



## Rail networks survey :an integrated and autonomous solution

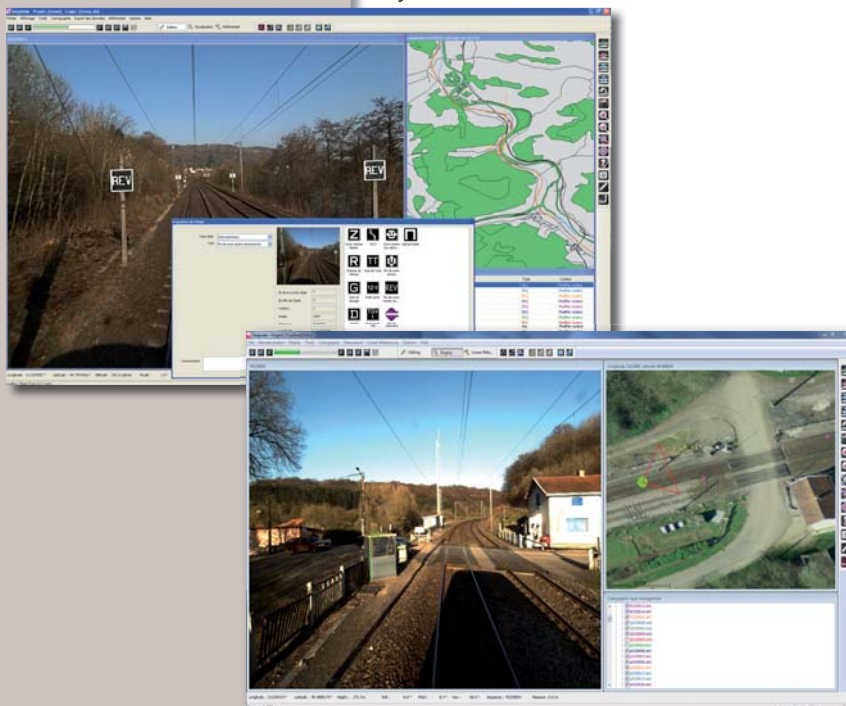
### Imajbox: bring the field to your office

imajbox is a complete and easy to handle solution that allows to collect rapidly geographical information from field based on geo referenced imagery.

It can be easily and quickly installed on trains operating their regular service, with no trouble for the driver.

Once data are collected, you can navigate in your network with images linked to the survey trace. You can position and measure in 3D all the visible elements in the image to produce GIS layers.

In the cartographic part, you can overlay any map, GIS shape or orthophotos to your survey trace to ease navigation in your network.



### Support tool for driver training

- Simulation of route on existing railways with updated data
- Construction of the speed profile
- Visual recognition of the line and its specificity

### Rail asset inventory and management

- Inventory and management of the equipment: lineside signals (semaphore signals, light signals, junction indicators, banners, catenaries)
- Classification of the collected objects (register, type, measurement, state) on the basis of an entirely modular dictionary of objects (XML dictionary)
- Communication towards management software and GIS applications
- Visual inventory of fixtures: virtual visit in the network (images associated with trace)

### Railway line sides survey and maintenance

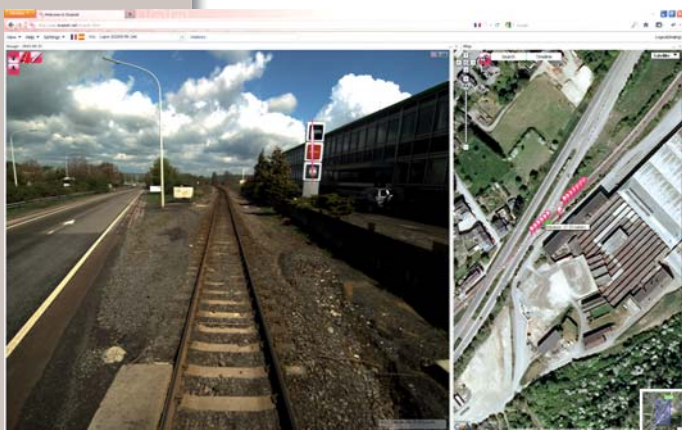
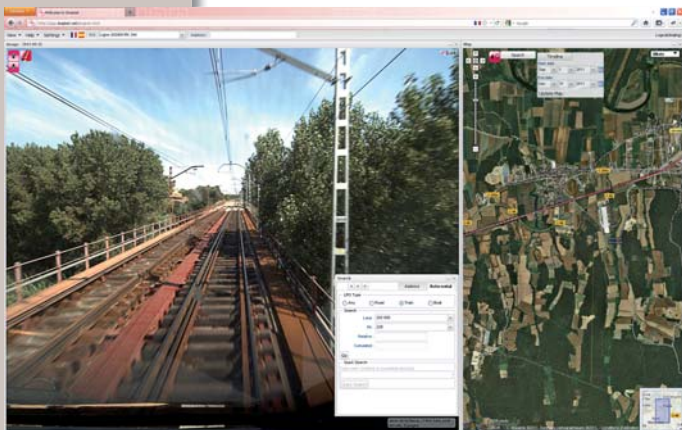
- Survey of the access : line surroundings, trees, obstacles, damages
- Risk analysis (railroad state assessment , side obstacles)
- Maintenance planning : quantitative inventory for budget planning
- Vegetation inventory
- Plan of pruning

### Linear Referencing System (LRS) or chainage

- Build and publish a linear referencing system in curvilinear X-coordinate (topology and attributes) based on collected data or on external data (GIS layers as shape).
- Automatically reference all the sequences in the LRS (Node + X-coordinate, node number).
- Automatically assign a position in the LRS to the assets.
- Surf in the LRS.

## Support to the ETCS implementation

European Train Control System  
Support to the installation of the control signals  
Recognition and inventory of the existent.



## Planning and studies – a decision support tool

Visual analysis of the railway network  
Constitution of geo-referenced imagery databases allowing to measure the evolution in your networks  
Integration of the data in your own applications via imajnet Web Service

## Imajnet: sharing a global vision of your rail network over the internet

Turnkey applications based on the imajnet Web Service

The Web application directly integrates the traces of your surveys into Google Map or Open Street Map to surf into the map associated with the images of your network.

## Imajnet applications

- Virtual navigation in your networks
- Map: surf on your network, visualize the whole of your statements
- Timeline - navigation in time: select the dates of the survey you want to display to follow the evolutions on your network
- Selection mode: each various visual angles of a specific point. Select a point on the map: the best view of the object appears, all the pictures containing the object are displayed and can be selected on the map.

## Organizational benefit

Great simplicity of implementation in many types of railway engine circulating normally  
Independence in gathering data: reactivity, organizational flexibility  
Access to a proprietary geo referenced imagery database

## Safety of the survey

Eliminates the risk to collect data directly along railways

## What differentiates imajbox from the existing solutions

Simplicity of use and speed of setup  
Lightness and portability  
Speed of data collection  
Quality of data and images  
Ease of use with auto-calibration (organize front, side or back survey)  
Autonomous solution, no computer required

## imajing range

- imajbox Portable mobile mapping tool for survey
- imajtrack Organize and control of surveys
- imajview Process and visualization software suite
- imajnet Storage and distribution of network data and images via internet

 imajing

10, avenue de l'Europe  
FR-31520 Ramonville  
info@imajing.eu

www.imajing.eu