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Management Summary

This document provides an overview of the of the S-Cube Web portal at Month 48 of the Network of Excellence.

Members of the S-Cube consortium:

University of Duisburg-Essen (Coordinator)	Germany
Tilburg University	Netherlands
City University London	U.K.
Consiglio Nazionale delle Ricerche	Italy
Center for Scientific and Technological Research	Italy
The French National Institute for Research in Computer Science and Control	France
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MTA SZTAKI – Computer and Automation Research Institute	Hungary
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University of Stuttgart	Germany
University of Hamburg	Germany
Vrije Universiteit Amsterdam	Netherlands

Published S-Cube documents

All public S-Cube deliverables are available from the S-Cube Web Portal at the following URL:

http://www.s-cube-network.eu/results/deliverables/

The S-Cube Deliverable Series

Vision and Objectives of S-Cube

The Software Services and Systems Network (S-Cube) will establish a unified, multidisciplinary, vibrant research community which will enable Europe to lead the software-services revolution, helping shape the software-service based Internet which is the backbone of our future interactive society.

By integrating diverse research communities, S-Cube intends to achieve world-wide scientific excellence in a field that is critical for European competitiveness. S-Cube will accomplish its aims by meeting the following objectives:

- Re-aligning, re-shaping and integrating research agendas of key European players from diverse research areas and by synthesizing and integrating diversified knowledge, thereby establishing a long-lasting foundation for steering research and for achieving innovation at the highest level.
- Inaugurating a Europe-wide common program of education and training for researchers and industry thereby creating a common culture that will have a profound impact on the future of the field.
- Establishing a pro-active mobility plan to enable cross-fertilisation and thereby fostering the integration of research communities and the establishment of a common software services research culture.
- Establishing trust relationships with industry via European Technology Platforms (specifically NESSI) to achieve a catalytic effect in shaping European research, strengthening industrial competitiveness and addressing main societal challenges.
- Defining a broader research vision and perspective that will shape the software-service based Internet of the future and will accelerate economic growth and improve the living conditions of European citizens.

S-Cube will produce an integrated research community of international reputation and acclaim that will help define the future shape of the field of software services which is of critical for European competitiveness. S-Cube will provide service engineering methodologies which facilitate the development, deployment and adjustment of sophisticated hybrid service-based systems that cannot be addressed with today's limited software engineering approaches. S-Cube will further introduce an advanced training program for researchers and practitioners. Finally, S-Cube intends to bring strategic added value to European industry by using industry best-practice models and by implementing research results into pilot business cases and prototype systems.

S-Cube materials are available from URL: http://www.s-cube-network.eu/

Table of Contents

1   Overview of the S-Cube Web Portal

The S-Cube Web Portal is one of the key means for dissemination in S-Cube. The portal is accessible at the following URL: http://www.s-cube-network.eu/.

The portal is a web site that publishes the results produced by the S-Cube members, provides access to news and events about the network and provides further information about the S-Cube consortium as well as the activities jointly carried out in the network. In addition to the public pages of the Portal, the S-Cube Web Portal provides a restricted working area, which is only accessible to the S-Cube researchers.

The figure below shows the home page of the S-Cube Web Portal as of Month 48 of the Network of Excellence. The key features presented to the visitors of the portal are highlighted.

Figure 1: Screenshot of the S-Cube Web Portal (Month 48)

2   S-Cube Web Portal Users

In general, the S-Cube Web Portal supports three types of users, or levels of access:

- **Anonymous users**: have access only to the public pages of the portal
- **Registered users**: have access to all public areas and are also granted access to additional contents: e.g., course modules and newsletter
- **Members**, i.e., people working in the teams of the beneficiaries and associate partners, have the same access as registered users and are also granted access to the private working area.

The following table shows the key performance indicators of the S-Cube web portal:

Date	01-02-2010 – 31-01-2011	01-02-2011 – 31-01-2012	Comparison
Visits	39 187	42 167	+ 7,06%
Page Views	120 327	95 576	- 20,57%
Unique Visitors	24 306	31 644	+ 30,19%
Page Rank	6 out of 10	6 out of 10	± 0
Registered Users	365	1016	+ 178%

3   Update of S-Cube Web Portal

The overall structure of the S-Cube Web-Portal has been created and updated as follows (the items of the column "Portal Area" mostly equates to the Tabbed Navigation items of the web portal navigation):

Portal Area	Up to Month 48	After Month 48
Home	RSS Feeds added Factsheet updated Added an image map with easy access to main research areas Promotion of the S-Cube book	continuous update
News	Updated regularly (e.g. reports from workshops, conferences and S-Cube events) Publication of Newsletters	continuous update
Events	Updated regularly (e.g., announcement of S-Cube and related events)	continuous update
About S-Cube	Update of contents to reflect the closing of the EDSL Target audience scoped and related to relevant content	will remain available in a sustainable form
Virtual Campus	Interlink with S-Cube virtual campus (including education and training events, material)	will remain available in a sustainable form
Collaborations	Ongoing collaborations with ICT and other projects , as well as external parties (including collaboration opportunities)	will remain available in a sustainable form
Consortium	Update: Partners Link to portal Adding Associate Members	will remain available in a sustainable form
Results	Update: Deliverables and Publications	will remain available in a sustainable form
Knowledge Model	Update of KM	will be maintained as described in deliverable IA-1.1.8

Further contents	Blog added	will remain available in a sustainable form	
	Social bookmarking added & activated		
	Created a Twitter-channel and promoted it through the sidebar of the portal		
	Syndication with other portals (via RSS feeds), specifically SSAIE portal		
	Added a new tool to manage publications and added it to the site, instead of just providing a link		
	Information and archive of publicity material ("press room")		
'Industry Outreach'	Results of the Industry questionnaire is available online (in S-Cube Workspace)	will remain available in a sustainable form	
Working Area	update	will remain available in a sustainable form	

4 Updated, Consistent Knowledge Model

4.1 Motivation

In order to ensure overall quality and consistency of the S-Cube Knowledge Model (KM), S-Cube members performed a final and a thorough review of the KM terms and definitions. With a collaborative effort, 450 KM terms have been reviewed for quality, consistency and completeness. In doing so, we followed an agreed strategy of extending the terms – where possible – with additional definitions, particularly from the Information and Communications Technology (ICT) domain.

In addition, we checked and ensured that all definitions properly refer to valid sources and are associated with competencies and scenarios (where available).

Further, we restructured the terms and definitions where necessary, as well as indicated those terms that are considered S-Cube related or S-Cube specific. Particularly, the terms in the S-Cube Quality Reference Model (QRM) are explicitly marked with a disclaimer to that end.

In brief, during the final quality review of the KM, the following actions have been performed:
- 132 terms were updated with new definitions and references;
- 136 terms went through enhancements such that the structure of the term's page and the definitions are improved;
- 86 terms in the S-Cube Quality Reference Model (QRM) were checked for quality and completeness, the structure of the pages and the definitions were improved and the terms are marked with a specific text indicating that they are S-Cube QRM terms;
- 17 terms have been changed to 'draft' (i.e., private) due to the lack of adequate references or definitions and are made only 'internally visible' for future revisions and reviews;
- 79 terms are checked and have been considered of sufficient quality.

The details of the updates and actions performed on each KM term are reported in the table below.

4.2 Overview of Updates

Term	Action Performed
Assumption	Quality checked
Business Process Analysis, Monitoring and Auditing	Quality checked
Business Process Compliance Management	Generic-Generic definition has been extended
Business Process Execution	Quality checked
Business Process Instance	Quality checked
Business Process Pattern	Quality checked
Closed SLA	Typos has been fixed in Generic-QA definition
Common Features	The term dropped (status of the term made "internal-draft" from 'public') due to lack of adequate reference source.
Compliance	A definition has been added to BPM-Generic cell.
Compliance Requirement	Quality checked
Continuous Verification	Definition has been moved from Generic-QA to BPM-Generic

Term	Action Performed
Contract Definition	Quality checked
Contract Enactment	Typos has been fixed in Generic-QA definition
Contract Establishment	Quality checked
Control	Quality checked
Control Pattern	Quality checked
Cross-Organizational Process Monitoring	Quality checked
Design for Monitoring	Quality checked
Design Principle	Additional definition has been added to the Generic-Generic Cell by referring to Wiki
Design-time Compliance Verification	BPM-Generic definition has been extended
Directive	Quality checked
Error	Additional definition has been added to the Generic-Generic Cell by referring to Wiki
Failure	Another definition has been added to the Generic-Generic Cell by referring to Wiki
Fault	Another definition has been added to the Generic-Generic Cell by referring to Wiki
Formal Specification	The Generic-Generic definition has been slightly changed to make it more generic by replacing 'wen services' by 'Systems'
Goal	Another two definitions have been added to the BP-Generic and Generic-Generic Cell
Internal Control	Another definition into Generic-Generic cell has been added, which is coming from the COSO framework and wiki
KPI Dependency Analysis	Quality checked
Monitoring Execution	Quality checked
Monitoring Mechanisms	Another definition has been added to the BP-Generic Cell by referring to Wiki
Monitoring Requirements	Quality checked
Monitoring Timeliness	Typos corrected
Open SLA	Typos has been fixed in Generic-QA definition
Predictive Monitoring	Quality checked
Process Mining	Another definition has been added into BPM-generic cell
Runtime Event	A definition has been added to BPM-Generic cell.
Runtime Verification	A BPM-Generic definition has been added
Service aspect	Structured enhanced.
Service Level Agreement Negotiation	Quality checked
Service Level Objective (SLO)	Quality checked
Service Runtime Management Process	The term dropped (status of the term made "internal-draft" from 'public') due to lack of adequate reference source.
SLA propagation	Quality checked
SLA violation	Quality checked
Social Network Analysis (SNA)	Generic-Generic definition has been slightly re-phrased
Software Quality Assurance	SWEBOK definition has been added.
Static Analysis	Definition has been moved from Generic-QA cell to Generic-Generic
Time-Soundness	Quality checked
Transactional Composite Service	The 'transactional service' term in the KM-SC-Generic definition has been linked to 'Transactional Service Model' in the Knowledge model. Additionally, the SC-ED definition has been fixed from typos

Term	Action Performed
Transactional Service Model	Quality checked
Transactional Service Pattern	Structured enhanced. A reference added.
Value Network	A definition from wikipedia has been added to BPM-Generic cell.
Accessibility	Quality checked, QRM-Note has been added, and the Structure has been improved.
Accountability	Quality checked, QRM-Note has been added, and the Structure has been improved.
Accuracy	Quality checked, QRM-Note has been added, and the Structure has been improved.
Adaptability	Quality checked, Non-QRM Definition removed, QRM-Note has been added, and the Structure has been improved.
Attractiveness	Quality checked, Non-QRM Definition removed, QRM-Note has been added, and the Structure has been improved.
Auditability	Quality checked, Non-QRM Definition removed, QRM-Note has been added, and the Structure has been improved.
Authentication	Quality checked, QRM-Note has been added, and the Structure has been improved.
Authorization	Quality checked, QRM-Note has been added, and the Structure has been improved.
Availability	Quality checked, QRM-Note has been added, and the Structure has been improved.
Bandwidth	Quality checked, QRM-Note has been added, and the Structure has been improved.
Capacity	Quality checked, QRM-Note has been added, and the Structure has been improved.
Change Cycle	Quality checked, QRM-Note has been added, and the Structure has been improved.
Compatibility	Quality checked, Non-QRM Definition removed, QRM-Note has been added, and the Structure has been improved.
Compensation	Quality checked, Non-QRM Definition removed, QRM-Note has been added, and the Structure has been improved.
Completeness	Quality checked, Non-QRM Definition removed, QRM-Note has been added, and the Structure has been improved.
Comprehensibility	Quality checked, QRM-Note has been added, and the Structure has been improved.
Confidentiality	Quality checked, QRM-Note has been added, and the Structure has been improved.
Configuration-Related Quality	Quality checked, QRM-Note has been added, and the Structure has been improved.
Content Accessibility	Quality checked, QRM-Note has been added, and the Structure has been improved.
Content perceivability	Quality checked, QRM-Note has been added, and the Structure has been improved.
Continuous Availability	Quality checked, QRM-Note has been added, and the Structure has been improved.
Cost	Quality checked, QRM-Note has been added, and the Structure has been improved.
Cost Model	Quality checked, Non-QRM Definition removed, QRM-Note has been added, and the Structure has been improved.
Coverage	Quality checked, QRM-Note has been added, and the Structure has been improved.
Data Accuracy	Quality checked, QRM-Note has been added, and the Structure has been improved.

Term	Action Performed
Data Completeness	Quality checked, QRM-Note has been added, and the Structure has been improved.
Data Encryption	Quality checked, Non-QRM Definition removed, QRM-Note has been added, and the Structure has been improved.
Data Integrity	Quality checked, QRM-Note has been added, and the Structure has been improved.
Data Policy	Quality checked, Non-QRM Definition removed, QRM-Note has been added, and the Structure has been improved.
Data Reliability	Quality checked, QRM-Note has been added, and the Structure has been improved.
Data Timeliness	Quality checked, QRM-Note has been added, and the Structure has been improved.
Data Validity	Quality checked, QRM-Note has been added, and the Structure has been improved.
Data-Related Quality	Quality checked, Non-QRM Definition removed, QRM-Note has been added, and the Structure has been improved.
Delay Variation	Quality checked, QRM-Note has been added, and the Structure has been improved.
Dependability	Quality checked, Non-QRM Definition removed, QRM-Note has been added, and the Structure has been improved.
Effectiveness	Quality checked, Non-QRM Definition removed, QRM-Note has been added, and the Structure has been improved.
Efficiency of Use	Quality checked, QRM-Note has been added, and the Structure has been improved.
Exception Handling	Quality checked, QRM-Note has been added, and the Structure has been improved.
Execution Time	Quality checked, QRM-Note has been added, and the Structure has been improved.
Failure Masking	Quality checked, QRM-Note has been added, and the Structure has been improved.
Failure Semantics	Quality checked, Non-QRM Definition removed, QRM-Note has been added, and the Structure has been improved.
Failure Tolerance	Quality checked, QRM-Note has been added, and the Structure has been improved.
Fixed Cost	Quality checked, QRM-Note has been added, and the Structure has been improved.
Flexibility	Quality checked, QRM-Note has been added, and the Structure has been improved.
Freshness	Quality checked, QRM-Note has been added, and the Structure has been improved.
Grid Workflow	Quality checked, Structure improved.
Guaranteed Messaging Requirement	Quality checked, QRM-Note has been added, and the Structure has been improved.
HCI Monitoring	Quality checked, Structure improved.
Instance Monitor	Quality checked, Structure improved.
Integrity	Quality checked, QRM-Note has been added, and the Structure has been improved.
Integrity of Adaptation	Quality checked, Structure improved.
Interaction Choreography Model	Quality checked, Structure improved.
Interconnected Interface Choreography Model	Quality checked, Structure improved.
Internet of Services (IoS)	Generic-defintion tailored. Quality checked, Structure improved.
Invasiveness of the Monitoring	Quality checked, Structure improved.

Term	Action Performed
Architecture	
IOPE	Quality checked, Structure improved.
Latency	Quality checked, QRM-Note has been added, and the Structure has been improved.
Learnability	Quality checked, QRM-Note has been added, and the Structure has been improved.
Level of Service	Quality checked, QRM-Note has been added, and the Structure has been improved.
Live Environment	General definition added from Wikipedia. Quality checked, Structure improved.
Manual Service Deployment	Quality checked, Structure improved.
Mean Prediction Error	Quality checked, Structure improved.
Model-Driven Service Composition	Quality checked.
Monitored Property	Generic definition from Wikipedia has been added. Quality checked, Structure improved.
Monitoring Architecture	Quality checked, Structure improved.
Monitoring Architecture Distribution	Quality checked, Structure improved.
Monitoring Aspect	Quality checked, Structure improved.
Monitoring in Grid	Quality checked, Structure improved.
Monitoring Information Gathering	Quality checked, Structure improved.
Monitoring Infrastructure	Quality checked, Structure improved.
Monitoring Perspective	General definition from Wikipedia has been added. Quality checked, Structure improved.
Monitoring Specification	Quality checked, Structure improved.
Monitoring Subject	Quality checked, Structure improved.
Monitoring Usage	Quality checked, Structure improved.
Multi-Modal Transaction	Quality checked, Structure improved.
Negotiable QoS Dimensions	Quality checked, Structure improved.
Negotiable Quality Attribute	Quality checked, Structure improved.
Negotiation Actors	Quality checked, Structure improved.
Negotiation Object	Quality checked, Structure improved.
Negotiation Protocol	Quality checked, Structure improved.
Negotiation Roles	Quality checked, Structure improved.
Negotiation Strategy	Quality checked, Structure improved.
Negotiators' Decision Model	Quality checked, Structure improved.
Network Delay	Quality checked, QRM-Note has been added, and the Structure has been improved.
Network- and Infrastructure-Related Quality	Quality checked, Structure improved.
Non-negotiable QoS Dimensions	Quality checked, Structure improved.
Non-negotiable Quality Attribute	Quality checked, Structure improved.
Non-Repudiation	Quality checked, QRM-Note has been added, and the Structure has been improved.
On-demand Service Deployment	Quality checked, Structure improved.
On-the-Fly Service Composition	The term dropped (status of the term made "internal-draft" from 'public') due to lack of adequate reference source.

Term	Action Performed
Ontological Quality of Service Models	Quality checked, Structure improved.
Packet Loss	Quality checked, Structure improved.
Participant-Soundness	Quality checked, Structure improved.
Payment Atomicity	Quality checked, Structure improved.
Performance	Quality checked, Non-QRM Definition removed, QRM-Note has been added, and the Structure has been improved.
Post-Mortem Adaptation	Quality checked, Structure improved.
Precision	Quality checked, QRM-Note has been added, and the Structure has been improved.
Prediction Error Standard Deviation	Quality checked, Structure improved.
Proactive Adaptation	Quality checked, Structure improved.
Proactive Service Discovery	Quality checked.
Probability of Correctness	Quality checked, QRM-Note has been added, and the Structure has been improved.
Quality of Business (QoBiz)	Quality checked, Structure improved.
Quality of Experience (QoE)	Quality checked, Structure improved. Reference Missing!
Quality of Information (QoI)	Quality checked, Structure improved.
Quality of Service Characteristic	Quality checked, Structure improved.
Quality of Service Constraint	The term dropped (status of the term made "internal-draft" from 'public') due to lack of adequate reference source.
Quality of Service Dimension	Quality checked, Structure improved.
Quality of Service Level	Quality checked, Structure improved.
Quality of Service Negotiation	Quality checked, Structure improved.
Quality of Service-Aware Grid Service	The term dropped (status of the term made "internal-draft" from 'public') due to lack of adequate reference source.
Quality of Service-Aware Service Composition	Quality checked, Structure improved.
Quality of Use Context	Quality checked, Non-QRM Definition removed, QRM-Note has been added, and the Structure has been improved.
Queue delay time	Quality checked, QRM-Note has been added, and the Structure has been improved.
Reactive Adaptation	Quality checked, Structure improved.
Rebinding	Quality checked, Structure improved.
Recognition	Quality checked, QRM-Note has been added, and the Structure has been improved.
Recoverability	Quality checked, QRM-Note has been added, and the Structure has been improved.
Recovery	Quality checked, Non-QRM Definition removed, QRM-Note has been added, and the Structure has been improved.
Reliability	Quality checked, QRM-Note has been added, and the Structure has been improved.
Reparability	Quality checked, QRM-Note has been added, and the Structure has been improved.
Repeatability	Quality checked, QRM-Note has been added, and the Structure has been improved.
Replaceability	Quality checked, Non-QRM Definition removed, QRM-Note has been added, and the Structure has been improved.
Reputation	Quality checked, Non-QRM Definition removed, QRM-Note has been added, and the Structure has been improved.

Term	Action Performed
Resistance	Quality checked, QRM-Note has been added, and the Structure has been improved.
Resolution	Quality checked, QRM-Note has been added, and the Structure has been improved.
Resource Quality Metric	Quality checked, Structure improved.
Resource scheduling	Quality checked, Structure improved.
Response Time	Quality checked, QRM-Note has been added, and the Structure has been improved.
Robustness	Quality checked, QRM-Note has been added, and the Structure has been improved.
Runtime Process Migration	Quality checked.
Safe QoS Bound	Quality checked, Structure improved.
Safety	Quality checked, QRM-Note has been added, and the Structure has been improved.
Satisfaction	Quality checked, QRM-Note has been added, and the Structure has been improved.
Scalability	Quality checked, QRM-Note has been added, and the Structure has been improved.
Security	Quality checked, Non-QRM Definition removed, QRM-Note has been added, and the Structure has been improved.
Security Level	Quality checked, QRM-Note has been added, and the Structure has been improved.
Self-*	Generic definition has been added. Quality checked, Structure improved.
Self-Adaptation	Quality checked, Structure improved.
Self-Configuration	Quality checked, Structure improved.
Self-Healability	Quality checked, QRM-Note has been added, and the Structure has been improved.
Self-Healing	Quality checked, Structure improved.
Self-Optimization	Quality checked, Structure improved.
Self-Protection	Quality checked.
Server failure	Quality checked, QRM-Note has been added, and the Structure has been improved.
Service Replacement Policies	Quality checked, Structure improved.
Soft Goal	A generic definition and reference from Tropos has been added.
Spatial Resolution	Quality checked, QRM-Note has been added, and the Structure has been improved.
Stability	Quality checked, QRM-Note has been added, and the Structure has been improved.
Supported Standards	Quality checked, QRM-Note has been added, and the Structure has been improved.
Temporal	Quality checked, QRM-Note has been added, and the Structure has been improved.
Throughput	Quality checked, QRM-Note has been added, and the Structure has been improved.
Traceability	Quality checked, QRM-Note has been added, and the Structure has been improved.
Training Data Correlation	Quality checked, Structure improved.
Transaction Time	Quality checked, Non-QRM Definition removed, QRM-Note has been added, and the Structure has been improved.
Trust-Worthiness	Quality checked, QRM-Note has been added, and the Structure has been improved.
Uncontrollable Quality	Quality checked, Structure improved.

Term	Action Performed
Attribute	
Usability	Quality checked, Non-QRM Definition removed, QRM-Note has been added, and the Structure has been improved.
User Error Taxonomy	Quality checked, Structure improved.
Variable Cost	Quality checked, QRM-Note has been added, and the Structure has been improved.
Web Service Composition Model	Quality checked.
Abstract Transaction Template	Quality checked.
Abstraction-based adaptation	Quality checked, Structure improved.
Adaptable Service-Based Application	Quality checked, Structure improved.
Adaptation	A generic definition and reference from Wikipedia has been added.
Adaptation Mechanism	Quality checked, Structure improved.
Adaptation Requirements and Objectives	Quality checked, Structure improved.
Adaptation Scope	Quality checked, Structure improved.
Adaptation Strategy	Quality checked, Structure improved.
Adaptation trigger	Quality checked, Structure improved.
Agent	A generic definition and reference from Wikipedia has been added. Quality checked, Structure improved.
Agile Service Network (ASN)	A generic definition and reference from Wikipedia has been added.
Alignment of Monitored Events	Quality checked, Structure improved.
Analysis of Process Quality Factors	Quality checked, Structure improved.
Analytical Quality Assurance	Quality checked, Structure improved. General defintion added.
Application Level Atomicity	Quality checked, Structure improved.
Architectural Knowledge	Quality checked, Structure improved.
Architectural Knowledge Management	Quality checked, Structure improved.
Assumption-based Verification	Quality checked, Structure improved. References added.
Atomic Quality Attribute	Quality checked, Structure improved.
Automated Service Composition	A generic definition and reference from Wikipedia has been added.
Automatic Service Deployment	Definition updated and a reference added.
Autonomic System	Quality checked, Structure improved.
Autonomy	A generic definition and reference from Wikipedia has been added. The structure has been improved.
Basic Event	A generic definition and reference from Wikipedia has been added. The structure has been improved.
Built-in Adaptation	Quality checked, Structure improved.
Business Protocol	Quality checked.
Business Protocol Language	Quality checked, Structure improved.
Business Protocol Projection	Quality checked, Structure improved.
Chemical metaphor	Quality checked, Structure improved.
Class Monitor	Quality checked, Structure improved.
Class of Service	Quality checked, Structure improved.
Compatibility of Adaptation	Quality checked, Structure improved.
Complex Quality Metric	Quality checked, Structure improved.

Term	Action Performed
Composite Event	A generic definition and reference from Wikipedia has been added. The structure has been improved.
Composite Quality Attribute	Quality checked, Structure improved.
Composition Paradigm	A generic definition and reference from Wikipedia has been added. The structure has been improved.
Composition Schema	Quality checked, Structure improved.
Constructive Quality Assurance	A generic definition and reference from Wikipedia has been added. The structure has been improved.
Context	Definition updated and a reference added from the Oxford-Dictionary. The structure has been improved.
Context Acquisition	Quality checked, Structure improved.
Context Awareness	A generic definition and reference from Wikipedia has been added.
Context Modeling	A generic definition and reference from Wikipedia has been added. The structure has been improved.
Context Monitoring	Quality checked, Structure improved.
Contractual Atomicity	Quality checked, Structure improved.
Controllable Quality Attribute	Quality checked, Structure improved.
Coordination Protocol	Quality checked, Structure improved.
Cross-layer Adaptation	Quality checked, Structure improved. Reference added.
Cross-layer Adaptation Mechanisms	Quality checked, Structure improved. Reference added.
Cross-layer Monitoring	Quality checked, Structure improved. Reference added.
Cross-layer Monitoring Mechanisms	Quality checked, Structure improved. Reference added.
Culture	Quality checked, Structure improved. The structure has been improved.
Customization	A generic definition and reference from the Oxford-Dictionary has been added. The structure has been improved.
Data-Aware QoS	Quality checked, Structure improved.
Declarative Quality of Service Models	A generic definition and reference from Wikipedia has been added.
Delivery Atomicity	Quality checked, Structure improved. The structure has been improved.
Design Event	Quality checked, Structure improved.
Design for Adaptation	Quality checked, Structure improved.
Diagnosis	A generic definition and reference from Wikipedia has been added. The structure has been improved.
Domain Dependent QoS Dimensions	Quality checked, Structure improved.
Domain Independent QoS Dimensions	Quality checked, Structure improved.
Dynamic Adaptation	Quality checked, Structure improved.
Dynamic Binding	Quality checked.
Dynamic Invocation	Quality checked.
Dynamic model	Quality checked, Structure improved.
Effectiveness of Adaptation	Quality checked, Structure improved.
Event Acquisition	Quality checked, Structure improved.
Functional Layer of Monitoring Architecture	Quality checked, Structure improved.
Granular Process Properties	Quality checked, Structure improved.
Grid	Quality checked, Structure improved.
Grid Brokering	Quality checked, Structure improved.
Grid Job	Quality checked, Structure improved.

Term	Action Performed
Grid Scheduling	Quality checked, Structure improved.
Hard Goal	A generic definition and reference from Tropos has been added. The structure has been improved.
Information Source	A generic definition and reference from Wikipedia has been added. The structure has been improved.
Internationalization	A generic definition and reference from Wikipedia has been added. The structure has been improved.
Life cycle model	The structure has been improved. Definition updated and a reference added.
Localization	A generic definition and reference from Wikipedia has been added.
Machine learning	A generic definition and reference from Wikipedia has been added. The structure has been improved.
Map	A generic definition and reference from Wikipedia has been added. The structure has been improved.
Mediation	A generic definition and reference from Wikipedia has been added. The structure has been improved.
Migration	Quality checked, Structure improved.
Monitor	Definition updated and a reference added from the Oxford-Dictionary. The structure has been improved.
Monitored Event	A generic definition and reference from Wikipedia has been added. The structure has been improved.
Monitoring	Definition updated and a reference added from the Oxford-Dictionary. The structure has been improved.
Multi-Agent Systems	Quality checked, Structure improved.
Online Testing	Quality checked, Structure improved.
Optimization	A generic definition and reference from Wikipedia has been added. The structure has been improved.
Persona	Quality checked, Structure improved.
Personalization	A generic definition and reference from Wikipedia has been added. The structure has been improved.
Quality Attribute	Definition updated and a reference added from Wikipedia.
Quality Metric	Definition reference added from Wikipedia.
Quality of Service (QoS)	A generic definition and reference from Wikipedia has been added. The structure has been improved.
Quality of Service-Based Adaptation	Quality checked, Structure improved.
Service Monitoring	Quality checked, Structure improved.
Service Network	Definition updated and a reference added from Wikipedia.
Validation	Reference to Wikipedia added. The structure has been improved.
Verification	Reference to Wikipedia added. The structure has been improved.
ACID	Quality checked
Autonomic Resource Virtualization	Quality checked
Business Aware-Transaction	Quality checked
Business Transaction	Quality checked
Business Transaction Language	Quality checked
Business Transaction Management	Wikipedia definition added
Business Transaction Model	Quality checked
Cloud Computing	Quality checked
Enterprise Service Bus (ESB)	Another definition for "Engineering and Design" has been added from Wikipedia
Infrastructure as a Service	Quality checked

Term	Action Performed
(IaaS)	
Mashup	More generic definitions have been from other sources, e.g. the definitions from SOA4ALL, NEXOF, with proper references. Internal links between terms have been also added
Mashup Description Language	Reference fixed. A sample MDL is introduced from a paper.
Natural computing	Quality checked
OWL-S	Quality checked
Platform as a Service (PaaS)	Quality checked
Process Fragment	Quality checked
Self-supervising BPEL Process	Quality checked
Semantic Annotation	Quality checked
Semantic Web	Another definition from W3C added
Semantic Web Services	Definition from Wikipedia added
Semantic Web Services Composition	Quality checked
Service	Quality checked
Service Analysis	Quality checked
Service Based Application Construction	Quality checked
Service Binding	Quality checked
Service Choreography	Quality checked
Service Composition	More generic definitions from WhatIsSOA and SAP have been added with proper references
Service Composition Life-Cycle	Another generic definition added from a paper
Service Consumer	Another generic definition from BPC article added
Service Coordination	Definition of WS-Coordination from OASIS has been added with proper references
Service Deployment	Reference fixed. A new generic Definition added.
Service Description	Quality checked
Service Design	Quality checked
Service Discovery	References have been fixed. Definitions have been rearranged in the correct categories. Definition of "Service recovery" moved to the term "Recovery".
Service Fault	Quality checked
Service Interaction Pattern	Another definition from the Service Interaction Patterns website has been added with the reference to that website
Service Level Agreement (SLA)	Proper references have been added.
Service Mediation	Quality checked
Service Model Invariant	Quality checked
Service Orchestration	New definition added from Wikipedia with proper references
Service Provider	Reference fixed. A new generic Definition from Wikipedia added.
Service Realization Strategy	Quality checked
Service Registration	Quality checked
Service Registry	References have been fixed. Another definition from the MSDN architecture journal has been added. Examples of Oracle and IBM registries have been added
Service Runtime	Definition added from the Open Group Technical Standard added.
Service Specification	Another generic definition from IBM developerWorks added
Service Wiring	The definition "Always in SCA or JBI, Service wiring can support QoS information" has been removed. Instead, a new description about the suport for policy framwork in the SCA has been added from OASIS

Term	Action Performed
Service-Based Application (SBA)	Quality checked
Software as a Service (SaaS)	Quality checked
Software Service	Quality checked
Speech Mashup	References updated
Speech Service	Introduction of Speech Services added.
Stateful Service	Another generic definition from the SOA Glossary added
Stateless Service	Another generic definition added
Stereotype	Quality checked
Stratification of Transactions	Quality checked
Streaming Mashup	Reference fixed
Streaming Service	Definition has been moved to the generic domain. Reference has been fixed.
Telco Mashup	References updated
Virtualization	Quality checked
Vital Activity	Quality checked
Vitality	Quality checked
Web Service	Another definition from a book added
Web Widget	Reference fixed. Another generic definition from Wikipedia added
Activity	CS specific definition from Wikipedia and a generic definition from Oxford dictionary added.
Actor	A generic definition from Oxford dictionary added.
ALBERT	Quality checked, structure improved.
BPM Software Suite	Quality checked.
Business Activity	Quality checked. Definition updated.
Business Activity Monitoring (BAM)	Quality checked.
Business Policies	Definition extended with a generic definition and proper referencing.
Business Process	Quality checked. Definition updated.
Business Process Integration (BPI)	Quality checked.
Business Process Measurement	Quality checked. References updated.
Business Process Modeling	Generic term definition added from Wikipedia.
Business Process Optimization	Quality checked. References updated.
Business Process Reusability	Quality checked. Definition updated.
Business Rules	Wikipedia reference added.
Capability Maturity Model (CMM)	Quality checked.
Capability Maturity Model Integration (CMMI)	Quality checked. Definition updated.
Capability Maturity Model Integration (CMMI)	The term dropped (status internal-draft) due to a similar entry.
Computational Cost Analysis	Quality checked, structure improved.
Configuration Management (CM)	A generic definition from the IEEE 610.12-90 Std added.
Data dependency	Quality checked, structure improved.
Dependency Analysis	Definition updated and a reference added from Wikipedia.
Design for Reuse	Generic wikipedia definition added.
Elicitation	Software Engineering specific definition of the term in SWEBOK added.
Enterprise Application Integration (EAI)	Quality checked.

Term	Action Performed
Evolution	Generic term definition added from Wikipedia.
Global Software Development (GSD)	Quality checked. Reference added.
Globalization	Quality checked. Definition updated.
Human Computer Interaction (HCI)	Definition updated and a reference added from Wikipedia.
IDEAL Model	Definition updated and a reference added from SEI.
Key Goal Indicator	Definition improved.
Key Performance Indicator (KPI)	A generic business related definition added from Wikipedia
Key Process Area (KPA)	Quality checked.
Mashup tool	Quality checked, structure improved.
Modeling Language	A generic definition from Wikipedia added.
Plan	Definition updated and a reference added from Wikipedia.
Planning	Definition updated and a reference added from Wikipedia.
Process	A generic science and technology related definition added from Wikipedia
Process Model	A generic science and technology related definition added from wikipedia.
Process Quality Factor	Quality checked, structure improved.
Requirement	Software Engineering specific definition of the term in SWEBOK added.
Requirements Analysis	Software Engineering specific definition of the term in SWEBOK added.
Requirements Engineering	Software Engineering specific definition of the term in SWEBOK added.
Scenario	A generic definition from wikipedia and a software Engineering specific definition from the SWEBOK added.
Service Governance	Quality checked.
Service life cycle model	Quality checked.
Service Oriented Requirements Engineering (SORE)	Quality checked, structure improved.
Service process model	Quality checked.
Service-oriented Software Engineering (SOSE)	Quality checked.
Software life cycle model	Quality checked.
Software Maintenance	A Software Engineering specific definition from the SWEBOK added.
Software Process	Reference to SEI added, quality improved.
Software Process Assessment	Reference to SEI added, quality improved.
Software Process Capability	Reference to SEI added, quality improved.
Software process model	Quality checked.
Stakeholder	Definition updated.
Task Modeling	A reference to business process modeling term added.
Telco Service	Quality checked, structure improved.
Testing	A generic definition from FOLDOC and a Software Engineering specific definition from the SWEBOK added.
User Error	Quality checked, structure improved.
User Experience	Quality checked, structure improved.
User Interface	Quality checked, structure improved.
User Modeling	Quality checked, structure improved.
Value Chain	Definition updated and a reference added from Wikipedia.
Virtual Organisation	Quality checked, structure improved.
Virtual Software Team	The term dropped (status of the term made "internal-draft" from 'public') due to lack of adequate reference source.

Term	Action Performed
Weakest precondition	Quality checked, structure improved.
Workflow	Quality checked, structure improved.
Business Aware-Transaction	Quality checked and 'Internal Draft' status retained.
Abstraction Level	Quality checked and 'Internal Draft' status retained.
Fragmentation Criteria	Quality checked and 'Internal Draft' status retained.
Device API	Quality checked and 'Internal Draft' status retained.
Process Fragmentation	Quality checked and 'Internal Draft' status retained.
Merge	Quality checked and 'Internal Draft' status retained.
Service Provisioning	Quality checked and 'Internal Draft' status retained.
Split	Quality checked and 'Internal Draft' status retained.
Composition Fragment	Quality checked and 'Internal Draft' status retained.
Self-adaptive Systems	Quality checked and 'Internal Draft' status retained.

5   Updated, Consistent Virtual Campus

5.1   Motivation

Below, we will iterate over all updates that we have implemented in the Virtual Campus and the material hosted therein to ensure consistent contents. Mainly, the changes described here reflect the recommendations and findings during the final (Y4) review of the network.

The most important discussion items were the following:
1. The stated VC purpose includes eLearning module announcements which in fact are not provided. → Ensure consistency between VC descriptions to what is in fact provided
2. Several of the VC packages have its material presented in unreadable form. E.g. far too small fonts to be readable, several fonts were converted to unreadable block-graphics, animated slides were transformed into multi-print-over slides during the ppt2pdf transformation process. The SlideShare visualization tool mad bad input quality worse. → Make a thorough quality check and on all VC leading packages and its online presentation tools and documents.
1. The VC web presence should not contain empty pages

5.2   Overview of Updates

Discussion Item 1 – Ensure Consistency between VC Descriptions and Features

The original claim of the Virtual Campus included sophisticated e-learning facilities, which are in fact not provided in the final version of the campus. As discussed during the Y3 and Y4 review meetings, the limited effort dedicated to SoE-1.1 prevented us from devising actual e-learning facilities. Instead, we originally intended to provide a Moodle1installation, as well as discussion boards, to support the joint master and PhD programmes. However, acceptance of these facilities was very limited, as practically all university nowadays provide such learning support systems themselves, which the partners are often mandated to use. We tested the usage of the Virtual Campus as learning support system for one large master-level course at TU Vienna (Advanced Internet Computing2[1]), but, ultimately, decided that the Virtual Campus adds little value to existing tools at partner university sites as a learning support system.

Changes:
For this reason, we decided to disable the learning support system functionalities of the Virtual Campus. This includes the Moodle[2] installation (bullet Internal Campus) as well as the associated discussion boards (bullet Public Campus) for the time being. It should be noted that all functionality is only disabled, not deleted. Hence, both these features can be re-enabled if a clear use case for them arises.

Consequently, we updated the introductory description of the Virtual Campus on its homepage, as well as the description of the campus on the public S-Cube portal, so that we do not claim to provide any e-learning facilities anymore.

Discussion Item 2 – Improve Presentation of Learning Packages

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[1] https://tiss.tuwien.ac.at/course/courseDetails.xhtml?windowId=
7a4courseNr=184269semester=2011W
[2] http://moodle.org/

It has become evident that an additional thorough quality assurance step for the learning packages is required, making sure that fonts are readable, that animations are converted suitably to PDF, and that the general export and presentation tool chains are working correctly.

Changes:
The two factors that contributed most to the relatively bad presentation of some learning packages in the initial version were (1) the Slideshare4PDF-to-Flash conversion, which led to many font and display problems, and (2) the PPT-to-PDF conversion, which led to slides garbled with animations printed on top of each other, fuzzy figures, and lost hyperlinks.

As the first problem is not in our control to fix, we decided to not use Slideshare to present our learning packages on Virtual Campus anymore. That is, instead of using the Slideshare preview funtionality, we now embed two static example slides from the package as preview. The first example is always the title slide, the second one is an outtake of the actual content. Please note that our content is still available in (and can still be downloaded from) Slideshare directly, we simply do not use their preview functionality anymore. All updated packages (see below) have also been re-uploaded to SlideShare. In addition, all slides are available form iTunes U.

To fix the second problem, we iterated over all learning packages and fixed problems arising from low-resolution figures and animations. Furthermore, we used a more sophisticated PPT-To-PDF converter, which did not drop hyperlinks from the packages.

Figure 2: Example Learning Package in the Virtual Campus

Furthermore, we did an additional quality control step on all packages. Essentially, we generally improved the presentation of all learning packages in many different aspects. An extensive list of all implemented updates (in keywords) is provided below.

Finally, we also re-arranged the content displayed on the Virtual Campus platform for each learning package. For each package, we now display (in this order) a link to the actual package (Read Learning Package), a visualization of the associated terms in the S-Cube KM (Knowledge Model Terms), and the two preview slides mentioned earlier (Preview). An example is given in Figure 2.

We have also applied the same changes to the section regarding industrial presentations (Industrial Presentations), which are also published on the Virtual Campus (using the same layout as the learning packages).

Discussion Item 3 – The VC Should Not Contain Empty Pages

The previous version of the Virtual Campus contained some 'stub pages' for functionality, which was provided but not extensively used. Most importantly, these were the Moodle installation and discussion boards mentioned in the discussion of Item 1 above. Indeed, while they provided a lot of functionality in principle, they were practically only used for the one test course (see above) that we handled over the Virtual Campus.

Changes:
As discussed above, we decided to disable these functionalities (Public Campus, Internal Campus) for now to focus on what has become the core competency of the Virtual Campus: the Learning Packages, the Knowledge Base (only visible to logged in users), Industrial Presentations and the Chemical Programming Workbench. Additionally, the Virtual Campus contains a link to a Comprehensive Case Study, even though the case itself is hosted on the public S-Cube portal. All of these sections of the campus are functional and filled with actual content.

LIST OF UPDATES TO LEARNING PACKAGES

JRA-1.1
SOA Migration: Study of Theory and Practice
(VUA, JRA-1.1)
File seemed to be somehow corrupted. Repaired the file. Improved overall quality (resolution) of figures.

Service Identification
(VUA, JRA-1.1)
Updated the text JRA-1.1 to 'Service Engineering and Design' in slide 2, to be in line with all other presentations. Slightly reformatted text box on slides 10 and 19.

Service Adaptation: A Maintenance Process?
(Lero, JRA-1.1)
Removed some titles, as they were running into the S-Cube logo (and most other slides don't have a title either).

Techniques for Design for Adaptation
(POLIMI, JRA-1.1)
Reformatted text box in figure on slides 34 and 37, as the text was touching the frame. Fixed position of table on slide 36 Deleted the '' in slide 40. Improved resolution of figure on slide 8. Simplified figure on slide 32, as it was really overloaded. Removed slide numbering from some slides, as it was inconsistent (some had numbers, others had no numbers, and in one slide the numbering was in a different place).

Impact of SBA design on Global Software Development
(POLIMI, JRA-1.1)
Increased size of Figure on page 31 Improved qualiy of figure on page 10.

Service Discovery and Task Models

(CITY, JRA-1.1)

The small inline figure on slide 16 was running into the text. I made it slightly smaller. Repaired formatting on slide 18. Slightly updated formatting on slide 20. Quality of figure on slide 15 has been imrpoved (was fuzzy, and rather small font). Table on slide 16 was a bit fuzzy. Exported in higher resolution. Replaced paragraph symbols on Table on slide 26. Re-exported to make links work.

JRA-1.2

Monitoring and Adaptation of Service-Based Applications

(CITY, JRA-1.2)

Re-exported to make links work.

Service Level Agreement based Service infrastructures in the context of multi-layered adaptation

(SZTAKI, JRA-1.2)

Moved content of slide 11 a little to the top, so that it does not touch the lower line anymore. Moved content of slide 12 a little to the end, so that it does not touch the upper line anymore. Moved text box on slide 14 so that it does not touch the lower line anymore. Moved figure on slide 17 a little to the top. Removed the second little figure on slides 26 and 27. Seemed to serve no apparent purpose, and was entirely unreadable anyway. Fixed text boxes in slide 30. Fixed the figure on slide 9 ('Service Infrastructure' was hardly readable, 'Adaptation' and 'Engineering' needed to be moved to the center of the respective boxes). Re-exported to make links work.

Service Versioning, Compatibility and Evolution

(Tilburg, JRA-1.2)

Increased figure on slide 6. Quality of equations on slide 18 improved and cleaned up. Re-exported to make links work.

Multi-layer Monitoring and Adaptation of Service Based Applications

(FBK, JRA-1.2)

Slides 14/19/20/23/24/25/27 contained a weird figure on the top right. Seemed completely out of place. I removed it. The combination of red and pink highlighting was looking awkward. I made everything S-Cube-pink.

Context-aware Adaptation of Business Processes

(FBK, JRA-1.2)

Removed Slide 14 (was animated). The slide seemed to not be essential to understanding, and hard to fix in a way fit for a static document Moved text boxes in slide 16, so that they do not overlap with other text.

JRA-1.3

Using Data Properties in Quality Prediction

(UPM, JRA-1.3)

Changed pink color to blue, to make contrast to red prettier.

Online Testing for Proactive Adaptation

(UniDue, JRA-1.3)

Fixed formatting on slide 24 (text was running into figure)/ Removed TODOs on slide 30. Re-exported to make links work.

Proactive SLA Negotiation

(CITY, JRA-1.3)

The combination of brown, red and pink highlighting was looking awkward. Made everything

S-Cube-pink. Increased size of figures on slides 10, 11 Equation on slide 18 was fuzzy, decreased size a little.

Quality-of-Service Models for Service-Oriented Architectures
(POLIMI, JRA-1.3)
Re-exported to make links work.

Runtime Prediction of SLA Violations Based on Service Event Logs
(TUW, JRA-1.3)
Removed 2 slides with related to prediction error standard deviation - seemed unnecessary. Re-exported to make links work.

Run-time Verification for Preventive Adaptation
(UniDue, JRA-1.3)
Re-exported to make links work.

Quality Modelling, Negotiation and Assurance
(UniDue, JRA-1.3)
Removed slide with 'further reading', as it seemed to contain only a TODO. Introduced actual links to the URLs. Updated coloring of emphases (mixture of red and pink looked a bit awkward). Re-exported to make links work.

Dynamic Privacy Model for Web Service
(UCBL, JRA-1.3)
Fixed typo on title page. Fixed various small formatting issues Used same shade of pink everywhere Tried to apply the same conventions re: capitalization in all slide titles Re-exported to make links work.

Variability Modeling and QoS Analysis of Web Services Orchestrations
(INRIA, JRA-1.3)
Captions in figure on slide 6 were too small. Also improved the quality of some other figures. Re-exported to make links work.

Analysis Operations on SLAs
(US, JRA-1.3)
Fixed small issue in figures (maybe a copy and paste error)

JRA-2.1

Business Transaction Modeling, Analysis, and Customization Across Service Networks
(Lero, JRA-2.1)
For some reason, the alignment of the text boxes on slide 2 was align-right, which looked awful. Changed to centered. Fixed small typo on slides 15/18. Not all grey text in the various outline slides was in the same shade of grey. Fixed. Increased size of figure on slide 14/46/47/67.

Service Network Analysis Prediction Tool (SNAPT)
(UoC, JRA-2.1)
Moved text box a little in slide 4. Increased size of figures on slide 38 and 39, as they were pretty much unreadable.

Performance Analysis and Strategic Interactions in Service Networks
(UoC, JRA-2.1)
Slightly moved text box on slide 50. Improved layout of references on slide 52 Imported mathematical formulae with higher resolution (was quite fuzzy). Performance Analysis and Strategic Interactions in Service Networks

JRA-2.2

Inferring Data Attributes in Service Orchestrations Based on Sharing Analysis
(UPM, JRA-2.2)
Changed pink color to blue, to make contrast to red prettier.

Flexible Execution of Distributed Business Processes
(UniHH, JRA-2.2)
Fixed problematic animation. Re-exported to make links work.

AI planning based composition of pervasive process fragments
(FBK, JRA-2.2)
The combination of red and pink highlighting was looking awkward. Made everything S-Cube-pink. The grey box in Figure 24 was partly overlapping with the text. I moved the grey box. Increased size of figure on slide 31 a little.

Formal Specifications for Services and Service Compositions
(UoC, JRA-2.2)
White text on light green background was very hard to read (Slide 15), changed. Math was a little fuzzy throughout presentation.

Preventing SLA Violations in Service Compositions Using Aspect-Based Fragment Substitution
(USTUTT, JRA-2.2)
Reduced the size of the graphs on slides 22/24, as they were really fuzzy. Removed use case figure on slide 3 and 4, since it was hardly readable anyway. Re-exported to make links work.

Analyzing Business Process Performance Using KPI Dependency Analysis
(USTUTT, JRA-2.2)
Re-exported to make links work.

Process Performance Monitoring in Service Compositions
(USTUTT, JRA-2.2)
Removed the single blue emphasis on slide 4. Grey box on slide 14 overlapped with text. Moved the box. Re-exported to make links work.

Analyzing and Adapting Business Processes based on Ecologically-aware Indicators
(USTUTT, JRA-2.2)
Re-exported to make links work.

Adaptable Coordinated Service Compositions – Overview
(USTUTT, JRA-2.2)
Re-exported to make links work.

JRA-2.3

Dynamic Adaptation with the Chemical Model
(CNR, JRA-2.3)
Slightly updated formatting of figure on slide 17. The service offers on slides 8/10/21/22 looked slightly awkward, as they partially covered the services/activities. Has been changed. Re-exported to make links work.

Self-healing in Mixed Service-oriented Systems
(TUW, JRA-2.3)
Fixed some weird colorings and emphases. Text box on slide 16 was looking awkward, repaired. Formatting of references on slide 21 was bad. Re-exported to make links work.

SLA-based Service Virtualization in distributed, heterogeneous environments
(SZTAKI, JRA-2.3)
Re-exported to make links work.

Executing the HOCL: Concept of a Chemical Interpreter
(SZTAKI, JRA-2.3)
Fixed figure in slide 14. 'Resolve conflicts' was much too large for the box and hence invisible. Changed to 'check'. On slide 16, clearly the last letter should also be pink. Slightly reformatted box on slide 20 and 21. Re-exported to make links work.

The Chemical Computing model and HOCL Programming
(SZTAKI, JRA-2.3)
Fixed text boxes on slide 5 (were left-aligned, made centered). Some pages had a footer like 23/¡MAX¿ removed them all. Moved figure a little to the top on slide 21. Conclusions were essentially an empty slide. I simply removed the conclusions entire (also from all outlines). Re-exported to make links work.

Chemical Modeling: Workflow Enactment based on the Chemical Metaphor
(SZTAKI, JRA-2.3)
Fixed title on slide 6. Figure on slide 6 seemed to be a bit out of whack. Tried to repair it in the way I think it was supposed to look like. Text boxes were too small in the figures on slides 10 - 15. Fixed titles in slide 15, 29, 30