

CIVILIA

Improving People Transportation in Rural and Low Density Regions Using Mobile Location Data

CUSTOMER SUCCESS STORY



Créateur de mobilité

ABOUT CIVILIA

Website: www.civilia.ca/en/

Industry: Mobility Intelligence Solutions

Headquarters: Longueuil, Quebec, Canada

PROFILE

Civilia is an urban mobility intelligence company that combines deep transport expertise and cutting-edge AI capabilities to build community centric solutions all over the globe. They develop practical solutions to help cities improve the flow of mobility within their territory as well as their relationship with their citizens. Civilia also designs customizable solutions to support public works generating savings and operational efficiency. Their suite of AI products (Mobi.com, Mobi.data, Mobi.sim etc.) helps urban planners and city administrations leverage automated, data-drive decision making to build customizable and affordable urban systems.

HIGHLIGHTS - GOALS

- Get accurate mobility data for low-density regions
- Perform O-D analysis for urban spaces
- Inform public transit improvement strategies
- Identify high-traffic areas to gauge demand

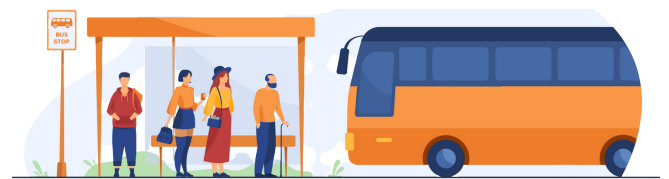
HIGHLIGHTS - RESULTS

- Mapped current usage of transport systems
- Improved transit availability for underserved areas
- Actionable insights for expansion of bus routes
- Tailored datasets to provide coverage in Canada

OVERVIEW

Civilia offers a range of solutions that align with new global trends to improve the way citizens experience living in communities, such as smart transportation systems, connected objects, and smart cities. They sought a reliable data partner that offered adequate coverage of location data, especially in low-density urban areas in Canada.

Civilia uses location data to power their state-of-the-art AI platforms for parking, sustainable cities, smart vehicles, ad-tech, urban architecture etc., which help build efficient solutions for city administrations. For this project, Civilia partnered with Quadrant to help cities in the Quebec province improve their public transit systems to meet the demands of their citizens.



CHALLENGES AND GOALS

The transportation and mobility experts at Civilia help governments and public committees with actionable, data-driven intelligence for important decisions regarding the organization of collective transportation. To support these analyses, the data science team at Civilia needed accurate and expansive location dataset.

Before partnering with Quadrant, the client used data from origin-destination (O-D) surveys conducted by the government of Québec. These surveys are generally high quality but only cover the main cities (not the rural areas), and are done every ten years. Hence, the need to find alternative data sources that could support their mobility trends analyses.

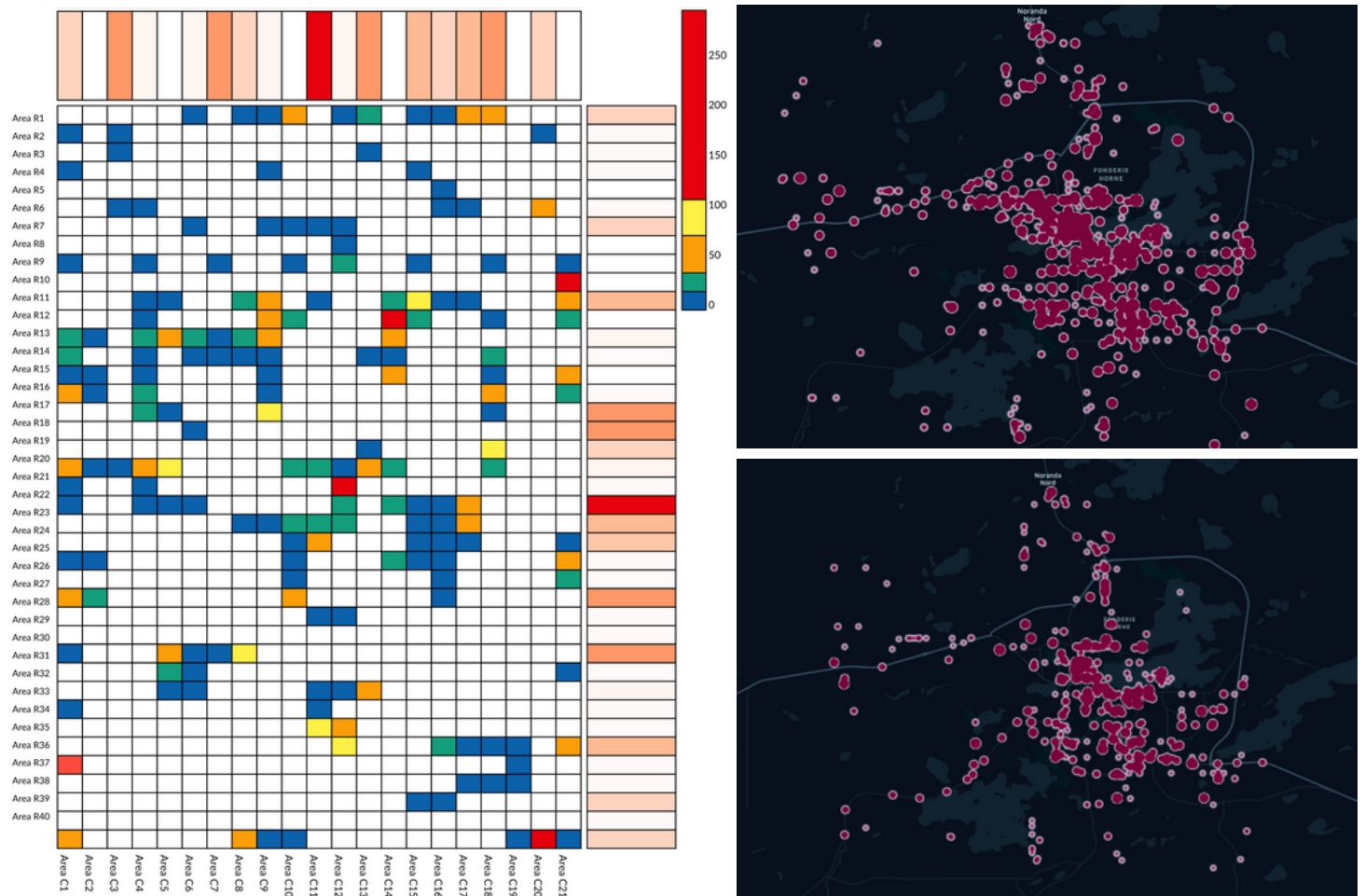
For low-density urban areas such as Rouyn-Noranda in the Quebec province, most data sources that Civilia evaluated had little to no coverage. Some data providers that did offer coverage offered feeds where most data were estimated and didn't represent actual numbers, were very low in volume, or were very old.

SOLUTIONS

Quadrant's location data helped monitor people's travel patterns over an extended range of time and space with high accuracy and precision. Civilia estimated the origins and destinations for each user along a day and calculated the average number of trips per user per day. This analysis enabled them to build simulation models that helped their customer determine citizens' needs and make accurate assumptions to improve their experiences and quality of life.

Using mobile location data and their sophisticated AI capabilities, Civilia developed meaningful trend reports and an O-D Matrix to study people's movement patterns and understand whether the current transit infrastructures and services fit the citizens' commuting requirements.

Their data science experts developed trend reports and mapped geofence-based districts by population concentration and distribution of public transit services in these districts. Using their learnings and findings, the transportation and urban planning team at Civilia formulated real-life advice and information for the city administration of Rouyn-Noranda.



Graphical representation of the customer's O-D matrix built based on mobile location data over their region of interest. The heat-map samples represent the saturation of population based on time of day used to analyze and study movement patterns over a period of time.

BENEFITS AND RESULTS

Quadrant's data coverage in low-density regions helped Civilia expand its analytical offerings to smaller cities and rural areas. Our data has been beneficial in helping the customer understand whether the current infrastructures and service fit the citizens' needs for mobility, with a great degree of reliability. Here are a few reasons why Civilia continues their partnership with Quadrant.

- Reliable data feed fit for quantitative and qualitative analysis to build simulation models
- Expansive scope of services for new clients and projects
- Transparent discussions around data sources, quality, and volumes
- Flexible pricing and custom requests such as data range, region etc.
- Accessible technical support and flexibility in data delivery methods



Identify the distribution and availability of transportation and hotspots attracting most commuters.



Compare the population density with bus lines to match demand vs. fulfillment and potential for expansion.



Build smarter routes based on public movement patterns to improve profitability and efficiency.

“
Quadrant location data has been of pivotal value for improving public transportation in dense and remote rural areas. We chose Quadrant for the high level of care and data quality. In addition, their expertise in the use of geolocation data, availability of technical support, flexibility in pricing and addressing customized requests, and their diligence for data privacy regulations have made Quadrant, a first-hand partner for our company.”

Xavier Prudent– Chief Technology Officer, Civilia

Quadrant (An Appen Company) is a global leader in mobile location data, POI data, and corresponding compliance services. Our data is verified, trustworthy, and ready to use, allowing businesses, organisations, and innovators to build tailored solutions for a myriad of real-world problems. Since September 2021, we are part of Appen, the global leader in AI training data that helps build and improve the world's most innovative artificial intelligence systems. To learn more about Quadrant's mobile location data, **talk to a data consultant today!**

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