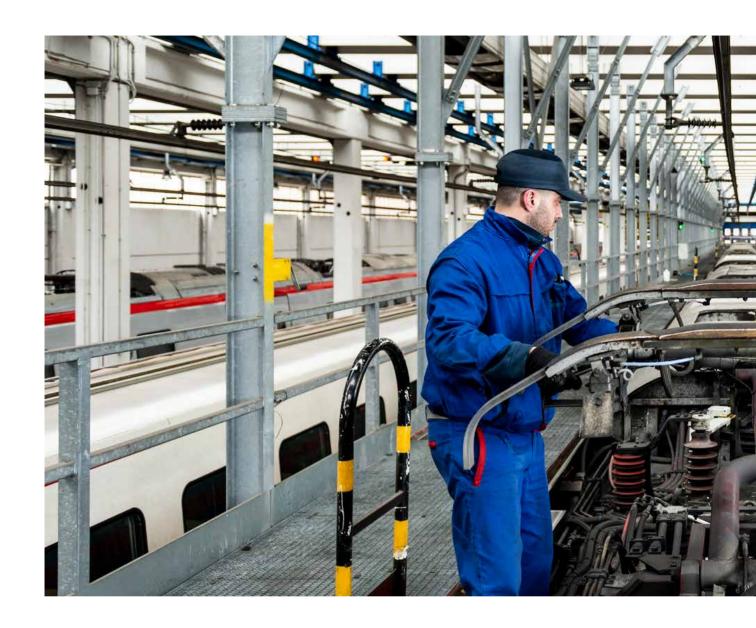


Rete Ferroviaria Italiana

RUNNING LIKE CLOCKWORK





Rete Ferrovi

RUNNING LIKE

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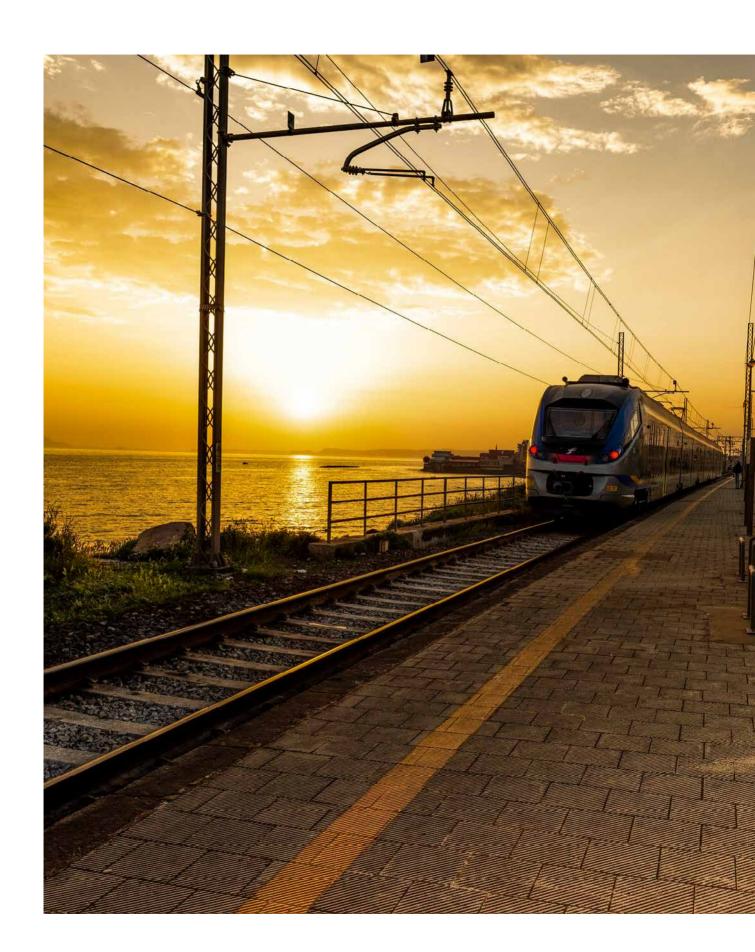


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CLOCKWORK

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oseph Philips





n just a few days in Italy, a visitor could begin a train ride in Genoa, pass the Italian Riviera and the Cinqueterre, take in Bologna and Florence, head south to Rome and then on to Napoli and the Amalfi coast. It's genuinely hard to think of anywhere in the world that one could take in a more breathtaking range of cities and landscapes.

The best way to take this journey, not to mention the most affordable, would be by train. Anyone that has ever been to Italy will know that its rail network runs like clockwork. That it does so is a testament to Rete Ferroviaria Italiana (RFI), the company in Italy whose mandate it is to design, build, operate, manage and maintain the country's rail infrastructure.

In this article, Business Excellence looks at the organization in some detail. We look at its operations, how it has progressed since being founded in 2001 and where its future is likely to take it.

Background

RFI was established in July 2001 as an infrastructure company of the Ferrovie dello Stato Group (literally the state rail group). RFI had previously been run as a government entity but the new arrangement, an EU directive implemented by the Italian Government, aimed at separating the network operator from the producer of transportation infrastructure.

"At the end of 2019, the RFI was responsible for managing 24,500 kilometres of railway track, with approximately 2,200 passenger stations of some format"

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"RFI employs approximately 26,500 people and constantly works on what it calls 'improving the generational mix."

The RFI has a broad mandate where operating the rail network is concerned. This includes everything from the planning and implementation of investments, maintenance of the railway infrastructure and definition of the rail network timetable to the accessibility of railway terminals for people with reduced mobility, maintaining maritime links between mainland Italy and its islands, and conducting regular psycho-physical assessments of its workforce to assess their capability of providing the best possible service to passengers.

At the end of 2019, the RFI was responsible for managing 24,500 kilometres of railway track, with approximately 2,200 passenger stations of some format. It was also responsible

for four ferries and 211 freight plants. Regular maintenance and updating of the system also means that the majority of this infrastructure is state of the art. For example, over 13,000 kilometres of the track can be run by remote control and 12,500 kilometres of track where the train can be controlled remotely.

Putting Italy in motion

In 2018, RFI recognized a profit of EUR 274 million - the twelfth year in a row that the company achieved a profit, and not always against the backdrop of a growing Italian economy. Notably, the company also makes annual investments in excess of EUR 4 billion aimed at maintaining the standards set by the



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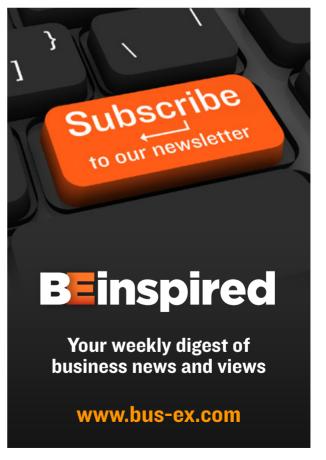
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HYDRAULICO

Switch-Rail Forging line by Hydraulico

Hydraulico is specialized in developing Turn-key solutions to provide its customers with sustained competitive advantage at a reasonable price. As an example, we have the latest Switch-Rail Forging line developed for Rete Ferroviarial Italiana with which Hydraulico consolidates as a world leader within this specific niche.

Each solution is tailormade to maximize customer value. Based on Hydraulico's core business and process knowledge within hydraulic presses - Hydraulico has the right know-how to supply complete Automated Turnkey Solutions. In the case of Rail Ends forging, the solution includes:

- Preheating
- Forging
- Dies
- Lubrication
- · Handling of rails
- Hardening

Through consistent and proven developments; Hydraulico has optimized the individual subprocesses to fulfill customers' requests and comply with global standard. The Forging line is based on a 5000 tons forging press. The press is the heart of the forging line and combined with highly defined induction furnace – minimum preheating time. To achieve optimum forging results, minimizing the heat affected zone and decarbonation of the rail-material, the heating technique of the rail ends is crucial!

Every sub-process in the Rail Forging Line is optimized accordingly to achieve the best geometry and microstructure of the rails, at lowest energy consumption. This also includes the design of the forging dies, which minimizes

customer's post forming machining; Hydraulico makes the design of the dies and simulates the forging results before the design is released to manufacturing.

The rail forging line is being loaded, handled, and unloaded automatically by our RTS system (rail transfer system). The 3 forging-steps are carried out within strictly controlled time window. In the forging process time is a crucial parameter; every forging step must be done before the temperature of the rail ends falls out the range.

Finally, a head hardening process can be integrated. The purpose of this process is to secure and fulfill the hardness of the specified rail ends. Overall the output of the Hydraulico Rail Forging line is from 4-8 rails per hour depending on the specified rail and the standard to comply with.

Hydraulico's capacity to provide complete solutions based on know-how will not only minimize your risk but also put you ahead of the market.

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company and continuously modernizing its fleet and infrastructure.

All of the company's work is underpinned by four strategic objectives: safety, punctuality and reliability, performance upgrade and efficiency and innovation and sustainability. The large investments over the past five years have contributed significantly to meeting these objectives, including through the installation of advanced technological equipment in large metropolitan hubs and increasing the network's capacity and performance.

Above all has been the marked enhancement of Italy's connectivity, both

between its own cities and between Italian cities and those of its neighbours. This has been achieved through building new lines, making its transport services faster, connecting more ports, terminals and airports to the railway network - including passengers and freight.

People and Sustainability

RFI employs approximately 26,500 people and constantly works on what it calls 'improving the generational mix.' This means bringing in new high school and college graduates every year as well as offering incentives to

"In everything from its annual reports to its promotional material, RFI underlines the importance of ensuring that it provides for people with reduced mobility"





older members of staff to put retirement plans in place. What results is a balance between young and old that gives the company a winning combination of fresh new thinking and invaluable experience.

In everything from its annual reports to its promotional material, RFI underlines the importance of ensuring that it provides for people with reduced mobility. It has rolled out 'easy station' and 'smart station' programs aimed at improving accessibility for this cohort, making its stations into more appealing places to be for everyone.

RFI's green credentials and its commitment to sustainable procurement was also rewarded in May 2018, when it was awarded a prize in the Ethical Purchases and Sustainability category of the third edition of the Procurement Awards Beyond Saving. The judging panel commented on RFI's strong performance in promoting responsible global supply chain and CSR practices in its procurement process.

At a time when homelesses is on the rise across Europe, RFI is making a worthwhile effort to counteract the problem. Where ever possible, it makes its unused real estate assets (which include 450 disused railway stations) available to local bodies, foundations and associations across Italy. The impact of this remarkable gesture was captured in a 2018 book entitled "Stazioni Impresenziate. Un riuso sociale del patrimonio ferroviario" (Disused stations. A social re-use of railway assets).

Partners and Providers

RFI operates a scoring system whereby it gives preference to suppliers with sustainable credentials. As the single largest buyer of railroad-related products and services in Italy, this creates a culture of sustainability across the industry: If you're not buying, manufacturing and distributing sustainably, you're missing out on the biggest commercial opportunity that exists in the country.





As one might expect, the partner and supplier firms for RFI are all specialists in railroad operations and include Hydraulico (rail forging presses), Tekfer S.r.l. (a railroad and logistics company) Vossloh Cogifer ITALIA and Bombardier (railroad technology), Officina Meccanica (rolling stock) and Cinel Officine Meccaniche and AnsaldoBreda for the specific engineering and construction works required by railroad operations.

Finally, complementary services are provided by Atos Italia, which operates the company's considerable (and constantly growing) telecommunications network and REM, which designs the company's tailored electronic devices.

Looking to the future

RFI is sustainable both in environmental and economic terms, meaning that it can look to the future with confidence. Its ongoing investments in R&D reflect this forward-facing outlook: In 2018 alone, it signed over 20 research agreements with Italian universities working in areas such as embedded systems, software engineering for railway applications and IT and applications.

Its commitment to sustainability is relevant not only for the company for the country: Making RFI more sustainable also translates to Italy being more competitive. The future vision of the company is one of intermodal hubs and service centres. This also means increased cooperation and connectivity with neighbouring countries. In summary, RFI will continue to be at the heart of connecting Italians with the world.

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