



innovate BC

# Driving Innovation for a Stronger BC

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# Who We Are

Innovate BC helps **foster innovation** in B.C. so that British Columbians in all regions of the province can benefit from a **thriving, sustainable, and inclusive innovation economy**.

A Crown Agency of British Columbia, Innovate BC funds and delivers programs that support the growth of the B.C. economy by helping companies **start and scale, train talent** that meets labour market needs, and encourage **technology development, commercialization, and adoption**.

# Innovate BC Programs



## Tech Adoption

### Ignite

Funding for R&D Projects

### BC Fast

Funding for Pilot Demonstrations

### Innovation Challenges

Connecting Tech Buyers with Providers



## Talent Development

### Digital Skills for Youth

Hiring Grant for Young Professionals

### Innovator Skills Initiative

DEI Focused Hiring Grant

### Palette Skills

Upskilling B.C. Workers



## Growth

### New Ventures BC Competition

Startup Competition

### Venture Acceleration Program

Early-Stage Business Coaching

### Scale-Up & IP

Support for Mid/Late-Stage Businesses



# Discussion

Why market buy in is the key to decarbonization success.

The challenges faced by maritime adopters navigating the global energy transition, and how to break down barriers to get to zero- faster.



# Tech Adoption

**Definition:** Identification, acceptance, integration, and use of a new technology.

**History:** Supports tended to focus on inventing, start-ups, commercialization.

**Current:** More recent shift to the needs and interests of industry in this process.

Canada ranks 11 of 16 peer countries in tech adoption but **there is opportunity and work to be done across the board in all sectors.**

# Tech Adoption Sentiments

● Strongly agree   ● Agree   ● Neutral   ● Disagree   ● Strongly disagree   ● N/A

COVID-19 accelerated our digital transformation plans (increased digital presence)



Implementing new technology has been challenging



In the long run, we will invest more in technology



(Source: Innovate BC and BC Chamber of Commerce Survey 2021).

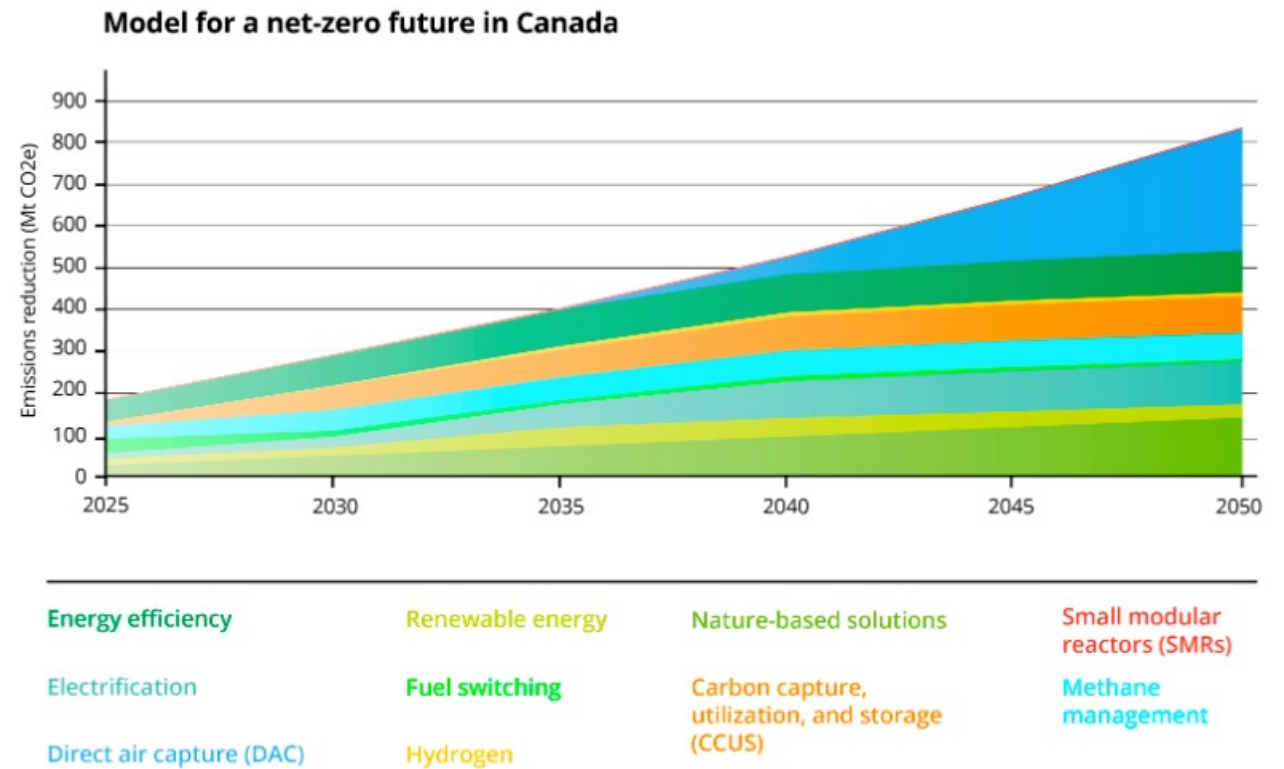
- 58% Covid has accelerated plans
- 54% Tech adoption is challenging
- 71% Have plans to invest in tech

# Tech Adoption Benefits

**General Benefits:** Increase productivity, decrease cost, increase customer satisfaction, improved product quality, mitigating waste and environmental impacts.

## Significance for Decarbonization:

To reach net zero by 2050, limit to 2C.



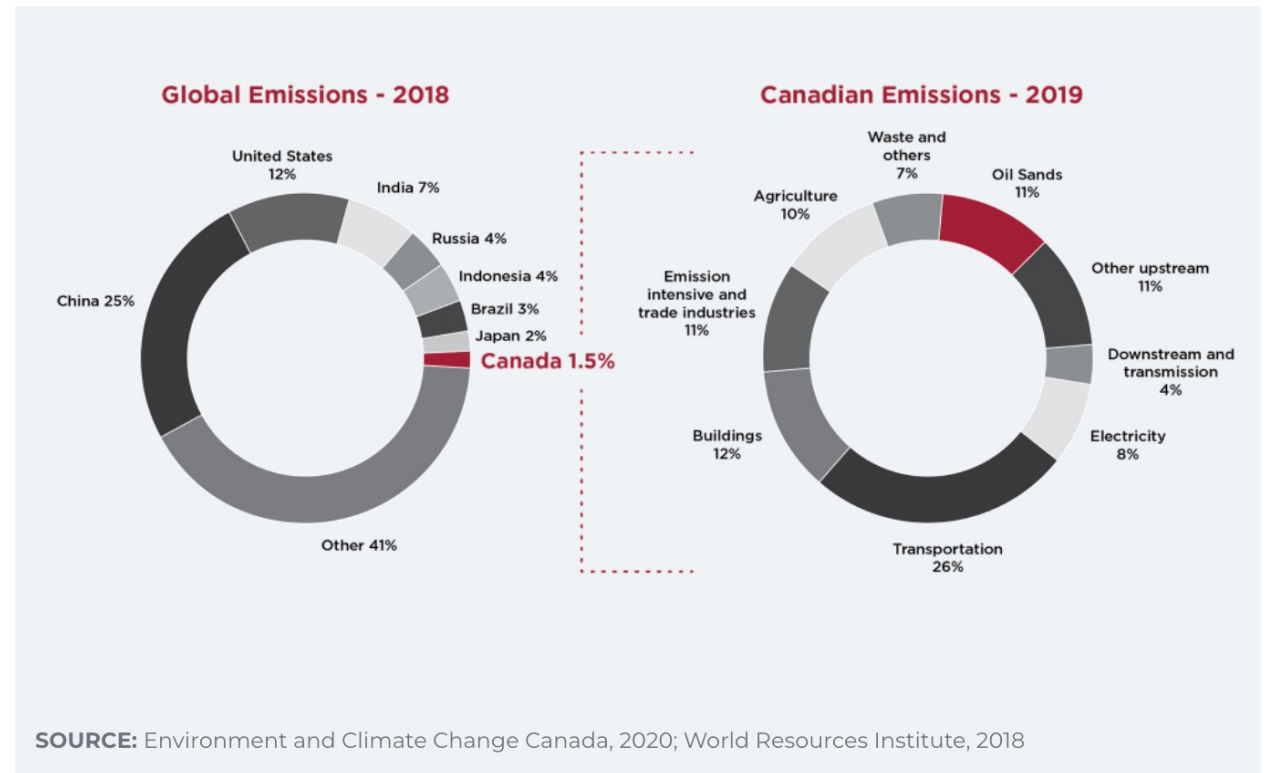
(Source: Deloitte and Navius Research: How can Canada decarbonize to 2050).

# Canada & Sectoral Emissions

Shipping represents less than 3% of global emissions, but it **increased by 10%** between 2012 and 2018.

Maritime trade volumes are anticipated to **triple by 2050**.

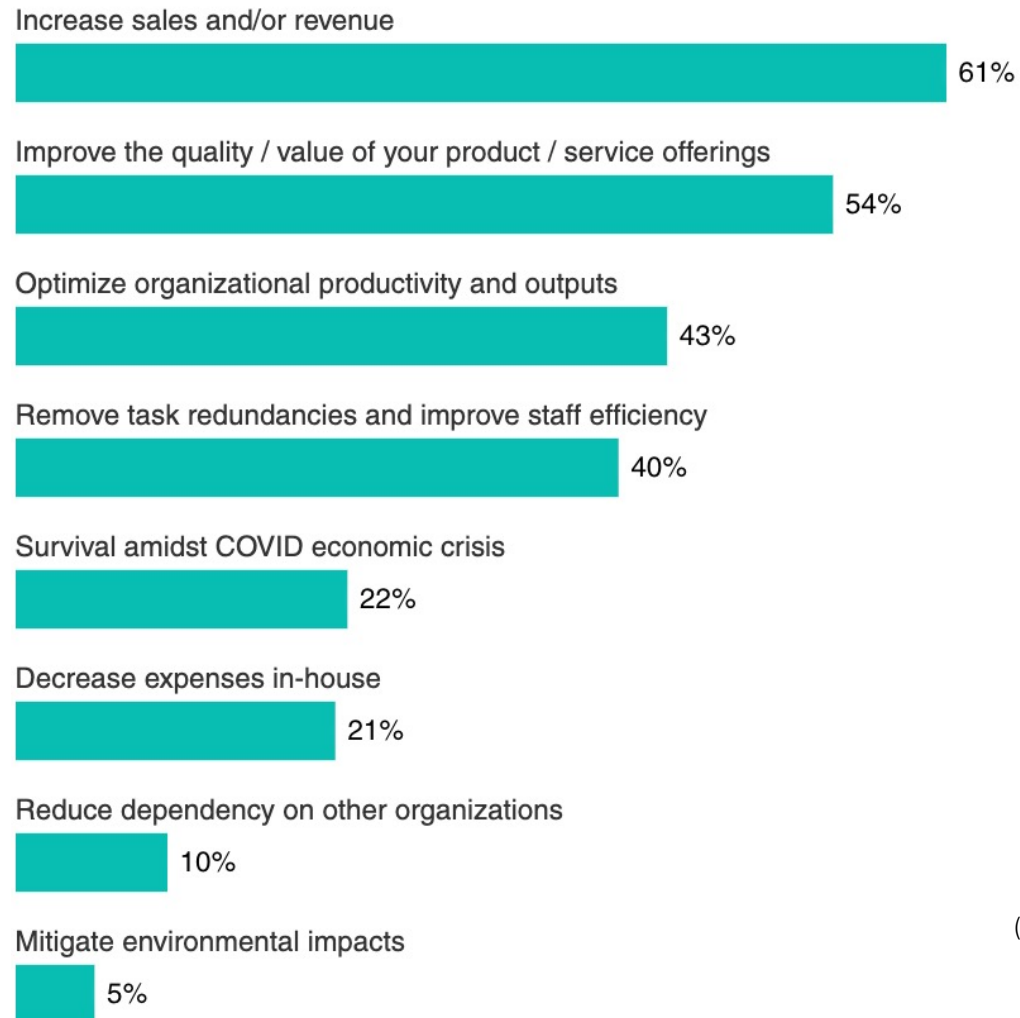
The International Maritime Organisation has agreed to **reduce total GHG emissions** from shipping by at least 50% by 2050





# General Tech Adoption Opportunities

## Expected Outcomes



(Source: Innovate BC and BC Chamber of Commerce Survey 2021).

# Maritime Tech Adoption Opportunities

- Alternative Fuels
    - Alternative Energy (Solar, Wind)
  - Data and Digital Technologies (Sensors, Predictive Analytics/AI, Digital Twins)
- 
- A photograph of a man wearing a white hard hat and a dark jacket, looking down at a tablet device. He is standing on a ship's deck, with the ocean and a cloudy sky in the background. The image is partially obscured by a teal overlay containing text.



# Barriers to Tech Adoption

Lack of internal resources or talent with knowledge to research, test, and acquire the innovation need



Lack of knowledge of potential funding channels to acquire the necessary innovation



Lack of knowledge of solutions that can best solve the innovation need



Internal organizational barriers (ie: change management nuances, lack of resources to train staff, etc.)



Struggling with various organizational growth/market pains



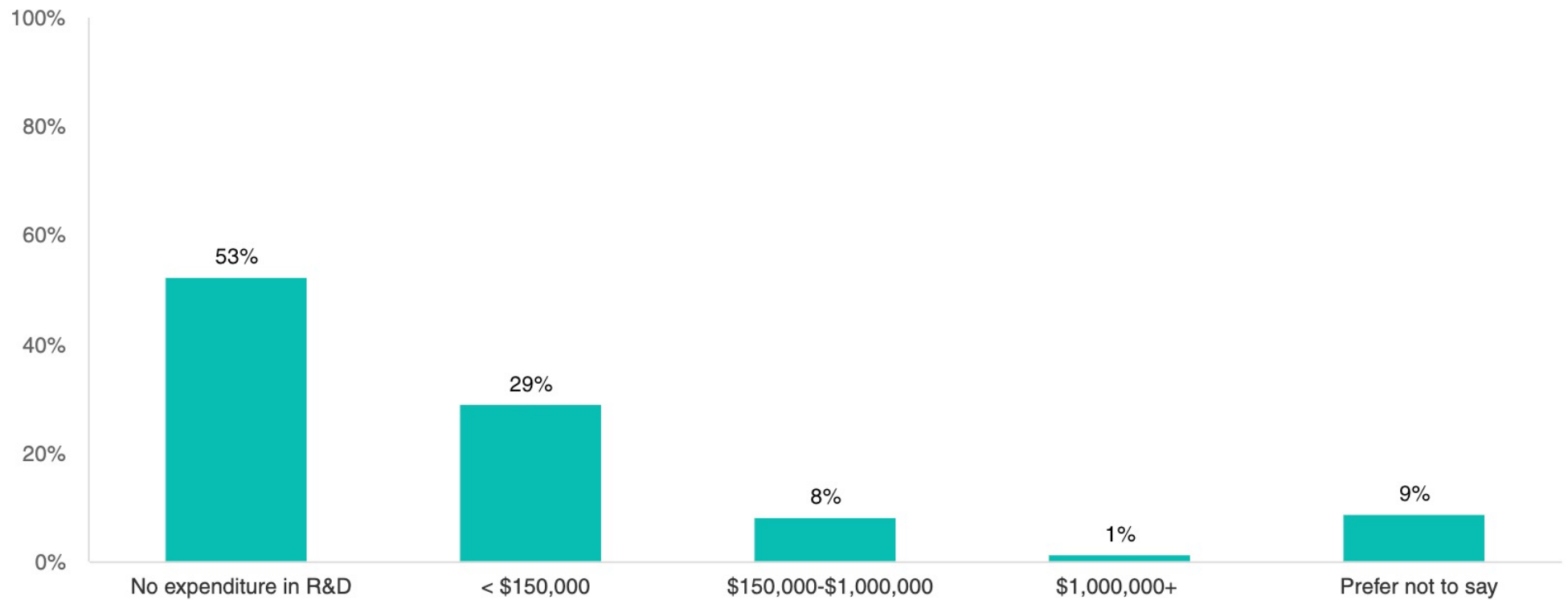
Lack of mentorship or strategic input on how to prioritize the acquisition of various innovation needs



(Source: Innovate BC and BC Chamber of Commerce Survey 2021).

# Barriers to Tech Adoption

R&D  
Budget



(Source: Innovate BC and BC Chamber of Commerce Survey 2021).



# Maritime Barriers



International Issues/Regulations  
Numerous Stakeholders  
Remote and Climate Related Nuances  
Scale of the Need (Ships, Fuel)  
Old vs. New Infrastructure



# Maritime Barriers

What is the **LIKELIHOOD** the following barriers will hinder the industry's decarbonization within the next 10 years?

Ranking: 1 – Very unlikely, 2 – Unlikely, 3 – Likely, 4 – Very likely

Rank	Issue	Likelihood
1	<b>Regulatory uncertainty</b>	<b>3.31</b>
2	Availability of zero-carbon fuels	3.17
3	Availability of zero-carbon vessels	3.11
4	Competitiveness of zero-carbon solution	3.11
5	Customer interest in zero-carbon solution	3.07
6	Availability of finance for zero-carbon solutions	2.85

(Source: Marsh McLennan – Deep Dive on Decarbonization of Maritime Industry).



# Solutions + Support

- **International/Regional Collab:** Vancouver Maritime Centre for Climate (VMCC), Getting to Zero Coalition
- **Talent Funding:** Innovate BC Hiring Programs, Palette Skills (Build a Program)
- **R&D Funding:** Innovate BC Ignite, International Chamber of Shipping R&D Fund
- **Pilot Programs:** Innovate BC + IRAP BC Fast, IRAP Fast for Foreign Markets
- **Innovation Challenges:** VMCC, The Ocean Opportunity Lab, Delphi Group, Innovate BC
- **Other:** Sustainable Development Technology Canada, BC Gov Clean BC Industry Fund



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## Get in Touch

**Contact:** [ndiner@innovatebc.ca](mailto:ndiner@innovatebc.ca)

**Updates:** [innovatebc.ca/insider](http://innovatebc.ca/insider)

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**Updates:** [innovatebc.ca/insider](https://innovatebc.ca/insider)