



SAP
Innovation
Awards 2019



SAP Innovation Awards 2019 Entry Pitch Deck

IDIVE: THE FUTURE of “auto-mobility” platform

Daimler TSS

THE BEST RUN



IDIVE: THE FUTURE of Auto-mobility platform

Daimler TSS



“Quote”

“The future of auto-mobility will be even more versatile than it is today.”

Dieter Zetsche, CEO
Daimler AG

Challenge

The auto industry is convulsing with new technologies, competitors, products, and services. The top global brands are now at risk. The Daimler challenge is to determine what to do next and how to succeed.

Solution

IDIVE is a prototype enterprise application for Daimler to run and optimize a future “mobility as a service” business. To enable compelling business results it applies advanced analytics to unique data elements like air particulate (pollution), vehicle movement, and consumer demand by geography.

Outcome

A foundational technology platform for the future of Daimler Mercedes’ mobility products and services – car sharing services, autonomous vehicles, more.

Business Metric 1

Delivery of an analytics system that can predict car sharing demand and deposit locations for a car sharing service that uses customer driving patterns, weather, CO2 air density and more.

Business Metric 2

Real time customer sentiment and satisfaction measurement capability based on live social media analytics that measures Daimler activity and perceptions versus competitors.

Business Metric 3

Demonstration of a sophisticated financial modeling system that provides for real time sensitivity analyses and that use numerous inputs to maximize financial results of new mobility businesses.



Business Challenge & Objectives

Business Challenge: The auto industry is convulsing with new technologies, competitors, products, and services. Daimler perceives enormous risk to the core transportation business with a completely new set of competitors including TESLA, UBER, GOOGLE, and LYFT. This environment requires a new way of thinking, new technologies, new products, and new services. Daimler TSS, the captive IT arm of the corporation, has been tasked with developing technologies that will empower Daimler to develop the next generation solutions for Daimler clients – whether electric vehicles, autonomous cars, shared car services, ebikes, or otherwise.

Project Objective: The objective of the IDIVE showcase project is to develop innovative technologies that will integrate with current Daimler platforms and systems while enabling new services under Daimler's corporate CASE strategy (Connected Autonomous Shared/Services Electric mobility). Specifically, the project team was tasked to develop a template for a central point of access for the Daimler virtual future mobility service.



Project / Use Case Details

IDIVE is an interactive application allows users to manage a virtual future mobility service. It contains various types of data such as vehicle positions, intelligent prognosis of future vehicle demands, analysis of social media and public data such as air particulate matter data (a measure of pollution levels).

Through intelligent alerts, users are enabled to react to different situations and use the data which is displayed to make the right decisions for the mobility service – for example, where to place cars and when.

Visualizing all data in one place allows users to discover, analyze and predict information to enable significant, and the most informed possible, decisions based on this all-in-one integrated experience.

A user may collaborate with co-workers on big touch screens using SAP Digital Boardroom or through A desktop version which runs in the SAP Analytics Cloud.

Marketing and social media analysis explores the perception of the future mobility service in identified target customer segments. IDIVE can be used to answer questions like: What is customer sentiment on Twitter or YouTube? What are the best ways to reach possible customers? What does our customer base look like, is it evolving and how?



Benefits and Outcomes

Business / Social

Enable a completely new service for the movement of people that will be more convenient, less costly, and less polluting.

IDIVE will help reformulate and manage the way people around the world think about mobility and move around the world.

IT

IDIVE leverages and illustrates how to use various advanced technologies and methods of analysis like machine learning in a complex, multi-technology platform.

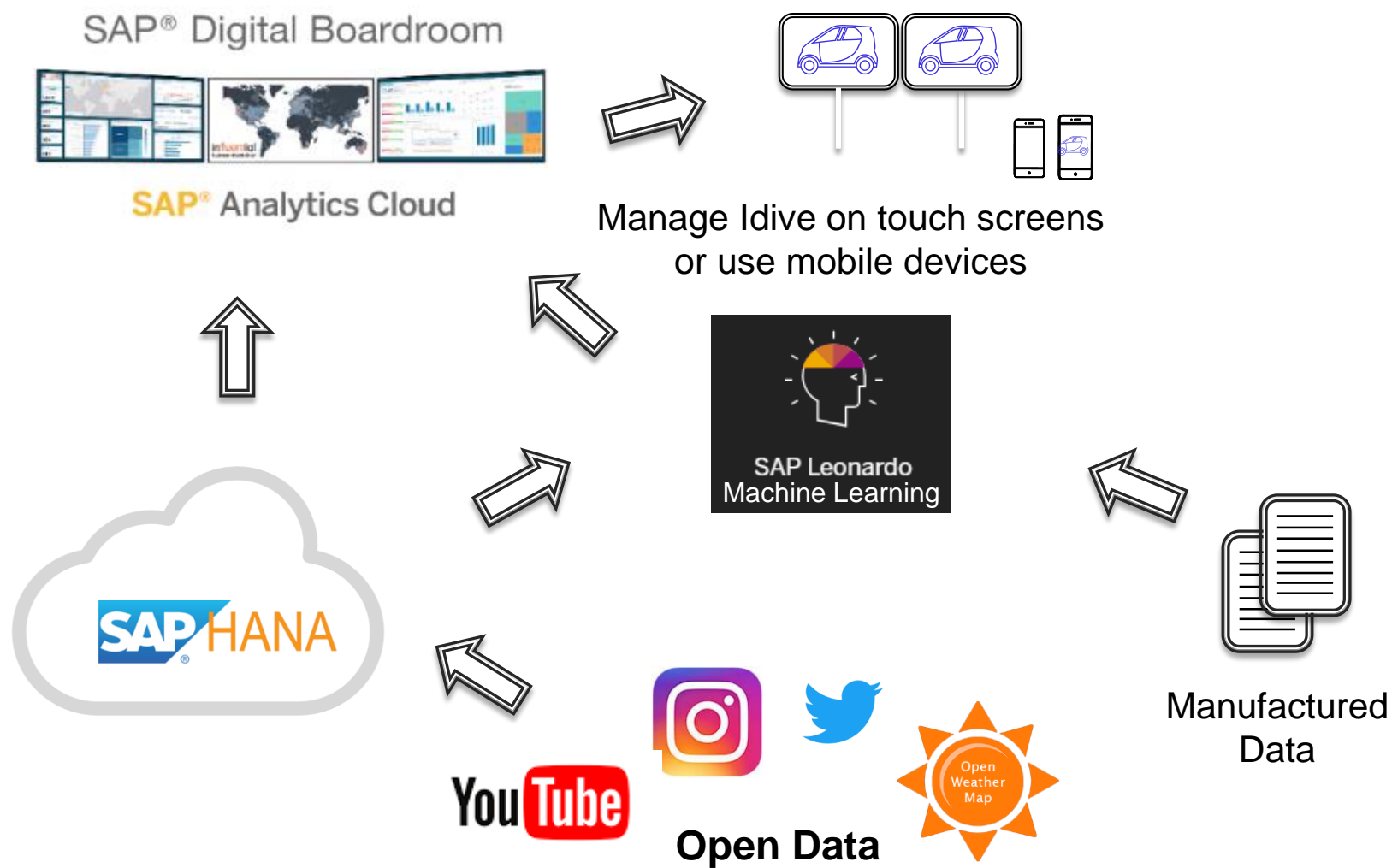
Enabling the integration of current business systems, processes, organizations with these new solutions is a particularly valuable benefit of this POC.

Human Empowerment

IDIVE empowers the manager of the future mobility service to make decisions based on predictive data and take action to better anticipate upcoming events. The customers of the future mobility can therefore enjoy a smooth running service no matter the circumstances.



Architecture





Deployment

Date of Deployment or POC: July 2018

Number of live users: POC – no live users yet

SAP Technologies Used:

SAP Analytics Cloud	POC
SAP HANA	POC
SAP Leonardo (IoT)	POC
SAP Digital Boardroom	POC

Server Processor: Runs in the SAP analytics cloud

Linux Distribution: Runs in the SAP analytics cloud



Emerging Technologies and Use Cases

The following Emerging Technologies and use-cases are part of the project and describe the contribution

	Technology or Use Case	Yes/No	Contribution to Project
1.	Machine Learning / Artificial Intelligence	Yes	Machine learning techniques enable the platform to predict the short term and long term future demand of vehicles.
2.	IoT		
3.	3D printing		
4.	Blockchain		
5.	API Economy / Integrate the Intelligent Enterprise		
6.	Cloud Native / Event Based Architectures		
7.	Extending the digital core with SAP CP / ABAP in SAP CP		
8.	SAP Leonardo Application (extending SAP application, using Industry Innovation Kits or result of Design Thinking workshop)	Yes	SAP Leonardo and SAP HANA enable the predictive analytics mentioned above as well as enable a user to drill down to see the data for single vehicles to e.g. see the battery charge.