scheme are widely recognized as satisfying WTO-TBT Agreement. The observance of the WTO-TBT Agreement on an equal basis among economies, as well as the maximum transposition of international frameworks, can be one of the best solutions to align the national technical regulations, and to retain their transparency and further to give the equal opportunities to the economic operators of the electronics sector.



Dairy factories such as the one pictured are subjected to numerous audits as a precondition to access for many markets. The number of plant audits could be reduced without any negative effects on product safety.



Off-Highway vehicle manufacturers produce thousands of engine configurations and ratings to meet requirements in markets worldwide. Regulatory coherence would result in hundreds of millions of dollars saved for each emissions tier change.

Regulatory Impact Assessments

Regulatory impact assessments (RIA) should be used to assess the impacts of new or existing regulations on business, the environment, government, administration, or any other impact that is of relevance to the regulation-maker.

- ◆ *What it means for Off-Highway Vehicle Industry Emissions Regulations:* RIA lessens the negative impact that regulations have on business by addressing longer term impacts. Beyond the initial point of sale, emissions coherence is needed to respond to the implications of globalization on off-road manufacturers' customers. In an increasingly globalized world, it is no longer acceptable to produce a product with only regional or national compliance when products move across borders.
- ◆ *What it means for Dairy Industry Regulations:* RIAs are essential to assessing the impact on business and reducing intervention to the level required. RIA procedures should become part of FTAs or procedures established under FTAs. Some proposed dairy regulations have not been through any such process, for example the mandatory country of origin labeling (COOL) regulations being proposed in a number of jurisdictions globally. Dairy supply chains are often very complex, and dairy products are often ingredients in other food products. RIAs in relation

to COOL can help to balance the desire of consumers for more information about the origin of their food with the complexity of dairy supply chains and obligations not to discriminate between local and imported goods.

- ◆ *What it means for Electronics Industry Regulations:* RIAs are an essential part of legislative process and they are to be made on the basis of shared responsibilities with the participation of well-balanced stakeholders. In the electronics sector, Electrical Energy Efficiency (EEE) is one of the common concerns and currently regulatory EEE requirements vary from economy to economy, such as conformity assessment procedures and energy labeling, although each regulatory objective is more or less the same. Common RIAs at the early stage of each economy's legislative process, with the participation of interested parties can facilitate free trade of energy efficient products among economies by introducing the coherent EEE regulations.

Consultation Mechanism

In order to improve the quality of regulation and the regulatory process, governments should incorporate a consultation mechanism to enhance accountability, promote mutual learning and best practices, and build a framework that is flexible enough to take account of the diversity of interests for each policy proposal. Consultation supports transparency and accountability, as well as improves the overall efficiency and effectiveness of policy.

◆ *What it means for Off-Highway Vehicle Industry Emissions*

Regulations: Engine and equipment manufacturers around the world have been working with regulatory bodies in an effort to try and harmonize engine emissions requirements, with much of this work done within the United Nations Environmental Program. There has been limited progress made through adoption of Global Technical Regulations (GTRS), but variation amongst the fourteen or more different prime regulatory provisions referenced above create considerable confusion and disharmony in actual implementation. So, even while emission thresholds appear similar, even arguably identical, those coherences are often only superficial.

◆ *What it means for Dairy Industry Regulations:* Consultation mechanisms are essential to making good regulations. These should occur at all levels of the process – design, implementation and review. Strong formal and informal procedures should be in place. Importers and exporters should be able to have the same level of input as domestic producers

and processors. Industry best practice, as defined earlier in this publication, would be determined by consultation with industry experts. Industry best practice should be adopted in developing regulatory outcomes within FTAs only in instances where an agreed international standard – such as Codex – does not already exist. In these instances, consultation mechanisms are essential.

◆ *What it means for Electronics Industry Regulations:* By the nature of technical regulations, consultation mechanisms are essential to demonstrate transparency to every stakeholder in an equal manner. In the electronics sector, business model and supply chain are complex and widespread across the borders and regulatory requirements influence each and every stage of product development, procurement, mass production, and marketing involving many SMEs. In order to pursue regulators' accountability, consultation mechanisms are to be open and friendly to anyone, especially to SMEs both domestically and overseas.



Many countries require testing of raw milk and finished dairy products that are out of step with international food safety requirements. Additional tests can be expensive, time consuming, and false positive results can lead to product being held up at the border.



Manufacturers of specialized off-highway machines are impacted particularly hard by lack of emissions regulation coherence due to the low volumes per individual product configuration and the high variability in product types and work performed.

Enforcement Mechanism

Regulation is an important aspect of an economy's ability to protect its populace from potential harm and to engage in the global marketplace; however the case for regulation needs to be made carefully. Businesses need lead time and stability with regard to regulatory frameworks and their enforcement. Regulatory coherence will allow regulators to fulfill their enforcement mandate through improved transparency in regulation and enforcement.

- ◆ *What it means for Off-Highway Vehicle Industry Emissions Regulations:* Transparent enforcement is critical to regulatory certainty. Equitable enforcement between domestic and foreign participants in a marketplace enhances competitiveness for both the domestic and foreign market participant. Certainty supports the business case for development of products to regulatory requirements and enhances protection of the environment.
- ◆ *What it means for Dairy Industry Regulations:* Enforcement provisions should be transparent. Equivalent treatment between imports and domestic products is very important. Because dairy supply chains can be very complex, with finished products typically including components or ingredients from more than one economy, and product often being shipped over long distances, changes in regulatory requirements need to be phased in and advertised well in advance. In a worst case

scenario, a product specification or other regulatory change could result in product being produced that cannot then be sold in any market due to the introduction of new regulations. This is wasteful and introduces unnecessary business risk.

- ◆ *What it means for Electronics Industry Regulations:* Enforcement mechanism, especially for the new or revised regulatory requirement is crucial for the mass production oriented enterprises such as electronics sector. Any new or revised requirement influencing product design and production is to be enforced after the sufficient grace period considering the time necessary for the preparation of design change, for production arrangement, and for transportation to the market. A public announcement mechanism for both domestic and overseas business participants is equally essential.



Rules around product storage, temperature controls and age of product at time of arrival in market are often not science based and add complexity and cost to the dairy supply chain.



Transparent international regulatory coherence is a means to promote the rapid introduction and deployment of cost-effective new technologies.



Supply chains are complex and widespread across borders. Regulatory requirements influence each and every stage of product development, procurement, mass production, and marketing. Inefficient regulations at each stage of development impose significant costs to business, resulting in reduced economic activity. Regulatory coherence is necessary to prevent needless barriers to trade from stifling economic growth and employment.

Alternatives to Regulation

Regulatory tools should be employed to achieve a desired regulatory objective. The development of alternatives to regulation is a relatively new discipline for policy makers and regulators. In many circumstances alternatives to prescriptive regulation may achieve an economic, social or environmental objective more effectively and at a lower cost. The consideration of regulatory alternatives therefore is an important issue. However, whether a prescriptive regulatory approach or an alternative to regulation is adopted, the methods to deal with a perceived problem should ideally have the following characteristics: administrative simplicity, flexibility, efficiency, certainty and equality.

- ◆ *What it means for Off-Highway Vehicle Industry Emissions Regulations:* Regulatory simplicity based upon performance standards provides the opportunity to effectively engineer solutions to challenges put before manufacturers by regulatory conformance. Flexibility that facilitates a smooth transition to new regulatory standards, particularly in businesses with high levels of product variation and low per-configuration volumes makes it possible to implement more substantial improvements over complex product lines. Certainty is needed to justify the investments needed to meet regulations and equity provides the balance competitive environment that promotes innovations and development efficiency.
- ◆ *What it means for Dairy Industry Regulations:* Flexibility is required for economic operators to adjust to different circumstances. Equivalence and mutual recognition are ways of providing this. Dairy production systems and farming methods vary from economy to economy, and regulatory systems that are developed in one economy may not be applicable to another system. The intended outcome should be to meet health and food safety standards based on sound science noting that milk production systems differ between nations.
- ◆ *What it means for Electronics Industry Regulations:* Administrative simplicity can be realized by the minimization of regulatory institutions' intervention prior to product marketing. Performance based standard gives the product the design flexibility helpful to achieve regulatory objectives. Supplier's Declaration of Conformity (SDoC) with the combination of post market surveillance enables efficient regulatory control, and mutual recognition of the conformity assessment result under common objectives yields overall simplicity and equity.



Incoherent regulations negatively impact all aspects of the supply chain, including the conditions under which products are shipped and product labelling.

Conclusions

The purpose of this paper was to assess the impact of these regulatory coherence best practices on the regulatory practices of three different and unique sectors: emissions regulations for off-highway vehicle industry, the dairy industry, and the electronics industry.

We found that despite the significant differences between the three sectors, each would benefit from improved implementation of regulations based on the best practices identified. Furthermore, coherence of worldwide regulations based on the best practices identified in this paper would not only help international commerce, but more importantly would eliminate unnecessary costs associated with resources and services spent each year on development, testing, manufacturing, inventory, and logistics in dealing with different levels of regulations.

Therefore, ABAC recommends a framework approach to regulatory coherence that incorporates the following characteristics:

- ◆ Designing Regulations:
 - Harmonized international standards should be used as the basis for domestic regulation.
 - Use of equivalence and mutual recognition of standards to accept standards from other economies.
 - Regulations should be performance based rather than prescriptive based.
- ◆ Regulatory Institutions:
 - Government regulatory institutions should promote approaches to regulation and implementation that are trade-friendly and avoid unnecessary burdens on economic actors.
 - Regulatory institutions should address unnecessary costs of regulation.
 - Regulatory institutions should advance domestic and regional cooperation on regulatory issues align technical regulations, increase transparency, and identify mutually agreeable solutions.
- ◆ Regulatory impact assessments:
 - (RIA) should be used to assess the impacts of new or existing regulations on business.
- ◆ Consultation Mechanism:
 - Governments should incorporate a consultation mechanism amongst each other and with affected stakeholders to enhance accountability, promote mutual learning and best practices.
- ◆ Enforcement Mechanism:
 - Enforcement mechanisms should be transparent, equitable, and designed to ensure stability for the private sector.
- ◆ Regulation Alternatives:
 - Regulation alternatives should be based on administrative simplicity, flexibility, efficiency, certainty and equity.

Contributors

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References:

APEC Economic Committee, *Good Practice Guide on Regulatory Reform* (2008).

Berden, Koen G., Francois, Joseph, et al, *Non-Tariff Measures in EU-US Trade and Investment – An Economic Analysis*, ECORYS Nederland BV (2009).

Crain, Nicole V. and Crain, W. Mark, *The Impact of Regulatory Costs on Small Firms*, Lafayette College (2010).

Ha, Byong ki, *The Economy-wide Effects of Regulatory Reform in Korea*, Korea Institute for Industrial Economics and Trade (1999).

OECD, *Regulatory Reform in Korea*, OECD, Paris (2001).

OECD Regulatory Reform Programme, and The APEC Competition Policy and Deregulation Group, *APEC-OECD Integrated Checklist on Regulatory Reform* (2005).

Pacific Economic Cooperation Council, *State of the Region: 2011-2012* (2011).

University of Southern California Marshall School of Business, *APEC Supply Chains: Identifying Opportunities for Improvement* (2011).

Key Terms:

ABAC – APEC Business Advisory Council

APEC – Asia Pacific Economic Cooperation

COOL – Country of Origin Labeling

EEE – Electrical Energy Efficiency

EMC – ElectroMagnetic Compatibility

FTA – Free Trade Agreement

GTRS – Global Technical Regulations

IEC – International Electrotechnical Commission

IECEE-CB – International Electrotechnical Committee for Conformity Testing to Standards for Electrical Equipment Certification Bodies

IMO – International Maritime Organization

ISO – International Organization for Standardization

OECD – Organization for Economic Cooperation and Development

RIA – Regulatory Impact Assessment

SDoC – Supplier's Declaration of Conformity

TPP – Trans Pacific Partnership

TBT – Technical Barriers to Trade

WTO – World Trade Organization



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