

Rail Delivery Group



Country Profiles – France

The Williams Rail Review

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As part of a series of comparative studies of international rail systems, this document profiles railways in France. The document outlines how rail services are delivered in France and provides an analysis of strengths and weaknesses of the system. This analysis is also contextualised so the reader can make appropriate comparisons with Great Britain (GB).

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Executive summary

Sharing a rail link with Great Britain (GB), France is often used as a comparator for Britain's railways and there are many good reasons to do this.

Like Britain, France has one of the world's oldest rail networks, a comparable modal share, a similar-sized population and an economy dominated by its capital city. However, France also has a comprehensive high-speed network covering more than 2600km with further developments planned. This type of network is one oft-admired by British tourists in France and referred to in criticisms of our domestic network. However, there are some limitations to this comparison.

Infrastructure

Having a dedicated high-speed passenger rail network means that France can segregate not only its passenger and freight services, but also its long distance and regional trains. This benefits reliability and enables France to offer a 'premium product'.

However, this network comes at a price. Heavily subsidised, the high-speed 'TGV' receives 15% of total annual rail funding even though it carries only 2% of France's passengers.

Demography

France has a sparse population in its rural areas. In fact, 80% of the population live in urban areas¹. This means that fewer people are impacted by the winding down of its rural services and the closure of many branch lines and so the Government has less incentive to continue to subsidise them.

Political change and reform

Accidents and soaring rail debt in recent years have been a catalyst for a major review of French railways. Last year, the French government charged ex-Air France CEO, Jean-Cyril Spinetta, with leading a review into rail services in France setting a vision to 2030. The review focused on three key themes: a future model for competition to satisfy the requirements of the Fourth Railway Package; addressing low levels of usage of regional rail services and declining freight; and review SNCF Réseau's 'unmanageable' debt. It also encompassed new future technology and how it may affect competition (i.e. driverless cars) and low productivity in the sector as minor themes. The report was bold in a number of its recommendations and it means that the railway as reformed will be different to that to which we are comparing.

Conclusions

We would offer the following observations from the French model:

- The instigation and conclusion of the Spinetta Review were testament to the unsustainable nature of the French rail model, in particular its spiralling debt.
- The financial state of French railways has arguably contributed to safety issues with a 2013 incident that killed six people being blamed on ageing infrastructure, as well as inadequate audits and poor management check functions.
- Finances, where they have been readily available have been largely diverted to the high-speed lines, which serve France's urban population well, but neglect rural areas. The concentration on the passenger only high-speed lines also has had a detrimental effect on rail freight which is described as 'fragile'².

¹ World Bank indicators, <https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS>

² Rail Journal, https://www.railjournal.com/in_depth/french-rail-freight-policy-that-sinking-feeling

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Introduction

There is no templated model for organising railways in an optimally efficient, customer-focussed and safe way. Indeed, all structures are made up of a series of policy choices and trade-offs. Furthermore, the comparative statistics alone only tell us one part of the story; there are lies, damned lies and statistics. Fantastic comparative punctuality tells you nothing of the cost of achieving it. In the same way, it is impossible to say that a particular industry structure is a direct causal factor in achieving efficiency.

As such, these profiles are intended to paint a picture of possibilities and the strengths and weaknesses of the plethora of systems operated internationally. However, they cannot be understood in isolation. The social, geographical, financial and political context are critical to understanding why some systems work well and their limitations when adopted overseas with different counter-variables.

Where possible, this context has been provided, but all comparators should be viewed with an appropriately critical eye. Furthermore, overlaid on this is the issue of an appropriate model for the appropriate market segment.

The rail industry in Great Britain (GB) is made up of many different markets. The intercity market operates between major cities and is typically related to the East Coast, West Coast, Midland and Great Western mainlines (ECML, WCML, MML, GWML respectively). The urban, suburban and regional markets are for commuters or middle-distance railways with a mixture of cost covering and non-cost covering services. A typical route for this category would be Southern, serving commuters into and out of London. Finally, there are relatively self-contained markets, like in Scotland where there is a single dominant operator providing the majority of services.

This mixture of markets exists in other countries. Some have tailored their structures and commercial models accordingly, whereas others have applied a single model to the whole system. Some of the examples presented in this document are not always suited to different market segments, geographies or demographic contexts. For example, the successful open access route run by Nuovo Trasporto Viaggiatori (NTV) in Italy might be unsuited to the London commuter market. Equally, the single operator model running on the highly saturated Dutch market would not be able to reap the benefits of competition on our long-distance commercial mainlines.

In this context, RDG is approaching the rail review by examining the markets contained within the industry as well as cross-cutting issues. Where possible these markets and horizontal workstreams and themes will be cross-referenced.

RDG's Approach to the Williams Review

RDG has developed six principles to measure success against for the Rail Review. These will be used to assess the country comparisons. The principles are as follows:

1. **Put customers at the heart:** ensuring that all parts of the railway, including the supply chain, work together to deliver for customers now and for generations to come
2. **Increase accountability:** building on the solid safety record, deliver a structure for the railway that creates confidence in its leadership, improving coordination in the way services are delivered and decisions are taken, and making it clear where the buck stops when things go wrong
3. **Deliver value for money:** managing costs for passengers, freight customers and taxpayers, with a sustainable supply chain

4. **Unlock economic growth:** boosting innovation with private investment enabling the railway to expand; growing and rebalancing Britain's economy, and be environmentally sustainable
5. **Strengthen communities:** ensuring communities across the country benefit from a vibrant, growing railway
6. **Inspire our people:** ensuring that people working in rail have fulfilling careers and a greater stake in the railway's long-term success

Underpinning all of this is a focus on getting the basics of performance, capacity and fares right.

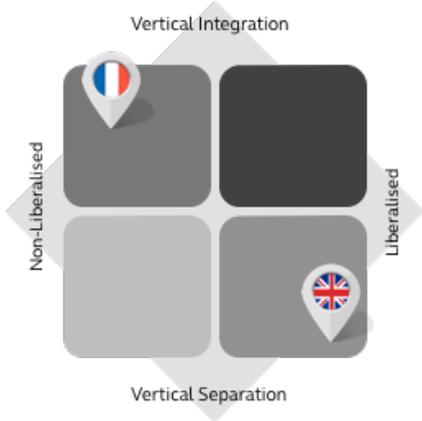


Figure 1, RDG's six principles

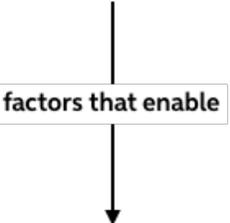
-  **Population:** 66.989 million
-  **Network:** 28,364km
-  **Passenger modal share:** 9.5%
-  **Satisfaction:** 71%
-  **Punctuality:** 90.8%

The Spinetta Review

Last year, the French government charged ex-Air France CEO, Jean-Cyril Spinetta, with leading a review into rail services in France setting a vision to 2030. The review focused on three key themes: a future model for competition to satisfy the requirements of the Fourth Railway Package; addressing low levels of usage of regional rail services and declining freight; and review SNCF Réseau's 'unmanageable' debt. The railway is being reformed as a consequence and comparisons should be viewed through this lens.



- Infrastructure**
 - Dedicated high speed lines
- Geography**
 - Rural areas sparsely populated
- Funding**
 - Very well funded high-speed lines



Weaknesses

France

Strengths

- Freight
- Intermodal competition
- Rural services
- Safety

- High-speed services (TGV)
- Accountability



6 principles for change

3. Deliver value for money

Fixed spending to the depot when opening, more sleep in the rail, less new material and stations were launched etc.

6 principles for change

5. Strengthen communities

Enable a more inclusive system, that's designed around the needs and aspirations of the areas it serves.

6 principles for change

2. Clear accountability

Enable a more inclusive system, that's designed around the needs and aspirations of the areas it serves.

6 principles for change

1. Put customers at the heart

Refocus the railway to unlock a new generation of innovation and investment and, where it makes sense, choice for customers.

6 principles for change

6. Inspire our people

Enable people who work in rail to bring their railway careers, and a greater stake in the railway's long-term success.

6 principles for change

4. Drive economic growth

Invest in infrastructure for the long term, to support the national and global and resilience to future scenarios.

Introduction to French railways

Sharing a rail link with Great Britain (GB), France is often used as a comparator for Britain's railways and there are many good reasons to do this. Like Britain, France has one of the world's oldest rail networks, a comparable modal share, a similar-sized population and an economy dominated by its capital city. France also has a comprehensive high-speed network covering more than 2600km with further developments planned. This type of network is one often admired by British tourists in France and referred to in criticisms of our domestic network.

However, there are limitations to this comparison. Some issues will be noted in the relevant sections of this paper, although an understanding of the context of current widespread reform of France's railways led by President Macron is essential.

Last year, the French government charged ex-Air France CEO, Jean-Cyril Spinetta, with leading a review into rail services in France setting a vision to 2030. The review focused on three key themes: a future model for competition to satisfy the requirements of the Fourth Railway Package; addressing low levels of usage of regional rail services and declining freight; and review SNCF Réseau's 'unmanageable' debt. It also encompassed new future technology and how it may affect competition (i.e. driverless cars) and low productivity in the sector as minor themes. The report was bold in a number of its recommendations and it means that the railway as reformed will be different to that to which we are comparing. The follow up legislation has been passed and the reforms are in the process of being implemented.

About the French network

France's rail network is the second largest in Europe, encompassing a significant regional network, commuter rail services and an extensive high-speed rail network. Much of the network centres on Paris, which has connections to all major French cities and serves as the hub for France's high-speed domestic and international services.

Like Britain, France has a rail network focused primarily on passengers, with 86% of network train-kilometres dedicated to passenger services. Overall the French network is less densely used than the British, however it has pockets of high density; 80% of passenger train movements are concentrated on 27% of the rail network³.

France has a comparable economic geography to Britain and London, in that France's rail network is centred around Paris and that Paris is also France's wealthiest region. Commuter services around Paris are frequent, densely used and governed by the local region, Ile de France.

France is the largest country in Western Europe by area and its major cities are spread across the country in all directions from Paris, thus creating a star-like high-speed national rail network, which is Europe's second-longest high-speed rail network⁴. This geographical spread has facilitated the construction of high-speed rail through more sparsely populated countryside than that of Britain or Germany. The distance between France's largest cities allows for services to run with few stops in between and provides a strong alternative to air travel.

³ IRG Rail Market Monitoring, 2018. <https://irg-rail.eu/irg/documents/market-monitoring/186.2018.html>

⁴ The French passenger rail transport market, ARAFER

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Comparator ⁵ unless noted otherwise	France	UK*
Population (million) 2017	66.989	65.809
GDP (Nominal) bn € 2016	2228.9	2395.8
Network Employees (UK includes employees of direct supply chain)	240,000 ⁶	240,000
Network KM (electrified %) 2016	28,364km (56.8)	16,253km (33.7)
Passenger km per year 2016 (modal share)	87.8bn (9.5%)	68bn (8.7%)
Number of stations ⁷	2926	2317
Regional and local punctuality % on time ⁸	91.5% (6 minutes)	89.7% (5 minutes)
Long distance punctuality % on time ⁹	90.8% (up to 15 minutes)	91% (10 minutes)
High and Good Satisfaction % ¹⁰	71%	75%
Freight tonne km per year 2016 (modal share)	32.6bn (3.7%)	17.1bn (4.7%)
All train km (% passenger/freight) ¹¹	444.2m (86/14)	565.6 (94/6)
Infrastructure investment €bn (enhancements) ¹²	7817 (37%)	9018 (41%)
Maintenance and enhancement spend thousand € per km	158	327
% Farebox revenue ¹³	47%	92%
Passengers killed in railway accidents 2013, 2014, 2015, 2016	4, 0, 4, 2	0, 0, 0, 0

*European Union (EU) Commission stats include Northern Ireland (NI) but exclude the Channel Tunnel.

⁵ EU Transport Statistical Pocketbook, <https://ec.europa.eu/transport/sites/transport/files/pocketbook2018.pdf>

⁶ SNCF, <https://www.sncf.com/sncv1/en/meet-sncf/public-service-company>

⁷ RMMS 2016, https://ec.europa.eu/transport/modes/rail/market/market_monitoring_en

⁸ RMMS 2016, https://ec.europa.eu/transport/modes/rail/market/market_monitoring_en

⁹ RMMS 2016, https://ec.europa.eu/transport/modes/rail/market/market_monitoring_en

¹⁰ RMMS 2016, https://ec.europa.eu/transport/modes/rail/market/market_monitoring_en

¹¹ Train km in themselves do not always denote success. British freight operators have reduced train km by increasing length and payload, making more efficient use of scarce capacity. https://www.raildeliverygroup.com/files/Publications/2018-06_rail_freight_working_for_britain.pdf

¹² RMMS 2016, https://ec.europa.eu/transport/modes/rail/market/market_monitoring_en

¹³ RMMS 2016, https://ec.europa.eu/transport/modes/rail/market/market_monitoring_en



Figure 2, French Railway Network

The *Société nationale des chemins de fer français*, known as SNCF is France's national state-owned railway company. It operates as a 'holding' for three ÉPICs or companies which also contain separate business units. From January 2020 SNCF Réseau and SNCF Mobilités will be completely separated and function as independent businesses.

Strategy and support functions, as well as the property section (Immobilier) are managed within the 'holding', SNCF ÉPIC.

Under the control of SNCF ÉPIC, SNCF Réseau acts as the system operator in addition to maintaining and enhancing the network. Alongside Réseau is SNCF Mobilités, with three business units, SNCF Voyagers (passenger services), SNCF Logistics (freight) and Keolis participating in competitively tendered markets outside France.

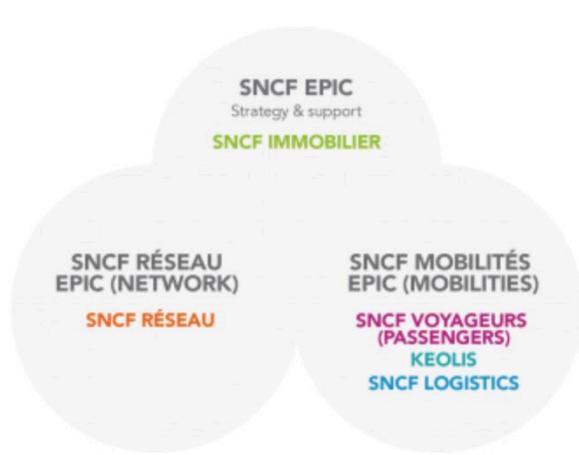


Figure 3, SNCF ÉPIC organisation

Strengths

High-speed network

France's high-speed network is highly regarded. Established in the 1980s, it is one of Europe's oldest and largest high-speed networks. TGVs have also been designed in a way which allows them to run on the conventional network at a lower speed, increasing connections and making more direct services easier.

However, the concentration of funding on the 'jewel in the crown' means that regional services have been underfunded. Spinetta criticised France for being 'unique in Europe' in allocating around 15% of its annual rail funding to routes that carry 'only 2% of passengers'. Further detail is outlined in the 'weakness' section below on regional services and details on the Brétigny-sur-Orge accident in the safety section.

It is not possible to say whether TGV services could have delivered more services, more efficiently if competition had been introduced into the market. The Spinetta report found that, while there has been a noticeable modal shift from air and road to rail for long distance travel since France has developed its high-speed rail network, the growth of passenger numbers on high-speed since 2011 has stagnated somewhat. This is not only down to declining economic conditions but also competition through low-cost air travel, car-sharing and liberalisation of coach services in 2015.

It is interesting to contrast the TGV's stagnation with the growth of the Naples-Rome-Florence-Bologna-Milan route in Italy, where on track competition has not only contributed to significant passenger growth for both the incumbent and new entrant but has also achieved a substantial modal shift from air to rail. On rail competition has enabled rail to also compete intermodally.

The Spinetta Report called for open access competition on the TGV routes and it will be interesting to see when this may be delivered.

Accountability

As SNCF monopolises the rail market in France there is a dominant brand that customers are aware of. To the customer SNCF Réseau and Voyageurs are one company, with a single uniform and face at stations. From January 2020 SNCF Réseau and SNCF Mobilities will be completely separated and function as independent businesses.

However, this, along with *de facto* vertical integration does not result in a single face of accountability for the customer. Where there are competitors in the market- notably on international routes- there is no cross acceptance of tickets and no contractual support in the event of missed connections.

Weaknesses

Safety

The accident at Brétigny-sur-Orge in July 2013 which killed six and injured more than 100 has been held up as illustrative of a network which focussed too much on the high-speed lines and neglected overcrowded, ageing and underfunded local lines.

Everly reminiscent of the 2002 Potters Bar rail crash, the SNCF train derailed colliding with the station with one carriage resting on the platform. A steel fishplate had become lodged in the switches causing the derailment. The formal report found that the incident occurred due to ageing infrastructure, inadequate audits and poor management check functions¹⁴ although off the record discussions at the time also pointed to woeful underinvestment on track maintenance by SNCF.

Fatalities haven't just been limited to the parts of the network that have received less investment. In November 2015 11 people were killed when a TGV derailed at Eckersheim whilst performing commissioning trials on LGV Est. The investigation found numerous acts of negligence and recklessness to be the cause.

Financial situation

SNCF Réseau's level of debt, which stands at around €46.6bn, was one of the triggers for the Spinetta Report. Indeed, the whole of SNCF has financial issues.

As part of the solution to the debt problem, France is moving towards less government interference in the infrastructure manager in order to improve its financial discipline and become more competitive. As part of the 2018 reforms, the government introduced reforms to change SNCF's structure to a publicly listed company (specifically "a national company with public-sector capital").

Delivery of 'regional' services

'Regional' lines, i.e. non-TGV routes, have a very poor reputation in France. Spinetta called for 'a new model for rural transport' and advocated a wholesale review of SNCF Réseau's regional and secondary lines. His report said that this funding should immediately be reallocated to renewing infrastructure at key hubs and on high-volume conventional lines, and 'this must be a priority for the next 20 years'.

French regions are distinct subnational political entities with elections every five years, as such, they are inherently political client bodies with accountability to the regional president, similar to Transport for London's (TfL's) ultimate accountability to the Mayor of London. While they have been able to specify service patterns, fares, performance bonuses and maluses among other requirements, they have until now been unable to competitively tender and have typically faced negotiation with SNCF for the eventual contract.

In light of the Spinetta Report some regional governments in France are pushing for greater market liberalisation and competition for the market as they recognise this is the route for greater financial efficiency and customer offer. The very early stages (call for interest) of the process for competitive tendering has already started in Provence-Alpes-Cote d'Azur although some regions are more cautious.

Industrial relations

Industrial relations issues are prevalent throughout the French public sector and this is no different for the railway. Railway workers are heavily unionised, have strong political ties to radical left groups such as the Communists and industrial action is not uncommon in France. In 2016, 77 separate strikes by SNCF staff

¹⁴ RSSB, <https://www.rssb.co.uk/News/Pages/bretigny-sur-Orge.aspx>

were recorded and the government's reform proposals led to significant rolling strikes from April to June in 2018.

The government proposed to phase out SNCF's 'special status' employment terms, which allow SNCF staff benefits including early retirement, a 'job for life' and free and heavily subsidised rail travel for themselves and their dependents. Around 92% of SNCF's 150,000 strong workforce currently benefit from this special status. The government have not proposed to remove benefits for existing employees, but rather that these privileges are not granted to new staff.

However, unions reacted particularly strongly to this element of the reforms and have accused the government of using railway workers as scapegoats in the reform. Employees contend that their employment status is not the cause of SNCF's debt, whereas the government says it is not right that SNCF workers benefit from privileges that are incomparable in the rest of the public sector.

Public opinion on this matter largely remained on the side of the government throughout the industrial action, as the benefits available to railway workers were seen to be out of step with the private sector and indeed other public-sector bodies.

Conclusions

France's railway's historical good reputation has certainly met with challenge in recent years. Poor funding and management have led to unsustainable debt and safety incidents.

The findings of the Spinetta report and the 2018 reforms indicate that France is ready for a new way of operating and managing their railways. President Macron and many of the regional governments see greater liberalisation and a more commercial approach to be the solution.

Success against the RDG principles

Principle	Commentary
Put customers at the heart ensuring that all parts of the railway, including the supply chain, work together to deliver for customers now and for generations to come	Satisfaction scores are not dissimilar to those of the UK. However, there is general dissatisfaction for non-TGV services and public support of the Spinetta reforms suggests that SNCF and the French model does not have widespread domestic support.
Increase accountability building on the solid safety record, deliver a structure for the railway that creates confidence in its leadership, improving coordination in the way services are delivered and decisions are taken, and making it clear where the buck stops when things go wrong	SNCF's safety record has been patchy and a number of high-profile accidents have highlighted issues with safety systems and investment. Vertical integration of SNCF gives a single face of accountability but does not always result in great outcomes for customers. The SNCF brand is easily recognised, and operator and infrastructure staff wear the same uniforms and work for the same organisation. This does not work well when there are interactions with other operators with no common ticketing system or contractual redress for missed connections.
Deliver value for money managing costs for passengers, freight customers and taxpayers, with a sustainable supply chain	Arguably, the French network is not delivering value for money for the taxpayer as it is inefficient and has significant debt problems. Taxpayers bear the majority of costs and subsidies for public service obligations are some of the highest in Europe.

Principle	Commentary
<p>Unlock economic growth boosting innovation with private investment enabling the railway to expand; growing and rebalancing Britain's economy, and be environmentally sustainable</p>	<p>The TGV has been a success and reflects innovation in the French rail sector since the 1980s.</p> <p>The regions have historically leveraged their railways to reduce unemployment and contribute to local economies.</p>
<p>Strengthen communities ensuring communities across the country benefit from a vibrant, growing railway</p>	<p>Whilst the TGV is expanding, regional railways in France have been neglected meaning that not all communities have benefitted from the railway.</p>
<p>Inspire our people ensuring that people working in rail have fulfilling careers and a greater stake in the railway's long-term success</p>	<p>Industrial relations are poor in France with frequent strikes and confrontation with the unions. Whilst partly cultural, it still denotes poor relations between workers and their employer.</p>
<p>Performance</p>	<p>Performance on the French railway is good with punctuality in the low 90s.</p>
<p>Capacity</p>	<p>There is spare capacity on much of the French network, although this is influenced by geographic features of the network rather than a particular ability to manage congested networks well.</p>
<p>Fares</p>	<p>There is relatively little comparable evidence in this area. Although informal evidence shows that advance fares in Great Britain are comparable, although tickets bought on the day in France are cheaper¹⁵.</p>

¹⁵ Man at Seat 61, <https://www.seat61.com/uk-europe-train-fares-comparison.html>

Glossary

Abbreviation	Definition
BN	Billion
CEO	Chief Executive Officer
ECML	East Coast Mainline
EU	European Union
GB	Great Britain
GWML	Great Western Mainline
KM	Kilometres
KPH	Kilometres per hour
LGV	Ligne à Grande Vitesse (High speed line)
MML	Midland Mainline
MPH	Miles per hour
NI	Northern Ireland
NTV	Nuovo Trasporto Viaggiatori (Italian passenger operator)
PSC	Public Service Contract
PSO	Public Service Obligations
RDG	Rail Delivery Group
SNCF	Société Nationale des Chemins de fer Français (French National Railways)
TfL	Transport for London
TGV	Train à Grande Vitesse (French high-speed trains)
UK	United Kingdom
WCML	West Coast Mainline