ON-SITE SORTING AND TRACEABILITY:

A look back at two projects for better C&D management

Mathieu Painchaud
Stratzer Consulting

CANADIAN SWANA CONFERENCE
APRIL 3-5, 2024 IN NIAGARA FALLS
FALLING FOR WASTE

April 4th, 2024

ABOUT STRATZER

- 25 years +
- Four offices (QC/ON)
- 90 professionals
- 6 departments

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C&D WASTE MANAGEMENT IN QUÉBEC

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INTENTIONS VS REALITY

Source : RECYC-QUÉBEC (2021)

Provincial objective :

Recycle and recover

70 %

of construction, renovation and demolition waste

Expected obligation :

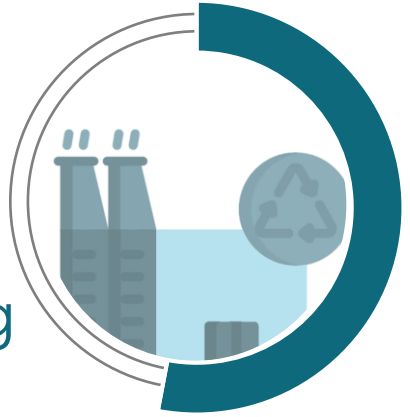
Send C&D waste to sorting facilities

1/3

Of landfill are C&D

53 %

C&D waste sent to sorting facilites



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NOT ALL SORTING FACILITIES ARE THE SAME

39 facilities

- 15 recognized by RECYC-QUÉBEC (government)
- 10 non-compliant sites

Recycling and waste-to-energy diversion rate	Number of C&D sorting facilities at this level
Less than 20%	6
Between 20% and 39%	14
Between 40% and 59%	9
Between 60% and 80%	5
Over 80%	1

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WHY THOSE PROJECTS?

On-site sorting

- Higher quality materials
- Increased recovery

Traceability

- Greater transparency
- Better management

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ON-SITE SORTING PROJECT

JANUARY TO DECEMBER 2023

APCHQ

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METHODOLOGY AND OBJECTIVES

Test feasibility and measure impacts

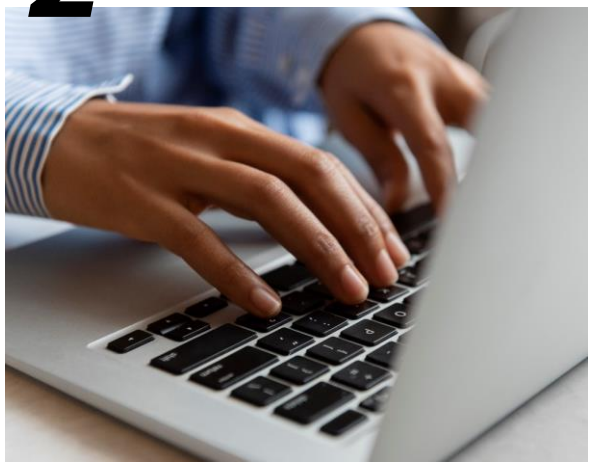
1

Kickoff meeting

- *Milestones of the project*
- *C&D waste generated*

➔ ***11 worksites involved***

2



Research

- *Collectors*
- *Conditions for collection*

3

C&D waste management plan

- *Description of the waste management approach*

4

Follow-up

- *Support the implementation*
- *Data collection and feedbacks*

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WHAT DOES IT LOOK LIKE?

Wood

Gypsum

Mixed C&D waste

Recyclables

Garbage

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RESULTS

Average increase in diversion rate :

+25 %

Budget increase VS property value :

+0,1 %

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FINDINGS

To enhance sorting

- Sort by profession
- Adapt containers
- Communicate

Case-by-case approach

- Different C&D waste according to projects
- Different options according to regions

Awareness to go even further

- Reduce
- Reuse

Municipal involvement

- Collection of garbage, recyclables and organics

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TRACEABILITY

FEBRUARY 2022 TO JULY 2023

RECYC-QUÉBEC

Québec

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METHODOLOGY AND OBJECTIVES

Develop and test a traceability system adapted to C&D waste

1

Development

- *App development with our partner*

OPTEL™
Traceability technologies for a better world

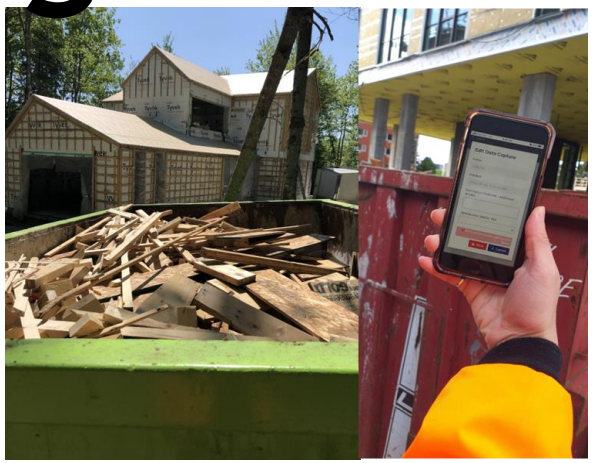
2

Recruitment

- *Different scales of projects*
- *Users training*

➔ ***15 worksites involved***

3



Operation

- *Day to day on-site activities*
- *Data collection*

➔ ***379 tracked routes***

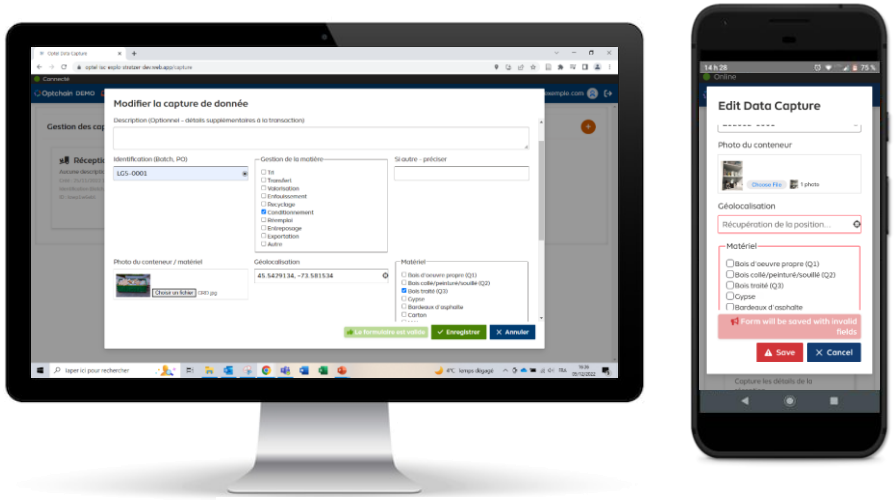
4

Continuous improvement

- *Functional analysis*
- *Users feedback*

HOW IT WORKS

Web-based app



LG5-0001

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OPTEL
Technologies de traçabilité pour un monde meilleur

Dans le cadre d'un projet RECYC-QUÉBEC réalisé par

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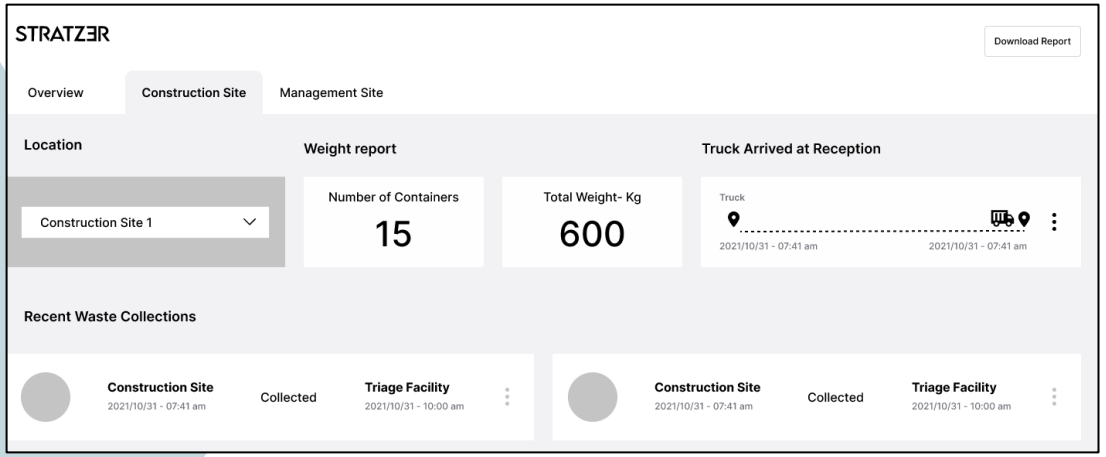
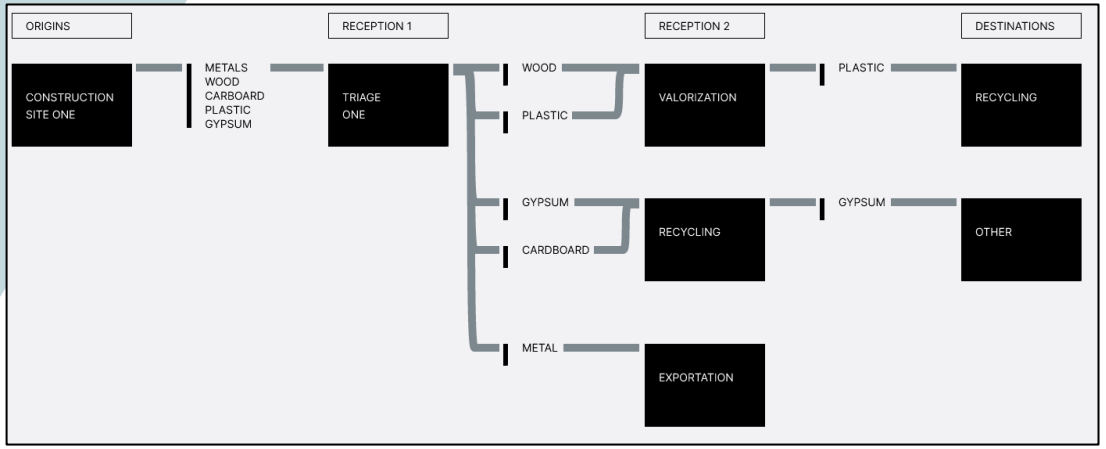
Dashboard





HOW IT WORKS

Day-to-day **on-site activities**

C&D waste type **identification and collection** confirmation

Confirmed reception of C&D waste type at **sorting facility**

Follow-up of all the **transfers for each waste stream**

Final facility confirmation for each received shipment

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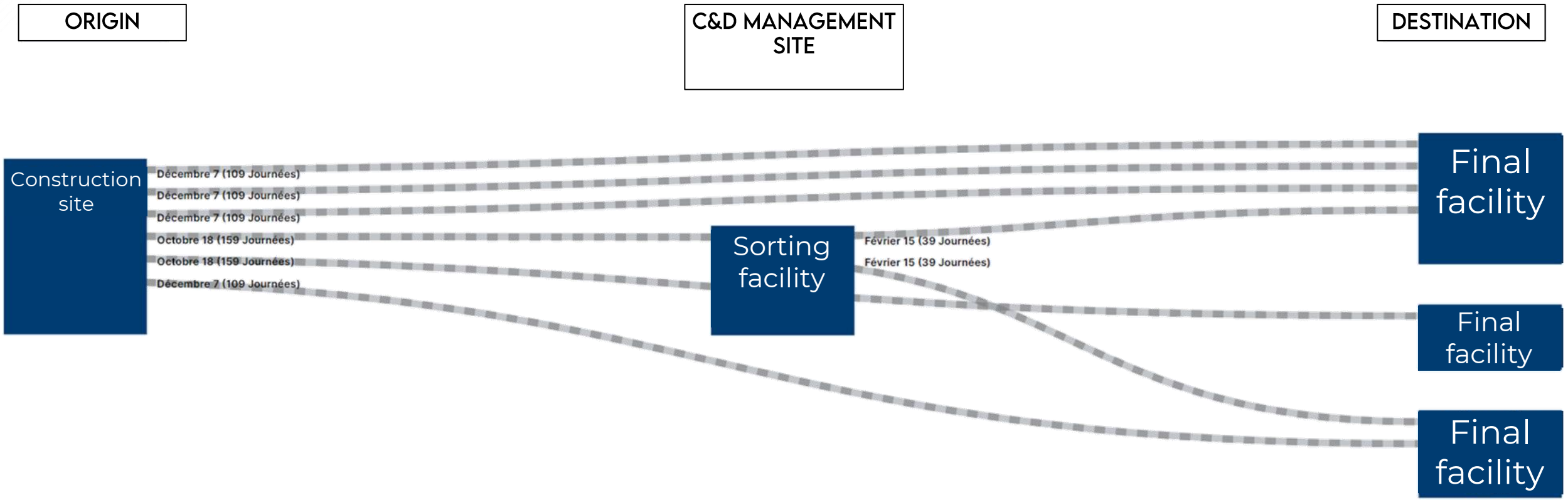
TRACEABILITY EXAMPLES



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TRACEABILITY EXAMPLES

ORIGIN	C&D MANAGEMENT SITE	DESTINATION

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FINDINGS

User's satisfaction

- User friendly
- Quick

Training

- Requires initial training
- User support

Entire value chain

- Involvement of all stakeholders is needed

Operational data collection

- Quick identification of bad practices
- Real time data collection and control

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CONCLUSION

On-site sorting

- Important increase in diversion rate
- Low impact on time and costs
- Impact assessment needed for sorting facilities before expansion

Traceability

- Effective for tracking C&D waste
- User friendly system
- Available for specific needs : TRAC3R

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Thank you for your attention!

Questions or comments?

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Contact Mathieu Painchaud :
m.painchaud@stratzer.ca

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