

# Ferrocarrils de la Generalitat de Catalunya

Digitizing and optimizing information flow to improve efficiency in a network of railway stations

## Overview

### Customer Challenge

Our client wanted to rapidly improve operational efficiency and both the customer and employee service in each railway station.

### Location

Spain

### Sector

Transportation

### Function

Operations, Customer Service, Technology

### Service Lines

Digital Transformation, Operational Excellence

## Business challenge

**Spanish railway operator Ferrocarrils de la Generalitat de Catalunya (FGC), based in Barcelona, operates two medium-distance lines with 78 stations, 88 trains and 1,385 employees.**

FGC has a culture of continuous service improvement with a consistent track record of operational excellence and high efficiency. In the spirit of continued improvement, the company wanted to design a more efficient solution for some of its management systems across its operational base.

The data at the local railway stations was manually managed, meaning that hard copies of key documents and reports were sent daily to each of the 78 stations. A large amount of the forms were filled in by hand and sent back to the Railway Control Center, where they were reviewed and entered in the system.

This manual process was time consuming for the operations teams at both the Railway Control Center and the stations. With all data being collated by hand and captured on a paper form, the data analysis and information dissemination was a slow and inefficient process. In addition to these paper-based systems, much of the communications between the headquarters in Barcelona and the local stations relied on the informal use of personal mobile phones, which made direct communications challenging.

## Approach

The Hitachi Consulting team was brought in to design a solution to improve the information flows and increase the operational efficiency at the railway stations.

Together with FGC operations managers and supervisors, Hitachi Consulting reviewed the current processes and the internally available technologies within the company in order to identify all options available when designing the new digital solution.

The defined solution was based on a combination of the current corporate intranet and Microsoft SharePoint. The solutions designed were specific

to individual sites and the functional requirements of the various operations teams (station agents, train drivers, inspectors, supervisors, etc.).

Our approach focused on:

- Developing a "Railway Portal Station" for each station to provide teams with relevant information on a daily basis. This portal would connect all digital devices, systems and processes in the station to the portal for monitoring and data collection purposes. Employees now had timely and direct access to critical data such as the accessibility and location of station components (ticketing machines, automatic stairs, fire extinguishers, etc.), digital incidence status reports (now in real-time), cleansing service status (with the option to register and track incidents) and reports showing the follow-up of daily events.
- Developing an "Operations Agents Portal", focusing on keeping all job instructions and manuals up-to-date. These are required for the daily activities of train drivers and inspectors.

These two portals would help teams better manage data through a workflow process, give them access to their personal information and requests and allow corporate email, all of which would remove the current paper-based systems.



## Exceeding our client's business goals by minimizing the investments required

In parallel, Hitachi Consulting incorporated into the solution the ability to access the system remotely through a BYOD (bring your own device) strategy. Having access through their tablets or smartphones would enable staff to use the solution everywhere and allow continuous control and management of station equipment, services and passenger flow.

### Results and estimated savings

We have exceeded our client's business goals. The total cost of the solution was minimized through the exploitation of existing technologies within FGC and their adaptation to create the functionality required.

All railway stations would be equipped with tablets or smartphones so that every operator and manager could access all the information required to efficiently manage the stations.

The solution will improve communication among the 78 railway stations and the network control center. Supervisors and corporate officers can immediately share critical information and data regarding the operations, the installations or the employees including:

- Real-time access to any station-critical data
- Real-time incident-reporting processes
- Real-time employee requests

- Immediate access to any updated version of job instructions and employee manuals
- Corporate email as a standard corporate communication tool

In addition to the increased operational efficiency and productivity improvements at the stations, there were quantifiable benefits in the form of annual savings of over 3,000 man-hours in administration and 550,000 printed pages.

### About Hitachi Consulting

Hitachi Consulting is the global solutions and professional services organization within Hitachi Ltd., a global innovation leader in industrial and information technology solutions and an early pioneer of the Internet of Things. Hitachi Consulting is a business integrator for the IoT era and a catalyst for digital transformation. Using our deep domain knowledge, we collaborate with clients to help them innovate faster, maximize operational efficiency and realize measurable, sustainable business and societal value. As a consulting-led solutions company, we can help you leverage data as a strategic asset to drive competitive differentiation, customer loyalty and growth. To learn more, visit [www.hitachiconsulting.com](http://www.hitachiconsulting.com).

**"The Hitachi Consulting pragmatic approach helped design a business solution based on our own systems and technologies."**

**- FGC Operadora,**  
Director

**"Creating a joint team to co-develop solutions with a results-oriented approach, this is how I would describe the Hitachi Consulting way of working."**

**- FGC Operadora,**  
Head of Controlling and  
Administration Office