

20 years of International Material Data System (IMDS)

In June 2000 the IMDS went live and it still exists today – 20 years later. Moreover, it has evolved from a small community comprising 7 founding members (and at that time EDS) into a global standard in the automotive industry. Today 45 OEMs with over 60 brands worldwide use this solution and more manufacturers join every year, especially from the area of e-mobility. The community now also has members from two-wheel and truck manufacturing.

20 years: time to ask a few questions.

Why has IMDS been so successful?

Like in most cases, there is not only one reason, but different factors and developments have contributed to the success. At the time the IMDS was a very innovative approach from several perspectives:

- The formerly existing paper-based Material Data Sheet Reporting was fully digitalized.
- The decision to use a central platform in contrast to an EDI solution meant cost advantages for the industry, because none of the participants had to invest in own hardware and software.
- And finally, it was one of the first applications that was offered worldwide over the Internet, a long time before cloud solutions were developed.

Further success factors include continuous enhancements and the excellent scalability of the system.

What progress has been made in the past 20 years?

From a technology point of view the system has radically changed: from a single server for 1,000 registered users to a server cluster in a Virtual Private Cloud (VPC) with over 350,000 registered users, of which up to 2,500 users work in the system every day at the same time.

The system has been permanently adapted to the continuously growing security standards.

While the technology changes often happened behind the scenes and have not been visible to the users, the functional enhancements have led to perceptible changes.

The harmonization of different company-specific substance lists initially led to the ILRS (International List of Restricted Substances) and then the GADSL (Global Automotive Declarable Substance List). The introduction of the Application Codes, the REACH SVHCs, and the BPR (Biocidal Product Regulation) allowed the IMDS to fulfill new legal requirements. With now more than 12 main releases the system has been continuously improved and modernized. Modules like the Chemistry Manager or IMDS Analytics

have opened up more and new possibilities. Since this spring, the direct data exchange with the CAMDS, the Chinese Automotive Material Data System, is possible.

Another success is based upon the data use by the suppliers. While in the initial years the suppliers primarily delivered material data to fulfill the ELV Directive for automotive manufacturers, they can now make more and more use of the data and analyze it for their own purposes, e.g. in the context of REACH.

Is IMDS an up-to-date solution these days?

20 years is a considerably long time in an increasingly fast-paced environment and the IT world has undergone massive changes. Nevertheless, IMDS is still up to date because it has continuously evolved. And if it continues to develop in terms of content and technology, then it will continue to play a significant role. How this will evolve in each special case is unforeseeable, but we can have a look at two current examples:

1. SCiP:

A further regulation to report material will come from the amended Waste Framework Directive (WFD). According to this regulation, from January 2021 all material containing SVHCs must be entered in the SCiP database. In this respect, IMDS can be very helpful both for the manufacturers and the suppliers because the necessary information is in most cases already available today in IMDS. We are working under extreme pressure so that the relevant data can be transferred to SCiP with a relatively low effort. By doing so, IMDS helps make SCiP reporting more efficient and will gain even more importance in the future.

2. Blockchain:

The Blockchain technology is the talk of the town-these days. This leads to the question of whether IMDS should be replaced with a Blockchain solution, especially in terms of cost advantages and security aspects.

Simply put, a Blockchain is a decentralized network of computers, which continuously and in a synchronized way carries forward transactions and chain-links them. Transactions cannot be changed and by doing so the unchangeability of the data is guaranteed.

But is this what you need for IMDS requirements? The IMDS is mainly a no-transaction system but puts together different information which should not be accessible to everybody because every participant should only see his/her own datasheets.

A multiple decentralized data pool is counterproductive from several viewpoints. On the one hand, the entire costs of the system multiply together with the growing data pool and on the other hand, every participant working on a node has control over data he/she should not be allowed to see. Therefore, an additional security challenge is created. And finally, a decentralized data pool is inapplicable for the analyses, which are needed in IMDS. A separate database for these analyses would then also be needed.

Therefore, to replace IMDS with a Blockchain solution is not a good approach. However, it is possible to add functionality with help of a Blockchain, e.g. the exchange of confidential information between defined partners could happen by using a Blockchain.

What does increasing digitalization in the companies mean for the IMDS interfaces?

Fast system-to-system communication is very important. Instead of file transfers, the exchange of information using web services will gain importance in the future. DXC will offer more and more of these options in the future. Furthermore, the existing IMDS Advanced Interface is already in use as a robust solution in many companies. Changes or the replacement of this interface have an influence on all participants. Taking all technological progress and all dynamics into account, fundamental changes and all consequences for the participants have to be carefully considered.



Who should we congratulate for 20 years of the IMDS service?

Basically, the entire automotive industry deserves to be congratulated. Other industries would be quite happy – in light of rapidly increasing legislation (e.g. REACH, RoHS, WFD) – if they had such a mature solution for their material reporting along their supply chains.

The success is mainly based on the work of all actively involved companies and persons in the IMDS Steering Group (Steering Committee and Sponsors). The 20 years of IMDS would not have been possible without the founding members. They laid the foundation stone with their initiatives. Furthermore, all other participants in the working groups consisting of representatives of international associations in the automotive industry have made a significant contribution to the IMDS success. Although the opinions concerning functional topics were sometimes split between the different interest groups, the common goals and will for cooperation always led to a reasonable solution. Without these active contributions together with the Steering Committee as well as the sponsors the success would not have been possible.

And finally also the DXC Team, with its core development team and the internationally operating support team members behind the IMDS, has contributed greatly to the success. Without the continuity and reliability of this globally dispersed team, the IMDS would not be what it is today.

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