INTRANAV®

[Project Partner: **D2O** Design to Operate, SAP Experience Center]

Industry 4.0 starts with real-time location data

Intelligent digital supply chain process management relies on accurate real-time position data. SAP presents end-to-end "Design to Operate" solutions, where the **INTRA**NAV IoT Suite is showcased with AGV and box tracking solutions as a project partner.

Experience Industry 4.Now!

In today's fast-moving environment, you need to deliver at your best today while you adapt and continuously improve to reshape how you deliver to satisfy the customer of tomorrow. This requires a real-time digital mirror of your end to end supply chain — from design, planning and manufacturing to logistics and ongoing maintenance.

Get an overview of the end-to-end processes of the **SAP "Design to Operate" Showcase in Walldorf, Germany**. With an integrated, holistic approach to meet higher and more complex supply chain requirements, SAP is advancing with its Industry 4.0 technology portfolio.

We at **INTRA**NAV are proud to be a project partner with our **real-time location solutions**!

INTRANAV RTLS (real-time location solutions) for SMART factory & warehouse and digital supply chain at the SAP Experience Center

AGV tracking - **INTRA**NAV project at the SAP Experience Center
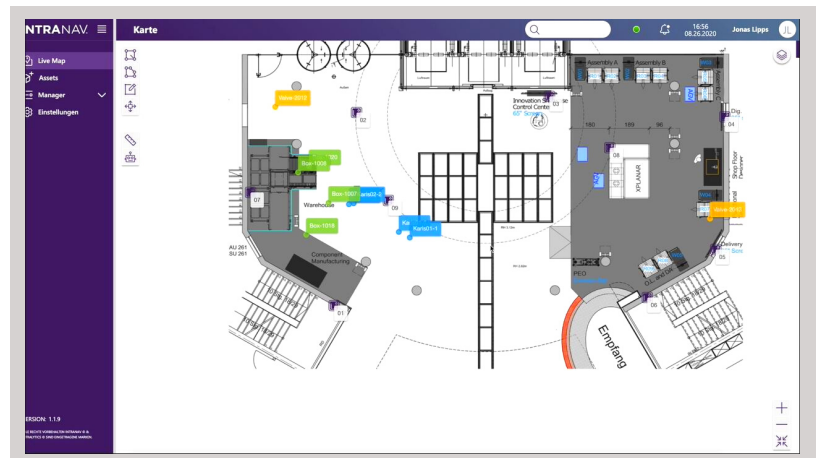
AGV real-time location tracking via the INTRANAV.IO platform

By using AGVs (Automated Guided Vehicles), all production and logistic areas are physically networked with each other. The AGVs of the SAP Experience Center, are equipped with **INTRA**NAV.**RTLS** TAGs, so that machines and workers can track the real-time position of the AGVs, including their transport containers, at any time.

INTRANAV.**IO** (independent IoT real-time location system platform) is linked in this project to **SAP**. With the RTLS platform's Digital Twin, all AGVs of the shopfloor are monitored and transport flows can additionally be optimized.

INTRANAV.IO Indoor Live Map - Showing the Digital Twin of the AGV transport process & KLT box material flow in real-time

INTRANAV is designed to generate real-time location data of transport containers, industrial trucks such as forklifts and driverless transport vehicles in industrial environments. The digital industrial IoT platform **INTRA**NAV.**IO** is a key component for the successful implementation of real-time location tracking and automation processes.

INTRANAV.**IO** platform: Live Indoor Map & Digital Twin of the SAP Experience Center, "D2O" Showroom

Eliminate barcode scanning:
Box real-time location tracking & warehouse automation

INTRANAV.**RTLS** TAG tracks position up to ±10 cm

For warehouse tracking, the KLT boxes (small load carriers) and pallets are also equipped with **INTRA**NAV.**RTLS** TAGs at the SAP Experience Center, making individual components as well as complete parts trackable and eliminating search times. Through virtual zones (geofences), the **barcode scanning for booking processes** such as incoming and outgoing goods, intermediate storage as well as transport processes can be **eliminated** and **automatically booked (AutoID)**.

Box tracking - INTRANAV project at the SAP Experience Center

INTRANAV.

Linking and controlling multiple systems simultaneously is required to supply chain management process improvements
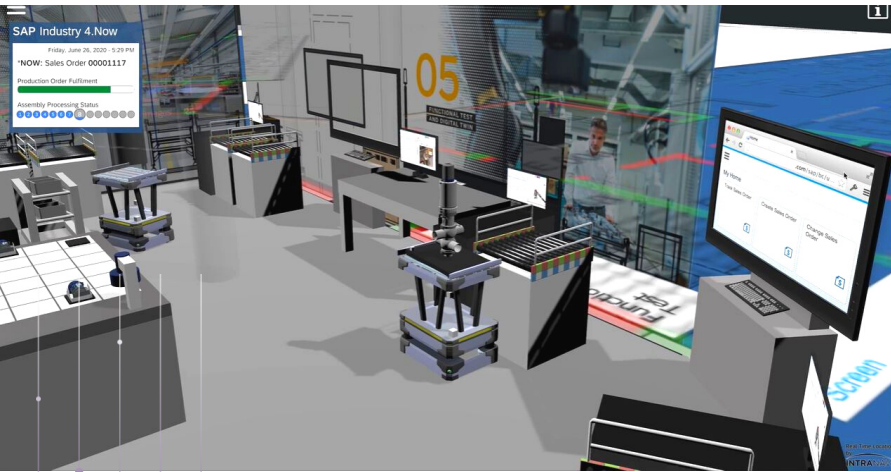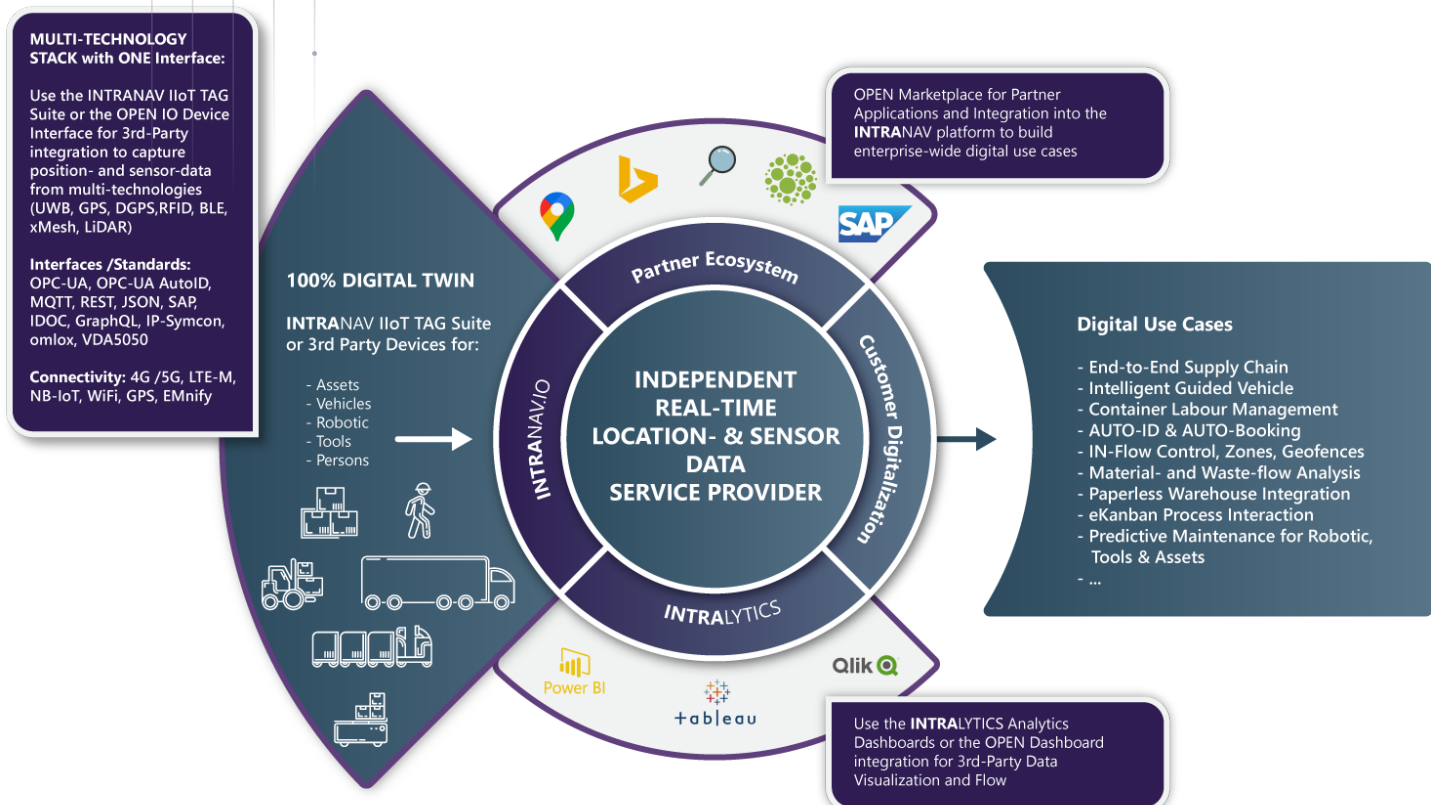

INTRANAV RTLS showcase tracking project at SAP Experience Center

By linking **INTRA**NAV with **SAP**, such as EWM (Extended Warehouse Management), which is available by using the SAP Consulting Service (Simple RTLS@EWM), you have full control over monitoring and automation of all process levels of the supply chain.

With **SAP applications** you manage engineering and design applications, like automatic manufacturing process-triggers or machine interaction to initiate logistics operations. Now workers are able to react in real-time in an agile way, and have more flexibility, take faster actions and decisions were supported by data driven information of the warehouse and shopfloor.

With INTRANAV.IO, an independent IoT RTLS platform - you manage a multi-technology stack with ONE interface on a enterprise-wide basis

MULTI-TECHNOLOGY STACK with ONE Interface:

Use the INTRANAV IIoT TAG Suite or the OPEN IO Device Interface for 3rd-Party integration to capture position- and sensor-data from multi-technologies (UWB, GPS, DGPS,RFID, BLE, xMesh, LiDAR)

Interfaces /Standards: OPC-UA, OPC-UA AutoID, MQTT, REST, JSON, SAP, IDOC, GraphQL, IP-Symcon, omlox, VDA5050

Connectivity: 4G /5G, LTE-M, NB-IoT, WiFi, GPS, EMnify

OPEN Marketplace for Partner Applications and Integration into the **INTRA**NAV platform to build enterprise-wide digital use cases

100% DIGITAL TWIN

INTRANAV IIoT TAG Suite or 3rd Party Devices for:

- Assets
- Vehicles
- Robotic
- Tools
- Persons

Partner Ecosystem

INDEPENDENT REAL-TIME LOCATION- & SENSOR DATA SERVICE PROVIDER

INTRANAV.IO

Customer Digitalization

INTRALYTICS

Digital Use Cases

- End-to-End Supply Chain
- Intelligent Guided Vehicle
- Container Labour Management
- AUTO-ID & AUTO-Booking
- IN-Flow Control, Zones, Geofences
- Material- and Waste-flow Analysis
- Paperless Warehouse Integration
- eKanban Process Interaction
- Predictive Maintenance for Robotic, Tools & Assets
- ...

Use the **INTRA**LYTICS Analytics Dashboards or the OPEN Dashboard integration for 3rd-Party Data Visualization and Flow

INTRANAV real-time location intelligence solutions for factory & warehouse 4.0 and digital supply chain.

Get in touch www.intranav.com

INTRANAV