CEPSA Digital Transformation Strategy and HANA

Top Priorities in Oil&Gas and Chemicals

Miguel Canteli. February 2016.

CEPSA Today. Business Priorities

Digital Strategy

Migration to HANA in Memory (CEPSA/SAP Project)

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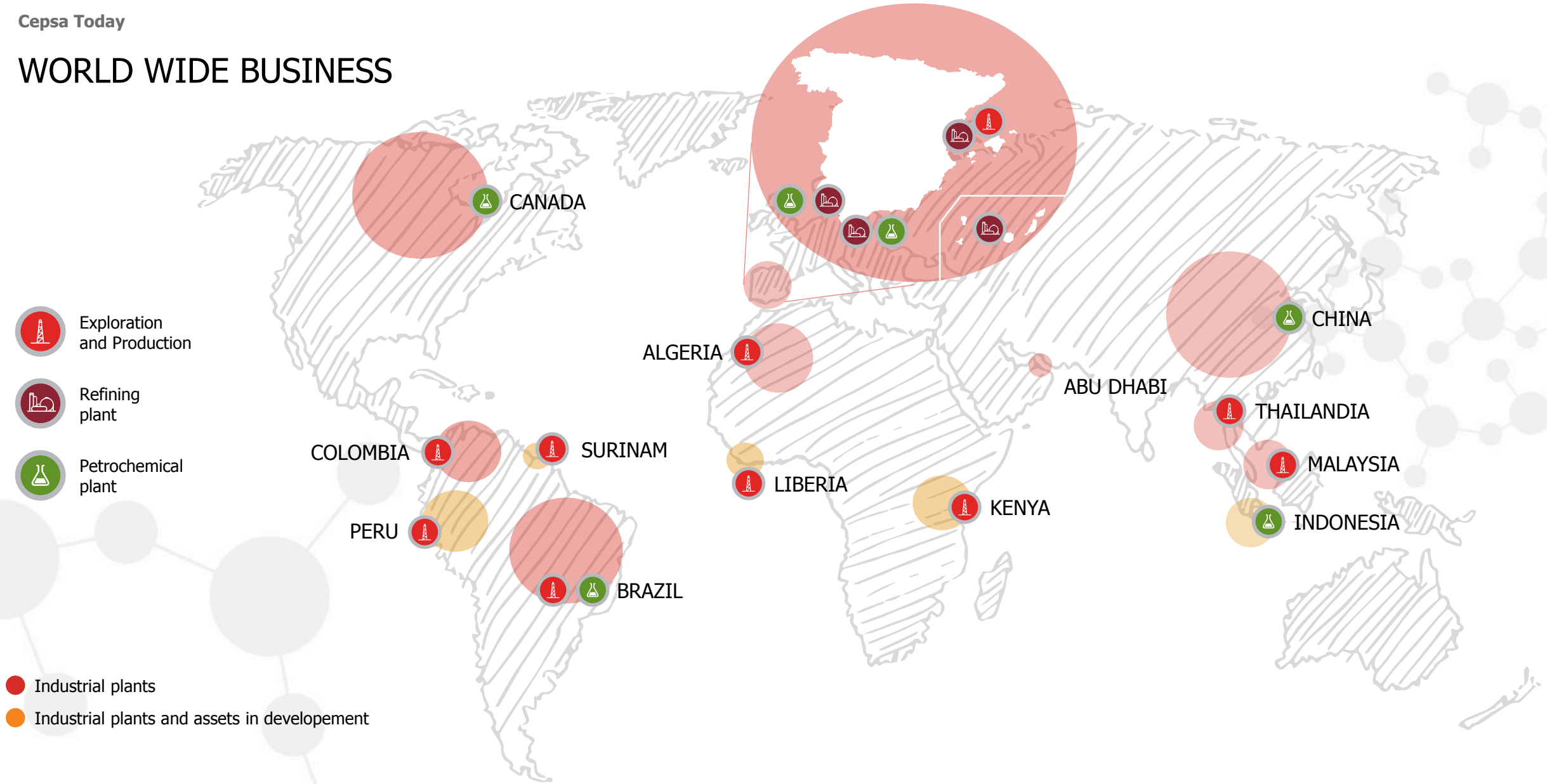
WORLD WIDE BUSINESS



OUR ACTIVITIES

EXPLORATION
AND PRODUCTION

REFINING

PETROCHEMICALS

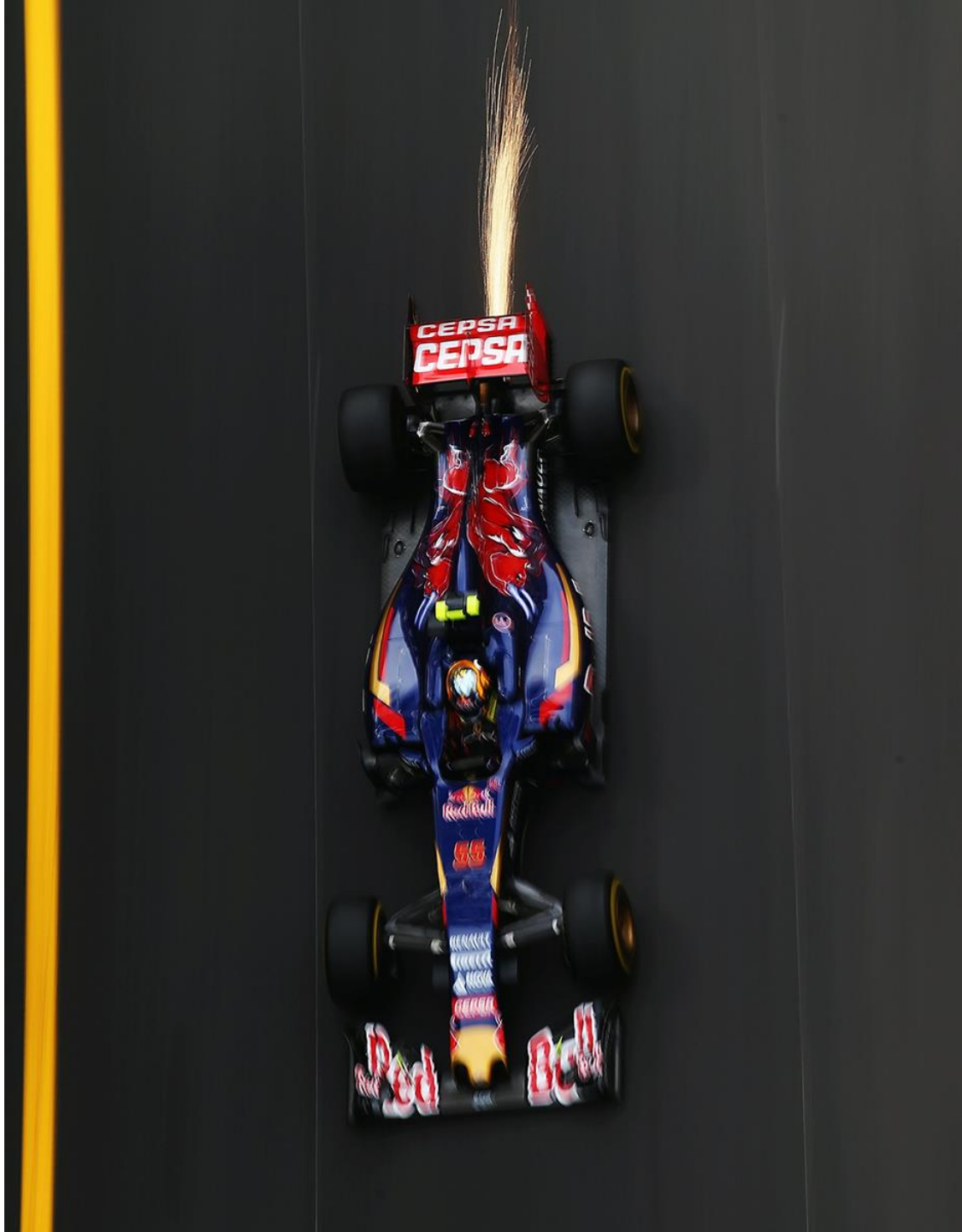
DISTRIBUTION
AND MARKETING

GAS AND POWER

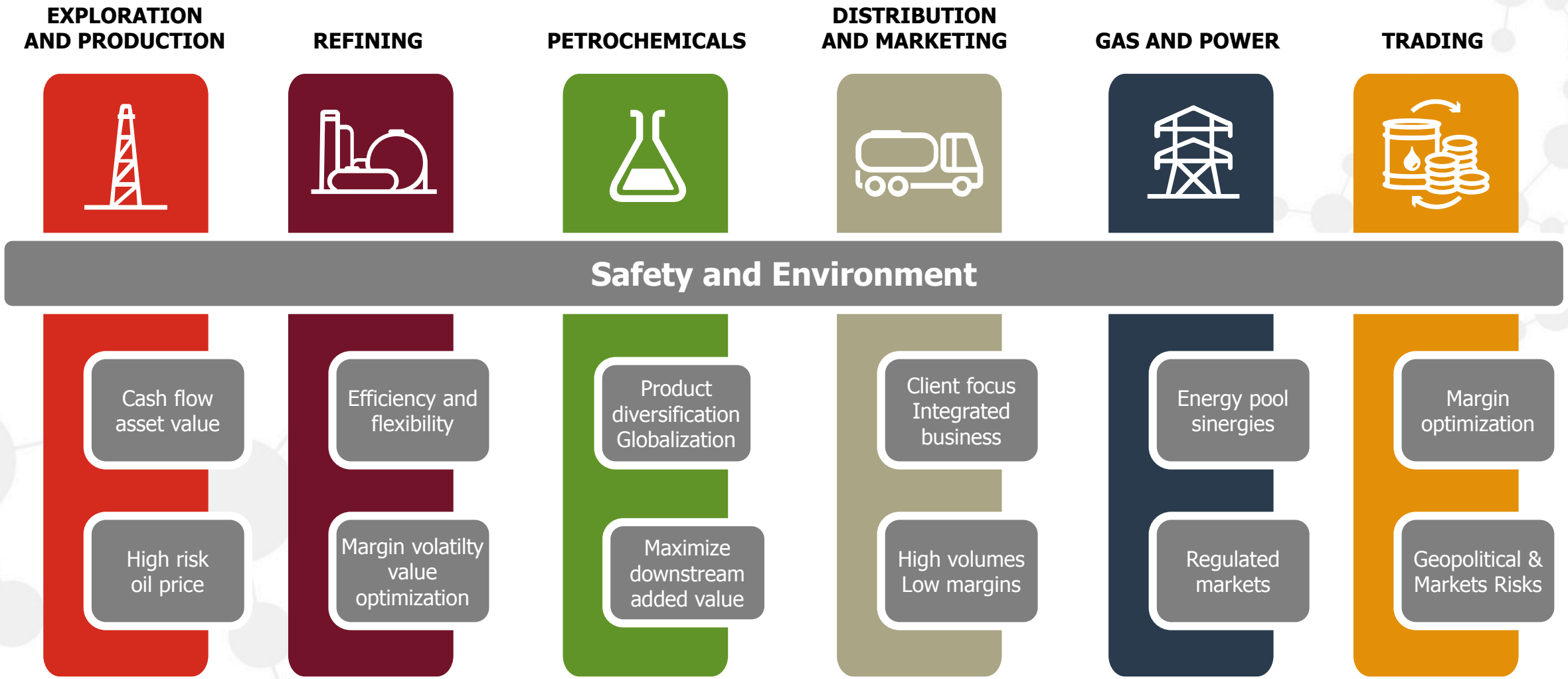
TRADING

LEADERS IN…

- We are world leaders in producing raw materials for **biodegradable detergents** (LAB) and account for **15% of the world's capacity**
- With the production of the Shanghai plant, Cepsa will become the **world's second largest producer of phenol/acetone**.
- We are also leaders in the **Spanish aviation fuel market**.
- We have developed processes, in the area known as **EOR/IOR**, which allow us to **recover** on average an **extra 20% of crude oil** from fields.



BUSINESS CHALLENGES



BUSINESS PRIORITIES

Cepsa Today. Business Priorities

Digital Strategy

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IT STRATEGIC OBJECTIVES

DIGITAL ARCHITECTURE

Reuse common processes across all Business Units and Corporate
Vertical Value Chain Integration

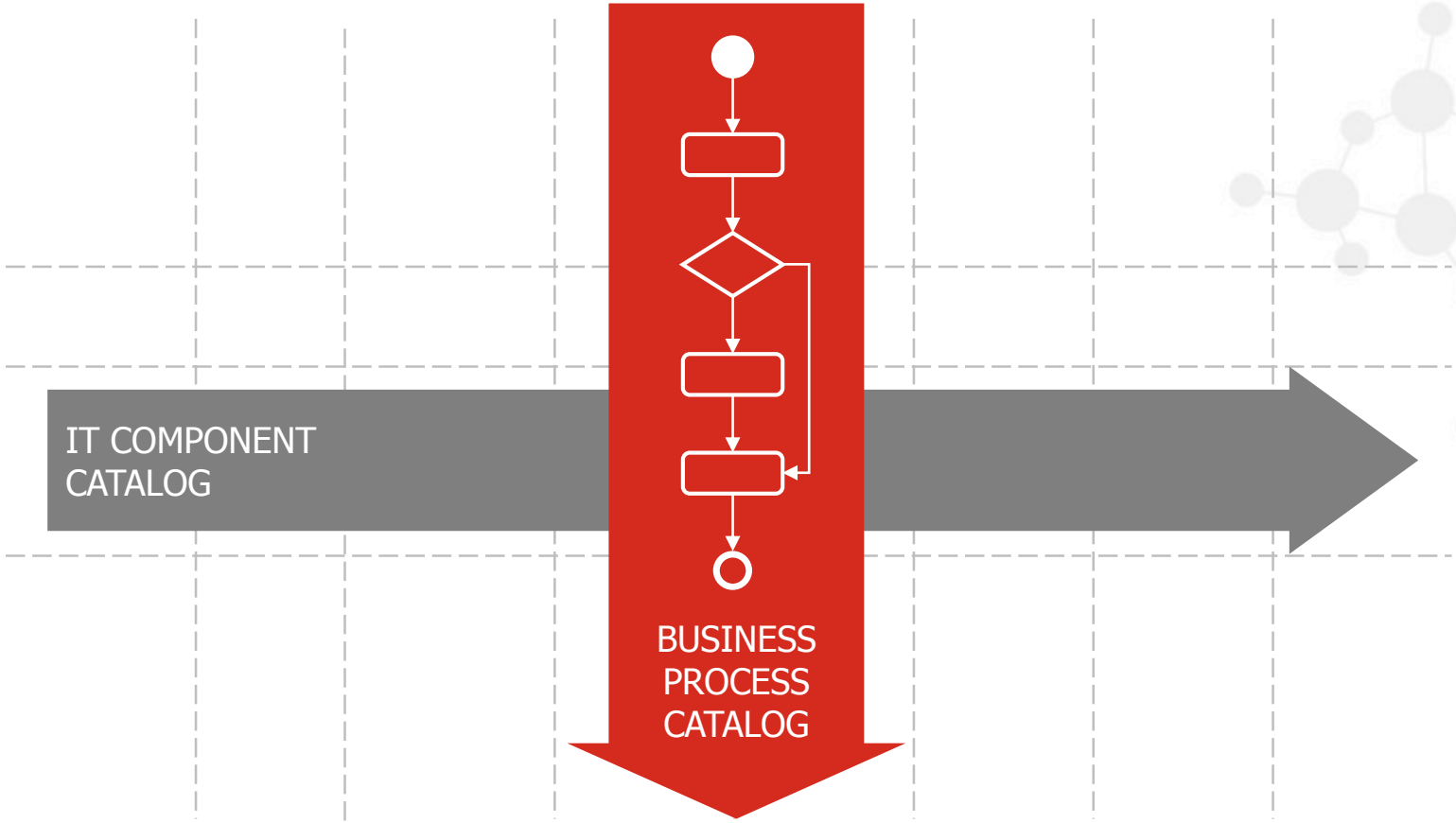
Business processes

E&P | SUPPLY | MANUFACTURING | LOGISTICS | RETAIL | FINANCE | MARKETING | SHARED SERVICES

Technology

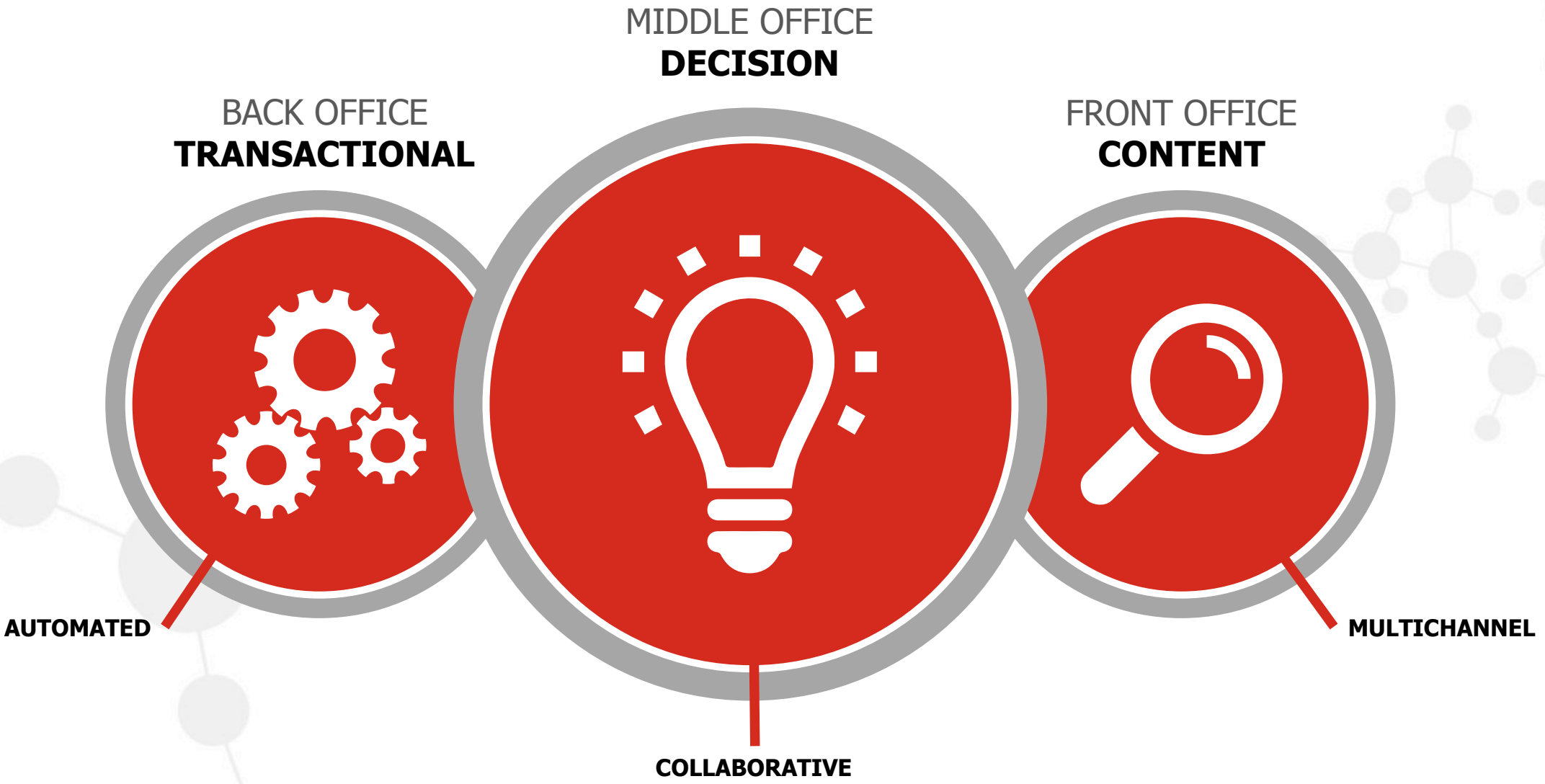
Reuse common technologies across the value chain
Horizontal Software Layer Integration

- Portals / User access
- Collaboration / Virtual Teams
- Content and Knowledge Management
- Business Intelligence and Data Management
- Application and Process Integration
- **ERP-HANA**
- Component Repository Web Services Development
- Data Base Access
- OS and Security

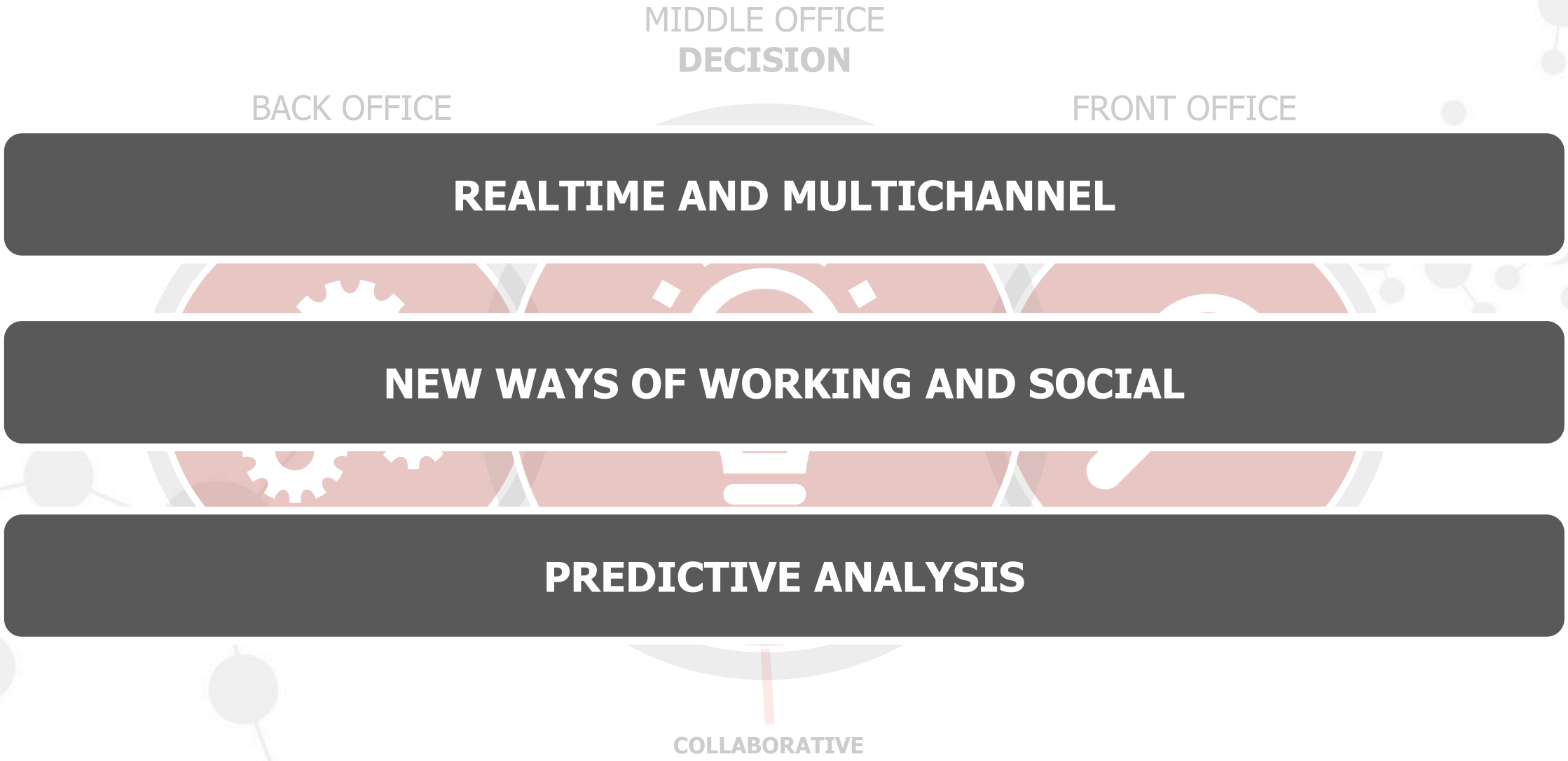


Gartner & MIT Report: "*Cepsa. Raising the performance of the IT organization and increasing reuse levels*"

DIGITAL APPLICATION PLATFORM



DIGITAL INTEGRATION PLATFORM

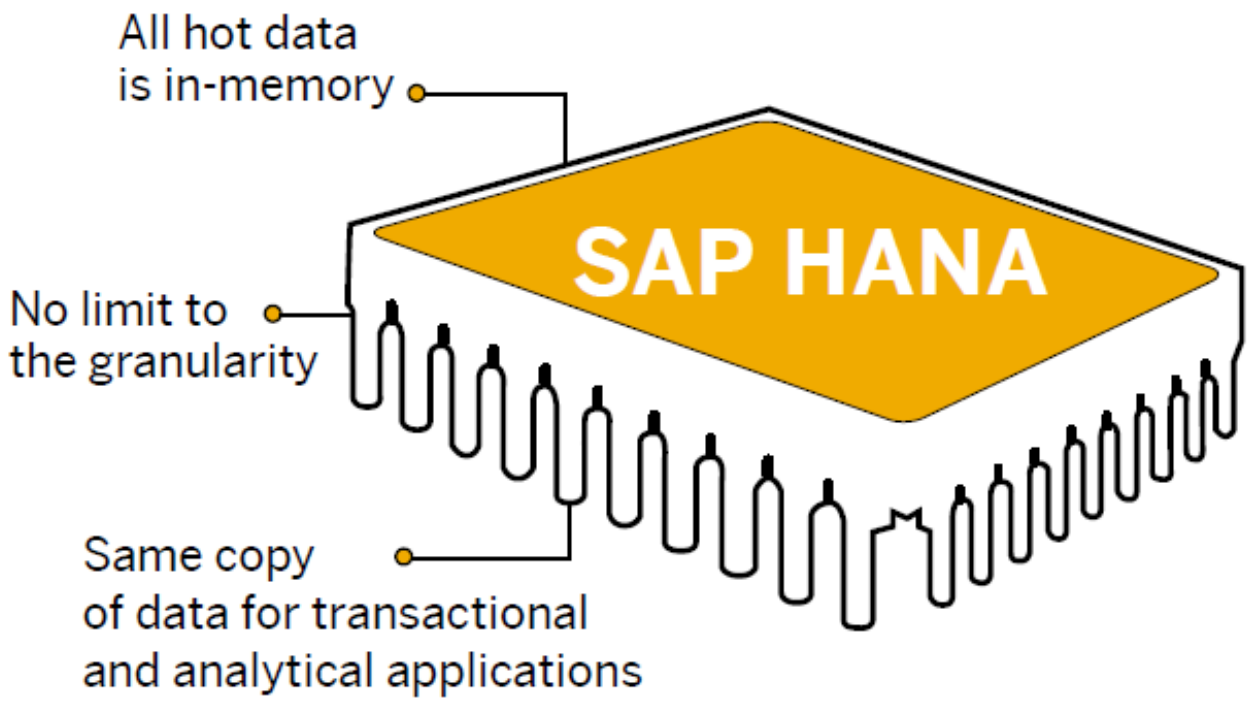


DIGITAL INTEGRATION PLATFORM

MIDDLE OFFICE
DECISION

BACK OFFICE

FRONT OFFICE



COLLABORATIVE

Cepsa Today. Business Priorities

IT Strategy

Migration to HANA in Memory (CEPSA/SAP Project)

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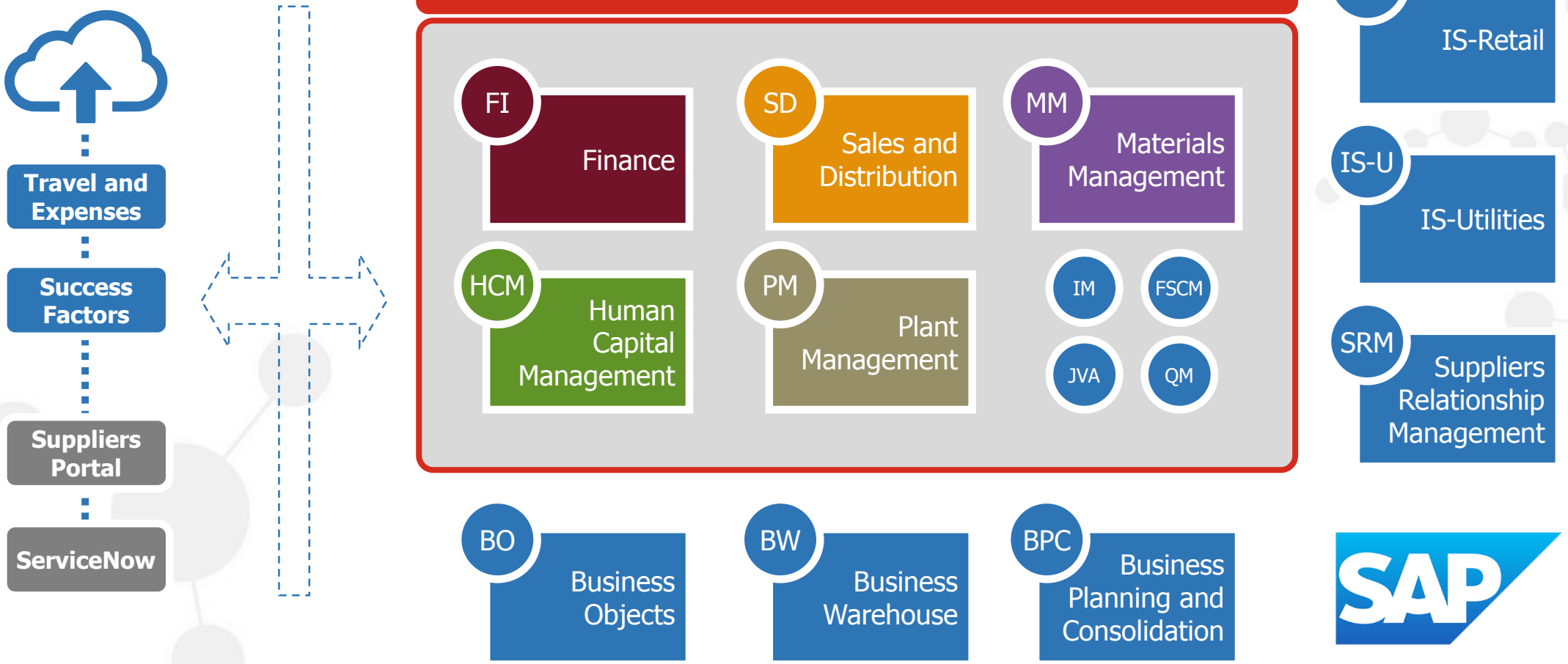
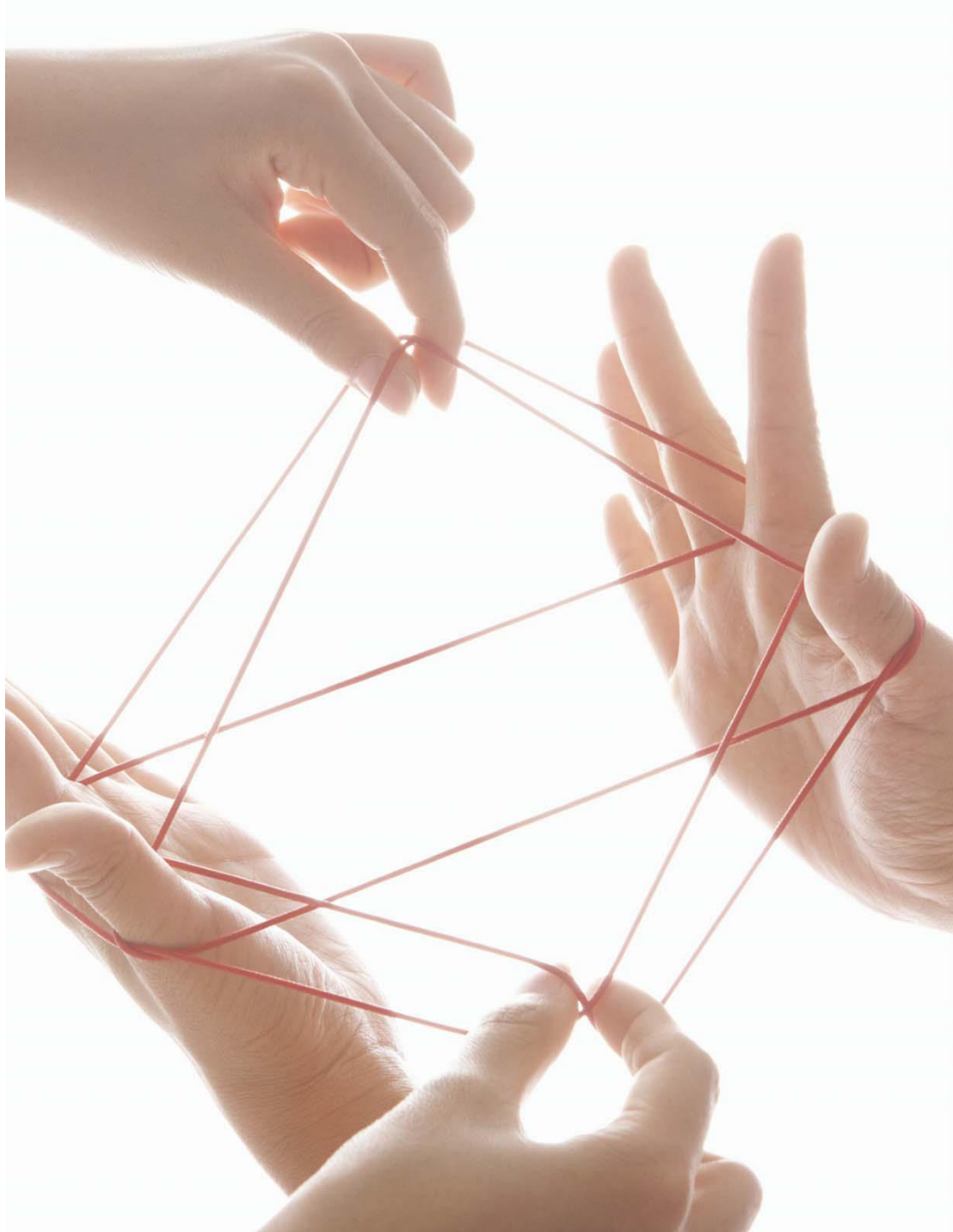
CEPSA ERP PLATFORM

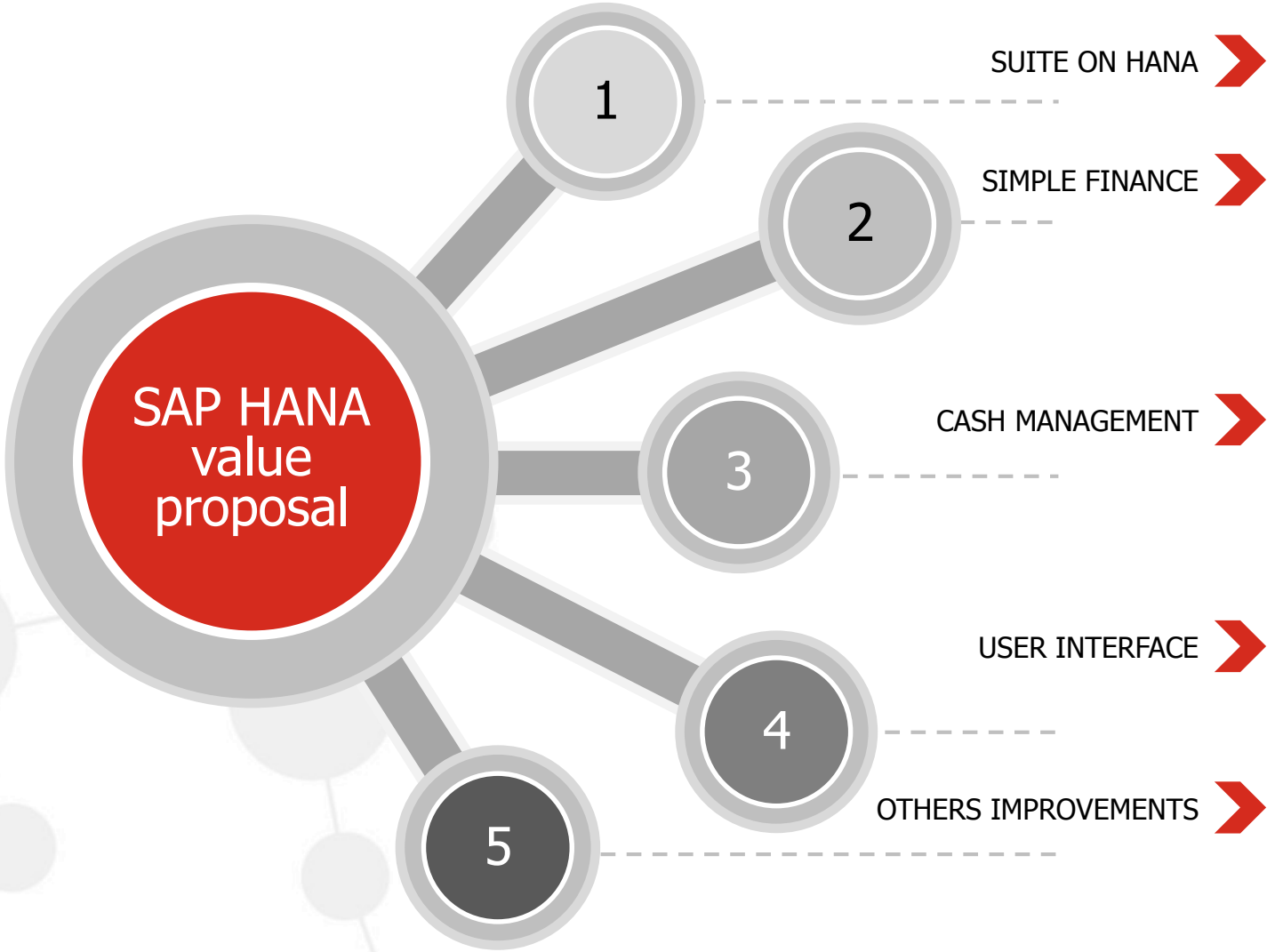


CEPSA HANA MIGRATION PROJECT

- **One single SAP** integrated instance **for all business areas (IS-Oil)**, with **more than 2.800 users**
- **Large database size** and **complexity**, **high** level of **customization**
- **Business continuity** to be **improved**
- **Cepsa Board fully committed**
- **HUAWEI** selected as **infrastructure partner**
- **PANAYA code cleaning** and **testing** tools
- **Migration** from **ECC 6.0 EHP4** to **ECC 6.0 EHP7** on **HANA**
- **Project scheduled** from **May 18th** to **November 8th**



SAP HANA VALUE PROPOSAL



SUITE ON HANA

- In-memory technology
- Improved performance (transactional, batch processes)

SIMPLE FINANCE

- Business processes improvement: SAP Accounting
- New reports accesed via web or mobile devices

CASH MANAGEMENT

- Centralized bank account management
- Real time bank position
- Improved cash position forecast
- Cash management dashboard

USER INTERFACE

- New simplified user interfaces
- Mobile applications

OTHERS IMPROVEMENTS

- IBP Integrated Business Planning: ERP and BPC database unification

PROJECT KEY VALUES

40.673 objects

Reports
Roles
Transactions
Interfaces
Jobs
Queries
User exits
…

4.089 changes

Software changes made to ensure successful migration

1.910 tests

Functional tests to ensure proper functioning of SAP applications on HANA

75% database reduction

75% database reduction from 7,9 a 2,1 terabytes

+110 people

Over 110 technical resources involved in migration process

+20.000 hours

More tan 20.000 working hours

ARCHITECTURE

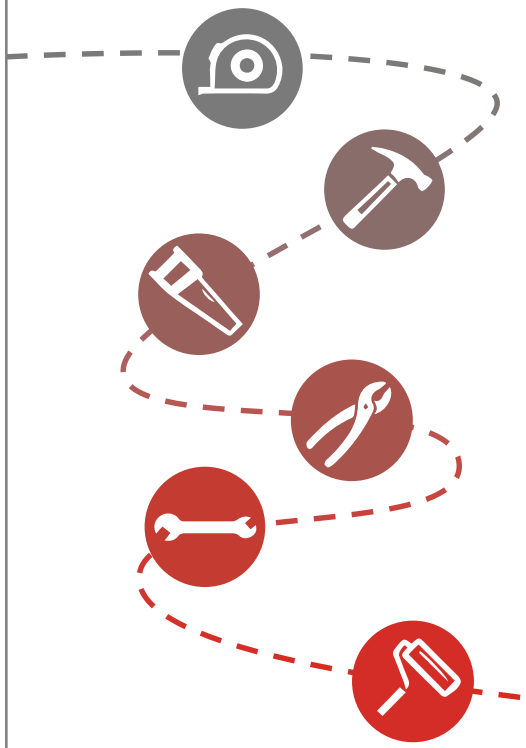
< nov 7, 2015

SAP ECC6 EHP4

ORACLE

redhat

hp



Heterogeneous migration

> nov 8, 2015

SAP HANA ECC6 EHP7

SUSE

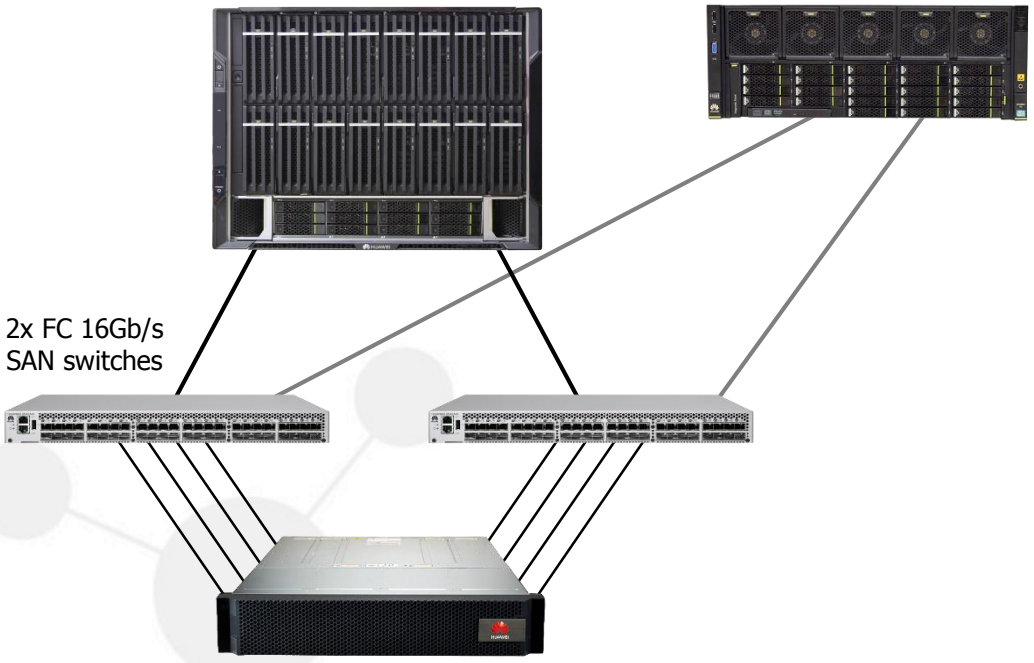
HUAWEI

ARCHITECTURE

QUALITY AND DEVELOPMENT

HUAWEI RH 8100 6TB

HUAWEI RH 5885 1TB



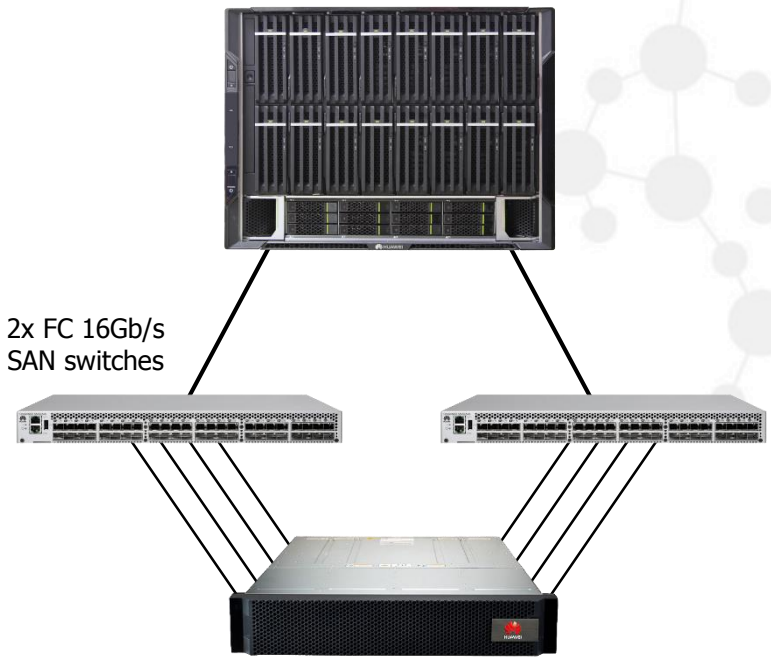
2x FC 16Gb/s
SAN switches

OceanStor S5500T
96Tb storage

DISASTER RECOVERY

SAP HANA PRODUCTION

HUAWEI RH 8100 6TB

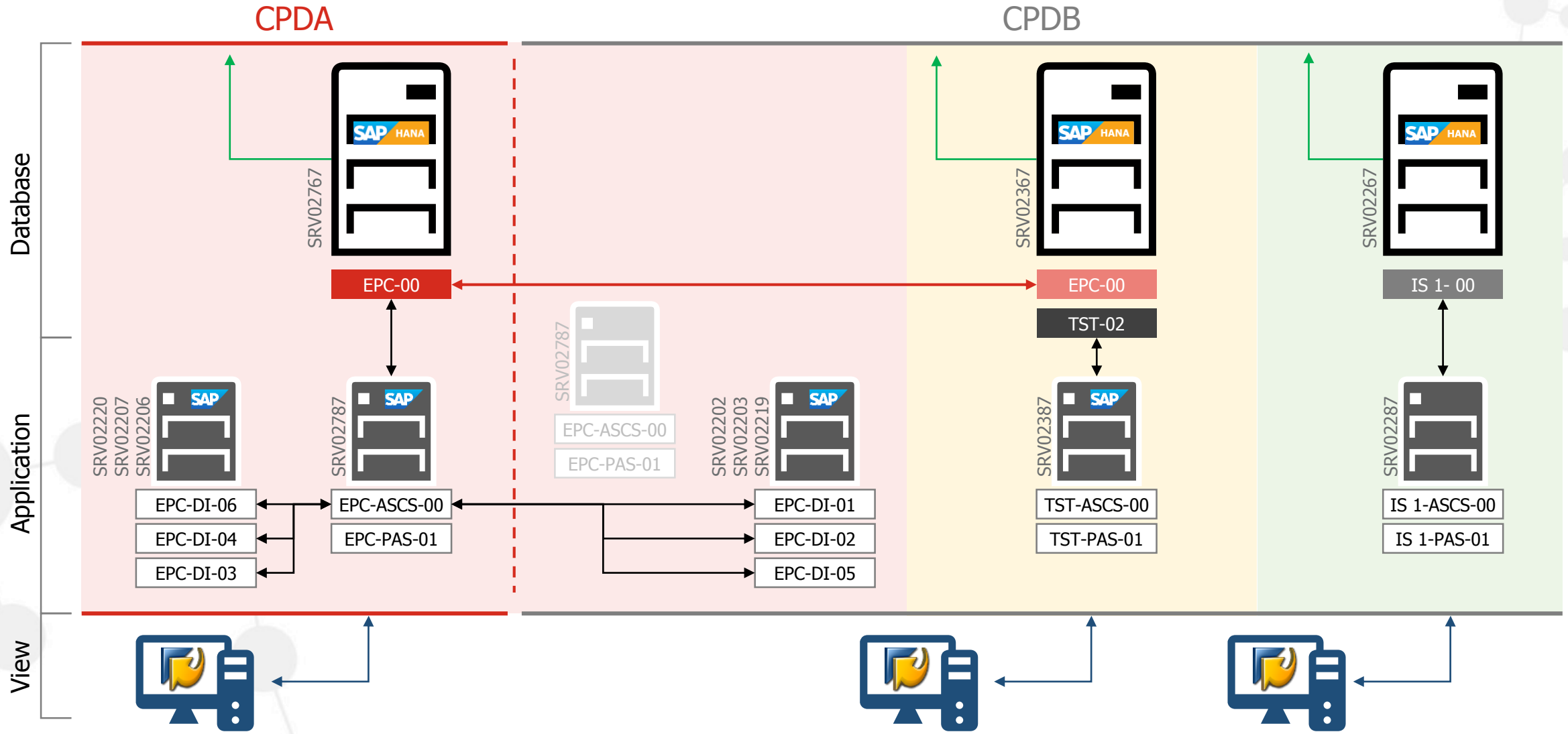


2x FC 16Gb/s
SAN switches

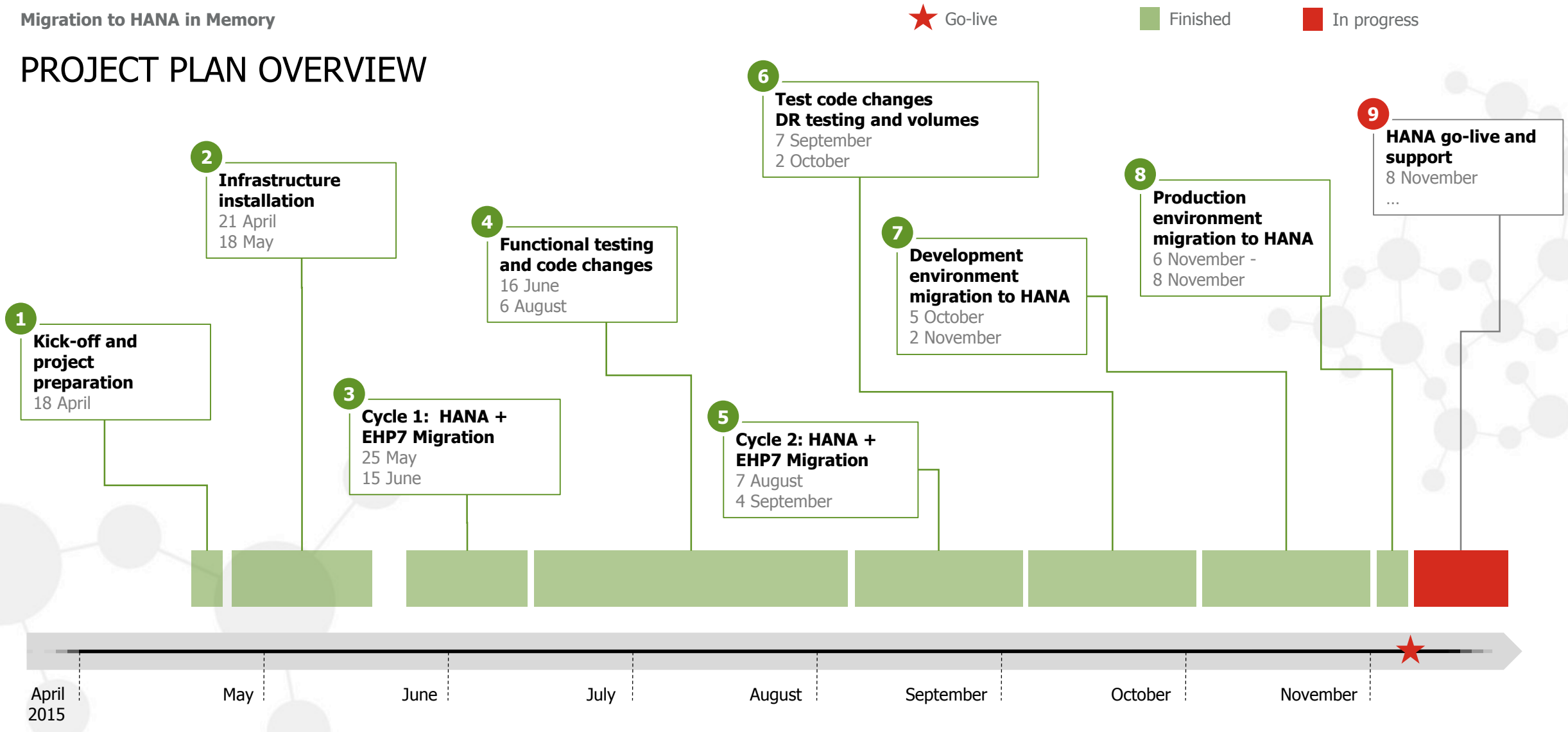
OceanStor S5500T
96Tb storage

MAIN

ARCHITECTURE: DISASTER RECOVERY

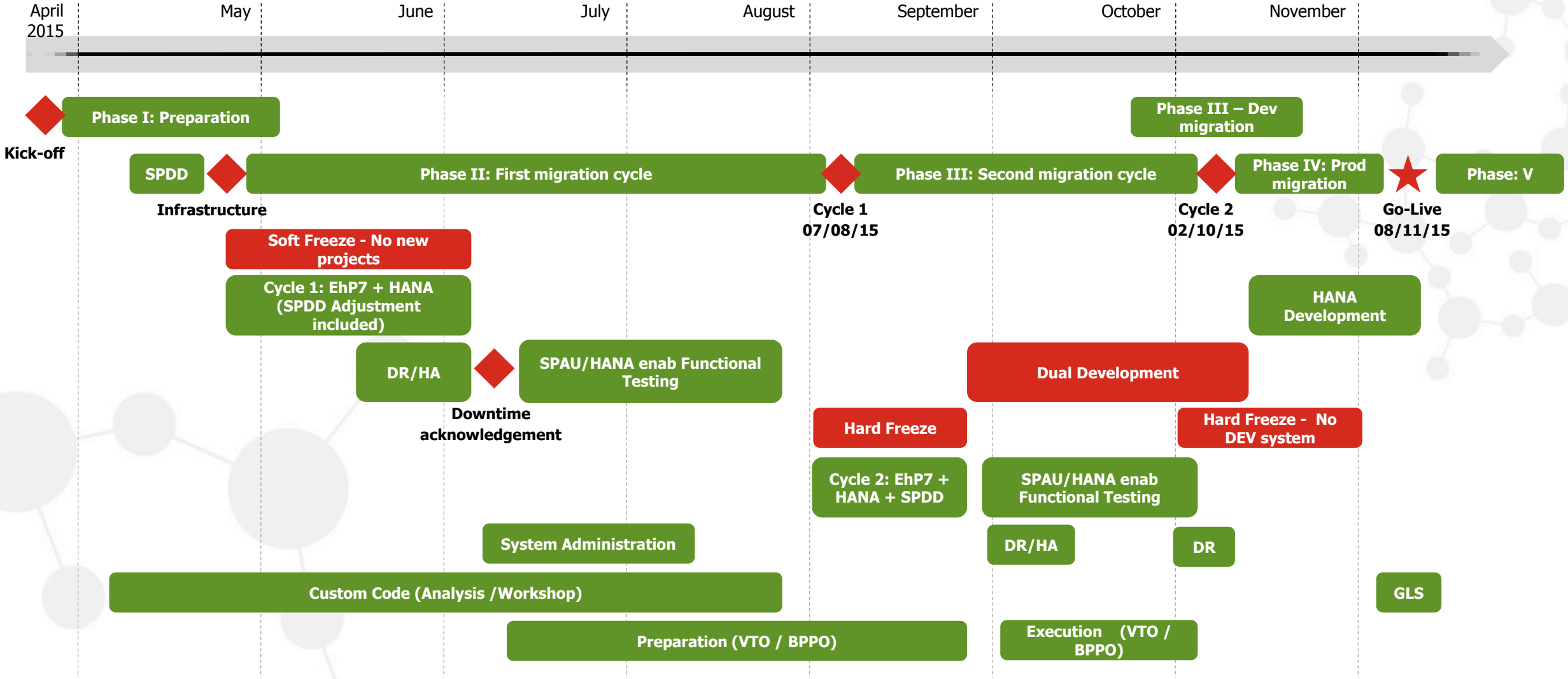


PROJECT PLAN OVERVIEW



Project executed **according to the plan initially established** with no significant deviations

PROJECT PLAN IN DETAIL



RISK MANAGEMENT AND CONTINGENCY PLAN

Main risks in production migration

Downtime too high

Potential high downtime that may not fit with the go-live weekend

- Performed several technical migrations in order to optimize the process
- Archiving information in order to reduce downtime

Remote connection

Remote connection availability of outsourcing services to HANA environment (virtualized via Citrix)

- An alternative channel was provided for remote connection in case of main channel failure

Integrated cutover plan

Lack of coordination of activities among the different teams involved in migration

- A single migration plan shared by all the teams was prepared
- Consolidation of this cutover plan before migration

Main contingency plan

The **current SAP** production environment **could be activated again** if for some reason would **not have been possible** to complete **the migration** within established plan (go / no go decision on Sunday November 9 at 15:00)

NEXT STEPS

- **Migration to Suite on HANA**
  - SAP BPC for Planning and Consolidation
  - SAP Business Warehouse (BW)
  - SAP IS-Utilities
  - SAP IS-Retail
- **Simple Finance** and **Cash Management** proof of concept

THANK YOU

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