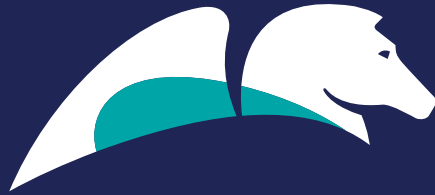# Siemens And Pega On The Way To Global End-to-end Digitization

Jürgen Schönenborn
Program & Integration Manager Pega

Siemens AG

Siemens And Pega On The Way To Global End-to-end Digitization

Jürgen Schönenborn
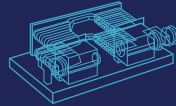Program & Integration Manager Pega

Siemens AG

170-Year History
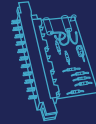

1816 – 1892
Company founder, visionary and inventor

1866
The dynamo makes electricity part of everyday life

1959
SIMATIC makes Siemens a leader in automation technology

1983
First magnetic resonance imaging scanner goes into operation

2012
Test operation of the world's largest rotor for offshore wind turbines

Werner von Siemens | **Siemens innovations over the past 170 years**

1847
Pointer telegraph lays the foundation of Siemens as a global company
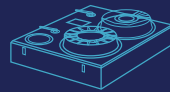
1925
Siemens electrifies the Irish Free State with a hydroelectric power plant
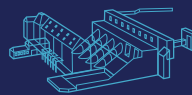
1975
Breakthrough of high-voltage direct current (HVDC) transmission

2010
TIA Portal takes automation a stage further
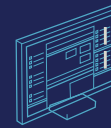
2016
MindSphere introduced as the digitalization platform for all industries

MindSphere

GLOBAL
TRENDS

DIGITALIZATION
DEMOGRAPHIC CHANGE
GLOBALIZATION
URBANIZATION
CLIMATE CHANGE

2020

DIGITALIZATION

~ + 8%
Market growth

AUTOMATION

+ 3 – 4%
Market growth

2017

ELECTRIFICATION

+ 1 – 2%
Market growth
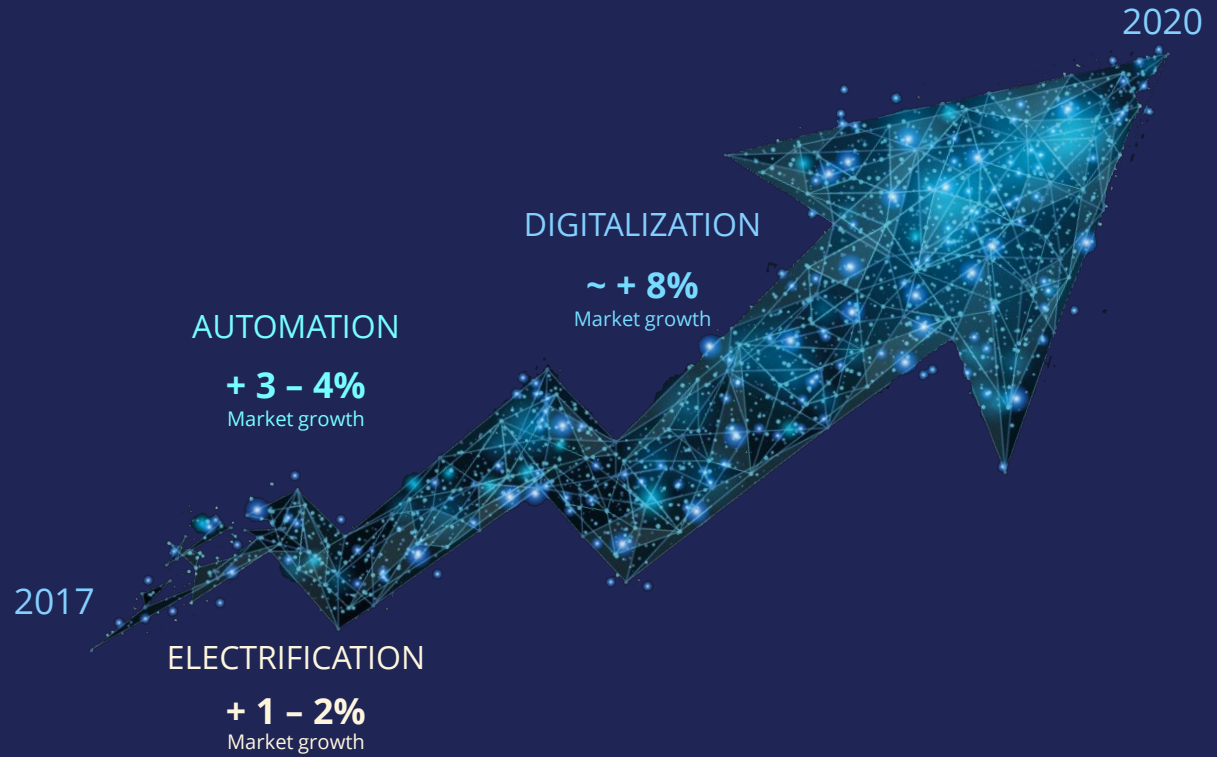
Vision 2020
is our strategy

Heterogeneous businesses

IMPACT

**Grown
IT landscape**

**Decentralized
decision structures**

CoE
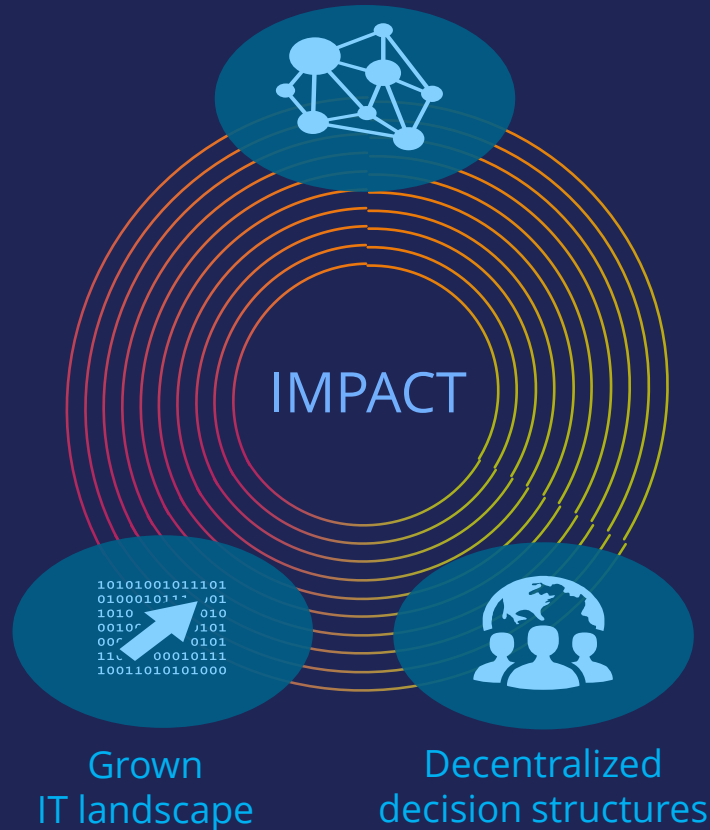
Ensure e2e excellence,
efficiency and consistency –
the Siemens / Pega CoE in a
multidimensional ecosystem

Excellence
Efficiency
Consistency

1 Business strategy alignment

2 Global scope & regional needs

3 High diversity of e2e-use cases

4 Business division & corporate needs

5 Business agility & increase of speed

6 Regulatory & compliance needs

7 Operations & delivery stability

8 IT-Strategy & digitalization goal

Pega CoE organizational structure

Service Management **Advisory Boards** (Change / Architecture / ...)

CoE Core Functions

⚙	**Pega Enterprise Architecture**
⚙	**Pega Business Architecture**
⚙	**Pega System Integration**
⚙	**Vendor Management**

CoE Program Manager

Project contact & Capacity planning

CoE IT Project Leads

Technical Pega Project Management

Program Management

Project Management

Business Unit Client Projects

Delivery & Operations	**Maintenance & Operations Partner**	**Delivery Partners**

End 2 end process optimization
Evolve instead of reinventing the wheel

Current challenges

Teams are structured in "Silos"

each team is responsible for specific **parts of global process**, **process is split in several-teams** and managed in different Service Lines

Missing E2E awareness

expertise in specific processes, but **lack of understanding and knowledge of full process**; How my work could **impact the next activity**?

| Global Master Data Management | Order Management | Credit Management | Billing | Cash Collection | Dispute Management | Cash & Banks | Cash Allocation |

Reporting and Analysis

Benefits

Single Team

Unique End to End team concentrating biggest part of activities, process/customer ownership

Improve customer intimacy

One interface to divisions and to customers, single place with all information, single platform to work with.

More value and transparency

Enable end to end analysis with correlation of financial and logistic data, **One E2E process owner**

End 2 end process optimization
System-supported automation and orchestration

Lack of System Integration

Demands placed to suppliers with manual efforts and only focusing on a single Operational Procurement System

Ex-Post verification of data

Supplier Qualification "after" the registration fact causing efforts in case of SQ non-conformity

Operational Procurement Systems

- ERP Systems
- Project Procurement Systems
- PLM Teamcenter Systems
- Other IT platforms

PEGA

SCM STAR

Strategic Procurement System

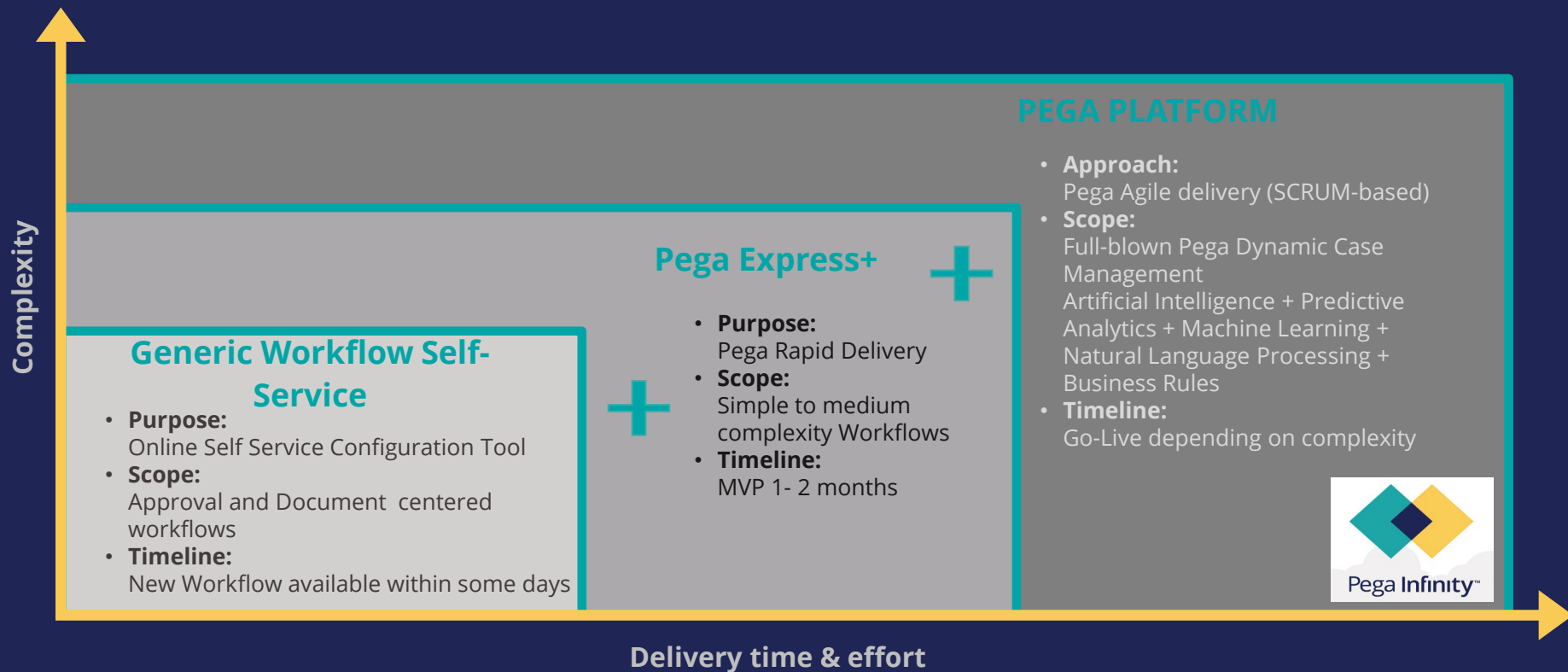| Category/Commodity Strategy & Supplier Segmentation		
RfI/RfQ	Auction	Contract
Supplier Qualification	Supplier Evaluation	Supplier Development

...

Benefits

Building the "System" Bridge

One UI for the SCM user to gather demand information across systems and transfer it for eRfX purposes

Gathering Business-related data on transactional basis

Flexible content gathering based on Business rules and field content directly entered by supplier

Pega – e2e service offerings

Complexity ↑

Delivery time & effort →

PEGA PLATFORM

- **Approach:**
  Pega Agile delivery (SCRUM-based)
- **Scope:**
  Full-blown Pega Dynamic Case Management
  Artificial Intelligence + Predictive Analytics + Machine Learning + Natural Language Processing + Business Rules
- **Timeline:**
  Go-Live depending on complexity

Pega Express+

+

- **Purpose:**
  Pega Rapid Delivery
- **Scope:**
  Simple to medium complexity Workflows
- **Timeline:**
  MVP 1- 2 months

+

Generic Workflow Self-Service

- **Purpose:**
  Online Self Service Configuration Tool
- **Scope:**
  Approval and Document centered workflows
- **Timeline:**
  New Workflow available within some days
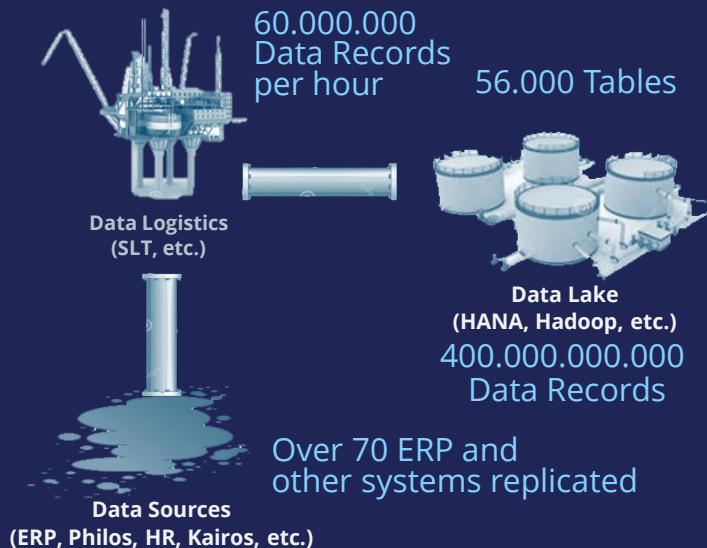
Pega Infinity™

Data is the new oil:
Upstream and Downstream of Dash Siemens Data
Lake – One of the largest SAP HANA landscapes in the world

Upstream – Data Logistics

60.000.000 Data Records per hour

56.000 Tables

Data Logistics (SLT, etc.)

Data Lake (HANA, Hadoop, etc.)

400.000.000.000 Data Records

Over 70 ERP and other systems replicated

Data Sources (ERP, Philos, HR, Kairos, etc.)

Downstream – Data Based Services

Reporting (SAP Standard, BW, ...)

Intelligence Factory (DAsh, etc.)

Analytics Lab

Self Services

Data Services

Advanced Analytics

Conclusion

CHALLENGES

No central process governance

Competitive market for Pega Experts
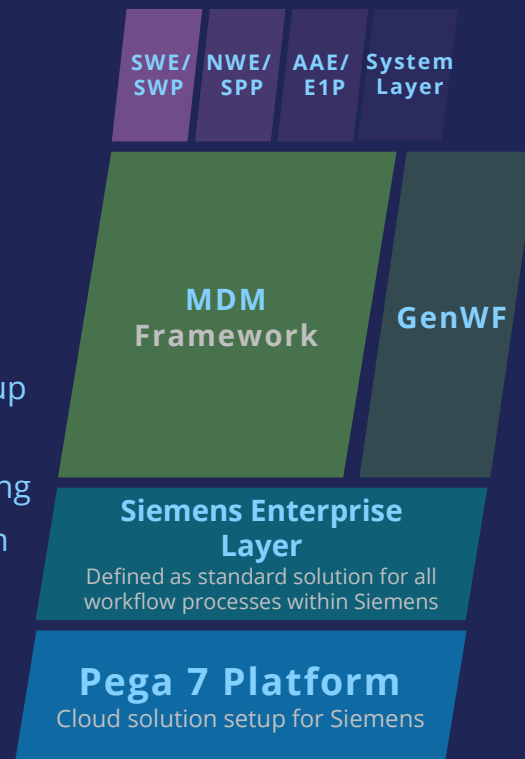
From waterfall to agile projects

LESSONS LEARNED

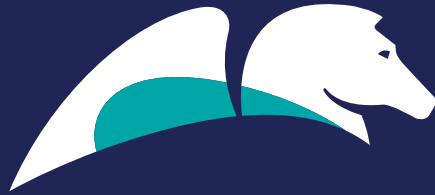Start centralized, evolve to decentralized setup
► scale up

Integration is effort driver and time consuming
► start in inception phase with analysis, plan time-wise and cost-wise

Layer cake is the lever for global end2end solutions

SWE/ SWP	NWE/ SPP	AAE/ E1P	System Layer

MDM Framework

GenWF

Siemens Enterprise Layer
Defined as standard solution for all workflow processes within Siemens

Pega 7 Platform
Cloud solution setup for Siemens