

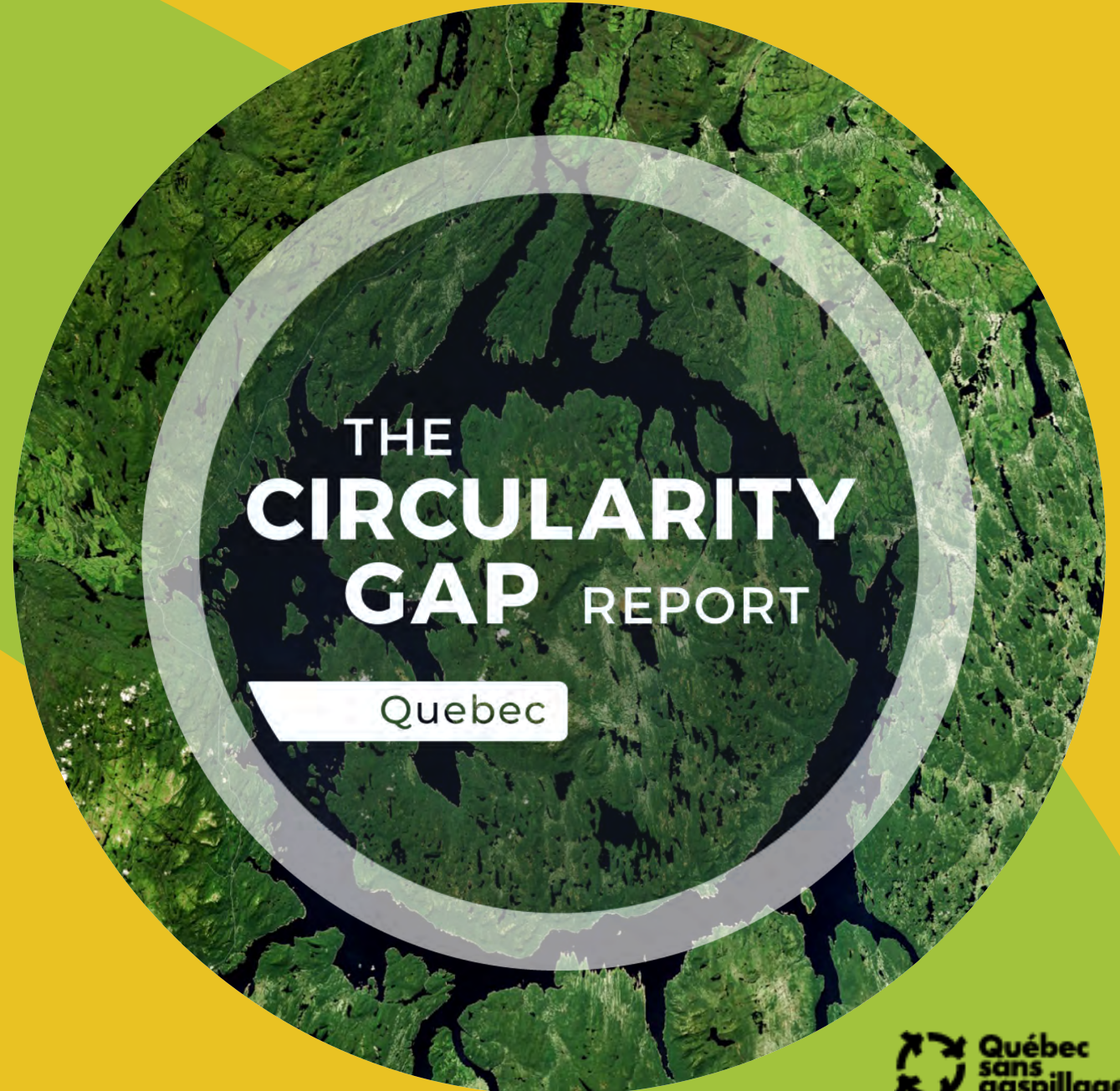
October 20th 2022

Somewhere over the rainbow

RCA Conference

# Our yellow brick road to circularity

Etienne Angers  
Industrial development agent



# MISSION

**Lead Québec to reduce, reuse, recycle, and recover residual materials to promote a circular economy and fight climate change.**



**Circular Economy**



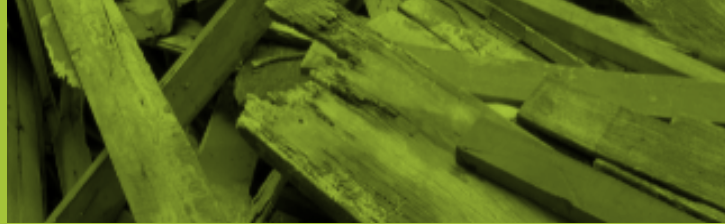
**Organic Waste**



**Extended producer responsibility**



**Recycling**



**Construction and Demolition Waste**



**Used Tires / Deposit System**





## CRITICAL AND STRATEGIC MINERALS



A more electric future  
More prosperous regions  
An eco-friendly Québec

CIRCU  
ECONOMY

SEC

of the platform, quebeccircu  
circular economy news and identify c  
company on a local & internation  
akeholders and be active in the ne  
Partnerships and integrate project com

Votre gouvernement

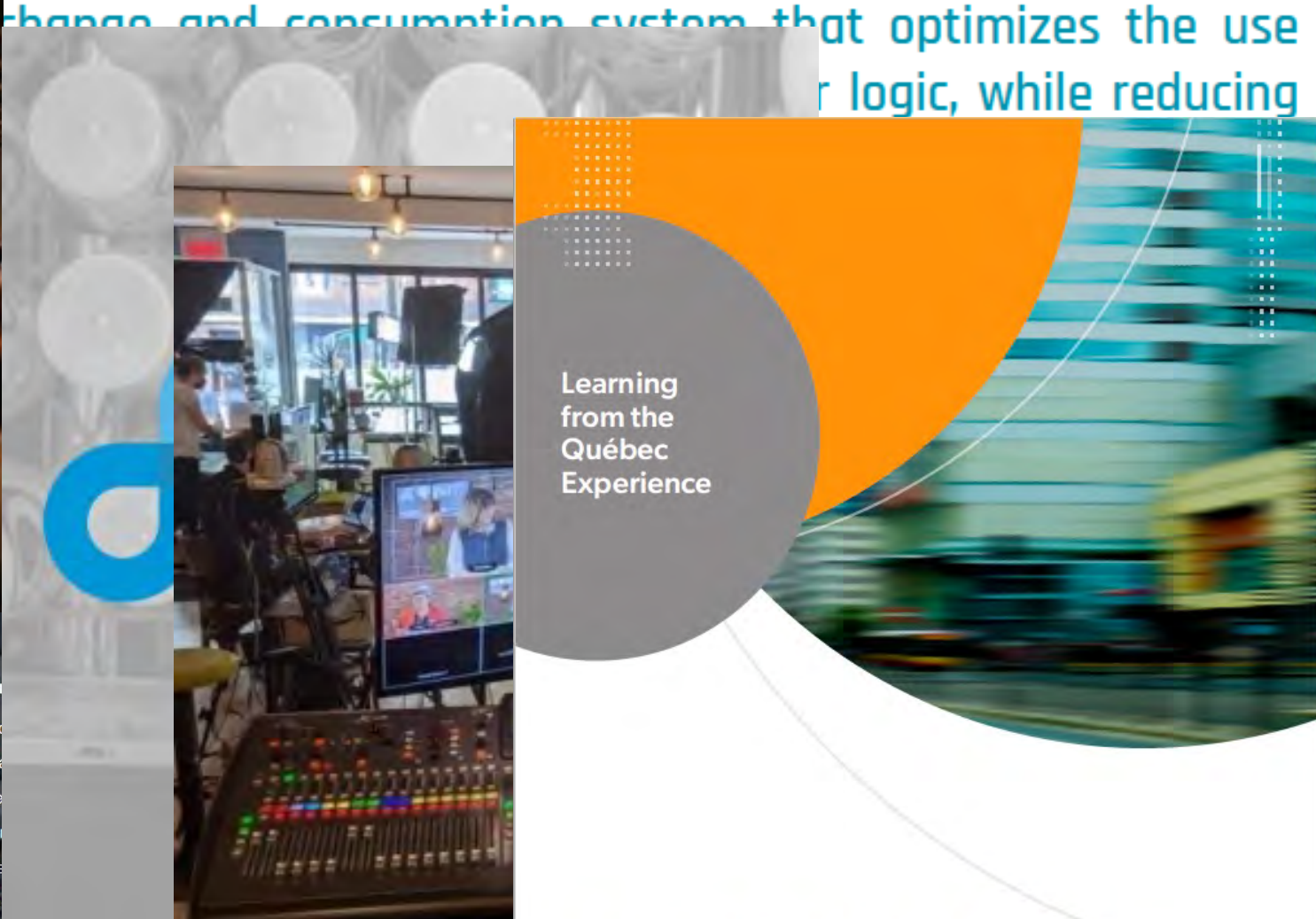
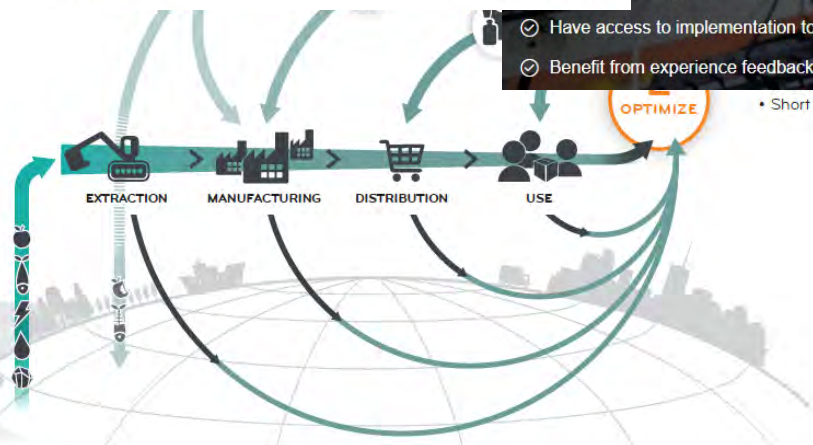
Québec

- ✓ Have access to implementation tools and me
- ✓ Benefit from experience feedback and make

• Short term renting

1  
RETHINK

- REDUCE RESOURCE CONSUMPTION AND PRESERVE ECOSYSTEMS
- Ecodesign
  - Responsible consumption and procurement
  - Process optimization



Learning from the Québec Experience

TRANSITIONING TO A CIRCULAR ECONOMY  
2014-2020



# Let's find a heart!



You people with hearts, have something to guide you, and need never do wrong; but I have no heart, and so I must be very careful.

- Tin Man

# Why the CGR?

- **Metric**
- **Levers**
- **Stakeholders**

An aerial photograph of a forested island with a circular graphic overlay. The graphic consists of a thick, light-colored ring with a white rectangular box at the bottom. Inside the ring, the text 'THE CIRCULARITY GAP REPORT' is written in white, with 'GAP' in a larger font. Below the ring, the word 'Quebec' is written in white on a white rectangular background.

## THE **CIRCULARITY GAP** REPORT

Quebec

Closing the Circularity Gap in Quebec, Canada

We anchor circularity in the global debate and translate insights to action at the national and regional level



# GLOBAL



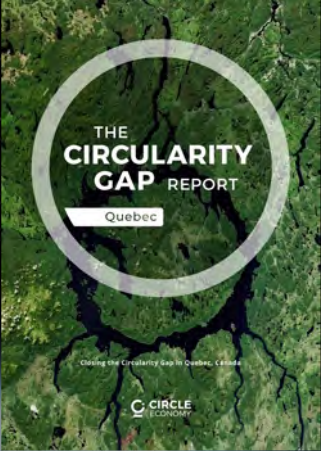
Launched at Davos  
January 2018 - 2022

# NATIONAL



Austria, The Netherlands, Norway...  
2019 - ...

# REGIONAL

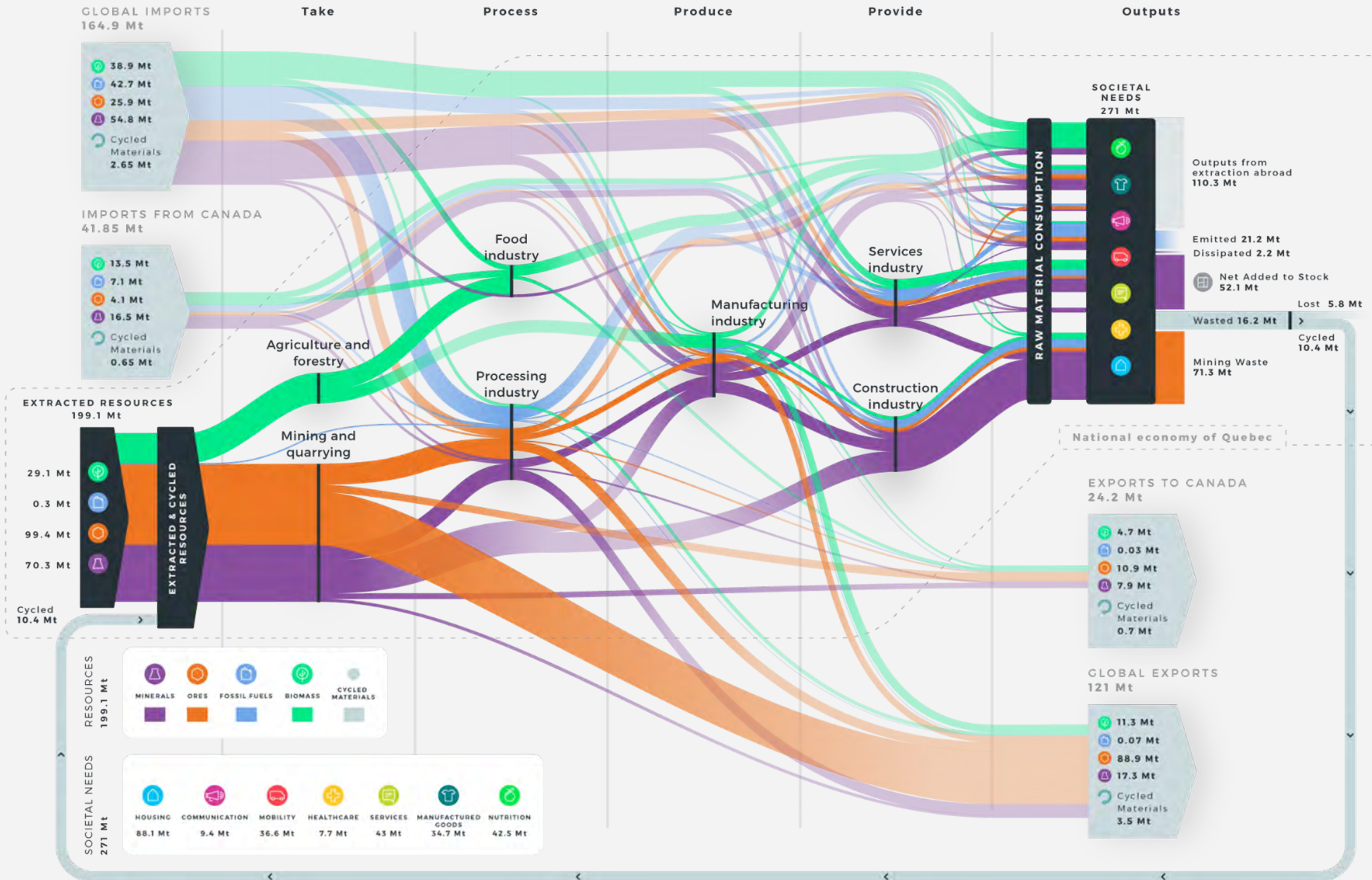


Quebec  
2021

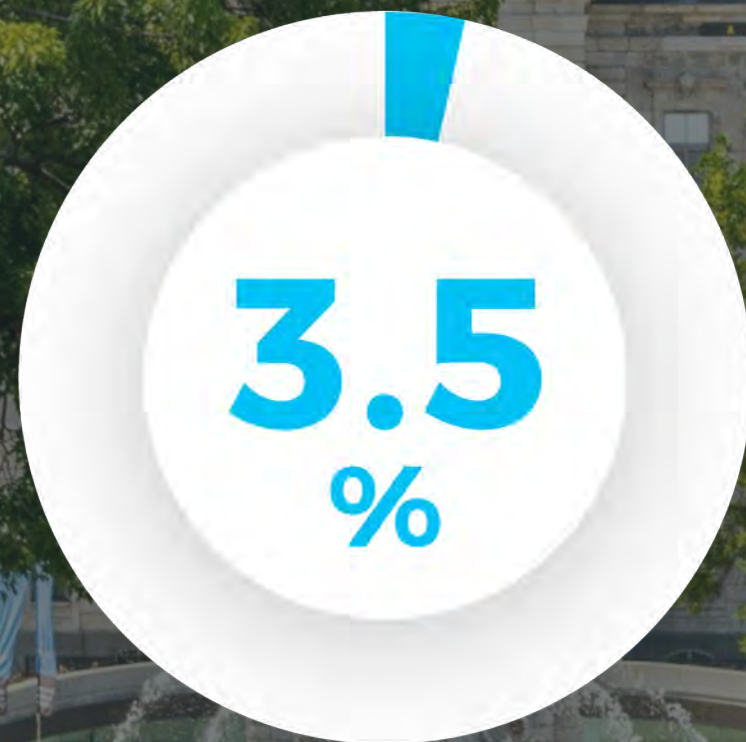
**Let's find a  
brain!**

**Some people  
without  
brains do an  
awful lot of  
talking, don't  
they?**





X-RAY of Quebec's economy



CIRCULARITY METRIC QUEBEC

RECYC-QUÉBEC

Québec 



DATA



EXPLAINED  
WITH A STORY



SORTED



ACTIONABLE  
(USEFUL)



ARRANGED



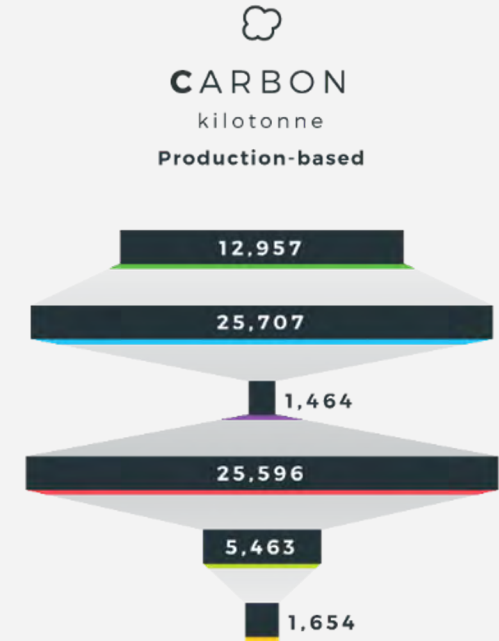
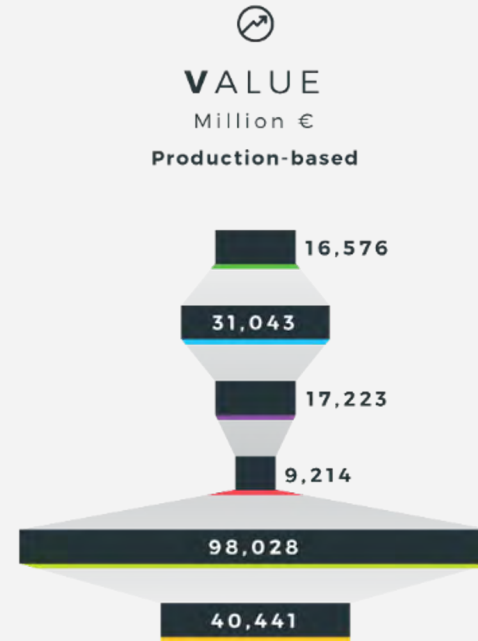
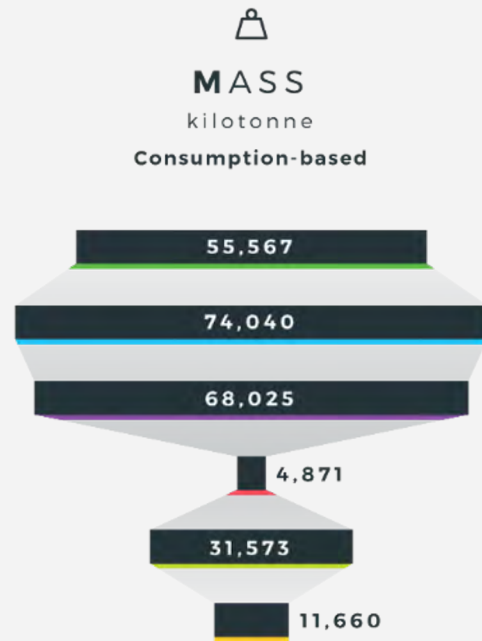
PRESENTED  
VISUALLY



# BRIDGING THE GAP

## EXPLORATION OF “WHAT-IF” SCENARIOS FOR KEY SECTORS

-  AGRIFOOD
-  MANUFACTURING
-  CONSTRUCTION
-  TRANSPORT & STORAGE
-  OTHER SERVICES
-  HEALTHCARE, EDUCATION & RECREATION





1. DESIGN  
CIRCULARITY  
INTO STOCKCS

### 1.1 Use less, cycle more

- Reduce floor space for residential and commercial buildings
- Reduce raw material extraction
- Cycle construction and demolition waste
- Increase renovation and maintenance

Circularity rises from 3.5% to **4.4%**.

### 1.2 Champion natural and lightweight materials

- Swap out emissions-intensive cement for regenerative timber
- Avoid overdesigning and prioritise functionality

Reduction of material footprint by **11%**, decrease to **241.2** million tonnes.

Co-benefits: Reduction in GHG emissions, increased availability of space for community use or renaturation.

### 1.3 Decrease residential energy use

- Promote passive house design
- Prioritise local renewable energy
- Implement energy efficient technologies



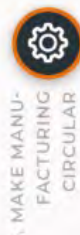
4. LEVERAGE  
GOVERNMENT  
PROCUREMENT

### 4.1 Make public procurement circular

- Governments must purchase good with extended lifetimes and high recycled content
- Increase the resource efficiency of procurement and public health care

Circularity jumps from 3.5% to **4%**.

Reduction of material footprint by **7.9%**, decrease to **249.6** million tonnes.  
Co-benefits: Galvanised private



5. MAKE MANU-  
FACTURING  
CIRCULAR

### 5.1 Make manufacturing resource-efficient

- Implement process improvements and material substitutions across sectors
- Reduce scrap metal
- Commit to sustainably sourced biomass

Circularity rises from 3.5% to **3.8%**.

Reduction of material footprint by 9.1%, decrease to **246.4** million tonnes.  
Co-benefits: Strong reductions in GHG emissions, economic benefits for the manufacturing industry.



2. PRIORITISE  
CONSCIOUS  
CONSUMABLES

### 2.1 Shift to bio-based consumables

- Prioritise the choice of consumables from a life-cycle perspective
- Favour synthetic textiles over animal-based ones

Circularity rises from 3.5% to **4.2%**.

### 2.2 Rewire current modes of consumption

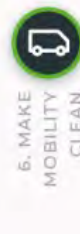
- Purchase items meant to last
- Bolster minimum warranties and resale business models
- Slash consumption of fast fashion
- Improve textiles cycling

Reduction of material footprint by **4.4%**, decrease to **259.2** million tonnes.

Co-benefits: Reduced plastic pollution, less discharge of chemical pollutants, lower water consumption.

### 2.3 Ramp up recycling

- Increase recycling of industrial paper and plastic waste



6. MAKE  
MOBILITY  
CLEAN

### 6.1 Car share and shift to public transport

- Support car sharing to reduce vehicle fleet
- Increase public transport use through improved train and bus connections

### 6.2 Travel less

- Continue telecommuting post-pandemic
- Virtualise interaction

Circularity rises from 3.5% to **3.7%**

### 6.3 Design for the future of circular mobility

- Promote lightweight vehicle design
- Design for repair and follow predictive maintenance

Reduction of material footprint by 6.6%, decrease to **253.1** million tonnes.

### 6.4 Cycle better and extract fewer raw materials

- Focus on extending vehicle lives
- Cycle automotive batteries
- Increase the use of cycled materials in vehicle production

Co-benefits: Reduced GHG emissions, improved air quality, greater access to mobility through improved sharing and public transport systems.

### 6.5 Make mobility emissions-free

- Phase out fossil-based engines and electrify transport



3. STRIVE FOR  
CIRCULAR  
AGRICULTURE

### 3.1 Make agricultural production circular

- Use agricultural waste for livestock fodder, and use livestock manure as fertiliser

Circularity rises from 3.5% to **4%**.

### 3.2 Shift towards plant-based diets

- Increase consumption of plant-based protein

Reduction of material footprint by **12.3%**, decrease to **237.6** million tonnes.

### 3.3 Consume less

- Eliminate waste throughout the supply chain
- Reduce eating beyond caloric needs at the consumption stage

Co-benefits: Reduced land use resulting in the creation of nature reserves, increased biodiversity, carbon sequestration and water purification.

### 3.4 Valorise organic

- Reuse organic waste such as sludge



7. COMBINED



### THE POWER OF COMBINED INTERVENTIONS

Circularity rises from 3.5% to **9.8%**.

Reduction of material footprint by 48.2%, decrease to **140.4** million tonnes

# Rapport sur la circularité de Québec : un plus et faire plus



En mai 2021, RECYC-QUÉBEC a dévoilé le premier rapport sur l'indice de circularité de l'économie québécoise.

Trois objectifs:

- Mesurer
- Activer
- Concerter



We anchor circularity in the global debate and translate insights to action at the national and regional level

GLOBAL NATIONAL REGIONAL



**CIRCI ECONOI**  
Circle Economy  
26 mai 2021

Quebec is just 3.5% circular, but the circular economy has the power to slash the province's material footprint by nearly 50%. Today, Circle Economy and RECYC-QUÉBEC launch the first regional Circularity Gap Report, which dives into the intricacies of Quebec's economy. With the global Metric sitting at 8.6%, Quebec has a long way to go to leave linear behind.

The good news is that the province is well-positioned to do so: with its well-established renewable energy infrastructure and vast swathes of carbon-sequestering forests, the region is full of potential. The Circularity Gap Report Quebec details 17 interventions across six societal needs that have the power to nearly triple Quebec's Circularity Metric and axe its resource consumption in half.

Click here to download the full report: <https://www.circularity-gap.world/quebec>

#circulareconomy #circularitygap #quebec

leDroit NUMÉRIQUE leDroit FRANCO.COM

Recherche

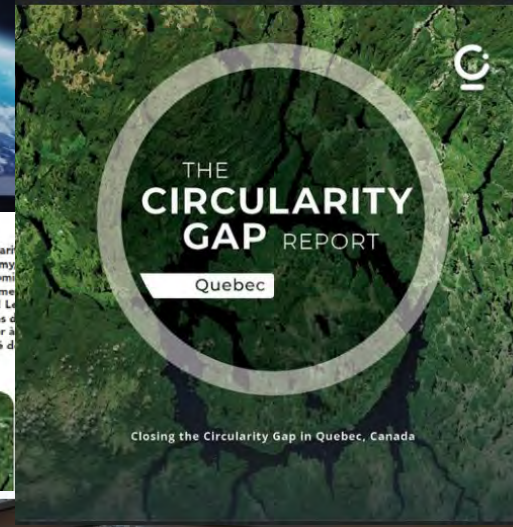
LE DROIT AFFAIRES



Une économie circulaire mondiale, j'y crois !

# Communicate!

Le Rapport sur l'indice de circularité de l'économie québécoise, en collaboration avec Circle Economy, terminera ce mois-ci le développement du concept de l'économie circulaire. Le rapport sera organisé dans le cadre de HOPI! Le QUÉBEC partage les conclusions de son commerce de détail à contribuer à augmenter l'indice de circularité de l'économie québécoise.



# Next steps on the road?

- **Biomass**
- **Communications**
- **CGR Québec 2.0**
- **Climate change and CE**









**Thank you!**

Etienne Angers  
Industrial development agent

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