Aras at GETRAG
First Download to Strategic Partnership

GETRAG

Agenda

1. Who we are

2. Where we started

3. Implementation philosophy

4. Applications supported by Aras

5. Success factors

6. Where do we go from here

GETRAG Overview

Product Portfolio

Worldwide system supplier for transmission systems

ManualShift

PowerShift

Extended Drive
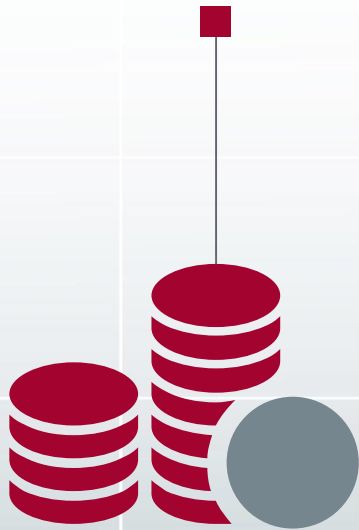
HybridDrive

eDrive

We deliver worldwide

Partner of all major automotive manufacturers worldwide

Dongfeng · Audi · BMW · Foton · Daimler · Ford · Changan · Mini · Porsche · AMG · HONDA · Ferrari · JMC · FAW · Proton · Qoros · Mazda · Renault · Landrover · Shen Yang San Ling · Smart · Mitsubishi Motors · Volvo

GETRAG in figures
Key Facts 2013

3.2 Billion EUR

3.9 Million transmissions

13,250

Sales

Global production

Employees

Structure of GETRAG

The GETRAG Companies are split into three operational business units:

GETRAG

GETRAG Operations

- GETRAG Getriebe- und Zahnradfabrik Hermann Hagenmeyer GmbH & Cie KG
- GETRAG International GmbH
- GETRAG s.r.o.
- GETRAG S.p.A.

- GETRAG Americas GmbH
- GETRAG Transmissions Corporation
- GETRAG Transmission Manufacturing de Mexico S.A. de C.V.

GETRAG FORD Transmissions

- GETRAG FORD Transmissions GmbH
- GETRAG FORD Transmissions Sweden A.B.
- GETRAG FORD Transmissions Slovakia s.r.o.
- GETRAG Transmissions India Private Ltd.

GETRAG Asia Pacific

- GETRAG Asia Pacific Transmission Technology (Shanghai) Co. Ltd.
- GETRAG (Jiangxi) Transmission Co. Ltd.
- Dongfeng GETRAG Transmission Co. Ltd.

GETRAG worldwide

23 locations worldwide in Europe, North America and Asia

14 individual companies

Where we Started

Where we Started

- PDM systems for managing I-DEAS / ProEngineer implemented
- SAP and legacy applications for ERP
- PLM Strategy developed but never implemented
  - Individual projects not cost efficient enough
  - Flexibility of existing systems limited
  - Cost of ownership

- Long lead time to align requirements
- High pressure to provide tactical solutions

Where we Started
Question

Do we need a PLM *system*?

No !

We need a solution to our problems.

Some people may call this PLM.

Where we Started
Expectations

What should we expect from PLM

- Single source of truth
  - Store information only once
- Support day to day work of e.g. engineers
- Provide insight to support management decisions
- Deliver results fast
- Adapt to our (changing) requirements
  - Global co-operation
  - New projects / customers / JVs
  - Access control / IP handling
- Integrate with current environment / applications
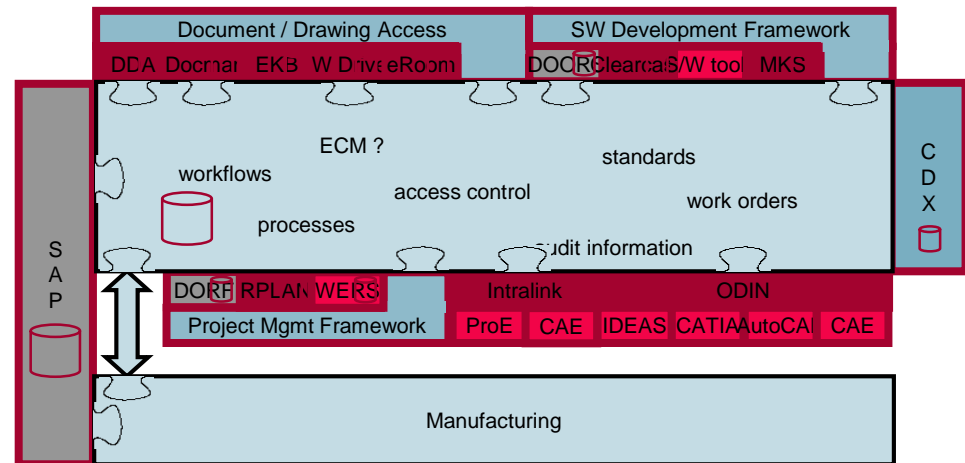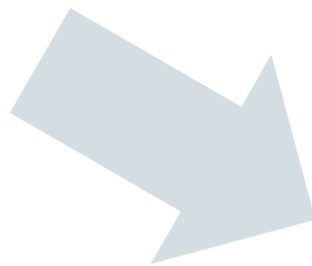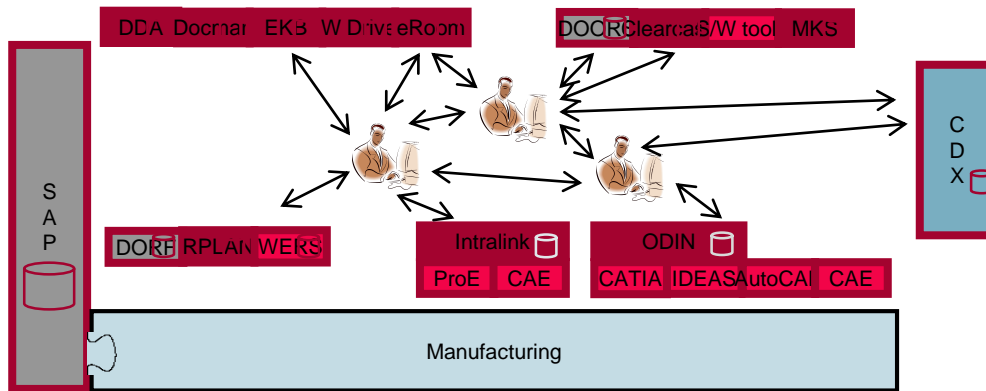
Implementation Philosophy

Implementation Philosophy
GETRAG's PLM approach

- Step by step implementation of „applications"
  - Provide tactical solutions instead of strategic
- Evolutionary application implementation
  - Deliver first results / benefits fast
  - Iterate to improve after getting real life feedback
- Customized out-of-the box system
  - Base development on a „framework"
- Dedicated lead for each application
  - Business to provides single point of contact
- Overall governance to ensure interoperability
  - IT ensures that individual „applications" co-operate
- Provide integration platform
  - Integrate rather than replace existing solutions

Implementation Philosophy
Provide Integration Platform

Applications supported by Aras

Applications supported by Aras

■ Drawing Management
- 1st application for 50 users in one location
- Management on AutoCAD files; no AutoCAD integration

■ Approval workflow(s)
- Simple workflow replacing EXCEL & Email
- Users in 3 locations across Europe
- Implementation of KPIs to identity process bottlenecks

■ Project budget calculation for Product Development
- Handles the whole process „request for quote"– effort estimation – quote
- Delivers PD budget / headcount figures based on „approved projects"
- Used by PD, Sales, Controlling

Applications supported by Aras (2)

■ Quality data handling

  – Replaces multiple local applications by central solution

  – Used in 5 locations across Europe by several 100 users

  – Interface to customer's quality system => easy identification / tracking of issues

■ CAD data management

  – Handling of ProEngineer & CATIA data

  – Integration into CAD system

  – Global roll-out in 2015

■ and several more ….

Number of active users increased from **50 to ~800** from 2010 to 2014

Success Factors

Success Factors

- Build credibility
  - Start with tactical solutions
  - Deliver positive results fast
  - Quickly react on customer feedback
- Agile development approach
  - Minimize up-front specification effort
  - Learn as you go
  - Implement what is *really* required vs. what has been specified
- Inhouse resources
  - having process & system / tool knowledge
- Aras' flexibility
  - Easy to customize / prototype
  - Flexible data model

Where do we go from here

Where do we go from here

■ Global roll-out

– Include development centers in Europe, US & China

– Support central data management, easy data exchange

– At the same time allow local customizations / applications

■ Develop PLM Strategy (again)

– Address strategic solutions, e.g. document management

■ Interface with ERP

– Move from confrontation PDM <–> ERP to „use the best tool for the job"

Where do we go from here
Strategic Partnership

- Ensure continuity
  - Long term committment from both sides
  - Stable personal relationships
- Provide functional enhancements

  Make sure that critical functionality is included in the Aras core
  - Tight access control
  - Data replication
- Influence Aras road map
  - Ensure that GETRAG's PLM plans and Aras' roadmap are in sync

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Thank you for your attention