



THE ROLE OF THE ASSESSOR IN THE SOCRATES^{2.0} PROJECT

The Assessor is one of the intermediary roles defined within the SOCRATES^{2.0} newly created cooperation framework between public and private organisations for interactive traffic management. The Assessor validates information and insights of the services delivered by the SOCRATES^{2.0} partners. It also translates the data to the predefined goals and key performance indicators (KPIs). How many road users, for example, followed the partners' advice to take another route to avoid a traffic jam?

Smoother, safer and more sustainable traffic in the European Union. Road authorities, service providers and car manufacturers all collaborated in SOCRATES^{2.0} to work towards these objectives.

It was clear these goals required effective collaboration between traffic management and innovative traffic

information and navigation services. So the partners created a cooperation framework with four newly defined intermediary roles: the Assessor, the Strategy Table, the Network Monitor and the Network Manager. The public private partners seated at the strategy table used the information and insights from the Assessor to take decisions on how to improve the new services.

During the project, the Assessor, a role carried out by the company MAP traffic management, had an independent role and evaluated both technological and commercial

SOCRATES^{2.0}

FAST

SAFE

GREEN

aspects. It supported the management of the cooperation agreements and ensured that Service Level Agreements was honoured. Because of its independent unbiased role, the Assessor can act as a trusted third party to collect and interpret information that is preferably not shared with the whole consortium. Only the agreed upon information is shared with all stakeholders.

THE ASSESSOR IN PRACTICE

Each week, the Assessor assesses the performance of the services delivered by the SOCRATES^{2.0} partners for Smart Routing, one of three SOCRATES^{2.0} services that were piloted in Amsterdam. The advice was jointly developed and delivered by local road operators, public and private data service providers and end-user service providers.

The Assessor collected weekly reports from the public service providers, that is the three Traffic Management Centres in the Metropolitan Region Amsterdam, and from private service providers. The reports contained information and insights on the technical and functional performance of their systems and services. For example, were the services always up and running, was there some data transmission missing during the month, did the service providers systems accepted all the requested tasks and did the road users follow what was requested by the service providers?

At an earlier stage, the Strategy Table had defined the key performance indicators (KPIs) and thus all collaborating parties agreed. The Assessor now validated and translated these weekly reports in to the defined KPIs, p.e. travel time, speed and traffic volumes. The Assessor also created performance reports to monitor the availability and

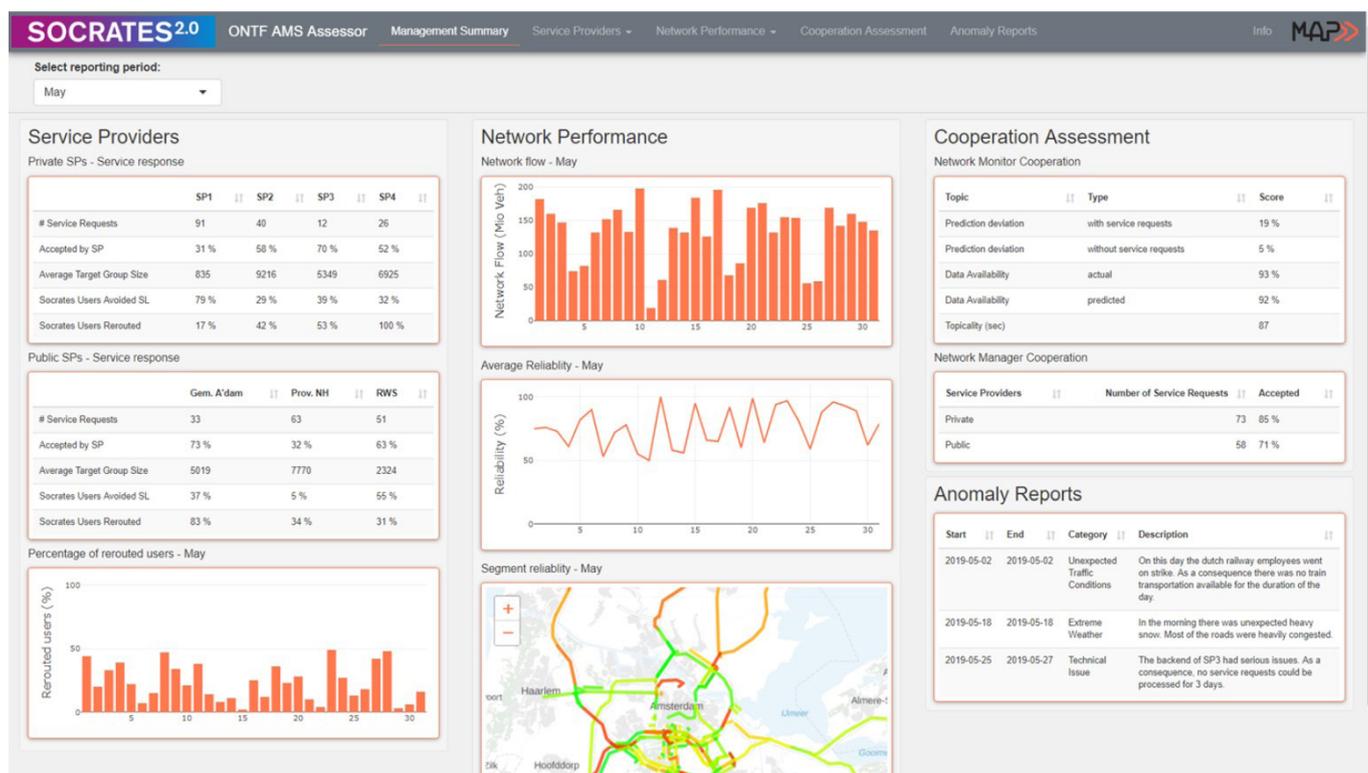
accuracy of current and predicted traffic states provided by the Network Monitor.

INFORMATION FOR STRATEGIC DECISION MAKING

The information was then presented in a monthly report at the Strategy Table meetings. The aim of these meetings was for the Socrates partners to identify, discuss, and agree on new or adjusted measures to help achieve the service goals or KPI targets. The partners who delivered services within the Smart Route service jointly assessed the services' performance over the previous months. They also identified what in the cooperation could be improved. The Assessor also supported the initial configuration for the services delivered by the SOCRATES^{2.0} partners and the integration between components of the Network Monitor and the Network Manager. It did so by providing insights on the performance of the outputs from each partner. These insights were used as a feedback loop to the Network Manager and regional Traffic Management tactical teams to improve the road authorities' traffic management services.

MANY EXTERNAL FACTORS

It is a challenge to determine the true impact of the services on the predefined goals and the effectiveness of each measure delivered by the public and private service providers. Insight is needed on the changes in travel times, speed and traffic flow as a result of those measures. However, the many external factors, the absence of any reliable baseline and the simultaneous deployment of various measures makes it nearly impossible to determine in real life which changes resulted from which measures. As a solution, the Assessor and Service providers



developed an alternative approach. Instead of measuring impact directly, it monitored the traffic network performance using KPIs. This meant that performance over time could be used as an indicator for the success of the cooperation goals. Additionally, a new concept was added to isolate the effects of the cooperation from other contextual factors that drive performance changes: the Waterfall report.

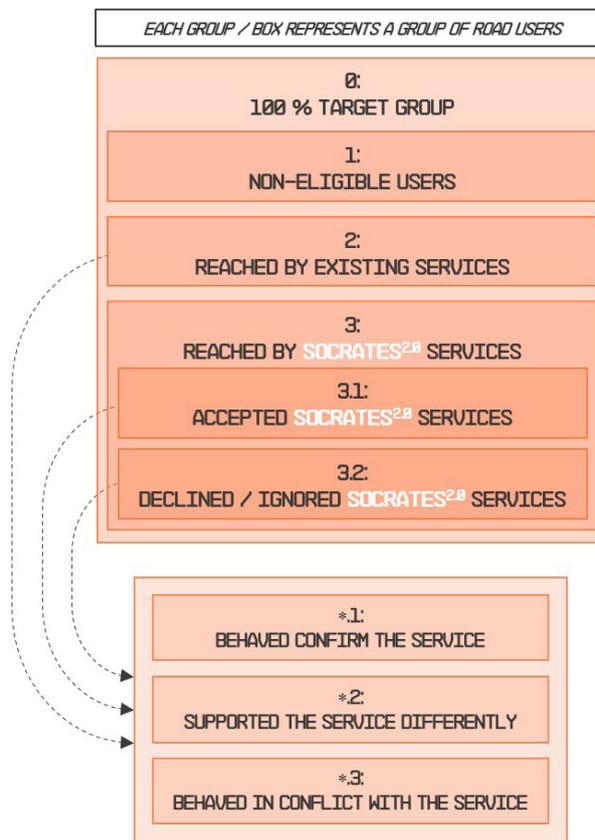
WATERFALL METHOD: HOW MANY DRIVERS FOLLOW TRAFFIC ADVICE?

The Waterfall method is a new reporting protocol developed by the Assessor and the service providers collaborating in SOCRATES^{2.0}. The goal is to capture insights from service providers on the implementation and performance of SOCRATES^{2.0} generated routing advices, triggered by the service requests distributed by the Network Manager.

To show that the change in network traffic performance was the result of services delivered by the service providers, insight was needed into the number of road users they influenced. Since the SOCRATES^{2.0} services were deployed alongside existing information and navigation services, insight was also needed into the number of road users influenced by the existing services and those influenced by SOCRATES^{2.0} specific services. The Waterfall method provided these numbers and helped differentiate between the value of existing services and SOCRATES^{2.0} induced services.

Every week, the service providers submitted the Waterfall report to the Assessor, including the following information:

- Aggregated volumes of road users (travellers) who received route advice, and how many changed or likely changed their routes accordingly, or did not change their routes.
- Reasons service providers accepted or rejected to provide advices to road users based on SOCRATES^{2.0} induced services.
- Context information, for example, Traffic Management Centre logging, weather reports, road works.



The service providers post-processed their monitoring data, namely service operational data and users 'track and trace'. This helped them determine the number of road users for each of the Waterfall report fields. The Assessor could then use these numbers as an indication of:

- The possible impact of the measures deployed by the partner.
- The effort the partner made to implement the SOCRATES^{2.0} service request.
- The resolving power or sensibility of the SOCRATES^{2.0} services.
- The contribution of one partner with respect to the other partners.

DEVELOPING INSIGHTS

SOCRATES^{2.0} continues to build on the large amounts of results and insights gathered over the past four years. The partners are furthering developing the Assessor KPI framework based on practical implementations using the SOCRATES^{2.0} cooperation framework.