Collaborative Business Initiative (cBusiness)
or
The new business strategy: Collaborative Lifecycle Management

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We supply quality to the automotive industry. World-wide

Center for Evolving IT in Networked Organisations (INO)
- Cooperation between Business School and Engineering School
- Synergy between economics, business informatics
  and computer science

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- Industrial background

- cBusiness Vision

- Why now?

- Industry future watch

- Industry status

- Solutions overview

- Threats

- Challenges driving Innovation

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Business areas	Main product groups	Customers

Gearshifts

- Automatic gearshift systems
- Manual gearshift systems

- Mercedes-Benz
- Opel
- Renault
- Saab
- Vauxhall
- Volvo Car

Seat Comfort

Climate seats

Lumbar and lateral supports

Head restraints

- Heated seats
- Ventilated seats

- Lumbar supports
- Lateral supports

- Head restraints

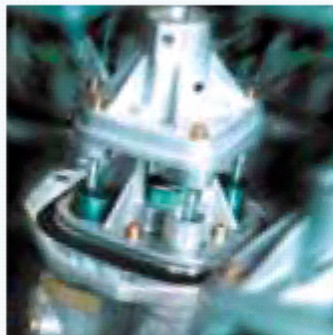Almost all the vehicle manufacturers in the world, and the seat producers:
- Araco
- Delta
- ECA
- Faurecia
- Grammer
- Intier
- Isringhausen
- Lear
- Takanichi
- Treves

Business areas

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Commercial Vehicle Systems

Clutch actuation

Hydraulic gearshifts

Mechanic gearshifts

Stabilising rods

Couplings

Components

Main product groups

- Clutch servos
- Master cylinders
- Servomasters

- Hydraulic gearshifts
- Mechanic gearshifts
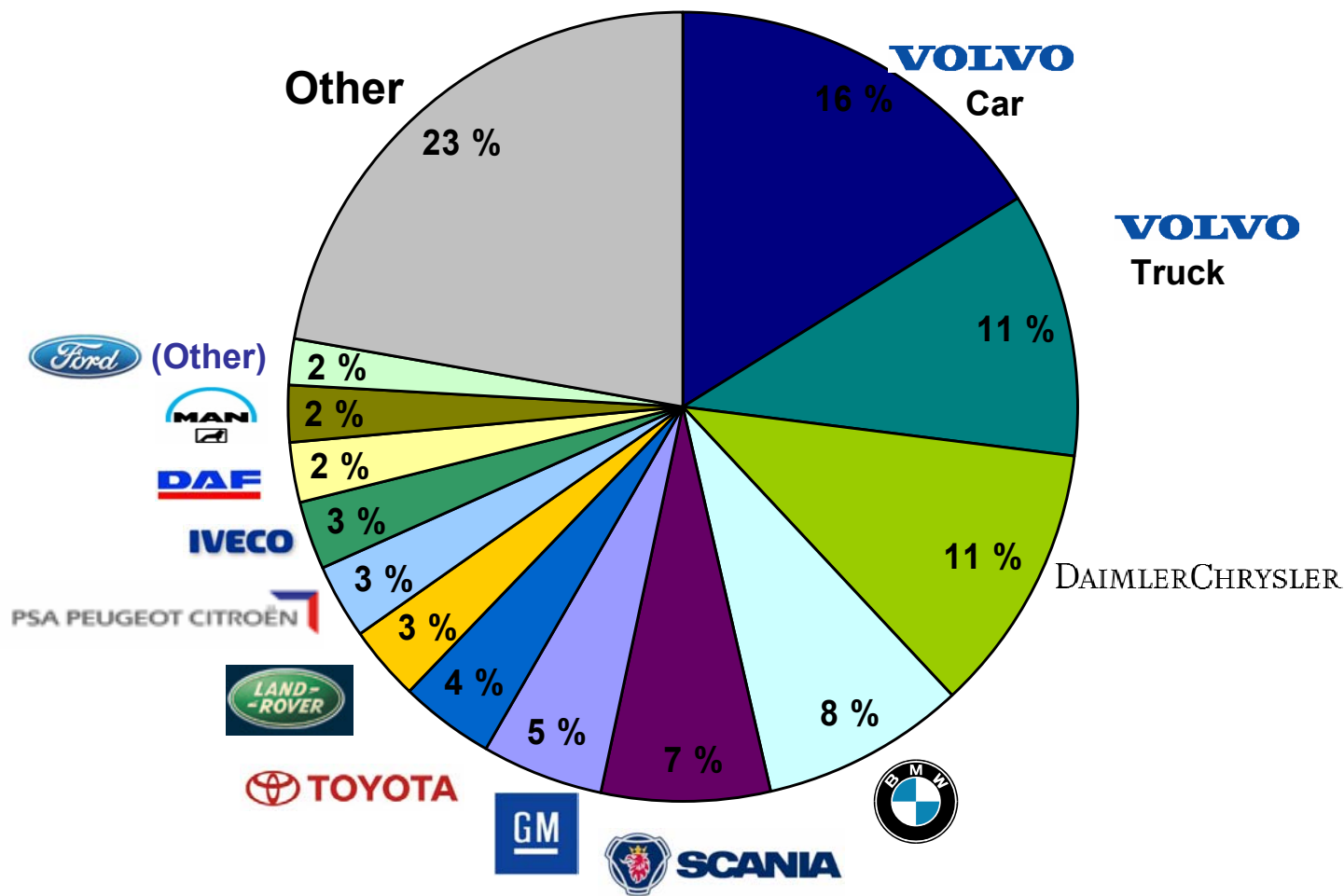
- Anti-roll bars
- Reaction rods
  Components
- Couplings

Customers

- Bova
- Daewoo
- DAF
- Dennis
- Eaton
- ERF
- EvoBus
- FAW
- Foden
- Hyundai
- Irisbus
- Isuzu
- Iveco
- Leyland
- MAN
- Mercedes-Benz
- MCI
- Porsche
- Prevost
- Renault V.I.
- Scania
- Seddon Atkinson
- SISU
- Steyr
- Volvo

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Other
23 %

VOLVO
Car
16 %

VOLVO
Truck
11 %

11 %
DAIMLERCHRYSLER

8 %

7 %

5 %

4 %

3 %

3 %

3 %

2 %

2 %

2 %

(Other)

Ford
MAN
DAF
IVECO
PSA PEUGEOT CITROËN
LAND-ROVER
TOYOTA
GM
SCANIA
BMW

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ERICSSON · SAS Group · SÖDRA · SCANIA · FORDONS KOMPONENT GRUPPEN

ABB · TeliaSonera · VOLVO · Autoliv · VATTENFALL

IBM · DASSAULT SYSTEMES · SAP · IDS SCHEER · UGS Transforming the process of innovation

Fraunhofer Institut Software- und Systemtechnik ISST · HÖGSKOLAN I JÖNKÖPING · HÖGSKOLAN SKÖVDE

cBusiness Vision

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- Today's situation:
  To develop a new product or service usually requires various competences including traditional service and engineering fields (electrical, mechanical, computer, material, etc.) and contributions from financial and service sectors. Even multi-national enterprises often do not have all these competences in-house.

- cBusiness is the vision of
  radically improved business environment by rigorous reuse of knowledge and extreme flexibility in collaboration.

- cBusiness aims at
  integration of all stakeholders into a flexible and dynamic flexible organisation covering the complete lifecycle of products or services and of the associated business services.

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- The industry demands reduced lead time for
  - product & service development
  - product & service maintenance
- The capacity of new products & services has no limit, it is only a question of imagination
- Europe feels a threat from other regions
  - Crises knowledge is the mother of development
- Basic infrastructure possibility is coming
  - ESA / SOA etc.
  - Other projects results (like MAPPER, Athena)
- Fear of sharing
- Knowledge of other projects – gives respect!
  - Esperanto
  - OEM "VPN solutions"

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- **Tries with own stand alone solution**
  - Move suppliers into their own network (VPN)
  - Merge with important companies

- **Worries about Intellectual Properties ownership**
  - "We will never let anyone see our complete CAD models"
  - We can't let our specifications be read by anyone else
  - Our production information is our secret, our product contribution

- **Focus on OEM and 1 tier solutions**
  - 1 tier shall provide with their specific solutions to more than one OEM, by using best practice between different OEM demands, without destroying the uniqueness of the product to different OEMs.

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- Sharing ideas – "bank of ideas"
  - Reuse
  - Google for Product & Services
- Sharing models
- Sharing descriptions (80% MS Office, 20% CAD)
  - Standards
  - Verifications
  - Test results
- Sharing administration
  - Common project management
  - Task list
  - Protocol
  - Time plan
- Similar process for change management

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- Shared product description
  - Models
  - Specification
  - Follow up results (test and deviations)
- Shared production description (shop floor)
  - Line layout
  - Tooling and machine description
  - Monitoring

Sustainability

- ## Use of resources nearby
  - Does anyone need the recourses
    - Ad hoc free
    - "Planned" free capacity
    - "Obsolete" material / products
  - Resource cluster
    - Use of "return transport"
    - New re-cycling opportunity

- ## Google for product and service opportunities
  - Like today possibility of searching for cheap flights, consumer products etc.

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Just a small selection:

- reduction of set-up time when forming collaboration, including organizational, technical and social elements.

- Share knowledge with partners and at the same time protect intellectual property rights

- Integration of product/service lifecycle with enterprise development and individual competence development

- New business models accommodating collaboration and competition

- New technologies and approaches for collaborative design, development and planning

- Demand and purpose-oriented supply of knowledge and information

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- **Reduced time to market**
  - New product will come faster to market
    - Future product with today unknown functions
    - Environment savers ?
    - Energy "solutions" ?
    - Healthcare "solutions" ?

- **Reduced resource use**
  - Re-use
  - Re-cycling
  - Usage of the capacity into Europe

- **Enable small intelligent cells**
  - OEM => 1 Tier => 2 Tier
  - Deep integration with independent companies

Questions?

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- And some reserve slides

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- **Common processes**
  - Agreement on a basic way of describing the business process
    - Normally this is quite common – but often want different companies to describe themselves uniquely…

- **Intellectual properties (IP)**
  - The solution of sharing IP is very often to hide parts of the information
  - Respect for different companies and protections into laws that give quick response of IP theft need to be established

- **Communication protocol**
  - ESA – Enterprise Service Architecture
  - SOA – Service Oriented Architecture
  - Portal (web) enabled workplace
    - User shall not recognize "where" they work – they shall "just" work

Logistics chain

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- **Transport management**
  - Optimize transport (environment friendly)

- **Warehouse management**
  - Common view of complete safety stock

- **Volume control**
  - Shared planning of capacity, short and long term

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- **Shared production monitoring**
  - Follow up disturbances into equipments
  - Follow up cycle quantities

- **Shared SPC (statistic production control)**
  - Reaction on deviation
  - Shared knowledge of trends

- **Shared detailed production planning**
  - Planning of recourses for maintenance
  - Reuse of recourses nearby

Sustainability

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- To create the welfare of tomorrow, the local (countries) and regional (EU) government need to focus resources on faster development than other regions.

- To ensure a substantial growth, new way need to be established and this is a focus for all different areas, from industrial over health care and public sector processes.

- The information society need to continue further on and change into the integrated society – this is a new era

- The c-business process needs to be established together with "IT solution", c-business is the symbiosis!