



SAP RESEARCH

SYSTEMATIC THOUGHT LEADERSHIP FOR INNOVATIVE BUSINESS

Small and Medium-Sized Enterprise's Benefits of Next Generation e-Business Platforms

Presenter: Marta Raus

marta.raus@sap.com, mraus@ethz.ch

SAP Research, CEC St. Gallen, Switzerland

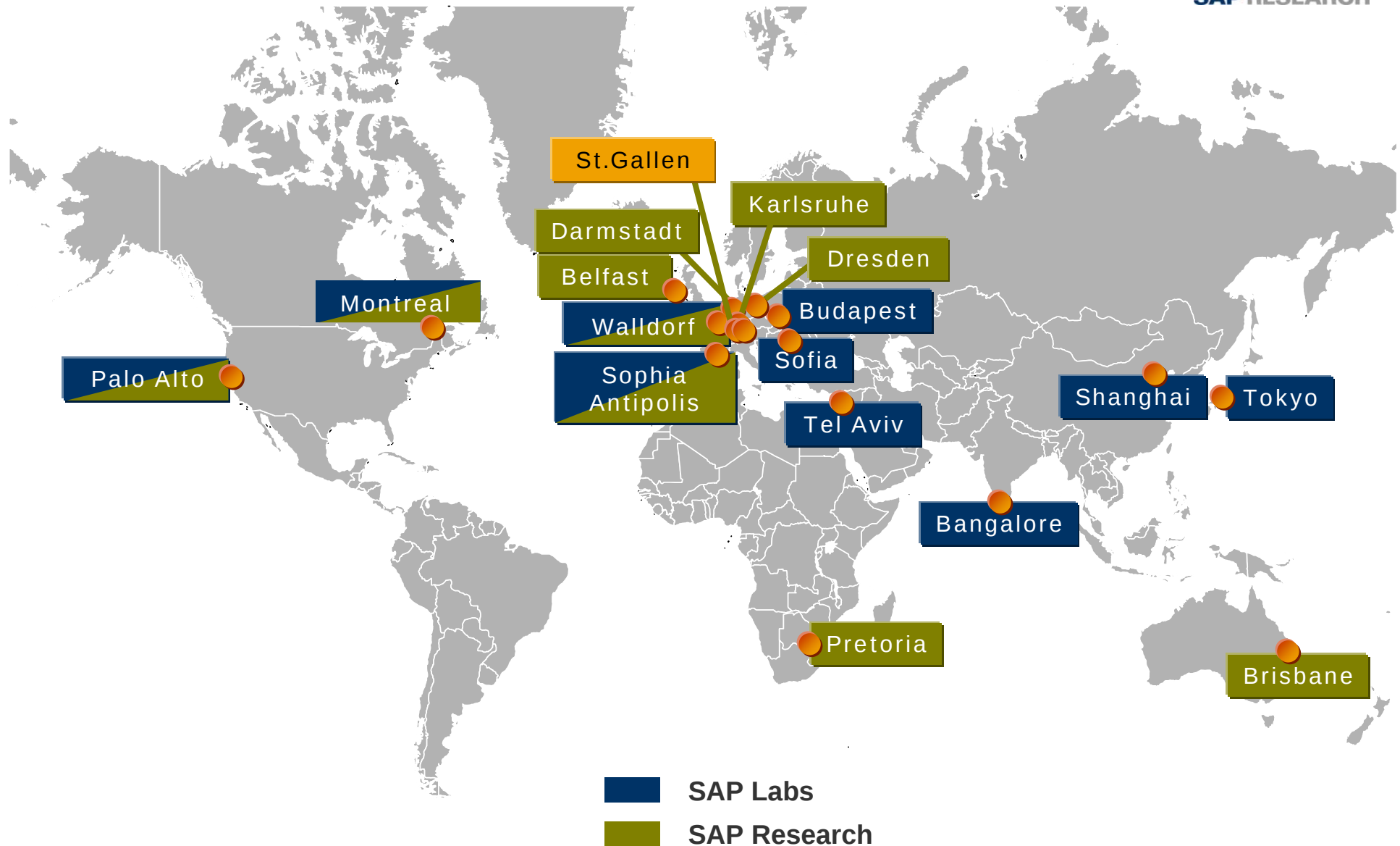
Chair of Technology and Innovation Management, Swiss Federal
Institute of Technology Zurich, Switzerland

THE BEST-RUN BUSINESSES RUN SAP



Research- & Development Network of SAP

SAP RESEARCH



Smart Items Research

Enabling the real-time enterprise by bridging the gap between the real and the digital world

Focus topics

- AUTO-ID, Sensor Nets & embedded systems technologies
- distributed hierarchical Auto-ID infrastructure

Security & Trust

Provision of user-centric security solutions for dynamic, collaborative, and adaptive inter-enterprise business scenarios

Focus topics

- authorization and trust management
- secure services & composition
- security engineering

Knowledge People Interaction

Integrated knowledge-intensive collaborative working environments

Focus topics

- e-learning and KM technologies
- knowledge integration and innovation
- smart human computer interaction

Software Engineering & Architecture

Computer assisted engineering practices for SAP's standard development processes

Focus topics

- Model-driven SW development
- SW quality and non-functional aspects
- SW architectures for virtualization

Business Process Mgmt & Semantic Interoperability

Highly configurable process-oriented applications and semantically enriched service-oriented composition of applications

Focus topics

- Collaborative bus. processes between enterprises
- Model-driven architectures & engineering
- Semantic Web Services; ▪ SoA
- Interoperability of applications & enterprises

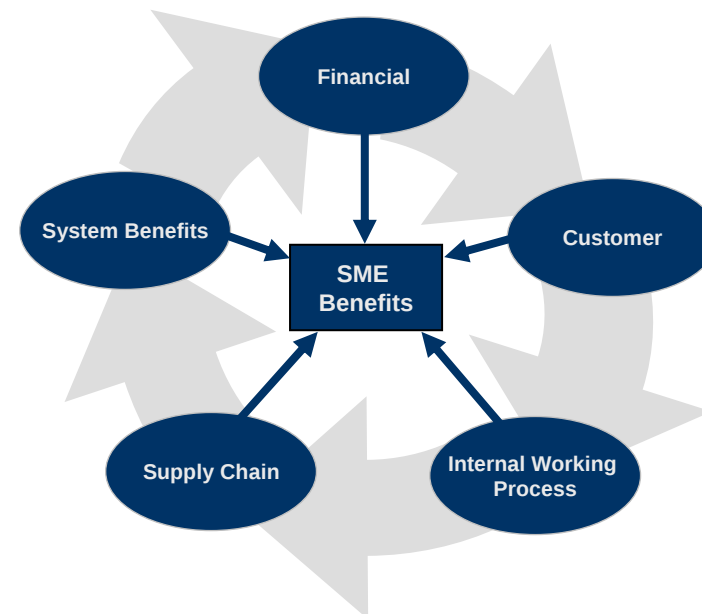
This presentation summarizes the paper :

“Small and Medium Enterprise’s Benefits of Next Generation E-Business Platforms”

written by Volker Hoyer, Till Janner, Peter Mayer, Marta Raus, and Christoph Schroth

Paper structure:

- Intro and Motivation
- GENESIS E-Business Platform
- Analysis Framework





SAP RESEARCH

Small and Medium-Sized Enterprise (SME)

GENESIS E-Business Platform

Analysis Framework

Summary

THE BEST-RUN BUSINESSES RUN SAP



■ SME definition European Commission

- < 250 employees and
- < € 50 million annual turnover or
- < € 43 million annual balance sheet total

■ E-Business at SMEs

- Limited penetration of E-Business technologies
- Missing know-how and limited financial resources
- Paper-based approach

■ Next Generation E-Business Platform: GENESIS

- EU-funded project
- Consortium of several partners from across Europe
(universities, software vendors, governmental institutions, and SMEs)



SAP RESEARCH



Small and Medium-Sized Enterprise (SME)

GENESIS E-Business Platform

Analysis Framework

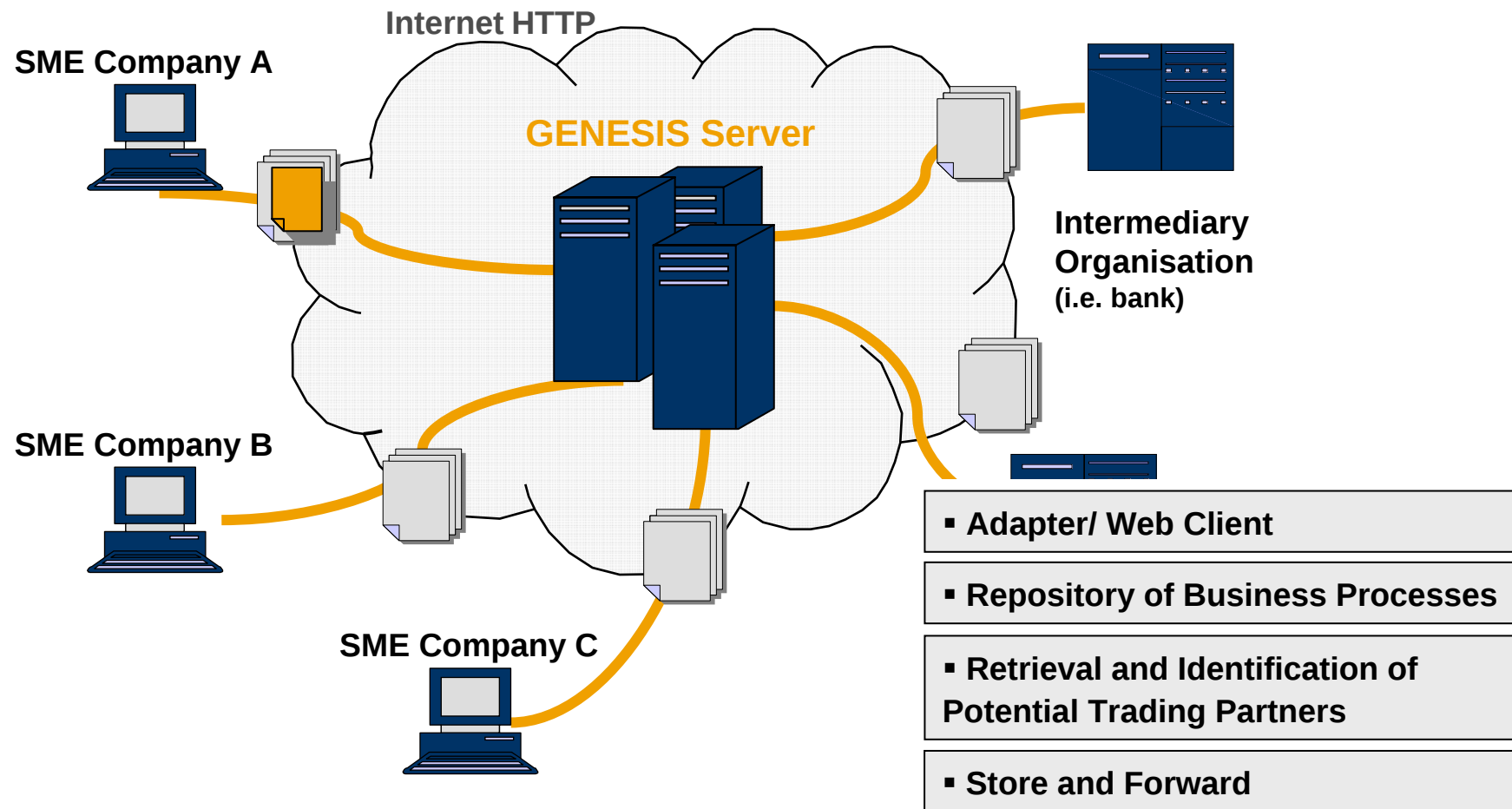
Summary

THE BEST-RUN BUSINESSES RUN SAP



Enterprise Application Interoperability

Integration for SMEs, Governmental Organizations and Intermediaries in the New European Union



<http://www.genesis-ist.eu>



SAP RESEARCH

Small and Medium-Sized Enterprise (SME)

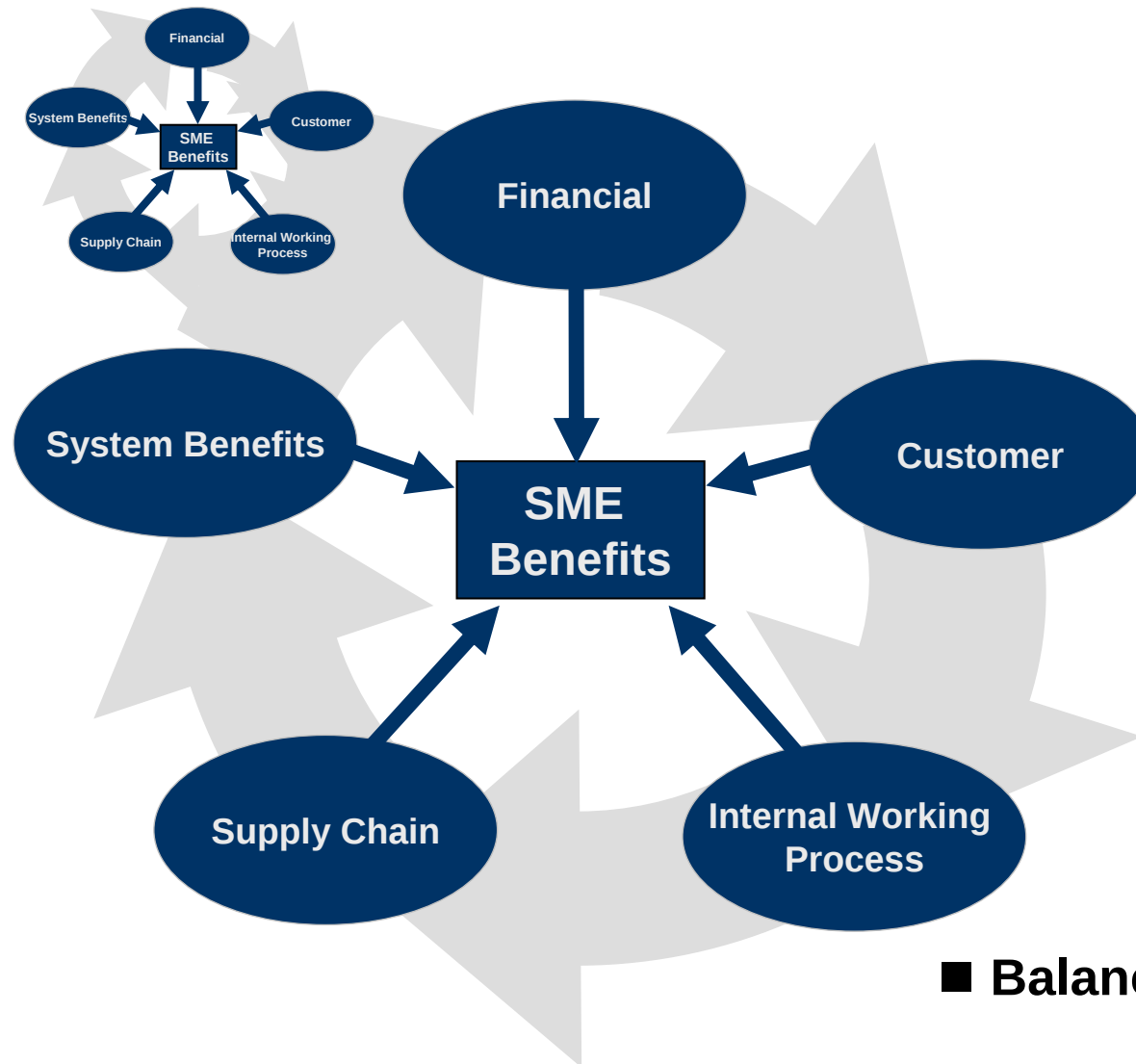
GENESIS E-Business Platform

Analysis Framework

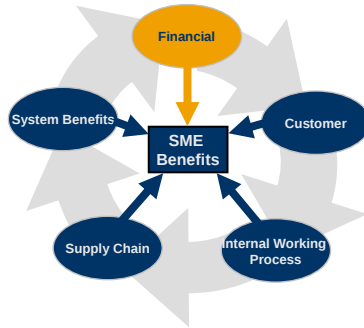
Summary

THE BEST-RUN BUSINESSES RUN SAP



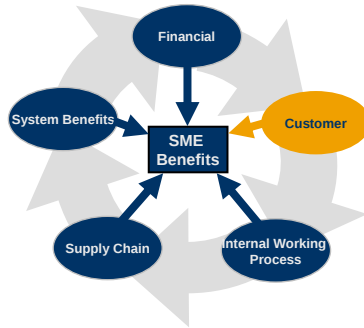


- Balanced Scorecard concept
- 5 perspectives



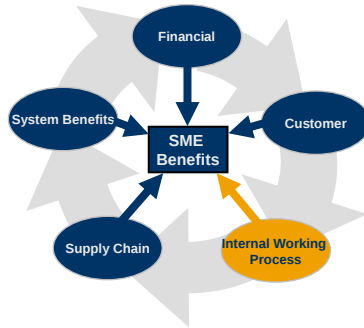
Financial Perspective

Criteria	GENESIS Benefits
Operating Costs as a Percent of Revenue	▪ Reduction of operating costs ▪ Increased revenue by additional potential business partners
Efficiency Gains (Value-Added Productivity)	▪ Elimination of manual activities ▪ Faster transaction processing ▪ Work on more strategic issues
Days of Inventory on Hand	▪ Inventory reduction by expedited processes ▪ Reduced lead-time and cycle time
Cash to Cash Cycle	▪ Expedited processes



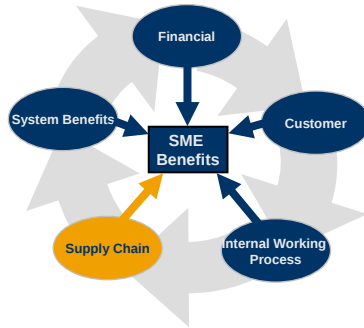
Customer Perspective

Criteria	GENESIS Benefits
User's Responsiveness to Customers' Demands	▪ Customer focused through flexibility ▪ Semi-automatic negotiation about conditions for business interactions
Likelihood of On-Time Delivery	▪ Streamlined and automated information flow ▪ Availability of Real-Time information
Transparent Business Data Documentation	▪ Public central repository ▪ No manual intervention in processing and transmitting documents



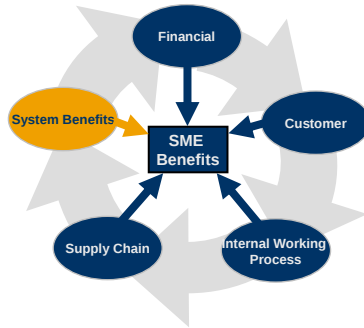
Internal Working Process Perspective

Criteria	GENESIS Benefits
Real-Time Processing	▪ Direct electronic communication to business partners ▪ Seamless information flow (no media breaks)
Error-Free Processing	▪ Elimination of human efforts ▪ Minimizing of sources of error
Forecasting Process	▪ Up-to-date information of the demand changes ▪ Improved data quality → reduced lead time
Employee Satisfaction	▪ Reduction of manual work ▪ Efficient communication and collaboration



Supply Chain Perspective

Criteria	GENESIS Benefits
Supply Chain Visibility	▪ Seamless integration to trading partners ▪ Real-Time information across enterprise borders
Supply Chain Variability	▪ Elimination of the bullwhip effect ▪ Enhance the forecasting processing
Potential for Collaboration (CPFR)	▪ Information sharing in a common public repository ▪ Easy integration of new potential business partners ▪ Identifying of new business partners



System Benefits Perspective

Criteria	GENESIS Benefits
Reusability and Scalability	▪ Living platform (evolutionary approach) ▪ Model-based by graphical notation ▪ Drag-and-Drop modeling tool for data and business processes
System Automation	▪ Semi-automatic negotiation phase → Reduce the manual intervention
Future Technical Compatibility	▪ Service-Oriented Architecture (SOA) ▪ Connected by an adapter to legacy systems
Global Standards – Compatibility with International Partners	▪ United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) Standards



SAP RESEARCH



Small and Medium-Sized Enterprise (SME)

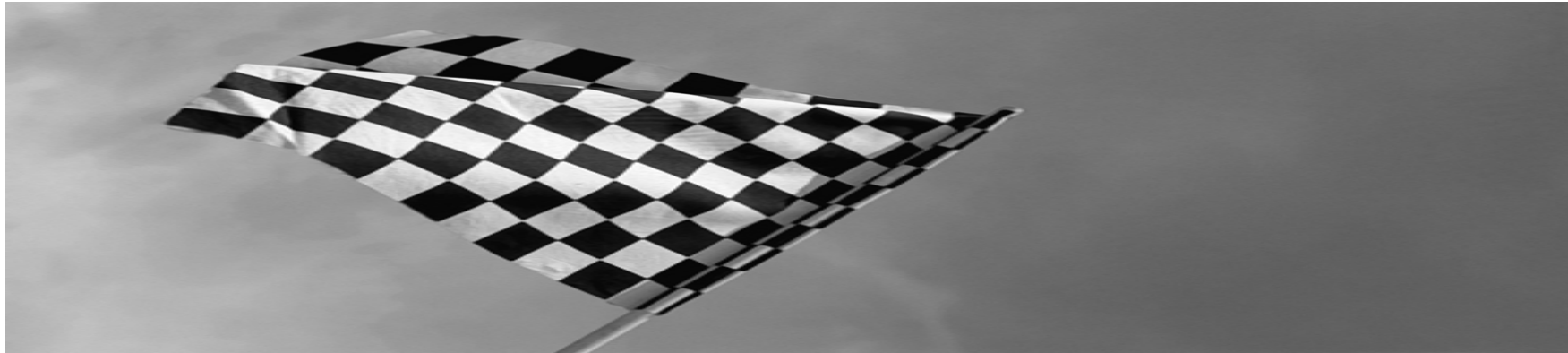
GENESIS E-Business Platform

Analysis Framework

Summary

THE BEST-RUN BUSINESSES RUN SAP





- The novel e-Business platform supports **collaborative** and **evolutionary** modeling, **semi-automatic negotiation** and finally execution of business process improving and facilitating business transactions among SMEs.
- The envisioned architecture is still under **development** and therefore this work serves as a foundation for the evaluation of its business value.
- Future studies will include **quantitative aspects** and will be conducted in parallel to the implementation of the new platform.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP AG. The information contained herein may be changed without prior notice.

Some software products marketed by SAP AG and its distributors contain proprietary software components of other software vendors.

Microsoft, Windows, Outlook, and PowerPoint are registered trademarks of Microsoft Corporation.

IBM, DB2, DB2 Universal Database, OS/2, Parallel Sysplex, MVS/ESA, AIX, S/390, AS/400, OS/390, OS/400, iSeries, pSeries, xSeries, zSeries, z/OS, AFP, Intelligent Miner, WebSphere, Netfinity, Tivoli, and Informix are trademarks or registered trademarks of IBM Corporation.

Oracle is a registered trademark of Oracle Corporation.

UNIX, X/Open, OSF/1, and Motif are registered trademarks of the Open Group.

Citrix, ICA, Program Neighborhood, MetaFrame, WinFrame, VideoFrame, and MultiWin are trademarks or registered trademarks of Citrix Systems, Inc.

HTML, XML, XHTML and W3C are trademarks or registered trademarks of W3C®, World Wide Web Consortium, Massachusetts Institute of Technology.

Java is a registered trademark of Sun Microsystems, Inc.

JavaScript is a registered trademark of Sun Microsystems, Inc., used under license for technology invented and implemented by Netscape.

MaxDB is a trademark of MySQL AB, Sweden.

SAP, R/3, mySAP, mySAP.com, xApps, xApp, SAP NetWeaver, and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP AG in Germany and in several other countries all over the world. All other product and service names mentioned are the trademarks of their respective companies. Data contained in this document serves informational purposes only. National product specifications may vary.

The information in this document is proprietary to SAP. No part of this document may be reproduced, copied, or transmitted in any form or for any purpose without the express prior written permission of SAP AG.

This document is a preliminary version and not subject to your license agreement or any other agreement with SAP. This document contains only intended strategies, developments, and functionalities of the SAP® product and is not intended to be binding upon SAP to any particular course of business, product strategy, and/or development. Please note that this document is subject to change and may be changed by SAP at any time without notice.

SAP assumes no responsibility for errors or omissions in this document. SAP does not warrant the accuracy or completeness of the information, text, graphics, links, or other items contained within this material. This document is provided without a warranty of any kind, either express or implied, including but not limited to the implied warranties of merchantability, fitness for a particular purpose, or non-infringement.

SAP shall have no liability for damages of any kind including without limitation direct, special, indirect, or consequential damages that may result from the use of these materials. This limitation shall not apply in cases of intent or gross negligence.

The statutory liability for personal injury and defective products is not affected. SAP has no control over the information that you may access through the use of hot links contained in these materials and does not endorse your use of third-party Web pages nor provide any warranty whatsoever relating to third-party Web pages.

Weitergabe und Vervielfältigung dieser Publikation oder von Teilen daraus sind, zu welchem Zweck und in welcher Form auch immer, ohne die ausdrückliche schriftliche Genehmigung durch SAP AG nicht gestattet. In dieser Publikation enthaltene Informationen können ohne vorherige Ankündigung geändert werden.

Die von SAP AG oder deren Vertriebsfirmen angebotenen Softwareprodukte können Softwarekomponenten auch anderer Softwarehersteller enthalten.

Microsoft®, WINDOWS®, NT®, EXCEL®, Word®, PowerPoint® und SQL Server® sind eingetragene Marken der Microsoft Corporation.

IBM®, DB2®, DB2 Universal Database, OS/2®, Parallel Sysplex®, MVS/ESA, AIX®, S/390®, AS/400®, OS/390®, OS/400®, iSeries, pSeries, xSeries, zSeries, z/OS, AFP, Intelligent Miner, WebSphere®, Netfinity®, Tivoli®, Informix und Informix® Dynamic ServerTM sind Marken der IBM Corporation.

ORACLE® ist eine eingetragene Marke der ORACLE Corporation.

UNIX®, X/Open®, OSF/1® und Motif® sind eingetragene Marken der Open Group.

Citrix®, das Citrix-Logo, ICA®, Program Neighborhood®, MetaFrame®, WinFrame®, VideoFrame®, MultiWin® und andere hier erwähnte Namen von Citrix-Produkten sind Marken von Citrix Systems, Inc.

HTML, DHTML, XML, XHTML sind Marken oder eingetragene Marken des W3C®, World Wide Web Consortium, Massachusetts Institute of Technology.

JAVA® ist eine eingetragene Marke der Sun Microsystems, Inc.

JAVASCRIPT® ist eine eingetragene Marke der Sun Microsystems, Inc., verwendet unter der Lizenz der von Netscape entwickelten und implementierten Technologie.

MaxDB ist eine Marke von MySQL AB, Schweden.

SAP, R/3, mySAP, mySAP.com, xApps, xApp, SAP NetWeaver, und weitere im Text erwähnte SAP-Produkte und -Dienstleistungen sowie die entsprechenden Logos sind Marken oder eingetragene Marken der SAP AG in Deutschland und anderen Ländern weltweit. Alle anderen Namen von Produkten und Dienstleistungen sind Marken der jeweiligen Firmen. Die Angaben im Text sind unverbindlich und dienen lediglich zu Informationszwecken. Produkte können länderspezifische Unterschiede aufweisen.

Die in dieser Publikation enthaltene Information ist Eigentum der SAP. Weitergabe und Vervielfältigung dieser Publikation oder von Teilen daraus sind, zu welchem Zweck und in welcher Form auch immer, nur mit ausdrücklicher schriftlicher Genehmigung durch SAP AG gestattet.

Bei dieser Publikation handelt es sich um eine vorläufige Version, die nicht Ihrem gültigen Lizenzvertrag oder anderen Vereinbarungen mit SAP unterliegt. Diese Publikation enthält nur vorgesehene Strategien, Entwicklungen und Funktionen des SAP®-Produkts. SAP entsteht aus dieser Publikation keine Verpflichtung zu einer bestimmten Geschäfts- oder Produktstrategie und/oder bestimmten Entwicklungen. Diese Publikation kann von SAP jederzeit ohne vorherige Ankündigung geändert werden.

SAP übernimmt keine Haftung für Fehler oder Auslassungen in dieser Publikation. Des Weiteren übernimmt SAP keine Garantie für die Exaktheit oder Vollständigkeit der Informationen, Texte, Grafiken, Links und sonstigen in dieser Publikation enthaltenen Elementen. Diese Publikation wird ohne jegliche Gewähr, weder ausdrücklich noch stillschweigend, bereitgestellt. Dies gilt u. a., aber nicht ausschließlich, hinsichtlich der Gewährleistung der Marktgängigkeit und der Eignung für einen bestimmten Zweck sowie für die Gewährleistung der Nichtverletzung geltenden Rechts.

SAP haftet nicht für entstandene Schäden. Dies gilt u. a. und uneingeschränkt für konkrete, besondere und mittelbare Schäden oder Folgeschäden, die aus der Nutzung dieser Materialien entstehen können. Diese Einschränkung gilt nicht bei Vorsatz oder grober Fahrlässigkeit.

Die gesetzliche Haftung bei Personenschäden oder Produkthaftung bleibt unberührt. Die Informationen, auf die Sie möglicherweise über die in diesem Material enthaltenen Hotlinks zugreifen, unterliegen nicht dem Einfluss von SAP, und SAP unterstützt nicht die Nutzung von Internetseiten Dritter durch Sie und gibt keinerlei Gewährleistungen oder Zusagen über Internetseiten Dritter ab.