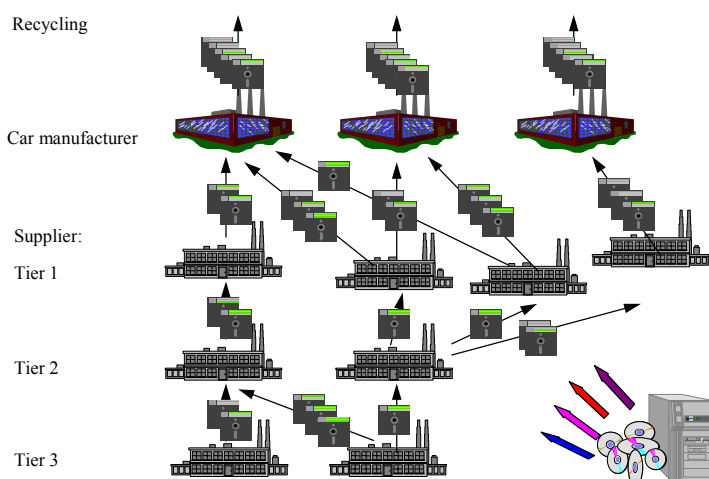


## Spreadsheet Approach vs. Central System Approach

(Prof. Dr. T. Schildhauer, Institute of Electronic Business, Berlin)

The precondition for a **decentral IT solution** for Material Data sheets is a common IT infrastructure which works with standard formats and gives access to a central store of core material data. This might cause higher costs for investment in IT equipment like larger databases and memory as well as the maintenance of these systems in each company. The addressees of the material data sheets have to be determined and the material data sheets sent on individually. Insofar, the decentral IT solution reflects the manual process of sending material data sheets.



The advantage of physical ownership of the data is out-performed by several inconveniences as e.g. the lack of security when the files are transmitted, as unencrypted protocols have to be used. In addition to this, the data volume is larger with this approach than with a central approach, as products which are handed on from supplier to supplier cannot be referenced. Concluding from this it is possible for the next recipient to identify information which should be confidential as e.g. who delivers what. Furthermore, the responsibility for data security is left with the respective user. This might lead to irretrievable data losses.

Another disadvantage of the decentral approach is that the material data will not be up-to-date. When entering the substances into the material data sheet, they need to be referenced to make later evaluation possible. In a decentral system changes can only be handed on with a time lag, for example by distributing the materials database on CD ROM or disk.

When a supplier changes the composition of his product, which has to be passed on to several customers, the individual files have to be adjusted and again sent off individually. Further disadvantages could be caused by possible differences in the respective material data sheet versions. If one supplier has not yet received a new version, differences in the description of the products delivered could occur.

## IMDS History

### June 2000

IMDS goes on-line.

### July 2001

Fiat joined the IMDS.

### December 2001/January 2002

A questionnaire was put on-line about users' requirements – the results are available at <http://www.mdssystem.com/imds/html/admin/quest/questionnaire.jsp?language=en>.

### July 2002

Toyota joined the material community.

### September 2002

Mitsubishi joined the IMDS.

### October 2002

Mazda joined the IMDS.

### February 2003

A second questionnaire was out online to

### March 2003

Fuji Heavy Industries joined the IMDS.

### May 2003

Isuzu joined the IMDS.

### June 2003

Results of the second online questionnaire are available at: <http://www.mdssystem.com/imds/html/admin/quest/questionnaire.jsp?language=en>.

### Today

46,786 users registered from 17,200 companies

Therefore, the information in the material data sheet can differ from the actual ingredients.

The second approach is a **central application**. In contrast to the decentral solution, a central database contains all material data sheets, as well as the core material data and other general data, which are needed for entry.

With the implemented user identification the user can start up the material data sheet system on his PC, look up incoming or sent material data sheets, create new material data sheets and send them on, or initiate evaluations and data analysis. The data transfer can be performed via encrypted and controlled protocols. The data are protected by central security mechanisms. For the individual material data sheets access is centrally controlled. Every supplier can trace the users of his data. Therefore, this is a more secure way for data exchange.

Other advantages concerning efficiency are: material data sheets which are passed on can be referenced, new versions of a material data sheet can be passed on quickly and the local hardware requirements are limited to acceptable Internet access. In addition, the data exchange is much faster using a central solution because the data are immediately available to the defined range on users.

The disadvantages of a central solution are the costs for the development and maintenance of the IT system. As this is taken care of by the car manufacturers and EDS respectively, the central approach does have considerable advantages.

	<b>Advantages</b>	<b>Inconveniences</b>
<b>Decentral solution</b>	<ul style="list-style-type: none"> <li>- Physical ownership of the data</li> <li>- Using common solutions like .xls files</li> </ul>	<ul style="list-style-type: none"> <li>- Needs common IT infrastructure in all participating companies</li> <li>- Individual sending → finding the contact persons</li> <li>- Lack of security because of unencrypted protocols for passing on the information</li> <li>- Higher data volume</li> <li>- Time lag in passing on the data</li> </ul>
<b>Central solution</b>	<ul style="list-style-type: none"> <li>- Using a central data base with real-time data → faster data entry and referencing</li> <li>- Lower data volume</li> <li>- Limited local requirements</li> <li>- Guaranteed security through using encryption, ID and passwords, possible confidentiality handling</li> </ul>	<ul style="list-style-type: none"> <li>- Internet access must be provided with a certain bandwidth</li> </ul>

### Who to contact?

- Commercial and strategic IMDS issues → Steering Committee
- Operational technical issues → Helpdesks
- Operational content related issues (e.g. how do I report a certain material) → Contacts of OEMs as published on public pages:

#### **BMW**

Dr. K. Oldenburg  
karin.oldenburg@bmw.de

#### **DaimlerChrysler**

Dr. H. Traiser  
helmut.traiser@daimlerchrysler.com

#### **Fiat**

Dr. C. Berruti  
claudia.berruti@fiat.com

#### **Ford**

Dr. B. Schmitz  
bschmitz@ford.com

#### **Fuji Heavy Industries**

K. Amada  
amadak@gun.subaru-fhi.co.jp

#### **General Motors**

A. Heymann  
antje.heyman@de.opel.com

#### **Mazda**

K. Okazaki  
okazaki.k@lab.mazda.co.jp

#### **Mitsubishi**

T. Isogai  
t-isogai@mitsubishi-motors.co.jp

#### **Nissan**

T. Sagawa  
t-sagawa@mail.nissan.co.jp

#### **Porsche**

Prof. Dr. D. Gruden  
dusan.gruden@porsche.de

#### **Toyota**

Dr. M. Desaeger  
muriel.desaeger@toyota-europe.com

#### **Volkswagen**

H. Lüssmann-Geiger  
heiko.luessmann-geiger@audi.de

#### **Volvo**

J. Lundström  
jlundst2@volvocars.com

## Hardware extension for IMDS application already implemented

Ruesselsheim, May 24<sup>th</sup> 2003. The new hardware including all necessary licenses for the data base and maintenance was activated. Two days later, on Monday, 26<sup>th</sup> May 2003 a much larger number of users could concurrently use the IMDS. Although this peak might be due to a high extent by the 30<sup>th</sup> June 2003 deadline from the ELV Directive (ban of heavy metals cadmium, hexavalent chromium, lead and mercury) EDS has been working on correcting all parameters necessary for optimisation of all components connected to the new hardware.

An expected shut-down of the server for adding further software enhancements could be avoided by effectively adjusting these parameters. Continuous monitoring is done concerning hardware and data base efficiency.

IMDS is working now with 240% of the number of concurrent users in comparison to December 2002 (see also the first letter in the Users' Echo section on this page).

## IMDS Changes in Release 2.0

- ✓ **New Read Only access profile** - The client managers can assign READ ONLY access to users of their company as IMDS access right. With this profile no changes of MDSs are possible.
- ✓ **Searching in the MDS tree** - Searching and positioning for locating an MDS in the ingredients tree according to the search options "name" (including substance name), "part number" or "IMDS-ID".
- ✓ **New Languages available** – The IMDS application is now also available in Spanish and Portuguese.
- ✓ **New design for FAQs** – The FAQs on the IMDS Public Pages are up-dated and now displayed including their entry date for each question and answer.
- ✓ **MDS Check procedure** – New warning messages are introduced: Firstly, basic substances can only be added to materials. Secondly, components must have a measured weight and tolerance entered. These warning messages will be changed to errors in the future.
- ✓ **Menu Received MDSs** – The MDS preview does not change the MDS state from 'not yet browsed' to 'browsed'. The status can be changed as before with the 'View' function.
- ✓ **User administration by Client Managers**
  - Users can be activated and deactivated by the client managers.
  - The time interval for user access can be modified (e.g. for temporary employees).

## Users' Echo – emails to IMDS

Very often we get questions about all kind of problems – in this area we will answer some of the emails.

Dear IMDS team,

We are still experiencing trouble accessing the system, it keeps coming up with 'maximum number of defined concurrent IMDS users exceeded, please try again later', can you please let us know if there is a problem with the system as we are trying to enter data asap,

Regards

Dear IMDS user company,

This question is an issue often brought up since several months. First of all, no – there is no problem with the system at all.

Please help us with your feedback. If you would like to contribute to this Newsletter with articles and comments concerning the IMDS and environmental issues in your company, please send an email to [imds-newsletter@eds.com](mailto:imds-newsletter@eds.com)

At the beginning of the year 2003, the number of concurrent users defined in the service agreement was not only reached but largely exceeded. In order to guarantee an acceptable performance for all users in IMDS working on it at the same time, it was decided to introduce this limit of a maximum number of concurrent users in IMDS – still delivering 60% more service, i.e. the user number agreed upon.

The hardware extension necessary for an up-grade of the number of concurrent users in IMDS was decided upon in March 2003 by the IMDS Steering Committee (see article on page 2 of this Newsletter “Hardware extension already introduced”). The new hardware including all necessary licenses has been productive since 26<sup>th</sup> May 2003 and working well while EDS did all the necessary monitoring and adjustments of different parameters influenced by working with the new hardware.

Now the number of concurrent users in IMDS is at a level of 240% percent of the original number. Before Dec 2002, there has never been such a peak usage or bottleneck. It is only now, that the deadline is coming near and, understandingly, more and more users/companies want to provide the data to the customers.

In order to guarantee an acceptable performance for those working within the system we will further tune the parameters in order to find optimised values including the new hardware settings. A maximum number of users is still defined but at a higher level than before.

Furthermore, we will introduce an automatic log-out from the system after an hour not using it. This should prevent users from logging on in the morning and starting work only late in the afternoon. We hope this will help you in providing the data in time.

Best regards, the IMDS team

**Dear IMDS team,**

**Could you please change the status of one of our MDSs we published by accident. Maybe you can explain when we have to use all functions: “Publish” or “Propose” or “Send” or “Internal”?**

**Best regards,**

Dear IMDS user company,

Here some explanations for you which might be of interest for the entire IMDS community:

**“Internal”** – This is used for internal use only . All employees working in the IMDS in your company can see and reference the respective internally released MDS. If you create an MDS, before sending it all parts must have the version number xxxxx / 1.0. Internal release is the internal acceptance of your own data sheet. Version 1.0 means that the MDS is not editable any more. This is necessary e.g. for referencing and sending it as a part of another MDS.

**“Send”** – This button is used for sending an MDS to a single customer – after sending it the MDS is in Hand-shake mode, waiting for acceptance by this single customer. If the customer accepts the MDS the version changes to xxxxx / 1.0. If the MDS is rejected the MDS stays editable and can be adjusted according to the customers’ rejection reason (which can be found in chapter four, recipient information).

**“Propose”** – This function is used for sending an MDS to more than one customer at once. Every customer can accept or reject separately – if the MDS is accepted by one and rejected by another customer on the recipient list a new version has to be created for the rejecting customer and sent to this customer separately.

**“Publish”** – Publishing an MDS makes this MDS public, i.e. every IMDS user can see and reference it. This button should only be used for standard parts like screws.

We hope this explanation helps you for your work with IMDS.

Best regards, the IMDS team

## News in brief

### New IMDS community member

As mentioned in the History section on the first page of this Newsletter, in May 2003, Isuzu joined the IMDS. Welcome Isuzu.

### Tests with new data base for metals (IMDS materials)

A new data collection containing about 30,000 metals will be loaded into IMDS. These metals will be characterized by including all the different norms and standards. At the moment, the data contained are still under review by material experts of the OEMs.

### Automatic Log-out from IMDS after one hour inactivity

As mentioned in the first response in the Users' Echo section, with Release 2.0 an automatic log-out will be implemented. If users log on to IMDS and not constantly carry out actions in IMDS after an hour inactivity. As long as actions like searching, saving, adding MDSs to a tree etc. are carried out the user remains logged on.

## IMDS Newsletter – next issue

IMDS – and several EDS products for making data entry more efficient

Partner announcements – Training and service partners on the new IMDS Service pages

Development of a new online training course

## IMDS Help Desk support

### European help desk – [imds-eds-helpdesk@eds.com](mailto:imds-eds-helpdesk@eds.com)

Monday through Friday, 8 a.m. to 4.30 p.m. (GMT+1) at +49 (0) 42152 56 666

### Italian help desk – [imds-fiat@eds.com](mailto:imds-fiat@eds.com)

Monday through Friday, 9 a.m. to 6.30 p.m. (GMT+1) at +39 (0) 80 38 53 116

### Japanese help desk – [jpimds@eds.com](mailto:jpimds@eds.com)

Monday through Friday, 9 a.m. to 5.00 p.m. JST (GMT+9) at +81 3 3797 4212

### North American help desk - [imds-eds-helpdesk-nao@eds.com](mailto:imds-eds-helpdesk-nao@eds.com)

Monday through Friday, 8 a.m. to 6 p.m. (EST) at 248/267-3460

## IMDS Newsletter – your participation

Please submit articles and comments concerning IMDS and environmental issues for this Newsletter. For suggestions, further information and questions, please contact [imds-newsletter@eds.com](mailto:imds-newsletter@eds.com)

## About this Newsletter

The Steering Committee will quarterly provide the Newsletter to all IMDS Users as a source of information about the different IMDS functionalities and support.

This Newsletter is designed to objectively inform about the IMDS.

If you have any questions or comments about this Newsletter, please send an email to:

[imds-newsletter@eds.com](mailto:imds-newsletter@eds.com)

## Editorial

The collection of the contents of this IMDS Newsletter is carried out on behalf of the IMDS Steering Committee by Ilona Pollok, EDS.

