

# Digital Services



## When data visualization improves public transport services

De Lijn leverages data visualization



**Business**

# De Lijn leverages data visualization to improve public transport services

A highly integrated mobility tool in Tableau delivers and combines insights in utilization, timeliness and traffic fluidity.

Flemish public transport company De Lijn has been focused on digitization for the past several years. To support the switch to customer-friendly, highly personalized services, and improve its public transport offer, De Lijn needed more insights in the use, timeliness and

fluidity of its services. When De Lijn's Market & Mobility department decided to develop a mobility tool that would allow them to leverage those insights, they recognized Orange Business as the perfect partner to assist in its development.



**“Our first assessment of candidates was based on reference cases, and Orange Business was actually the only vendor able to present a traffic-related case on that scale”**

**- Sandra Vandormael**

### Getting to know the customer

With the goal of improving its customer services, and offering customers a more self-service model for buying products, reporting issues, complaining or obtaining travel information, De Lijn is putting the emphasis on digitization. “Of course, to offer customer-friendly, personalized services, we need to get to know our customers,” says Sandra Vandormael, Head of Market Analysis and Research for the Market & Mobility department at De Lijn. “Instead of leaving it to the traveller to keep informed or providing general information, we want to switch to proactively warning individual customers in the case of detours, cancellations or delays on their regular bus trip, for example. In the long term we’d even like to do so in realtime.”

### Combine insights

In addition to improving customer services, De Lijn needed more information on how its public transport services are used. As conventional passes and season tickets have been replaced by digital, rechargeable MOBIB cards, the company is able to collect more information, and wanted to combine these insights. “To that purpose, we decided to develop a mobility tool that would allow us to monitor and manage our public transportation services,” Sandra says. “We soon understood that we would need a highly integrable tool, as we wanted to combine data on utilization with information on timeliness and traffic fluidity, to identify the most important passenger flows and the biggest obstructions in order to adjust

our services offer or take measures to improve punctuality.” Writing out the tender, her team created a few basic mock-ups and suggested several software options.

### Expertise on different technologies

“Our first assessment of candidates was based on reference cases, and Orange Business was actually the only vendor able to present a traffic-related case on that scale,” says Sandra. “Another factor in our choice to work with Orange Business was that they have a lot of in-house data visualization and dashboarding expertise, on different technologies, thus leaving the choice of software open. They immediately proposed that they produce a proof of concept (POC) in both Tableau and Power BI, to compare their benefits.

### Reliable advice

In terms of customized visualization, Tableau was the best fit to meet De Lijn’s needs. Also, this software proved more performant, which was very important, considering the huge amount of data to be processed. “The data volume posed quite some obstacles along the way,” says Sandra. “Luckily, the Orange Business team was always very helpful and creative in looking for ways to avoid exceeding the software limits. We really came to trust in their advice, and also appreciated their project-based approach, translating our ambitions into a concrete plan of action and reachable goals.”

# Data Visualization Goals



## Dashboard Traveler numbers

Better understanding of:

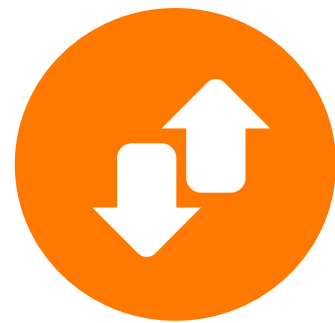
- Congestion of passengers
- Over-used and non-used stops



## Dashboard Timeliness

Better understanding of:

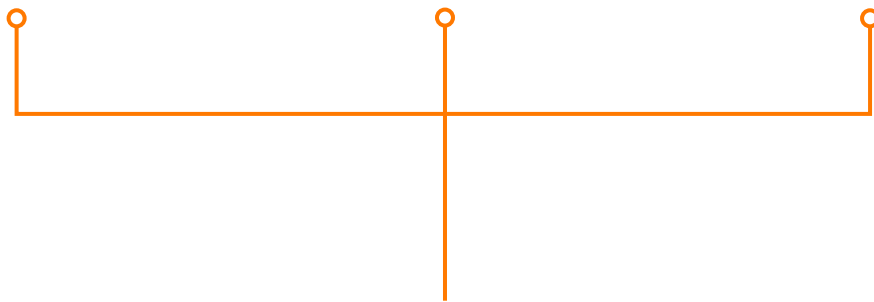
- The global performance of specific trips
- More details about each single line, variant and stop



## Dashboard Fluidity

Better understanding of:

- Obstructions
- Infrastructural bottlenecks
- Streamlined official reporting to municipalities



## Combined dashboards

- Optimized assignment of the capacity on the network.
- Better planning decisions.
- Improvement of public transport capacity and trajectories.
- No more need to send on-demand requests for specific purposes: stakeholders can access data themselves, at their convenience.
- No more ad-hoc static reports



## Flexible team

Orange Business' capacity to outsource a flexible team, which could adjust in composition and availability to align with the changing customer needs and the project's advancement, is yet another boon Sandra is very positive about. "Most of the time, we have one senior and one junior expert full-time in-house, and an external coördinator who intervenes in the case of more important challenges, which works perfectly.

As basically a part of our team, they guide us in how to translate big data into consistent storytelling. To do so, we work in close collaboration with the team managing the big data platform and our Business Intelligence department, which is

# A lot of stakeholders



“This is a work in progress,” says Sandra. “We have a lot of stakeholders, internally as well as externally, and the number of people expressing their interest and enthusiasm to use the tool keeps on growing. We want to make it as versatile as possible so our colleagues can leverage the tool as well. We keep on discovering ways in which



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the mobility tool might serve other potential stakeholders, by the way. Especially as Tableau offers geovisualization, and can be used, for example, to consult with governmental organizations in charge of road infrastructure and traffic.”

### **Share Knowledge**

The ‘Traveller Numbers’, ‘Timeliness’ and ‘Fluidity’ dashboards have been delivered and are being presented to internal stakeholders in practical workshops. From traffic region managers to mobility developers, planners, and flow experts, these workshops are in high demand. Next step: combining the dashboards and integrating new data sources. “Of course, we are still counting on Orange Business to accompany us on this adventure. In time, though, a handover will take place, and their role will transition from a very active role into a supportive one. They’ve already given us a basic training in Tableau. That’s another Orange Business quality: their readiness to share their knowledge,” Sandra concludes.

# Do you have any further questions?

Or if you would like to know more about how to improve retail customer relations on the basis of customer to leverage your data visualization tools, do not hesitate to mail us your query.

## Digital Services

Digital Services is a business line within Orange Business, contributing to reliable and successful digital transformation for many organizations. Our joint mission is to help customers innovate and drive their business strategies in key digital domains, including Cloud, Customer Experience, Workspace, and Data & AI. We assist them on their digital journey by providing advisory, end-to-end solutions, managed services, and professional services to ensure our customers' success. We are digital natives, with innovation at the core of our business, which makes us a reliable partner close to our customers, leading them in their digital transformation challenges.

We support a wide range of industries in the private sector as well as the public sector. We have built a significant level of experience and understanding over the last 30 years in industries like Finance, Insurance, Life Sciences, Healthcare, Manufacturing, Travel & Transportation, Retail, and the Public Sector. As always with Orange Business, our customers trust us for delivering end-to-end, sovereign, and sustainable solutions to turn their Operational Experience, Employee Experience and Customer Experience into business value.

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