



Audit & IT alignment
for the Supply Chain

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The SCOR Framework

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Summary

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(full presentation
on www.gap.eu)

Agenda

- The Customer Case
- The SCOR framework
(Supply Chain Operations Reference)
 - Overview
 - Core processes : Source, Make, Deliver, Return
- The IT/Business Alignment
- Conclusion



- Customer environment
 - Non food consumer good manufacturer
 - Supply chain process :
from raw materials up to finished goods,
distributed from central warehouse through a retailer network
 - Merger of 2 companies : 2 manufacturing sites α and β
 - 2 different IT platforms
- Customer request
 - Evaluation of current IT systems
 - Recommendation for future system platform

Part I

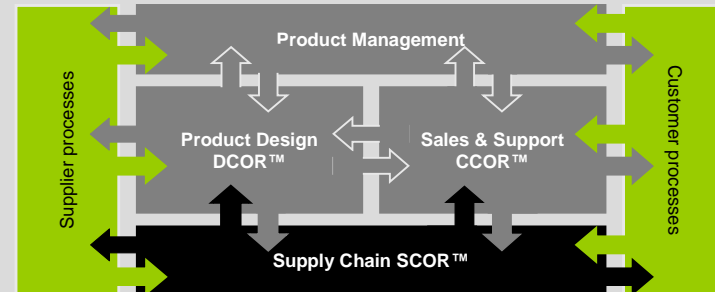
Supply Chain Operations Reference (SCOR)





- Supply-Chain Council (SCC)
 - an independent,
 - not-for-profit,
 - global corporation
 - with membership open to all companies & organisations
 - interested in applying and advancing state-of-the-art supply chain management systems and practices.
- Presentation
 - Founded in 1996
 - Over 700 Company Members
 - Cross-industry representation
 - Chapters in Australia/New Zealand, Brazil, Europe, Japan, North America, South East Asia, and China
- SCC has developed and endorsed the **Supply Chain Operations Reference model (SCOR)** as the cross-industry standard for supply chain management.

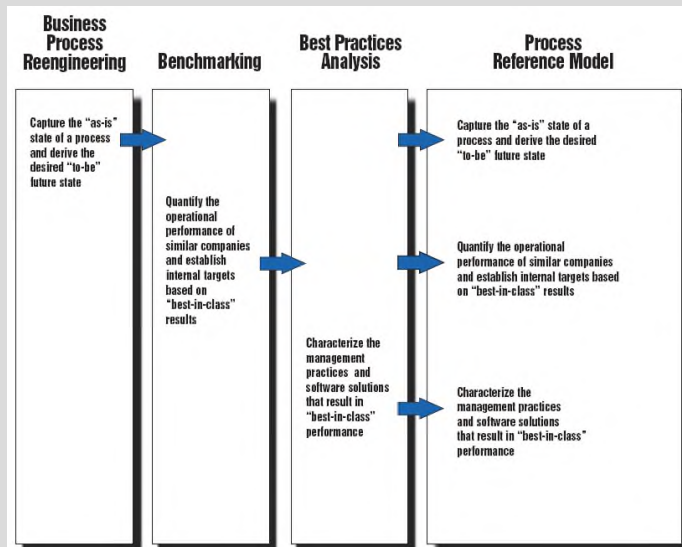
- A set of 4 complementary frameworks covering
- Product management : not developed yet
 - Product design : *Design Chain Operational Reference (DCOR)*
 - Sales and support : *Customer Chain Operational Reference (CCOR)*
 - Supply chain : *Supply Chain Operational Reference (SCOR)*



Only SCOR will be considered today

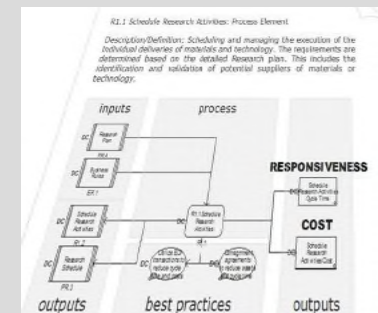
Process framework

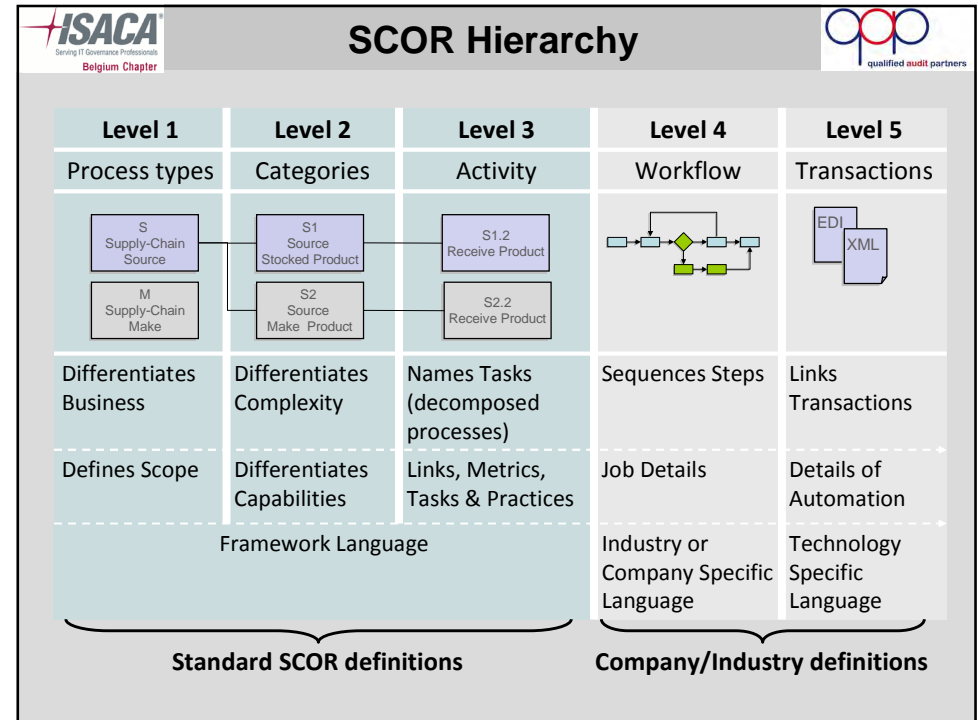
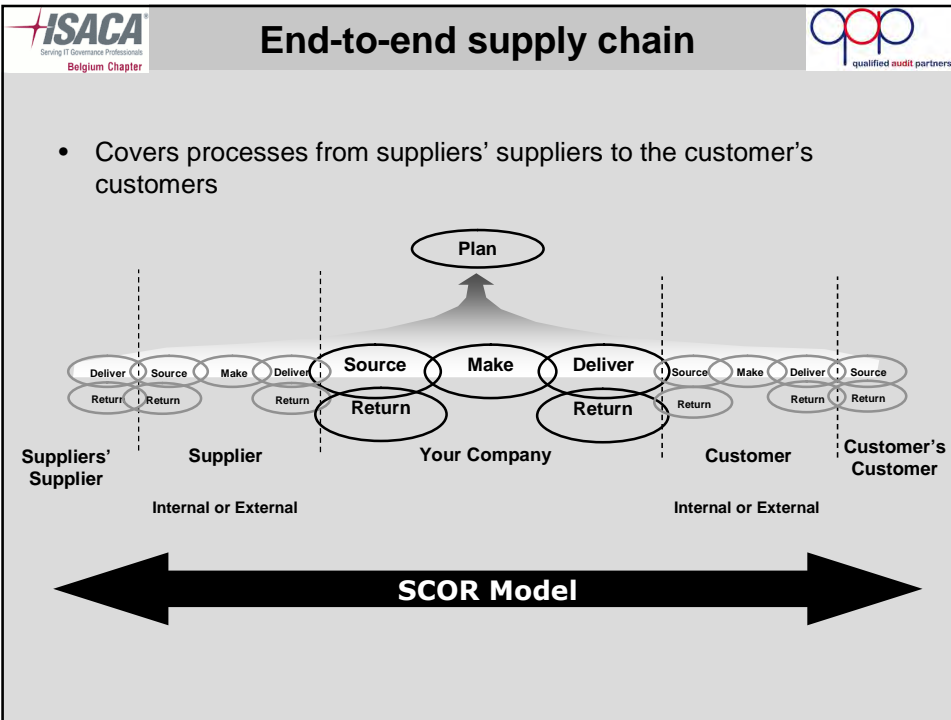
Integrate process reengineering, benchmarking and best practices into a cross-functional framework:



Process framework

- Cross-functional framework
 - Standard processes: Plan, Source, Make, Deliver, Return, Enable
 - Standard metrics: Perfect Delivery, Cash Cycle Time, Supply-Chain Cost, etc
 - Standard practices EDI ; Collaborative Planning, Forecasting, and Replenishment (CPFR); Cross-Training, etc
- Pre-defined relationships between processes, metrics and practices

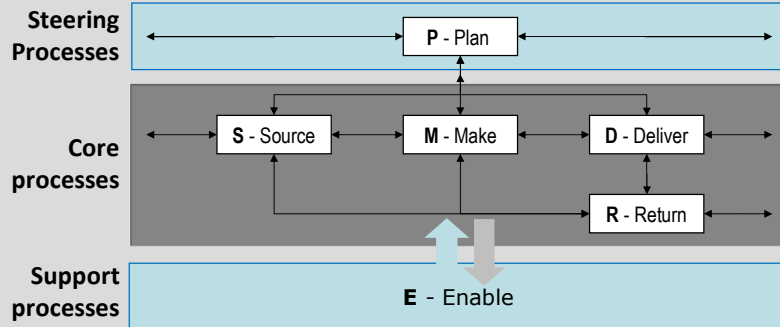




Level 1 - SCOR process types

The Supply-Chain is built up of distinct processes:

- Planning [P];
- Mainstream processes:
 - material sourcing [S];
 - make (build or service) [M];
 - deliver [D]; and
 - returns flows [R]; and
- A collection of linked enabling processes [E].

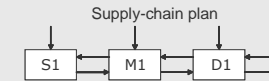


Level 2 - Capability Models

3 process categories for different capabilities

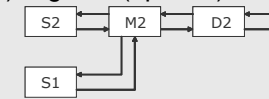
Category 1 : Stocked Product (S1, M1, D1) E.g. food products

- Usually Inventory Driven (Plan)
- Standard Material Orders
- High Fill-rate, short turnaround



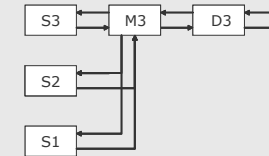
Category 2 : Make-to-Order (S2, M2, D2) E.g. car (options)

- Customer Order Driven
- Configurable Materials
- Longer turn-around times



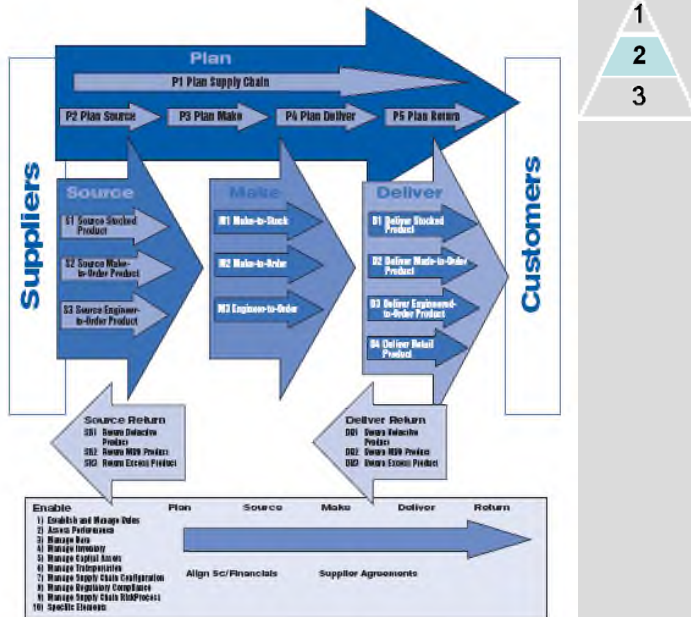
Category 3 : Engineer-to-Order (S3, M3, D3) E.g. house

- Customer Requirements Driven
- Sourcing New Materials
- Longest long lead-times, low fill rates



Level 2 process categories

Overview of level 2 process categories



Communicating Models

Communicate at the right level:

- Level-1 models:
 - Senior management, e.g. EVP, CIO, CFO
 - Focus on where work is performed
 - Level-2 models:
 - Product line management, e.g. VP, Director
 - Focus on the type of work that is performed
 - Level-3 models:
 - Middle management, e.g. Director, and Managers
 - Focus on how work is performed
- Communicating too-low detail to too-high organization focus causes problems
- Refer to the SCOR Hierarchy we had at the beginning of the class

SCOR metrics : KPI's

SCOR metrics are operational metrics

- Linked to business objectives
- Highlights the gap in performance
- Standard metrics allow benchmarking
(across departments, companies and industries)
- Change over time is more valuable than a single sample




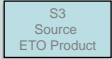
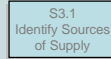
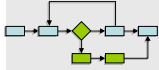

SCOR Metrics : Level 1- the Starting Point

SCOR metrics: Standard Level 1 Metrics

	Attribute	Metric (level 1)
Customer	Reliability	Perfect Order Fulfillment
	Responsiveness	Order Fulfillment Cycle Time
	Agility (Flexibility)	Supply Chain Flexibility
		Supply Chain Adaptability
Cost	Supply Chain Management Cost	
	Cost of Goods Sold	
Internal	Assets	Cash-to-Cash Cycle Time
		Return on Supply Chain Fixed Assets
		Return on Working Capital



SCOR Best Practices

Level 1	Level 2	Level 3	Level 4	Level 5
Scope	Configuration	Activity	Workflow	Transactions
				
Differentiates Business	Differentiates Complexity	Names Tasks	Sequences Steps	Links Transactions
Defines Scope	Differentiates Capabilities	Links, Metrics, Tasks and Practices	Job Details	Details of Automation
ERP System	Collaborative Planning	EDI Engineering Catalogues	Initiate & Receive EDI Catalogue	Catalog Transactions

Standard SCOR practices

Implementation of Practice

SCOR Best Practices Evaluation

SCOR contains over 200 best practices today

- Do you need to implement all 200+ in your company?

	Low Risk	High Risk
High Return	quick wins -High impact -inexpensive	sponsor issue -High impact -Expensive
Low Return	nice to have -Low impact -Inexpensive	consider carefully -Low impact -Expensive

How to determine fit?

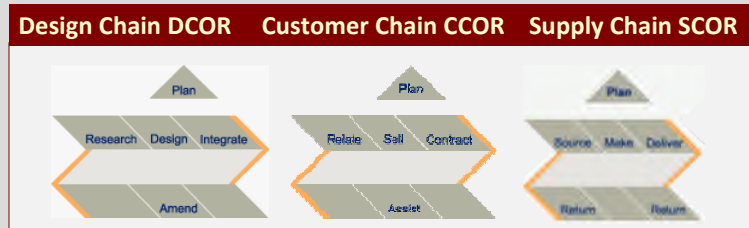
- For each best practice
 - Determine risk
 - Determine return
- Pin in the quadrant



- Implement a best practice
ONLY IF it makes sense for your specific processes, business, or industry.

Summary

Integrated model for Design, Customer and Supply chain reference models, containing steering, core and support processes, further decomposed



Summary

	Level			Sample
	#	Description	Schematic	
Supply-Chain Operations Reference-model	1	Top Level (Process Types)		S Supply-Chain Source
	2	Configuration Level (Process Categories)		S1 Source Stocked Product
	3	Process Element Level (Decompose Processes)		S1.2 Receive Product
	4	Implementation Level (Decompose Process Elements)		
Not in Scope	5	Transactions		

	Attribute
Customer	Reliability
	Responsiveness
	Agility (Flexibility)
Internal	Cost
	Assets

Part II Case Study



Case study

- Customer environment
 - Non food consumer good manufacturer
 - Supply chain process :
from raw materials up to finished goods,
distributed from central warehouse through a retailer network
 - Merger of 2 companies : 2 manufacturing sites α and β
 - Same production process
 - Different customer items
 - 2 different IT platforms
 - α : OS/400 – DB2 with in-house made application platform
 - β : AIX/Oracle with ERP package
- Customer request
 - Evaluation of current IT systems
 - Recommendation for future systems
 - Keep both systems
 - Harmonise on one of both systems
 - Implement new system

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Case approach

1. Phases

2. Methodology

Based on mgt interviews	AS IS model IT audit Supply chain audit	TO BE model Recommendations
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3. Frameworks

CobiT (IT Processes)
SCOR (Supply chain processes)

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1. Requirements

- Input : Executive management interviews
- Requirements classified into 2 categories
 - Harmonisation between both sites
 - integrated sales mgt (e.g. product catalogs, prices)
 - unique product creation (for both sites)
 - integrated purchase management (for both sites)
 - integrated order processing <- 1 client order
 - comparable costing model (for both sites)
 - integrated management reporting (1 set of mgt reports)
 - New functionalities
 - B2B e-commerce facilities (customer request)

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2. Understanding

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Requirements → Understanding → Innovation

AS IS process model
IT audit based on CobiT
Supply chain assessment based on SCOR processes

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Business model

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The generic business model

Steering processes

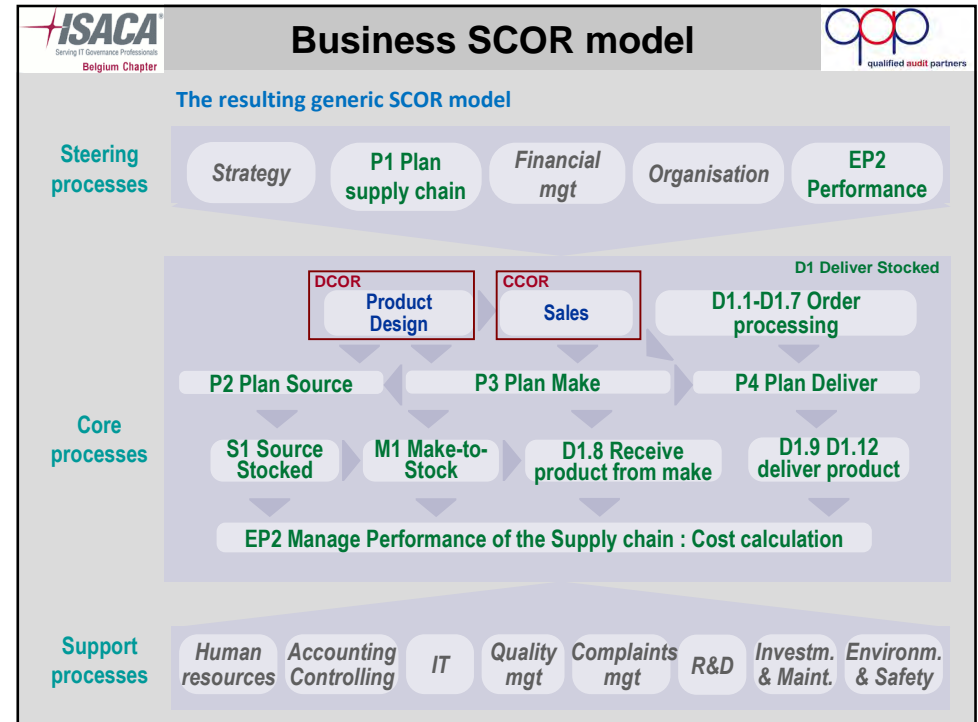
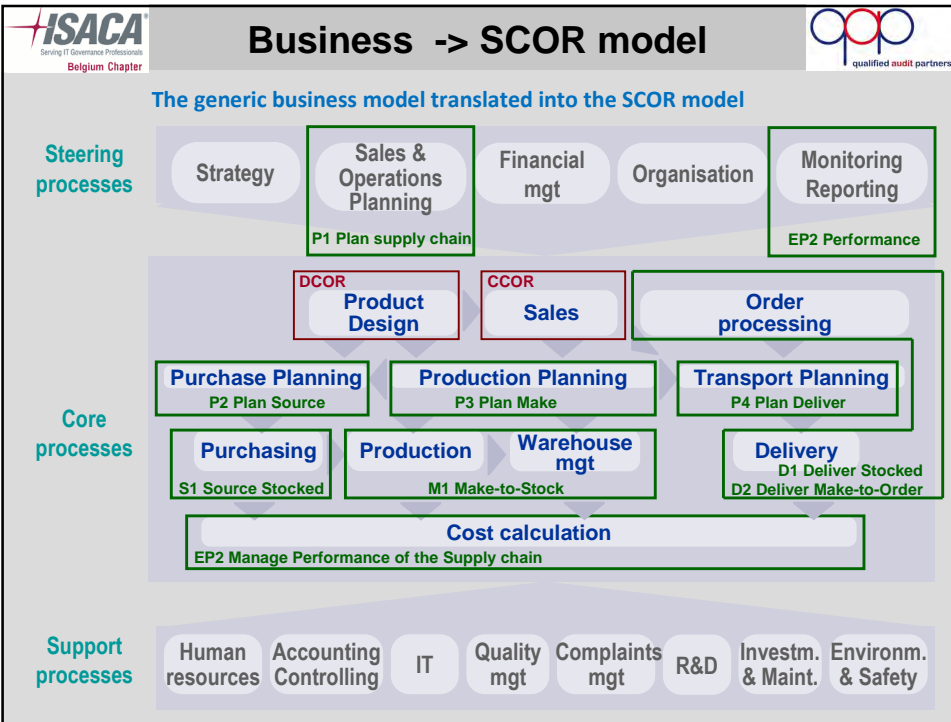
- Strategy
- Sales & Operations Planning
- Financial mgt
- Organisation
- Monitoring Reporting

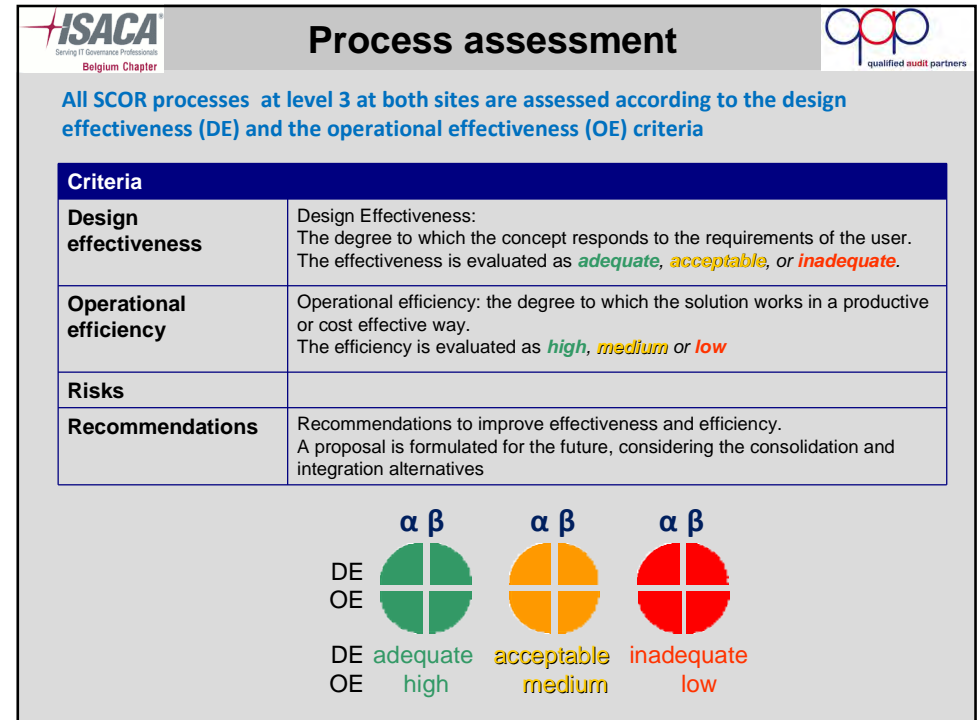
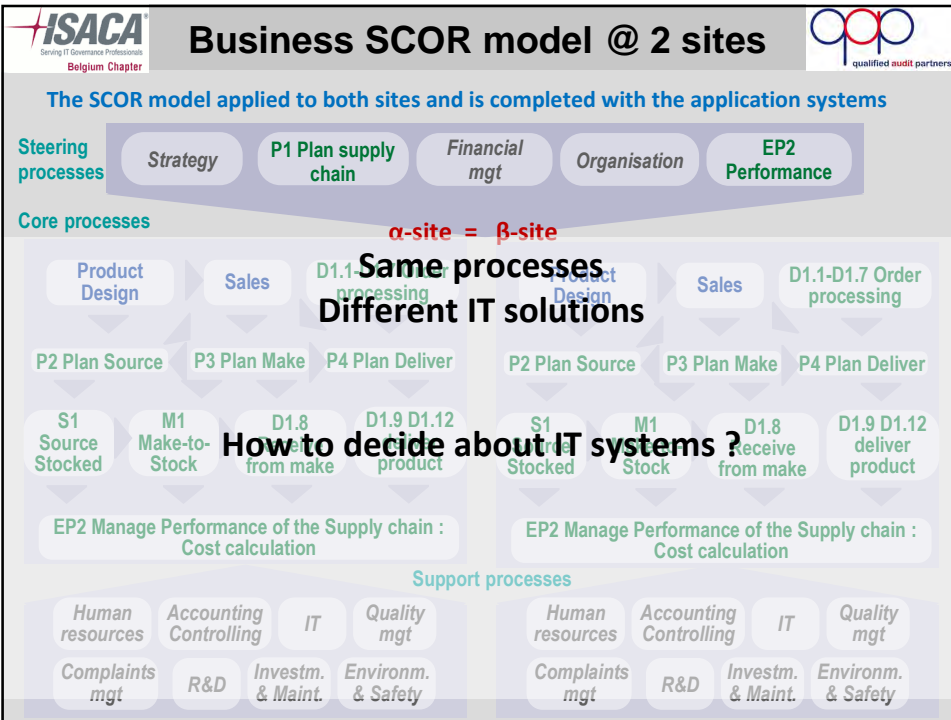
Core processes

- Product Design → Sales → Order processing
- Purchase Planning → Production Planning → Transport Planning
- Purchasing → Production → Warehouse mgt → Delivery
- Preparation order, Production order, Product labelling (under Production)
- Warehouse receipt, Inventory mgt (under Warehouse mgt)
- Picking/Packing, Transport, Invoicing (under Delivery)
- Cost calculation

Support processes

- Human resources
- Accounting Controlling
- IT
- Quality mgt
- Complaints mgt
- R&D
- Investm. & Maint.
- Environm. & Safety





- At both sites, the IT department is audited according a selection of the major CobiT processes (summary on next slide)
- Application solutions assessed against business requirements
 - *In house solution* (α)
 - High fit with current business requirements
 - User friendliness low -> heavy investment
 - Long term evolution questionable (limited in-house resources)
 - No multi site management (e.g. Order processing, production planning)
 - *ERP package* (β)
 - Business fit : 80 % requirements -> costly customisation
 - Bad implementation (user training, customisation...)
 - Provides new requirements : e-commerce, mgt reporting
 - Multi site management

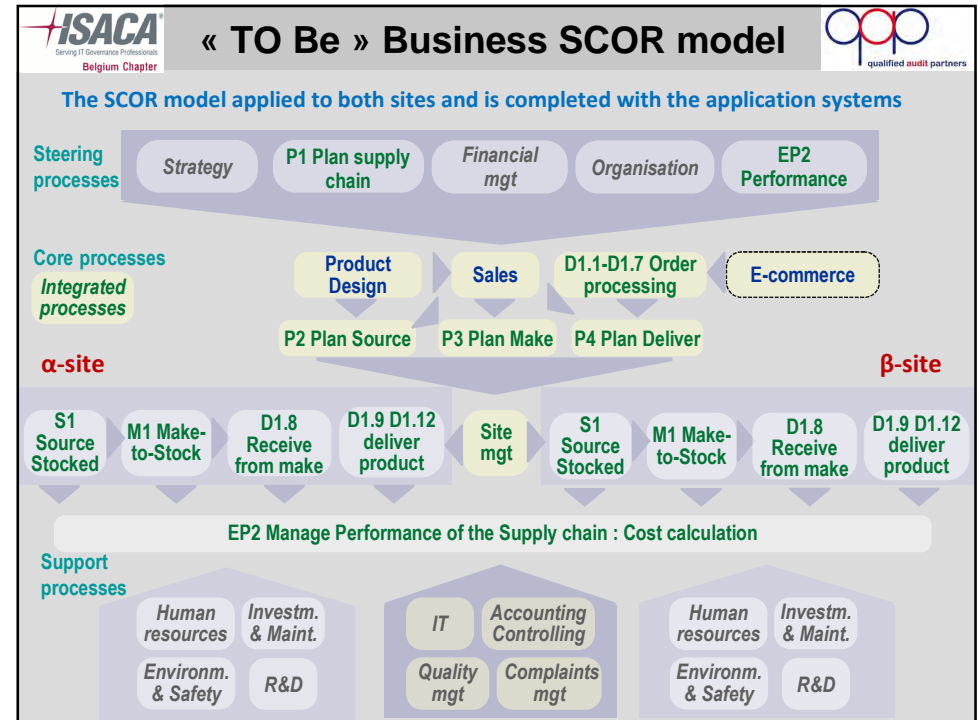
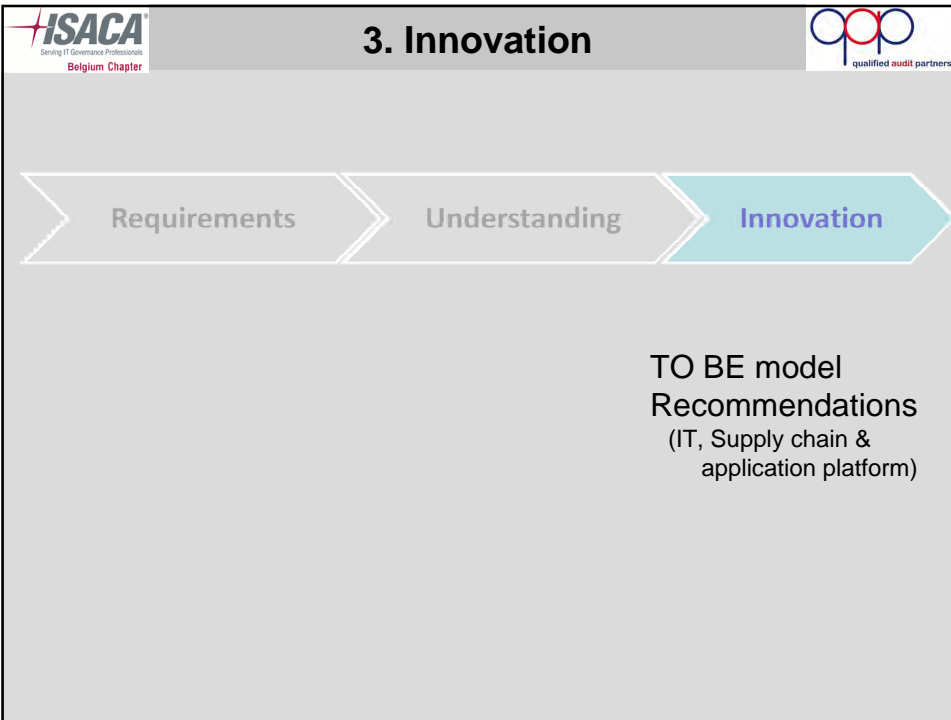
	Supply Chain		IT	
	α -site (custom)	β -site (package)	α -site	β -site
Strategy			Green	Yellow
Value creation			Yellow	Yellow
Risk management			Green	Red
Process management (DE)	Yellow	Red	Yellow	Red
Resource utilisation (OE)	Green	Yellow	Green	Yellow
Monitoring	Green	Yellow	Yellow	Red

Similar results between business and IT assessment

α -site : design of processes is **acceptable** and efficiency is **high**
 β -site : design of processes is **inadequate** and efficiency is **medium**

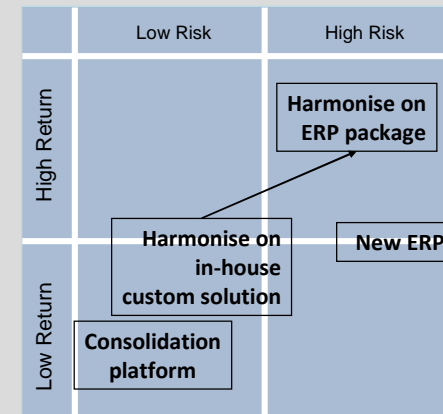
For SCOR the assessment is made at process level and varies between the different processes.

IT assessment result at β -site is **unsatisfactory**



- **Organisational change**
 - Integration of IT departments (α & β) at group level
 - Alignment of organisation on business model
(source/make/deliver & support processes)
 - Integration of support processes , such as accounting, controlling, quality mgt, complaint mgt at group level
- **IT recommendations**
 - related to project management, disaster recovery...
 - Infrastructure centralisation and harmonisation
- **Process integration**
 - Integration of product design, sales, order processing and source mgt (procurement) -> impacting application platform to allow integrated processes
- **Application platform**
(next slide)

- Several options were evaluated based on assessment of the current solutions against the requirements.



- **Management decision:**
 - Short term harmonisation (1 year) on in-house custom for quick wins
 - Long term harmonisation (3 years) on ERP package

- SCOR useful for assessment of the supply chain against standard processes and/or best practices
- Integrated audit based on CobiT and SCOR ensures business oriented recommendations

Questions

Full presentation available on www.qap.eu



The Supply Chain

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Audit & IT
alignment
with SCOR & CobiT

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