

From silo based SW development to a product line approach



Dr. Christian Schloegel
Software Technologies
Wincor Nixdorf International

WINCOR
NIXDORF

EXPERIENCE MEETS VISION.

Wincor Nixdorf at a glance

**WINCOR
NIXDORF**

Company profile

Presence in over 100 countries
worldwide

Total sales of 2,239 million euros

EBITA of 162 million euros

Main production sites: Paderborn,
Singapore and Shanghai

More than 9,300 employees

Company culture

Precise knowledge of customers

Local management

Clear and flexible structures

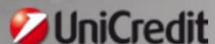
Performance orientation and
entrepreneurship

Shareholding and profit-sharing for
employees

Blue chip customers



HSBC



COMMERZBANK



Deutsche Bank



中国工商银行
INDUSTRIAL AND COMMERCIAL BANK OF CHINA

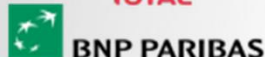


TESCO

INDITEX



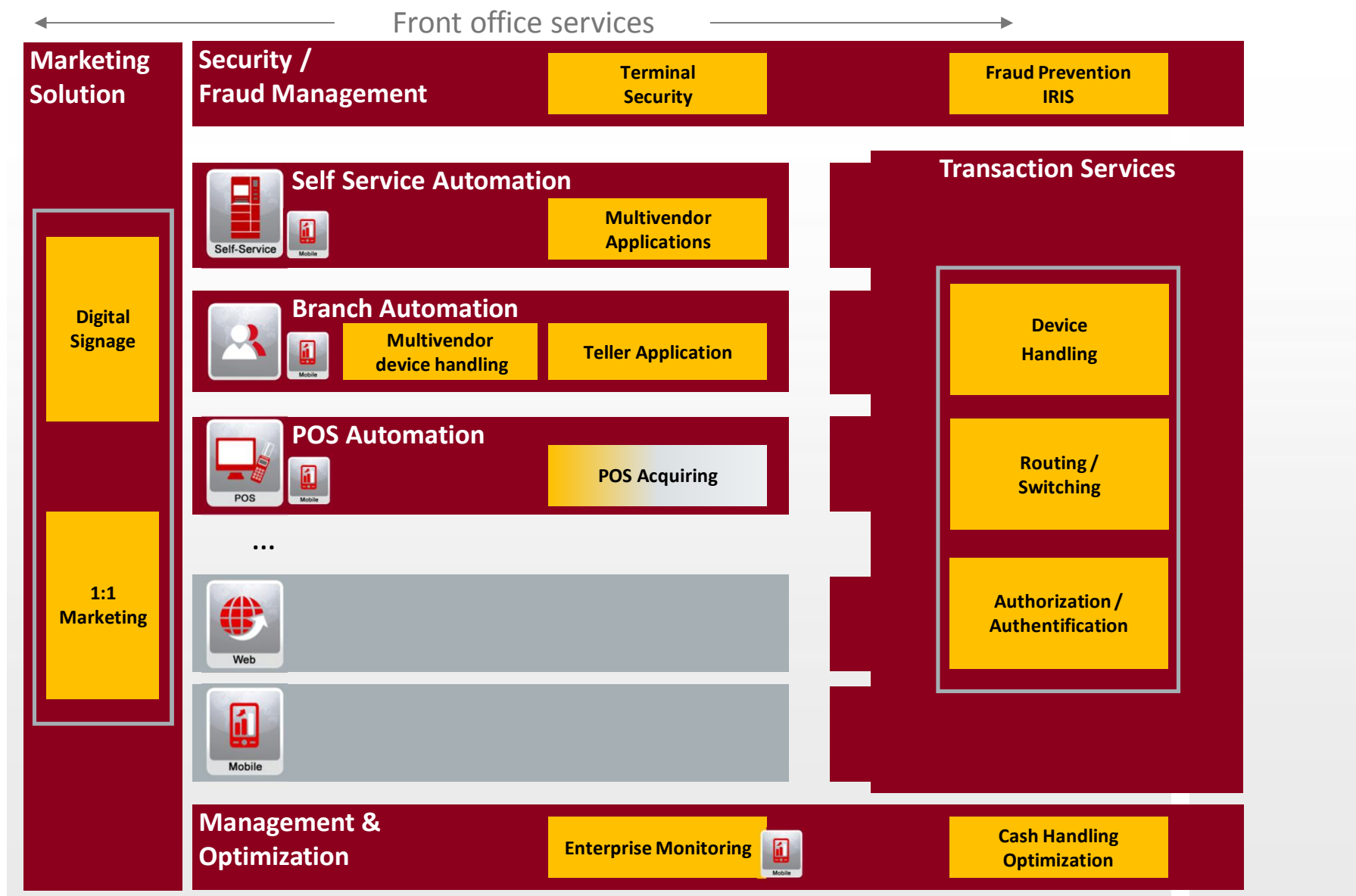
METRO GROUP



High Level Software portfolio

- Example Banking

WINCOR
NIXDORF



Agenda

1

The Situation

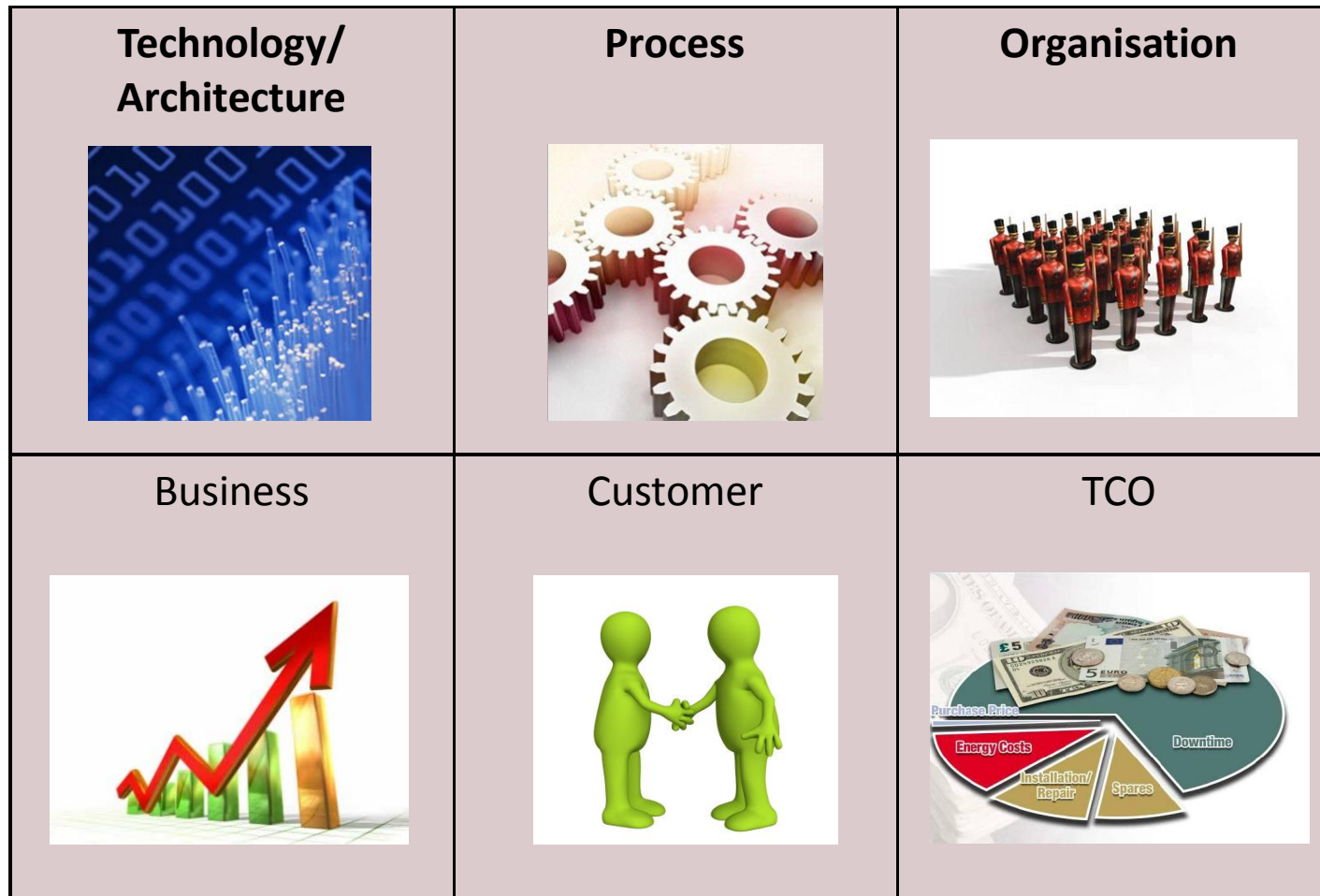
2

What to do

3

Risks, Chances & Outlook

Problem Dimensions



The Situation - internal view



Technology/Architecture:

- **Silo based decisions**
- **Different solutions for the same problem**
- **No common master data, ...**

Process:

- Department lead decided what & how
- No real quality gates

Organization:

- **Unhealthy stable**
- **Organizational changes not a daily business**

The Situation - external view



Business:

- No winning SW image
- No upsell opportunity

Customer:

- No common look&feel or behaviour
- No clear product strategy

TCO:

- Depends on the solution
- High learning curve for all

Agenda

1

The situation

2

What to do

3

Risks, Chances & Outlook

What will help to solve the situation?



Software Engineering alternatives:

Platform strategy

Product Line Approach

Centralize Architecture

Development Processes

SW Product Management

Lean, Agile Methods

etc.....

Why to choose a Software Product Line Approach?



[„Software Product Line Essentials“ by Linda Northrop, 2008]

Why to choose a Software Product Line Approach?

Linda Northrop states in „Software Product Line Essentials“ the following for a successful Product Line Approach:

Statement

A pressing need that addresses the heart of the business

Long and deep domain experience

A legacy base from which to build

Architectural excellence

Process discipline

Management commitment

Loyalty to the product line as a single entity



“by Linda Northrop”

Why to choose a Software Product Line Approach?

Linda Northrop states in „Software Product Line Essentials“ the following for a successful Product Line Approach:

Statement	Wincor Nixdorf starting position
A pressing need that addresses the heart of the business	Customer needs for more standardized products
Long and deep domain experience	Over 20 years with lots of customers all over the world
A legacy base from which to built	Several legacy Products with redundant parts
Architectural excellence	Long term experience and a new setup for the future
Process discipline	We are working on this
Management commitment	Is given 😊
Loyalty to the product line as a single entity	We are working on this

Measures to achieve a change to Product Line Engineering 1



Technology / Architecture:

- Unified application platform with dedicated layers
- Model based approach where it makes sense
- Architecture guidelining

Process:

- Dedicated platform build process and application development process
- Clear defined quality gates

Organization:

- Dedicated central architecture & platform development group
- Separated product management

Measures to achieve a change to Product Line Engineering 2



Business:

- Application suite approach
- Shorter time to market

Customer:

- Common look & feel & behaviour (long term)
- Focus on 80% first

TCO:

- Massively reduced TCO
- Clear defined Life Cycle Mgmt

Agenda

1

The situation

2

What to do

3

Risks, Chances & Outlook



Challenges:

- Architecture decisions to get a common platform
- Acceptance of the platform
- Nomination of platform responsibility & developers
- Release Management of platform
- Change in application build mindset
- A lot more....

Risks:

- Pay off platform investments
- Reaction time of new requirements during application development
- Time to market
- 2 class developer mindset

Chances & Opportunities



Chances:

- Faster application build based on platform
- Higher reliability by re-using layers & components
- Clear defined flexibility
- Faster implementation time at customer projects
- Creation of an application suite
-

Summary & Outlook



Summary:

- **Product Line Approach**
- **Centralized Architecture**
- **Dedicated Platform Team**
- **Change in mindset necessary**
- **Documentation & sufficient platform tests**
- **Understanding of product line approach in executive meetings**
- **...**