



Episode 1

ERTMS Trackbot at InnoTrans

## #1 ERTMS Trackbot at InnoTrans

At InnoTrans, we are proud to showcase the ERTMS Trackbot (by TRACKBOT), a collaborative project by Strukton Rail, No Man Trackwork, and AMT RailRoad. This innovation was developed under the #ASAP-ERTMS initiative and the #IAM4Rail project, part of Europe's Rail framework #EU\_Rail.

In the line-up of the InnoTrans we publish a series of posts about the background of this interesting development. Today the episode #1 about what the Trackbot is and the background and development in a nutshell.



## About the ERTMS Trackbot

The ERTMS Trackbot (by TRACKBOT) is a battery-powered rail vehicle designed for automated installation of balises and axle counters. It follows precise instructions from a loaded file and ensures the track is out of service before starting. The Trackbot navigates to the specified location, scans for the best sleeper, drills holes, installs chemical anchors, and mounts the balise. It then logs the installation details, reads the balise message, generates a point cloud, and dispatches the documentation. This quiet, clean technology reduces the need for onsite technicians and speeds up the deployment process.

## Background and Development

Facing a shortage of qualified personnel and a projected completion of ETCS deployment by 2050, ProRail, the Dutch railway infrastructure manager, solicited innovative solutions. Strukton responded with two proposals, including the robotic placement of balises. This idea leveraged ongoing developments in robotics within Europe's Rail initiatives, particularly focusing on the challenges outlined by the ASAP-ERTMS initiative.

Strukton used the original Trackbot as a base, developed by No Man Trackwork and AMT RailRoad, focusing on automating tasks traditionally done by manual labour. The development of the Trackbot builds on this foundation, with ProRail providing crucial input on functional requirements.

The development of the Trackbot is supported by the innovation programme Europe's Rail Joint Undertaking #EU-Rail.