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What can optimized rail operations do for you?

How much cost savings do you stand to gain by optimizing your passenger rail operations? Find out with our ROI calculator. To begin, fill in the fields below.

Service

Number of services per day

Punctuality

%

% trains canceled per day

%

Fleet

Number of assets (locomotives)

Crew

Total number of crew

Calculate my optimized result in





Calculate

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Your optimized result

Total annual savings
\$2,741,091

However, further optimization is possible.

Every company has its own business requirements, as do yours. Further savings can be achieved by optimizing service quality and reducing the operational costs of your fleet and crew.

Below are the various KPIs that can be adjusted to get a more accurate optimized result. You can fine-tune the value of each KPI to properly reflect your business needs. The optimized result will update in real time as you adjust each KPI value.



Service

Number of services per day	<input type="text" value="1000"/>
Punctuality	<input type="text" value="90"/> %
% trains canceled per day	<input type="text" value="1"/> %

Fleet

Number of assets (locomotives)	<input type="text" value="100"/>
--------------------------------	----------------------------------

Crew

Total number of crew	<input type="text" value="300"/>
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Expand the drop-down boxes below to adjust the KPIs and get a more accurate optimized result.

[Expand all](#)

Quality of service



Cost of fleet



Cost of crew



Note: In addition to the KPIs mentioned above, a system for planning passenger rail operations can bring various qualitative benefits such as better visibility of the plan to all stakeholders (including unions). This can lead to fewer disputes and more constructive discussions, as well as a way to manage the robustness of the plan and balance it against the efficiency of the plan.



Download your results

Get your ROI results in a clear and easy-to-read PDF document. Click here to have the results sent straight to your inbox.

[Download now](#)



Have a question? Contact us

No matter how complex your problem is, our supply chain planning and optimization specialists are on hand to help. Leave us your details and we'll be in touch.

[Contact us](#)

Your optimized result

Total annual savings

\$2,741,091

Service

Number of services per day	<input type="text" value="1000"/>
Average number of pax per service	<input type="text" value="100"/>
Average distance per service	<input type="text" value="60"/> <input type="text" value="km"/>
Punctuality	<input type="text" value="90"/> <input type="text" value="%"/>
Average delay duration	<input type="text" value="2"/> <input type="text" value="min"/>
% of delayed trains resulting in a penalty fee	<input type="text" value="10"/> <input type="text" value="%"/>
% trains canceled per day	<input type="text" value="1"/> <input type="text" value="%"/>

Fleet

Number of assets (locomotives)	<input type="text" value="100"/>
Cost of capital for asset financing	<input type="text" value="5"/> <input type="text" value="%"/>
Total empty distance per day	<input type="text" value="2000"/> <input type="text" value="km"/>
Average maintenance visit cost	<input type="text" value="5000"/> <input type="text" value="\$"/>
Total number of crew	<input type="text" value="300"/>
Cost per employee per hour	<input type="text" value="36"/> <input type="text" value="\$"/>
Overtime pay factor	<input type="text" value="1.5"/> <input type="text" value="x"/>

Crew

Expand all

Quality of service

	Current cost	Potential improvement	Savings/year
Passenger delay minutes	Cost per passenger delay minute <input type="text" value="0.01"/> <input type="text" value="\$"/>	% increase on time <input type="text" value="-"/> <input type="text" value="0.1"/> <input type="text" value="+"/>	\$72,000
Train service delay minutes	Average fee per train service delay minute <input type="text" value="200"/> <input type="text" value="\$"/>	% increase on time <input type="text" value="-"/> <input type="text" value="0.1"/> <input type="text" value="+"/>	\$1,440,000
Number of cancelled trains	Cost per canceled train <input type="text" value="1500"/> <input type="text" value="\$"/>	% reduction in canceled trains <input type="text" value="-"/> <input type="text" value="1"/> <input type="text" value="+"/>	\$54,000
Increased ridership through additional services	Revenue increase per pax <input type="text" value="1"/> <input type="text" value="\$"/>	% additional services <input type="text" value="-"/> <input type="text" value="1"/> <input type="text" value="+"/>	\$360,000

Cost of fleet

+

Cost of crew

+

Note: In addition to the KPIs mentioned above, a system for planning passenger rail operations can bring various qualitative benefits such as better visibility of the plan to all stakeholders (including unions). This can lead to fewer disputes and more constructive discussions, as well as a way to manage the robustness of the plan and balance it against the efficiency of the plan.



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Have a question? Contact us

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Contact us

Here's what optimized rail operations can do for you

Dear <first name>,

Thank you for taking the first step in optimizing your operations with our Passenger Rail ROI Calculator.

At the link to your right you can find your results, presented in a clear and easy-to-read PDF document. This document has been fine-tuned to reflect your exact operational requirements.

Please note that any savings showcased in this document are for illustrative purposes only and not a guarantee of results. Get in touch with us to obtain a more accurate representation of the savings that can be achieved by optimize your operations.



[Download your result](#)

What's the next step?

[Contact us](#). No matter how complex your problem is, our rail planning and optimization specialists are on hand to help.

We hope to hear from you soon.

Best regards,
<Name and contact info>

About Quintiq

Quintiq has helped leading rail operators around the globe improve service efficiency, lower operational costs and increase customer satisfaction. A single, integrated platform handles timetabling, utilization of stock and crew and disruption management across all time horizons.

Established in 1997, Quintiq is now being used in over 80 countries worldwide. Quintiq has a global presence with dual headquarters in the Netherlands and the USA, a global development center in Malaysia and offices around the world.

What can optimized rail operations do for you?

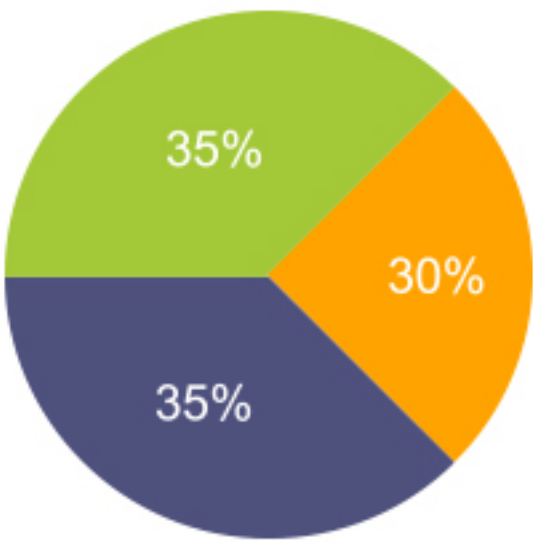
How much do you stand to gain by optimizing your passenger rail operations? Our ROI calculator provides granular adjustments on various business KPIs that can be fine-tuned to fit your exact business needs.

The potential savings you see here is calculated by an intelligent planning solution that covers multiple horizons and coordinates all the necessary parameters. The result: higher service quality, reduced operational costs of your fleet and crew, improved employee satisfaction and assured safety levels.

Your optimized result

Total annual savings

\$2,607,091



Optimized result

- Quality
- Cost of fleet
- Cost of crew

Discover your actual saving potential

Contact us

Service		Fleet		Crew	
Number of services per day	1000	Number of assets (locomotives)	100	Cost per employee per hour	\$36
Average number of pax per service	100	Cost of capital for asset financing	5%	Overtime pay factor	1.5
Average miles per service	60	Empty distance per month per asset	500		
Average delay duration (minutes)	2	Average maintenance visit cost	\$5000		
% of delays that delay other trains	10%				
Trains canceled per day	1%				

Quality

	Current cost		Potential improvement		Savings/year
Passenger delay minutes	Cost per passenger delay minute	\$0.01	% increase on time	0.1%	\$72,000
Train service delay minutes	Average fee per train service delay minute	\$200	% increase on time	0.1%	\$1,440,000
Number of cancelled trains	Cost per canceled train	\$1500	% reduction in canceled trains	1%	\$54,000
Increased ridership through additional services	Revenue increase per pax	\$1	% additional services	1%	\$360,000

Cost of fleet

	Current cost		Potential improvement		Savings/year
Fleet utilization	Average value per asset	500	% saved	1%	\$250,000
Empty miles	Cost per empty mile	\$1	% saved	10%	\$60,000
Maintenance intervals	Average distance between maintenance visits	22000	Targeted average distance maintenance	22500	\$109,091

Cost of crew

	Current cost		Potential improvement		Savings/year
Crew utilization	Total crew cost	10000000	% crew savings	1%	\$100,000
Overtime hours	Overtime hours per month	5000	% overtime saved	5%	\$162,000

While these savings are typical, they are for illustrative purposes and not a guarantee of results.