

# TECHNICAL SUPPORT & SPARES SUPPLY AGREEMENTS A FLEXIBLE SOLUTION



Avoid all risks concerning the availability, reliability and operational costs of your rolling stock while keeping maintenance resources in-house.

## GENERAL DESCRIPTION

You want a flexible contract for the maintenance of your rolling stock, your signalling or your infrastructure? Alstom's TSSSA keeps the maintenance resources in-house while providing secure, constant fleet and asset availability – including three distinct services:

- Full material management:
  - Spare supply management
  - Warehouse management
  - Obsolescence service
- Technical support
- Other support services

You will benefit from our expertise in tools, engineering and methodology.

## CUSTOMER BENEFITS

### Ensure availability of spares

Alstom ensures maximum availability of materials and components through advanced maintenance techniques. We supply all spares, repaired and overhaul equipment and assure the logistics and storage control. This effectively transfers operational risk to Alstom.

### Collaborative partnership

We provide a 24/7 helpdesk which develops customer maintenance skills.

### Control maintenance cost

Alstom guarantees the price of spares and controls costs. You are effectively transferring financial risks to Alstom.

### Significantly increase performance and availability of the assets

We minimise service disruption and secure asset availability for optimal performance

## REFERENCES

### France

- Nice, 28 Citadis™: 15 trams 402 and 13 trams 302 (2015-2023)

### South Africa

- PRASA 600 EMUs: Rolling Stock supply + TSSSA for 18 years

# TSSSA CONTRACT

## FULL MATERIAL MANAGEMENT

This contract takes in charge the full material management of your asset. You can create a scalable solution by choosing customised services:

- Supply spares, repaired and overhauled equipment over the period
- Supply chain & warehouse management:
  - Storage, logistics and stock control
  - Delivery and collection to depot
  - Ensure sufficient stock and float levels
- Manage capital spares and tools
- Component repair and overhaul

## TECHNICAL SUPPORT

Alstom transfers technical knowledge to your teams through a series of solutions:

- Technical documentation management
- On-site assistance for daily maintenance
- Driver & maintainer training
- Material management
- Engineering support/design authority
- Fault-finding, failure investigation support
- Reliability Availability Maintainability Safety analysis (RAMS)
- Obsolescence monitoring and alerts

## SUPPORT SERVICES

Our dedicated support team strives to continually improve your satisfaction and the availability of your fleet by offering:

- 24/7 helpdesk
- Fleet management
- Obsolescence management & configuration control
- Performance improvement, minimise long term risk (reliability, availability)
- Customer Portal: unique access to a wide range of e-services

## CASE STUDY: TSSSA PRASA

### Context

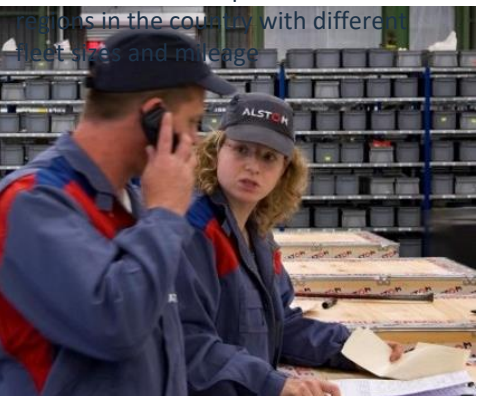
Passenger Rail Agency of South Africa started a rail modernization program in 2012. PRASA awarded one of the biggest railway contracts in history to Gibela Rail Consortium (61% Alstom): the supply of 600 trains of 6 cars each to be delivered over 10 years, starting in 2016.

### Solution

Gibela will provide maintenance and technical support to PRASA for a 19-year period, implementing a full maintenance organisation:

- Creation of 5 maintenances depots: 24/7 fault-findings support, controls & monitoring, material equipment planning
- Creation of 2 repairs centres: local repairs, minor overhauls, local warehouse
- Technical support at each 5 depots
- Full material management: supply all spares, repaired and overhauled equipment

A commitment based on price per km for the entire fleet spread over five



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