



## Ports modernization review: discussion paper

As part of Transportation 2030, we are reviewing Canada Port Authorities, the arms-length corporations that run Canada's 18 ports of strategic importance. Join the discussion by reading about our review and submitting your input.

### Purpose and objectives

Transport Canada is reviewing [Canada Port Authorities](#). We're aiming to increase their ability to promote sustainable and inclusive economic growth through effective governance and innovative operations.

The review will focus on how ports can best advance five key objectives:

- Supporting the competitiveness of Canada's economy by facilitating the movement of goods and passengers
- Strengthening relationships with Indigenous peoples and local communities
- Promoting environmentally sustainable infrastructure and operations
- Enhancing port safety and security
- Optimizing governance and accountability, including with respect to financial management

This discussion paper explains the need for the review. It identifies considerations and questions that we at Transport Canada will consider through both public consultation and our own research and analysis.

### Setting the context

The marine sector is evolving. In 2016, the [Canada Transportation Act Review Report](#) was released. In the report, the independent review panel made many recommendations for Canada Port Authorities. The report also noted the need for more analysis and engagement about the future of Canada's ports system.

Also in 2016, the Minister of Transport unveiled [Transportation 2030](#). This is our strategic plan to support:

- trade and economic growth
- a cleaner environment
- the well-being of the middle class

Transportation 2030 has five themes:

- [The Traveller](#): support greater choice, better service, lower costs, and new rights for travellers
- [Safer Transportation](#): build a safer, more secure transportation system that you can trust
- [Green and Innovative Transportation](#): reduce air pollution and embrace new technologies to improve lives
- [Waterways, Coasts and the North](#): build world-leading marine corridors that are competitive, safe and environmentally sustainable, and enhance northern transportation infrastructure



- [Trade Corridors to Global Markets](#): improve the performance and reliability of our transportation system to get products to markets to grow Canada's economy

Ports will be big contributors. They will help us:

- improve our transportation system and how we get products to market
- grow our economy
- build world-class marine corridors that are competitive, safe and environmentally sustainable

As a plan, Transportation 2030 reflects much consultation with Canadians. Canadians told us that government, industry, Indigenous groups and communities must work together to strengthen the competitiveness of ports. We also heard that we must go beyond infrastructure investments. We need to use innovation, policy, regulations, partnerships and creativity to improve the efficiency of supply chains.

## How Canada's port system is structured

The 1995 National Marine Policy and the 1998 [Canada Marine Act](#) form the basis for today's port system.

The Policy laid out a detailed model for Canada's marine transportation system. Its key principles emphasized accountability to users and the public, business discipline and self-sufficiency. This was done to shift the cost of port operations from the general taxpayer to users.

The Act, meanwhile, placed federal ports of national significance on a commercial footing by creating 18 Canada Port Authorities. It also began the divestiture of other ports owned by Transport Canada to local interests such as provincial governments, municipalities and private organizations.

Together, these changes promoted a more competitive, effectively managed and sustainable port system.

## Why ports are important

Canada is a very large trading nation. Canadians rely on the port system for the goods they use and consume, and for getting their merchandise to domestic and international markets.

In 2017, ports and marine shipping carried almost:

- \$101 billion (19%) of Canada's **exports** to world markets
- \$116 billion (21%) of Canada's total **imports** by value

The commodities with the biggest shares of marine **exports** were:

- petroleum products (23.8%)
- grains and oilseeds (15.8%)
- mineral or stone products (9.5%)
- base metals (9.0%)
- pulp or paper products (7.2%)



The commodities with the biggest shares of marine **imports** were:

- petroleum products (17.8%)
- machinery (14.6%)
- motor vehicles and parts (11.7%)
- base metals (8.9%)
- chemical products (7.7%)

Canada Port Authorities alone handled about 60% of Canada's marine commercial cargo tonnage.

Ports play an important role in supporting economic development and enabling trade with the world. In Canada, ports:

- support local and regional economic development
  - They help local industries and provide well-paying, middle-class jobs
- contribute over 213,000 direct and indirect jobs and over \$25 billion to Canada's gross domestic product (according to a recent study by the Association of Canadian Port Authorities)

Their contribution affects communities and Canadians across the country, whether they are near a port or far away.

Ports are an important part of the supply chains and gateways to the world. They are also important members of the community. They manage lands often at the heart of municipalities and build partnerships with communities and Indigenous groups. Canada Port Authorities also have important regulatory functions in the areas of marine safety and security, and environmental protection. Canadians have a clear interest and stake in these areas.

## **Why we are reviewing Canada Port Authorities**

The Canada Port Authority system has served Canada well by supporting regional economic development and international commerce. But, over the past 20 years, the operating landscape has changed greatly. And it will likely continue to change at a greater pace. These changes mean new challenges and opportunities. We need to re-examine Canada Port Authorities to ensure our nation continues to be well-positioned to innovate and compete.

Key drivers of change include:

- an evolving marine industry
- reconciliation with Indigenous peoples
- local communities
- environmental protection and climate change
- safety and security
- governance



## **An evolving marine industry**

### **Marine industry consolidation**

The shipping industry has undergone a period of major restructuring. As of April 2018, only 10 shipping lines control more than 87% of deep sea shipping container capacity. Some members of the shipping industry are concerned with these mergers and acquisitions. They worry about issues like competition, carrier instability and services offered.

The shipping industry is ordering new, larger container ships to realize economies of scale. 20 years ago, the standard ship size was Post-Panamax. It could carry 4,000 to 8,000 twenty-foot equivalent units (TEUs) or standard-sized metal container boxes that can be transferred between ships, trains and trucks. Today, major ship building yards around the world are working on ships with 22,000 TEU capacity. Consolidation may mean that shipping companies use fewer of these larger ships to optimize their services on each trade route.

The consolidation of the shipping industry and the growth in ship sizes may deeply affect the port sector and our economy. How? By the number of ports at which ships call and the infrastructure and logistics services needed to support them. This consolidation will likely mean much more traffic for certain ports and added pressure to improve the efficiency of facilities and marine, rail and road connections.

### **Digital connectivity**

Technology is evolving. We now have:

- autonomous vessels
- expanded use of blockchain applications
- big data
- artificial intelligence
- [Internet of Things](#)

We expect technology to fundamentally change the maritime industry. How? By connecting everyone and everything in the supply chain. We may be able to help improve and streamline supply chain operations by gathering, sharing and analyzing data more effectively and securely.

How the marine sector adopts these technologies will be important. Ports are convergence points in the supply chain, so they will need to be at the centre of these innovations. They will need to work more closely with their users to maximize:

- coordination of supply chain logistics
- convergence across marine, road and rail suppliers, carriers and operators

Early adopters will set the pace for the marine industry, as they do in other sectors. They will likely gain greater benefits such as a larger client base and secure, broader access to global value chains for their national economies.



## People

People continue to be the heart of the marine sector's ability to support the economy and ensure the reliability of Canada's supply chains. For many years, the marine sector has been a source of quality jobs with good wages, stability and benefits.

During this time, transportation and logistics companies have consistently reported difficulty in keeping enough skilled and qualified workers at all levels. This problem could weaken regional economic development and trade if we don't take action.

New technologies and automation in several ports worldwide may mean many changes for the Canadian marine labour market. Technology has made ports more productive and has opened up new career possibilities, including for underrepresented groups.

Together, we need approaches for adapting workforce training systems to best support current and future workers. Government, employers, academic institutions and individuals will need to evolve and better understand the opportunities and challenges associated with the future of work in the sector. By working together, we can ensure our workforce is prepared and can successfully adapt to an ever-changing labour market.

## Reconciliation with Indigenous peoples

We are working to renew the relationship with First Nations, Inuit and Métis peoples based on the recognition of rights, respect, cooperation and partnership. Well over 100 Indigenous communities across Canada live and practice their protected rights near ports. These communities are diverse and how they interact with ports can vary a lot. Port-related activities may affect Indigenous communities, so Canada Port Authorities need to work closely with them to understand their concerns and needs.

We have done a lot of work toward reconciliation, including through the \$1.5 billion Oceans Protection Plan. The plan is made up of many initiatives to:

- improve marine safety
- improve responsible shipping
- protect our marine environment
- offer new possibilities to work with Indigenous communities

Some Indigenous communities have expressed a desire to see Canada Port Authorities reflect our commitment to reconciliation.

The partnerships between Canada Port Authorities and Indigenous communities vary. Both the Canada Port Authorities and Indigenous communities have shown they can build partnerships around concrete issues and can advance their interests through these relationships. But federal and Indigenous partners need to do more to come together. The perspectives and concerns of Indigenous communities are important factors that will shape the future of Canada Port Authorities.



## Local communities

Port cities are dynamic. Ports provide a long-term basis for local socio-economic development. They once served to welcome newcomers, and continue to generate jobs and provide goods.

But ports can also create challenges for local communities. Port operations as well as truck and rail connections can affect quality of life, such as through noise, traffic and poor air quality. Some communities, both in large and small cities and towns, have expressed concern that port activities occur without enough local involvement and at their expense.

Leading ports understand that working together with local communities is becoming very important to facilitating port development and operations. Examples of what ports are doing to include:

- hosting open houses to explain their major projects
- starting good neighbour committees
- talking with Canadians on social media

Through efforts such as these, ports can continue to provide local benefits while working to lessen negative effects.

Together, we will need to do more to make sure community partnerships effectively inform the pace of change at our ports. As trade grows, local communities will keep advocating for liveable communities. Ports will need to create and maintain community partnerships. This will affect how they share objectives and solve challenges.

## Environmental protection and climate change

We are working to protect the environment and address climate change. It is one of our priorities. The [Pan-Canadian Framework on Clean Growth and Climate Change](#) is our plan to grow our economy, reduce emissions and build resilience to a changing climate.

The transportation sector is a key part of this plan. It includes many actions to reduce greenhouse gas emissions from all transportation modes (marine, air, rail and road). It calls for the federal, provincial, and territorial governments to invest in building more efficient trade and transportation corridors, including investments in ports.

Ports must do their share to better protect the environment, and serve as environmental stewards. Canada Port Authorities:

- have added environmental and sustainable development practices and oversight into their governance structures
- have put environmental management systems in place based on internationally-recognized standards
- are global leaders through the Green Marine partnership, which helps them:
  - reduce the environmental footprint of the marine sector
  - focus on other issues such as local air quality and protecting marine species



Ports contribute to a greener, low-carbon transportation system. Such a transportation system creates new economic opportunities and good jobs and helps Canada remain an environmental world leader.

Together, we need to pay attention to the role ports play in environmental regulation and to their ability to adapt, build resilience and adequately prepare for climate risks. Why? As trade and transportation intensify, and as we better understand the effect of climate change, we will need to monitor and talk about the environmental effects of port-related activities.

## **Safety and security**

As Canadians, we enjoy a high degree of security. But world events show us that the maritime transportation system is not immune to safety and security threats. These threats could affect our physical and socio-economic well-being. This means we must secure our important port infrastructures and related transportation systems. This will make sure that criminal and security threats do not weaken the competitiveness of our ports.

Today, our maritime transportation system is more complex and interconnected than ever. The system involves much more than just vessels and port-specific activities. Every year, over 2.5 million TEUs move through our ports to be delivered by truck and train. The multimodal nature of Canada's port sector means that government and private sector partners need to take a broad view. Plus, the increasing reliance on automated systems and emerging technologies adds even more considerations.

Over the last two decades, we have been investing to secure our ports. Human and technical investments include:

- enhanced cargo screening
- advanced notification requirements for vessels
- automated targeting systems
- gamma-rays
- ion mobility spectrometers
- trace detection systems

These investments allow goods and people to transit safely and security through our ports.

Canada has a reputation as a trusted and effective maritime trading nation. But port users and operators depend on clear norms and procedures. Some industry players are moving forward with their own solutions to make marine transportation more efficient and secured.

For example, new blockchain applications show that security and the economy are two sides of the same coin. Regulations and practices will need to keep pace with an evolving safety and security landscape. And so will the partnerships across federal departments, provinces, communities, the private sector and international community that strengthen our performance in this area. How we adapt and advance collaborative solutions in this area will influence whether our reputation continues to constitute an advantage for our ports.



## Governance

Canada Port Authorities are federally incorporated, non-share corporations. They operate at arm's length from the federal government. They fulfil important public policy objectives such as:

- supporting economic development
- performing many regulatory functions relating to safety, security and environmental protection

They must be financially self-sufficient. We designed the corporate structure of Canada Port Authorities to let them be both sound businesses and accountable, transparent managers of public assets.

We established this governance model 20 years ago. It was suitable for the maritime sector and was rooted in the regional and socio-economic conditions and markets of those times. As our ports and neighbouring communities have prospered, we are seeing many new challenges. These challenges sometimes expose the potential limitations of this governance model to meet either:

- new demands
- the desire for greater scrutiny and accountability when they seize large development opportunities

The 2016 *Canada Transportation Act* review examined, in part, whether we needed to make changes to the current policy and legislative frameworks for port authorities to support our:

- economic growth and prosperity
- trade interests
- international competitiveness

The review suggested we need to do more work about:

- how ports are legally constituted, governed, and financed
- how to could support clearer approaches to planning and growth across the port system

As well, we note above that some Indigenous groups and municipalities have expressed a desire:

- for ports to respond better to their concerns
- to be more involved in decision-making activities that affect their interests and quality of life

While the Canada Port Authority system has proven to be strong, we now need to consider how the Canada Port Authority model can better reflect and align global and local considerations while maintaining a strong commercial orientation to day-to-day operations.

## Engagement questions for the review

The review will be evidence-driven. It will propose an updated model for Canada Port Authorities that helps them to continue supporting sustainable and inclusive economic growth.

It will examine the changing landscape under five key streams:

- [Innovation and trade logistics](#)
- [Partnering with Indigenous peoples](#)





- [Sustainability of ports and communities](#)
- [Port safety and security](#)
- [Port governance](#)

Based on your knowledge of Canada's port system and Canada Port Authorities, we invite you to consider the following questions and we welcome your input.

### **Innovation and trade logistics: review stream 1**

This stream will look at how to position ports in relation to key socio-economic and technological trends. Through this stream, the review aims to better understand how ports can continue to:

- support economic development and trade
- improve job opportunities
- respond to new technologies

More specifically, this stream will examine:

- marine transportation in Canada and the trade and traffic outlook, the role of ports in the supply chains and attributes of port competitiveness
- emerging socio-economic trends and changing technologies that affect ports and supply chains, and the ability of the port system to respond to opportunities and challenges created by these trends

**Q1. What trends will affect port operations and supply chains, and who are the port partners that are key to adapting to these trends?**

**Q2. Do ports have the appropriate infrastructure and supply chain integration in place to support future demand for transportation services?**

**Q3. What strategies could link business to research, and research to learners in support of innovative solutions and greater competitiveness?**

### **Partnering with Indigenous peoples: review stream 2**

This stream will look at how Indigenous perspectives can inform and shape the role of Canada Port Authorities in carrying out their mandate, particularly with respect to enabling partnerships for fostering socio-economic growth.

More specifically, this stream will examine:

- opportunities for Canada Port Authorities to reflect Canada's commitment to reconciliation with Indigenous peoples
- ways to promote and integrate understanding of Indigenous perspectives, including the needs and concerns of Indigenous groups, to explore available means for achieving mutually beneficial objectives

**Q4. How can Canada Port Authorities ensure their activities acknowledge Indigenous perspectives and values?**



**Q5. How can Canada and Canada Port Authorities best identify opportunities to develop mutually beneficial partnerships with Indigenous groups?**

**Q6. What current practices at Canada Port Authorities reflect to Government's commitment to reconciliation with Indigenous peoples and what additional steps can be taken?**

### **Sustainability and port communities: review stream 3**

This stream will look at:

- Canada Port Authorities' role in an environmentally responsible and low-carbon transportation system and how they can be more resilient in the face of climate risks
- how Canada Port Authorities can contribute to building healthy communities and integrate local perspectives in carrying out their mandate

More specifically, this stream will examine:

- Canada Port Authorities stewardship functions in support of environmental protection and sustainability
- the environmental liability of Canada Port Authorities as well as options for strengthening the federal government's environmental oversight role
- Canada Port Authorities accountability measures and relationships with local communities

**Q7. How can ports ensure their operations and future development remain environmentally sustainable and adapted to climate risks?**

**Q8. How can Canada Port Authorities contribute to building healthier communities?**

**Q9. What mechanisms could be put in place to increase Canada Port Authority transparency relating to their environmental performance?**

### **Port safety and security: review stream 4**

This stream will look at ways to enhance port safety and security in an evolving operating environment while advancing the goal of efficient movement of goods.

More specifically, this stream will examine:

- safety and security challenges to port operations
- private sector led approaches and solutions to maritime transportation services that can enhance security of our ports and related supply chain
- opportunities to strengthen partnerships between public and private sectors to advance new solutions and processes

**Q10. What are the current and emerging safety and security challenges facing Canadian ports?**

**Q11. What new actions and public-private collaborative efforts could be pursued to enhance safety and security at Canada's ports?**



## Port governance: review stream 5

This stream will look at ways to modernize the governance framework for Canada Port Authorities to seize the opportunities presented by a changing landscape, and to position themselves for success well into the future. More specifically, this stream will examine:

- opportunities to strengthen the governance framework of Canada Port Authorities, including examining government oversight and approaches for optimizing responsiveness to users
- models to enhance the delivery of regulatory functions while ensuring accountability and transparency
- tools and approaches, including financial instruments, that can support smarter planning and growth at ports and across the Canada Port Authority system

**Q12. Does the current governance model enable Canada Port Authorities to effectively manage their assets, support economic development and deliver their regulatory duties?**

**Q13. What models or approaches could be pursued to ensure Canada Port Authorities are more responsive to user and local perspectives?**

**Q14. Do Canada Port Authorities have the tools and partnerships they need to respond to an evolving maritime sector?**

## Submitting your input

Please submit your submissions either:

- directly at [Let's Talk Transportation](#)
- by email: [tc.portsreview-examendesports.tc@tc.gc.ca](mailto:tc.portsreview-examendesports.tc@tc.gc.ca)

## Further work and engagement

At Transport Canada, we will work with external experts to conduct research and analysis on various topics, including:

- traffic trends and forecasts
- the role of Canada Port Authorities in Canada's supply chains
- competitiveness barriers and opportunities
- innovation and best practices in port operations
- port governance, financing and service delivery models

As part of this review, we will conduct engagement activities throughout 2018 with stakeholders and partners, including:

- Indigenous groups
- provincial and municipal governments
- Canada Port Authorities
- industry
- academia and experts



- associations and groups with a particular interest in port-related issues

The results of this work and engagement efforts will help shape the future of Canada's port system.