McKinsey & Company

The liberalization of the EU passenger rail market

Growth opportunities and new competition

Contents

Introduction and key messages

Over the last 10 to 20 years, various liberalization plans and initiatives have periodically emerged in the EU's rail market landscape. The EU's fourth railway package is a systematic, large-scale approach for liberalizing the commercial long-distance (LD) rail market in the EU. As such, its upcoming implementation can be expected not only to make competition in the EU's railway market more dynamic, but also to change the European railway market landscape.

This plan can also be expected to have major strategic implications for most players and stakeholders in the rail market.

In this report, we offer a comprehensive perspective on the promise of the imminent commercial LD rail market liberalization in the EU. To this end, we provide answers to the questions that are a top priority for the market's main stakeholders: What might be the implications of market liberalization? What are the key success factors in entering a new market? How can a compelling entry strategy be defined? Which routes should be prioritized? What are the levers that incumbents can leverage to mitigate risks/impact?

In our attempt to answer the above questions and drawing on the latest McKinsey research (see Textbox 1), we distilled three key messages regarding the imminent commercial LD rail market liberalization in the EU and defined the strategic implications for both new entrants and incumbents:

I. Today's commercial EU LD rail market represents a revenue pool of approximately EUR 25 billion/year (20 to 30 percent EBITDA margin) with a limited level of intramodal competition, and just a few countries and cross-border routes as exceptions. However, the regulatory framework is going to further open the passenger service rail markets, changing the current competitive setting, with rolling stock availability as a key enabler of responsiveness.

II. Three trends provide valuable insights into why and to what extent a liberalization of the rail market would impact the EU's national passenger services markets:

"The EU's fourth railway package is a systematic, large-scale approach for liberalizing the commercial LD rail market in the EU."

Textbox 1

How we derived insights for this report

The insights of this report were generated based on closely linked qualitative and quantitative research. For the qualitative insights, we combined interviews with executives in the rail industry with the knowledge of internal key experts within our Global Transportation Practice to build a holistic viewpoint on how the incoming liberalization might affect the EU rail market in terms of competitive dynamics and strategic implications, particularly for rail operators. For the quantitative insights, we based our analysis on publicly available information to estimate impact on key market figures and developed a proprietary tool to assess attractiveness of the top 100 EU rail routes in terms of expected number of passengers, modal preference of train versus other transportation modes, and current yield.

— Liberalization effects in adjacent industries such as the airlines, where the low-cost carriers (LCC) reached up to 50 percent market share within ten years in some EU countries (e.g., the UK, Spain), reducing price while increasing the overall offering (e.g., more connections and frequency).

— Specific liberalization effects in selected national LD rail markets, such as Italy and Austria, where incumbents lost a 20 to 40 percent share on core routes, while significant previously untapped market growth was unleashed.

— Interest from rail operators in entering new markets, as publicly declared by many players, with a focus on a low-cost (more disruptive) entry strategy.

III. In this context, relevant strategic implications should be considered from both “attackers” (i.e., new entrants) and “defenders” (i.e., incumbent national operators).

— For new entrants, entering an LD rail market may be risky for several reasons, e.g., uncertain revenue given the direct competition with incumbent’s prices and high profile, limited brand awareness and customer relationship model to be launched from scratch, uncertain operating model to be deployed in a new (unknown) market, etc.

  To face these challenges and ensure a compelling strategy, a structured approach should be pursued answering three core questions: What is the value proposition? What is the resulting institutional setup? What is the optimal operating model?

  Leveraging lessons learned from already liberalized markets, six key success factors for new entrants should be considered while answering the core questions mentioned above: (i) focus on the most attractive routes (preferring a point-to-point strategy); (ii) pursue a customer relationship model to ensure a loyal customer base; (iii) aim for a cost leadership position; (iv) access infrastructure efficiently; (v) ensure timely rolling stock availability; and (vi) build on a solid financial foundation.

— At the same time, incumbents may consider possible counterreactions through five key levers: (i) capacity increase; (ii) service enhancement and personalization; (iii) (selective) price reduction; (iv) efficiency gap reduction; and (v) launch of alternative (low-cost) business models.

Each of these statements will be explained in more detail in the following three chapters.

“Today’s commercial EU LD rail market represents a revenue pool of approximately EUR 25 billion/year (20 to 30 percent EBITDA margin) with a limited level of intramodal competition.”

Key aspects of the EU rail market and its liberalization

01

1.1 Characteristics of the EU commercial long-distance rail market and its competitive situation

The liberalization of European passenger rail markets started primarily in the 1990s with countries such as Germany and the UK as pioneers, followed by other countries, such as Italy and Austria – although today liberalized markets show very different competitive dynamics. Three observations can be made in this context:

— There seems to be no clear correlation between the years of market liberalization and the level of competition, indicating that liberalization is a necessary but not sufficient condition for "market competition".

— A real push from local authorities and presence of attractive routes for a point-to-point entry strategy may facilitate competition, as occurred in Italy and Austria.

— In the EU, domestic commercial LD markets are dominated by incumbents (except for Italy and Austria), but main incumbents are already operating abroad on cross-border routes through JV (Exhibit 1).

"In the EU, domestic commercial LD markets are dominated by incumbents (except for Italy and Austria)."

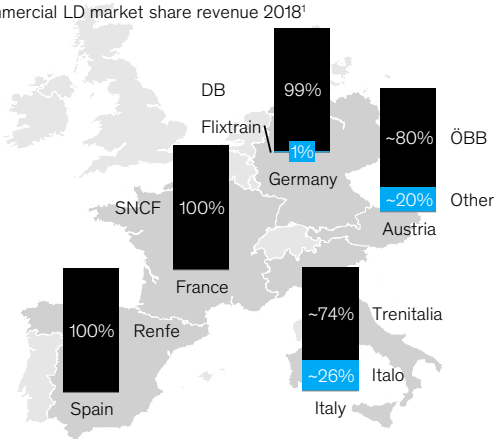
Exhibit 1

In the EU, domestic commercial LD markets are dominated by incumbents, but many are operating abroad on cross-border routes through JVs

Not exhaustive

In Europe, domestic commercial LD markets are dominated by incumbents, with the exception of Italy and Austria

Commercial LD market share revenue 2018[1]



However, main incumbents are already operating abroad on cross-border routes through JV or other operators

Operator	Country			Incumbent partner	Revenue 2018, EUR millions	EBIT[3] 2018, % of revenues
Eurostar	France	Belgium	Great Britain	SNCF/SNCB	1,106[2]	~10
Thalys	France	Belgium		SNCF/SNCB	527	~4[4]
Lyria	France	Switzerland		SNCF/SBB	31	<0

1 2017 data if 2018 not available
2 Exchange rate 2018 = EUR 1/GBP 0.8945
3 Earnings before interests and taxes
4 Figures 2017

Source: Railway operators' websites; Dow Jones Factiva DB; Hoover; www.sciencebasedtarget.org

1.2 Overview of the evolution of the EU's regulatory framework for the rail market

The process of EU rail market liberalization is now at a tipping point, with the fourth railway package approved by the European Parliament and Commission in December 2016 and the Member States that have to embed its mandates and provisions into their national legislation. This has already been done to a large extent. Some countries, such as France and Spain, have adopted the new legislation, while others, such as Italy and Germany, had legislation in place that was already largely aligned with the fourth railway package.

The framework aims at reducing competitive asymmetries among countries' systems and harmonizing technical regulations to guarantee equality of national market access. The fourth railway package is articulated in two main pillars with specific objectives (Exhibit 2).

Market pillar

The objectives of the market pillar include 1) opening of LD commercial passenger markets in most EU countries from 2020; 2) public tendering as the general rule for public service contracts in effect as of 2023 (need to wait for the maturity of ongoing contracts); 3) nondiscrimination in train path allocation and infrastructure charging becoming increasingly more effective and controlled; 4) common information and through-ticketing systems should be promoted.

"The fourth railway package is articulated in two main pillars with specific objectives."

Exhibit 2

The fourth railway package is going to open the national passenger-services markets

The fourth railway package presented by the European Commission aims to

- Harmonize technical regulations in order to guarantee the same level of national market access
- Reduce competitive asymmetries among countries' systems

	From ...	... to
Market pillar	Largely closed national domestic passenger markets	Opening of LD commercial passenger markets in most EU countries from 2020
	Different national rules for competitive tendering of public service contracts	Public tendering as the general rule for public service contracts (need to wait for maturity of ongoing contracts)
	Limited, competitive-friendly train path allocation and infrastructure charging rules in largely closed markets	Nondiscrimination on train path allocation and infrastructure charging becoming more and more effective and controlled
	Heterogeneous information and ticketing systems	Common information and through-ticketing systems should be promoted
Technical pillar	Mutual recognition of (different) national vehicle authorizations and safety certificates	More prominent role of ERA within ERTMS development, vehicle authorization, and safety certificates (one-stop shop)
	Diversity of national (operating) rules and technical standards with limited interoperability	Reinforcement of ERTMS on common standards and technical specifications for increased interoperability
	No uniform conditions for the certification of maintenance workshops	Common conditions for the certification of maintenance workshops

Technical pillar

The objectives of the technical pillar comprise 1) a more prominent role of ERA within ERTMS development, vehicle authorization, and safety certificates (one-stop shop); 2) a reinforcement of ERTMS on common standards and technical specifications for increased interoperability; and 3) establishing common conditions for the certification of maintenance workshops.

The regulatory changes related to the "market pillar" will allow competition in the commercial LD rail market as well as in markets that are currently closed, such as France, Spain, etc. The "technical pillar" reforms will lead to a gradual network interoperability and, therefore, the opportunity to leverage the rolling stock fleet with higher flexibility in international operations in the long run.

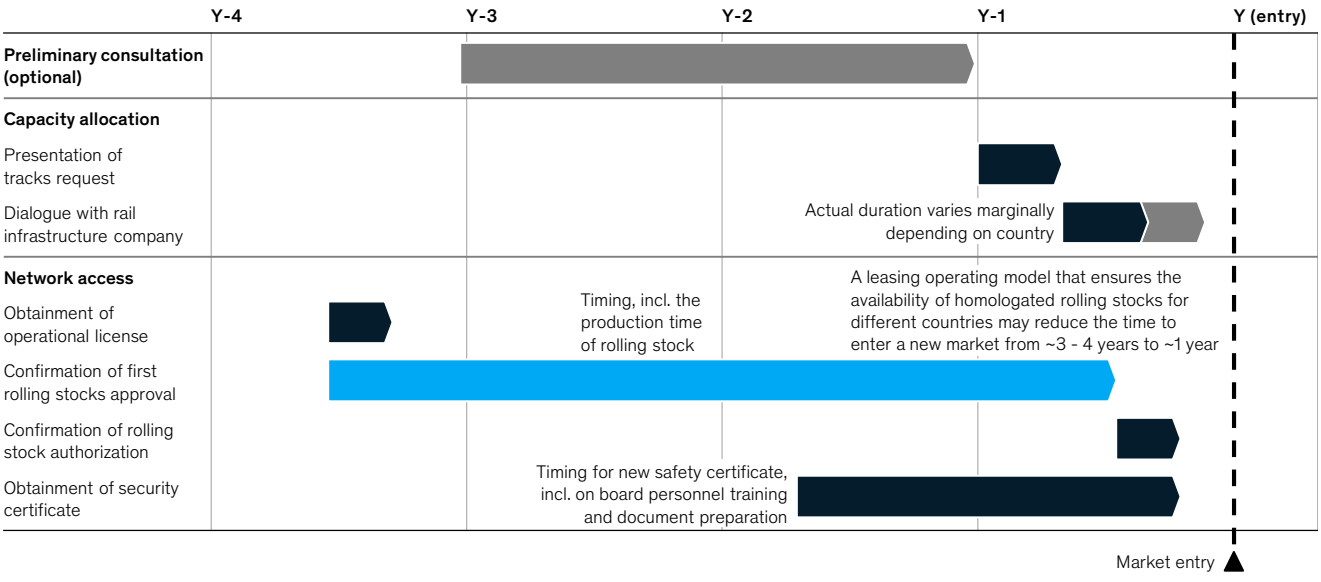
Although the new regulatory framework pushes for more competition in domestic rail markets, the time and planning requirements for entering a new EU rail market can take up to three or four years, with rolling stock availability and homologation as critical "bottlenecks" in the process.

This could push the market to introduce new asset-light operating models where rail OEMs or commercial leasing companies lease already homologated trains to new entrants, providing a full service offering that may reduce capex expenditure and speed up the time to market from three or four years to just one year (Exhibit 3). In such a context, rail OEMs could take the opportunity to become strategic partners of rail operators in order to facilitate rolling stock homologation processes for multiple EU countries.

Exhibit 3

The time to enter a new market mainly depends on rolling stock availability and homologation – foreign O/D entry timeline

Illustrative



Source: RIP of target countries; interviews

"... rolling stock availability and homologation as critical 'bottlenecks' in the process.

This could push the market to introduce new asset-light operating models where rail OEMs or commercial leasing companies lease already homologated trains to new entrants."

The fourth railway package can be expected to substantially impact the EU's passenger rail service markets

02

The future of the EU's passenger rail service markets is far from predictable. That said, three elements provide valuable insight into why and to what extent the fourth railway package's liberalization efforts will impact the EU's rail market starting in 2020:

Liberalization effects in an adjacent industry
In the airline industry, liberalization significantly shaped the competitive dynamics, particularly for the entry of LCCs that reached up to 50 percent market share within ten years in some EU countries. Even if not fully comparable with the rail industry (e.g., airplanes have full interoperability across the globe, thus reducing the entry risk), the airline industry presents at least two similarities with rail: (i) before liberalization, domestic (and cross-border) markets were dominated by traditional players with legacy costs, and (ii) significant fixed costs are required to operate in the industry (this, as occurred in the airline industry, may push operators to reduce prices to fulfill the spare capacity).

Liberalization effects in selected national LD rail markets with already (relatively) highly competitive dynamics
In the rail industry, an extensive low-cost competition has not yet occurred. However, in those markets where real competition does exist (e.g., Italy, Austria), incumbents lost a 20 to 40 percent share on core routes while high untapped market growth was unleashed (i.e., improved service level, shorter travel time, increased train frequency, and lower prices all supported the overall passenger demand increase and, moreover, modal shift in favor of trains).

Incumbent rail operators' interest in entering new rail markets
Triggered by the announcement of upcoming market liberalization, there is interest from some rail operators to enter new markets, particularly with a low-cost (disruptive) strategy.

In the following sections we will present deep dives into these three elements.

2.1 Liberalization effects in the airline industry

Following liberalization, competitive dynamics shaped the European airline industry significantly, in particular for the entry of the LCC, introducing several challenges for incumbents (Exhibit 4). Among these challenges are:

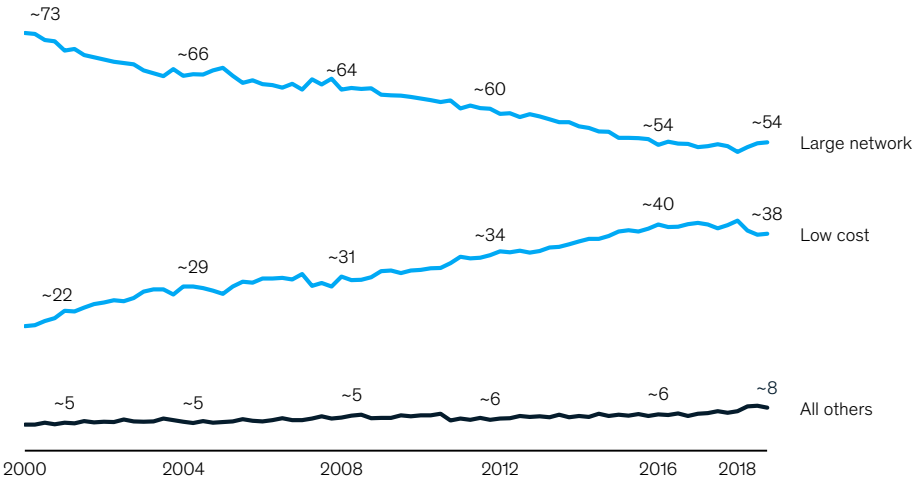
- Short-haul flight commoditization, with price as the core driver for passengers
- Market share losses for traditional players due to LCC disruptive pricing, enabled by a significantly lower cost structure
- Complex operating processes and legacy commitments preventing fast reaction to close the unit/cost gap
- Incumbents choosing between losing market share or lower yield

"… in some core European markets (e.g., the UK, Spain), LCCs reached up to 40 to 50 percent seat share in just ten years."

Exhibit 4

Airline industry example – the increased competition from LCCs[1] drastically reduces incumbent market share

Market share decline for incumbent airlines – passenger shares
Domestic O&D share, rolling 4 quarters, percent



The challenges:

Short-haul flights commoditization, price is main driver for passengers

Lost market share to LCCs'[1] significantly lower-cost structure and disruptive pricing

Complex operating processes and legacy commitments prevented fast reaction, closing unit cost gap

Incumbents chose between losing market share or yield

Had to operate losing lines to support hub and spoke network for long-haul passengers

1 Low-cost carriers

Source: Data bank 1B via Bureau of transportation statistics; Form41 via Bureau of transportation statistics

— Having to operate losing routes to support the hub-and-spoke network for long-haul passengers.

The increased competition from LCCs drastically reduced incumbents' market share and yield with stronger impact on the European market than in other regions. For example, in some core European markets (e.g., the UK, Spain), LCCs reached up to 40 to 50 percent seat share in just ten years. In other markets, LCCs did not command passenger shares quite as high, but they still experienced growth. The entry of low-cost carriers in the airline industry also negatively affected the yield of existing carriers by 20 to 30 percent on average, with peaks of 50 to 60 percent on specific routes.

Ultimately, the success of new entrants was based on their capacity to respond to the challenges emerging from the competitive context in the following ways:

— Ensuring leadership in the most attractive markets and routes

— Reaching commercial excellence/"direct pull"/active choice from customer, with a strong brand recognized by consumers for a distinctive value proposition

— Achieving continuous cost savings vis-à-vis peers with a strong production focus

— Creating a balanced portfolio of revenues beyond pure airline tickets, developing ancillary revenue streams

— Delivering a strong customer-centric performance, with frontline employees motivated to deliver exceptional customer service

— Building a sound financial foundation.

2.2 Liberalization effects in Italy's high-speed rail market

Two main players operate in the commercial LD routes in Italy: Trenitalia, the incumbent, a company belonging to the Ferrovie dello Stato Group, and Italo, the "new entrant," 100 percent privately owned. Other players focused on cross-border routes operating at limited volumes.

The competition, started in 2012, insists on the same routes (no geographical split by competitors, as happened in the UK, for example), and is spreading over time, with Italo purchasing new rolling stocks to enter additional routes.

This competitive setting on LD high-speed routes in Italy has resulted in multiple effects for many stakeholders (Exhibit 5):

Passengers

For passengers, a combined effect of modal shift from other transportation modes (e.g., reduction of 1 billion pax x km on the Milan-Rome route by plane) and the unleashing of strong and previously hidden demand led to an increase of 69 percent in pax x km between 2011 and 2018, that was driven by higher frequencies and more connections and supported by the evolution of the high-speed network, which ensured a shorter travel time on the main rail corridor (Turin-Milan-Rome-Naples).

Also contributing to the growth in demand was the addition of high-value features for passengers both on board (e.g., food, newspaper, wi-fi) and in the stations (e.g., dedicated lounges for loyal customers).

What is more, digitalization and multimodal integrated platforms have been enabling factors of the enhanced customer experience, evolving the travel concept from point-to-point to door-to-door.

69%

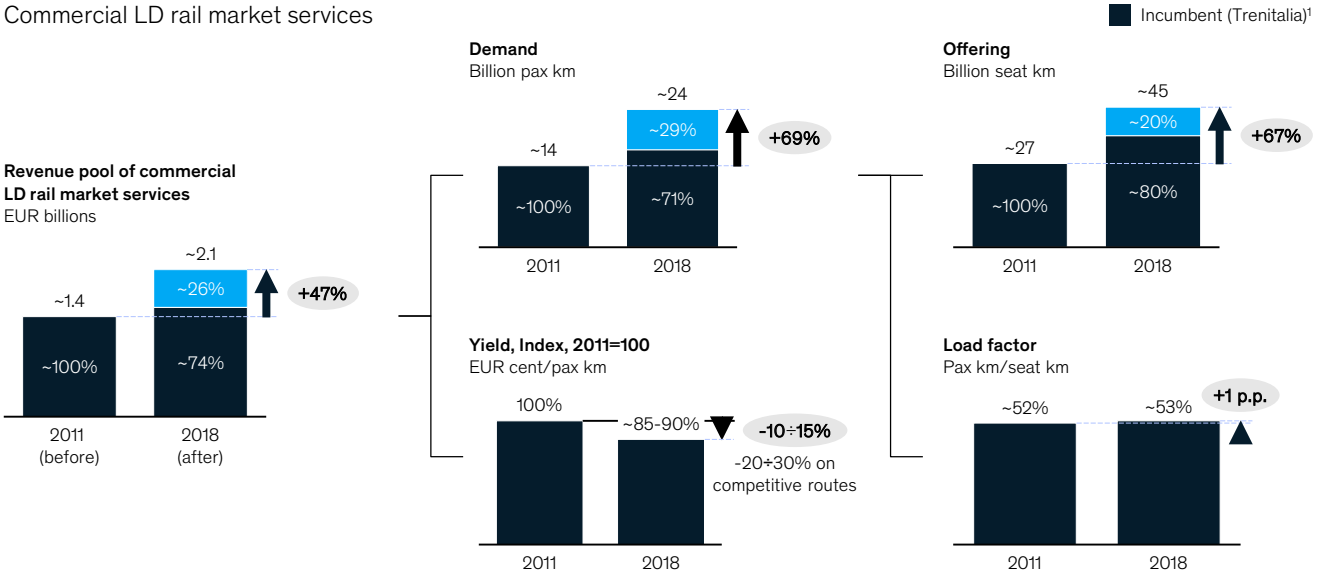
overall increase of the market revenue pool (increasing by 47 percent between 2011 and 2018)

Exhibit 5

Commercial LD (high-speed) rail market liberalization in Italy has put pressure on pricing while increasing the overall revenue pool

Italy

Commercial LD rail market services



1 Considered commercial LD market services

Source: Trenitalia and Italo annual reports; McKinsey analysis

~100

new trains in the network, with an investment by the rail operators of about EUR 3 billion

Rail operators

For rail operators, the effect of competition has been the overall increase of the market revenue pool (increasing by 47 percent between 2011 and 2018).

The pressure on pricing (e.g., about 20 to 25 percent yield reduction on routes in competition) has been more than compensated by the increased demand. Specifically, the average load factor remained stable around 50 percent, despite the additional offering (an increase of 67 percent in seats x km) deployed by the two main players.

Rail OEMs

For rail OEMs, the impact has been investments in enhancing the fleet of rail operators. The expanded offering was driven by the deployment of about 100 new trains into the network, with an investment by the rail operators of about EUR 3 billion.

When compared to liberalized routes, most European routes still hold high, untapped market growth potential in terms of modal share versus other transportation modes and level of offering. This is an indicator that market liberalization may generate impact on several EU core routes as occurred in Italy (Exhibit 6).

2.3 Incumbent rail operators' interest in entering new rail markets – in particular with a low-cost (disruptive) strategy

The third factor providing insight into why and to what extent the liberalization of the rail market will impact the EU's national passenger services is represented by the declared intent from some rail operators to enter routes in newly liberalized EU markets. Here are a few examples of operators signaling their intent:

FlixBus

FlixBus considers deploying its FlixTrain on French tracks (February 13, 2019 – French press): "We are observing, and will not limit ourselves in any case" (company's executive, 2018 results presentation).

Exhibit 6

Most European main routes still hold a high untapped market growth potential when compared to the liberalized routes

LD rail market liberalization

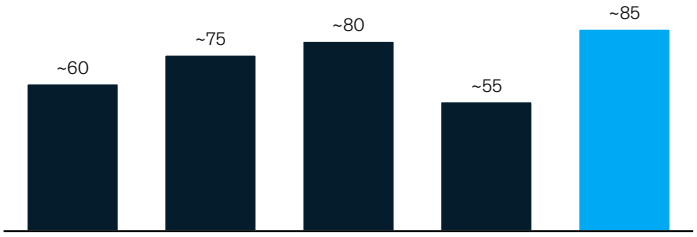
LD rail market competition in Italy has produced a triple competitive effect

Better services delivering high consumer benefits

More capacity, frequency, and connections

Lower prices (i.e., ~20-25% yield reduction on routes in competition)

LD rail market offering, 2017



	Route 1	Route 2	Route 3	Route 4	Route 5 (liberalized)
Rail offering, million seat km	2,500	3,200	2,300	4,700	13,300
Travel distance	400 km	450 km	600 km	550 km	600 km
Load factor	56%	47%	57%	55%	55%
Train ticket revenue per pax km[2], indexed: route 5 = 100	200	300	165	170	100

1 Including train, plane, and bus
2 Online inquiries for each origin/destination at 1, 3, 7, and 30 days from departure

Source: Rail/air/bus operators websites; UIC

SNCF
SNCF announced in 2018 that it was considering operating LD routes in other countries with the low-cost train, Ouigo.

In March 2019, the French operator also mentioned a potential entry into Spain in cooperation with local industrial players and in the high-speed segment.

Italo
Italo obtained the UK Rail Franchising PQQ Passport in March 2018. The Passport allows the company to participate in tenders regarding rail transport throughout the UK.

Thello (Trenitalia)
Thello (Trenitalia) declared its willingness to enter the French high-speed LD market.

Based on what has been declared by the operators, two main dimensions can be considered to define possible future competitive scenarios (Exhibit 7):

— Cost structure and service level of the new entrant

— Footprint of the new entrant.

While the first dimension addresses low-cost operators focused primarily on price competition and full-service operators focused on customer service, the second dimension outlines a point-to-point strategy on the most attractive routes and an extensive hub-and-spoke (potentially multimodal) entry strategy.

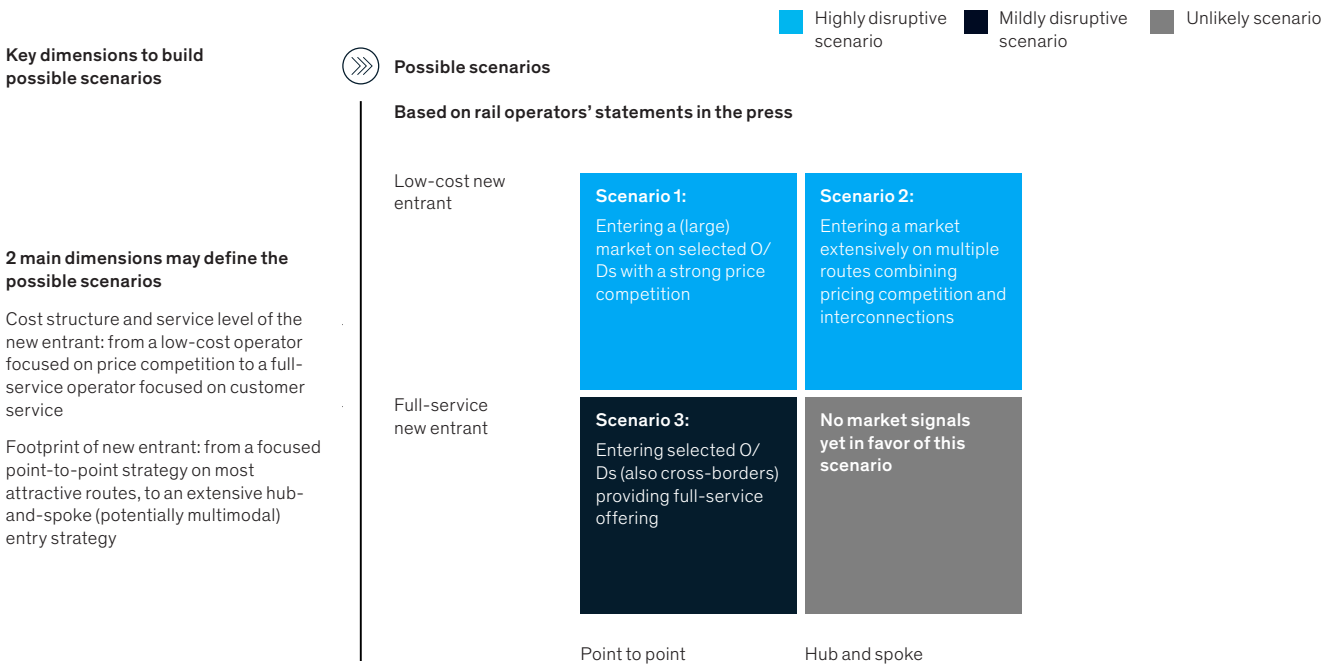
The three most feasible combinations of the two dimensions – characterized by unique actions in the areas of footprint, pricing, services, and cost – lead to the following three main scenarios.

Scenario 1: "low-cost, local footprint"
Here, a new entrant can be expected to act as follows:

— Footprint: operates a limited number of trains on the most attractive routes/corridors on selected scheduled times

Exhibit 7

3 main scenarios may occur in the liberalized countries



— Pricing: pursues an aggressive pricing strategy (e.g., ticket price below average economy class of incumbent)

— Services: provides no ancillary services because the product is "safe transportation, on time"

— Costs: strictly controls costs by limiting legacy costs (e.g., the setup of a new company).

Scenario 2: "low-cost, extensive footprint"
In this context, a new entrant is likely to act as follows:

— Footprint: operates a limited number of trains on multiple routes, aiming to increase customer base by matching scheduling of regional/urban services (the new entrant may also provide a multimodal offering, e.g., LD buses to better feed specific routes/hubs)

— Pricing: pursues an aggressive pricing strategy (e.g., ticket price below economy class of incumbent)

— Services: provides limited ancillary services but also a digital platform to plan and purchase a multimodal journey (MaaS)

— Costs: strictly controls costs by limiting legacies (e.g., setting up a new company) and ensuring operative synergies from higher volumes of traffic.

Scenario 3: "full-service, local footprint"
In this scenario, a new entrant (potentially an incumbent in another domestic market) can be expected to act as follows:

— Footprint: operates a high number of trains on the most attractive routes/corridors

— Pricing: pursues an initially aggressive pricing strategy to enter the market with gradual alignment of prices toward incumbent's level

— Services: develops a customer relationship model providing a predefined level of service and a loyalty program, designed as a differentiation factor compared to the incumbent

— Costs: in case the player is an incumbent in another domestic market, the player leverages in-house resources to look for synergies on operations (e.g., use existing maintenance facilities in case of cross-border routes) and support functions.

Regarding the "full-service, extensive footprint" scenario, no clear market signals have been recorded yet in favor of this scenario.

"Two main dimensions of new entrants can be considered to define possible future competitive scenarios: 1) cost structure and service level, and 2) footprint."

The strategic implications of the fourth railway package

03

With this chapter, we want to provide an overview of central frameworks and strategic options for "new market entrants" and "incumbents." Please note that the roles of "new market entrant" and "incumbent" are not necessarily absolute and can change for rail operators depending on their current role in various national railway markets.

3.1 Risks and strategic options for rail operators intending to enter new national rail markets

Entering a new market presents relevant risks for several reasons. There is uncertainty when it comes to both revenues – given the direct competition with the incumbent's prices and notoriety, and the operating model to be deployed in a new (unknown) market. Limited brand awareness means that a customer relationship model will need to be launched from scratch. There are also significant operating costs (e.g., fleet maintenance, track and station access fees, marketing.) and a significant capex risk (e.g., approximately EUR 20 to 30 million investment for a new train). In addition, there are risks related to regulations given the fact that trains are often designed to operate in a particular country, and getting approval to operate in other countries may require significant investments of time and money.

To face all these challenges and ensure a compelling strategy, a structured approach should be pursued answering three core questions concerning positioning as well as the institutional and operational setup (Exhibit 8).

Exhibit 8

New entrants will face strategic choices that can be addressed according to the P.I.O. structured approach

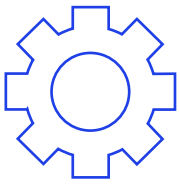
Not exhaustive

P = Positioning: what is the value proposition?

- Full-service or low-cost offer?
- Point to point or hub and spoke, cross-border routes and/or national O&Ds focus?
- Selective approach on few O&Ds or extensive territory occupation approach?

I = Institutions: what is the resulting institutional setup?

- Legal obligations to operate in the targeted country
- Partnership model: from stand-alone to a JV setup
- Corporate center model: relationships between the parent company and the local operating company



O = Operations: what is the best operational model?

- Historical brand or tailored new brand?
- Digital presence and level of openness to competitor's offers in sales channels?
- Rolling stock ownership or leasing?
- Maintenance and repair on-site or in the original country?

1) What is the core value proposition?
The new entrant should first define the strategic positioning based on the competitive setting in the target market, primarily considering a few key elements (not exhaustive):

— **Service model ("full service" versus "low cost")** While a "full-service" strategy would preserve the overall market profit pool – basing competition on customer service –, a "low-cost" entry strategy may minimize the investment and time it takes to build a solid customer base and lead to faster (albeit lower) profitability.

— **Footprint strategy (i.e., which routes/corridors to enter)** While a selective point-to-point entry strategy would simplify operations and maintain focus on the most profitable routes with higher load factor and yield, a "hub-and-spoke" entry strategy (including secondary routes) may increase asset utilization and reach a broader customer base.

2) What is the resulting institutional setup?
Once the strategic positioning is defined, it is also critical to define the institutional setup, considering key factors such as the following (not exhaustive):

— **Partnership model.** As it occurred for several cross-border services, new entrants may also think about cooperating with other rail operators, looking for commercial and operational synergies while reducing risks and investments.

— **Corporate center model.** In case the new entrant is already a rail operator in other countries and considering that a local and licensed railway operator entity needs to be created, it is important to define the role of the "parent company" – on one hand, a pure "holding" role may ensure more flexibility and agility to operate for the new entrants; on the other hand, a more direct involvement may boost synergies and accelerate breakeven for new entrants.

3) What is the optimal operating model?
Eventually, the operating model must be defined consistently with the strategic choices in terms of positioning and institutional setup. In this regard, there are strategic decisions to be made primarily along five key dimensions (not exhaustive):

— **Branding.** Use an already known brand (when applicable) to leverage the existing customer base or develop a totally new and tailored brand that better fits the target market.

— **Sales strategy.** Pursue a fully digital sales strategy to minimize costs and target younger customers or combine physical and digital sales channels to broaden the customer reach.

— **Rolling stock.** Lease standard trains to minimize initial investments or purchase new (potentially customized) trains to differentiate the offering.

— **Maintenance.** In case of ownership of the rolling stock, opt either for on-site maintenance and repair (dedicated organization at the local level) or for repair at the "parent company"/in the domestic market (when applicable).

— **Personnel.** Rely either on fully internal personnel to ensure culture consistency or a combination of internal and external personnel to maximize flexibility.

3.2 Key success factors for entering a new rail market

Even if there is not a predefined "winning" strategy (also due to the peculiarities of the different national markets and competitive settings), based on lessons learned from already liberalized rail markets, it is possible to provide an overview of the six building blocks of entry strategies for LD rail markets.

Key elements of this overview are pragmatic recommendations concerning what needs to be done in the context of each building block to increase the probability of success of entry strategies:

Market and route selection
Assess and prioritize the most attractive corridors – and the most relevant routes within these – starting with a point-to-point strategy and potentially expanding the footprint in a second stage, also considering possible counterreactions of the incumbent (e.g., pricing reduction). Additional insights on route selection can be found in Textbox 2.

Commercial excellence
Develop a relationship model to attract and retain loyal customers through, among other things, a strong brand with a distinctive value proposition; also make use of digital channels to reach new and many more customers at a lower cost.

Cost leadership/savings
Start with an asset-light operating model to reduce financial/operational risks and maintenance costs; in addition, take advantage of the nonlegacy cost base to support margins in the ramp-up phase.

Station and track access mode
Enter main railway stations to ensure presence in growing hubs and push for track and station fee reductions.

> "Assess and prioritize the most attractive corridors, starting with a point-to-point strategy."

Textbox 2

How to choose the most attractive routes in a new market

Route selection is of utmost importance to ensure successful international expansion and must be professionally handled. This is particularly relevant assuming entry into a new market with a point-to-point strategy, thus focusing on the most attractive routes.

To facilitate informed prioritization, we have developed a proprietary tool that defines a specific "attractiveness index" for over 100 routes in the EU, combining three key elements (Exhibit 9):

1. Expected passenger demand in 2025 (pax x km)
The expected passenger demand is calculated considering (i) the current offering combining all the typical transportation modes for LD travel (e.g., train, plane, and bus); (ii) an estimate of the current demand based on specific load factors for each transportation mode; and (iii) demand projection for 2025, factoring in the expected evolution of route cities' GDP.

2. Modal preference (index)
This index is based on an evaluation of convenience of traveling by train as a function of route price and travel time compared to other transportation modes (e.g., plane, bus, and car).

3. Yield (EUR cent per pax x km)
The yield calculation is based on the average train ticket price for each route at one day, one week, and one month, considering different days of the week and different classes.

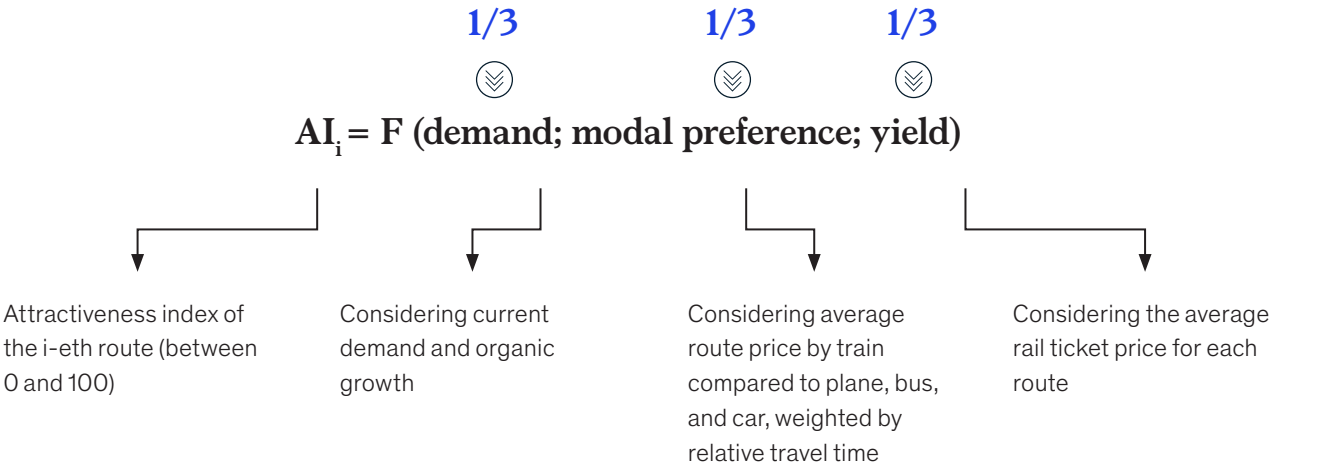
Exhibit 9

The routes' attractiveness is defined by 3 key drivers, which are combined in a synthetic index

Weight to be refined depending on local context

Attractiveness index calculation for each route

xx Weight



"Start with an asset-light operating model to reduce financial/operational risks and maintenance costs."

Rolling stock availability
Ensure timely availability to enter the market with an adequate offering, ideally with rolling stocks homologated for multiple countries to ensure flexibility in fleet management.

Sound financial foundation and market agility
Ensure access to financial capital (time before breakeven is estimated to be at least three years) and, at the same time, develop an agile business unit to be able to respond to market dynamics during the ramp-up phase.

3.3 Strategic options for rail operators that are incumbents in a national rail market

As we noticed in the context of already liberalized rail markets such as Italy, liberalization does not necessarily imply only negative effects for incumbents. This is because, as we discussed in Chapter 2, rail market liberalization in Italy, for example, (combined with the enhancement of high-speed infrastructure) resulted in the release of an impressive hidden demand of pax x km (also based on gaining market share from other transportation modes), increasing Italy's rail market revenue pool by approximately 50 percent in just seven years.

To take full advantage of the liberalization opportunity, incumbents should develop specific countermeasures to proactively safeguard their current business and revenue. In this regard, we have identified and prioritized five potential levers – including pragmatic action recommendations – for incumbents in LD rail markets to be used for fending off new market entrants.

Boosting capacity
Improve the offering (e.g., higher frequency, more seats, more direct connections versus multistop routes) on the most attractive routes to limit the opportunities of new entrants/competitors.

Personalizing services
Develop a passenger-specific offering based on passengers' needs and habits to differentiate the service versus new entrants; provide ancillary services on board and in-station to improve customer experience and brand loyalty; and use the full potential of the customer relationship management system that is already in place.

(Selectively) reducing prices
Reduce prices on those trains with a low load factor as well as on those routes/during those times where/when competitors operate to avoid across-the-board price reductions and, as a result of this, market shrinking.

"Develop a passenger-specific offering based on passengers' needs and habits to differentiate the service versus new entrants."

Exhibit 10

Learning from the airline industry, incumbents' reactions do not always lead to successful outcomes

Dimensions	Initiatives	Consequences
Boost capacity	Some of the established airlines set up new destinations and increasing capacity and frequency in others	While preventing competition, these efforts ultimately cost the carriers money, particularly those that had not tackled the problem of inefficient cost structures
Personalized service	Make customers pay for ancillary services (i.e., no complimentary meal, comfort, pay for seat selection, nonrefundable ticket, etc.)	Apart from the additional connections offered, the incumbents' value proposition is not any more distinctive vs. LCCs
Reduce price selectively	Provide an airfare for every budget with pricing personalization based on customers' needs	Overall ticket price decrease with lower yield not compensated by an increase in load factor
Optimize costs	Airlines (private and state-owned) have embarked on restructuring programs to radically lower costs and heighten efficiency	For most carriers, restructuring efforts have utilized painful staff reductions, with employees and unions not accepting such measures
"Be the new entrant"	Companies created a "low-cost arm" to compete with emerging LCCs	Revenue cannibalization and pressure from competitors for using a predatory and illegal pricing strategy, causing some of them to fail

Optimizing costs
Optimize the cost base with a zero-based budgeting approach, renegotiate contracts with main suppliers (e.g., application of "should cost" purchasing strategy), and revamp the current operating model to include digital and advanced analytics (e.g., predictive maintenance, workforce planning).

"Being the new entrant"
Evaluate the likelihood of success for launching a new entity with a low-cost rail offering in the domestic market in order to defend against further competition from new entrants (albeit with a high risk of cannibalization).

However, as the above-mentioned example from the airline industry indicates (Exhibit 10), the response of incumbents to opportunities that follow market liberalization may not always result in success. This is why both a continuous top management focus and compelling defense strategy – specifically tailored to the characteristics of the rail market in question – are required.

Outlook: getting started with navigating the EU's changing the long-distance rail market

We expect that the EU's fourth railway package will have a sizable impact on the EU rail market, including providing the opportunity to generate benefits for the entire landscape. Among these benefits are additional offerings and better services for passengers, market growth for rail operators, a boost in the investments for rail OEMs and infra managers, strong financial returns in five to seven years for investors (e.g., Italo reached an over 30 percent EBITDA margin in six years), and a modal shift with environmental benefits.

Countries that are not liberalized yet on LD routes (e.g., France, Spain) may be the most impacted ones. However, the reinforcement of common standards and technical specifications for increased interoperability, homologation of safety certificates, and capacity increase facilitated by the gradual deployment of the new signaling system (ERTMS) may also further stimulate competition in already liberalized LD rail markets, such as Germany and Italy.

The relevance and key challenges of this strategic topic require three commitments above all: strong focus and backing from the top management team, continuous monitoring of the competitive dynamics in the domestic market, and searching for emerging and growing opportunities in other EU rail markets (Exhibit 11).

Exhibit 11

Outlook – getting started with navigating the EU's changing LD rail market landscape

Main stakeholders	Opportunities and challenges
Passengers	— Better services, potentially at lower prices — Additional frequencies
Rail operators	— Significant boost of market revenue pool — Pressure on profitability level for the incumbent
Infra managers	— Revenue increase by traffic boost — Complexity in managing network capacity constraints and track allocation
Investors	— 30% EBITDA business to enter — Growth potential through modal shift
Rail OEMs	— Boost revenue from new train orders — New operating models (e.g., leasing)
Society	— Environmental benefits by modal shift — Employment increase driven by investment and new rail operators

The key challenges of this strategic topic require

Strong focus from the top management team

Monitoring of the competitive dynamics in the domestic market

Surveying growth opportunities in other EU rail market

“We expect that the EU’s fourth railway package will have a sizable impact on the EU rail market, including providing the opportunity to generate benefits for the entire landscape.”

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The liberalization of the EU passenger rail market
July 2019

Designed by Visual Media Europe

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