

# CATALOGUE OF SERVICES FOR PASSENGER TRANSPORT OPERATORS

SNCF Réseau—Your mobility partner





SERVICE OFFERINGS

# ANALYSIS & CONSULTING SERVICES

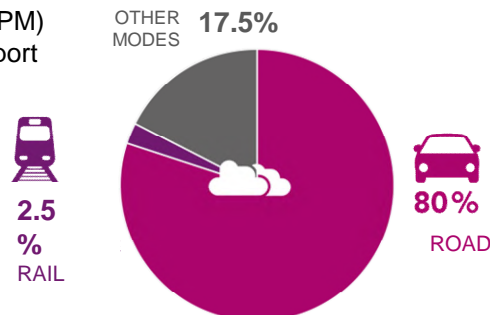
1. MOBILITY DEMAND ANALYSIS
2. MULTIMODAL TRAFFIC FORECASTS
3. INITIAL SERVICE ANALYSIS (3 TO 5 YEARS AHEAD)
4. TECHNICAL OPINIONS FOR TENDERS
5. OPERATIONAL ROBUSTNESS ANALYSIS AND RECOMMENDATIONS
6. TIMETABLE ANALYSIS
7. ON-TIME PERFORMANCE ANALYSIS
8. NEEDS ANALYSIS: MOBILITY RESEARCH ON SPECIAL-NEEDS TRAVELLERS

## FAST FACTS

Particulate matter (PM) and nitrogen oxide (NOx) emissions from rail are lower than from any other mode of transport.

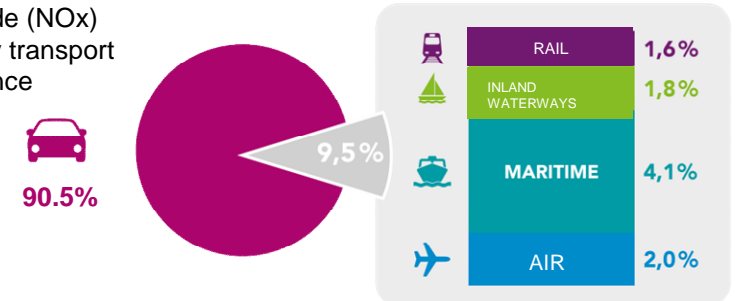
**RAIL—THE CLEANEST MODE OF TRANSPORT** →

Particulate matter (PM) emissions by transport mode in France.



Source: CITEPA / SECTEN emissions data - April 2017

Nitrogen oxide (NOx) emissions by transport mode in France



Source: CITEPA / SECTEN emissions data - April 2018.

# 1. MOBILITY DEMAND ANALYSIS

## WHAT YOU NEED

- You need to know how mobility demand will evolve, across all modes and on one or more routes in your region—over the next 3, 10, 20 or even 30 years.
- You need insights to help you reflect these changes in future service provision and transport planning.

We'll analyse mobility demand, across all modes, at a scale to suit you—on a single route or throughout your region.



## FOR MORE INFORMATION

Speak to your contact



## WHAT WE OFFER

We'll combine our industry-leading expertise with your local knowledge to predict how mobility demand will evolve.

With this service, we estimate potential transport demand at a geographical scale to suit you—throughout your region or on a single route. More specifically, we will:

- review the features of your region (catchment area, business environment)
- assess current transport flows (across all modes)
- estimate modal share (optional)
- generate projections
- predict medium- and long-term trends in demand.

Our analyses and predictions draw on a variety of sources, including:

- public data from France's National Institute of Statistics and Economic Studies (Insee)
- data from standardized urban, suburban and rural household travel surveys
- purpose-designed surveys (if more data is needed)
- mobile network tracking data (to measure flows between two points on the network)—coming soon.

# 1. MOBILITY DEMAND ANALYSIS



## WHAT WE NEED FROM YOU

- You'll need to supply the input data, including data from travel and road-traffic surveys, and from ticketing and passenger counting systems on public transport lines operated by you and your partners.



## OUR PROMISE TO YOU

- We'll be transparent, fair and non-discriminatory in our dealings with you, and we'll treat your information in the strictest confidence—in line with our Confidential Information Management Plan.
- Subject to data availability, we'll produce a deliverable that matches your requirements, including:
  - origin-destination matrices
  - forecast assumptions
  - route maps
- If we need more data, we'll propose additional surveys.
- We operate independently of all rail companies.

\* See standalone contract for standard terms and conditions of sale



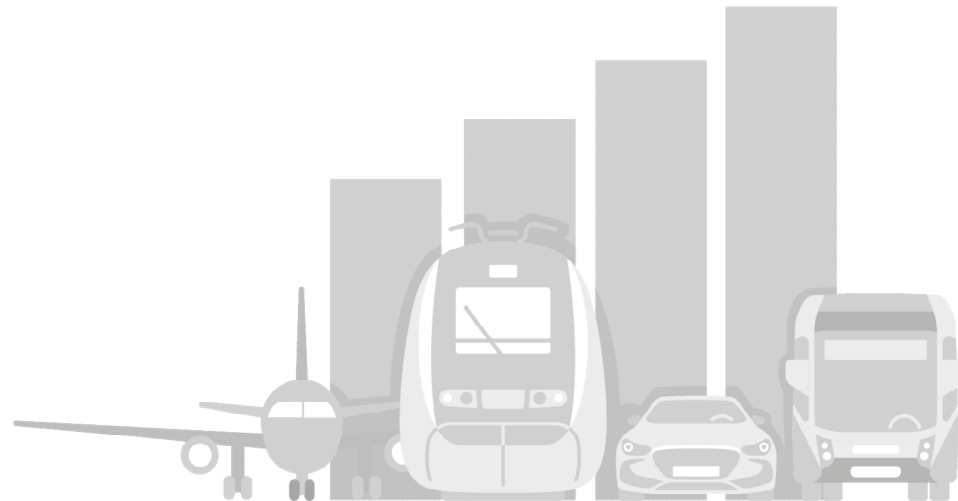
## HOW MUCH IT COSTS

We'll quote a fixed price according to the geographical scope and the degree of detail required.



## PRACTICAL AND CONTRACTUAL ARRANGEMENTS

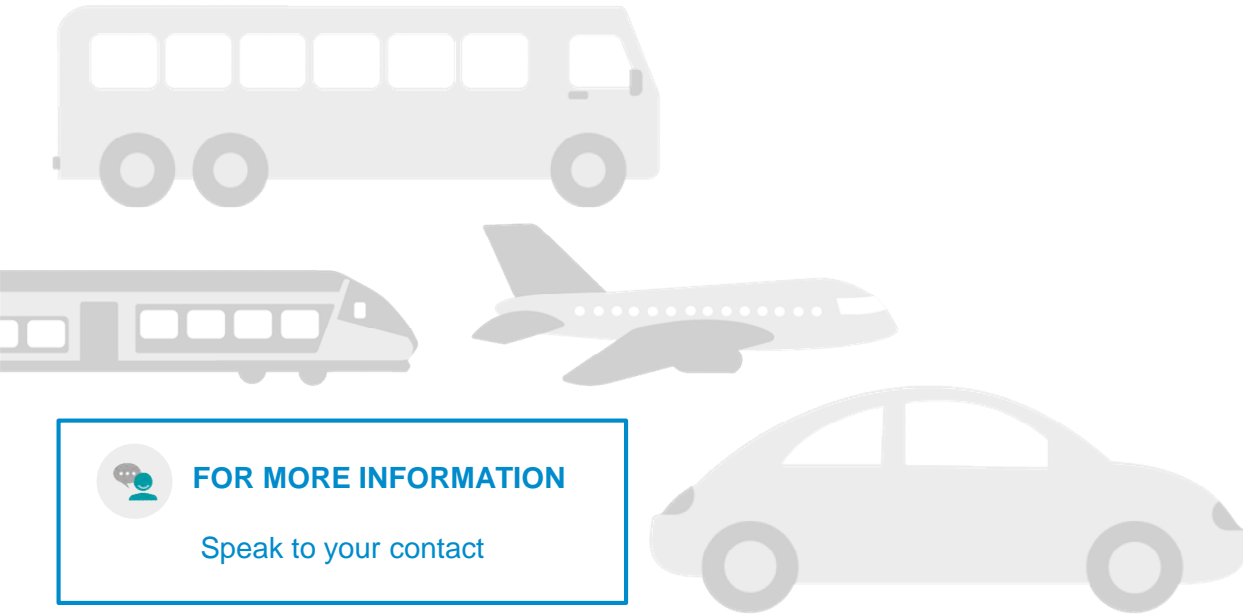
You'll need to send us detailed specifications outlining your requirements, and sign a standalone contract for each service.



# 2. MULTIMODAL TRAFFIC FORECASTS

## WHAT YOU NEED

You need medium-term, multimodal traffic and passenger forecasts—covering rail and other public transport modes, passenger cars and new forms of mobility—so you can plan what your transport services will look like 10 or 20 years from now.



## FOR MORE INFORMATION

Speak to your contact



## WHAT WE OFFER

We'll analyse patterns of mobility, including modal share, at a scale to suit you—on a single route or throughout your region:

- We'll develop a region-wide passenger traffic model and simulate your proposed transport services and infrastructure projects—at the point they're commissioned and over the longer term.
- We'll use a proven, four-step method:
  1. Transport demand generation per zone (zoning, regional forecasting)
  2. Zone-to-zone distribution (matrix)
  3. Modal share (relative utility of different transport modes)
  4. Allocation scheme (itineraries, network and public transport load)

# 2. MULTIMODAL TRAFFIC FORECASTS



## WHAT WE NEED FROM YOU

- You'll need to supply the input data we require to build and/or update our forecasting model, including data from non-open sources:
  - mapping data
  - observed or estimated passenger numbers (trip matrices, counting system data) for each transport mode
  - data from travel surveys
  - regional forecasting data



## OUR PROMISE TO YOU\*

- We'll be transparent, fair and non-discriminatory in our dealings with you, and we'll treat your information in the strictest confidence—in line with our Confidential Information Management Plan
- Subject to data availability, we'll produce a deliverable that matches your requirements, including:
  - origin-destination matrices
  - modal share estimates
  - modal shift analysis
  - passenger number trends for stations
  - line graphs of load (per line)

- We'll provide the interfaces you need to assess socio-economic performance (optional).
- We operate independently of rail companies.

\* See standard terms and conditions of sale



## HOW MUCH IT COSTS

We'll quote a fixed price according to the geographical scope and the degree of detail required.



## PRACTICAL AND CONTRACTUAL ARRANGEMENTS

You'll need to send us detailed specifications outlining your requirements, and sign a standalone contract for each service.

# 3. INITIAL SERVICE ANALYSIS (3 TO 5 YEARS AHEAD)

## WHAT YOU NEED

You need insights into regional patterns of mobility and other dynamics so you can shape services that meet local mobility challenges and use available rolling stock.

An initial service analysis is the first step in building a multimodal transport plan that reflects future regional priorities. It also helps you get the best out of your existing rolling stock.



## FOR MORE INFORMATION

Speak to your contact



## WHAT WE OFFER

We'll examine a range of factors to help you get the big decisions right, including:

- Details of the proposed journeys (origin-destination pairs and stopping pattern).
- Journey frequency (number of journeys per hour and per service at different times of day).
- Rolling stock used for each journey.
- Connections and potential synergies between train paths.

We also offer hourly capacity analysis—an additional service that gives you a clearer picture of the feasibility of your proposals.



# 3. INITIAL SERVICE ANALYSIS (3 TO 5 YEARS AHEAD)



## WHAT WE NEED FROM YOU

- You'll need to work closely with SNCF Réseau from the outset (as early as possible).
- You'll need to supply the information we require to model your services.



## OUR PROMISE TO YOU\*

- We'll be transparent, fair and non-discriminatory in our dealings with you, and we'll treat your information in the strictest confidence—in line with our Confidential Information Management Plan
- We'll share details of major engineering works planned for the period in question.
- We'll work with you to develop underlying long-distance assumptions, such as connection hub types and even timetable reference points

\* See standalone contract for standard terms and conditions of sale



## HOW MUCH IT COSTS

We'll quote a fixed price according to the geographical scope and the degree of detail required.



## PRACTICAL AND CONTRACTUAL ARRANGEMENTS

You'll need to send us detailed specifications outlining your requirements. And you'll need to sign a standalone contract for each service.



# 4. TECHNICAL OPTIONS FOR TENDER OFFERS

## WHAT YOU NEED

You need help drafting the technical part of your tender documentation and assessing the technical bids you receive (capacity and rolling stock aspects).



## FOR MORE INFORMATION

Speak to your contact



## WHAT WE OFFER

Once you've determined your capacity requirements, we'll support you at two important points in the tender process:

- Drafting the technical part of your tender documentation:
  - We'll provide templates for rail companies to complete—because standardized bids are easier to evaluate.
  - We'll help you answer questions from bidders.
- Evaluating bids:
  - We'll work with you to set the bid evaluation criteria.
  - We'll help you rank the bids you receive by technical merit.
  - We'll make specific recommendations according to your requirements (track occupation graphics, rolling stock, service facilities, etc.)

# 4. TECHNICAL OPTIONS FOR TENDER OFFERS



## WHAT WE NEED FROM YOU

- You'll need to share copies—anonimized if possible—of rail companies' bids for the part in question.
- You'll need to establish a framework governing the relationship between bidders and the infrastructure manager during the tender process.



## OUR PROMISE TO YOU\*

- We'll adhere to the non-disclosure rules set out in your tender documentation.
- We'll be transparent, fair and non-discriminatory in our dealings with you, and we'll treat your information in the strictest confidence—in line with our Confidential Information Management Plan
- We'll supply the input data you need to draft your specifications.

\* See standalone contract for standard terms and conditions of sale



## HOW MUCH IT COSTS

We'll quote a fixed price according to the geographical scope and the degree of detail required.



## PRACTICAL AND CONTRACTUAL ARRANGEMENTS

You'll need to send us detailed specifications outlining your requirements, and sign a standalone contract for each service. We'll need to sign a non-disclosure agreement.

# 5. OPERATIONAL ROBUSTNESS ANALYSIS AND RECOMMENDATIONS

## WHAT YOU NEED

You need to know how robust your operations are—on one or more trains, on a line or route, between an origin-destination pair, or at a major hub—so you can maintain smooth service at all times.

For your operations to be described as robust, you must be able to:

- deliver agreed performance for customers under normal service conditions
- absorb incidents and disruptions—minor and major—and resume normal service within a given time frame
- maintain a pre-defined level of performance—standard of service, cost and quality—at all times.

Our analyses will help you fine-tune your transport plan and improve your current operations.

And if you're considering completely overhauling your service, we can run simulations to give you deeper insights.



## FOR MORE INFORMATION

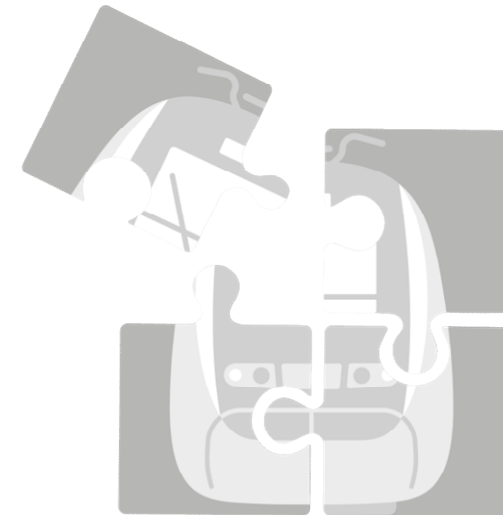
Speak to your contact



## WHAT WE OFFER

We'll start by outlining what operational robustness entails and exploring the associated constraints, before working with you to set your requirements. It's a two-part service that draws on the very best of our expertise:

- First, we'll review service on your existing lines against a purpose-designed set of indicators.
- Next, we'll recommend actions you can take to make your operations more robust.



# 5. OPERATIONAL ROBUSTNESS ANALYSIS AND RECOMMENDATIONS



## WHAT WE NEED FROM YOU

- You'll need to describe, in detail, your operational robustness requirements.
- You'll need to supply the information you use to manage your rail operations, including your transport plan, service schedules, and details of your rolling stock, resources, services at major hubs, and other infrastructure assets.



## OUR PROMISE TO YOU\*

- We'll be transparent, fair and non-discriminatory in our dealings with you, and we'll treat your information in the strictest confidence—in line with our Confidential Information Management Plan.
- We'll employ an independent, systems approach.

\* See standalone contract for standard terms and conditions of sale



## HOW MUCH IT COSTS

We'll quote a fixed price according to the geographical scope of your project and the degree of detail required.



## PRACTICAL AND CONTRACTUAL ARRANGEMENTS

If you're a rail company already operating on our network, we'll need punctuality and on-time departure performance data before we can assess how robust your operations are. You'll need to send us detailed specifications outlining your requirements. You'll also need to sign a standalone contract for each service.

# 6. TIMETABLE ANALYSIS

## WHAT YOU NEED

You need to overhaul your timetable, order train paths, or determine if a proposed schedule is theoretically and technically feasible—whether you're already operating on the French rail network or you're planning to do so in the future.



## WHAT WE OFFER

Our timetable analysis services caters to every need. For instance, we can:

- Help you plan a new timetable by exploring how different scenarios will affect service standards.
- Review the feasibility and impact of different service schedules, comparing your proposal against realistic alternatives.
- Analyse capacity and help you draft your requirements before you order your train paths.



## FOR MORE INFORMATION

Speak to your contact

# 6. TIMETABLE ANALYSIS



## WHAT WE NEED FROM YOU

- You'll need to plan ahead and order your analyses as early as you can—well before your trains enter service.
- You'll need to supply a detailed set of specifications.
- You'll need to let us know if there's anything particular we should watch out for.



## OUR PROMISE TO YOU\*

- We'll be transparent, fair and non-discriminatory in our dealings with you, and we'll treat your information in the strictest confidence—in line with our Confidential Information Management Plan.
- We'll factor in all the assumptions and data available to us when we carry out our analysis.

\* See standalone contract for standard terms and conditions of sale



## HOW MUCH IT COSTS

We'll quote a fixed price according to the geographical scope of your project and the degree of detail required.



## PRACTICAL AND CONTRACTUAL ARRANGEMENTS

You'll need to send us detailed specifications outlining your requirements. You'll need to sign a standalone contract for each service. We may work with an outside provider to help us deliver this service.

# 7. ON-TIME PERFORMANCE ANALYSIS

## WHAT YOU NEED

You need to know how you're doing on punctuality in general—on one or more trains, on a line or route, or between an origin-destination pair—or to understand where to focus your energies to improve on-time performance



## WHAT WE OFFER

Our on-time performance analysis services caters to every need. For instance, we can:

- Produce a snapshot of on-time performance on selected trains, lines or routes.
- Analyse the root causes of punctuality problems.
- Help you decide where to focus your energies on improving on-time performance.



## FOR MORE INFORMATION

Speak to your contact



# 7. ON-TIME PERFORMANCE ANALYSIS



## WHAT WE NEED FROM YOU

- You'll need to tell us exactly what you require—and what you expect from us.
- You'll need to supply any additional data we require to carry out our work.



## OUR PROMISE TO YOU\*

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## HOW MUCH IT COSTS

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## PRACTICAL AND CONTRACTUAL ARRANGEMENTS

You'll need to send us detailed specifications outlining your requirements. And you'll need to sign a standalone contract for each service.



# 8. NEEDS ANALYSIS: MOBILITY RESEARCH ON SPECIAL-NEEDS TRAVELLERS

## WHAT YOU NEED

If you're a transport organizing authority or local authority, you need to track, plan and organize mobility solutions for seniors and others with reduced mobility. To help produce planning documents, projections for transport of all kinds and mobility reports, we'll analyse these users' special needs for you.

### Objectives:

- Understand individual mobility to improve mass transit for all.
- Move from a supply-driven to a use-driven policy.
- Compile data for decision-making when implementing changes and complete overhauls of mass transit systems.

## FOR MORE INFORMATION

Speak to your contact



## WHAT WE OFFER

As mobility experts, we'll provide insights into the mobility needs and uses of special-needs travellers—seniors, passengers with limited mobility, and travellers with other disabilities in a given region.

### Our research includes:

- Analysis of the mobility behaviour of your target group and the scheduling/timing of their travel within a given region
- Identification of trends
- Recommendations to increase the share of special-needs travellers using mass transit networks.

### How we work:

- Qualitative analyses (individual meetings, focus groups, on-site observation of mobility needs, etc.)
- Quantitative analyses (database creation, major public or private surveys, spatial planning, maps and more).

# 8. NEEDS ANALYSIS: MOBILITY RESEARCH ON SPECIAL-NEEDS TRAVELLERS



## WHAT WE NEED FROM YOU

- You'll need to supply the input data, including data from travel surveys, and from ticketing and passenger counting systems on public transport lines operated by you and your partners.



## OUR PROMISE TO YOU\*

- We'll be transparent, fair and non-discriminatory in our dealings with you, and we'll treat your information in the strictest confidence—in line with our Confidential Information Management Plan.
- Subject to data availability, we'll produce a deliverable that matches your requirements, including:
  - origin-destination matrices
  - forecast assumptions
  - route maps
- If we need more data, we'll suggest additional surveys.
- We operate independently of rail companies.

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## HOW MUCH IT COSTS

We'll quote a fixed price according to the geographical scope and the degree of detail required.



## PRACTICAL AND CONTRACTUAL ARRANGEMENTS

- You'll need to send us detailed specifications outlining your requirements.
- You'll need to sign a standalone contract for each service.