

Making manufacturers greener

HPE International Material Data System

Environmental concerns are a global priority. Many countries now require automobile manufacturers to track all the materials in a vehicle that are present at the end of its life.

Insights

- Tracking materials in end-of-life vehicles is an environmental concern.
- Our system helps auto makers record and track material usage.
- It is used by 33 name-brand manufacturers, representing 56 brands of vehicles.

Lack of standards made information exchange difficult. HPE stepped up to the problem, creating a material information management system accessible through the Internet and available to the supply chain around the globe.

Addressing a critical need

The HPE International Material Data System (IMDS) is designed to act as an easily accessible database to help manufacturers record and track material usage. The system supports recyclability and recoverability of materials in a vehicle and addresses the disposal of substances of concern.

System users span the globe and include:

- Thirty-three name-brand manufacturers, representing 56 different brands of vehicles
- More than 120,000 Tier 1 to Tier n automotive suppliers of materials and components—virtually anyone in the automotive supply chain who has access to the Internet

Complying with new legislation

Evolving legal restrictions related to environmental issues require automotive manufacturing companies to track the substances in the finished product and report on them to various legal entities.

The European Union (EU) is one of the pioneers of such legislation. In 1997, German car manufacturers realised the benefits they could reap by implementing a standardised format for exchanging material information along the supply chain.

HPE was asked to identify the most cost-efficient data exchange environment, and determined a centralised IT-based approach was the most economical and productive solution. In 2000, EU legislation went a step further than simply reporting on substances of concern.

It included the End-of-Life Vehicle directive, requiring car manufacturers that sell vehicles in Europe to take back the vehicle at the end of its life and recycle a high percentage of the materials in the car. German car manufacturers volunteered to recycle 85% of each vehicle's mass by 2002 and committed to recycling 95% by 2015.

By 1999, manufacturers in other EU countries joined Germany in realising the need for a standards-based system they could all use—and one with the potential to be extended globally. To reach their goal, they adopted a sophisticated materials information exchange system that would reach throughout the supply chain—HPE IMDS.

Connecting the supply chain

The HPE system provides a venue for information exchange amongst car manufacturers and their suppliers—and their suppliers' suppliers—about the materials used in all vehicle components. HPE released the first version of the system in 2000 to support the new EU legislative directive. Today, we operate it on behalf of the leading automobile manufacturers.

The system is designed so each supplier can easily enter information. The standardised, web-based application enables anyone with a computer and Internet access to use the system with absolute data security.

Expanding globally to meet user needs

HPE IMDS quickly gained traction, achieving these milestones:

- By 2001, recognising that the automotive supply chain did not end at European borders—and at the request of the member car manufacturers—HPE extended the system into the United States.
- By 2002, HPE was expanding the system into Korea and Japan, with Japan quickly adopting it as one of two Japan Automobile Manufacturers Association standards.
- In 2004, the first truck manufacturer joined the IMDS community.

Because of global IMDS activities and the recognised need to encompass various emerging and changing legislative requirements, several car manufacturers, Tier 1 suppliers, and industry groups formed the Global Automotive Stakeholders Group. This group produced a Global Automotive Declarable Substance List for the industry.

The list was implemented in IMDS in 2006 and quickly became the accepted standard by IMDS members. It continues to improve productivity and efficiency by replacing lists from different local organisations and car manufacturers with a single source where suppliers can report their declarable substances.

In 2007, to meet the rapidly growing requirements of the automotive market and to support OEMs and their suppliers in China, HPE introduced the system in the Chinese language and established an IMDS Service Center in China.

In 2008, the first REACH-relevant features and elements were implemented in IMDS to respond to new regulations on Registration, Evaluation, Authorization, and Restriction of Chemicals.

Becoming the industry standard

What started as a German-based initiative has developed rapidly into a global standard for the automotive industry. HPE IMDS is now used by the world's most famous car manufacturers and covers dozens of vehicle brands.

During more than 15 years of operation, 200,000-plus users in more than 120,000 companies have registered in the system. They have generated more than 55 million data sheets—with the database growing hourly.

To support the system, HPE maintains five globally dispersed help desks (IMDS Service Centers)—in China, Hungary, Japan, Korea, and the United States. IMDS provides user interfaces in these languages: Chinese, English, French, German, Italian, Japanese, Korean, Portuguese, and Spanish.

Most suppliers can use the system without additional investment. Because participants use a centralised database and application provided over the Internet, they face low implementation risks. That same environment also means high efficiency, low operating costs, and changes that can be rolled out to all participants concurrently.

At the request of major Tier 1 suppliers, HPE began supporting their data reporting productivity efforts with additional services and tools. Other industries have shown interest in the technology, and there are ongoing discussions that may lead to applying the concept and standards to other industries around the world.

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