SAP® Innovation Awards 2020 Entry Pitch Deck

Business Data and Integration Hub Boosts Intelligent Endress+Hauser
Endress+Hauser InfoServe
Company Information

- **Headquarters**: Endress+Hauser
- **Industry**: Process Automation and Instrumentation
- **Web site**: [https://www.endress.com/](https://www.endress.com/)

- Endress+Hauser is a global leader in measurement instrumentation, services and solutions for industrial process engineering. We provide process solutions for flow, level, pressure, analytics, temperature, recording and digital communications, optimizing processes in terms of economic efficiency, safety and environmental impact.
- Endress+Hauser InfoServe is the innovative IT partner of the Endress+Hauser Group, providing powerful IT solutions which are simple to use. We focus on the customer experience and productivity using SAP since 1985 in a close partnership.
- Artificial Intelligence helps to make things easy, even if they are not. But to built intelligent solutions, you need to have the right data at your finger tips. Therefore Endress+Hauser InfoServe has built the Business Data and Integration Hub powered by SAP Cloud Platform.
Digitalization is key at Endress+Hauser and the Business Data and Integration Hub is an essential pillar to drive Endress+Hauser into the age of data.

It is a game changer for us, enabling new offerings for our customers and new data insights for ourselves.

For us, it’s data driven intelligence!

Jürgen Schrempp, Director Applications

**Challenge**
Business data was kept and owned by the application owners and their departments. There was no possibility to combine, integrate and reuse data in a standardized and easy way. No Data Thinking was present and new IT solutions had to be built on new data silos, reinvented from scratch.

**Solution**
With our new Business Data and Integration Hub (BDIH), we founded an innovation platform based on the SAP Cloud Platform mastering the challenge. It helps us to boost our innovation topics like Machine Learning, B2B customer integrations and Data Science and moreover enables end-to-end integrated business processes.

**Outcome**
The BDIH is the new core of our intelligent enterprise. It delivers the data we need to generate new IT solutions, just a few clicks away. Intelligent product configuration based on Machine Learning and ad-hoc data science using SAP Data Intelligence is just the beginning.

Business Data and Integration Hub
Endress+Hauser InfoServe

>5x Increased project speed and less costs compared to former projects.

100% Innovation. Easily providing business data and integrations at your finger tips.

50 million € Digital net sales through B2B cloud integrations.
Business Challenges and Objectives

- No agile method available to satisfy business data and integration needs.
- High demand for EDI customer integrations (Order-to-Cash processes).
- Lack of a central business data model as foundation for new business solutions.
- No Data Thinking was present, data was hidden in silos.
- No ability to combine and reuse business data in a standardized way.
- Hardly able to comply with legal integration requirements.

- Creating a new platform delivering the business data and integrations we need, through state-of-the-art integration tools and technologies.
- Establish a Business Data Lake as single point of truth for all business data starting with asset and product master data.
- A change in mindset moving forward to Data Thinking and generic APIs driven by IT.
- Use standardized integration packages provided by SAP - wherever possible. (E.g. legal integrations)
The starting point of the project was an R&D initiative, having the vision to create a new centralized business data model combined with state-of-the-art integration technologies for the whole company group. Making it easily possible to build new applications and creating a platform for integration, data science and innovation.

InfoServe’s answer to this is the Business Data and Integration Hub (BDIH), powered by the latest SAP Cloud Platform tools.

The ideas behind the BDIH are, simplicity by using SAPs PaaS offering, not reinventing the wheel from scratch. Using data integration tools to combine and synchronize big data. Not to think in applications, silos or departments, but rather to think in data and services. Providing generic APIs and a clean data model for everyone on a global scale.

The BDIH is the new foundation for our intelligent enterprise enabling new innovative solutions. Intelligent product configuration based on Machine Learning on our website, ad-hoc data science using SAP Data Intelligence and intelligent B2B customer integrations are just the beginning.

That’s data driven intelligence for us!
# Benefits and Outcomes

## Business or Social
- Introduced Data Thinking in the company group.
- The Business Data Lake supports new business models like IIoT.
- Increased customer satisfaction by intelligent product configuration.
- Provide a standardize platform for data scientists to effective and timely use of enterprise data.
- Self-service analytical capabilities in SAC.

## IT
- Better IT project efficiencies, empowering IT staff to do more in an agile manner.
- Greater control and visibility of enterprise data.
- Increased developer productivity by introduced reusable APIs.
- Flexible and high available integration suite.
- Easy global scaling within SAP Cloud Platform.

## Human Empowerment
- Happy integration developer.
- Fun to use PaaS motivates employees in their daily work.
- Data scientist have a new home and greater visibility within the company group.
- Easy access to business data and B2B interfaces for end customers.
## Deployment

### Deployment status
Live

### Date
June 2019

### Number of users
100+ users

### SAP technologies used:

<table>
<thead>
<tr>
<th>SAP product</th>
<th>Deployment status (live or proof of concept [POC])</th>
<th>Contribution to project</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. SAP Cloud Platform, SAP HANA service</td>
<td>live</td>
<td>Backbone of the Data Lake</td>
</tr>
<tr>
<td>2. SAP Cloud Platform Integration Suite</td>
<td>live</td>
<td>Used for management of Java APIs and for publish and subscribe mechanisms</td>
</tr>
<tr>
<td>3. SAP Data Intelligence and SAP Analytics Cloud</td>
<td>live</td>
<td>Two “consumers” of the Data Lake</td>
</tr>
<tr>
<td>4. SAP HANA Smart Data Integration</td>
<td>live</td>
<td>Data Integration tool for filling the Data Lake</td>
</tr>
</tbody>
</table>

If you have used one of the services or support offerings from SAP Digital Business Services during the implementation or deployment phase, please select with ☒ one or more of the following offerings:

- ☐ SAP MaxAttention™
- ☐ SAP ActiveAttention™
- ☐ SAP Advanced Deployment
- ☐ SAP Value Assurance
- ☐ SAP Model Company
- ☐ Others:
- ☐ SAP Innovation Services
- ☐ SAP Innovative Business Solutions
## Advanced Technologies

The following advanced technologies were part of the project.

<table>
<thead>
<tr>
<th>Technology or use case</th>
<th>Yes or No</th>
<th>Contribution to project</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 3D printing</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>2 Blockchain</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>3 Internet of Things (IoT)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>4 Machine learning or AI</td>
<td>Yes</td>
<td>Jupiter notebooks, phyton applications and SAP Data Intelligence use the Business Data and Integration Hub</td>
</tr>
<tr>
<td>5 Conversational AI</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>6 Robotic process automation</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>7 Data anonymization</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>8 Augmented analytics</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>
Additional Information

- Official BDIH logo showing the main building blocks: SAP Cloud Platform, the Business Data Lake and the Integration Hub combined with an illustration of the Business Data Lake.
### Additional Information

#### Ideas behind the project:

<table>
<thead>
<tr>
<th></th>
<th>Simple</th>
<th>Data Integration</th>
<th>Data Thinking</th>
<th>Interfaces</th>
<th>Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td><strong>Simple</strong></td>
<td>SAP PaaS</td>
<td>Move data in real-time</td>
<td>Combine data from any source</td>
<td>State-of-the-art integration</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td><strong>Data Integration</strong></td>
<td>Do not reinvent</td>
<td>Synchronization of big data</td>
<td>Independent data model</td>
<td>Generic APIs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use existing services</td>
<td>Ability to transform data</td>
<td>Not limited by applications</td>
<td>Specific interfaces</td>
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<tr>
<td><strong>3</strong></td>
<td><strong>Data Thinking</strong></td>
<td></td>
<td></td>
<td></td>
<td>Using the right tools</td>
</tr>
<tr>
<td><strong>4</strong></td>
<td><strong>Interfaces</strong></td>
<td></td>
<td></td>
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<td><strong>5</strong></td>
<td><strong>Guideline</strong></td>
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