



Software-Modernisierung - Der europäische Weg

Over 16 Years of Success and Experience



1990 Interactive Objects was founded

1994 OMG Design Award for first CORBA application

1999 Development of the first MDA product on the Market

2001 Received venture capital

2002 Two OMG Awards for best MDA applications

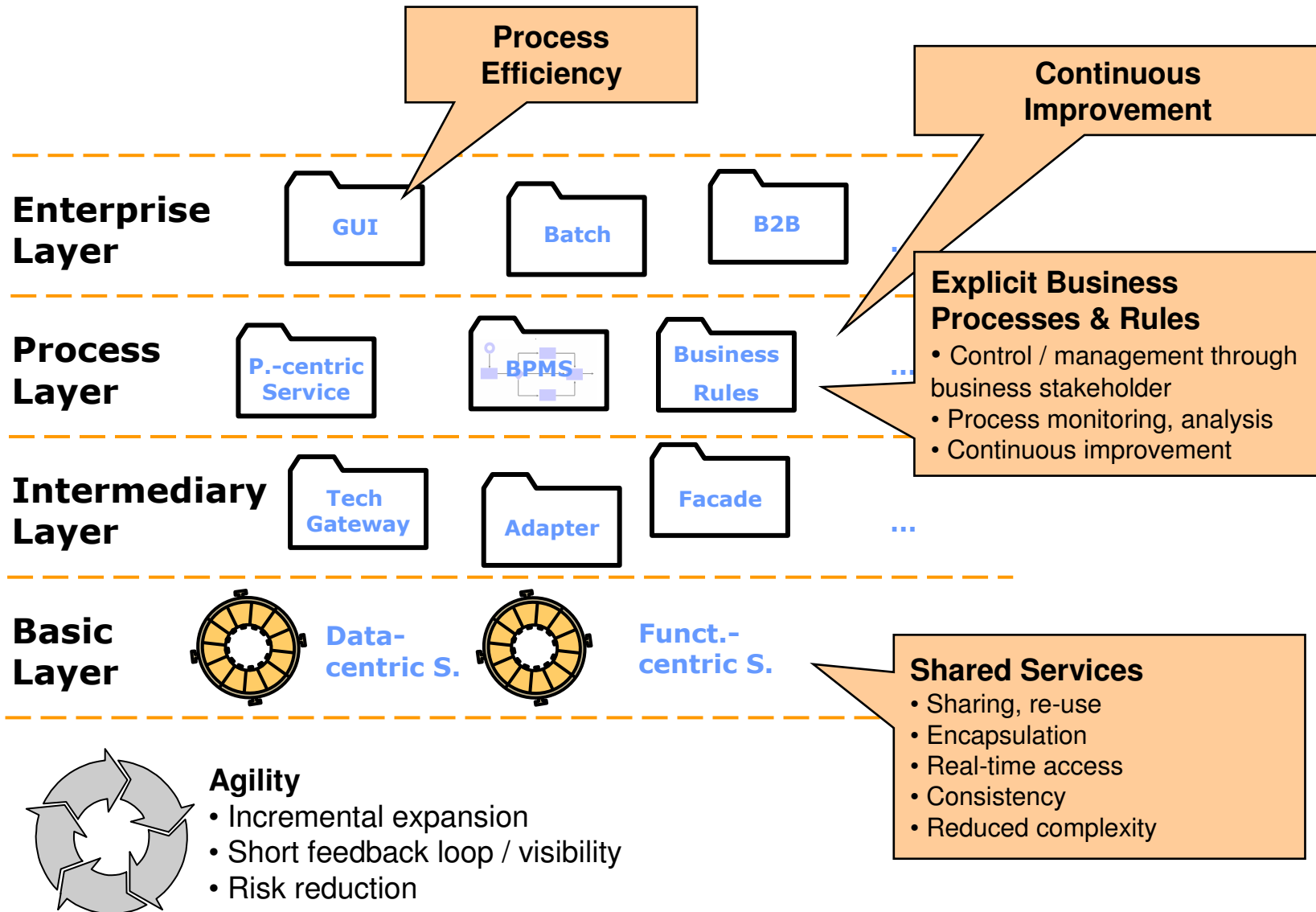
2004 New Management Team on board

2005 Repositioning of Interactive Objects

2005 ArcStyler 5 and PS generate 10 success stories with blue chip companies

2006 Credit Suisse officially nominated Interactive Objects as Preferred Supplier

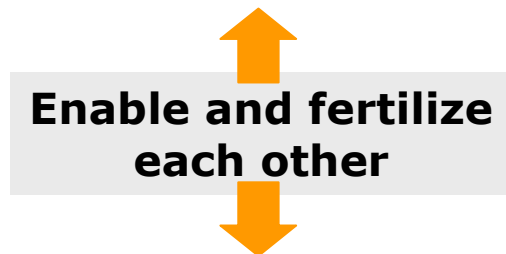
Benefits of SOA



SOA & BPM complement one another

SOA

How IT is structured ...



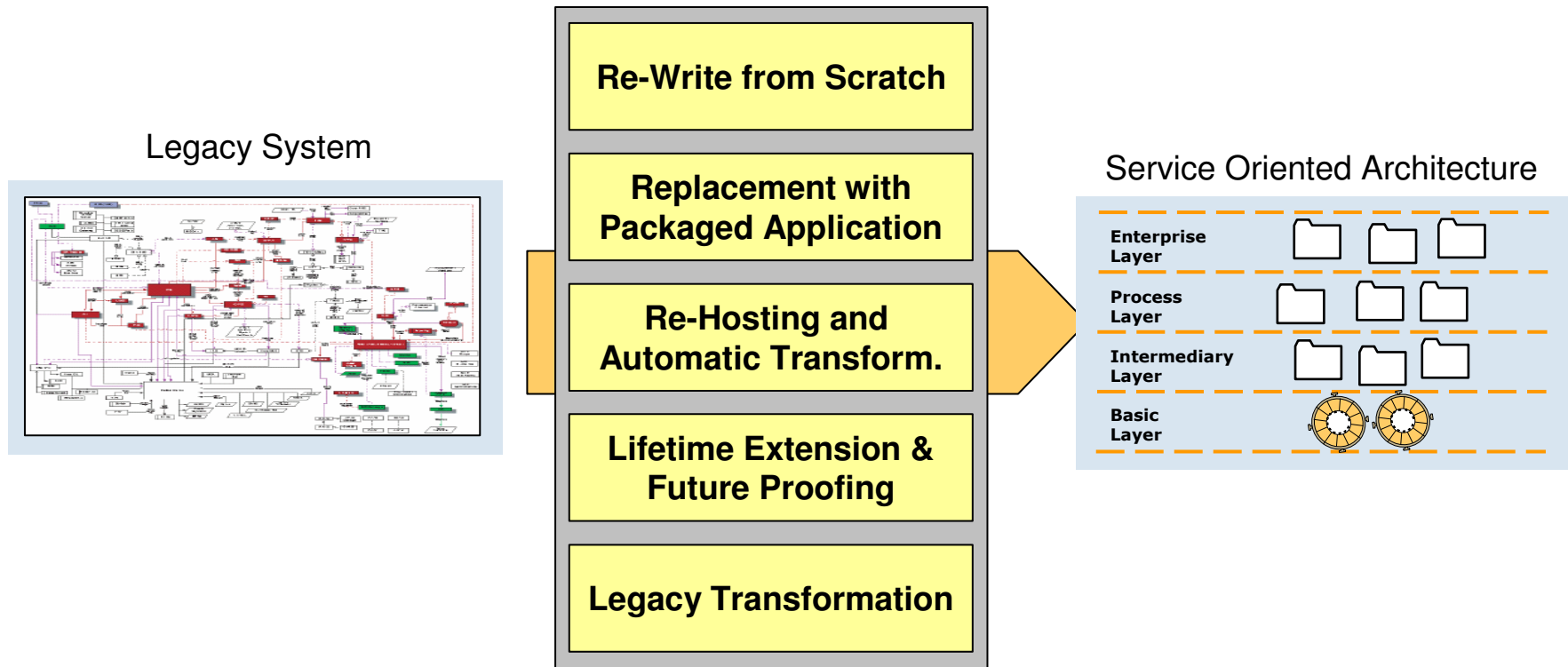
- ♦ Building blocks
- ♦ Business-oriented components
- ♦ Loosely coupled
- ♦ Foundation for the management of application landscapes
- ♦ Made for reuse

BPM

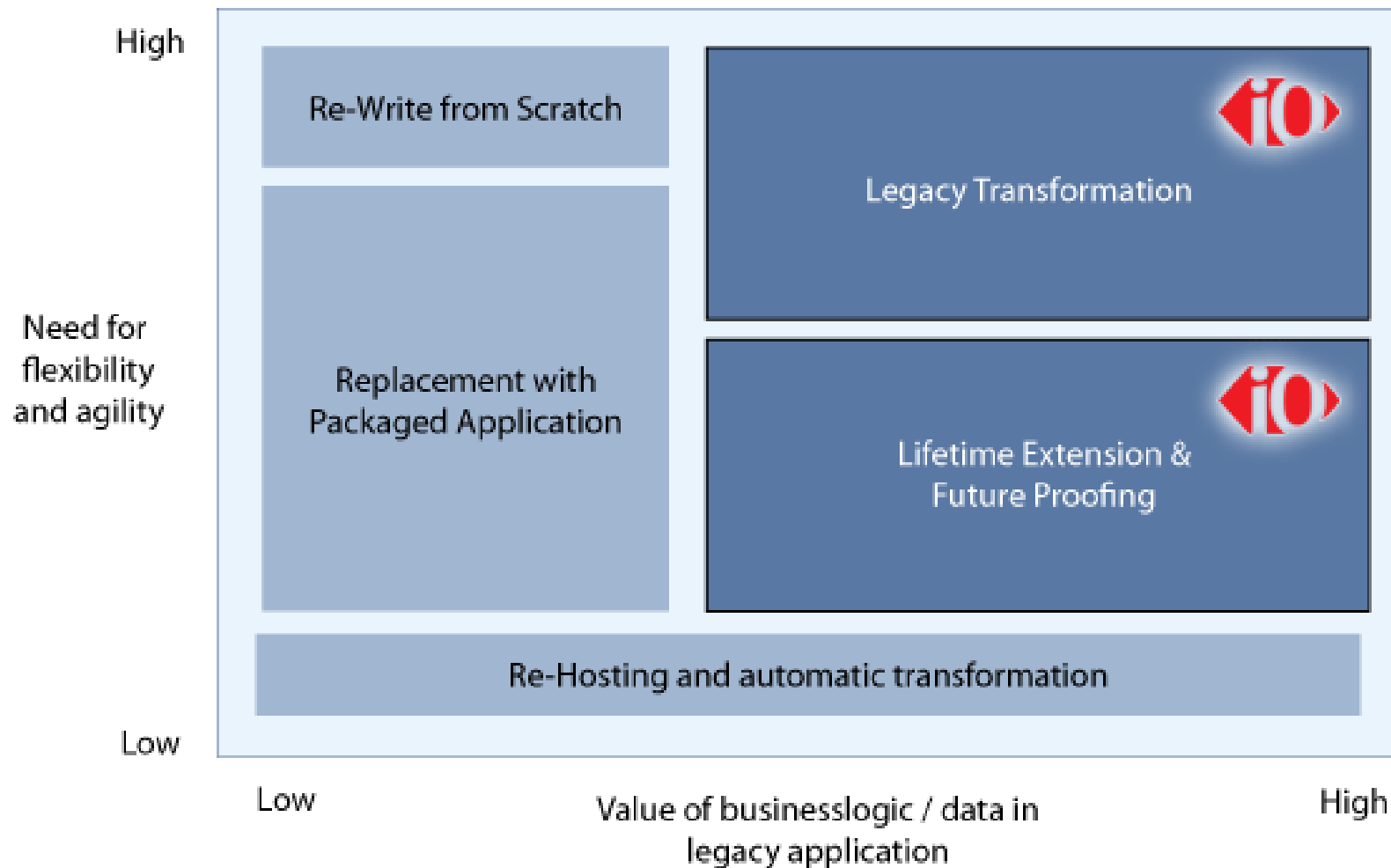
What IT does ...

- ♦ Model of business processes and their IT support
- ♦ High-level view of business demands
- ♦ Implicit construction plan for applications
- ♦ Made for specific business purpose

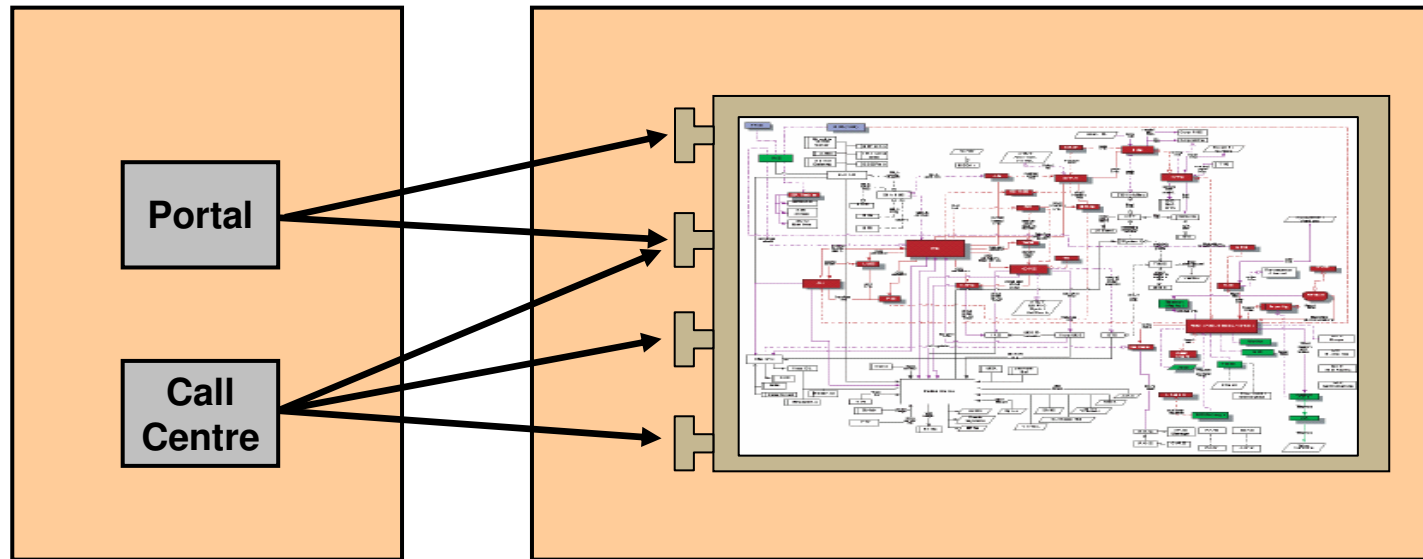
What are the options?



Selecting a Strategy



SOA interfacing is important, but it does not address the real problems of monolithic silos



Benefits

- Enables innovative new front-ends
- Initial quick wins

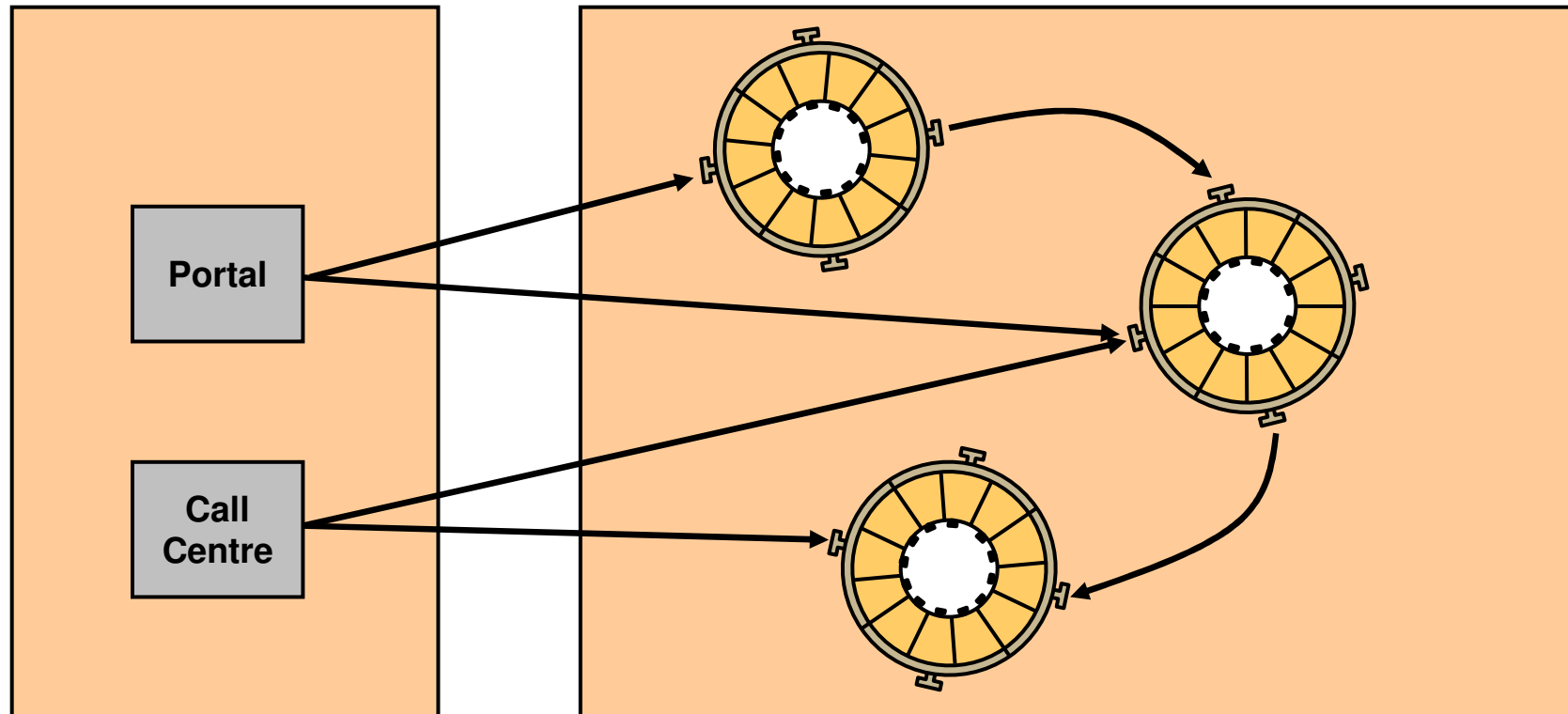
Disadvantages

- Uncontrollable „spaghetti“ behind the interfaces
- Trapped into „big bang“ rollouts of new releases...
- ...usually leading to high number of emergency requests
- Making changes in small steps would create fewer problems, but not possible because of tight coupling
- No way to develop and test components independently

Consequences

- Time to market very long
- Backend functionality pushed to front-end, causing inconsistencies
- High maintenance costs

Loosely coupled SOA Components



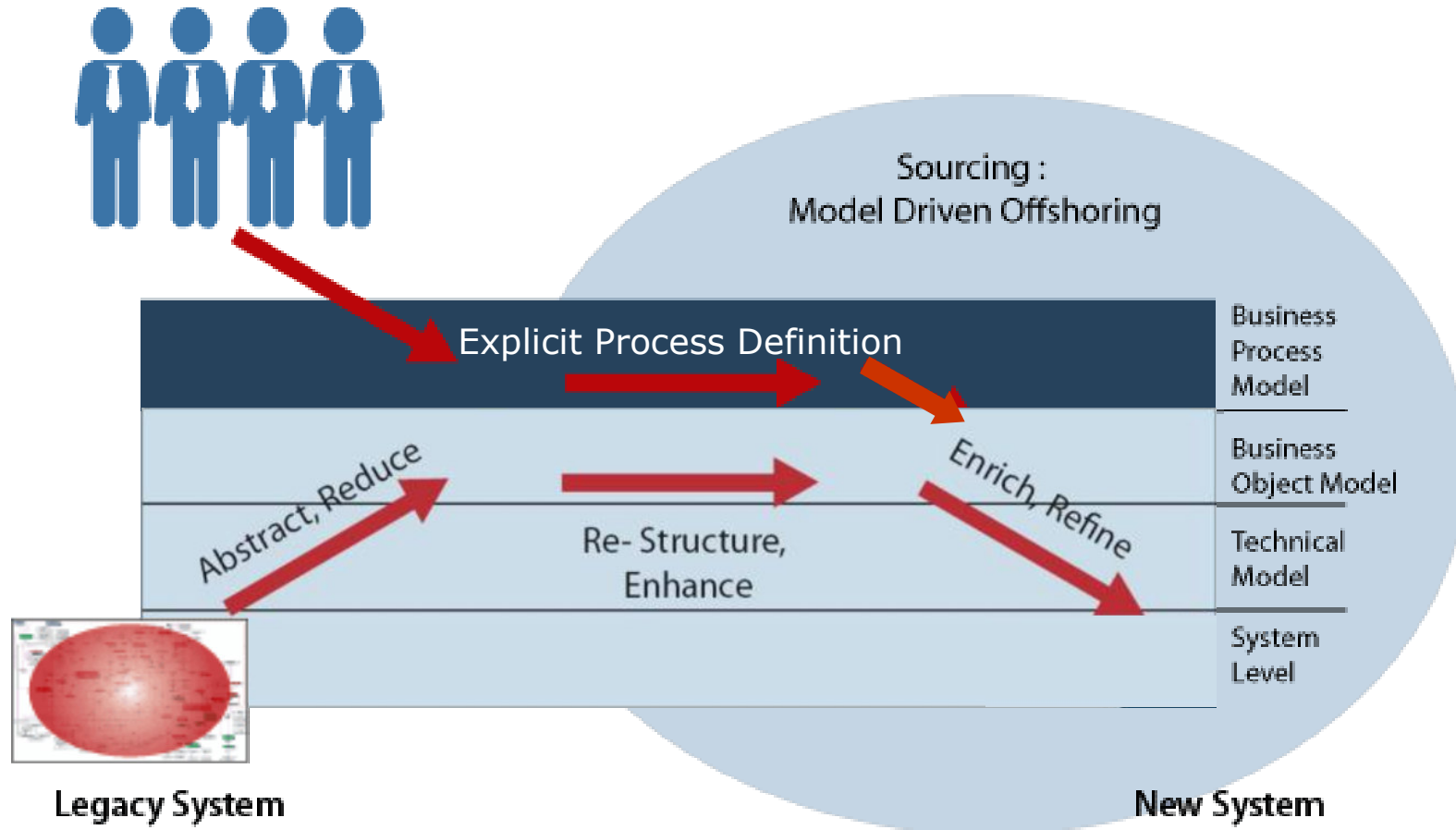
SOA Component

- Full encapsulation: access only via public interfaces
- Autonomous lifecycle: deployment independent of other components

Example for relatively large bank

- 30-60 Components
- 300-1200 public Service Interfaces

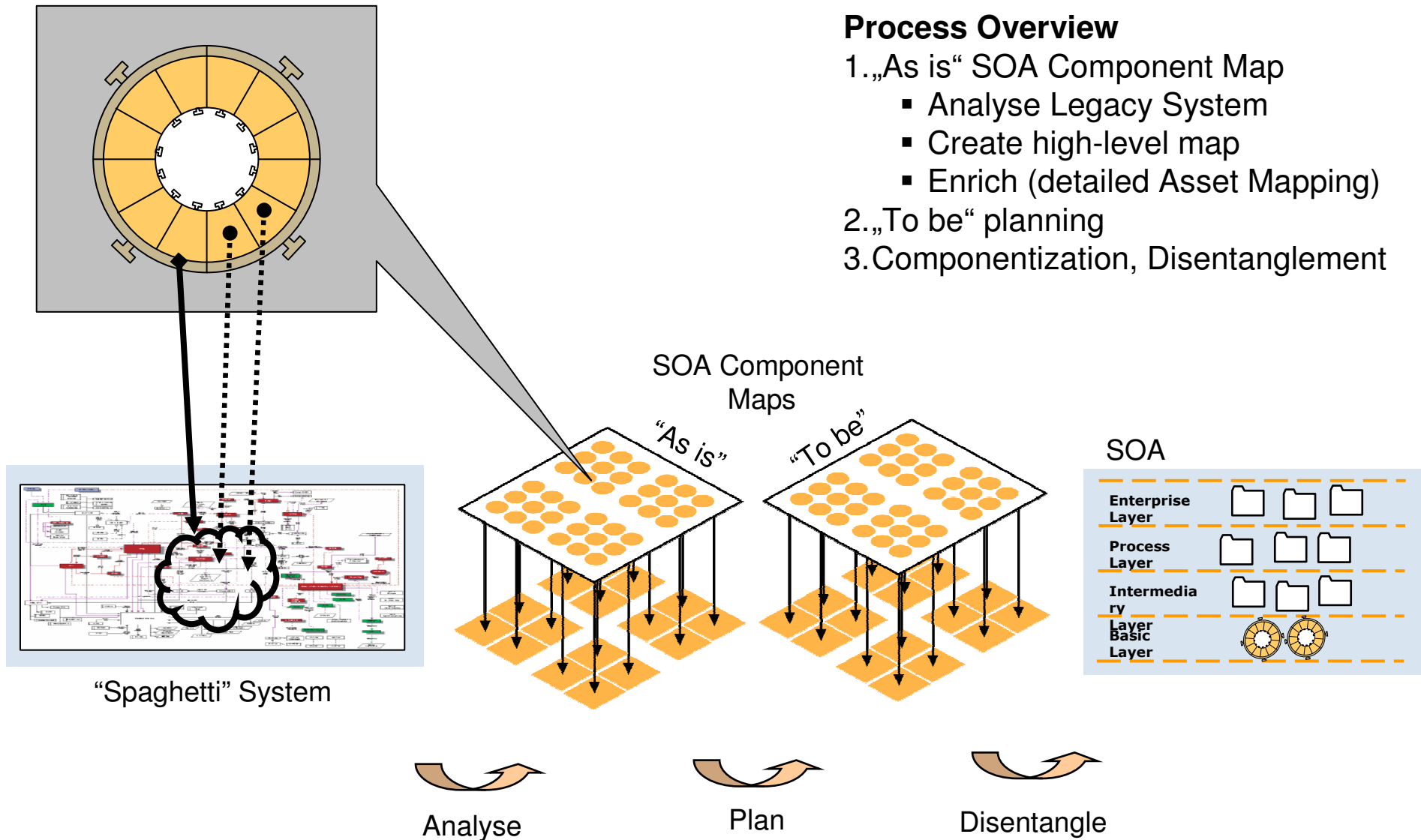
iO's Legacy Transformation Process



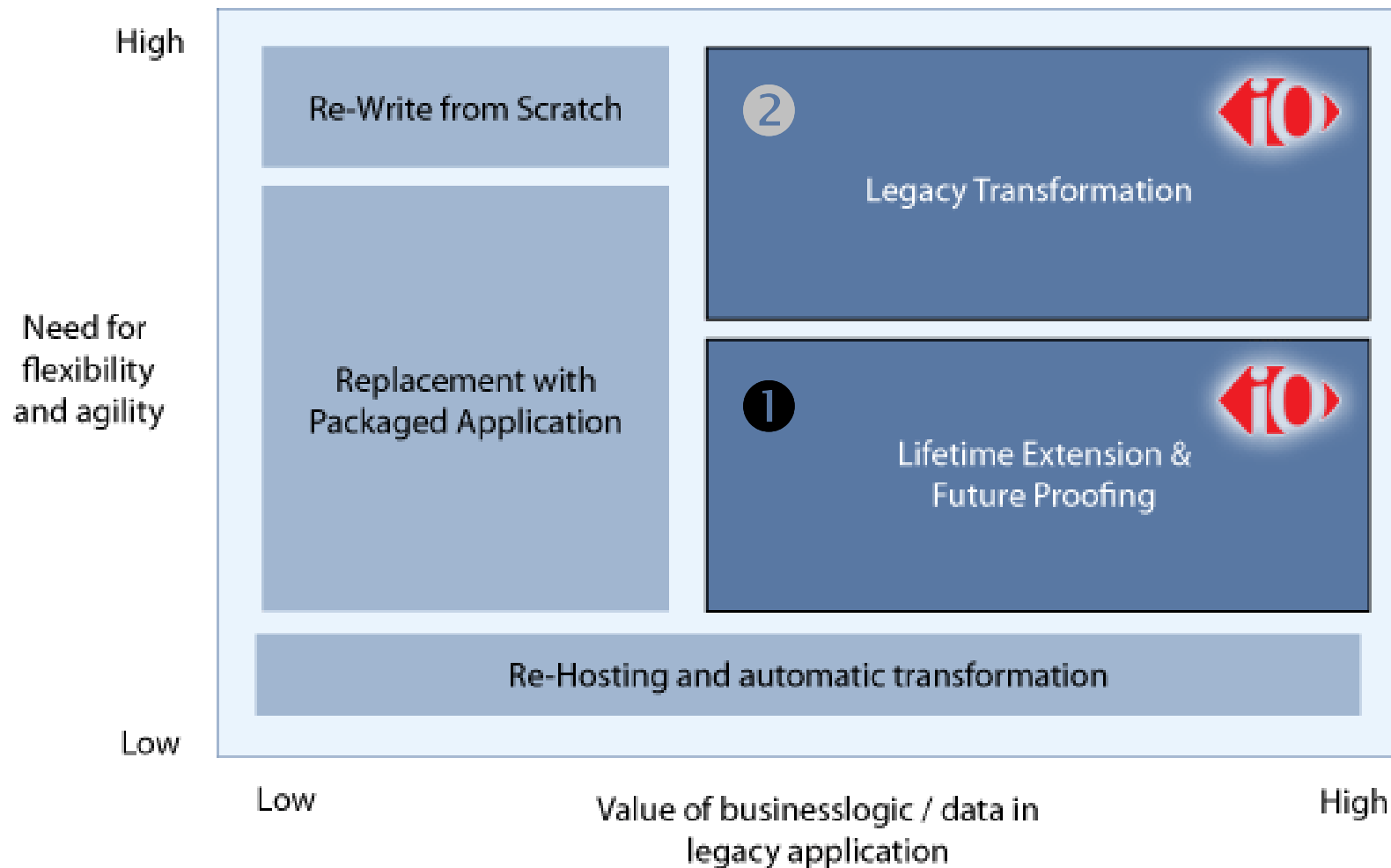
SOA Componentization Process

Process Overview

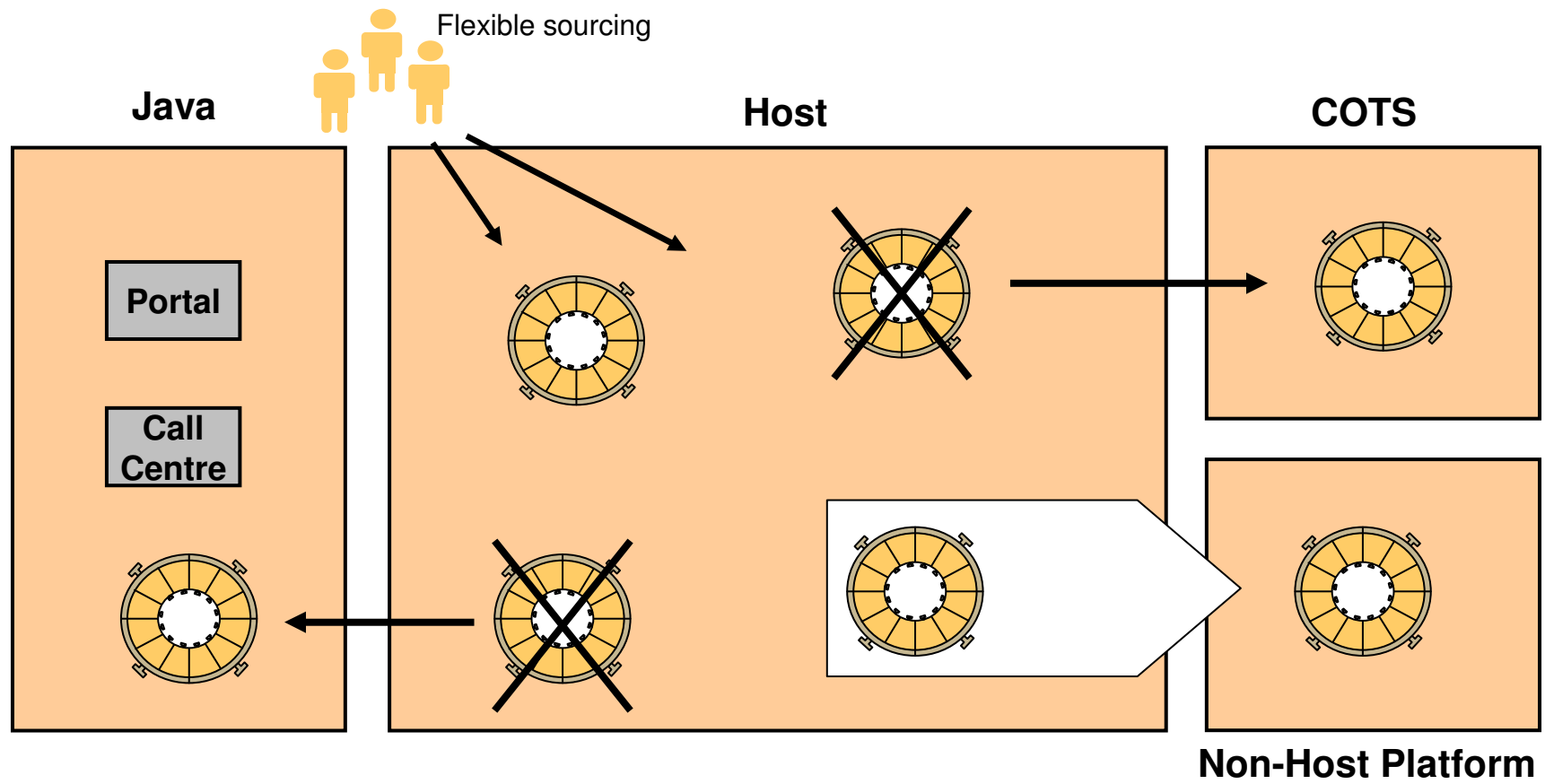
1. „As is“ SOA Component Map
 - Analyse Legacy System
 - Create high-level map
 - Enrich (detailed Asset Mapping)
2. „To be“ planning
3. Componentization, Disentanglement



Legacy Modernization



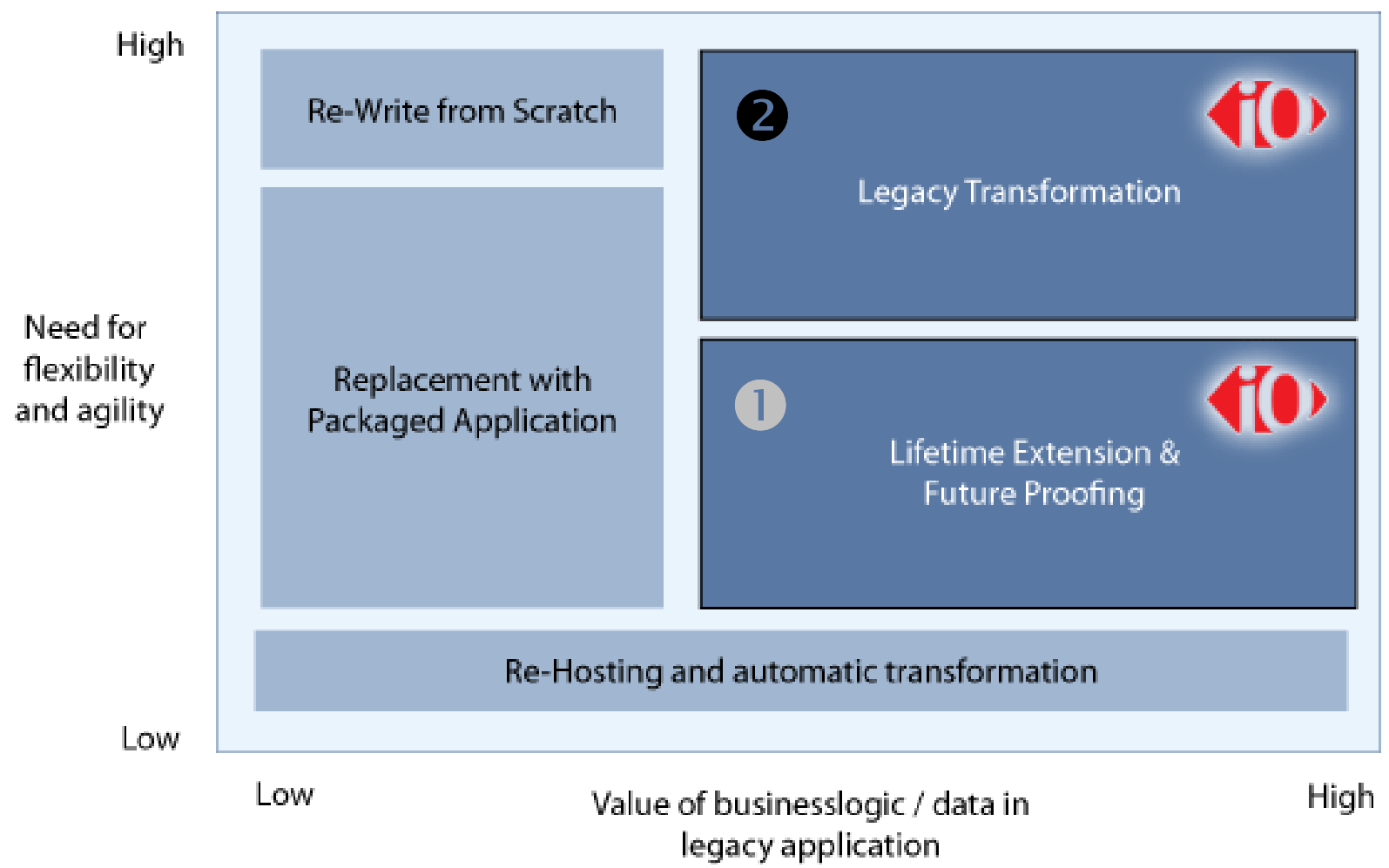
Disentanglement results in flexibility



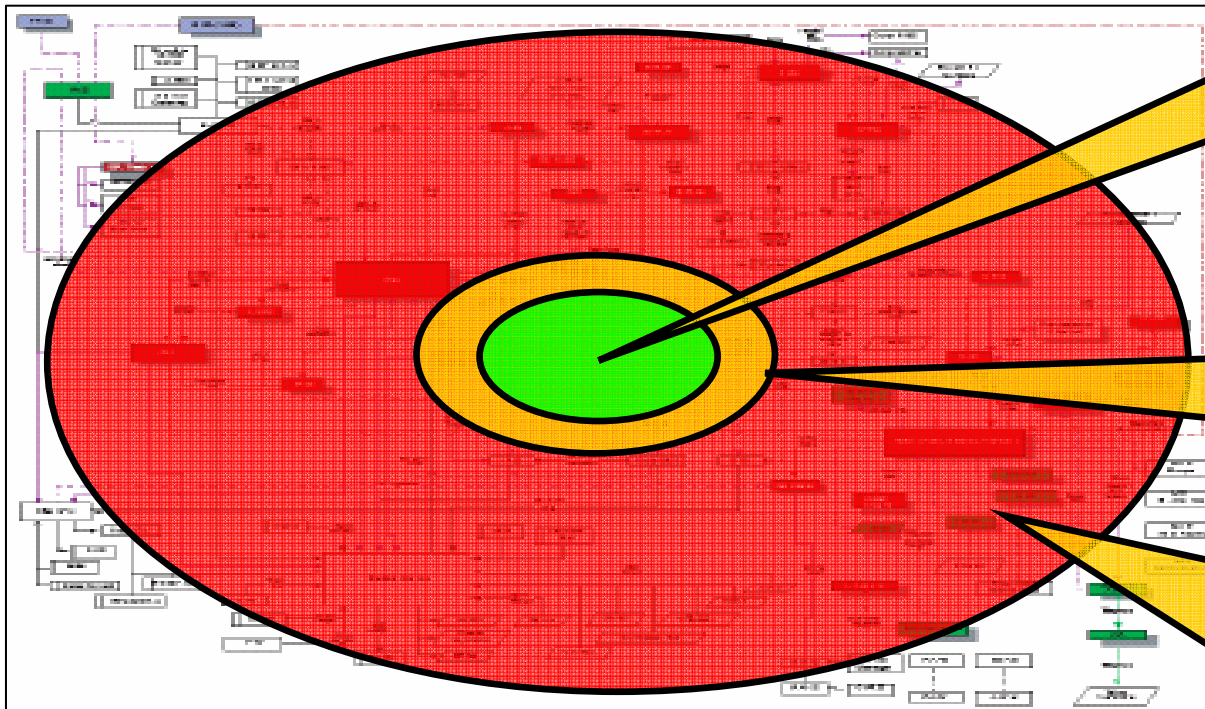
Disentanglement creates options

- Migrate frequently changing components to more agile platform, e.g. Java
- Replace selected components with Common-Off-the-Shelf Software (COTS)
- Re-host components on non-Mainframe environment, e.g. Microfocus on Linux

Legacy Modernization



Removing dead freight is key!



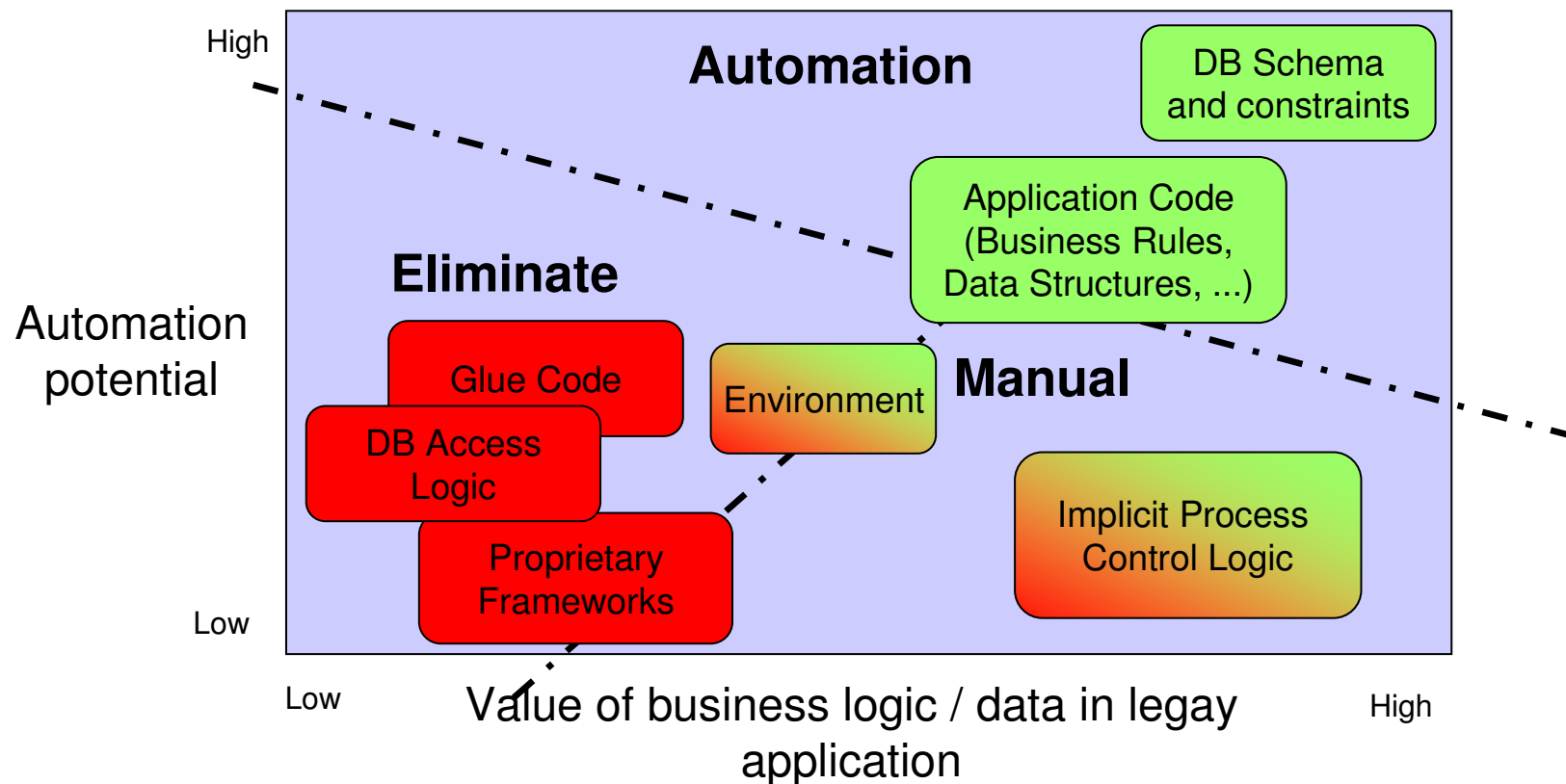
10-15%: Core Assets
E.g. structure of business data, relationships, business rules, constraints, screen formats, etc

5-10%: Hidden Assets
Scope (!),
Implicit Process Control,
Etc.

~80%: Dead Freight
Glue Code, data transformations, data redundancy management and exception handling caused through architectural “rank growth”

Focus on transforming key assets only!

- ◆ Only transform the 20% of the legacy system which are really valuable
- ◆ Use a combination of automation and manual transformation
- ◆ Leverage high automation potential of MDA

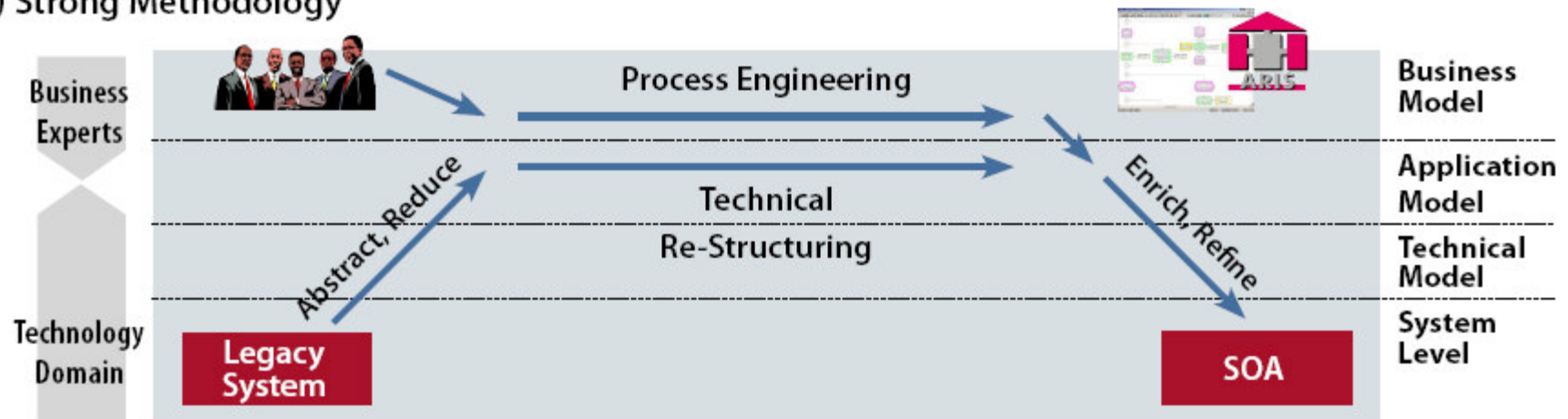


Processes – Methodology - Tools

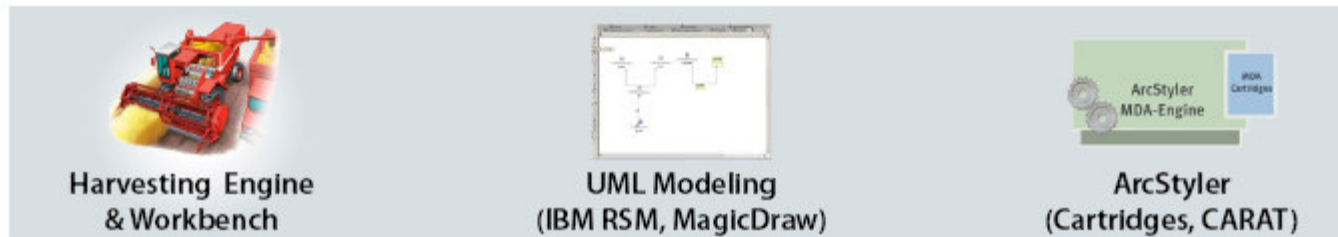
1) Industrial Transformation Process



2) Strong Methodology

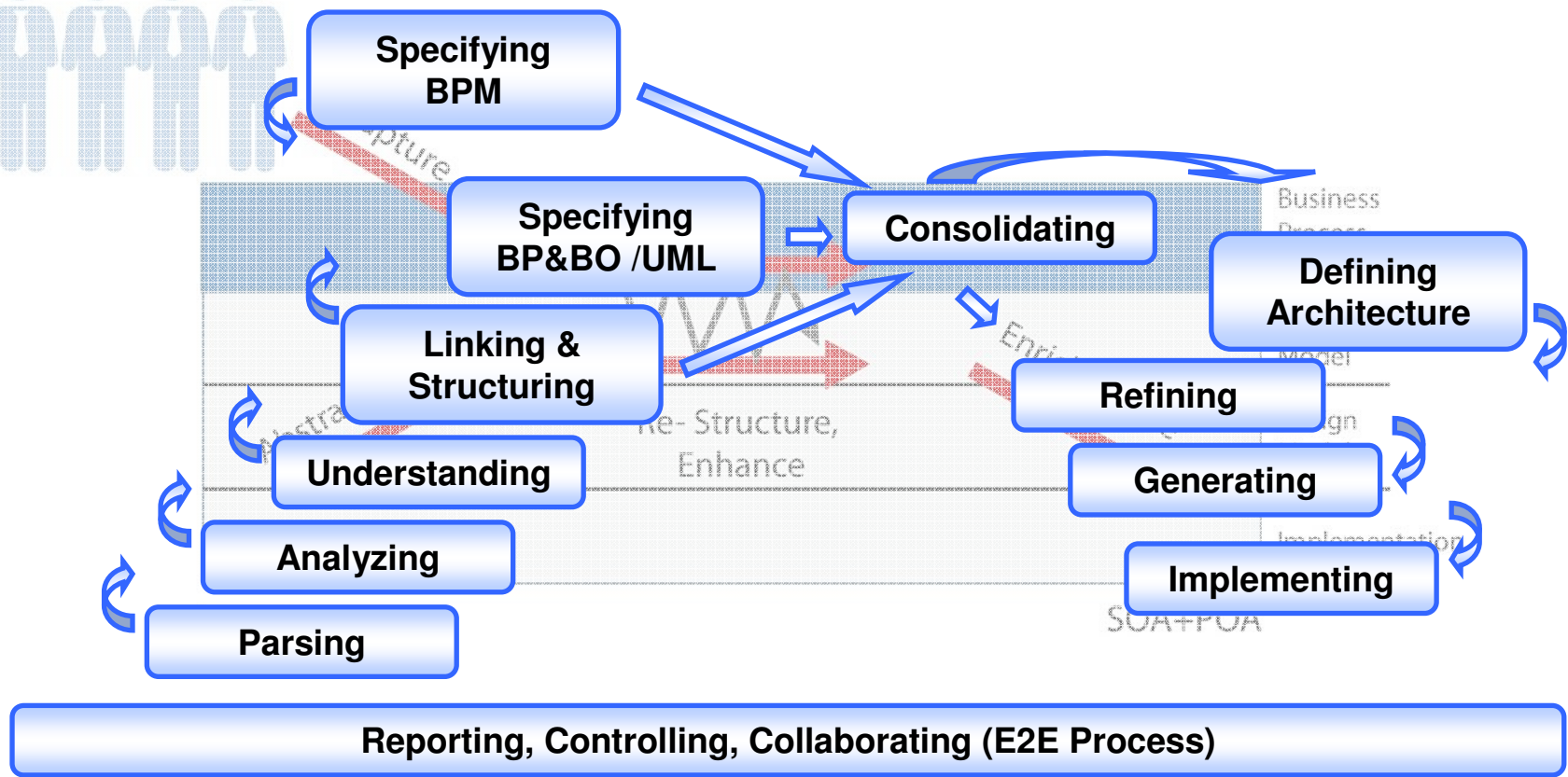
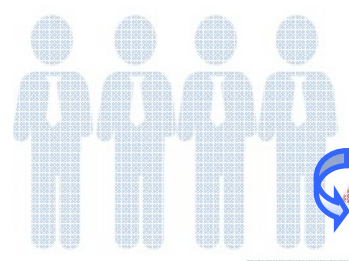


3) Flexible Tools

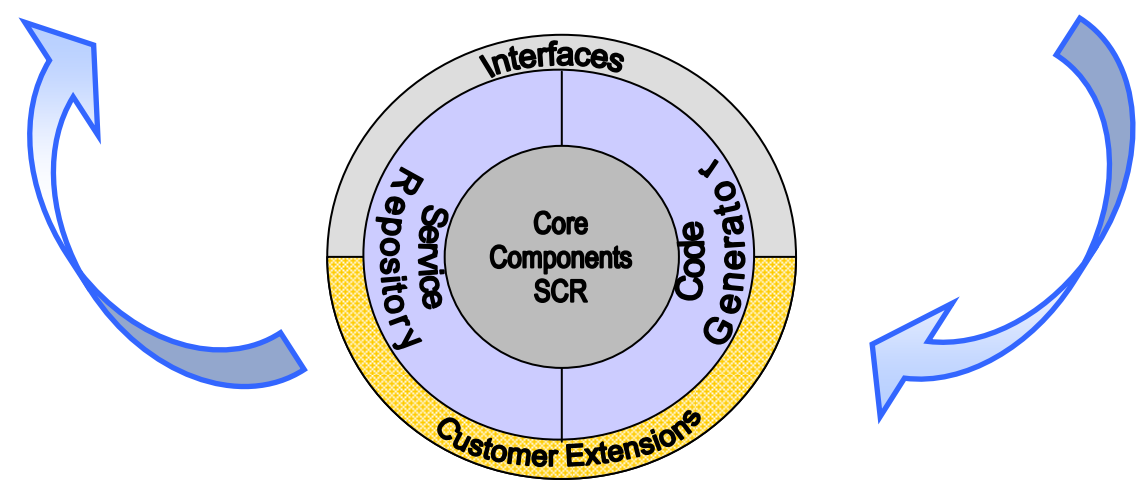
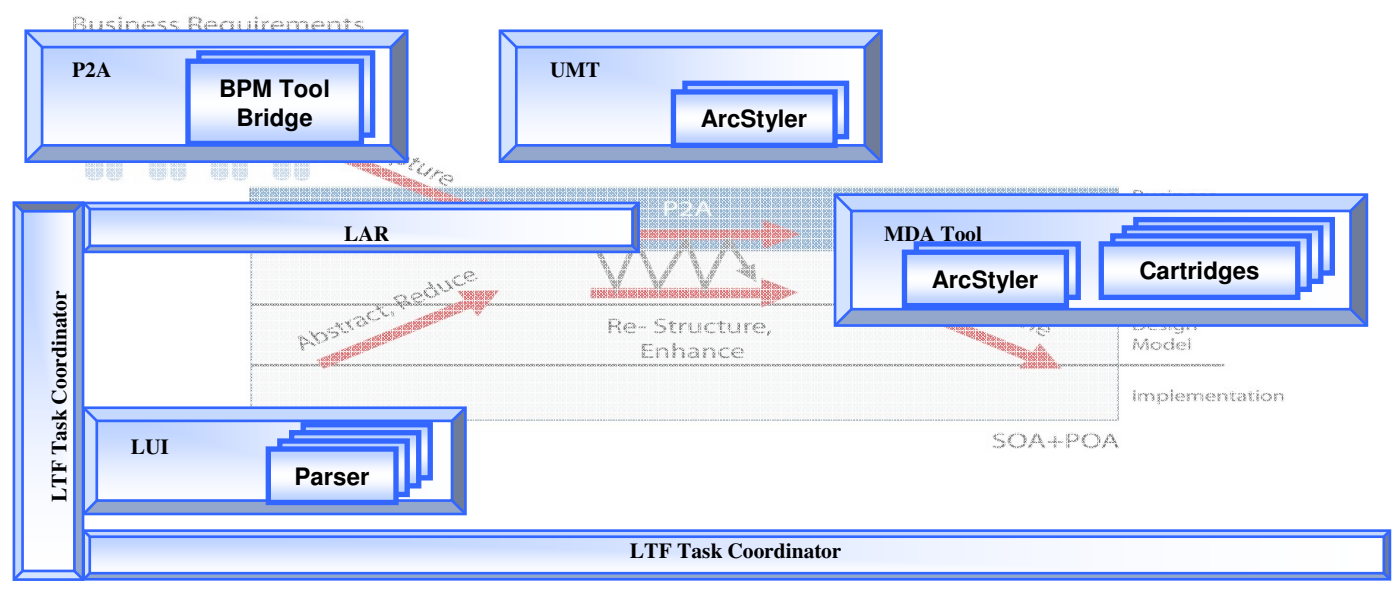


Interactive Objects - LTF Process

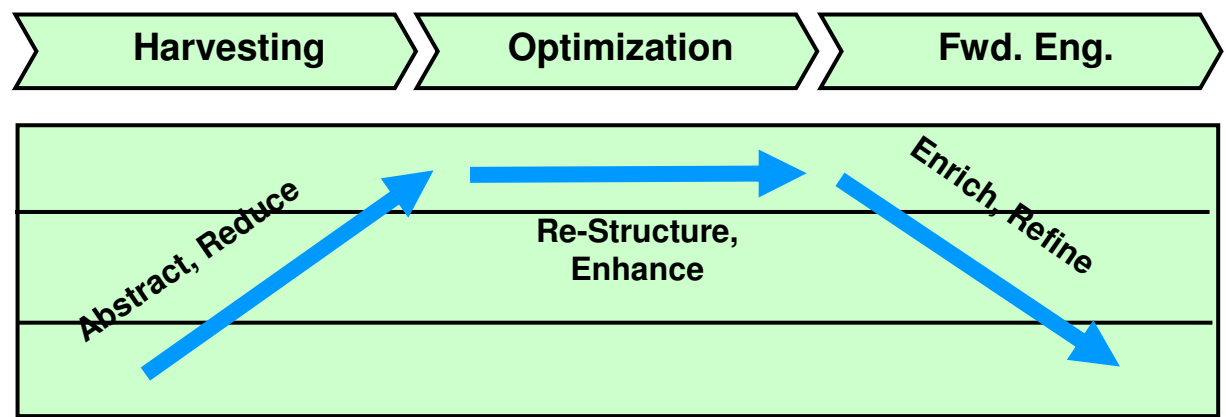
Business Requirements



Interactive Objects - LTF Tool Suite



Automation vs. Manual Transformation



Automation Potential

60 - 80%

0 - 20%

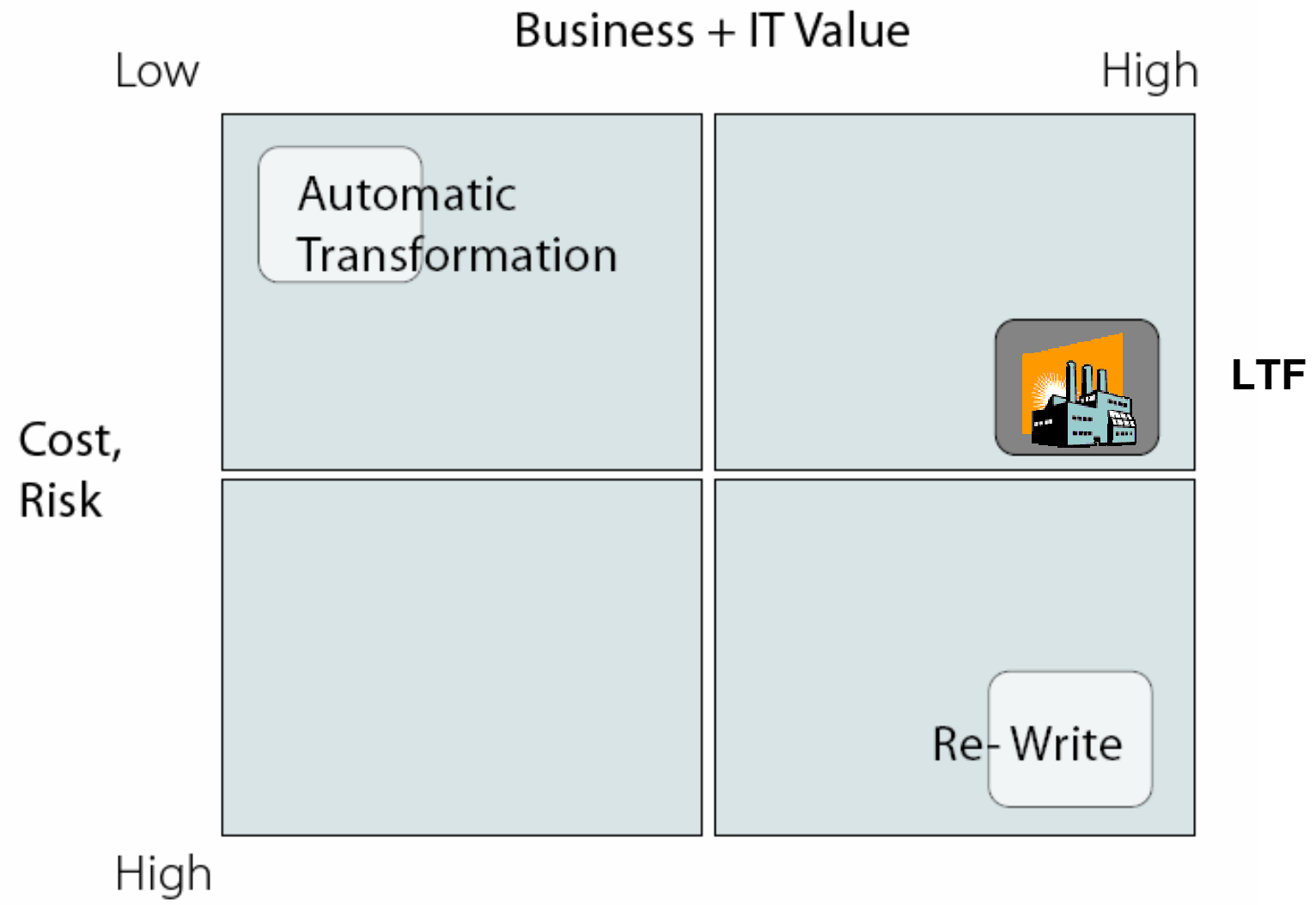
50 - 70%

Recall: only ~20% of the legacy code based will be harvested, of which then 60 – 80% can be harvested automatically.

This is the creative part, which usually doesn't lend itself to automation. This is why it's important, that this is done on a **high level of abstraction**, and after the reduction process!

Some parts of the new system can be automatically generated, e.g. Data Centric Services

Comparison



Benefits for the Concerned Roles

◆ Business Analysts

- Methodological Support for high quality Business Process Architecture

◆ Architects

- Creation of integral Process Oriented Architectures (POA) consisting of Business Process Architectures and technical Service Oriented Architectures (SOA)

◆ Designers

- Direct Usage of Business Analyst output for implementation

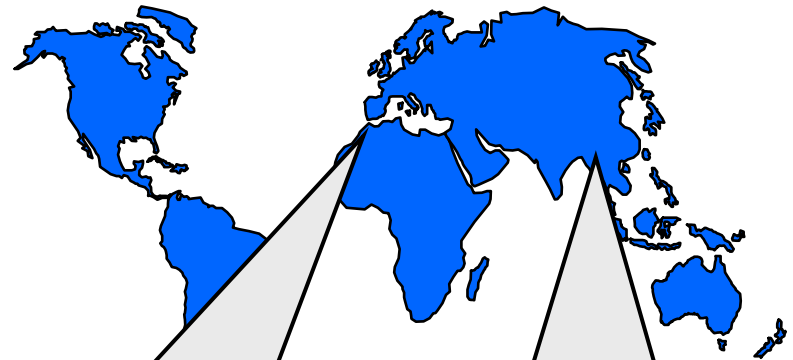
◆ All

- Navigability from Business Model to Code and vice versa during modernization process

◆ Managers

- Process Control and reports

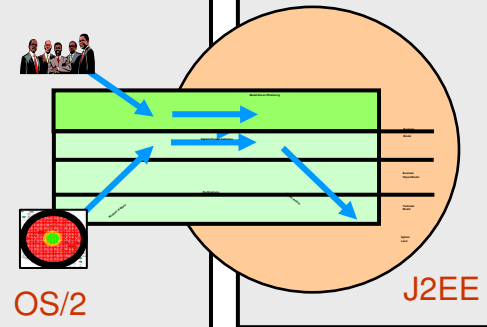
Case Study: Bank Coop Credit Management System



CSC Switzerland:
 1 Project Leader
 1 Technical & Test Manager
 2 Business Analysts (UML)
 1 Technical Architect

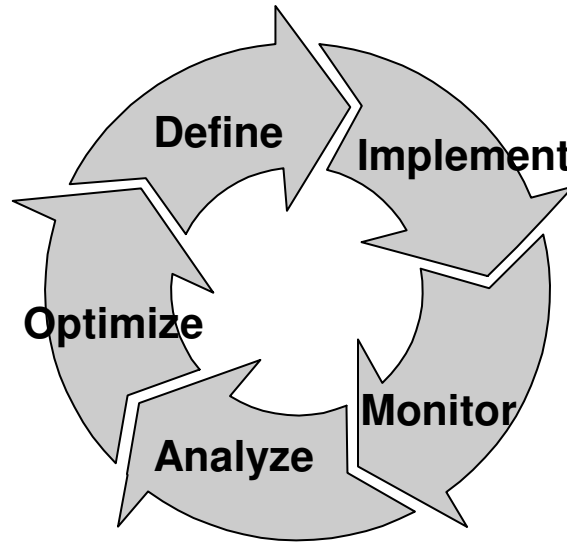
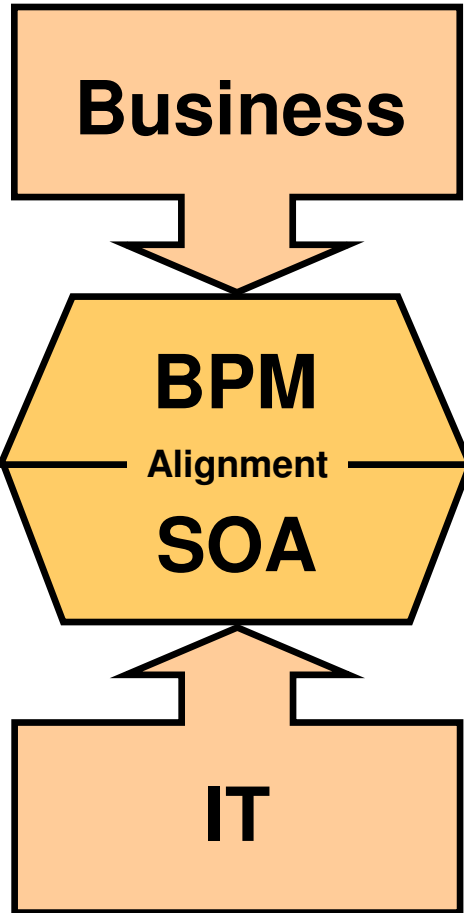
Interactive Objects:
 1 MDA Expert (20%)

CSC India:
 1 Local Project Leader
 13 Java Developers

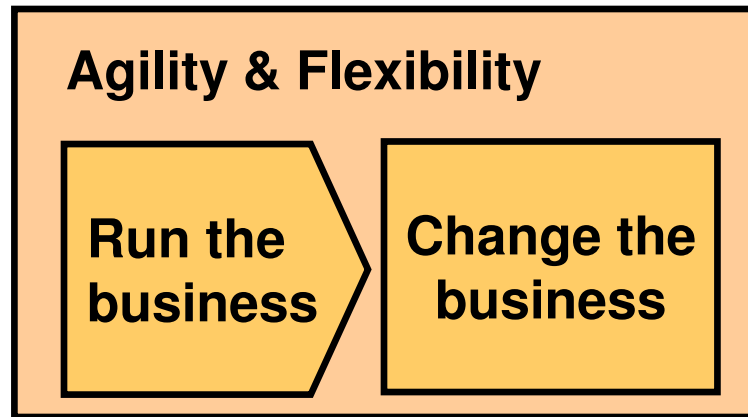


M Buser, Director Application Engineering, CSC Switzerland: The LTF approach in combination with Mix-Shoring resulted in 65% cost savings compared to a manual migration approach.

Summary Legacy-to-SOA



- ⇒ Explicit processes
- ⇒ Transparency
- ⇒ Continuous improvement





Interactive
Objects 

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MODELS MADE FOR BUSINESS

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