

TC TRANSFORMATION

DIGITAL BY DESIGN



Our Transformation Journey

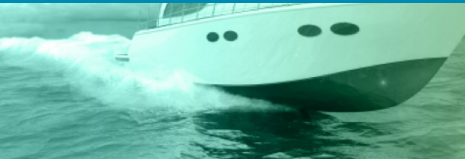
#TCDigital

#TCFutureReady

Canada's transportation system*

Economic footprint:

900,000 jobs @ \$79 billion / \$1.1 trillion of goods moved



- **550** port facilities
- **18** Canadian Port Authorities (CPAs)
- **335 million** tonnes of goods handled by CPAs
- **\$218 billion** in international trade handled across all modes

- **Over 70** rail companies,
- **40** federally-regulated, holding a Certificate of Fitness from the Canada Transportation Agency
- **4** class 1 railways
- **41,711** kilometres of railway track
- Rail freight just over **313 million** tonnes

- **26** national airports
- **296** other certified, land-based airports
- **6.4 million** aircraft movements
- Over **152 million** air passengers per year

- Over **23 million** road motor vehicles
- **1.13 million kilometres** of two-lane-equivalent public roads
- **295 billion** tonne-kilometres in for-hire trucking traffic

Safe. Secure. Efficient. Green. Innovative.

*As of March 2020

Change is happening fast

We need to keep pace or risk falling behind



*One day your taxi will fly...
and there won't be a driver.*

TC must consider:

- ✓ What today's passengers, manufacturers, owners and operators expect
- ✓ Who the new industry players are
- ✓ Impacts to transportation safety and security, the environment and economy
- ✓ Emerging risks and how to manage them
- ✓ How to work with our partners to enable innovation
- ✓ The best rules and tools to monitor and ensure compliance

TC must **change how we work** to meet challenges, prepare for the future, and better serve the transportation system.

A new vision for how we work at Transport Canada



AGILE

We are proactive. We anticipate. We respond to changing needs. Our legislation, regulations, tools, and people adjust to support innovation, growth and sustainability.

SMART

We seek out and are informed by data. We have a skilled workforce. Our services are digital by design and user-centered. We make risk-informed decisions.

TRUSTED

We earn our credibility. We are open, transparent and accountable. We approach our work with integrity to ensure a safe and high-performing transportation system.



How do we adapt to these changing times?

We rethink how we design and deliver our programs

Digital by Design GC Digital Standards

- ✓ Design with users
- ✓ Iterate and improve frequently
- ✓ Work in the open by default
- ✓ Use open standards and solutions
- ✓ Address security and privacy risks
- ✓ Build in accessibility from the start
- ✓ Empower staff to deliver better services
- ✓ Be good data stewards
- ✓ Design ethical services
- ✓ Collaborate widely

From

Outdated and inconsistent legislation and regulatory approaches

To

- ▶ Legislative authorities and policy instruments that are modern, clear and adaptable to an evolving transportation system

From

Inconsistent understanding of risk and how to manage it by using data

To

- ▶ Clear understanding of risks and tolerance levels
- ▶ Reliable, data-driven risk assessment for inter-modal and international comparisons
- ▶ Ability to assess economic impacts and conduct cost-benefit analyses
- ▶ Research with users to understand impacts and perceptions

From

Inconsistent or unavailable data, making it hard to measure program success

To

- ▶ Open, timely data that informs decision-making
- ▶ Data that helps us improve programs, innovate and experiment
- ▶ Publicly shared performance reports

From

Paper-based, in-person transactions with lack of user support across channels; Inconsistent or no service standards; Lack of effective ways to give feedback; Inconsistent risk management

To

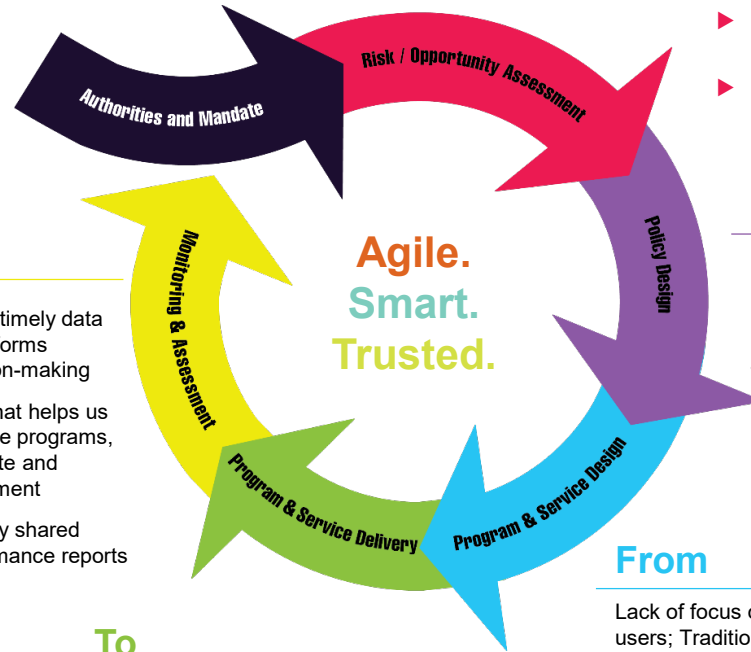
- ▶ Digital-first, multi-channel delivery
- ▶ Transparent, harmonized service standards
- ▶ Robust feedback mechanisms; reporting on how we use feedback to improve
- ▶ Common approach to risk management in compliance and enforcement

From

Lack of focus on users; Traditional regulatory approach with limited consultation; Outdated fee structure

To

- ▶ User-centric, digital-first design and delivery of programs and services
- ▶ Meaningful engagement
- ▶ New regulatory and non-regulatory approaches, including alternate service delivery models
- ▶ Modern fees to support high-quality service and enhance international competitiveness

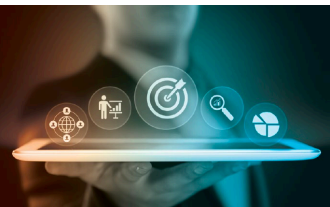


Our Transformation Plan



Intelligent policies and programs

- LEGISLATION
- REGULATIONS
- POLICIES
- INTERVENTIONS AND INSTRUMENTS
- OUTREACH AND AWARENESS
- MONITORING



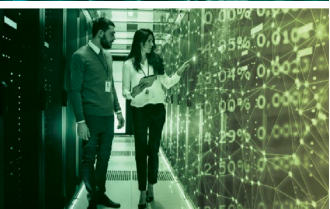
Service innovation

- REGULATORY AUTHORIZATIONS
- INTERNAL SERVICES
- GRANTS AND CONTRIBUTIONS
- ADVISORY SERVICES



Transparency and public trust

- ENGAGEMENT
- RELATIONSHIP BUILDING
- OPEN BY DEFAULT – SHARING DATA AND INFORMATION
- ACCOUNTABILITY



Data-driven decisions

- BIG DATA
- ADVANCED ANALYTICS
- ENVIRONMENT AND INFRASTRUCTURE
- GOVERNANCE



Modern, inclusive workforce – *Beyond2020*

- PEOPLE
- CULTURE
- TOOLS
- WORKPLACE



Intelligent policies and programs

- LEGISLATION
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BUILDING A FOUNDATION FOR TRANSFORMATION

- › **Modernize legislation, regulations and policies** to be agile, responsive and risk-based
- › Adopt **common, digital first oversight** (compliance and enforcement) **processes**
- › Develop a **public risk management** framework
- › Build an **outcomes measurement system** to monitor non-regulatory and regulatory activities
- › **Engage industry and users** on environmental considerations, technology use cases and implementing policy/regulatory tools enabling sector innovation

TRANSFORMATION IN ACTION!



Annual Regulatory Modernization Bill

Modern authorities for electronic administration and enforcement, and power to grant exemptions for innovation.

Mobile inspectorate

All inspectors equipped with tablets - mobility through Wi-Fi, SIM cards and offline access to regulatory reference docs. Port State and Flag State marine inspections are now digital.



AI pilot for pre-load air cargo targeting

Automated risk analysis of air cargo shipment data, increasing security 15-fold and saving thousands of work hours.

Automated and connected vehicles

Vehicle of the Future Advisory Group to inform a whole-of-government approach on connected and automated vehicles; regulatory experimentation to “get it right” before deployment of autonomous technology.



Service innovation

- REGULATORY AUTHORIZATIONS
- INTERNAL SERVICES
- GRANTS AND CONTRIBUTIONS
- ADVISORY SERVICES

BUILDING A FOUNDATION FOR TRANSFORMATION

- › Promote **digital-first service delivery** across the department
- › Build **myTC Account**, a new online service platform for TC aligned to *OneGC*
- › Launch the **Service Innovation Hub** and build capacity in **user experience (UX)** research and service design
- › Establish **TC's service inventory** with a service management platform
- › Establish **modern fee structures** to recover costs for services
- › Implement **harmonized service standards**
- › Report **performance** against **service standards** and **client satisfaction**

TRANSFORMATION IN ACTION!



New regulatory framework for drones

User-tested online portal – 48,806 drone registrations and over 85,927 exams taken.



Automating Finance and HR processes

Saving up to 19,000 hours of work and freeing employees to do more value-added work by having BOTs do select finance and HR processes.

Applying online for grants and contributions

\$2-billion National Trade Corridor Fund for infrastructure projects now has an online application platform.



Online payments

Online payments are now available for 80+ regulatory services.



Transparency and public trust

- ENGAGEMENT
- RELATIONSHIP BUILDING
- OPEN BY DEFAULT – SHARING DATA AND INFORMATION
- ACCOUNTABILITY

BUILDING A FOUNDATION FOR TRANSFORMATION

- › Build a **modern framework to engage citizens and stakeholders** – participatory government, active engagement, culture of transparency
- › Make general transportation data and information **open and accessible to the public**
- › Make **oversight information and compliance findings** public
- › Adopt the TC **Scientific Integrity Policy** to support the publication of TC research and encourage open discussion of the findings and possible interpretations

TRANSFORMATION IN ACTION!

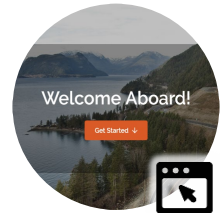


Canadian Centre for Transportation Data (CCTD)

Formed in partnership with Statistics Canada to increase access to transportation data.

Ministerial Transition e-Binder

Digital and open by design! This paperless, user-friendly transition binder was first used by TC's Minister. It is publicly accessible and works on any device.



Common Project Search (CPS) Registry

Allows Canadians to easily find information for current and proposed works on Canadian navigable waterways.

Engagement in open government

Publishing 74 new data sets through the Open Government Portal.



Data-driven decisions

- BIG DATA
- ENVIRONMENT AND INFRASTRUCTURE
- ADVANCED ANALYTICS
- GOVERNANCE

BUILDING A FOUNDATION FOR TRANSFORMATION

- › **Data as an asset:** Foster data collection, storage and access capacity for data-informed decision-making
- › **Data Literacy:** Build capacity in data science – identifying competencies, developing learning and recruitment strategies
- › **Environment and Digital Infrastructure:** Provide the right tools for monitoring, analyzing and reporting on data and explore big data and new disruptive technologies (AI, machine learning and robotics)
- › **Governance:** Strengthen departmental data governance to improve returns on key data assets

Aligning with the GC Data Strategy

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Executive-Level Data Governance Committee

Establish clear data governance including data stewardship and aligning data resources with departmental priorities.



Data-literate workforce

Developing a framework of data and digital competencies for TC employees.



Specialized capacity in data science

Artificial intelligence, machine learning, earth observation, business intelligence, and GIS projects to inform decision-making.



Data signature projects

Improving supply chain efficiency and transportation system performance; assessing transportation capacity, vulnerabilities, and safety and environmental risks.





Modern, inclusive workforce – *Beyond2020*

- PEOPLE
- CULTURE

- TOOLS
- WORKPLACE

BUILDING A FOUNDATION FOR TRANSFORMATION

- › **Modernize our workplace and tools**
 - › Provide mobile work devices to employees and enhance Wi-Fi
 - › Provide tools and guidance to managers to enable virtual work
 - › Go paperless (digital signatures and processes, fewer printers)
- › **Develop new skills and behaviours**
 - › Hire for skillsets of the future
 - › Grow digital literacy
 - › Encourage experimentation
- › **Adapt our culture and processes**
 - › Embrace a service culture
 - › Adopt open, inclusive and user-centric approaches
 - › Shift from analogue to digital ways of working

TRANSFORMATION IN ACTION!



Workplace of the future

Open, collaborative, wireless offices across Canada.

Innovative hiring practices

Leveraging talent to respond to a gig economy – 30 TC Free Agents, Talent Cloud hires, Code for Canada.

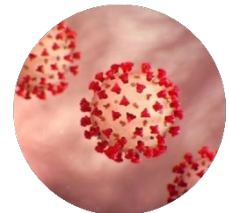


Tools for a digital workforce

Wi-Fi and bandwidth upgrades, tablets, smartphones, the Cloud, GC Secret Infrastructure, SMART Boards.

COVID-19 readiness

96% of TC employees are working remotely, keeping staff safe and continuing operations without having to invoke any business continuity plans.



Making transformation stick



Building Awareness

In person and online activities on themes related to transformation at TC, videos, articles, newsletters, social media



Major Events

TC Talks, TC Digital Village, Panels, Workshops



Engagement Sessions

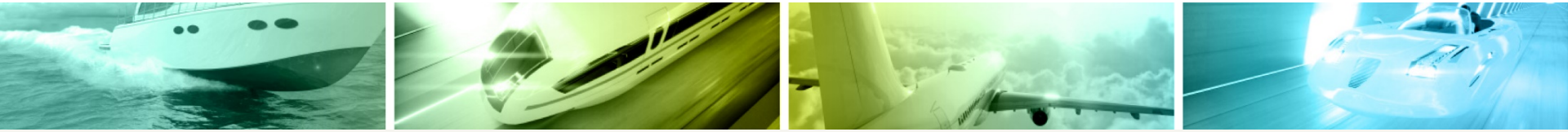
Interactive in person discussions with employees in all regions



Empowering Employees

Digital Ambassadors Network, TC How We Work Playbook, Feedback Mechanisms

Want to know more? Follow the story!



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