



EBE SMART.BASE: THE SMART TRAFFIC FOOT PLATE

For traffic management systems, the automatic data collection and processing around construction sites is often problematic: the early start and end of a construction site or assembly and disassembly of the traffic guidance systems are usually documented by hand, the data is not up to date nor is it available in digital form. In addition, the entries in the construction journal are not always complete and the information cannot be transmitted to the traffic management systems on time. All this repeatedly leads to misinformation and the reduction of service quality. That's why AIT, together with EBE Solutions GmbH and heimbuchner consulting GmbH, has developed the new IoT foot plate EBE Smart.Base for the detection and transmission of traffic quality and congestion, among other things, at construction sites.

ON-OFF SWITCH FOR CONSTRUCTION SITES

EBE Smart.Base basically works as an on-off switch for a construction site and transmits the activation status to a traffic management system in real time. An encapsulated IT unit integrated into a traffic foot plate expands it into a smart, networked and mobile IoT application. The system enables the use of real-time sensor systems for traffic data collection, LED information displays for road users, webcams, as well as mobile systems for remote maintenance and control.

EBE Smart.Base can be set up anywhere without additional infrastructure, causes no extra effort, is ready to use, robust, energy self-sufficient, modularly stackable, fully compatible with other construction site equipment (such as warning trailers) and thus seamlessly integrates with normal construction site operations.

EBE Smart.Base is unique on the market and internationally patented.



MODULES

SMART.SIGN is the smart “on-off switch” for traffic events. By inserting or removing the pole, Smart.Sign detects and sends the start and end of the construction site. Via GPS, Smart.Sign locates every traffic sign and constantly monitors its status.

As an autonomous traffic camera, **SMART.CAM** is immediately ready for use with every traffic event – without the need to search for mounting options or connections for power and data.

SMART.TIME consists of at least two modules and measures the travel time for the intermediate route via WLAN and/or Bluetooth.

SMART.TRAFFIC can be used flexibly and independently for traffic counting, speed measurement and vehicle classification everywhere.

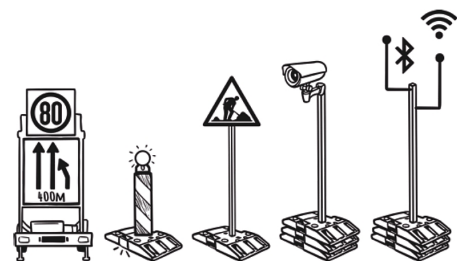
SMART.LIGHT is the smart supplement to conventional light beacons. The LED foot plate is more visible to drivers and at the same time less distracting. Several Smart.Lights can be arranged as traffic-dependent controlled light chains and combined with other construction site equipment such as warning trailers.

SMART.PACK is the compatible battery pack for all EBE Smart. Base modules and extends their runtime up to several weeks through simple stacking.

SMART.C-ITS is the direct Car-To-X interface between all EBE Smart.Base modules and networked vehicles.

REFERENCES

- Management of the traffic junction “Nordbrücke”
- Construction site management on motorway A23
- Event management at the Formula 1 Grand Prix in Spielberg
- Travel time information at the Vienna International Airport
- Border waiting time at Walserberg and Suben
- Surveys regarding construction sites and congestions in Vienna, Lower Austria and Burgenland



EBE SMART.BASE - IMMEDIATELY READY FOR USE, ROBUST, ENERGY SELF-SUFFICIENT AND MODULAR STACKABLE



AIT AUSTRIAN INSTITUTE
OF TECHNOLOGY GMBH
DI Michael Aleksa
Tel +43(0) 50550 6236
Giefinggasse 2, 1210 Wien
michael.aleksa@ait.ac.at
www.ait.ac.at/en/smartbase