



# MBDA Germany

Delivering expert knowledge globally with GS1 DataMatrix



## Challenge

MBDA Germany needed to provide maintenance and upkeep of highly complex systems without an expert on-site, often in crisis areas or on the high seas. Even though the company deployed a telemaintenance platform, it needed to be able to clearly identify assemblies for effective repairs.

## Solution

By directly marking each component with a serialised GS1 Global Trade Item Number® (GTIN®) encoded in a machine-readable GS1 DataMatrix barcode, experts in Germany can now accurately identify assemblies during telemaintenance routines.

## Benefits

- Direct access to the component part's maintenance history or blueprint is now possible.
- Experts can offer support from Germany—without having to be on-site to study the components.
- The innovative solution is also suitable for application in other high-maintenance areas.

## Off-site expert repair

MBDA Germany develops, produces and supervises air defense and guided missile systems for the country's Army, Navy and Air Force. As a systems integrator, the company supports the entire product life cycle, from research and development to production and logistics. With 1,200 employees, MBDA Germany generates revenue of more than €400 million annually—approximately 50% of its business coming from transatlantic cooperation programs.

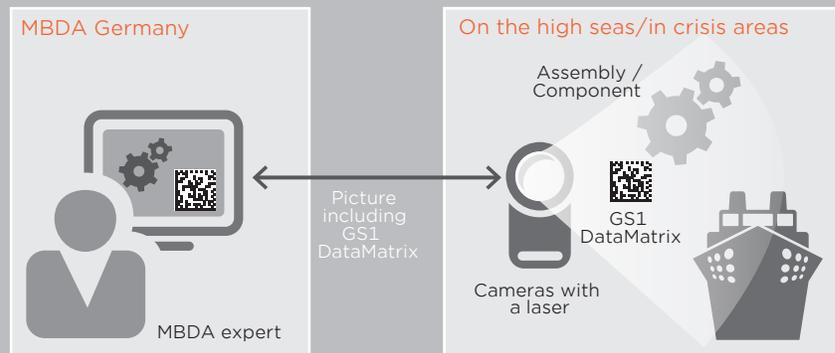
In order to guarantee the operational readiness of its high-tech products—any place, any time, and frequently under extreme environmental conditions—MBDA Germany offers comprehensive service packages, including training and maintenance. Especially for systems in crisis areas or on the high seas, MBDA Germany was challenged with how to provide professional maintenance and immediate repair services—without an on-site expert.

“By creating a highly efficient telemaintenance solution, we were able to successfully and cost-effectively round off our comprehensive service package. Choosing the GS1 DataMatrix was a decisive step on our road to success.”

Reinhold Ziegler  
Head of Telemaintenance, MBDA Germany

## The telemaintenance solution using GS1 standards

When maintenance is required, an MBDA expert uses an on-site camera with laser scanner to accurately identify the assembly by reading the GS1 DataMatrix barcode. With this data, the expert can review the maintenance history or blueprints and offer fast and targeted support.



### Swift and targeted maintenance

To support and guide these processes, MBDA Germany developed a telemaintenance platform. On-site technicians at the facility are now connected via mobile audio-visual data communications with experts in Germany. To facilitate the maintenance process, a camera takes pictures of the affected machine or component and a remote-controlled laser pointer identifies the accurate locations of bolt connections or sampling points.

However, the identification of an individual part is insufficient when it comes to performing maintenance activities. Due to material modifications between product series or differing software versions, an unmistakable and automated identification of components is required. Only when the exact assembly is known, is it possible to determine the needed technical documentation to use with high-resolution videos or direct expert support.

To provide the needed unambiguous identification of components, MBDA Germany decided to use the GS1 GTIN supplemented with a serial number to achieve randomisation—making each individual component automatically and uniquely identifiable worldwide. The serialised GTIN is encoded in a GS1 DataMatrix barcode, a two-dimensional barcode that adheres to the ISO 16022 standard.

Applied by laser, embossing or punching, the GS1 DataMatrix barcode can be used to directly mark very small components that may be exposed to harsh environmental conditions and significant wear.

All relevant components are serialised during production and are directly marked with a GS1 DataMatrix barcode. In the event maintenance is required, an on-site scanner can then accurately identify the assembly by reading the barcode. Based on this information, maintenance history or blueprints can be displayed and the expert in Germany can offer fast and targeted support.

### Expansion plans

By using GS1 standards, MBDA Germany has created an innovative telemaintenance service, which offers a secure and cost-effective solution for the maintenance and upkeep of their high-tech products. And with the direct marking of the components and by using serialised identification according to ISO/IEC 15418:2009 standard, the company is also in compliance with the delivery requirements TL-A 0032 of the German Armed Forces.

This solution has proven successful in the company's operations and in complex scenarios on the frigate Hamburg. Based on its positive experiences and increasing adoption of military technology, MBDA Germany plans to use GS1 standards to expand its telemaintenance solutions into other high-maintenance areas such as mechanical engineering and plant construction.

Learn how GS1 standards can help your business create innovative solutions and more. Visit [www.gs1.org](http://www.gs1.org).

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