NTT DATA Sustainable Packaging

Closing the loop for returnable packaging management

What is it

NTT DATA Sustainable Packaging enables packaging managers to incorporate environmental footprint data at scale into their decision-making process regarding the choice of returnable packaging with the aim of creating a more sustainable supply chain.

The accelerator is based on SAP Returnable Packaging Management and the SAP Business Technology Platform, and is integrated into the SAP Industry Cloud ecosystem.

The business case

The widespread use of returnable packaging in the automotive and other sectors has clear economic and environmental benefits, but supply chain decisions involving the choice of a particular type of packaging or supplier have typically been driven by cost considerations alone.

As part of the efforts to improve sustainability in the supply chain, attention has focused on reducing the carbon footprint of returnable packaging. But packaging managers lack a simple way to compare the footprint data of different types of packaging and incorporate that data into their decision-making process.

NTT DATA Sustainable Packaging accelerator addresses that requirement.

Background

Returnable transport packaging (RTP) has become the norm in the automotive and other manufacturing-led industries as it helps avoid the use of one-way packaging and the challenges that creates in areas such as recycling and storage.

The growing use of RTP offers cost benefits by minimizing expenses related to packaging and damaged goods, and reducing overall packaging and warehousing costs by enhancing handling efficiency and reducing space requirements.

In addition, reusable packaging contributes to improved workplace safety and efficiency, and it helps standardize and optimize logistics flows.

This shift towards RTP can be seen as integral to the industry's sustainable development strategy, with closed-loop systems and standardized, durable carriers, such as Euro containers and KLT containers, now dominating the sector.

These items offer benefits such as waste reduction, enhanced protection for components, and durability with lower transportation costs compared to single-use alternatives, suitability for automatic assembly lines, and standardized packaging.

The adoption of RTP can therefore make a significant contribution to reducing the waste that is caused by the industry during the product life-cycle, from conception to recycling, and the carbon footprint of the manufacturing process.

Closing the loop

To obtain the full advantages of RTP, supply chain partners are adopting closed loop supply chains that incorporate control and monitoring systems to optimize return flows according to different logistics methods.

There is much effort today focused on using technology to enhance RTP management and supply chain visibility as the traditional manual-intensive methods used to manage RTP items are not only cumbersome and time consuming, but struggle to handle the greater supply chain complexity and shorter planning cycles created by mass customization.

These trends can lead to an excessive amount of capital locked up in RTP assets and, in the worst case, lost production if a critical RTP item is mislaid or incorrectly positioned.

 SAP has developed a specific solution, SAP Returnable Packaging Management, to help companies manage the inventory and logistics of returnable packaging.

SAP RPM enables circular logistic flows for returnable and reusable packaging material such as containers, pallets, tanks, and load carriers. It is powered by the SAP Business Technology Platform to enable collaboration with partners along the supply chain ecosystem and it integrates to multiple backend systems, including SAP S/4HANA, SAP S/4HANA Cloud and SAP ECC.

Figure 1. Managing RPM Inventory in a Circular Economy.

NTT DATA Sustainable packaging

NTT DATA Sustainable Packaging accelerator leverages the SAP RPM platform to enable a packaging manager to perform RPM-related tasks, such as manage returnable packaging accounts, inbound statements, posting documents, serial numbers, and assign exchange partner details. They can also monitor various aspects of the returnable packaging process and returnable packaging material, in a graphical format.

In addition to these out-of-the box capabilities providing by SAP RPM, the NTT DATA Sustainable Packaging accelerator was developed to add a crucial new dimension to the decision-making process of packaging managers, by enabling them to make informed supply chain decisions based on the **carbon footprint of the RPM assets** being managed. They can also analyze the impact of their decision in terms of the carbon footprint and cost of the supply chain.

This capability is outside the scope of the SAP RPM platform but NTT DATA sees it as a natural extension and **one that is increasing demanded** as the whole automotive sector seeks to reduce the carbon footprint and demonstrate how decisions involving supply chain, such as the choice of supplier or RPM item, have been made by taking into account their carbon emissions.

Clearly, a trade-off will often be involved between pricing and carbon emissions for a given RPM item, and the NTT DATA Sustainable Packaging accelerator is designed to put the appropriate data at the fingertips of packaging managers, so enabling them to make a decision based not just on the price of the item but also on its product carbon footprint (PCF) data.

Main features

- Leverages the core capabilities of SAP Returnable Packaging Management.

- Cloud-based solution hosted on SAP Business Technology Platform.

- Accepts PCF data from a variety of sources, such as external databases and SAP S/4HANA.

- Evaluates carbon and pricing information for each RPM item.

- Accessed by Fiori app.

- Part of the SAP Industry Cloud ecosystem.
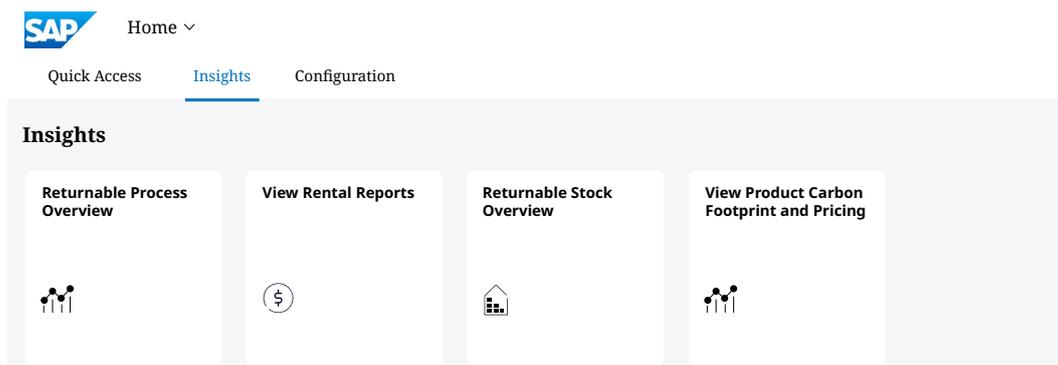
Figure 2. Easy to use Fiori interface to NTT DATA Sustainable Packaging accelerator.

Benefits

- Encourages end-to-end RTP management.

- Make data-driven decisions to minimize carbon footprint.

- Allows trade-off between cost and PCF data to be made.

- Easy to use via Fiori interface.

- Analyzes contribution of RPM to overall supply chain footprint.
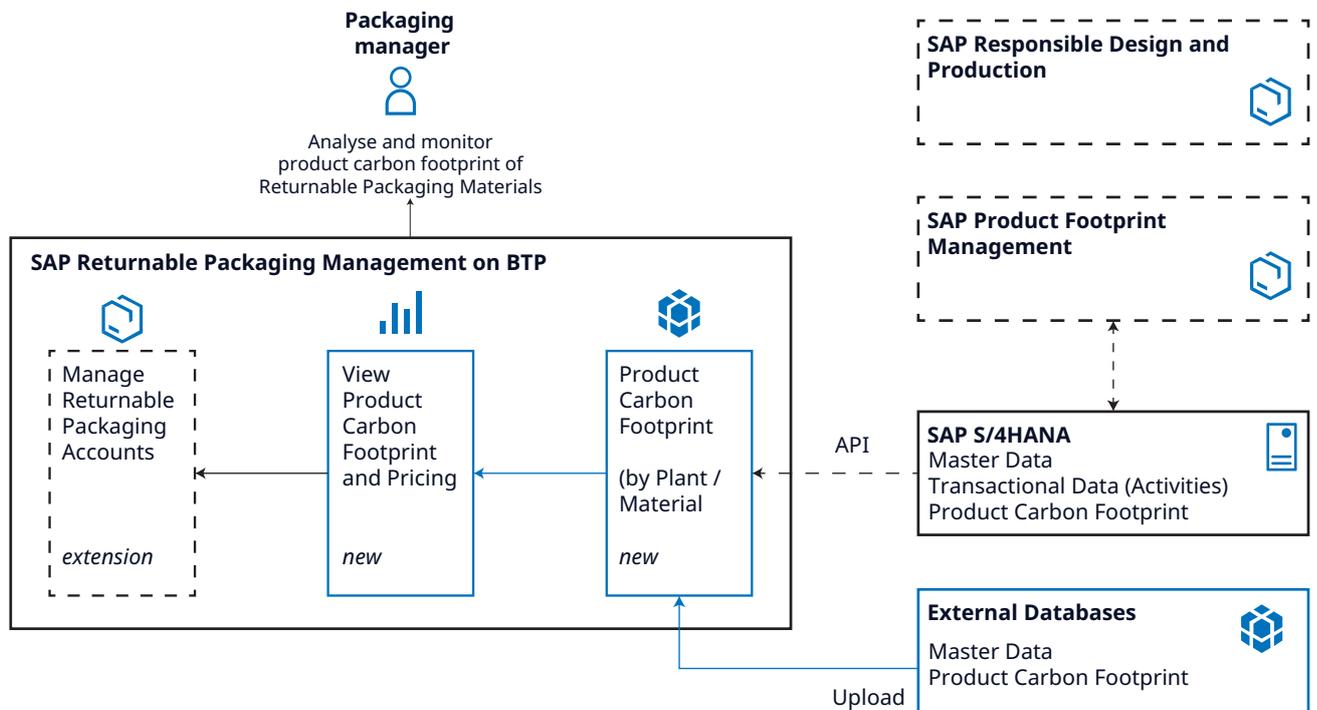
Figure 3. End-to-end solution for RTM sustainability in the automotive sector.

System requirements

- SAP Business Technology Platform.

- SAP S/4HANA, SAP S/4HANA Cloud or ECC.

Why choose NTT DATA for your SAP automotive project

We are experts in automotive

NTT DATA has worked with the automotive industry for 45 years and we currently serve more than 85 OEMs, suppliers and dealerships. We understand the challenges and the needs of enterprises in this sector and we have considerable experience creating innovative solutions that deliver sustainable business value for automotive companies, so helping them achieve a competitive advantage.

To accompany automotive companies on their SAP S/4HANA journey, NTT DATA has a team dedicated to SAP S/4HANA transformation and an SAP S/4HANA Center of Excellence that establishes the most appropriate evolution strategy for companies that want to evolve to SAP S/4HANA and other SAP solutions, platforms and technologies.

NTT DATA has developed a SAP Automotive templates for SAP S/4HANA and accelerators to help automotive companies overcome specific challenges and reduce time to value.
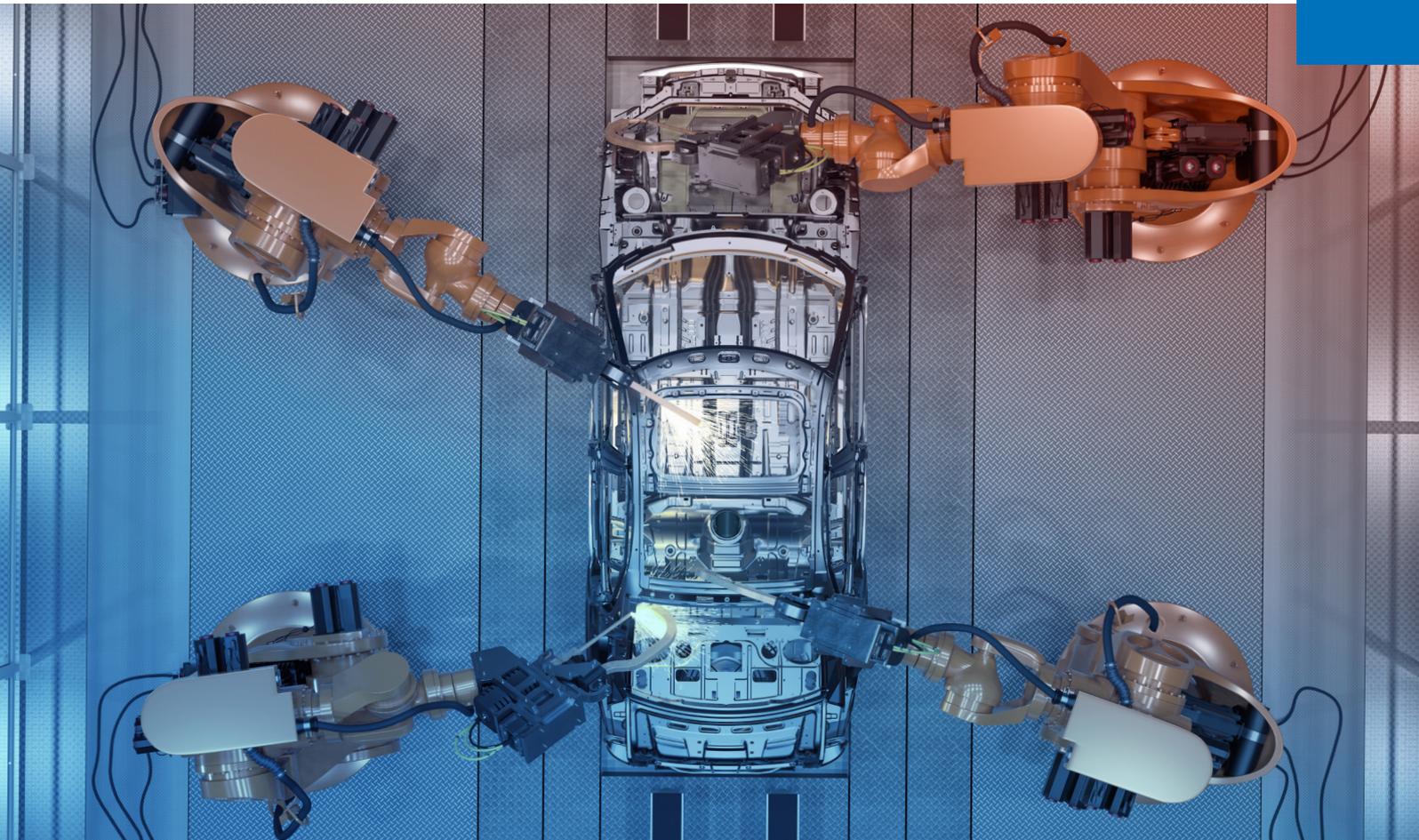
SAP global strategic partner

NTT DATA is a formidable force in SAP services with more than 20,000 SAP professionals, 2,700 SAP clients worldwide, 21 delivery centers and operations in 41 countries. It is a truly global organization committed to seamlessly working together with its clients to deliver SAP-centric projects that can be delivered at scale and across multiple locations.

Our solutions leverage our business-specific expertise and skillsets in SAP technologies but also in other digital technologies, such as AI and IoT, for example. NTT DATA has achieved the highest accolade awarded by SAP, Global Strategic Partner, which recognizes its ability to offer a wide range of best-in-class business consulting and solution implementation services in support of SAP technology.

The NTT DATA difference

NTT DATA SAP template

- Fully customized SAP S/4HANA system including all core areas such as finance, procurement, sales, logistics and production.

- Includes new SAP modules such as EWM, IBP, TM, VMS, etc.

- SAP Business Technology Platform and BTP Integration.

NTT DATA SAP automotive accelerators

- SAP JIT/JIS.

- Supply Chain Control Tower.

- Edge Computing Integration via Cloud Platform.

- Smart EWM High-Bay Racks.

- Individualized Production.

- Digital Supply Chain Execution with SAP Yard Logistics.
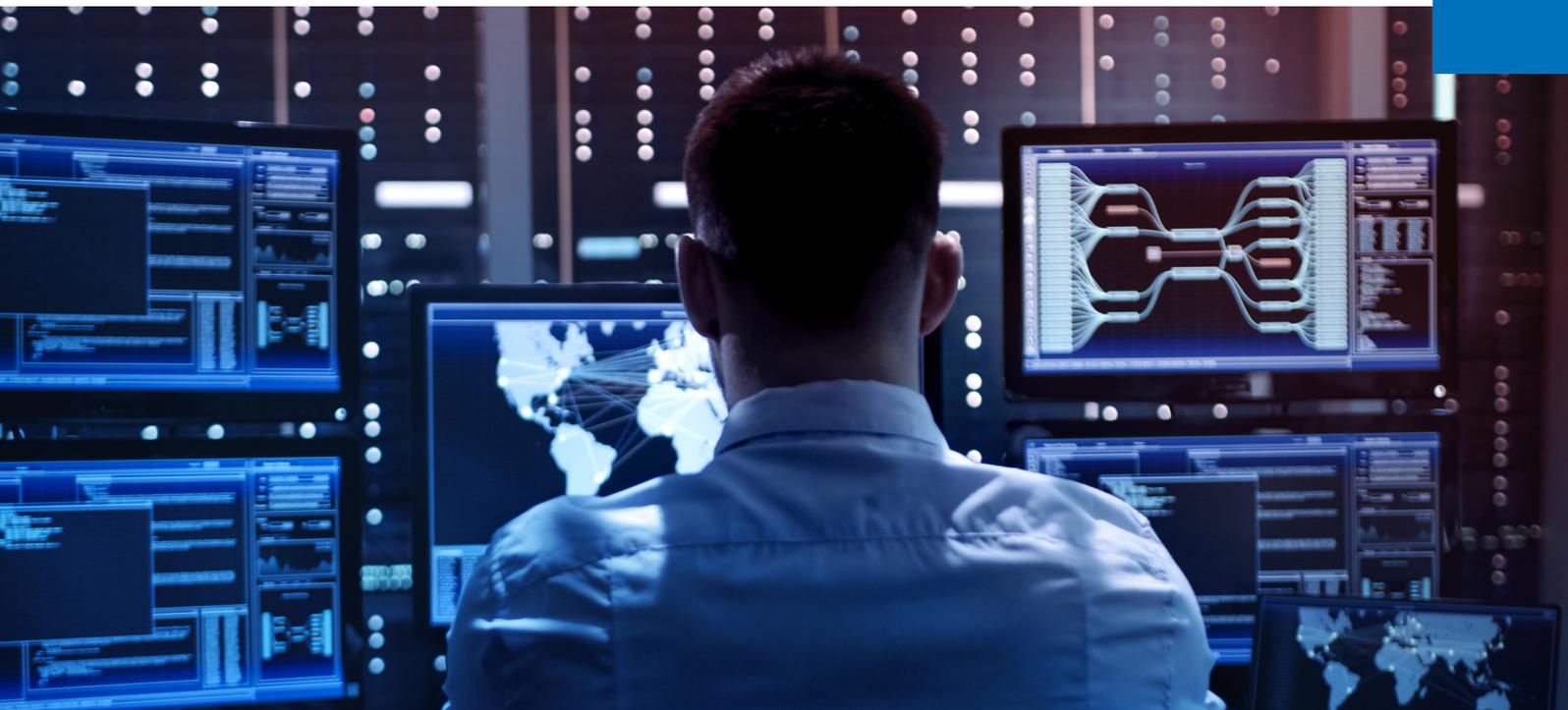
About NTT DATA

NTT DATA – a part of NTT Group – is a trusted global innovator of IT and business services headquartered in Tokyo. We help clients transform through consulting, industry solutions, business process services, IT modernization and managed services. NTT DATA enables clients, as well as society, to move confidently into the digital future. We are committed to our clients' long-term success and combine global reach with local client attention to serve them in over 50 countries. Visit us at nttdata.com.