



YOUR PARTNER IN MEETING RAILWAY CHALLENGES

Founded in 2012, SFERIS is now one of the main French players in rail safety, maintenance and construction.

A multidisciplinary service offering

At SFERIS, we provide a wide range of services in the following sectors:

- > **Site safety**
(Human and automated traffic announcements, safety on non-operational lines, site base management, traffic management, road-rail lorry operation)
- > **Tracks**
(Maintenance, refurbishment, new construction works, expertise)
- > **Catenary**
(Protective earthing, maintenance, refurbishment, new works)
- > **Railway signalling**
(Railway and mechanical signalling, technical inspections, new construction works, temporary speed restrictions, signalling support)
- > **Project expertise, consulting and railway training**

Safety—a core value of our corporate vision

Railway environments involve a high degree of risk, and the slightest lapse can have serious consequences for our teams, customers and partners. This is why SFERIS places "safety culture" at the very core of its values. We are quality-certified for occupational health and safety management (ISO 18001 and 9001).

SFERIS: multi-customer positioning

We work with:

- > **SNCF Réseau and SNCF Mobilités**
- > **Port authorities**
- > **Local and regional authorities**
- > **Private siding companies**
- > **Infrastructure management service providers (PGI)**
- > **Overseas infrastructure managers**



For more information
Contact our sales team
commercial@sferis.fr



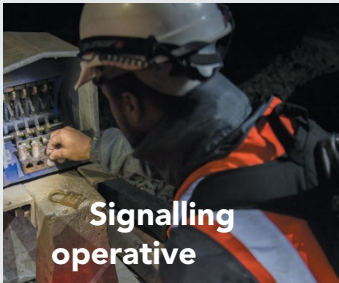
OUR KEY ASSET:

Our people—well-trained, empowered and engaged



A wide range of career opportunities

SFERIS offers a range of career opportunities, mainly in the railway sector's four key areas: **catenary, safety, track and signalling**. Whatever your qualifications and level of experience, you'll find the right match for you at SFERIS.



Signalling
operative



Safety
operative



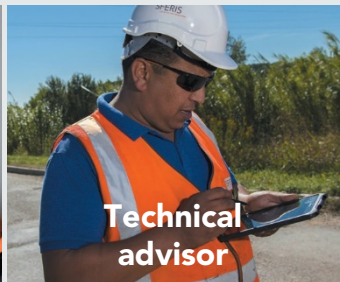
Platela
yer



Cable
technician



Works
foreman



Technical
advisor

We recruit at all levels, from operatives to senior positions (supervisors, site managers and foremen), as well as expert and technical advisory roles.

We invest in employee training

SFERIS Formation is our dedicated railway campus for employee training, offering each member of our team the opportunity to learn a trade or to improve and enhance his or her skillset.



For more information

Contact our commercial team

commercial@sferis.fr



HIRE SERVICES

Looking for targeted expertise and specially adapted equipment?

In need of a high-quality, tailor-made solution for a few days—or several months?

At SFERIS, we can help with your track, catenary and signalling works and maintenance projects, delivering the expertise you need for your facility or project.

Our team is here to help!



Delivering added value

SFERIS provides sound advice in a win-win perspective. More specifically, we offer:

- > Safe, high-quality service
- > Cutting-edge, well-maintained equipment
- > Highly flexible personnel (mobile throughout France)
- > Carefully selected partners for transport services and supply of materials
- > Mechanics available at short notice
- > Highly experienced supervisors to monitor work progress
- > Operators with access to assembly vehicles

Our expertise

- > Track expertise
- > Maintenance
- > Works

Our services

Our top priority is your satisfaction—day in, day out. We offer road-rail machinery rental, along with drivers and advisory services.

We work:

- > **On all railway sites:**
 - Railway lines (sleeper replacement, ballast renewal, track ballast renewal, switch replacement)
 - Railway signalling, catenary
 - Civil engineering, tram, underground
- > **In all conditions:**
Nights, weekends, one-off operations, double shifts, triple shifts
- > **In all types of environments:**
In stations, depots, technicentres, infrastructure on primary and secondary networks, private networks, RATP network
- > **Throughout France**



For more information

Contact our sales team
commercial@sferis.fr



HIRE SERVICES

Our fleet of machinery

We can provide the people and equipment you need to make your project a success.

Below is a list of our machinery models, all approved by SNCF:

- > UNAC road-rail excavator 20TRR
- > UNAC road-rail excavator 8TRR
- > ATLAS road-rail excavator 1404ZW
- > THWAITES 5t road-rail dumper
- > Hinowa mini dumper HS1100
- > UNAC X3 road-rail lifting basket
- > UNAC X6 road-rail lifting basket
- > ELAN road-rail lifting basket

Accessories

Customized solutions.

> **Basic equipment:**

- Dredging buckets
- Clamshell buckets
- Tiltrotators

> **Dumper equipment**

- Troughs
- Fork extensions

> **Specialist road-rail excavator equipment:**

- Mourgeon ballast cleaning buckets, wooden claspers, forks
- Hydrocal, stabilization platforms, rock breakers
- Strimmers
- Other equipment available on request (grapples, shears, magnets, etc.)



Our operators

- > Trained in a railway environment
- > Experienced
- > Have full command of their machinery
- > Adapt to conditions on-site
- > Responsible
- > Full on-site compliance with safety rules is an integral part of our culture



For more information

Contact our sales team

commercial@sferis.fr



CATENARY SERVICES

SFERIS Catenary works with SNCF infrastructure hubs (“infrapôles”), urban communities, ports and sidings specialists as well as other companies to make electrical traction installations safer and more reliable.

We support our customers by innovating continuously in the services we provide, from design and execution to maintenance.

Our teams apply an agile approach to project management, which allows us to combine **local service with global solutions**.

At SFERIS, operational excellence is **non-negotiable**—a fundamental feature of the work we perform every day—and is based on proven methods in the hands of qualified, experienced staff.

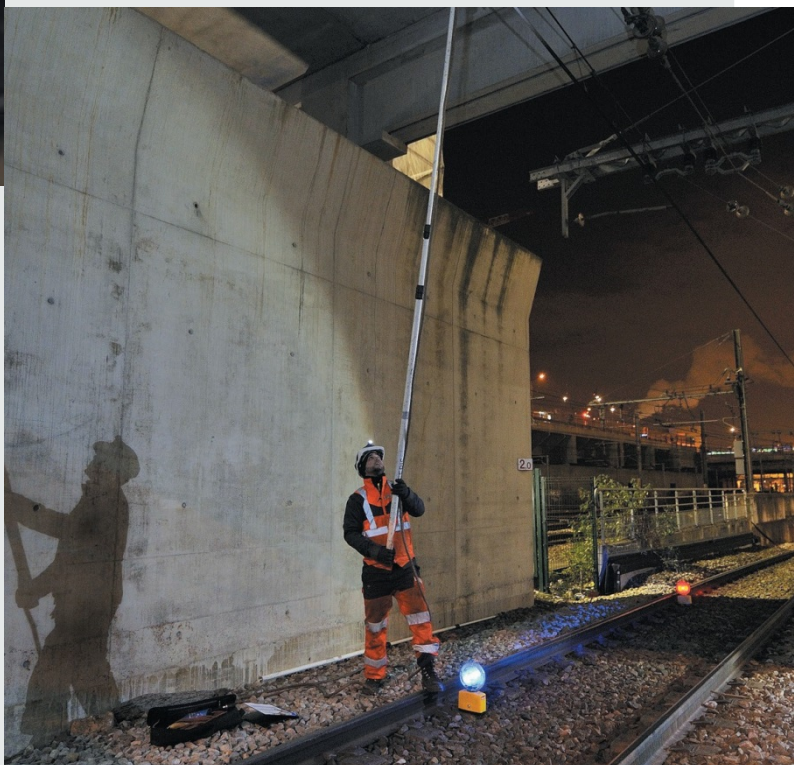


Our expertise

- > Maintenance
- > Works
- > Catenary expertise
- > Electrical protection

SNCF service requirements

- > **04001:** Fixed installation works: electrical traction and new overhead contact lines for line with operating speeds of 300 km/h
- > **04002:** Fixed installation works: electrical traction and new overhead contact lines for conventional line, electrified at AC 25,000 V - 50 Hz
- > **04003:** Fixed installation works: electrical traction and new overhead contact lines for conventional line, electrified at DC 1,500 V
- > **04004:** Fixed installation works: electrical traction and redesign of overhead contact lines for line with operating speeds of 300 km/h
- > **04005:** Fixed installation works: electrical traction and redesign of overhead contact lines for conventional line electrified at AC 25,000 V - 50 Hz
- > **04006:** Fixed installation works: electrical traction and redesign of overhead contact lines for a conventional line, electrified at DC 1,500 V



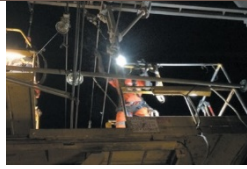
For more information
Contact our sales team
commercial@sferis.fr



REFERENCES

Periodic inspections

> **SFERIS resources:** 20 operators and six machines



> **Location:** Burgundy, Franche-Comté (France)

This project ran over several weeks and involved the following works:

- Inspection and examination of catenary components, adjustment of elements attached to the overhead line
- Adjustment of the height and stagger of the overhead lines
- Maintenance of various catenary parts, such as section insulators, tensioning devices and interrupters, including functional checks, lubrication of mechanical controls, and more
- Insulator cleaning

Value added by SFERIS: Guaranteed responsiveness with flexible teams and specialist equipment for each service.

Protective earthing of overhead lines for SNCF Réseau in Paris Montparnasse station for the Atlantique high-speed line

6 SFERIS operators were deployed to protect a GSMR work site on the Atlantique high-speed line.

Value added by SFERIS: Work on the catenary performed independently, with SFERIS ensuring its own electrical protection.

Electrification of the Médoc tram-train (TTM) for the Bordeaux urban community:

SFERIS electrified more than 7 km of track (mixed electrification between 750 V and 1,500 V) linked to Bordeaux tram line D.

Value added by SFERIS: Work on the catenary performed independently, with SFERIS ensuring its own electrical protection.

Catenary works for the Luxembourgish National Railway Company (CFL):

SFERIS carried out catenary works to reconfigure the cross-span suspensions, arms and power units of the viaduct at arrival at Luxembourg station. The teams involved used two road-rail lifting baskets, a handcar and a mobile crane to help complete the work.

Value added by SFERIS: Work on the catenary performed independently, with SFERIS ensuring its own electrical protection.

Redesign of overhead contact lines, Ile de France



> **SFERIS resources:** 2 teams with one supervisor and six installers

> **Location:** Villeneuve Prairie (Val de Marne)

The project involved redesigning the overhead contact lines in several stages:

- The project involved redesigning the overhead contact lines in several stages:
- Removal of existing overhead contact lines
- Creation of a micropile structure to install new, more resistant overhead lines (work performed by a specialist company).
- Catenary laying
- Track handover

This project involved a catenary gantry structure suspended over a rail yard.

Value added by SFERIS: A high-quality service, with a good relationship established between SFERIS and the subcontractor.



SIGNALLING SERVICES

Railway signalling is a major growth area, with our teams installing and disassembling electrical signalling systems in the rapid-action works market.

We also **deliver services** in the following areas: **civil engineering for signalling, cabling, technical inspections and testing.**

Drawing on the skills of our dedicated mechanical signalling teams, we are also active in specialized **technical inspections and testing.**

Our added value is a direct result of the professional skills that our **highly trained employees** bring to each area of activity.



Our expertise

- > Railway signalling (SE) expertise
- > Mechanical signalling (SM) expertise
- > Maintenance for railway and mechanical signalling
- > Railway signalling works, mechanical signalling, civil engineering for signalling
- > Technical inspections and railway and mechanical signalling tests

SNCF service requirements

- > **03 001-01:** Signalling and/or telecommunications civil engineering, without the risk of platform destabilization (works do not involve P1/P2 plans)
- > **03 001-02:** Signalling and/or telecommunications civil engineering with risk of platform destabilization; large-scale works involving P1/P2 plans and crossings under tracks using techniques involving trenches
- > **03 201-01:** All electrical signalling and signalling cable connection works (including heating by any means necessary), connection with fishplates and electrical rail connection, laying and removal of signals, cantilevers (aside from civil engineering and cable-laying works)
- > **03 201-02:** Junction boxes for signalling and power cables
- > **03 202-02:** Mechanical signalling (rural areas)
- > **03 203-01:** Laying of signalling and/or power cables



For more information

Contact our sales team

commercial@sferis.fr



REFERENCES

Cable replacement works



- > **SFERIS resources:** 5 people
 - > **Location:** Paris Nord station (France)
- SFERIS provided the following services as part of a cable replacement project:
- **Civil engineering:** laying of cables in trough arteries
 - **Cable laying**
 - **Cabling:** building cable glands, junction boxes, wiring, etc.
 - **Inspections**

Value added by SFERIS: SFERIS provides turnkey solutions encompassing both safety and project work.

Implementation of temporary speed restrictions (LTV) for project company LH2T/PROJENOR at the Grand Port Maritime in Le Havre:

- > **Location:** Le Havre (France)
- Equipment supply, installation, technical inspections, monitoring.

SRZD site High-density area rapid action unit (SRZD)



- > **SFERIS resources:** 80 people/week
- > **Location:** Ile de France (Paris region)—regional express (RER), Transilien and TGV lines

The project involves refurbishing railway lines in high-density and ultra-high-density areas in Paris and the greater Paris region. These specialized works are executed by rapid action units backed by powerful industrial equipment that clears ballast from the track, replaces sleepers, discharges ballast (new or sifted), lifts new tracks, and stabilizes and replaces rails.

As part of interventions by rapid action units in high-density areas, SNCF engaged SFERIS to carry out the three assignments detailed below:

- > Manual and automated rail traffic announcements on tracks adjacent to the site
- > Operations relating to temporary speed restrictions (LTV):
 - Equipment supply, installation and disassembly
 - Technical inspections and weekly maintenance
- > Removal and refitting of safety facilities on the construction site:
 - The works require that safety equipment on the tracks be disassembled and reassembled. Our teams look after the removal of equipment prior to each operation. At the end of the night, the same team refits, checks and tests the equipment.

This approach requires that track be open for traffic on a daily basis (S9A1 operating conditions).

Value added by SFERIS: SFERIS conducts projects from design to delivery to deliver turnkey solutions to SNCF Réseau.

Technical inspections



- > **SFERIS resources:** 3 to 6 people
- > **Location:** Centralized network control (CCR), Rennes (western France)

SFERIS performed technical inspections of new installations subject to centralized network control in Rennes.

These inspections involved the Chatillon signalling post (with individual track switches), as well as post 44 at La Janais.

To perform the technical inspections, it was first necessary to draft technical inspection booklets, which SFERIS also did.

Value added by SFERIS: SFERIS provides turnkey solutions encompassing both safety and technical inspections. The team is overseen by a technical advisor with extensive experience in railway signalling, ensuring outstanding service.

Signalling maintenance for SNCF Réseau on tracks managed by IM service provider in Morvan:

SFERIS was engaged to monitor the annual schedule for three levels of signalling maintenance: preventive, corrective and predictive.

Value added by SFERIS: With a broad range of competencies (works, maintenance, technical inspections), SFERIS leverages its experts' experience in both signalling and railways.

Electrical signalling support (SE support) for SNCF Réseau as part of a major periodic work (GOP) on the Rennes-Redon line:

- > **Location:** Rennes (France)
- SFERIS employees assemble and disassemble on-track signalling equipment at nighttime.



TRACK SERVICES

Our Track teams **replace and consolidate** the constituent parts of the track, switches and crossings. Drawing on our expertise and successful reference projects, we also conduct comprehensive upgrades on lines in groups 7 and 9.

These upgrades involve many different operations, from targeted sleeper replacement using heavy machinery to rail replacement, cleaning (short distances) and ballasting, as well as mechanical levelling and, in the case of main tracks, a complete overhaul of switches and crossings.

Providing expertise and maintenance schedules for technicentre upgrades is another **strategic growth area**.



Our expertise

- > Tracks
- > Maintenance
- > Works



SNCF service requirements

- > **01011:** Replacement or consolidation of components (sleepers, fastenings, rails, etc.) and levelling on main tracks or at level crossings—conventional and high-speed (operational) lines
- > **01011-LF:** Replacement or consolidation of components (sleepers, fastenings, rails, etc.) and levelling on main tracks or at level crossings—conventional and high-speed (non-operational) lines
- > **01012:** Replacement or consolidation of switch and crossing components on main tracks (without using specialist heavy machinery)—conventional and high-speed (operational) lines
- > **01012-LF:** Replacement or consolidation of switch and crossing components on main tracks (without using specialist heavy machinery)—conventional and high-speed (non-operational) lines
- > **01014:** Track works on service lines

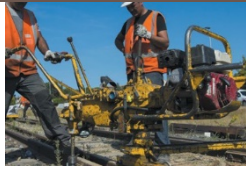


For more information
Contact our sales team
commercial@sferis.fr



REFERENCES

Technicentre maintenance



- > **SFERIS resources:** A technicentre team comprising a foreman, supervisor and operators.
- > **Location:** Lyon (France)

SFERIS has helped SNCF's technicentres meet their maintenance requirements since 2016.

This involved working with the technicentres to create, implement and optimize a multi-year maintenance schedule for different sites:

- > **Expertise:**
Developed an appraisal to determine the scope of the requirement and prepared a multi-year maintenance schedule.
- > **Operations:**
Provided infrastructure maintenance, including sleeper replacement, ballast cleaning and replacement, replacement of wooden structures, and more.
- > **Maintenance schedule monitoring and control**

Value added by SFERIS: long-term support and a turnkey solution that includes:

- Fully autonomous expertise
- Creation of maintenance schedules
- Project implementation with integrated safety
- Maintenance operations

Multi-year site maintenance at SNCF Réseau's Lyon depot/technicentre

In 2015, SFERIS branched out into multi-year maintenance of large-scale technicentres.

Value added by SFERIS: SFERIS leverages the experience of its specialist staff, particularly in the field of maintenance.

Track maintenance for several infrastructure management hubs at SNCF Réseau:

SNCF Réseau regularly calls in SFERIS for its expertise in performing maintenance on railway tracks (levelling, geometry, gauging, switches and crossings (categories A and B), rail replacement, removal and fitting, sleeper replacement, etc.).

Value added by SFERIS: SFERIS leverages the experience of its specialist staff, particularly in the field of maintenance.

Works prior to handover to approved IMs



- > **Location:** Grand Est region (eastern France)
In its drive to renovate feeder lines, SNCF has conducted works to upgrade certain lines, particularly in eastern France. SNCF Réseau outsources safety services and track renovation works to SFERIS. This entirely new project management model prompted SFERIS to create PIST, our Integrated Works & Safety product. Renovation focuses on various track components:
- > Sleepers
- > Ballast
- > Boards
- > Tie plates
- > Rail bolts
- > Geometry

SFERIS must ensure the safety of its personnel and users, particularly at level crossings, and provides its own safety services to do so. This innovative approach requires that the track be open for traffic each day (S9A1 operating conditions).

Value added by SFERIS: Providing a turnkey solution that combines safety and project work, while meeting customers' quantity and quality objectives throughout the life of the project.

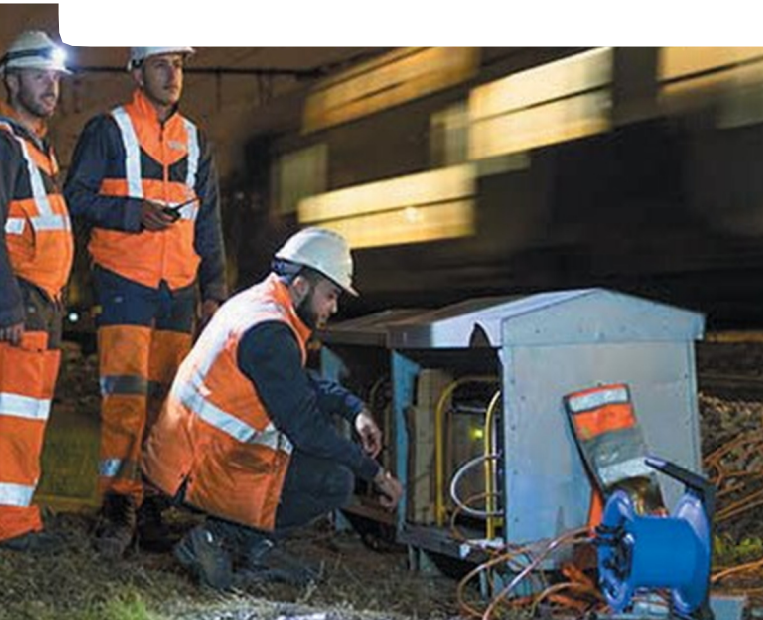


SAFETY SERVICES

Our Safety department has long specialized in human and automated traffic announcements (wired and radio), where we are a market leader. We also have a portfolio of reference projects in non-operational line management services.

Today, based on the skills and expertise of our employees and supervisors, SFERIS can perform the full range of safety activities that railway projects require. We also provides safety process design services to support contractors and project owners.

The Safety department is also responsible for managing infrastructure and traffic on the port rail networks entrusted to SFERIS and its partners.



Our expertise

- > Traffic announcements (human)
- > Traffic announcements (human) on high-speed lines (LGV)
- > Autoprowa® automated announcements
- > DAPR automated announcements
- > Site base and line management
- > Non-operational lines
- > Traffic management
- > Employees specializing in new safety-related duties (SNCF programme S9A1)

SNCF service requirements

- > Traffic announcements and manual traffic announcement services
- > Traffic announcements and automated traffic announcement services
- > Design and implementation of operations on non-operational lines
- > Pre-defined services on non-operational lines
- > Provision of operational safety representatives (RSO)
- > Provision of agents authorized for infrastructure works (HTI)
- > Work train services on non-operational lines



For more information

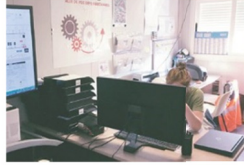
Contact our sales team

commercial@sferis.fr



REFERENCES

S9A3 - Refurbishment of the Oloron-Bedous line



> **SFERIS resources:** One team dedicated to the safety command centre/one operations team for safety functions on the ground.
 > **Location:** Basque Country (south-western France)
 A specific feature of works on non-operational lines is that they are performed outside of the national rail network. Operating and safety rules, together with monitoring of construction companies' activities, must be put in place to regulate traffic and activity.

Safety teams worked on this 24.5-km site between Oloron-Sainte-Marie and Bedous over an 18-month period, performing the following specialist functions:

Control centre safety

- > OS-C (Safety Design Specialist): safety design prior to the beginning of works
- > OS-R (Safety Performance Specialist): responsible for the application of safety rules during the project
- > RELF (Non-Operational Lines Specialist): interface for construction companies

Ground-based safety functions

- > Level crossing operators

Value added by SFERIS: On the strength of its experience and high-quality service, SFERIS is a qualified partner for providing S9A3 functions to SNCF Réseau.

S9A1 Site safety prior to handover to approved IMs



> **Location:** Grand Est region (eastern France)
 As part of its drive to renovate feeder lines, SNCF has conducted works to upgrade certain lines, particularly in eastern France. SNCF Réseau outsources safety services and track renovation works to SFERIS. This entirely new project management model prompted SFERIS to create PIST, our Integrated Works & Safety product.

Renovation focuses on various track components:

- > Rails
- > Sleepers
- > Ballast
- > Tie plates
- > Rail bolts
- > Geometry correction

SFERIS must ensure the safety of its personnel and users, particularly at level crossings, and provides its own safety services to do so.

This innovative approach requires that the track be open for traffic each day (S9A1 operating conditions).

Value added by SFERIS: Providing a turnkey solution that combines safety and project work, while meeting customers' quantity and quality objectives throughout the life of the project.

Autoprowa®: track ballast renewal, Mulhouse



> **SFERIS resources:** 90 people
 > **Location:** Mulhouse (eastern France)
 Automated traffic announcements.

The automated announcement system is designed for railway construction sites that are fixed or confined to a specific area. The system is activated each time a train passes, triggering a bell and a series of traffic lights to warn teams working on the tracks that they must leave the danger area. SFERIS uses AUTOPROWA®, currently the only system approved by SNCF for automated announcements. At the Mulhouse site, SFERIS is responsible for:

- > Ensuring the safety of contractors working on the tracks, using an automated announcement system
- > Reinforcing SNCF's safety teams with support personnel
- > Providing monitoring (level KN1) services for work train accompaniment agents

Value added by SFERIS: With a large number and diverse range of AUTOPROWA® sites with rapid action units, we are currently a qualified partner for this type of service.

SRZD site High-density area rapid action unit (SRZD)



> **SFERIS resources:** 80 people/week
 > **Location:** Ile de France (Paris region)—RER, Transilien and TGV lines
 The project involves refurbishing railway lines in high-density and ultra-high-density areas in Paris and the greater Paris region. These specialized works are executed using a "rapid action unit" approach backed by powerful industrial equipment capable of clearing ballast from the track, replacing sleepers, discharging ballast (new or sifted), lifting new tracks and, finally, stabilizing and replacing rails. For works conducted with high-density area rapid action units, SFERIS was contracted by SNCF to carry out the three assignments detailed below:

- > Manual and automated rail traffic announcements on the tracks adjacent to the construction site
- > Operations relating to temporary speed restrictions:
 - Equipment supply, installation and disassembly
 - Technical inspections and weekly maintenance
- > Removal and refitting of safety facilities on the construction site:
 - Works require that the safety equipment on the tracks be disassembled and reassembled. Our teams look after the removal of equipment prior to each operation. At the end of the night, the same team refits, checks and tests the equipment.

This working method requires that the track be open for traffic on a daily basis (S9A1 operating conditions).

Value added by SFERIS: SFERIS conducts projects from design to delivery to deliver turnkey solutions to SNCF Réseau.