



SAP's Interest in Software Agents

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SAP Corporate Research



Contents of Talk

- **Who is SAP?**
- **What is SAP doing with Software Agents?**
- **What is SAP planning to do? The Survey Project**
- **What areas are of interest to the Survey?**

SAP - 29 Years in the Business of E-Business



COMPANY

**12 Million Users. 44,500 Installations.
1,000 Partners. 21 Industry Solutions.**

» **Founded in 1972, SAP is the recognized leader in providing collaborative e-business solutions for all types of industries and for every major market.**

Headquartered in Walldorf, Germany, SAP is the world's largest inter-enterprise software company, and the world's third-largest independent software supplier overall. SAP employs over 26,000 people in more than 50 countries, all of them dedicated to providing high-level customer support and services.

Global and Local Customers - A Selection



COMPANY



Supply Chain Management and Software Agents

“ORLANDO, Fla - June 13, 2001 - SAP (NYSE: SAP) today announced the enhancement of mySAPSupply™ Chain Management (mySAP SCM) to manage adaptive supply chain networks through use of **new intelligent agent technology**. Adaptive supply networks are an evolution of supply chains and will uniquely combine global visibility, event management, adaptive planning and execution, and dynamic collaboration. An adaptive supply network will provide business partner integration and dynamic collaboration through portals and exchanges.”

-- <http://www.wdf.sap-ag.de/company/press/press.asp?pressID=179>

More Information:

-- <http://www.wdf.sap-ag.de/solutions/scm/evolution.asp>

-- <http://www.wdf.sap-ag.de/c-bs/>

Supply Chain Management and Software Agents

Background Reading: Cap Gemini Ernst & Young Center for Business Innovation, *Growing the Adaptive Enterprise*

-- <http://www.cbi.cgey.com/journal/issue4/index.html>

Article from BiosGroup: *Adaptive Cargo Routing at Southwest Airlines:*

<http://www.cbi.cgey.com/journal/issue4/features/manifest/index.html>

BiosGroup and the Santa Fe Institute:

-- <http://www.biosgroup.com/>

-- <http://www.santafe.edu/>

Other light reading:

1. Complexity: the Emerging Science At the Edge of Order and Chaos

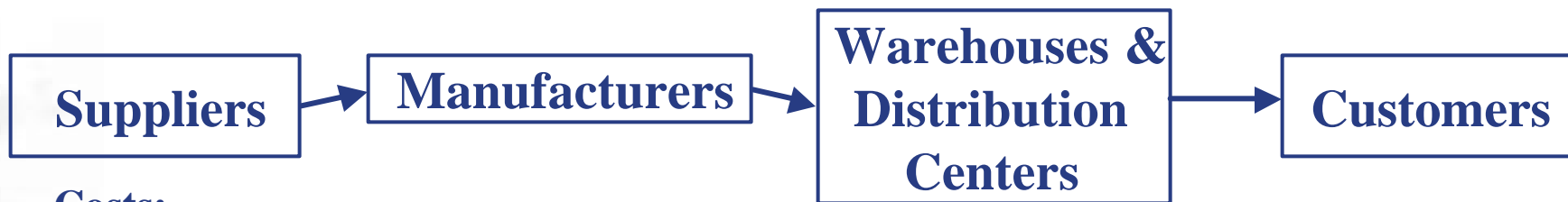
by [M. Mitchell Waldrop](#)

2. Chaos : Making a New Science

by [James Gleick](#)

Supply Chain Management

- Produce and distribute the right quantities, to the right locations at the right time
- Minimize system-wide costs while satisfying service level agreements



Costs:

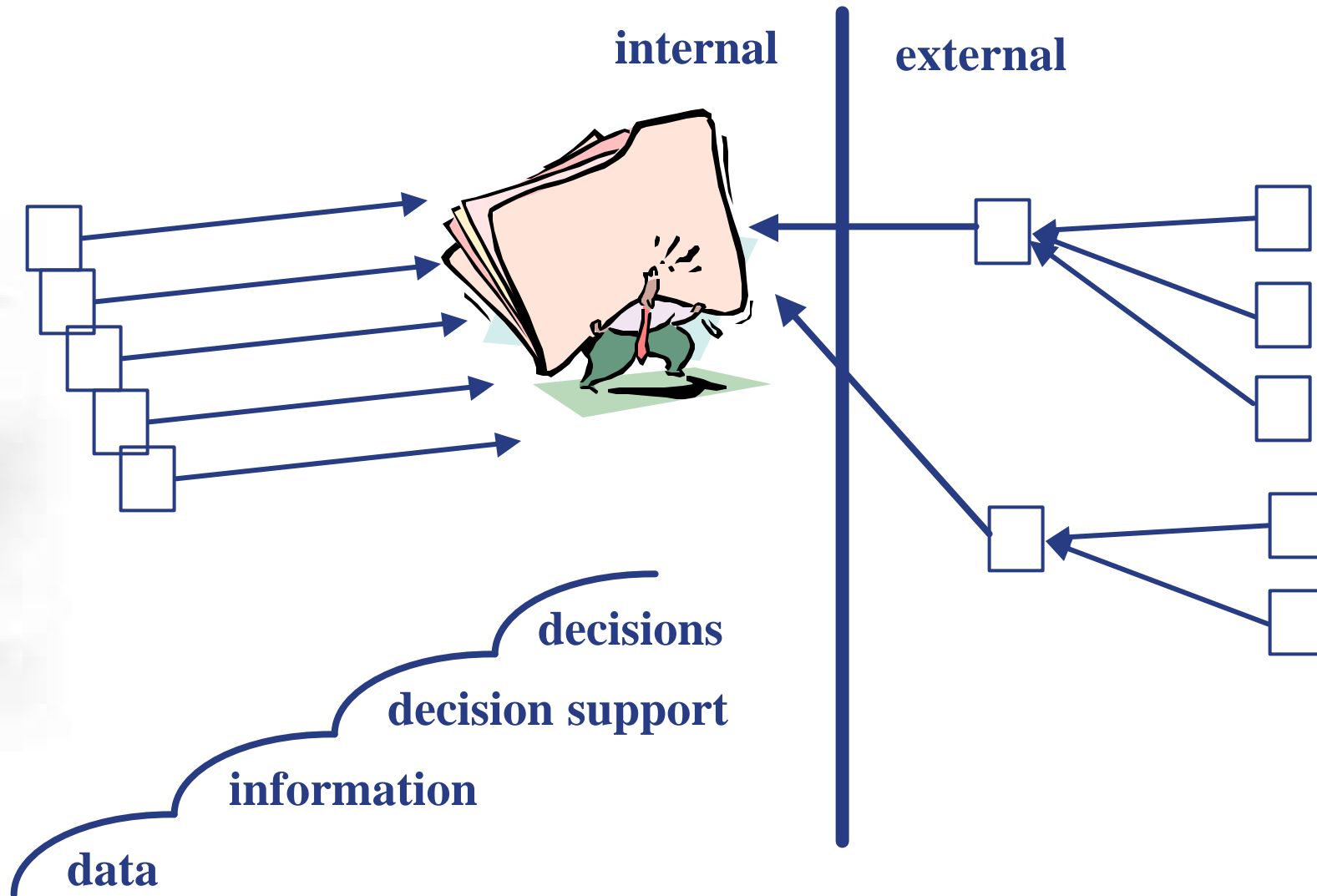
Material
Manufacturing
Transportation
Inventory
(future) End-of-life

Key Issues:

Distribution Network Configuration
Inventory Control
Distribution Strategies, e.g. cross-docking or inventory holding
Supply Chain Integration and Strategic Partnering
Product and Process Design
Information Technology and Decision-Support Systems
Customer Value

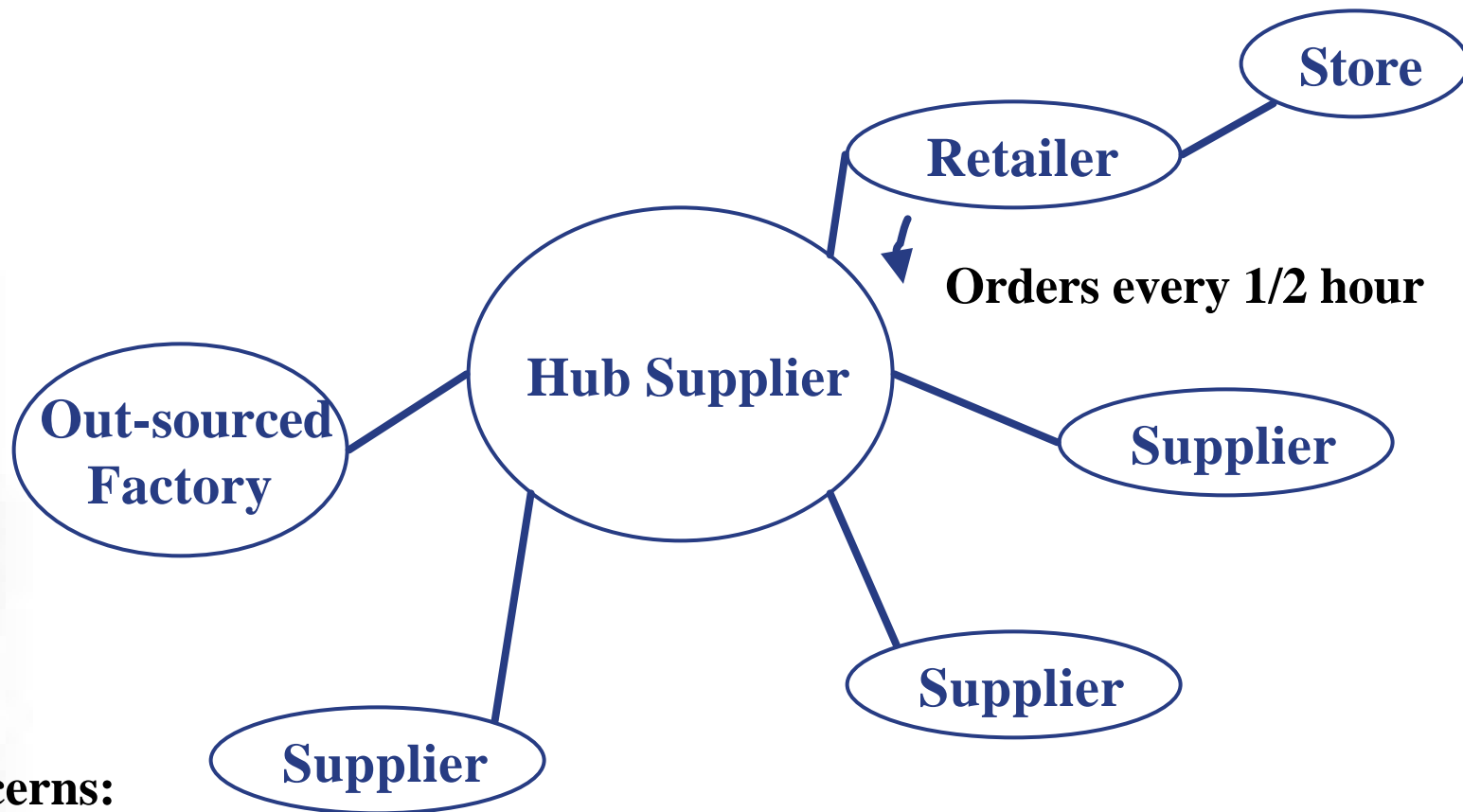
Based on: Designing and Managing the Supply Chain : Concepts, Strategies, and Cases
by [David Simchi-Levi](#), [Philip Kaminsky](#), [Edith Simchi-Levi](#)

The Decision Value Chain



➤ **DATA: 350 identifiers for the same product in 350 ERP systems**

Example Supply Chain Hub



Concerns:

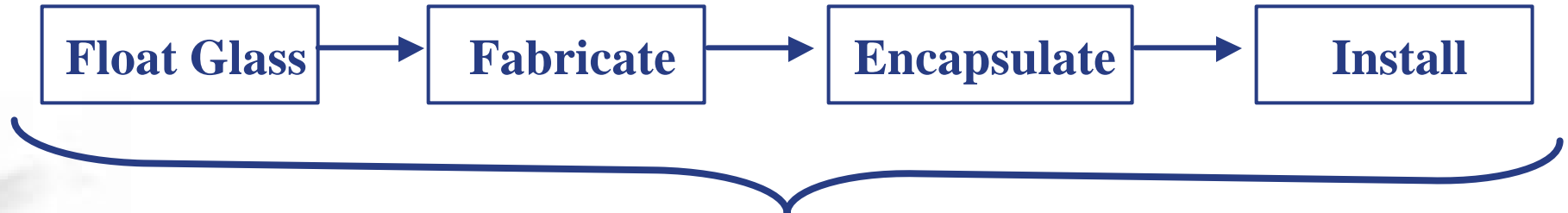
- (semi-) automating orders to suppliers, factories based on events (e.g. orders)
- detecting and reacting to events, or combined events, in the supply chain
- predicting future behavior
- sharing information without giving away secrets
- detecting and eliminating waste

Cross-company process design: big savings



Making and Installing a Car Windscreen, 4 Co.

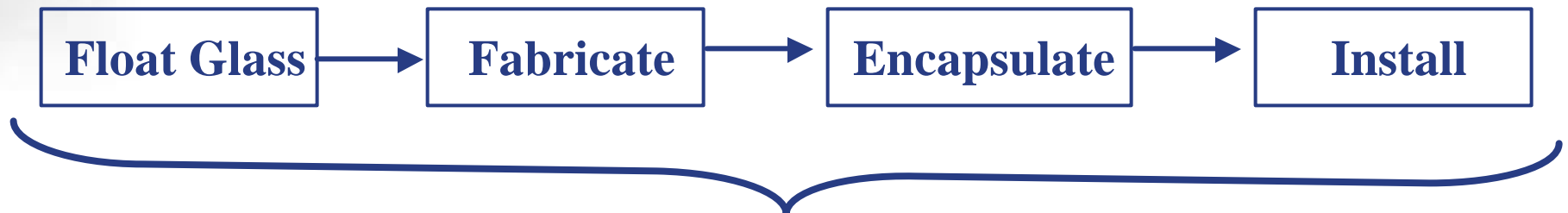
reheat, 25% waste



100 days and 2,400 kilometers

From: James P. Womack, Daniel T. Jones, 1996: *Lean Thinking*, Simon & Schuster, pages 91-93

New Process



2 days and 80 kilometers

The Survey Project

SAP is conducting a survey of business applications of AI and Agents with the intent to initiate advanced development projects or government research projects.

**To have your project included in the survey please e-mail me for templates.
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Extend e-Business Leadership Through Focus



SOLUTIONS

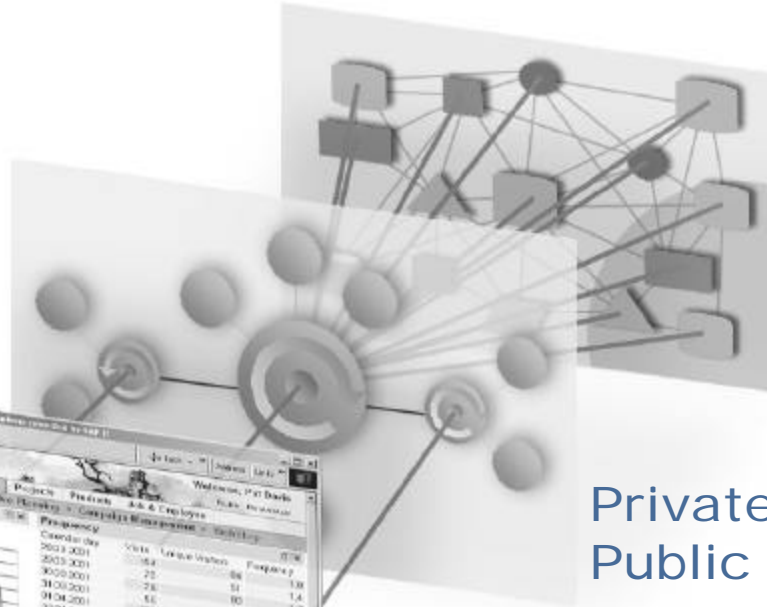
To be the #1 e-business solution provider with a main focus on the following areas:

- **Enterprise Portals**
- **Marketplaces and Private Exchanges**
- **Customer Relationship Management**
- **Supply Chain Management**
- **Product Lifecycle Management**

Integration Through Portals and Exchanges



SOLUTIONS



Networked
Software
Components



Private and
Public Exchange

Portal

mySAP.com Solutions



SOLUTIONS

Cross-Industry Solutions

- mySAP Enterprise Portals
- mySAP CRM
- mySAP SCM
- mySAP Exchanges*
- mySAP E-Procurement
- mySAP BI
- mySAP PLM
- mySAP HR
- mySAP Financials
- mySAP Mobile Business

Industry Solutions

- mySAP Aerospace & Defense
- mySAP Automotive
- mySAP Banking
- mySAP Chemicals
- mySAP Consumer Products
- mySAP Engineering & Construction
- mySAP Financial Service Provider
- mySAP Healthcare
- mySAP High Tech
- mySAP Higher Education & Research
- mySAP Insurance
- mySAP Media
- mySAP Mill Products
- mySAP Mining
- mySAP Oil & Gas
- mySAP Pharmaceuticals
- mySAP Public Sector
- mySAP Retail
- mySAP Service Providers
- mySAP Telecommunications
- mySAP Utilities

Infrastructure and Services

- mySAP Technology
- mySAP Services
- mySAP Hosted Solutions

* mySAP Exchanges is delivered through MarketSet™, a joint solution from SAPMarkets & Commerce One.

Area of High Interest: Usability

Usability and Intelligent User Interfaces

An Interface-Agent Workshop is planned at AAMAS 2002 in July:

<http://lia.deis.unibo.it:8080/conf/aamas2002/ix.jsp?key=workshops>

Current Research Areas:

**Application Integration,
Advanced Customer Interfaces,
Collaboration,
Smart Items (RFID Technology),
Mobile Computing,
e-learning**

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Thank You!