



PROVENTA

 ***Fast Lane***

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ORACLE EXIT MIT POSTGRESQL

Januar 2019

## Gegründet

1992

## Branchen

Telco, Banking, Insurance,  
Automotive, Energy

## Mitarbeiter

>70 internal  
>200 freelancer pool

## Umsatz

€ 14 Mio.

## Kunden



## Schwerpunkt

**Digital Transformation  
Services**

## Hauptsitz

Frankfurt am Main

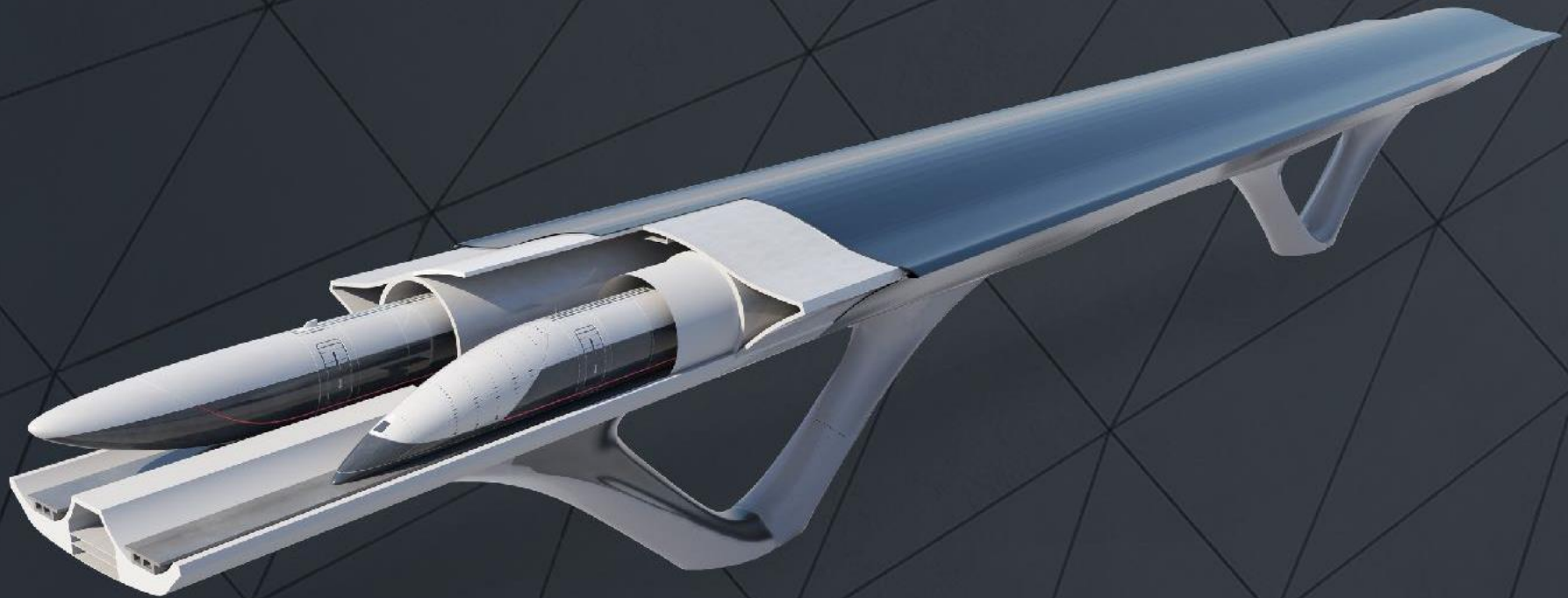
## USPs

IT @ Large Enterprises  
Data Expertise  
Innovation Enablement

# DIGITAL TRANSFORMATION AUS SICHT DES GESCHÄFTSFÜHRERS



## DIGITAL TRANSFORMATION AUS SICHT DES IT LEITERS



## DIGITAL TRANSFORMATION AUS SICHT DES CFO





# DIGITAL TRANSFORMATION REALITÄT



# DIGITAL TRANSFORMATION CONSULTING



# DIGITAL TRANSFORMATION IT CONSULTING





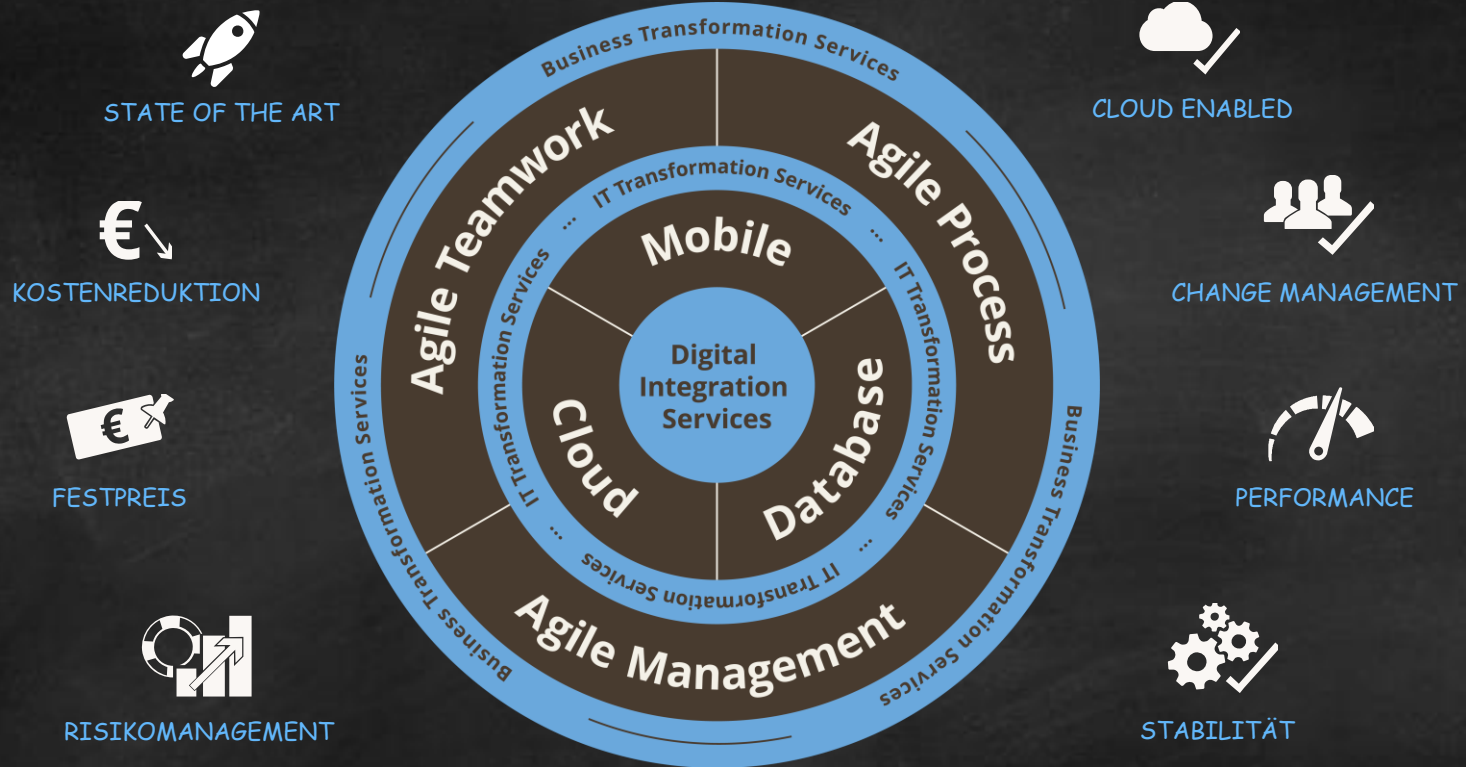
## DIGITAL TRANSFORMATION STARTUPS



TIME FOR  
SOMETHING

NEW!

# DIGITAL TRANSFORMATION AS A SERVICE





## DIGITAL TRANSFORMATION INNOVATION RESEARCH



# DIGITAL TRANSFORMATION BLUEPRINT





## DIGITAL TRANSFORMATION PROOF OF CONCEPT



## DIGITAL TRANSFORMATION ENTERPRISE VALIDIERUNG

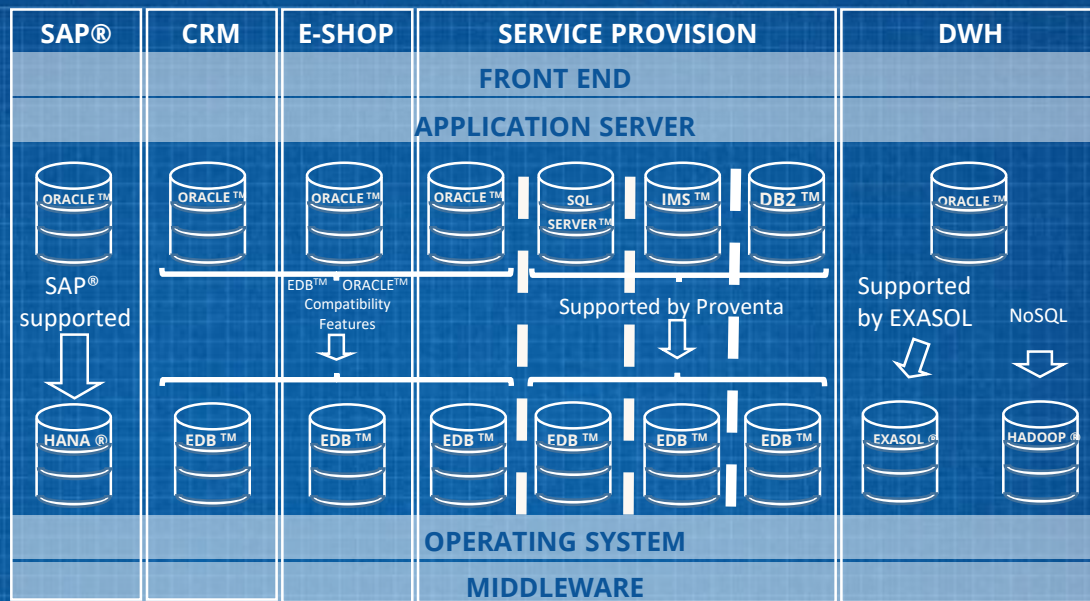
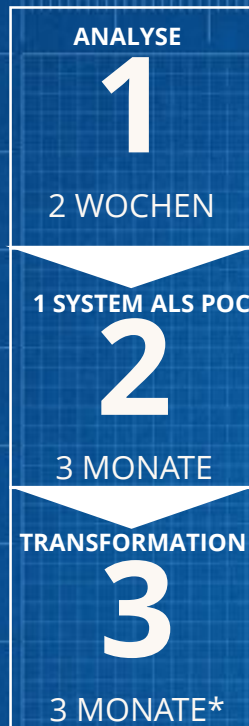
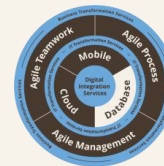


# DIGITAL TRANSFORMATION PARTNERSCHAFT





# DATABASE TRANSFORMATION SERVICE



\*Durchschnitt pro System

# 4

## GUTE GRÜNDE

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### FÜR EINEN ORACLE EXIT

# 1 LIZENZKOSTEN

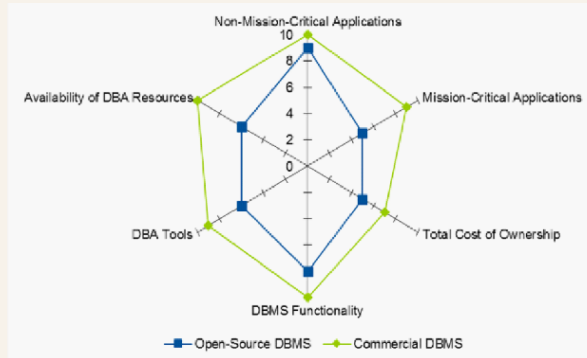




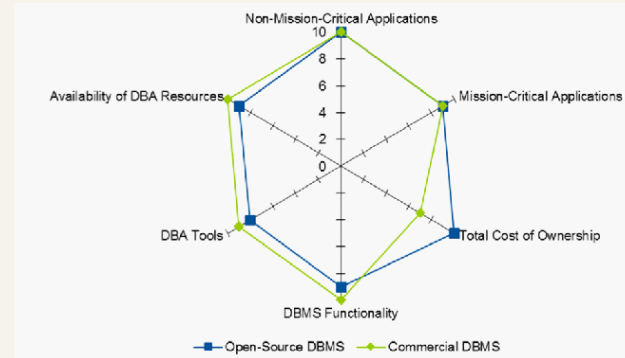
## 2 SAP® UND FIORI® APP SUPPORT



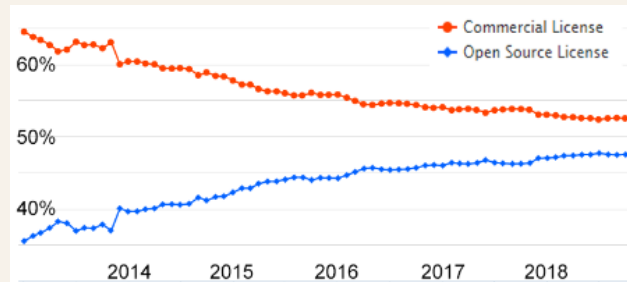
### 3 REIFEGRAD VON OPEN SOURCE DB TECHNOLOGIE



2009



2015





## 4 NEUE ANFORDERUNGEN





## EUROCIO (VOICE + CIGREF)



**BRAUCHEN  
MEHR  
FLEXIBILITÄT**



**MÖCHTEN  
ANDERE  
DATENBANKEN**



**ARBEITEN AN EINER  
ORACLE  
EXIT STRATEGIE**

5

STOLPERFALLEN

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BEIM EXIT

## VENDOR LOCK-IN



KOMMERZIELLES,  
TECHNISCHES,  
PERSONELLES UND  
RECHTLICHES LOCK-IN



€220  
MILLIARDEN



50%

**VERSAGEN**



# 1 LIZENZPROBLEME (ULA)





## 2 UNNÖTIGE TECHNISCHE KOMPLEXITÄT





# 3 FEHLER BEIM CHANGE MANAGEMENT





## 4 KEIN SUPPORT SEITENS DER ANWENDUNG



## 5 ALLEINGANG OHNE UNTERSTÜTZUNG



# 6

## SCHRITTE

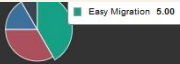
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### ZUM ERFOLG



Oracle Dashboard

# 1 LIZENZANALYSE



Search a server bubble

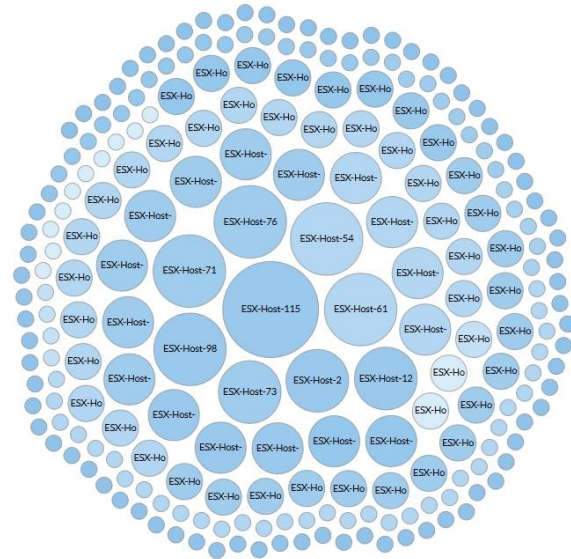


Simulation Target Dashboard

Vendor Name: Oracle Product Name: NOT Oracle ROBMS Enterprise Edition

Bubble Chart representing physical servers

Search a server bubble



TECHNICAL FILTERS BUSINESS

Simulation Target Info

EnterpriseDB

EDB Postgres Plus Advanced Server

Target Product

unCores

Target Metric

Vendor Name



Product Name

And Or



Physical CPUs



Physical CPU Cores Total



Microsoft Core Factor

## 2 TECHNISCHE ANALYSE ment



### New Application

#### All Applications

- > Erp
- > CRM
- > DWH

ERP Production  
ERP Systemtest  
ERP Dev1  
ERP Dev2

### Application Server

#### Environment Type

#### Functionality

#### Go Live

#### Required Availability

#### Required Database type

#### Standard Software

#### Software Vendor

#### Software Version

#### Certified for

#### Programming Languages

#### Embedded Sql in use?

#### Database Api

#### Is JDBC Parameter feature in use?

#### Standard Webserver present

#### Oracle Webforms in use

#### Production

ERP

10.10.2006

99.99%

#### OLTP

SAP R/3

SAP

6.0

ORACLE, MS SQL Server,SAP/HANA

ABAP/4, Java

No

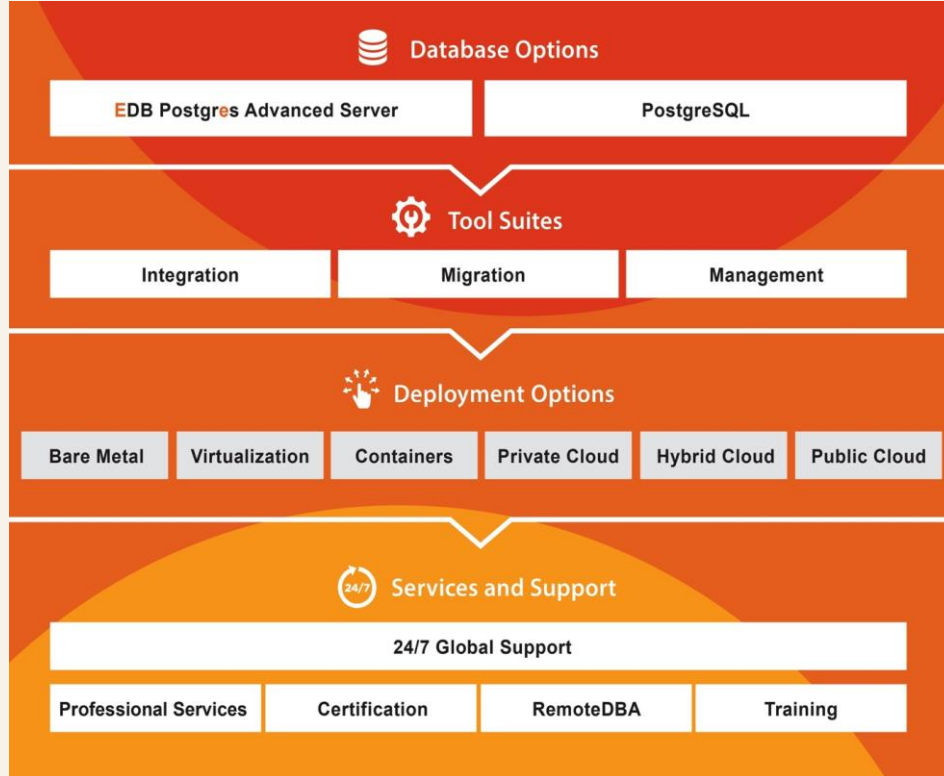
-

No

No

No

### 3 RICHTIGE ZIELPLATTFORM AUSWÄHLEN



Founded in 2004

**The world leader in open-source based  
Postgres software and services.**

**Anzahl Kunden > 4000**

**300+ Mitarbeiter**

**Offices weltweit**

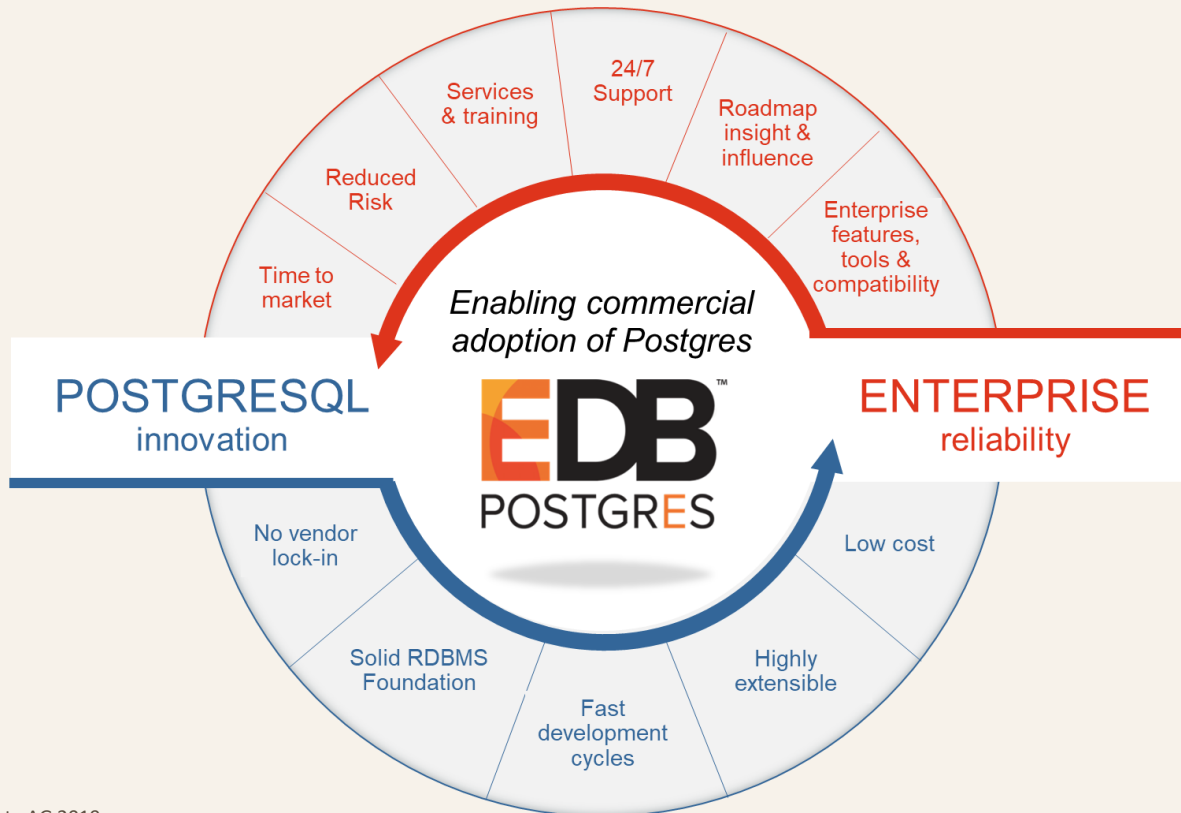
**Leader nach Gartner and Forrester**

**PostgreSQL community leader**



### 3 RICHTIGE ZIELPLATTFORM AUSWÄHLEN

PostgreSQL



**Fully ACID Compliant**

**MVCC**

**Point in Time Recovery (PITR)**

**Data and Index Partitioning**

**Bitmap Indexes**

**ANSI Constraints**

**Triggers & Stored Functions**

**Views & Data Types**

**Nested Transactions**

**Online Backup**

**Online Reorganization**

**Foreign Keys**

**Streaming Replication**

**Multi-Core Support**

**JSON Support**

**HStore**

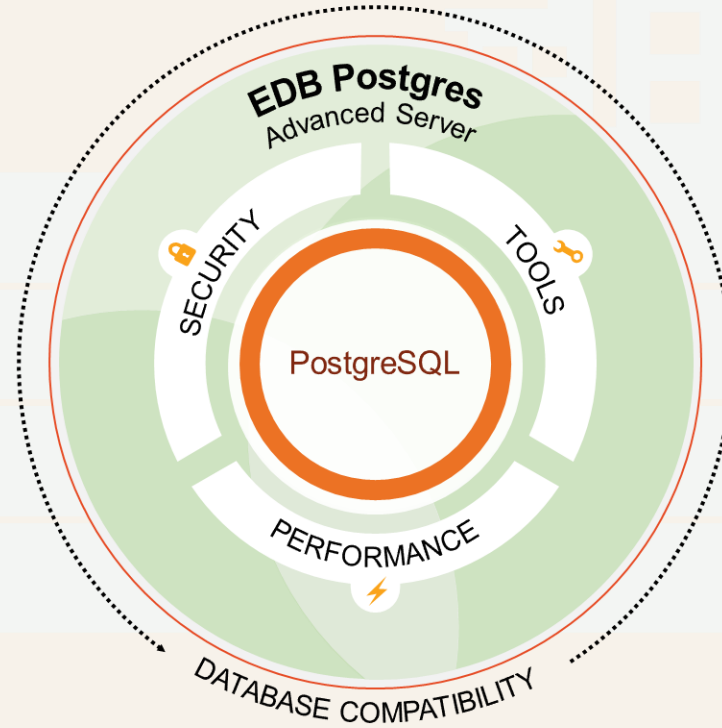
### 3 RICHTIGE ZIELPLATTFORM AUSWÄHLEN

Security

Tools

Performance

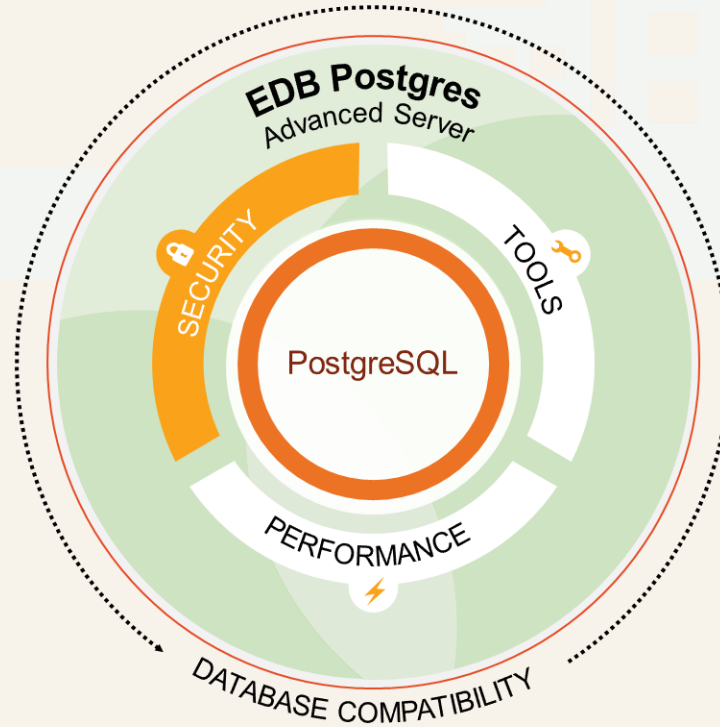
Compatibility



### 3 RICHTIGE ZIELPLATTFORM AUSWÄHLEN

#### Security

- User account / password policy management
- Enhanced Auditing (including session data)
- Row Level Security (VPD)
- SQL Injection attack protection
- Server-side code obfuscation
- Multiple US Gov't certifications including STIG

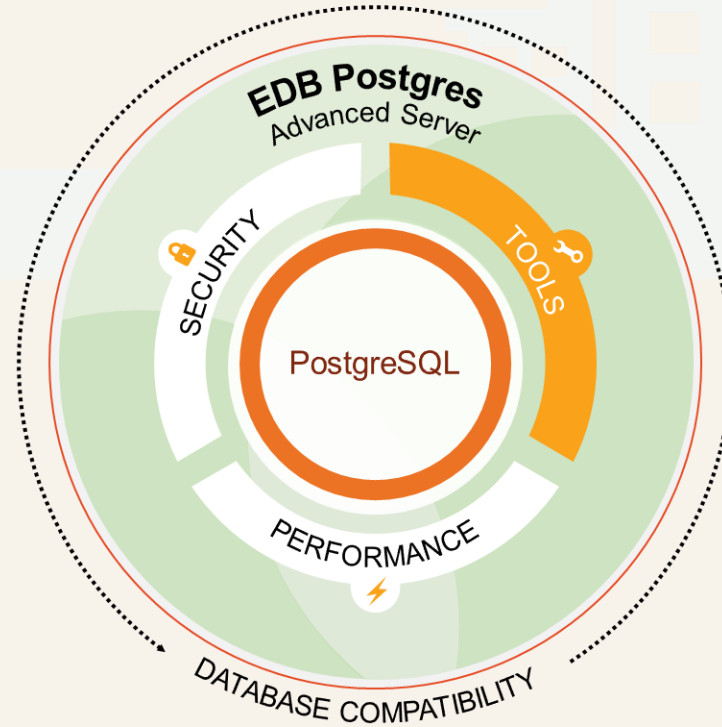




### 3 RICHTIGE ZIELPLATTFORM AUSWÄHLEN

#### Bundled Tools with Subscription

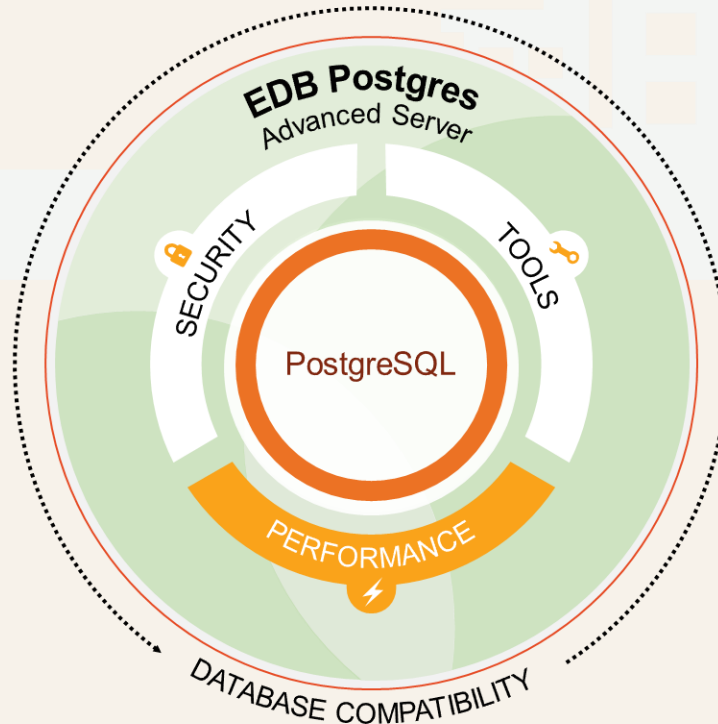
- Enterprise management, monitoring, and tuning
- HA failover management
- Oracle, SQL Server, and PostgreSQL to EDB Postgres Advanced Server replication
- Multi-master replication
- Oracle, SQL Server, and MySQL to EDB Postgres Advanced Server migration
- Update monitoring



## 3 RICHTIGE ZIELPLATTFORM AUSWÄHLEN

### Performance

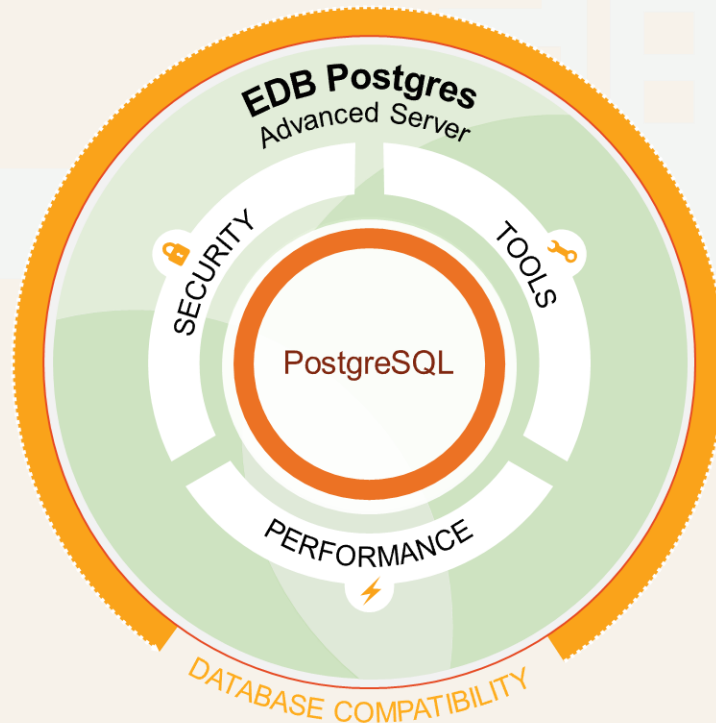
- Resource Manager – *adjust CPU & I/O resources on mixed workloads*
- Faster Partitioning – *400x faster writes & 76x faster selects*
- SQL Profiler – *fix slow workloads*
- Bulk Data Loader – *2x faster*
- Index Advisor – *speeds up inquiries*
- Query Hints – *optimizer control*
- DynaTune – *memory upgrades*
- Bulk Collect/Fetch/Binding of arrays
- Dynamic runtime statistics – *reveals SQL wait bottlenecks*



### 3 RICHTIGE ZIELPLATTFORM AUSWÄHLEN

#### Database Compatibility for Oracle®

- Faster, easier migrations
- PL/SQL, OCI support
- Oracle SQL extensions
- User defined objects
- Function packages
- Database links
- Oracle-like tools:  
*EDB\*Loader, EDB\*Plus,  
EDB\*Wrap*

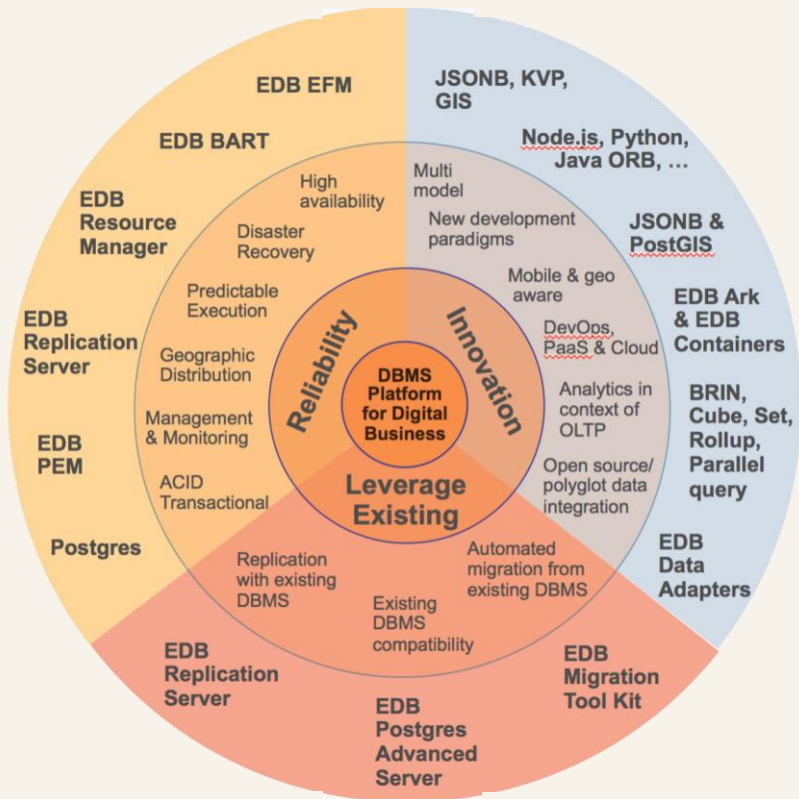


## 3 RICHTIGE ZIELPLATTFORM AUSWÄHLEN

- **SQL extension support**
  - Decode, NVL, Substr, NVL2, Date/time functions
  - DDL syntax support
- **PL/SQL support – native language**
  - REF Cursors, Implicit and explicit cursors
  - Looping, variable declarations, conditional statements
  - Collections: Associative Arrays, Varrays, Nested tables
  - Pragmas
  - Named parameters
  - User Defined Exceptions
  - Explicit Transaction Control(within sp)
- **Tools**
  - EDB\*Plus – SQL\*Plus look-a-like
  - EDB\*Loader – SQL\*Loader equivalent
- **Oracle-like Data Dictionary**
  - ALL\_, DBA\_, USER\_ views
- **Wait Events**
  - System and session waits
  - Statspack-like reporting
- **Features**
  - Packages
  - Stored procedures
  - Functions
  - Triggers
  - Hints
  - Hierarchical Queries
  - Synonyms – Public and Private
  - Sequences
  - Rownum
  - Users/Roles
  - Dynamic SQL
  - Materialized Views
  - Partitioning
- **PL/SQL supplied packages**
  - 14 DBMS
  - 6 UTL
- **Data types**
  - Blobs, Clobs, XMLTYPE, VARCHAR2, NUMBER, CHAR, Integer



### 3 RICHTIGE ZIELPLATTFORM AUSWÄHLEN



### 3 RICHTIGE ZIELPLATTFORM AUSWÄHLEN (FÜR ANALYTICS)

| Query | amazon<br>REDSHIFT | Exasol | Factor |
|-------|--------------------|--------|--------|
| Q01   | 82                 | 70     | 1,17   |
| Q02   | 165                | 2      | 82,5   |
| Q03   | 363                | 129    | 2,81   |
| Q04   | 297                | 3      | 99     |
| Q05   | 726                | 83     | 8,75   |
| Q06   | 15                 | 9      | 1,67   |
| Q07   | 825                | 41     | 20,12  |
| Q08   | 2.066              | 525    | 3,94   |
| Q09   | 1.660              | 3.600  | 0,46   |
| Q10   | 1.500              | 342    | 4,39   |
| Q11   | 165                | 16     | 10,31  |
| Q12   | 66                 | 47     | 1,4    |
| Q13   | 726                | 443    | 1,64   |
| Q14   | 15                 | 23     | 0,65   |
| Q15   | 25                 | 64     | 0,39   |
| Q16   | 99                 | 56     | 1,77   |
| Q17   | 100                | 4      | 25     |
| Q18   | 858                | 80     | 10,73  |
| Q19   | 40                 | 36     | 1,11   |
| Q20   | 132                | 13     | 10,15  |
| Q21   | 594                | 27     | 22     |
| Q22   | 4.924              | 6      | 820,67 |

**Average: 51,39**

**EXASOL is on average >50x faster**

Exasol 50x faster than Amazon's fast analytics db

# Exasol



- TPC-H is the industry standard benchmark for analytic databases
- #1 – leaving our followers behind
- Most scalable solution
- Best price-performance ratio

TPC Transaction Processing Performance Council

Full report can be viewed here:  
[http://www.tpc.org/tpch/results/tpch\\_perf\\_results.asp](http://www.tpc.org/tpch/results/tpch_perf_results.asp)

**EXASOL LEADS ONLY INDEPENDENTLY-AUDITED BENCHMARK**

### 3 RICHTIGE ZIELPLATTFORM AUSWÄHLEN (FÜR ANALYTICS)

**ORACLE®**

Materialised Views  
Bitmap Indexes  
Bitmap Join Indexes  
Index Organized Tables  
Dimension Objects  
Current Statistics  
Histograms  
Table Compression  
Cache  
PCTFREE

VS

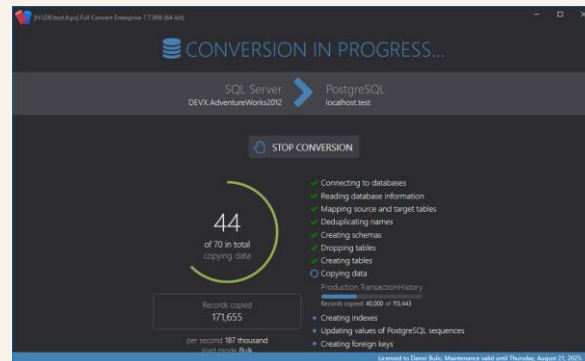
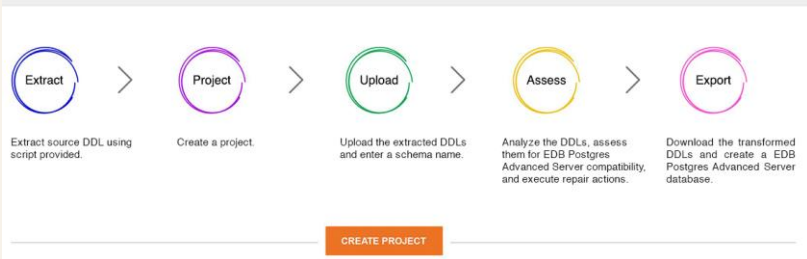
**Exasol**

Automatic Data Management  
Automatic Compression  
Automatic Data Temperature Handling  
(Hot/Cold Data Support)  
Automatic Index Creation and Maintenance  
Automatic Optimization

# 4 MIGRATIONSWERKZEUG AUSWÄHLEN

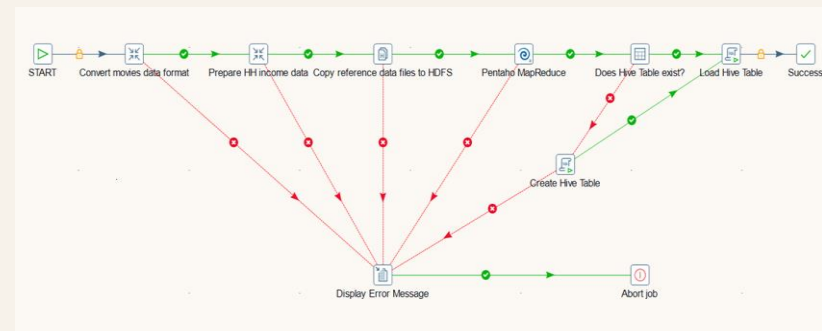
## Welcome to the EDB Migration Portal

Easily move your Oracle, SQL Server, or other legacy databases to EDB Advanced Server.



## pentaho® GRAPHICAL DATA INTEGRATION DESIGN

A Hitachi Group Company



## Quest Partner Circle

### SHAREPLEX BY THE NUMBERS

#### #1 THIRD PARTY

##### REPLICATION SOLUTION

- Others in this market are platform vendors: Oracle, IBM (DB2), SAP (Sybase)
- Perennial independent leader

#### 1ST TO MARKET

##### LEADER IN INNOVATION

- Log-based Oracle replication
- Optimistic commit
- Compare/repair

#### 1 SOLUTION

##### MANY USE CASES

- High availability
- Scalability
- Data integration

#### ROCK SOLID

##### BUSINESS RESULTS

- Reduce loss of revenue caused where downtime avgs \$100K/hr
- Single migration saved \$38 million

#### UNRIVALED

##### SUPPORT

- Six-time achievement in Customer Excellence awards including last 5 years in row
- 95% customer satisfaction rating
- Net promoter score >75%

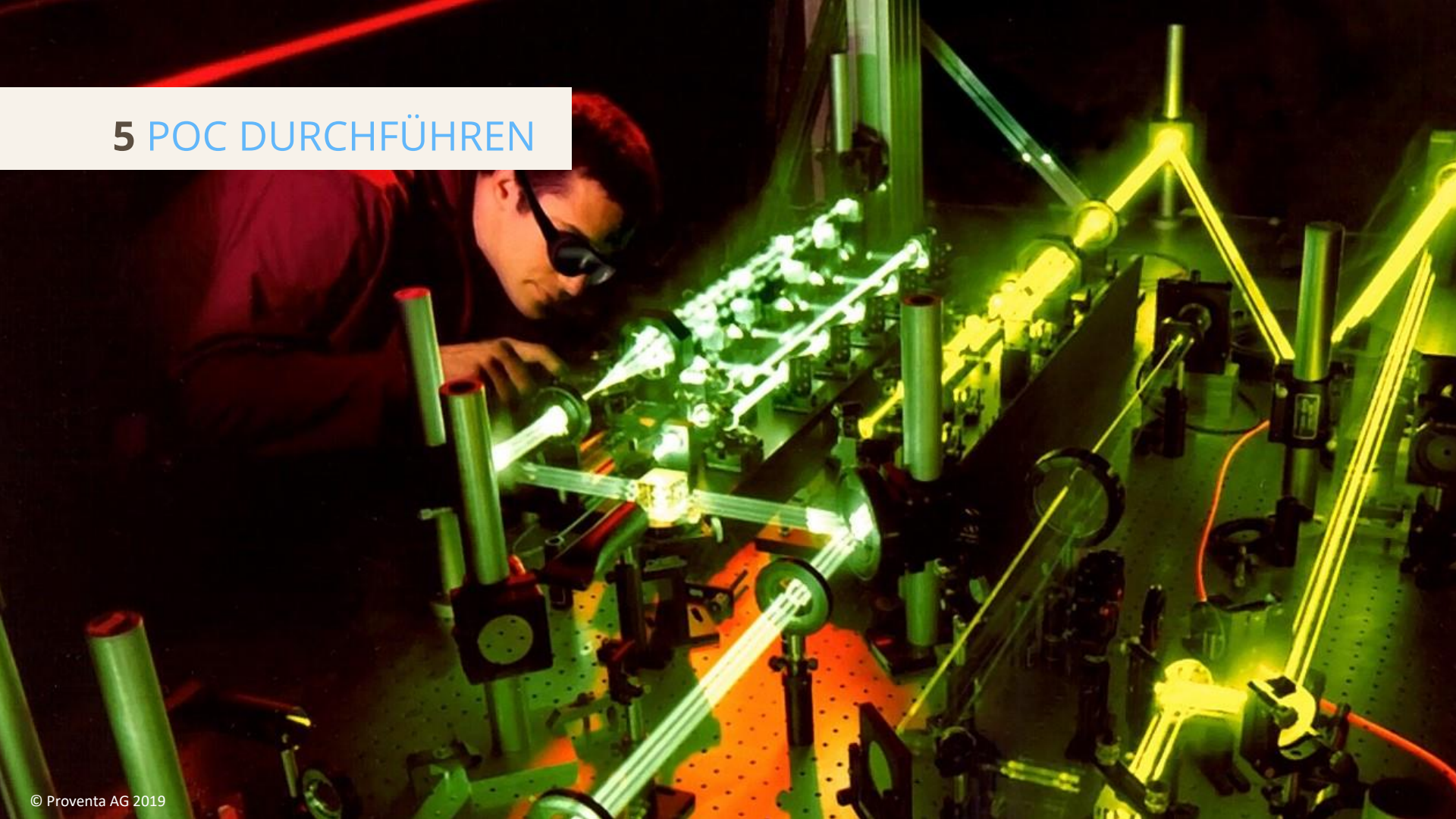
#### PROVEN SIMPLICITY

##### STREAMLINED CONFIGURATION

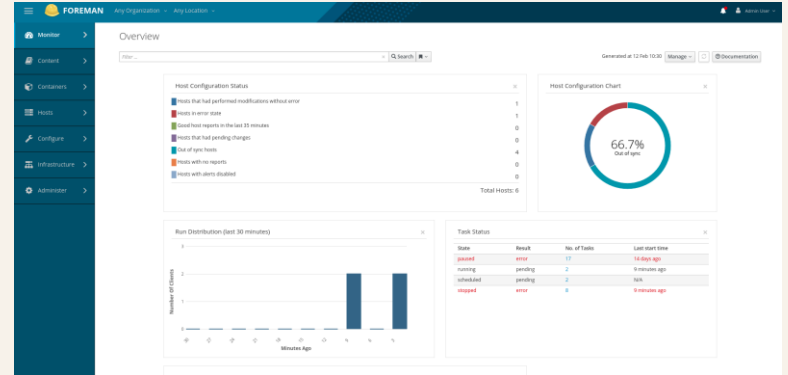
- Coupled architecture passes process control automatically and end to end.



## 5 POC DURCHFÜHREN



## 6 AUTOMATISIERUNG

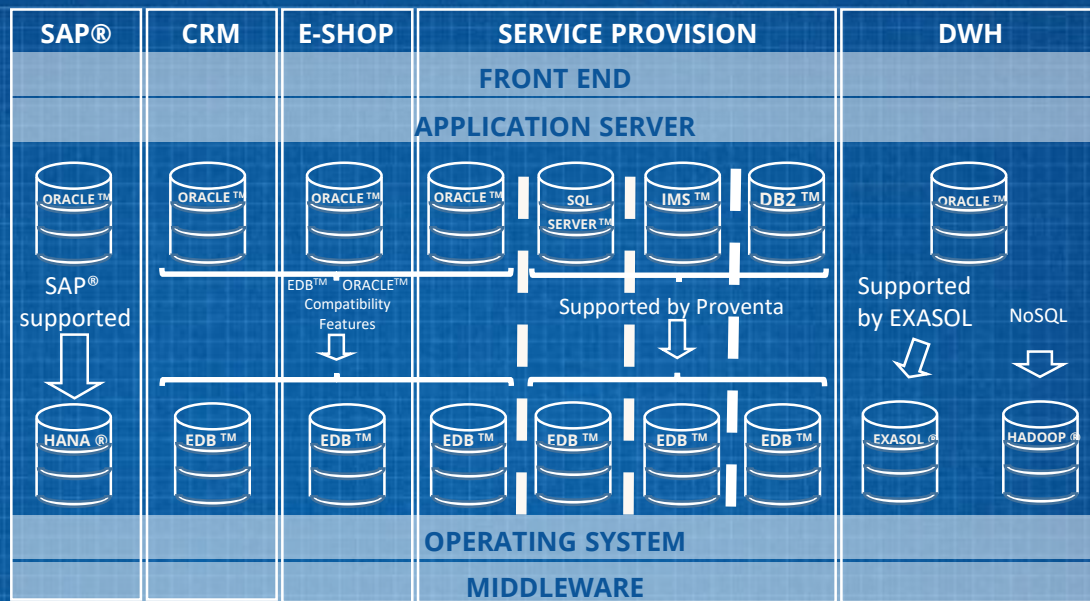
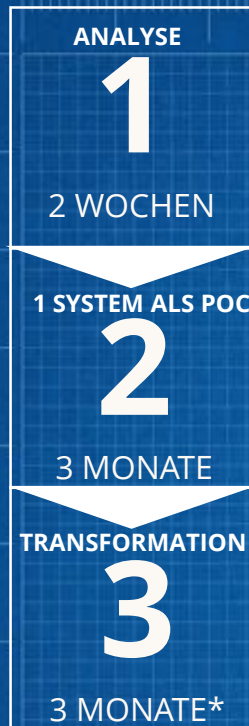
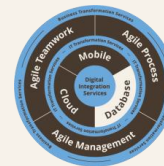


1

ANSPRECHPARTNER

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# DATABASE TRANSFORMATION SERVICE



\*Durchschnitt pro System





## DATABASE TRANSFORMATION SERVICE



Bis 80% Kostenreduktion



Leistungssteigerung



Festpreis



State-of-the-art



Risiko Management



Cloud



Stabilität



Change Management



Unsere Database Transformation Services haben im Rahmen von Horizon2020 eine EU Förderung erhalten. Mit dieser Förderung entwickeln wir im Rahmen des Projekts DATATRANS (grant agreement 774817) eine Software Plattform.

# PROVENTA AG

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