

RAILWAY MARKET IN FRANCE IN 2020

> *Overview*



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INTRODUCTION

FIFTH ANNUAL RAILWAY MARKET REPORT OF THE FRENCH TRANSPORT REGULATORY AUTHORITY (ART)

This year's edition is the first ART's rail market report that consists of two complementary documents:

- The Overview presents the main indicators in 2020 as well as their annual and multiannual changes;
- The Comprehensive Report includes the whole set of indicators and analyses as well as additional focus topics.

The report covers the entire railway market in France (passenger and freight). Besides, the whole Paris region's PSO suburban express service (RER) which runs on both the national rail network (RFN) and the Parisian urban network is included. The report establishes a detailed and independent overview of the French railway market and its dynamic from 2015 to 2020. New indicators and focus topics presented this year are:

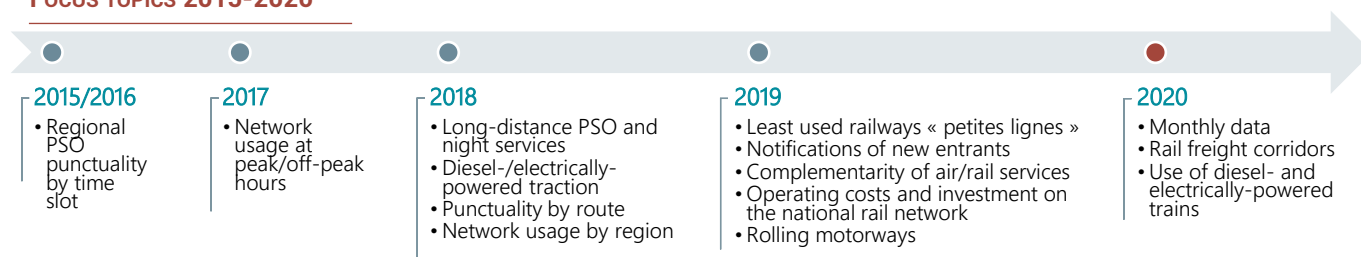
- Expenditures on maintenance of railway infrastructure;
- Analysis of quality of service in relation to infrastructure characteristics;
- Use of diesel- and electrically-powered trains by passenger services in France;
- Rail freight corridors.

2020 was marked by an unprecedented pandemic which affected the whole transport sector. Some analyses presented in the report are based on simple annual changes, which do not allow to identify long-term developments and/or trend breaks. Therefore, no definitive conclusion should be drawn from these market developments.

LEGAL BASIS

Directive (EU) 2012/34, which established the single European railway area, states that regulatory bodies have a formal duty to monitor the competitive situation in the railway market. In France, ART is mandated in the first place to contribute to *"the monitoring and the proper functioning of the national rail transport system, in particular for public service and competitive activities, in its technical, economic and financial dimensions, for the benefit of the users of rail transport services"* (article L. 2131-1 of the transport code). To carry out this mission, ART has been given the power to regularly collect information from infrastructure managers, service facilities operators, railway undertakings and other authorized applicants that operate on the national rail network and the Parisian urban network. These data enable ART to conduct studies and analyses that are included in this report and to inform stakeholders of the rail sector developments. Finally, *"ART draws up a statement of the rail market liberalisation every year"* (article L. 2133-1-1 of the transport code) which can also be found in this report.

FOCUS TOPICS 2015-2020



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SUMMARY (1/2)

01. Network characteristics and usage intensity



- The operated rail network has remained stable since 2015. In 2020, the extension of high-speed lines offset the closure of some parts of the 30% oldest and least used lines of the network. **The age of conventional lines has been reduced by almost 2 years since 2015** thanks to renewal works and the closure of the most deteriorated lines. Meanwhile, **the average condition of high-speed (HS) lines has regressed, especially on the busiest lines** (South-East HS line), which should result in some renewal works in the coming years.
- **Due to the pandemic, the network usage decreased by 25% in 2020 compared to 2017**, which was the most recent year without important service disruptions. Traffic seemed to be more concentrated on the most used parts of the network. On the contrary, only 1% of train-km and less than 10 trains per day ran on the 23% least used part of the network.

02. Infrastructure managers' revenues



- **Infrastructure managers' revenues decreased by 12.5% in 2020**, equivalent to only half of the traffic drop. This is due to the moderate decrease of the mark-ups for capacity reservations (market charge) coupled with the increase in public subsidies for regional PSO, long-distance PSO and freight charges.
- **Operating costs** (traffic management, maintenance and surveillance) **declined by almost 6% in 2020**. Investment made in 2020 by SNCF Réseau amounted to €5 billion, going up by €100 million compared to 2019 on the same consolidation basis. Nonetheless, **investment on the renewal and performance of the network decreased by 8%**, which could be related to a delay of '24 days of production' (or 6.5% of the yearly volume) as a result of the pandemic (*Source : SNCF Réseau financial report*). Investment on high-speed lines was much lower than that of the most used conventional lines.

03. Modal split



- **The modal split of rail passenger transport reduced by 2.5 percentage points to 7.6% in 2020**. Public transports were more affected than individual cars and had their modal expansion trend suddenly reversed. Road transport decreased less than rail transport for both passenger and freight services. Rail passenger-km dropped by 42% in France, which is similar to or smaller than the decreases in other European countries which averaged 40% in 2020. **Rail freight transport almost maintained its modal split of 2019** (9.7% in 2020, down by 0.2 point). Such a limited decrease in freight traffic was also seen elsewhere in Europe.

04. The rail freight market



- In 2020, **the rail freight transport recorded a moderate reduction of 6% in tonne-km**. Revenues from commercial traffic amounted to nearly €1 billion and decreased by 10%. In a **fully competitive market**, the domestic incumbent's market share declined by 3 points. **Intermodal freight traffic continued to expand and its market share reached 38%** in 2020.
- Although **European rail freight corridors** gather only a small number of recent infrastructures, they are largely used by both freight and passenger services. **75% of rail freight traffic in France was operated on these corridors** in 2020.

05. The rail passenger market



- **In 2020, passenger train-km fell by 21%**, to varying extents across services. International traffic dropped by half compared to 2019 while the decreases of regional PSO services were much smaller (down 13% for TER and 10% for Transilien-RER). **Almost 14% of passenger stations were used during less than 250 days in 2020, against 8% in 2019** while 87% were served by regional PSO trains only.
- **Passenger-km dropped by 42%, twice as much as passenger train-km did**, resulting in big decreases in the occupancy rate for all services. Domestic high-speed and regional PSO services recovered rather quickly while international traffic remained at a low level throughout the year.
- **Among high-speed services, the share of the low-cost activities Ouigo continued to increase**. The latter only decreased by 19% in passenger-km while standard services InOui declined by 45%. The Atlantic and South-East axes were less affected than the North and East ones, recording a fall of passenger-km of around 40% and 50% respectively.

SUMMARY (2/2)

05. The rail passenger market



- **38 notifications of intent to operate new commercial rail services have been received by ART.** In particular, the Italian incumbent, Trenitalia, launched a high-speed service connecting Paris and Milan via Lyon on 18 December 2021.
- **The regional PSO market liberalisation has started in 2020.** In 2021, there were ongoing competitive tenders in 5 regions, of which **2 tenders were awarded to Transdev and SNCF Voyageurs in Sud-PACA region.**
- In 2019, diesel-powered traction accounted for 29% of regional PSO train-km, of which 11% operated by dual-mode rolling stock on non-electrified tracks. **It is estimated that 18% of regional PSO passenger-km travelled on diesel-powered trains.**

06. Economic performance of passenger services



- **The decrease of the revenues from passenger railway services was stronger than that of passenger-km for high-speed and international services.** Despite a supply downturn, **regional PSO services including Paris region's Transilien recorded stable or very slightly reduced revenues** due to a high increase in public compensations. **In 2020, a decrease in revenues from fares per passenger was observed for all services and tariff groups,** except for subscribers. Passengers with a full-rate ticket accounted for more than half of SNCF's long-distance passenger-km while subscribers represented over 40% of regional PSO passenger-km. Beneficiaries of free of charge commercial services constituted 1.1 billion passenger-km or 3.5% of the traffic.

07. Punctuality of passenger trains



- In 2020, while the descheduling rate of passenger trains reached its all time high of 25% due to the pandemic, **the punctuality rate at terminal station gained 1 percentage point.** This improvement also applied for the punctuality of passengers, except for those using long-distance PSO services (Intercités). In 2020, the share of passengers arriving on time at their destination ranged from 63% to 92% across services. **Only 40% of the passengers of high-speed and international services that were delayed by more than 30 minutes were compensated,** a still low level despite the constant increase since 2018.

08. Regional PSO services (TER)



- **In 2020, regional PSO (TER) traffic reduced only slightly on the supply side** (down 13% in train-km on average) but substantially on the demand side (down 36% in passenger-km). As a result, the occupancy rate decreased across all regions. In 2020, **from 19% to 30% of TER trains were descheduled** because of the pandemic. Based on this limited transport supply, last-minute cancellation and **punctuality rates were improved in the vast majority of regions.**
- Revenues from fares of TER services dropped by 29%, in line with the diminution of passenger-km of 30%. However, **total revenues (fares plus compensations) only decreased by 1% to 6% across regions** while train-km reduced by 11% to 23%. **TER operating charges per train-km increased by nearly 13%,** of which the rise in station charge was 23%, 8% for track access charge and 13% for other charges.
- **Regional PSO demand seemed highly concentrated on a small number of routes towards large cities and urban areas.**

09. Paris region's PSO services (Transilien and RER)



- **The reduction in seat-km of Paris region's PSO services (Transilien and RER) varied from 8% to 26% across lines while that of passenger-km exceeded 40% for most lines.** Therefore, the occupancy rate decreased by 12 percentage points.
- In 2020, descheduling rates increased for all lines with globally bigger levels for RER compared to Transilien. However, the last-minute cancellation rate went down to 0.6% in 2020 against 2.1% in 2019, with highest levels recorded for RER lines A and B. **The punctuality of passengers was improved for most lines,** especially for RER lines C and D (up 2 percentage points).

01

NETWORK CHARACTERISTICS AND USAGE INTENSITY



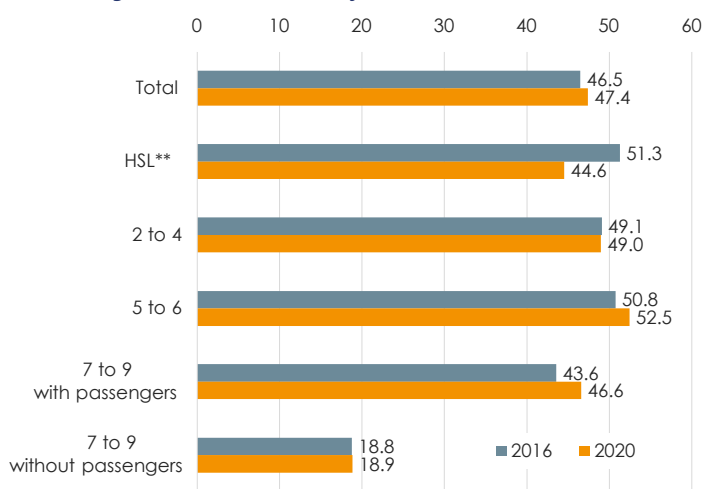
	Level (as of 31 Dec 2020)	Annual change (2019-2020)	5-year change (2015-2020)
▪ Total route length (km)	27 860 km	- 269 km	- 921 km
▪ Total track length (km)	49 268 km	- 233 km	+ 62 km
▪ Age of the national rail network (RFN)	28.9 years	- 3 months	-1 year 11 months
▪ Over-aged tracks (% of RFN excl. high-speed lines)	21.0%	+ 0.8 pp	- 2.9 pp
▪ Electrified network (% of track length)	70.4%	+ 0.3 pp	+1.8 pp
▪ ERTMS 1/2-compatible network (% of route length)	4.0%	+ 0.1 pp	n/a
▪ ERTMS 1/2-compatible high-speed network (% of HS route length)	34.9%	- 0.0 pp	n/a
▪ 80% of railway traffic (train-km) operated on...	39% of RFN	+ 1 pp	
▪ Least used lines « petites lignes » with passengers (« 7 à 9 AV »)	11 574 track km 36.3 years 18.5% electrified 9% of train-km	- 5 track km - 4 months - 0.1 pp - 0.3 pp	- 595 track km - 2 years 8 months - 4.2 pp n/d

The national rail network remained stable in 2020

In 2020, the national rail network's (RFN) track length was close to 49,300 km, being reduced by 230 km compared to 2019. Since 2015, almost 1,300 km of tracks from the least used category (7 to 9 category or « petites lignes ») have been closed. Meanwhile, 1,300 km of new high-speed tracks have been opened and no significant changes have been recorded for other track categories. As a result, **the overall network length has remained stable since 2015.**

In 2020, there were **1,100 route km compatible with the European Rail Traffic Management System (ERTMS 1 and 2)**, or 4% of the RFN. The implementation of these technologies varied substantially across European countries: 0.8% of total route length in Germany, 4% in Italy, 8% in Austria, 14% in Spain, 45% in Belgium and 73% in Switzerland ([IRG Rail 2019](#)).

Figure 2 – Track consistency score (ICV)* in 2016 and 2020

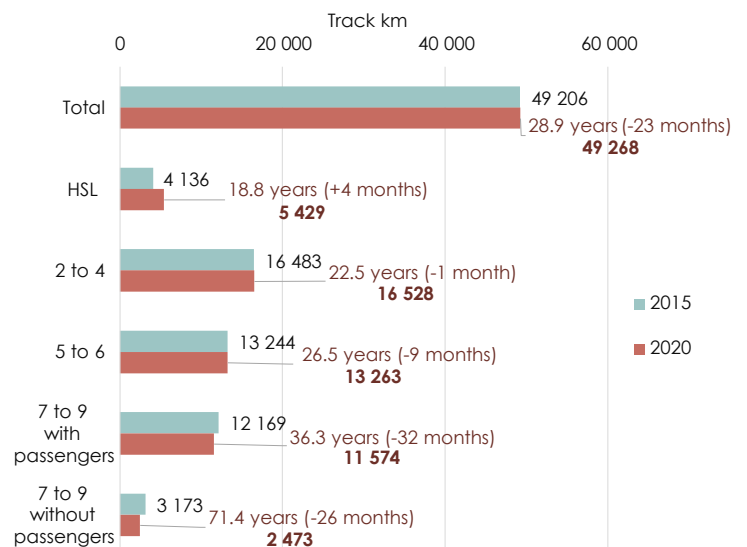


Source : ART from SNCF Réseau's data

*Track consistency score (ICV for 'Indice de Consistance des Voies') indicates the average age of a track with regards to its lifetime. The latter depends on the physical characteristics of the track as well as its usage intensity. A new section of track is scored 100 while a section at the end of its lifetime is scored 10 (the score 0 is only given 5 years later). SNCF Réseau considers an ICV of 55 an objective to reach in order to preserve the durability of the asset.

**The ICV of SEA and BPL high-speed lines are not available since these lines are run by other infrastructure managers. Therefore, the average ICV is computed without these 2 lines. However for reference, the ICV of these lines may be estimated superior to 60 given their recent entry into service (since 2017).

Figure 1 – Network length and age per track category in 2015 and 2020



Source : ART from infrastructure managers' data

Most maintenance and renewal works were done on conventional lines

In 2020, the average track age was **28.9 years**, reduced by 3 months compared to 2019. **Since 2015, the age of the network has decreased by almost 2 years** thanks to maintenance and renewal works as well as the closure of nearly 1,300 km of the oldest tracks.

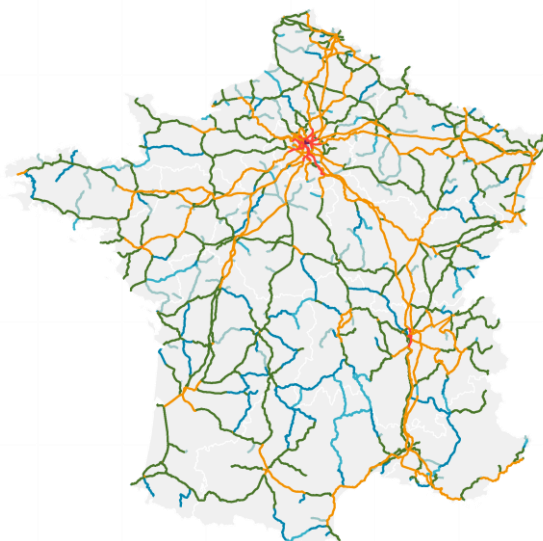
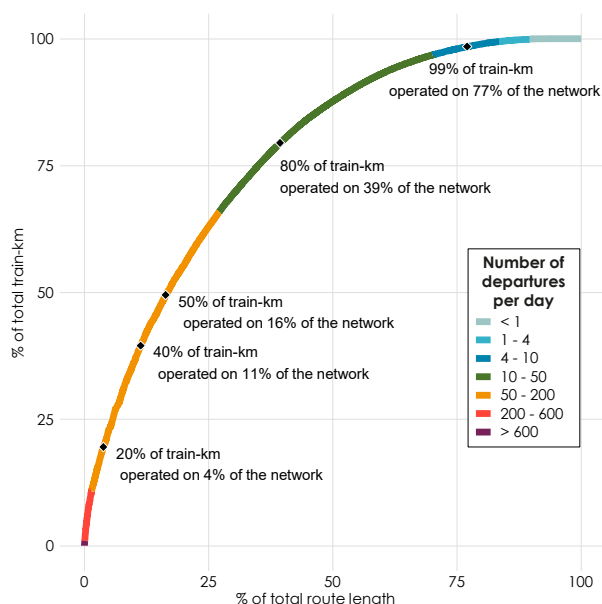
The track consistency score (ICV)* is an indicator built and used by SNCF Réseau to measure the global condition of tracks. This indicator has remained stable since 2016 for the most used track categories (2 to 4) while increased for the others. This is the result of the **upgrade efforts for the conventional tracks**. On the contrary, the **high-speed lines' average condition** has deteriorated since 2016** with their ICV passing from 51 to 45. This may lead to important renewal works in the coming years, especially for the oldest high-speed lines of South-East and North axes.

NETWORK CHARACTERISTICS AND USAGE INTENSITY

In 2020, 80% of train-km were operated on 39% of the total route length

On these highly used 39% of lines, 73 trains ran each day on average. **99% of train-km** and 46 trains per day on average were operated on 77% of lines (compared to 80% in 2019) while only 1% of train-km ran on the remaining 23% of lines. Thus, **the pandemic may have led to more concentration of traffic on the most used parts of the network**. 18% of train-km were operated on high-speed lines and only 0.1% on the least used categories of lines (groups 7 to 9 without passengers). A few lines from groups 7 to 9 had more than 30 trains per day, apart from those close to large cities.

Figure 3 – Distribution of traffic per route kilometre of the national rail network in 2020 (average number of trains per day, irrespective of the number of tracks)



Source : ART from SNCF Réseau's data

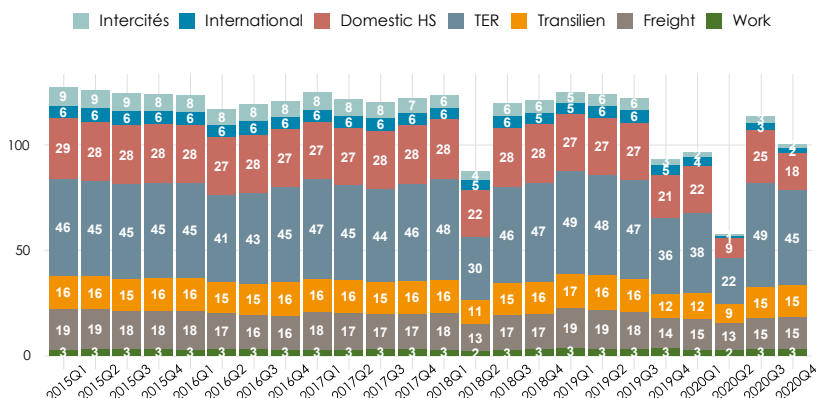
Due to the pandemic and substantial strikes in early 2020, the network usage decreased by 25% compared to its most recent high level in 2017

In 2020, **368 million of train-km** were operated on the RFN, decreasing by 21% in one year. The usage density was **36 trains per route km per day**, of which 30 were passenger trains.

In 2020, the share of passenger traffic in train-km was 81%, decreasing by 1 percentage point in one year and by 2 points compared to 2017.

Freight transport accounted for 16% of the traffic which is its highest share since 2015. However, this is rather a relative effect since freight traffic declined less than passenger traffic during the pandemic. The remaining 3% of train-km were operated by work trains.

Figure 4 – Quarterly train-km operated on the national rail network (millions of train-km)



Source : ART from SNCF Réseau's data

Additional analyses included in the Comprehensive Report

- Analysis of the network characteristics and their development by track category
- Network condition indicator
- Network use mapping by service (freight and passenger)

02



ECONOMIC PERFORMANCE OF INFRASTRUCTURE MANAGERS

	Level (2020)	Annual change (2019-2020)	Compound annual growth rate (2016-2020)
■ Infrastructure managers' revenues	€5.3 billion	-12.5%	-1.6%
Of which, charges paid by passenger railway undertakings	€2.9 billion	-21.4%	-3.7%
public subsidies (incl. subsidies for PSO charges)	€2.2 billion	+4.5%	+1.8%
■ SNCF Réseau's operating costs	€4.9 billion	+5.9%	+1.9%
Of which, maintenance costs	€2.6 billion	-5.6%	-0.8%
■ SNCF Réseau's investment	€5.0 billion	+2.0%	n/a (scope changed)

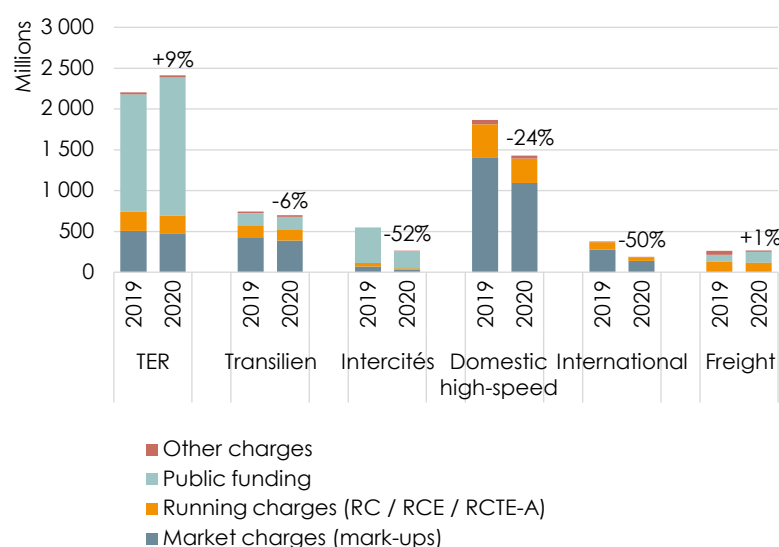
Infrastructure managers recorded €5.3 billion of revenues

In 2020, infrastructure managers received €5.3 billion of infrastructure charges from railway undertakings and public expenses, **12.5% less than the 2019 level**.

The decrease in infrastructure charges due to traffic reduction was partly compensated by the increase in public funding. The passenger PSO charges paid by public expenses rose by 2% compared to 2019, as defined in the performance contract between the State and SNCF Réseau.

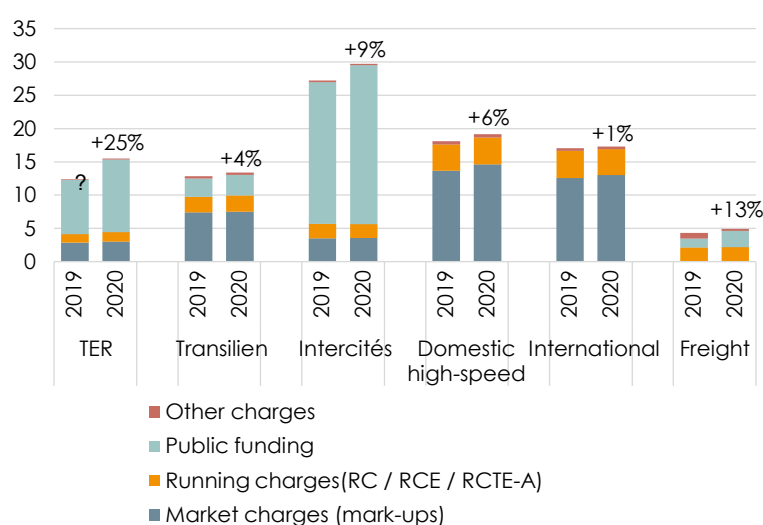
For freight services, public subsidies grew by 57% since most charges of the second quarter of 2020 were paid by the State (measure extended to 2021). This led to a slight increase of SNCF Réseau's revenues from freight services.

Figure 5 – Infrastructure managers' revenues (Euro)



Source : ART from infrastructure managers' data

Figure 6 – Infrastructure managers' revenues per train-km (Euro)



Source : ART from infrastructure managers' data

Due to the moderate decrease of infrastructure managers' revenues but the big drop of train-km, the **revenues per train-km increased for all services, especially regional PSO services (up 25%)**.

For PSO services, the increase comes largely from the stability of public funding which are lump-sum payments so not affected by the pandemic.

IM's revenues per passenger non-PSO train-km grew, too, by 6% for domestic and 1% for international services. This is due to the increase of the mark-ups for capacity reservation (market charge), the limited reduction of traffic on the segments with the highest market charges (on the South-East and Atlantic high-speed axes notably), and the moderate decrease of the reservation charges for the South Europe Atlantic high-speed line. The last charges must still be paid in case of late cancellation (less than 2 months prior to the planned service).

IM's revenues per freight train-km went up by 13%. This is the result of the increase in both public subsidies and charges per train-km (up 2.8%).

ECONOMIC PERFORMANCE OF INFRASTRUCTURE MANAGERS

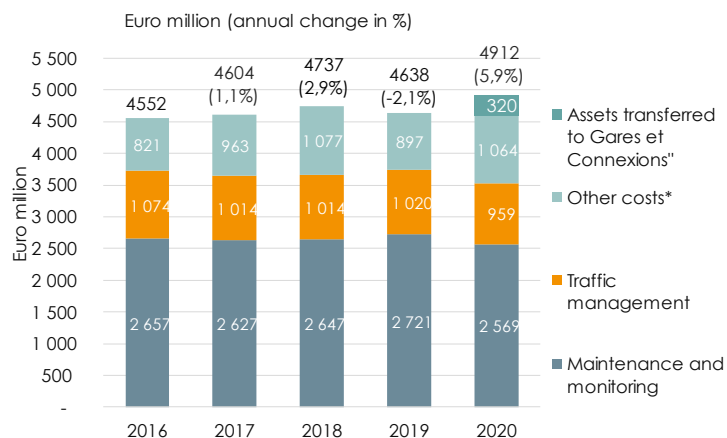
Operating costs totalled €4.9 billion in 2020

In 2020, SNCF Réseau's operating costs increased by almost 6%, **due essentially to the change in the consolidation scope**. Investment on the assets transferred to SNCF Gares & Connexions in 2020 (€320 million) is now recorded as an operating cost. This may somehow explain the changes in investment observed in Figure 8.

However, a **decrease of nearly 6%** can be observed for **traffic management costs** (€959 million), **maintenance and surveillance costs**, (€2.6 billion) as well as train-path marketing costs (€125 million). Since these costs seem relatively insensitive to the reduction of traffic, such a decrease is probably caused by the decrease of production days because of the pandemic.

Network maintenance and surveillance **costs per track km** varied **from €15,000** for the least used categories (groups 7 to 9 without passenger) to almost **€60,000** for the most used ones (groups 2 to 4).

Figure 7 – Current operating costs of SNCF Réseau



*Other costs: sale of services to third parties (€703 m, of which €320 m to SNCF Gares & Connexions), period costs (€247 m), project operating costs (€223 m), train-path marketing (€125 m), others (-€57 m), cost relief (€144 m).

Source : ART from SNCF Réseau's data

Rail investment amounted to €5 billion in 2020

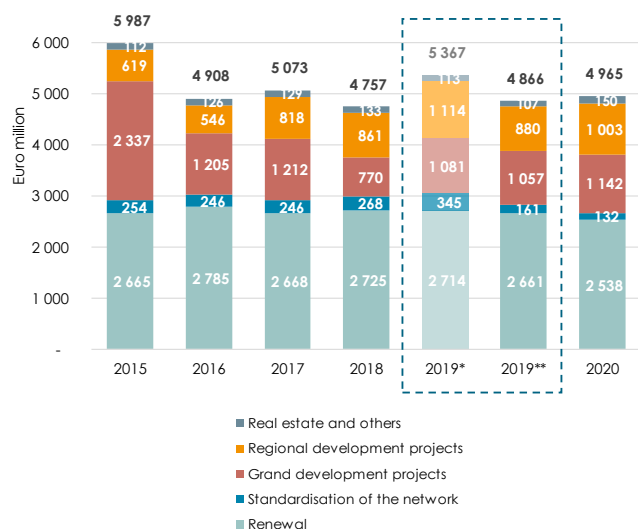
In 2020, investment made by SNCF Réseau amounted to €5 billion, **€100 million higher than the 2019 level** (2% up) on the same consolidation basis. Indeed, the 2019 amount had been revised downwards by €500 million as a result of the transfer of assets from SNCF Réseau to SNCF Gares & Connexions on 1 January 2020. The increase of the investment in 2020 particularly concern national and regional development projects.

Nonetheless, the decrease of expenses on the network standardisation and on renewal and performance must be related to the production delay of some 20 days owing to the pandemic,

as mentioned in SNCF Réseau's financial report.

The majority of investment was made on the most used track categories. Indeed, 50% of the investment concerned the tracks from groups 2 to 4 which accounted for 53% of train-km. Investment on high-speed lines was not only far below the one of groups 2 to 6 but also disproportionate to their own traffic level (4% of investment against 18% of train-km). Over 10% of the investment made from 2018 to 2020 could be attributed to tracks from groups 7 to 9, over which 9% of train-km were operated.

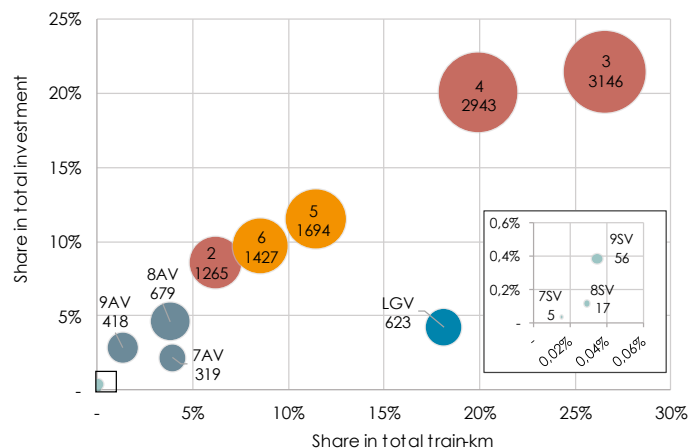
Figure 8 – Rail investment of SNCF Réseau



* Amounts before the transfer of assets to SNCF Gares & Connexions
** Amounts after the transfer of assets to SNCF Gares & Connexions

Source : ART from SNCF Réseau's data

Figure 9 – Breakdown of investment* and traffic per SNCF Réseau track category



Bubble size and label: investment in 2018-2020 (€M).

* Around 14% of investment in 2018-2020 (Euro 2 Bn over the 3 years) could not be attributed to any track category. Hence, this amount is not presented in the graph.

Source : ART from SNCF Réseau's data

Additional analyses included in the Comprehensive Report

- Analysis of punctuality with regards to network characteristics

03

MODAL SPLIT OF RAIL TRANSPORT (FREIGHT AND PASSENGER)



	Level (2020)	Annual change (2019-2020)	5-year change (2015-2020)
▪ Passenger rail transport modal split	7.6 %	-2.5 pp	-2,1 pp
▪ Freight rail transport modal split	9.7 %	-0.2 pp	-1 pp (2017)

Road transport was less affected than rail transport, for both freight and passenger services

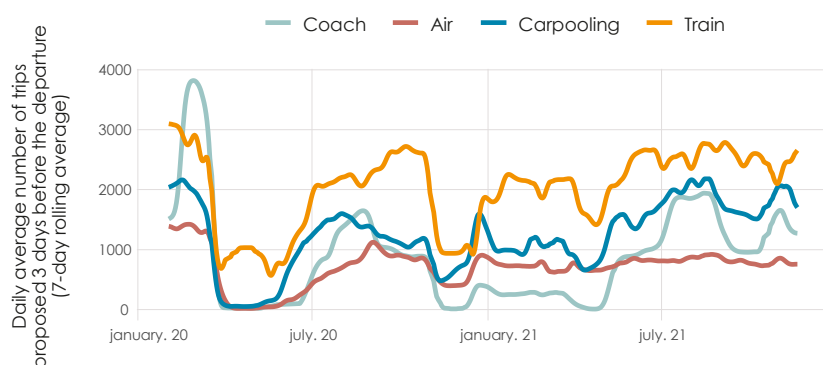
The modal split of passenger rail transport declined by 2.5 percentage points (pp) in 2020. The decrease was particularly strong for public transport which had its modal share going down from 18.9% to 14.3% between 2019 and 2020. The Covid-19 pandemic thus abruptly reversed the upward trend in the modal share of public transport observed in recent years.

The decrease in passenger traffic was less significant for rail

transport (-42%) than for air transport (-55%), but still higher than for road transport (-37% in 2020).

For freight traffic, the decline was higher for (inland) waterway transport (-11%) and for rail transport (-10%) than for road transport (-4%). Since 2017, rail freight activity has lost one point of modal share to road transport, which remains the most used mode by far.

Figure 10 – Domestic passenger rail transport supply



Source : ART from data collected on transport offer comparison websites over a sample of 140 domestic routes among the busiest ones.

The monitoring of multimodal traffic – focusing on the busiest routes – shows the disruptions of transport supply for all modes during the lockdowns in 2020 as well as the moderate recoveries between these periods.

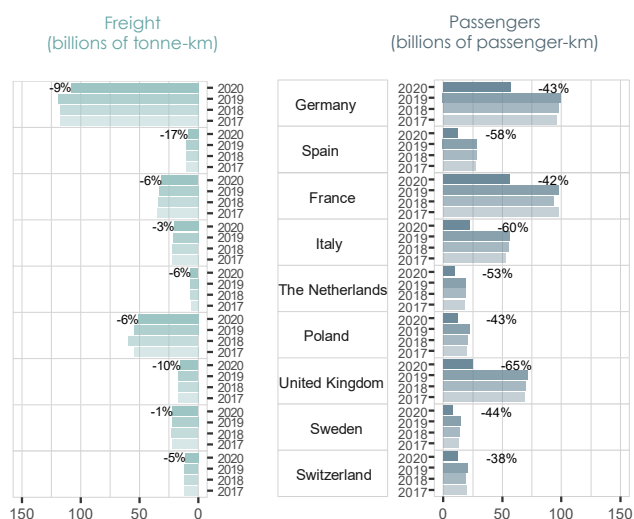
This monitoring also reveals a still limited supply during the first quarter of 2021, passenger transport supply didn't resume until summer, without reaching its pre-crisis level for air and coach transport.

Rail passenger traffic declined by more than 40% in almost all European countries

Amid the Covid-19 pandemic and after the strikes at late 2019-early 2020, passenger traffic in France registered a 42% decline in 2020. Germany, Switzerland and Sweden experienced a relatively similar impact. However, the impact was more significant in Spain, Italy and the United Kingdom where traffic decreased by more than 60%.

European rail freight was less impacted than its passenger counterpart. Net tonne-km declined by 6% in France and varied between 5% and 10% in almost all European countries, except Sweden (down 1% only). On the contrary, Spain registered the largest fall in freight traffic of 17%.

Figure 11 – Freight and passenger rail traffic in European countries



Source : ART, SDeS, Eurostat, ORR

Additional analyses included in the Comprehensive Report

- Detailed evolution by mode



THE RAIL FREIGHT MARKET

	Level (2020)	Annual change (2019-2020)	3-year change (2017-2020)
▪ Freight train-km	54 million	-8.4%	-16.3%
▪ Net tonne-km transported	31 billion	-6.1%	-11.3%
▪ Load factor (tonnes per train)	593	+3.5%	+7.8%
▪ Revenues from commercial traffic	€989 million	-10.0%	-17.5%
▪ Share of intermodal freight (in tonne-km)	38.1%	+5.7%	NA
▪ Punctuality at 15 minutes	77.3%	+0.6 pp	+0.5 pp

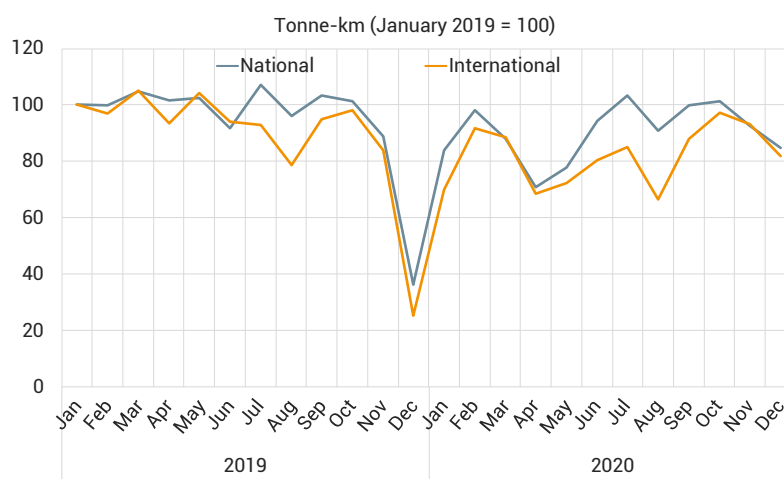
Moderate decrease of rail freight traffic in 2020

In 2020, rail freight transport continued to decrease, by 8.4% in train-km and 6.1% in tonne-km. Unlike the strikes of late 2019, the COVID-19 pandemic had less severe but longer impacts on the rail freight sector.

National traffic showed more resilience in the pandemic than international traffic, decreasing by 5% compared with 8% for the latter. International traffic also recovered more slowly throughout the year. The share of national tonne-km was 59% in 2020.

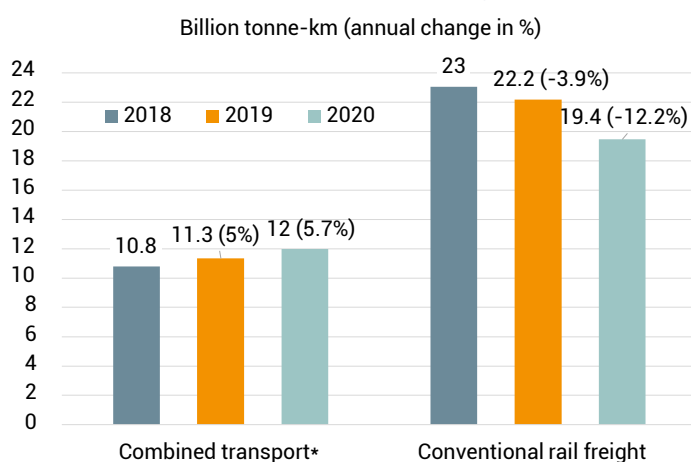
The rail freight transport supply continues its transformation. On the one hand, the load factor increased again to reach 593 tonnes per train, indicating a trend of higher volume transport. On the other hand, combined transport expanded by 5.7% in 2020 compared to 2019 despite the pandemic, while conventional rail freight prolonged its downturn (down 12.2%). Combined transport now accounts for 38% of the total tonne-km.

Figure 12 – Monthly change of national and international freight traffic



Source : ART from railway undertakings' data

Figure 13 – Annual traffic of intermodal and conventional rail freight in 2018-2020



Source : ART from railway undertakings' data

Larger decrease for revenues from commercial traffic than for tonne-km

In 2020, revenues from commercial traffic of freight railway undertakings reduced by €110 million to amount to €1 billion. This reduction (-10%) is larger than that of tonne-km (-6%).

Public subsidies to rail freight sector, namely "the freight compensation", reached €74 million in 2020. This amount was increased in the second quarter of 2020 by the State's funding of €54 million of running charges. This measure is reconducted in 2021.

The total charges paid by freight operators*** to the infrastructure manager (for the Minimum access package exclusive of service facilities) were €64 million in 2020. For freight railway undertakings (excluding authorized applicants), these charges accounted for 5% of their commercial revenues, and up to 16% without public subsidies.

* Conditioning: containers and swap-bodies, unaccompanied semi-trailers.

** "The freight compensation" is the payment by public funds of the difference between charges paid by infrastructure users and the costs directly attributable to freight traffic. This compensation allows to reduce the infrastructure charges that railway undertakings and other applicants have to pay SNCF Réseau.

*** including rail construction companies and authorized applicants

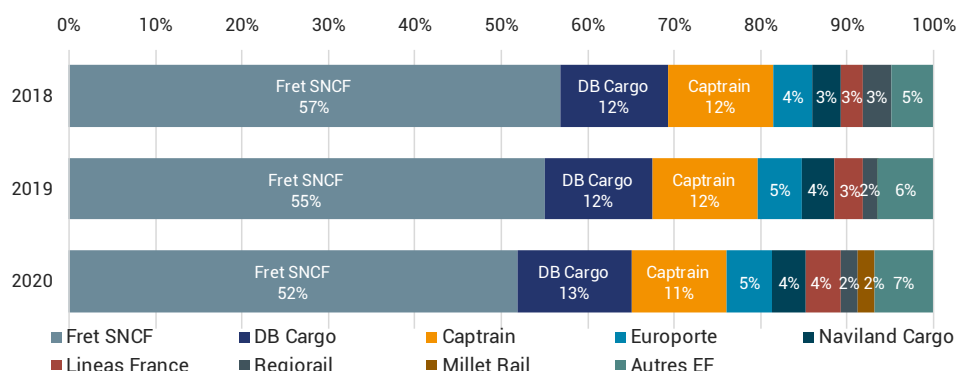
THE RAIL FREIGHT MARKET

Overview of the opening up to competition

In a fully competitive market, the incumbent's market share decreased by 3 points

In 2020, the diminution of the incumbent's market share continued since its recovery was slow. Meanwhile, **railway undertakings of smaller size remained dynamic and progressed** to reach 7% of total tonne-km in 2020. Even though this expansion remains relative when being set against the backdrop of a global downturn of traffic, it is a part of the historical trend. The rail freight market is now fully competitive.

Figure 14 – Breakdown of total tonne-km by railway undertakings



Source : ART from railway undertakings' data

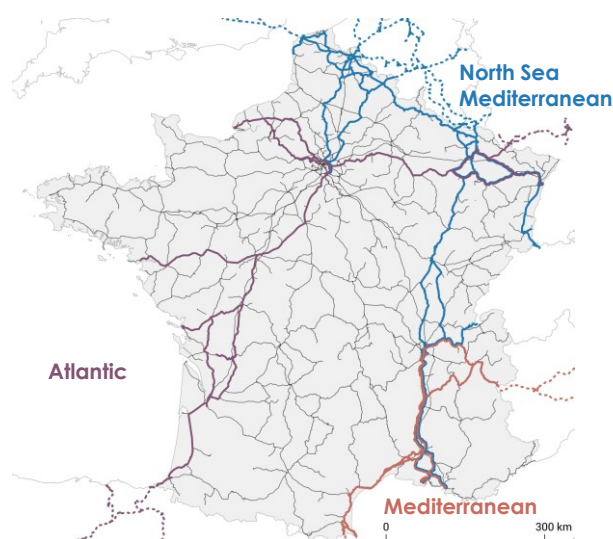
Focus

European rail freight corridors

Three European rail freight corridors are crossing France. They aim to favour international rail freight on a specific infrastructure and via a single train path reservation service.

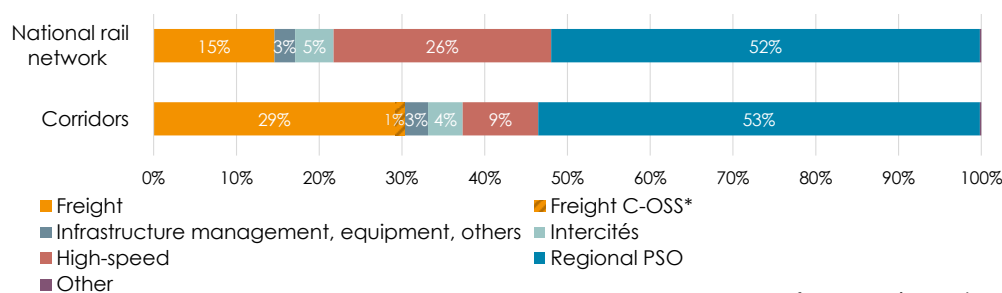
- The **total route length** of these corridors in France is of **6,500 km**, or 24% of the total French network. They gather some of the most used routes, having 61% of their tracks categorized in groups 2 to 4.
- Freight traffic accounts for **30% of train-km on the corridors** (compared with 15% on the national network).
- **75% of freight train-km** are operated on these corridors.
- The single train-path reservation service by the Corridor One stop shop* has not been widely used since it involves only **5% of freight train-km** running on these corridors** in 2020, for a potential level estimated at 21%.

Figure 15 – European rail freight corridors in France



Source : ART from European Commission TEN-T's data

Figure 13 – Breakdown of train-km by service (2017- 2020 average)



Source : ART from SNCF Réseau's data

* The Corridor One stop shop (C-OSS) allows railway undertakings and authorized applicants to make only one request for train paths even if the train passes through several countries.
 ** Trains that cross through one or more border crossing point(s) of the corridors and run at least 25 km on the corridors.

Additional analyses included in the Comprehensive Report

- Freight traffic per goods category based on the Standard Goods Nomenclature for Transport Statistics (NST)
- Rail freight punctuality



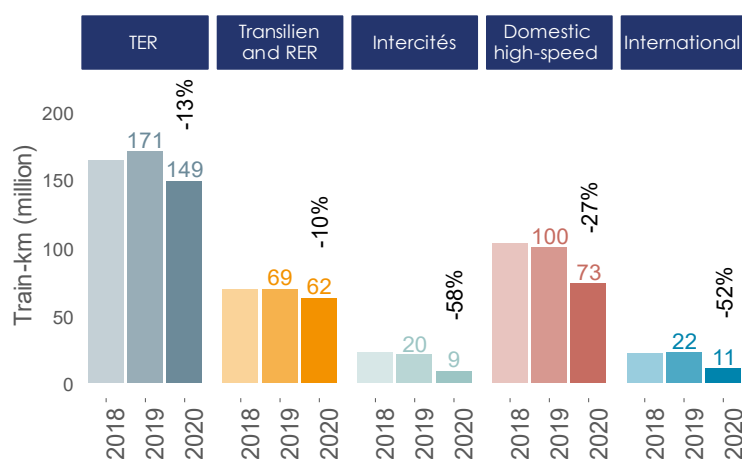
THE RAIL PASSENGER MARKET

	Level (2020)	Annual change (2019-2020)	5-year change (2015-2020)
▪ Passenger train-km	304 million	-21%	-27%
▪ Passenger seat-km	164 billion	-21%	-25%
▪ Carrying capacity (seats per train)	539	- 1%	+ 3%
▪ Passenger-km	56 billion	-42%	-39%
▪ Occupancy rate (passenger-km per seat-km)	34%	-13 pp	- 8 pp
▪ Share of non-PSO services	28% (train-km)	- 4 pp	- 5 pp
	59% (pass.-km)	-1 pp	+ 1 pp
	58% (occupancy rate)	-13 pp	+ 8 pp

Rail transport supply declined by 21% in 2020, to varying extents across services

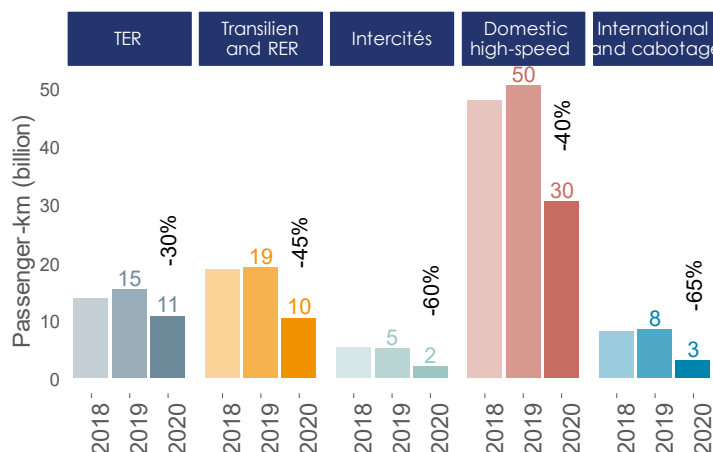
On the supply side, passenger traffic totalled 304 million train-km in 2020, **down 21% compared to 2019**. Domestic non-PSO and international services showed the largest decline, by respectively 27% and 52%. Regional PSO services, including Paris region's ones, were less affected (going down by 13% and 10% respectively) thanks to the relative maintain of public transport during the pandemic, as requested by the regional public transport authorities (AOT). The transferring process of long-distance PSO lines (Intercités) to regional authorities ended in 2020 with several lines being taken over by Normandy region. This transfer largely reduced Intercités train-km in 2020 (down 58%). On a constant consolidation basis, **regional PSO (TER) and Intercités train-km declined by 17% and 33% respectively.**

Figure 16 – Passenger train-km per service



Source : ART from data of railway undertakings and RATP

Figure 17 – Passenger-km per service



Source : ART from data of railway undertakings and RATP

Passenger traffic falls more sharply than the railway supply

56 billion passenger-km were transported in 2020, **declining by 42%** compared to 2019. International traffic showed the largest drop (down 65%), followed by Intercités (down 60%), the latter due to the aforementioned transfer of lines to Normandy region.

The average distance travelled per passenger on domestic non-PSO services increased in 2020 to reach 458 km versus 442 km in 2019. Passengers who travelled during or between the lockdowns seem to make longer journeys.

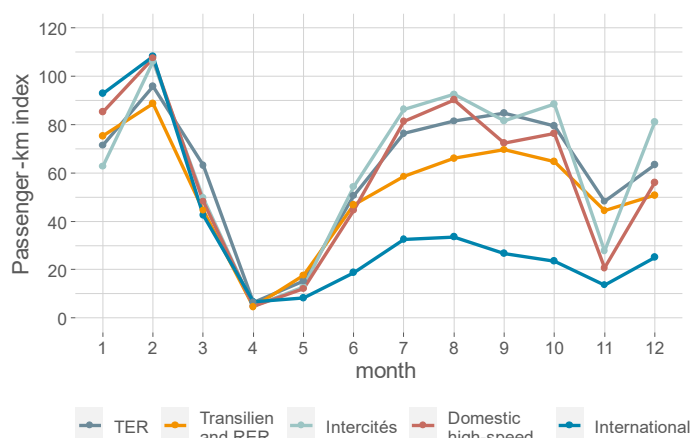
THE RAIL PASSENGER MARKET

Occupancy rate of passenger trains reached 34% in 2020, decreasing by 13 percentage points in one year

In 2020, the occupancy rate of passenger trains decreased for the first time since 2015, due to the larger impact of the pandemic on passenger-km than on train-km. Like what is observed for total passenger traffic volume, international services were the most affected (down 16 pp).

However, this decline was more limited in France than in neighbouring European countries since they registered similar passenger traffic decreases despite a more substantial number of train-km (especially for PSO services) – see the [first figures published by the Authority](#) on this subject.

Figure 19 – Monthly comparison of rail passenger traffic (2019 = 100)



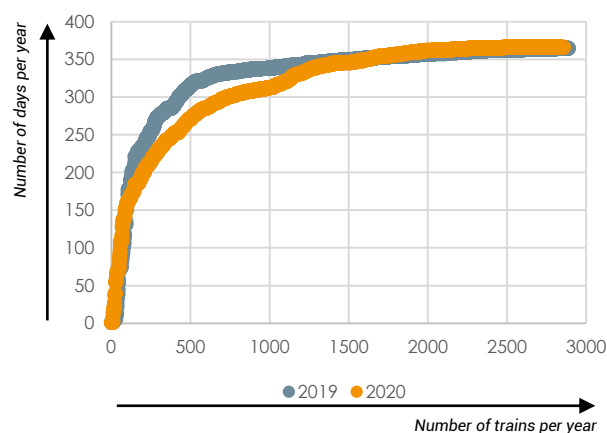
Source : ART from railway undertakings' data

The decrease in domestic high-speed traffic varied across axes

Domestic HS axes that experienced the largest passenger traffic decline due to Covid-19 pandemic are the eastern (down 51%) and northern ones (down 47%) while the South-East and Atlantic axes were less affected.

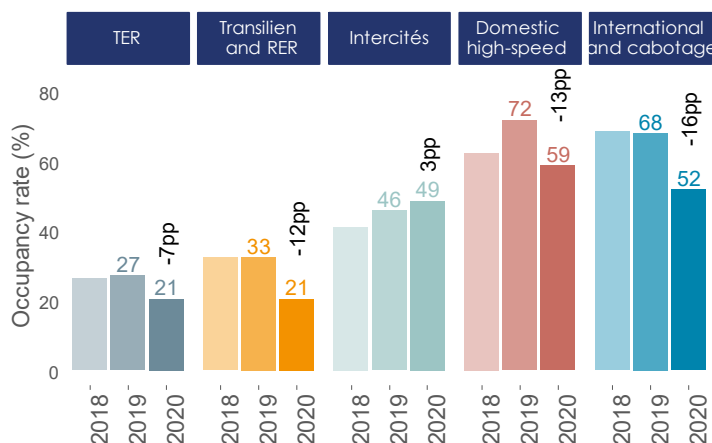
The share of low-cost HS services Ouigo continued to increase. In 2020, Ouigo's passengers represented 21% of all domestic HS passengers, up 6 pp compared to 2019, and 25% of domestic HS passenger-km. Compared to standard HS services inOui, Ouigo traffic showed a smaller decrease (-19% for Ouigo versus -45% for Ouigo). This marks a continuum in the incumbent's commercial strategy despite the pandemic.

Figure 21 – Number of days in service of passenger train stations



Source : ART from SNCF Réseau's data

Figure 18 – Occupancy rate of passenger trains per service

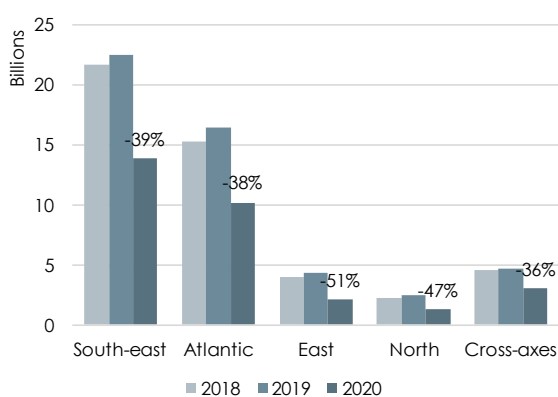


Source : ART from railway undertakings' data

TER and domestic high-speed activities recovered more quickly than other services in 2020

Rail passenger traffic in 2020 was significantly affected by both the strikes at the beginning of the year and the successive lockdowns in spring and autumn. While an increase in regional PSO and domestic HS services could be observed from July on, international traffic remained low from March 2020 until the end of the year (December is also affected by the base effect of the strikes of December 2019).

Figure 20 – Domestic HS passenger-km per axe from 2018 to 2020



Source : ART from SNCF Voyageurs' data

14% of passenger stations were served during less than 250 days in 2020

In 2020, while 2/3rd of train stations were daily served, 14% of them were served less than 250 days per day (compared to 8% in 2019). As a result, 470 and 25 train stations from categories C and B respectively were not served at all during the spring lockdown. During this period, which was the most affected one, less than 1200 train stations were daily served while this figure used to reach 2600. On the other hand, the number of opened passenger stations remained quite stable during the rest of the year despite the decrease in passenger traffic.

THE RAIL PASSENGER MARKET

Overview of the opening up to competition

38 notifications of intent to operate new commercial rail services received by ART

As part of the beginning of operation of liberalised non PSO services (effective since December 13, 2020), these 38 notifications demonstrate the interest, despite the pandemic, of **5 alternative operators** for the French market : **Flixbus**, **Le Train**, **Railcoop**, **Trenitalia France** (formerly Thello) and **Renfe Viajeros**. **SNCF Voyageurs** also notified ART of its intention to run two new non-PSO services on conventional lines (Paris-Lyon and Paris-Nantes), operated via a new brand namely **Ouigo Train Classique**. Moreover, **Midnight Trains** mentioned its project to develop night train services by 2024 within a model adapted to the potential customers' expectations.

On the other hand, since July 1, 2021, Thello has stopped running both of its daytime and night international services (Paris-Nice-Milan and Paris-Venice), which it operated since 2010 on conventional lines. While this official shutdown could temper the overall market opening picture, Thello's holding company – the Italian incumbent **Trenitalia** – launched a new high-speed service from Paris to Milan via Lyon on the December 18, 2021.

Opening up to competition of PSO services

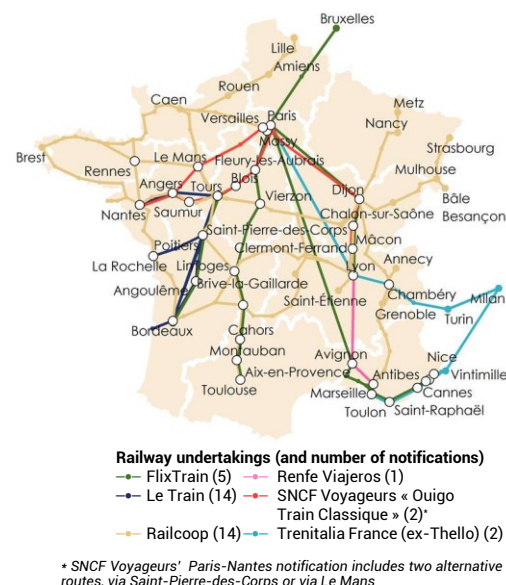
In the first quarter of 2021, five regions started the process of liberalised PSO services. During the transitional period which goes from end-2019 to December 23, 2023, regions are allowed to either directly award their PSO contracts or opt for a competitive tendering between candidates (the second option will be the only one possible after December 23, 2023):

- The **Sud-PACA region** launched, in 2020, a competitive tendering process for two lots. This led to the awarding of one lot to the incumbent **SNCF Voyageurs** («Azur » lines: Les Arcs/Druguignan–Vintimille, Nice–Tende and Cannes–Grasse) and a second one to **Transdev** (« Métropoles » lines: Marseille–Toulon–Nice). The starting date of these two lots is scheduled for December 2024 and July 2025 respectively;
- Four other regions (**Hauts-de-France**, **Grand-Est**, **Pays de la Loire** and **Paris's region**) have been preparing to launch calls for tenders via the publication of notices of concession and information related to one or more lots since end-2020 or 2021.

Five railway undertakings have showed interest in operating PSO services, namely **Arriva**, **Régionéo** (a joint-venture of RATP Dev and Getlink), **RENFE Viajeros**, **Trenitalia France** and **Transdev**. The total number of potential new entrants is now as high as nine.

Auvergne-Rhône-Alpes, **Normandy**, **Bourgogne-Franche-Comté**, **Bretagne**, **Centre Val-de-Loire**, **Nouvelle-Aquitaine** and **Occitanie** regions have not yet specified a timetable for market opening to competition during or after the transitional period. The current regional conventions will end on variable dates ranging from 2021 for Centre-Val de Loire to 2029 for Normandy. It should be noted that six regions had their rail transport supply increased from 2017 by becoming the public transport authorities of 17 long-distance PSO lines (TET) under transfer agreements with the State. This transfer was accompanied with a contribution of the State to operating costs and the funding of rolling stock renewal.

Figure 22 – New commercial rail service notifications



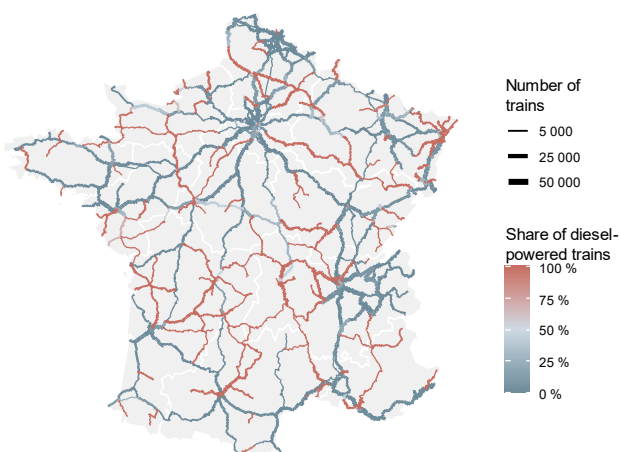
Focus

Passenger-km of electric and diesel-powered TER services in 2019

In 2019, traffic operated by a diesel-powered traction represented 29% of TER train-km, of which 11% operated on non-electrified tracks by dual-mode rolling stock. Meanwhile, the share of traffic operated by an electric traction was 71%, among which 14% operated on electrified tracks by dual-mode trains. TER services accounted for almost all diesel-powered passenger train-km (93%). The use of dual-mode rolling stock, for 25% of TER traffic, allows for more flexibility in the traction mode to widely serve a partially electrified (57%) national rail network. Furthermore, Figure 34 shows that diesel-powered traffic is operated on the less busy TER lines.

As a result, the share of TER passenger-km which was operated by a diesel-powered traction represented around 18% in 2019. This number is thus smaller than the share of diesel-powered train-km, which certainly worsens the assessment of greenhouse gas emissions of the corresponding TER lines.

Figure 23 – Share of diesel-powered TER trains in 2019



Source : ART from SNCF Réseau's data

Additional analyses included in the Comprehensive Report

- Traffic per high-speed axis
- Long-distance PSO night trains (night Intercités)

06

ECONOMIC PERFORMANCE OF PASSENGER RAIL TRANSPORT



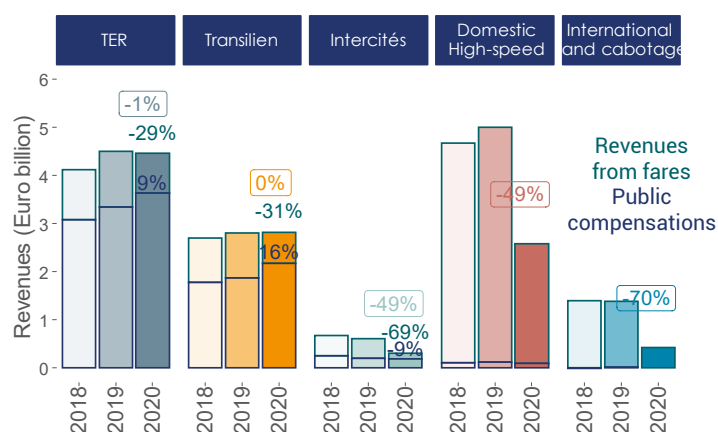
	Level (2020)	Annual change (2019-2020)	5-year change (2015-2020)
Revenues of passenger railway undertakings	€10.6 billion	-26%	-22%
Of which revenues from fares	€4.5 billion	-49%	-47%
public compensations	€6.1 billion	+10%	+20%
Revenue per passenger-km	€20 cent	+28%	+27%
Revenue from fares per passenger-km	€8 cent	-11%	-14%
Revenue from fares per train-km	€15.3	-35%	-27%

Revenues from domestic and international non-PSO services plummeted, due to a lower average revenue level

In 2020, high-speed and international services both recorded a large decrease in revenues from fares. This reduction was greater than their respective decrease in passenger traffic (-38% and -65% in passenger-km).

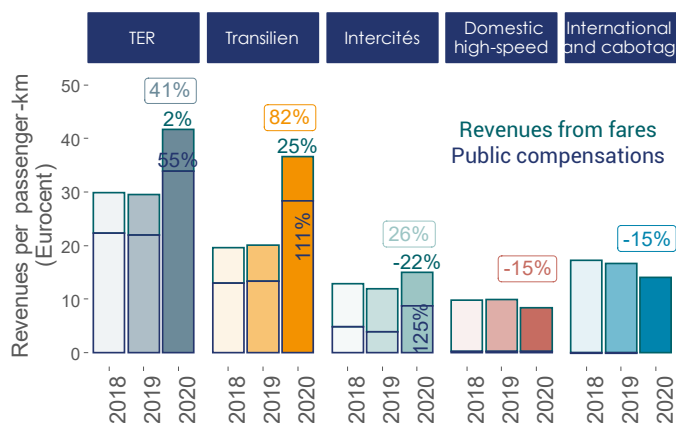
Revenues per passenger-km decreased by 18% for domestic high-speed and 15% for international services.

Figure 24 – Revenues of passenger railway undertakings (on the French part of the journeys)



Source : ART from railway undertakings' data

Figure 25 – Revenues per passenger-km (on the French part of the journeys)



Source : ART from railway undertakings' data

Revenues from regional PSO services remain almost stable, thanks to strong increases in public compensations

Regional PSO services (TER) including Paris region's Transilien benefited from a strong increase in public compensations (9% for TER and 16% for Transilien) to relatively preserve their total revenues. Without taking account of Normandy region (which integrated several former Intercités lines in their regional PSO services in 2020), TER revenues only decreased by 5% while train-km went down by 16%.

Revenues from fares (ticket and subscription) of regional PSO services decreased from 29% to 31%, which is however, a lesser decline than for non-PSO services. This downturn in revenues from fares is comparable to that of TER passenger-km. For Transilien, revenues from fares per passenger-km increased by 25% in 2020, possibly due to the mostly unchanged number of subscribers (who, however, benefited from a reimbursement on request during the first lockdown period).

ECONOMIC PERFORMANCE OF PASSENGER RAILWAY UNDERTAKINGS

Focus

Analysis of passenger and tariff classes

More than half of the passengers of non-PSO and long-distance PSO services travelled with a full-rate ticket, while 40% of regional PSO passengers were subscribers

In 2020, passengers with a full-rate ticket accounted for more than half of non-PSO (high-speed and international) and Intercités traffic, but less than 20% of TER traffic.

Undoubtedly due to the COVID-19 pandemic, the share of subscribers among non-PSO passengers decreased by 4 percentage points between 2019 and 2020.

In 2020, there were 332 000 SNCF active beneficiaries of free of charge services (including their spouses, parents and children). They made up 1.1 billion domestic non-PSO passenger-km or 3.5% of traffic (4.6% for standard high-speed services InOui alone).

Figure 26 – Breakdown of traffic by tariff class (in passenger-km* - excluding beneficiaries of free tickets)

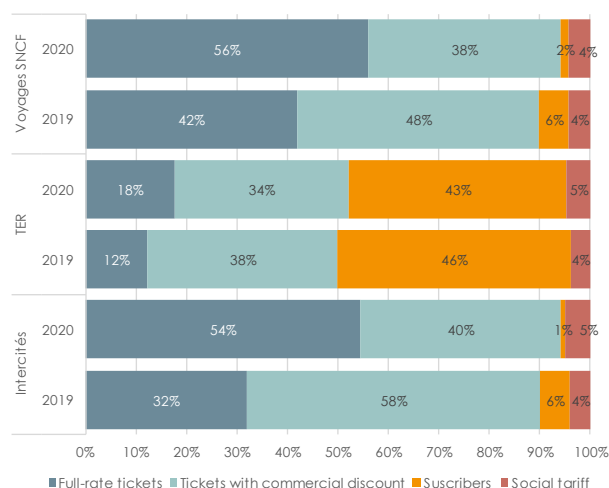
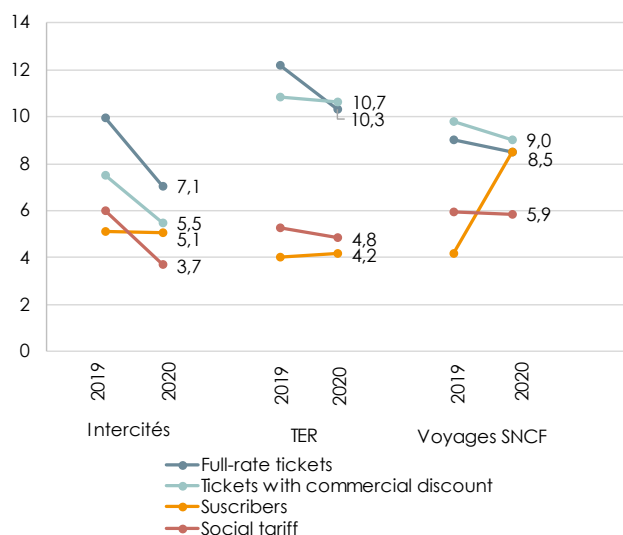


Figure 27 – Revenues from fares per passenger-km* (Eurocent)



* SNCF Voyageurs' commercial distance

Revenues from fares per passenger-km decreased for all tariff classes but subscriber rates

The analysis of revenues from fares per passenger-km across different tariff classes (full-rate or discounted tickets, subscribers and social tariff) shows a relatively narrow gap between revenues from full-rate and discounted tickets. It can also be seen that apart from subscribers' group, ticket revenues decreased for all tariff classes in 2020. This explains why long-distance services were more affected by the pandemic since they have only few subscribers. Besides, unit revenues from subscribers remained stable (or even increased), reflecting its low adaptability to changes in transport supply. For Voyages SNCF's (non-PSO) services, this indicates a larger decrease in subscribers' traffic than that of tariff applied by the operator.

Additionally for Voyages SNCF (non-PSO services), unit revenues appears to be higher for discounted tickets than for full-rate tickets. Indeed, there are fewer discounts for the low-cost high-speed services Ouigo than for InOui because of an already low average price for Ouigo. In 2020, Ouigo accounted for 25% of total passenger-km operated by Voyages SNCF.

Additional analyses included in the Comprehensive Report

- Analysis per high-speed axis
- Ticket sale channels



QUALITY OF SERVICE OF PASSENGER RAIL TRANSPORT

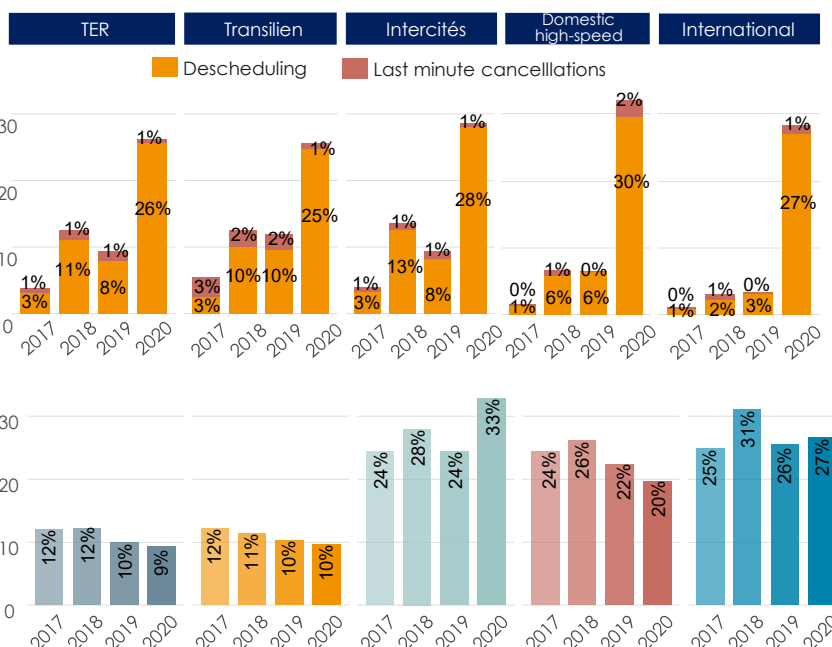
	Level (2020)	Annual change (2019-2020)	4-year change (2017-2020)
▪ Descheduling rate (before D-1 4pm)	25.2%	+16.8 pp	+22.5 pp
▪ Last-minute cancellation rate (after D-1 4pm)	1.0%	-0.6 pp	-0.4 pp
▪ Delivery rate (running trains per scheduled trains)	73.7%	-16.2 pp	-22.0 pp
▪ Delay rate at 5 minutes 0 second	10.1%	-1.0 pp	-3.0 pp
▪ Reliability and punctuality of non-PSO trains	68.2% effect. running 20.8% delayed <5mn	-26.0 pp -2.2 pp	-30.3 pp -4.3 pp

Figure 28 – Cancellation and descheduling rates (upper figure)
Delay rate at 5 minutes 0 second at terminal station (lower figure)

Amid the 25% declining rail supply, the punctuality rate increased in 2020

The service delivery rate (proportion of trains that actually ran compared to scheduled ones) strongly decreased due to Covid 19 pandemic in 2020. This is particularly true for long-distance services which suffered from movement restrictions

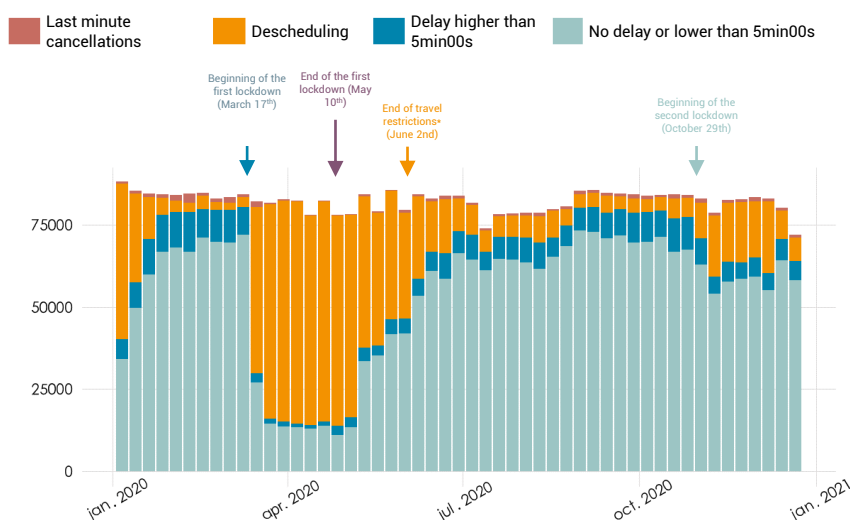
However, the rates of last-minute cancellation and punctuality at terminal station at 5 minutes 0 second improved for all services except Intercités. This improvement may reflect a less constrained traffic management during this period.



Source: ART from SNCF Réseau and railway undertakings' data

Scope: TER and Transilien services exclude tram-train

Figure 29 – Breakdown of the weekly number of trains by category of quality of service in 2020



Source : ART from SNCF Réseau and railway undertakings's data

As shown in Figure 29, 2020 was featured by large impacts of the strikes at the beginning of the year followed by the measures in response to the Covid-19 pandemic. The first lockdown resulted in the descheduling of 54% of trains during the second quarter. Compared to the first lockdown, the second one had a more moderate impact. The progressive recovery between the two lockdowns was made possible by the lifting of the movement restrictions.

QUALITY OF SERVICE OF PASSENGER RAIL TRANSPORT

	Level (2020)	Annual change (2019-2020)	4-year change (2017-2020)
▪ Rate of delayed passengers upon arrival (at 5min0sec threshold)	9.3 %	-1.2 pp	-
▪ Rate of compensated passengers for a delay exceeding 30min on domestic high-speed and international services	40 %	+8 pp	-

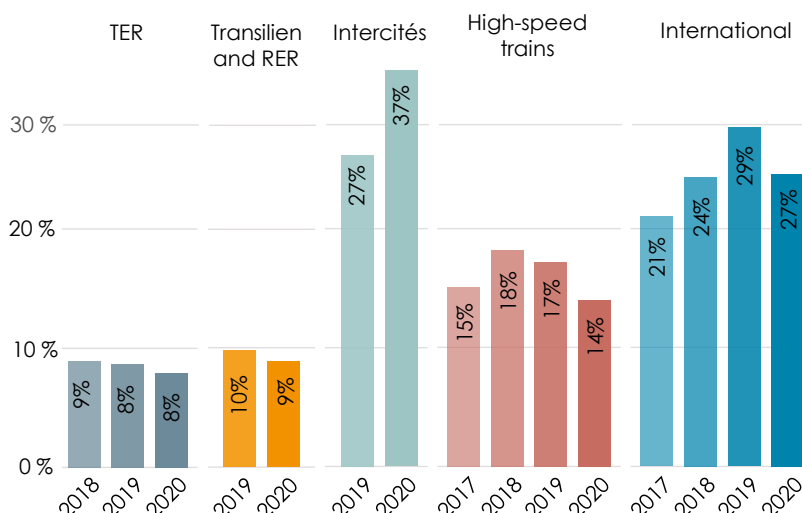
The share of passenger arriving on time ranged from 63% to 92% across services

In 2020, the punctuality of passengers improved for all services except Intercités. This is in line with the global improvement of the punctuality of trains at terminal station.

Indeed, the estimated global average passenger delay rate at terminal station at 5 minutes 0 second was 9.3% in 2020, roughly the same as the train delay rate.

In 2020, the biggest improvement of punctuality goes for long-distance services (domestic high-speed and international services). In total, 96 billion passengers were delayed by more than 5 minutes, accumulating over 13 billion hours of delay.

Figure 30 – Share of delayed passengers at 5 min 0 sec threshold per service



Source: ART from railway undertakings' and RATP's data

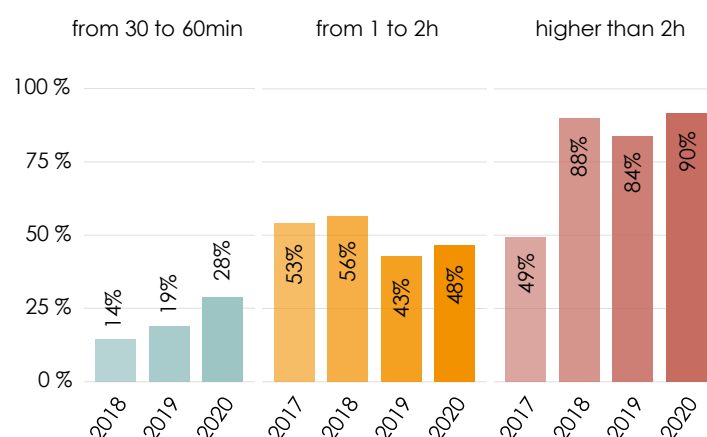
Scope: Regional services (TER) including tram-trains, high-speed services including Ouigo

Almost 40% of passengers on domestic high-speed and international services that had been delayed by more than 30 minutes received a compensation

Among non-PSO services (domestic high-speed, except Ouigo, and international trains), **80% of delayed passengers arrived at their destination with less than 30 minutes late. 14% were delayed by between 30 and 60 minutes.** This percentage was respectively 5% and 1,5% when the delay is comprised between 1 and 2 hours or exceeds 2 hours. As only delays of more than 30 minutes are eligible for compensation, **only 20% of delayed passengers can apply for a partial refund.**

Among the passengers that were delayed by more than 30 minutes only 40% are compensated. This share varies greatly depending on the extent of the delay (bigger delays can result in a more substantial reimbursement). Over three years, the share of compensated passengers has increased significantly for delays of less than 60 minutes (+15pp between 2018 and 2020).

Figure 31 – Share of compensated passengers per year and delay thresholds



Source: ART from railway undertakings' data

Scope: only domestic high-speed (except Ouigo) and international services

Additional analyses included in the Comprehensive Report

- Detailed analysis of punctuality of passengers per high-speed axis and delay threshold
- Theoretical and observed trip duration per origin-destination couple
- Comparative analysis of the characteristics of the network and delays

08

REGIONAL PSO SERVICES (TER)



	Level (2020)	Annual change (2019-2020)	5-year change (2015-2020)
▪ Daily number of trains	2.6 million	-13 %	n/d
▪ Carrying capacity per train	349 passengers	+ 6 %	-15 %
▪ Occupancy rate per train	21 %	- 7 pp	- 5 pp
▪ Share of subscribers in total passengers	43 %	- 3 pp	-
▪ Share of public compensations in total revenues	82 %	+ 8 pp	+ 8 pp
▪ Delivery rate of scheduled offer	74 %	-17 pp	-22 pp
▪ Delay rate at 5 minutes 0 second at terminal station	9 %	- 1 pp	- 3 pp

Regional PSO services (TER) passenger-km decreased by 36% per region on average

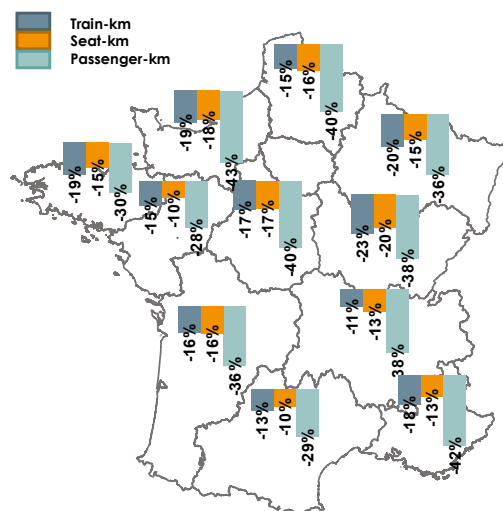
Regional PSO services supply fell moderately in 2020 (down 17% on average in train-km and down 15% in seat-km). For four regions (Auvergne-Rhône-Alpes, Occitanie, Hauts-de-France and Pays de la Loire), total train-km exceeded 85% of the 2019 level.

Like other rail services, TER passenger traffic decreased more sharply on the demand side than on the supply side. The least impacted regions (Brittany, Pays de la Loire and Occitanie) recorded a drop of around 30% in passenger-km, while this number exceeded 40% for Normandy and South-PACA regions.

As a result, the occupancy rate of TER trains declined for all regions (except in Normandy where the transfer of Intercités lines was completed in 2020).

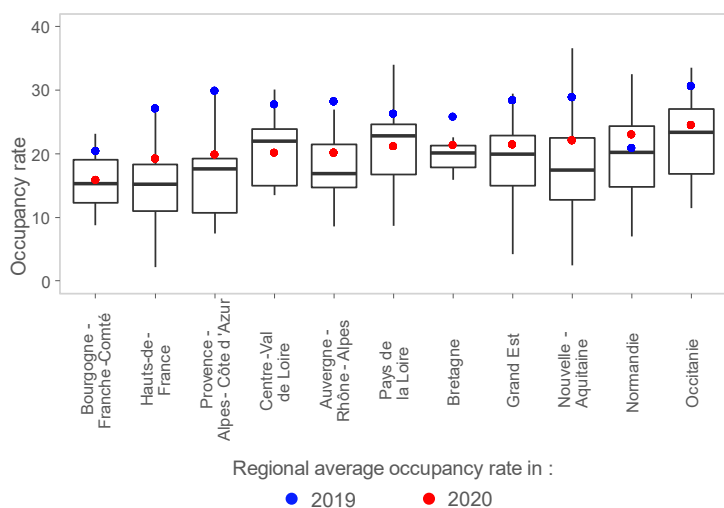
Passenger-km volumes varied substantially across regions and are highly polarized on a small number of routes towards large cities and urbanized areas. On the contrary, the distribution of train-km showed both an important supply for the main cities and on urbanized axes and a clear intention to serve "capillary" lines.

Figure 32 – Traffic supply and demand of TER trains



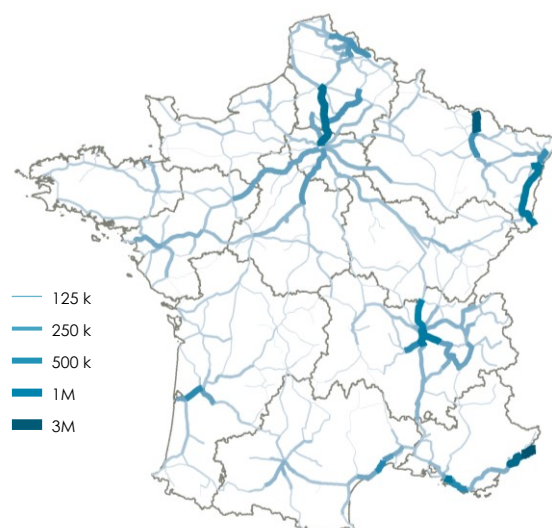
Source : ART from SNCF Voyageurs' data
Note: Intercités lines that were transferred to Normandy region in 2020 are also included in 2019 to have a constant consolidation basis

Figure 33 – Occupancy rate of TER lines in 2019-2020



Source : ART from SNCF Voyageurs' data

Figure 34 – TER passenger-km per route km in 2019



Source : ART from SNCF Voyageurs' data

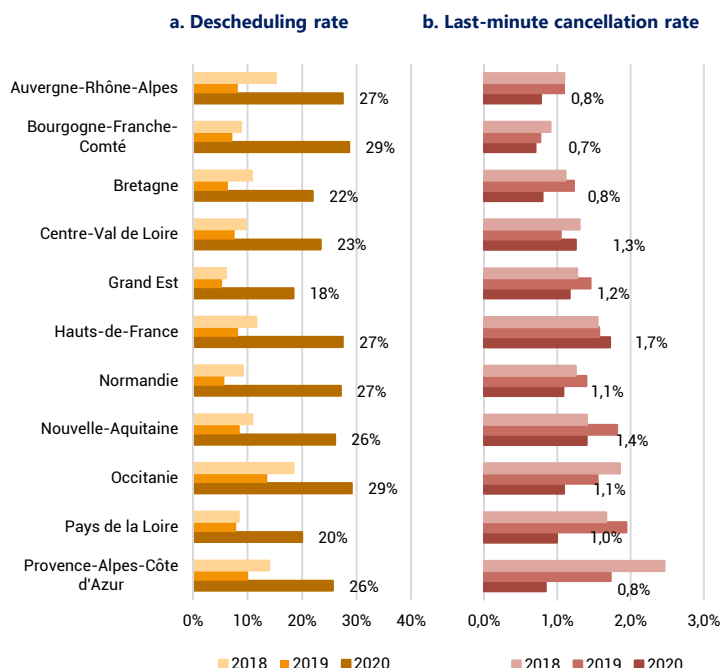
REGIONAL PSO SERVICES (TER)

Figure 35 – Reliability of regional PSO services

Between 19% and 30% of TER trains were descheduled in 2020 due to the pandemic

On average, almost 25% of TER trains were descheduled prior to 4 pm the day before (up 17 pp compared to 2019). Like in 2018 and 2019, this percentage varies across regions. In 2020, the lowest descheduling rate was observed in Grand-Est with “only” 18% of trains deprogrammed compare to 29% in Occitanie which is the largest number.

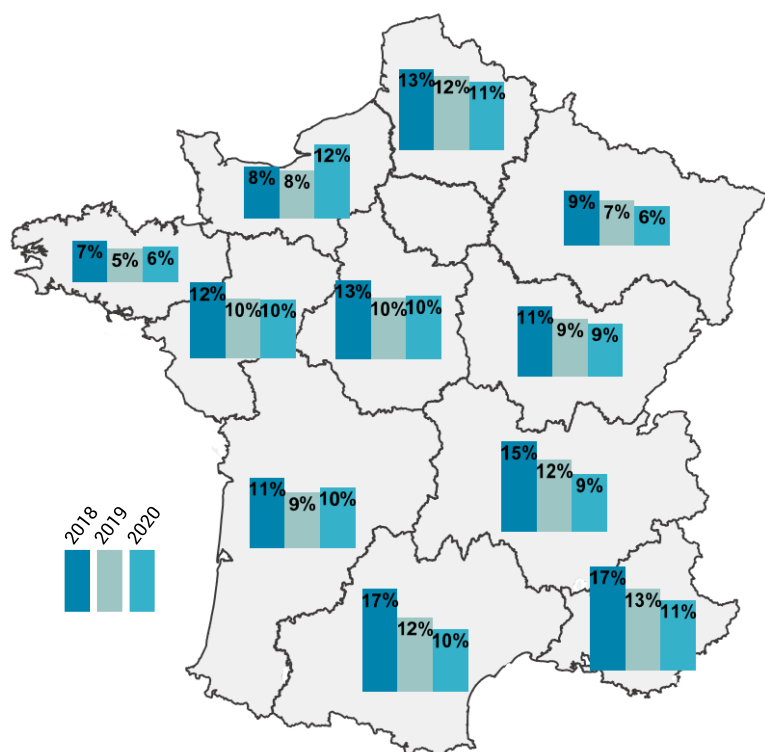
Over the little number of trains still scheduled the night before their expected departure, the last-minute cancellation rate declined in almost all regions. This rate reached 1.1% on average in 2020 (down 0.3 pp from 2019).



Source: ART from SNCF Réseau's data

Methodology: Regional PSO services (TER) exclusive of tram-trains. Cancellations refer to full cancellations and not partial ones. The cancellation rate is calculated on the total number of initially scheduled trains.

Figure 36 – Delay rate of TER trains per region in 2018-2020



Source: ART from SNCF Réseau's data

Methodology: Regional PSO services (TER) exclusive of tram-trains. The delay rate refers to the delay of more than 5 minutes 0 second at terminal station.

The punctuality progressed in almost all regions

The rates of delay at the last stop of more than 5 minutes 0 second at terminal station declined in almost all regions in 2020 except Normandy, Brittany and Nouvelle-Aquitaine. This global improvement might be linked to a lower usage intensity of the network and the consequently reduced constraints and number of traffic incidents.

However, punctuality largely deteriorated in Normandy, due to the strikes at the beginning of the year, various planned works, but also to the transfer of Intercités lines to the region, characterized by lower punctuality than shorter-distance services.

The improvement in punctuality seems to be more noticeable in three regions (South PACA, Occitanie and Auvergne Rhône-Alpes) where delay rates continuously decrease since 2018.

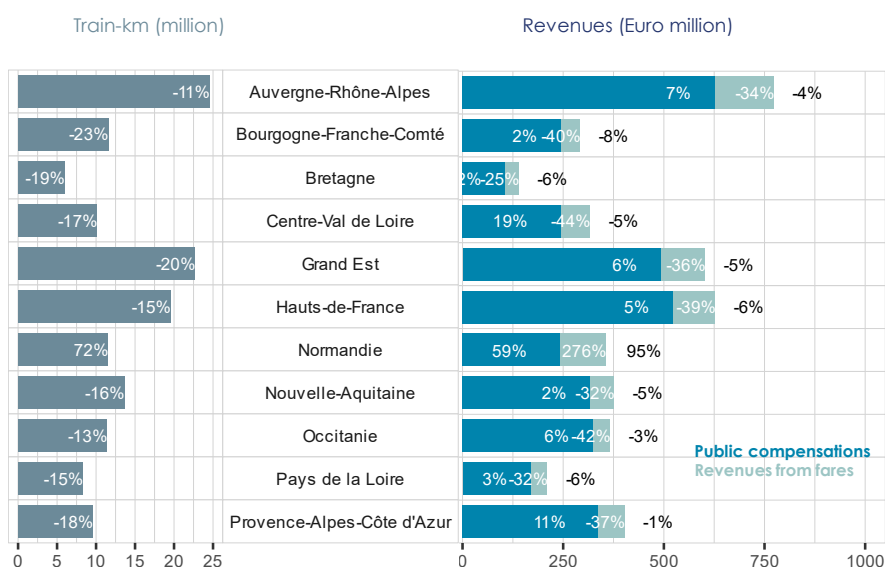
REGIONAL PSO SERVICES (TER)

Moderate decreases of revenue from TER services in all regions thanks to significant increase in public compensations

While revenues from fares considerably decreased in 2020 due to the reduction in passenger-km (ranging from -25% to -42% across regions), the increase in public compensations allowed to limit the decline in total revenues to under 10% for all regions. More importantly, the decrease in TER revenues was much lower than the drop in train-km for all regions except Normandy (from -1% to -6% in revenues versus -11% to -23% in train-km). The financial impacts of the pandemic on operators were thus limited.

In Normandy, the integration of some Intercités lines in the regional supply led to a large increase in revenues from TER services in this region (up 95% in 2020).

Figure 37 – Revenues from and train-km of TER services per region in 2020 and percentage change compared to 2019

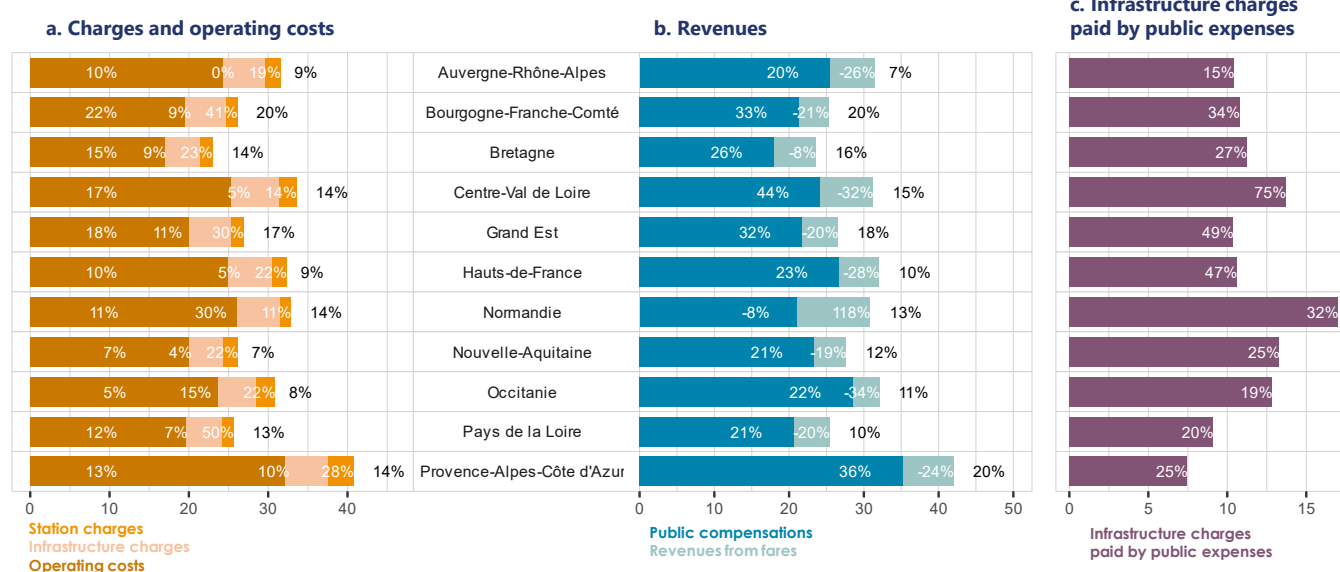


Reading example: Auvergne-Rhône-Alpes experienced a decrease of 11% in train-km in 2020. In this region, revenues from TER services totalled €770 million in 2020, which is an annual decrease of 4%. While public compensations increased by 7%, revenues from fares dropped by 34%.
Source: ART from SNCF Voyageurs' data

Despite the decrease in traffic, the operating costs of TER services remained stable in 2020

Operating costs per train-km increased by 13%, which is the average change recorded for operating costs other than station and infrastructure charges ("operating costs" on figure 38). The total volume of station and infrastructure charges declined by only 3% in 2020, which is a rise by 12% for charges per train-km. Due to the transfer of platform charges in 2020, stations charges per train-km increased more than infrastructure charges (up 23% and 8% respectively). Being based on forecast traffic and thus a lump-sum payment, infrastructure charges paid by public expenses was not affected by the traffic drop due to the pandemic. This payment increased significantly in 2020 in all regions. In sum, the large increases in charges and operating costs per train-km show their low sensitivity to the effective traffic.

Figure 38 – Breakdown of charges and revenues per train-km of TER activities in 2020 (in euros) and percentage change compared to 2019



Source: ART from SNCF Voyageurs' data

Additional analyses included in the Comprehensive Report

- Breakdown of TER train-km per line (map)
- Breakdown of TER's other costs



	Level (2020)	Annual change (2019-2020)	5-year change (2015-2020)
▪ Daily number of Transilien trains	13 million	-14 %	- 18 %
▪ Carrying capacity per train	773 passengers	- 9 %	- 10 %
▪ Occupancy rate per train	21 %	-12 pp	- 9 pp
▪ Share of public compensations in total revenues	77 %	+11 pp	+15 pp
▪ Delivery rate of scheduled offer	74 %	-14 pp	- 20 pp
▪ Delay rate at 5 minutes 0 second at terminal station	10 %	- 1 pp	- 3 pp

Supply has been relatively maintained in 2020 for most Transilien and RER lines

Transilien and RER's supply has been slightly impacted in 2020 despite the multiple restrictions implemented due to the Covid crisis. While in average, supply in terms of seat-km decreased by 14%, this trend has been smaller for RER lines A and B.

We observe the same phenomenon for the two biggest Transilien lines (J and N) in terms of volume of supply.

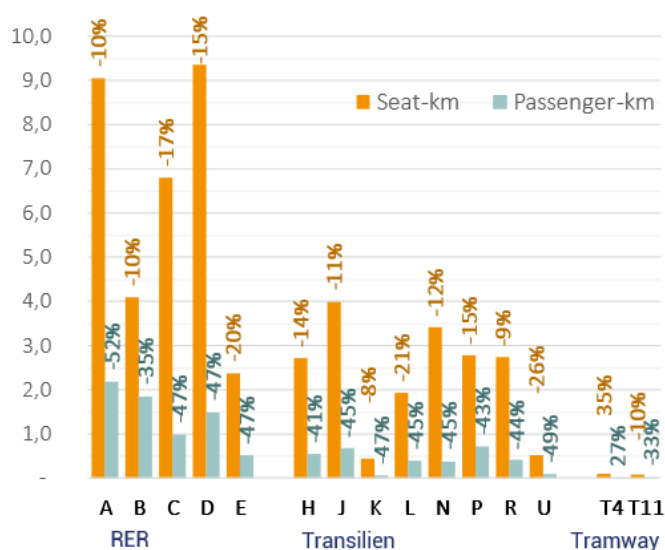
The Transilien line U registered the largest evolution (down 26% in terms of seat-km).

However passenger traffic declined by more than 40% for all Transilien and RER lines

As well as for other services, the Covid crisis severely impacted TER and Transilien's passenger traffic which decreased by 40% in average in 2020. As a result, the occupancy rate declined by 12 points of percentage, then reaching 21% in 2020.

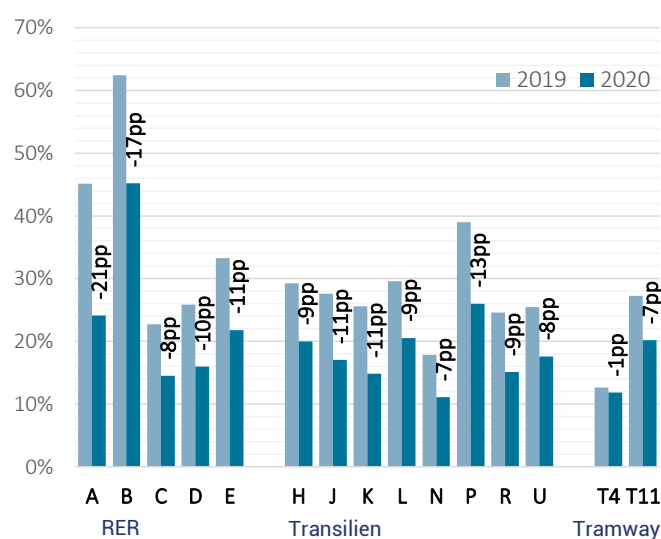
RER line A is characterized by the largest passenger traffic and occupancy rate reductions (down 52% and 21 points of percentage respectively). In 2021, line A's occupancy rate is equal to 30%. RER line B's occupancy rate also fell sharply (from 62% to 45%).

Figure 39 – Supply and passenger traffic evolution



Source: ART from railway undertakings and RATP's data

Figure 40 – Transilien and RER lines' occupancy rates



Source: ART from railway undertakings and RATP's data

PARIS REGION'S PSO SERVICES (TRANSILIEN & RER)

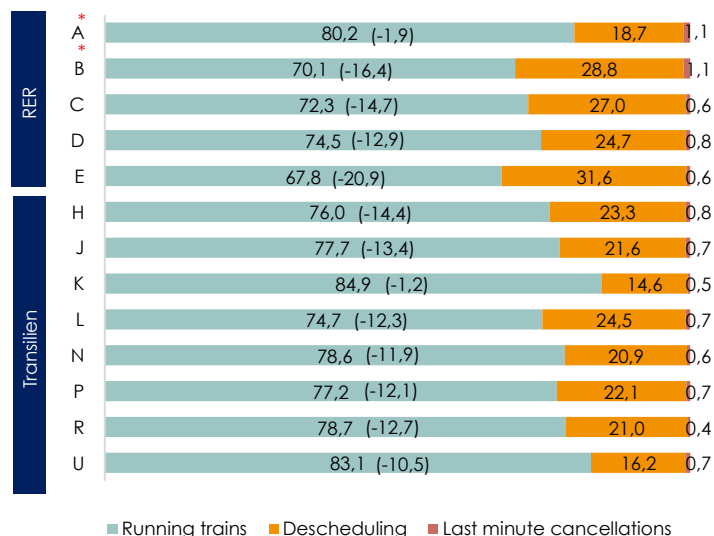
In 2020, the delivery rate of Paris region's PSO services declined by 10 percentage points

In 2020, the delivery rate (rate of trains that actually ran compared to scheduled ones) decreased and reached 78% (i.e. down 10 points of percentage). This results from the important increase in descheduling trains due to Covid 19. Indeed, 22% of Transilien and RER trains have been descheduling before 4pm the previous evening (compared to 12% in 2019).

RER lines B, C, and E are characterized by a larger descheduling rate (from 27 to 32% of the scheduled trains) compared to Transilien lines (from 15 to 24% of the scheduled trains).

However, the last minute cancellation rate declined, reaching 0,6% in 2020 compared to 2,1% in 2019). RER lines A and B are characterized by a slightly higher rate than the other RER and Transilien lines.

Figure 41 – Delivery, descheduling and last minute cancellation rates for Transilien and RER services (without RATP)
(2020/2019 evolution in terms of points of percentage in parenthesis)

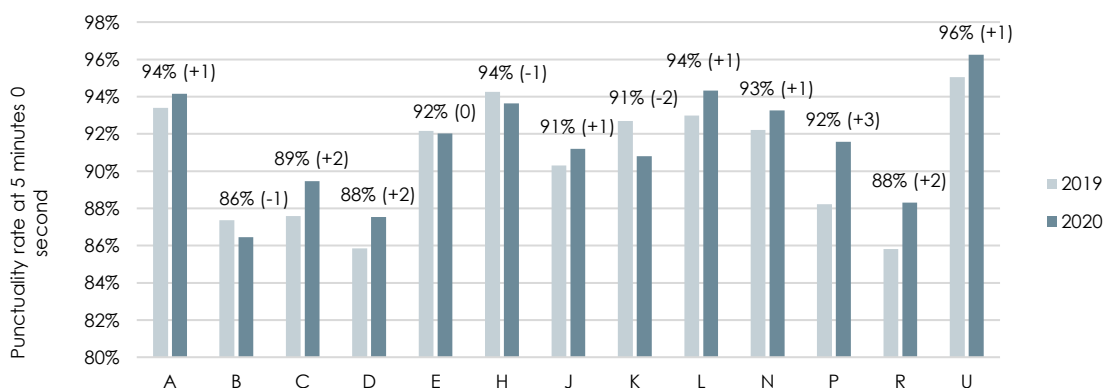


Source : ART according to SNCF Voyageurs' data
* Scope without RATP

In 2020, the punctuality of Paris region's PSO trains increased by 1 percentage point

Passengers' punctuality rate increased for almost all lines, especially RER lines C and D as well as Transilien line P and R. Lines B, H and K are the exception as their punctuality rate declined. The reduction of trains due to Covid 19 seems to have led, as for other rail services, to an overall improvement in the trains and passengers' punctuality.

Figure 42 – Passengers and trains' punctuality rate, at 5 minutes 0 second, per Transilien and RER services' lines



Source : ART from SNCF Voyageurs' data
(X) 2020/2019 evolution in terms of points of percentage

Additional analyses included in the Comprehensive Report

- Financial results of Transilien services

GLOSSAIRE

- AOT : Public transport authority
- ART : Transport regulatory authority
- PSO : Public service obligations
- RU : Railway undertakings
- ERTMS : European Rail Traffic Management System, of which the ETCS component (European Train Control System) involves 3 levels
- GES : Greenhouse emission
- IM : Infrastructure manager
- ICV : Track consistency score
- HS : High-speed
- BPL (high-speed line): Bretagne-Pays de Loire high-speed line (line under the management of Eiffage Rail Express)
- SEA (high-speed line): South Europe Atlantic high-speed line (line under the management of LISEA)
- NST : Standard goods Nomenclature for Transport Statistics
- RA : Access charges (mark-ups applied for PSO services directly paid by the State or Paris region to SNCF Réseau)
- RC : Running charge
- RCE : Electric traction charge (See appendix 5.2 of SNCF Réseau's network statement)
- RTCE : Charge for power supply and distribution in electric traction (See appendices 5.2 and 5.4 of SNCF Réseau's network statement)
- RTCE-A : Component A of the RTCE (minimal delivery)
- RFN : National rail network
- RM : market charge
- TER : Regional PSO trains (other than Paris region's)
- TET : Trains classified as providing vital links between France's regions or long-distance PSO trains
- Transilien : Regional PSO trains in Paris region
- RER : Regional suburban PSO trains in Paris region

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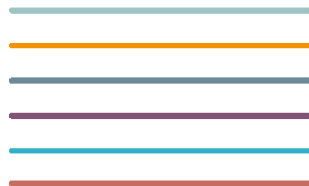
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