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adesso

# Medical device Data Platform

MDDP

## Based on clean field Data, multiple stakeholders gain value from the MDDP

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### Assay Development and Validation

How can we ensure 100% precision?

- › Fast and efficient Data access and retrieval, clean and high-quality data, shared and single-source Data for all Assay Development Engineers
- › Quick and precise Evaluation of accuracy, precision, sensitivity, specificity, or reliability of the medical device



### Service & Maintenance

When will the device most likely break down and why?

- › Device Analytics, Data needed on probability of errors or maintenance
- › Field issues Analytics and customer issues / engagements, real-time troubleshooting



### Product Development

How is my device used in real-World settings?

- › Data About Usage and performance of Device, Malfunctions and usage patterns
- › improve device design, enhance functionality, and identify areas for optimization



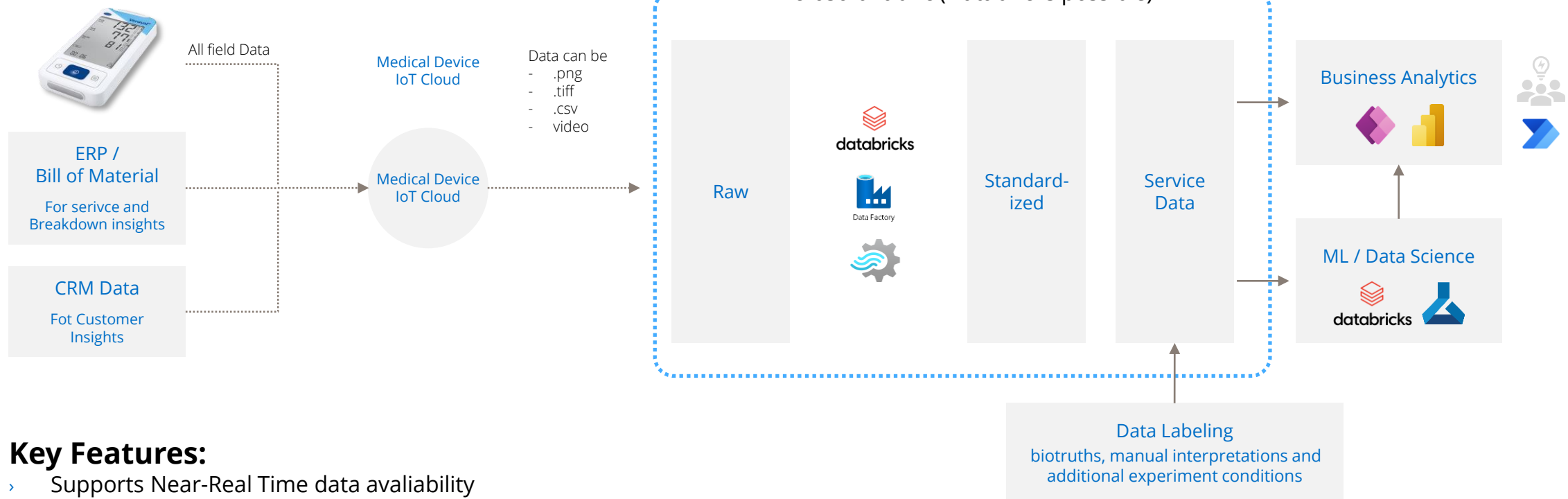
# MEDICAL DEVICE DATA PLATFORM

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## IoT Cloud / Data Lake

## Advanced Analytics Platform

### Any Device



### Key Features:

- › Supports Near-Real Time data availability
- › Data Download for official documentation
- › GxP Validation possible
- › Self-Service creation of Reports, access to Data Products

# KEY USER OF THE MDDP AND PLATFORM REQUIREMENTS

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## Bio Engineer (IVDs)

Search past measurement Data, enrich data by expected outcome, test environment, fluidic and array images. Standardized reports immediately after measurement, realtime data.



## Assay Development (IVDs)

Key Data (intensity, pressure, temperature) plots, analyze various data (eg. Device ID, date, assay ID, Bead-Lot, lot-no.). Add and modify ground truth and bio truth.



## Device Software Engineer

Medical device Software system engineer and analysis algorithm engineer, run analysis algorithms on data subsets and store results, add new performance metrics, compare algorithm performance



## Quality Control

Analyse device activity discrepancy and react, automatic notification possible. Analyse discrepancy data over time to react to trends. Identify Quality issues and cause of issues, report issues and quality metrics.



## Customer Support

Customer data in combination with device data to enable fast compliant evaluation and adequate customer feedback, increase field service quality, calculate breakdown and device part breakdown probability.

## Involve all data stakeholders

Every user group involved with the product and the product development can draw valuable insights from the data platform.

The real value lies in the generation of data products, thus enabling every user explore the data their own.

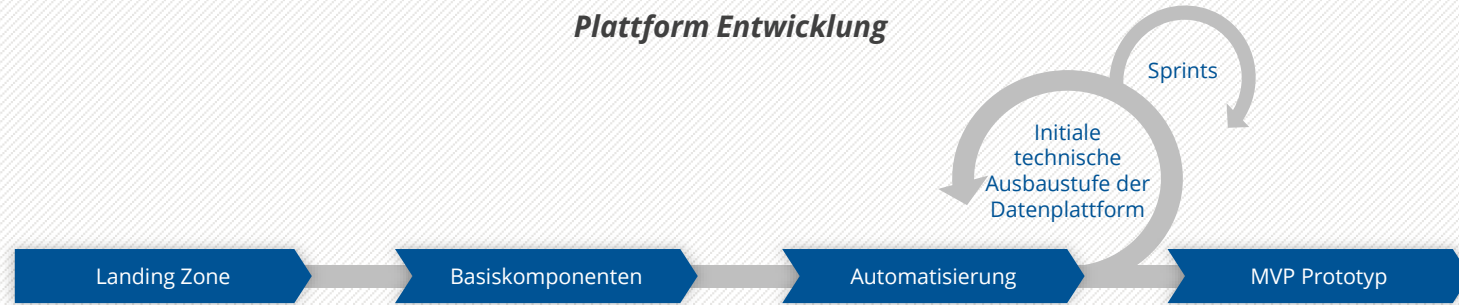
Enable everybody to make data-based decisions.

# I WANT THE MDDP – HOW DO I GET THERE?

## Scoping and Zielbild



## Plattform Entwicklung



## Ausblick



Operationalisierung



Skalierung

## Konzeption

