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**iMAR Navigation GmbH**

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**Hauptstandort, Site principal, Main location**  
St. Ingbert

**Gründungsjahr Standort Saarland,  
Année de création Site de la Sarre,  
Year founded Saarland site**  
1992

**Ansprechpartner, Interlocuteur, Contact  
Allgemein, En général, General**  
Dr.-Ing. Edgar L. v. Hinüber  
**Vertrieb, Ventes, Sales**  
Dipl.-Ing. Franz J. Müller  
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**Referenzen, Références, References**  
Audi, BMW, Bosch, Daimler, EFS, Gigatronik,  
TÜV, Valeo, Volkswagen, ZF, usw.



 **Unsere Kernkompetenz**

Die iMAR Navigation GmbH mit Sitz in St. Ingbert verfügt über mehr als 25 Jahre Erfahrung auf den Gebieten der Konzipierung, Entwicklung und Herstellung inertialer Meß- und Navigationssysteme für Aufgaben in Führung, Vermessung, Stabilisierung, Regelung und in Spezialanwendungen, für unbemannte und bemannte Plattformen.

Für das hoch- und vollautomatisierte Fahren liefert iMAR mit iSWACO-ARGUS die Instrumentierung für das Prüfgelände und für öffentliche Straßen zur automatisierten und wiederholbaren Verhaltensprüfung und Homologation von Pkw und Lkw bis SAE Level 5 (hands-off – mind-off).

iMAR arbeitet im Automobilbereich mit allen führenden Automobilherstellern und Zulieferern weltweit und liefert führende Referenzmeßtechnik für Fahrzeugregelung und -führung, Fahrdynamik, Trajektorienanalyse, Fahrkomfort und Spezialanwendungen seit mehr als 2 Dekaden.

Umfangreiche Testlaboratorien inkl. Umweltlabor, Bewegungs- und GNSS Simulator stehen im eigenen Hause zur Verfügung.


 **Notre compétence principale**

iMAR Navigation GmbH, établie à St. Ingbert, a plus de 25 ans d'expérience dans la conception, le développement et la production de systèmes de mesure et de navigation inertielle pour des tâches de guidage, de levé, de stabilisation, de régulation et pour des tâches spéciales sur véhicules habités et non habités.

Pour la conduite hautement et totalement automatisée, iMAR offre avec iSWACO-ARGUS l'outil pour le contrôle automatisé et répétable de comportement sur piste d'essais et sur le réseau routier ainsi que pour l'homologation de véhicules routiers jusqu'au niveau SAE 5 (hands-off / mind-off).

Dans l'industrie automobile, iMAR collabore à l'échelle mondiale avec tous les principaux constructeurs et équipementiers. iMAR est depuis plus de 2 décades leader de la mesure de référence pour la régulation, le guidage, la dynamique véhicule, l'analyse de trajectoire, le confort et d'autres applications spéciales.

Pour le développement et la production, la société dispose en propre d'importants moyens d'essais dont laboratoire d'environnement, simulateurs de mouvement et de GNSS.

 **Our key competency**

iMAR Navigation GmbH, located in St. Ingbert, has got more than 25 years of experience in development and production of systems based on inertial measurement technology. These systems are in operation for many tasks, like guidance, surveying, stabilization, control and special applications, on manned and unmanned platforms.

For the highly and fully automated driving, with iSWACO-ARGUS iMAR provides a leading instrumentation for proving grounds and public roads, for a highly automated, efficient and repeatable behavior verification and homologation of all kinds of road vehicles, up to SAE Level 5 (hands-off & mind-off).

Since more than 2 decades iMAR cooperates with all leading automobile manufacturers and suppliers worldwide. iMAR provides pathbreaking reference technology for vehicle control, vehicle dynamics, trajectory analysis, driving comfort and special applications.

iMAR has got extensive test laboratories incl. environmental lab, motion and GNSS simulators available in-house, for development and production.



# DETERMINING THE PACE



FROM THE IDEA TO MASS PRODUCTION – AND BEYOND



iMAR not only develops and produces stand-alone units for Positioning and Control of vehicles but additionally offers turn-key solutions of complete systems. One example is **iSWACO-ARGUS**. iSWACO-ARGUS is the solution for the verification of the safety relevant features of highly and fully automated driving vehicles. It covers all SAE levels, i.e. from level 0 "hands on" up to level 4 "hands off, mind off - sometimes" and level 5 "hands off, no driver". **iSWACO-ARGUS** stands for "Swarm Control & Continuous Surveillance" and controls and monitors the motion behaviour of the Vehicle under Test (VUT) as well as all other traffic simulating vehicles (TSV) on the proving ground and gives the unmatched flexibility to generate and execute also precise repeatable tests within real emulated traffic scenarios or even on public roads.

iSWACO-ARGUS contains the navigation and control (iNAT), the iARGUS-VCS vehicle control system for direct control of the vehicle's actuators to follow the desired trajectory, the iARGUS-MV deep-learning assisted machine vision based module for advanced collision avoidance, the mesh based communication system with unmatched low latency (iDMN) for real-time control, and the visualisation and the management of the data obtained during the performed test scenarios (iARGUS-CMD). The iSWACO-ARGUS infrastructure can be installed quickly, simply and safely on arbitrary proving grounds and test vehicles. Thus, it is the testing and automation solution for both, OEMs and testing / homologation organizations.

This scenario, which also covers the guidance and control of swarms, can be applied to many examples and cases of operation, civil and military, on land, at sea and airborne.

Besides the proving grounds, iMAR also offers the layout and equipment of modern container terminals in harbours, comprising the autonomous navigation, guidance and control of container vehicles etc.

Last but not least, also the landing of an UAV on an unmanned vessel is no more an illusion but reality. Thus, partial and full autonomy are no longer just objectives but iMAR proven reality, using iMAR's centimeter level accurate localisation and control technology.