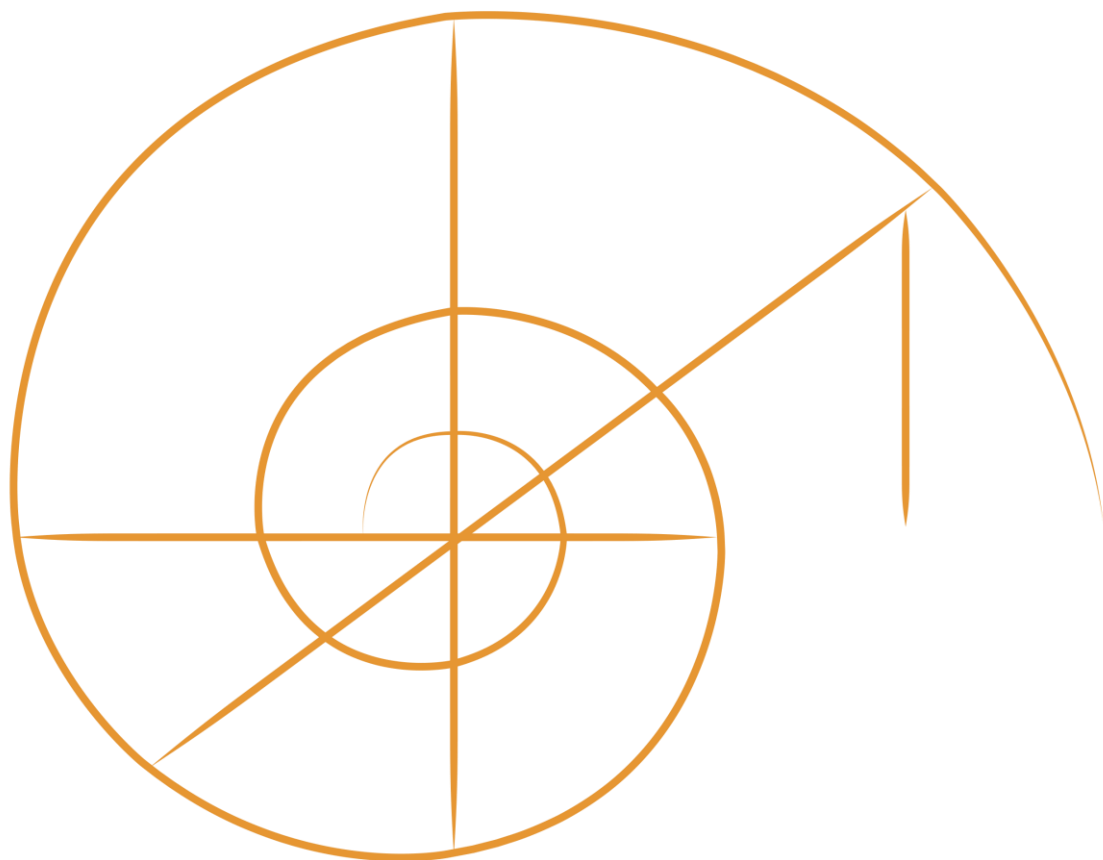




## SAFETY SOLUTIONS DESIGNER

CLEARSY PRODUCTS AND SERVICES



**clearsy**  
Safety Solutions Designer

CLEARSY OFFER  
PRODUCTS AND SERVICES

[CONTACT@CLEARSY.COM](mailto:CONTACT@CLEARSY.COM)

## COMPANY PROFILE

- French SME created in 2001
- Independent from any customer and privately owned
- About 140 employees (mainly engineers & PhDs)
- Located in France (Aix-en-Provence, Lyon, Paris, Strasbourg)
- ISO certified (9001:2015)
- In-depth knowledge of signalling systems, CBTC, ERTMS/ETCS, interlocking, rolling stock, railway rules and standards
- In-depth knowledge of Energy standards and I&C safety systems
- Sectors: Railways, Energy/Nuclear, Defence, Micro-electronics
- Development of a portfolio of safety critical products for Railways  
[www.fersilrailway.com](http://www.fersilrailway.com)

## CORE SKILLS

- Creation and maintenance of the software development toolkit: Atelier B, used by major signalling companies and technical universities worldwide, to produce mathematically proven safety critical software and systems
- Design of safety critical hardware and software SIL2 to SIL4 and classified I&C
- Provision of certified safety critical systems SIL2 to SIL4
- Use of formal methods to develop and verify such systems and software applications

## EXPERTISE AND SERVICES

- Software and systems mathematically proven (B method)
- Safety critical data validation tools and services
- Safety cases using IEC 61508, 61513 and CENELEC 50126,128,129 standards
- Security of industrial systems
- Safety critical system and software architecture design and development
- Safety PLC program development
- Safety critical electronic hardware design and development
- Safety critical software and hardware commissioning
- Expertise to meet exceptional or unusual safety requirements
- Expertise in pattern recognition from sensors (laser, radar, video) and embedded algorithms
- Safe train track transmission by induction loop
- Test automation tools and solutions
- Provision of specialists in safety critical developments
- Provision of CBTC and ERTMS/ETCS specialists
- Ability to manage a complete project, from design to deployment and commissioning and level 1 maintenance management
- Management of production, multi-site manufacturing (subcontracting)

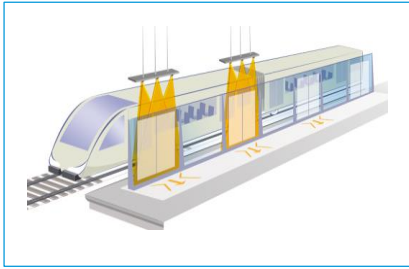
## MAIN CUSTOMERS

*The customers are mainly end users, operators, industrial companies, integration and installation companies.*

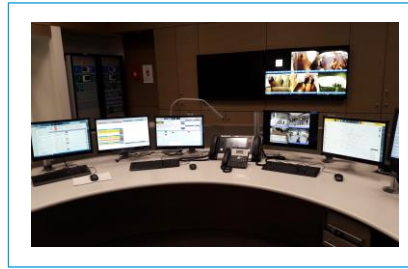


## EXAMPLES OF SAFETY CRITICAL SYSTEMS AND PRODUCTS

The following products have been designed and produced by CLEARSY.  
About 20 products are certified according to CENELEC standards.



> DETECTION  
OF A PERSON  
IN A GAP



> SAFETY  
CENTRALIZED  
SUPERVISOR  
OF FIRE SAFETY  
SYSTEMS



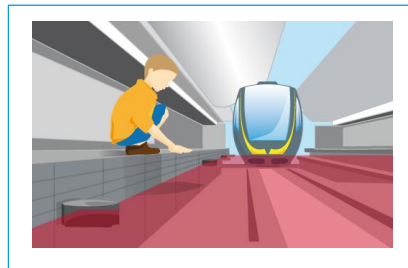
> PLATFORM  
SCREEN  
DOORS  
CONTROL



> SIL4 VITAL  
RELAYS



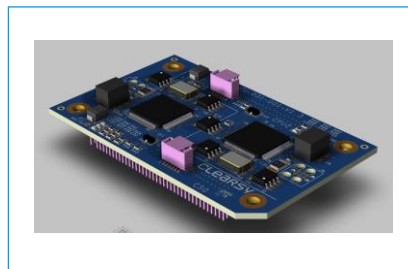
> CONTROLLER  
AND SAFETY I/O  
NETWORK



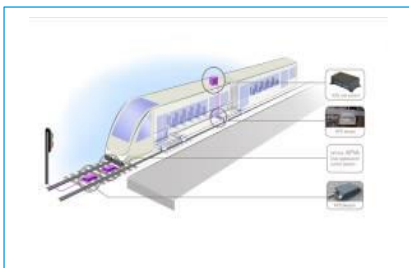
> TRACK SAFETY  
MONITORING



> PLATFORM  
DETECTION



> CLEARSY  
SAFETY  
PLATFORM  
- SAFETY  
CRITICAL  
COMPUTER

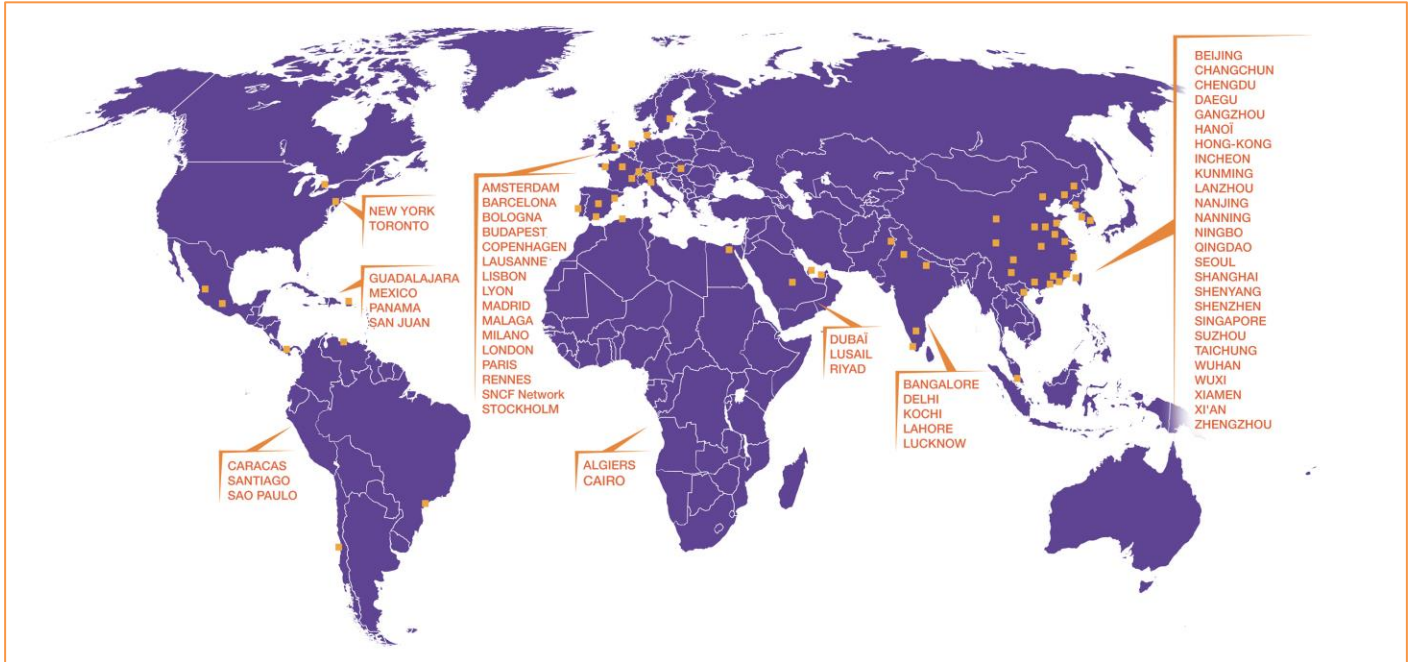


> AUTOMATIC  
TRAIN STOP  
- OVERSPEED  
- SIGNAL



> HMI SAFETY  
PLATFORM  
- ETCS BASELINE 3  
- FITTED FOR  
INDUSTRIAL AND  
NUCLEAR USE

## THE B METHOD TOOLKIT DEVELOPED AND EDITED BY CLEARSY



## ISO 9001:2015 CERTIFICATE

The scope of the certificate is:

« *Design and Implementation  
of safety control-command and I&C  
systems and software – Consulting* »





# CLEARSY

Safety Solutions Designer

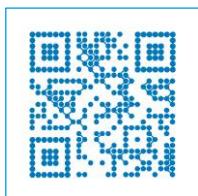
THE MORE AUTOMATED THE SYSTEMS ARE,  
THE MORE RELIABLE AND SAFE THEY HAVE TO BE.

CLEARSY has been innovating for 20 years by designing and deploying safer systems, based on the software tools and secure computer we develop.



 Energy/Nuclear Transport Defence	 25% Exportation	 Software Hardware Safety	 Turnkey industrial Equipment Supplier
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Aix-en-Provence • Lyon • Paris • Strasbourg  
[www.clearsy.com](http://www.clearsy.com) • [www.fersil-railway.com](http://www.fersil-railway.com)



- 320 AVENUE ARCHIMEDE  
LES PLEIADES III BAT A  
13100 AIX-EN-PROVENCE - FRANCE
- TEL. +33 (0)4 42 37 12 70 FAX. +33 (0)4 42 37 12 71
- WEB. [contact@clearsy.com](mailto:contact@clearsy.com) / [www.clearsy.com](http://www.clearsy.com)  
[WWW.FERSIL-RAILWAY.COM](http://WWW.FERSIL-RAILWAY.COM)