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CHOReOS Quality Plan (D 11.1)

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CHOREOS

Large Scale Choreographies
for the Future Internet

ICT IP Project

Deliverable D11.1

Quality Plan

<http://www.choreos.eu>

THALES



INSTITUT NATIONAL
DE RECHERCHES
EN INFORMATIQUE
ET EN AUTOMATISME



Universita'



dell'Aquila



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Reviewer(s)	:	Jean-Pierre LORRE (EBM)

Abstract

This report introduces the CHOReOS quality plan, stating standards and procedures for the conduct of the project activities such as distribution of information, document numbering and archiving, review of deliverables, public reports, presentations and publications. This plan establishes also qualitative and quantitative indicators and metrics for monitoring the quality of the project activities.

Keyword list

Quality Plan, Indicators, Metrics

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Glossary, acronyms & abbreviations

Item	Description
BSD	See http://www.info.org/bsdlicense.html
CA	Consortium Agreement
DL	Deliverable Leader
DOW	Description of Work
EC	European Commission
EU	European Union
IAC	Industrial Advisory Committee
LGPLv3	Lesser GNU Public Licence version 3 See http://www.gnu.org/licenses/gpl.txt
MST	Management support team
OSS	Open Source Software
PL	Project Leader
PMT	Project Management Committee
PO	Project Officer
PTC	Project Technical Committee
SL	Scientific Leader
WP	Work Package
WPL	Work Package Leader



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1. Introduction

This report introduces the CHOReOS Quality Plan, stating standards and procedures for the conduct of the project activities.

The preparation of this document is based on, among others, the following project material, which may be found on the internal Web site - section Project Management:

- EC Contract n° 257178 and its annexes
- Description of Work, annex I to the EC Contract
- CHOReOS Integrated Project Consortium Agreement at the date of writing.

In detail, this document provides the following information and related references:

- Project summary (Section 2)
- Project management (Section 3),
- Project planning and timetable (Section 4),
- Project Dashboard: Indicators and Metrics (Section 5)
- Documents and publication procedures (Section 6),
- Open source software (Section 7),
- Project communication mechanisms (Section 8),
- Project contact details (Appendix A).

The CHOReOS Quality Plan is a living document. It will be updated throughout the entire duration of the project to reflect changes and evolution of the project.

Therefore, the internal Web site should always be checked for the most recent version of this document.

2. Project Summary

2.1. Consortium Members

Beneficiary N°	Beneficiary Name	Beneficiary short name	Country
1	Thales Communications & Security S.A.	THA	France
2	No Magic Europe	NME	Lithuania
3	Consiglio Nazionale delle Ricerche	CNR-ISTI	Italy
4	EBM WebSourcing S.A.S.	EBM	France
5	Institut National de Recherche en Informatique et en Automatique	INRIA	France
6	MLS Multimedia A.E.	MLS	Greece
7	OW2 Consortium	OW2	France
8	The City University	CITY	United Kingdom
9	Università degli Studi dell'Aquila	UDA	Italy
10	University of Ioannina	UOI	Greece
11	Vidzemes Augstskolas aģentūra "Sociotehnisku Sistēmu Inženierijas institūts"	SSII VIA	Latvia
12	Virtual Trip Ltd.	VTRIP	Greece
13	Wind Telecomunicazioni S.p.A	WIND	Italy
14	Universidade de São Paulo	USP	Brazil
15	CEFRIEL – Societa' Consortile Responsabilita' Limitata	CEFRIEL	Italy

2.2. Project Abstract

The CHOReOS project positions itself in the context of the Ultra-Large-Scale (ULS) Future Internet of software services. To address the challenges inherent of ULS as well as other key requirements of the Future Internet, such as fusion of the user/developer/system roles, adaptability and QoS-awareness, to name a few, CHOReOS revisits the concept of choreography-based service composition in service-oriented systems. CHOReOS introduces a dynamic development process, and associated methods, tools and middleware sustaining the ever-adaptable composition of services by domain experts – being the users of business choreographies – in the Future Internet. CHOReOS concepts then encompass formally grounded abstractions and models, dynamic choreography-centric development process, governance and service-oriented middleware, thus providing an Integrated Development and Runtime Environment (IDRE) aimed at overcoming the ULS impact on software system development. Formally grounded abstractions and models enable reasoning about the properties, both functional and non-functional, of ULS choreographies. Dynamic choreography-centric development process allows the fusion of the user/developer/system roles, while managing the ULS service base, and supports the synthesis of scalable and adaptable choreographies. Governance includes service integration policies and rules, as well as tools for dynamic verification and validation of choreographies. Finally, service-oriented middleware enables adaptable choreographies over ESB-based middleware, Grids, Clouds, and technologies for the Internet of Things, thus overcoming scalability and heterogeneity issues of the Future Internet. Last but not least, CHOReOS assesses the

industrial exploitation of this choreography-centric vision by experimenting on three demanding use cases in different domains (passenger-friendly airport, mobile-enabled coordination of people, vehicular network) and by carrying out a study of social-technical factors.

3. Project Management

This section provides a summary about:

- The Project structure (§3.1),
- The Consortium bodies (§3.2),
- The Project operational procedures (§3.3), and
- The Project reporting (§3.4).

3.1. Project Structure

The CHOReOS project is structured around the following Work Packages:

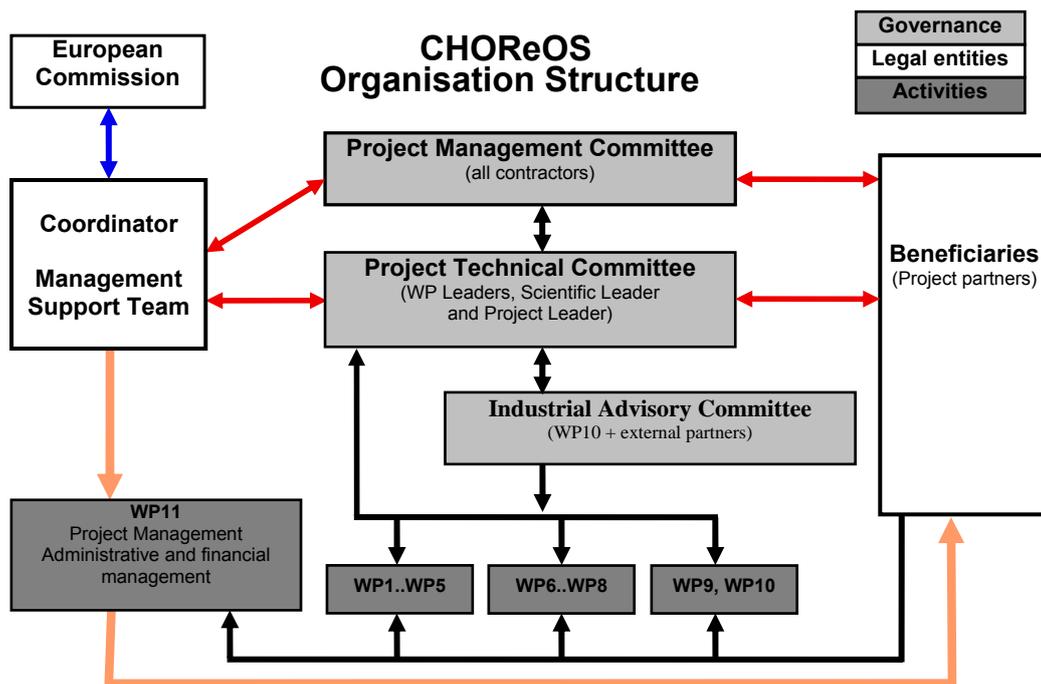
WP n°	Work package title	Type	Lead n°	PM	Start	End
1	Architectural style for choreography-based Future Internet	RTD	INRIA	80	1	24
2	Dynamic development of adaptable, QoS-aware ULS choreographies	RTD	UDA	146	1	36
3	Service-Oriented Middleware for the Future Internet	RTD	USP	159	4	36
4	Governance and V&V support for choreographies for the Future Internet	RTD	CNR-ISTI	110	4	36
5	CHOReOS IDRE - Integrated Development and Runtime Environment	RTD	EBM	102.5	6	36
6	Use Case “Passenger-friendly airport”	DEM	THA	41	7	36
7	Use Case “Mobile-enabled coordination of people”	DEM	WIND	32	7	36
8	Use Case and Demo “DynaRoute”	DEM	VTRIP	69	7	36
9	Technology transfer, Dissemination and Collaboration	OTH	NME	63	1	36
10	Technical and Socio-technical Assessment & Exploitation	RTD	WIND	59	6	36
11	Management	MGT	THA	45.5	1	36
	TOTAL			907		

3.2. Consortium Bodies

As depicted above, the Project organization consists of the following Consortium bodies:

- Project Management Committee (PMC),
- Coordinator,
- Project Leader (PL),
- Management Support Team (MST),
- Project Technical Committee (PTC),
- Work Packages and Work Package Leaders (WPL),

- Industrial Advisory Committee (IAC).



The following sections further detail the role of these bodies and actors as well as of the Scientific Leader (SL) and the Deliverable Leaders (DL), while contact details of their members can be found in Annex A.

3.2.1. Project Management Committee (PMC)

The Project Management Committee consists of one representative of each Beneficiary: See Annex A.4.

The Project Leader chairs all meetings of the Project Management Committee.

Each representative has one vote and may appoint a substitute to attend and vote at any meeting of the Project Management Committee.

The Project Leader convenes meetings of the Project Management Committee at least once every 6 months and also convenes meetings at any time upon written request of any Party in the case of an emergency situation.

The Project Management Committee is in charge of the overall direction and major decisions with regard to the Project based on recommendations made to it by the Project Management Committee.

3.2.2. Coordinator

The Coordinator (Thales) is in charge of all legal and financial matters, included in WP11. The operational duties of Coordination are assigned to the Project Leader, assisted by the Project Management Committee and the Management Support Team.

The Coordinator is responsible for the following tasks:

- The overall legal, contractual, ethical, financial and administrative management of the consortium.
- Preparing and updating the consortium agreement between the participants.
- Organization and chairing of PMC meetings.
- Organization and chairing of PTC meetings.
- Coordination of the work between the work packages.

- Control and refine the objectives of the project.
- Oversee the overall project planning.
- Assurance of timely delivery and quality of project results.
- Assessment and evaluation of project success.
- Overseeing the promotion of gender equality in the project.
- Communication between the project and the Commission.
- Representation of the project in general and towards the outside world.
- Manage a repository of project documentation.
- Distribution of all visit reports, task reports, minutes of meetings and relevant publications.
- Maintaining the project internal Web site to facilitate communication within the CHOReOS project.

3.2.3. Project Leader (PL)

The Project Leader (See Annex A.1) is appointed by the Coordinator. He will regularly interact with each WP Leader as well as the Management Support Team to monitor the progress.

3.2.4. Management Support Team (MST)

The Management Support Team (See Annex A.5) provides assistance to the Project Leader as specified by the Coordinator, with regard to the Project Leader's day-to-day tasks, such as preparation of meetings of the Project Management Committee.

In particular, the Management Support Team

- collects administrative and financial documents and assemble periodic reports,
- sends to the EC the contractual reports,
- creating and maintaining the internal project Web site.

3.2.5. Project Technical Committee (PTC)

The Project Technical Committee consists of one representative of each Beneficiary: See Annex A.6.

The Project Leader chairs all meetings of the Project Technical Committee.

Each representative has one vote and may appoint a substitute to attend and vote at any meeting of the Project Technical Committee.

The Project Leader convenes meetings of the Project Technical Committee at least once every 3 months.

The task of the Project Technical Committee is to manage the implementation of the Project orientations given by the Project Management Committee and validated by the Commission, in all the aspects of the Project (such as legal, financial and scientific). It also appoints WP Leaders, monitors the project including the performance of the beneficiaries and solving conflicts arising at WP level

3.2.6. Scientific Leader (SL)

The Scientific Leader (See Annex A.2), by delegation of the Coordinator, evaluates and approves the scientific value of the deliverables and the research directions.

3.2.7. Work Package Leaders (WPL)

The Work Package (WP) Leaders (See Annex A.7) are responsible for stimulating and monitoring the performance of their WP and ensuring the timely delivery of the deliverables.

WP progress summaries will be collated to form Project progress report deliverables. They will represent their WP in the Executive Board. The Project Leader will be informed of any problem that could harm normal project progress.

For the interaction at Work Package level, working groups may be defined, consisting of the key technical persons of the involved participants. Working Groups will have a temporary character. Depending on the actual needs, other working groups can be created.

The list of the Work Package Leaders is gathered in Annex A.

3.2.8. Industrial Advisory Committee (IAC)

The Industrial Advisory Committee (IAC) aims at stimulating the research and industrial communities to both feed and exploit the research program planned within this project. It provides the consortium members for exploitation needs. It may be invoked for specific risk or result assessment. It will be composed of leading industrials and scientists in all the industrial domains of relevance. In particular, the following persons have already agreed to join the CHOReOS IAC:

- Pascal Bisson is Research Projects Manager in the ThereSIS Laboratory (Thales - Security Solutions & Services Division). Pascal is deeply involved in NESSI ETP as the Thales representative to NESSI Strategic Research Agenda (SRA) Committee and personally involved in NESSI working groups (e.g. USI WG, TSPR WG). Pascal is also involved in NESSI Strategic Project called NEXOF-RA as well as in COMPAS NESSI Compliant project
- Dr. Massimo Paolucci is a Senior Researcher at the Evolutionary Systems project at DoCoMo Euro-Labs, where he is conducting research on automatic discovery, invocation and composition of Web services and Web resources from mobile platforms.
- Emilia Peciola (Ericsson Telecomunicazioni) has been with Ericsson since 1985, first as a software designer and then as a R&D manager. She is now HR manager, liaising Ericsson activities with R&D activities in Italy.
- Pierre Plaza is with Telefonica I+D since 1991 where he is manager since 1996 and has been leading several projects, particularly in the areas of telephony systems and smart homes.

3.2.9. Deliverable Leaders (DL)

The Deliverable Leaders (DL) are responsible for stimulating and monitoring the performance of their Deliverable and ensuring the timely delivery of it.

The list of deliverables in Section 3.4.2 and the Annex A lists also de Deliverable Leaders: for a deliverable, the deliverable leader is the member of the PTC (see Annex A) representing the Beneficiary under the column “Lead beneficiary” of table in Section 3.4.2.

3.3. General Operational Procedures

The CHOReOS project convenes 4 types of working meetings:

- PMC Meetings
- PTC Meetings
- Working Meetings
- IAC meetings

Preferably, meetings of different types will be held in conjunction to save travel costs and time. Where possible and appropriate, telephone conferences may be used to limit travelling and expenses.

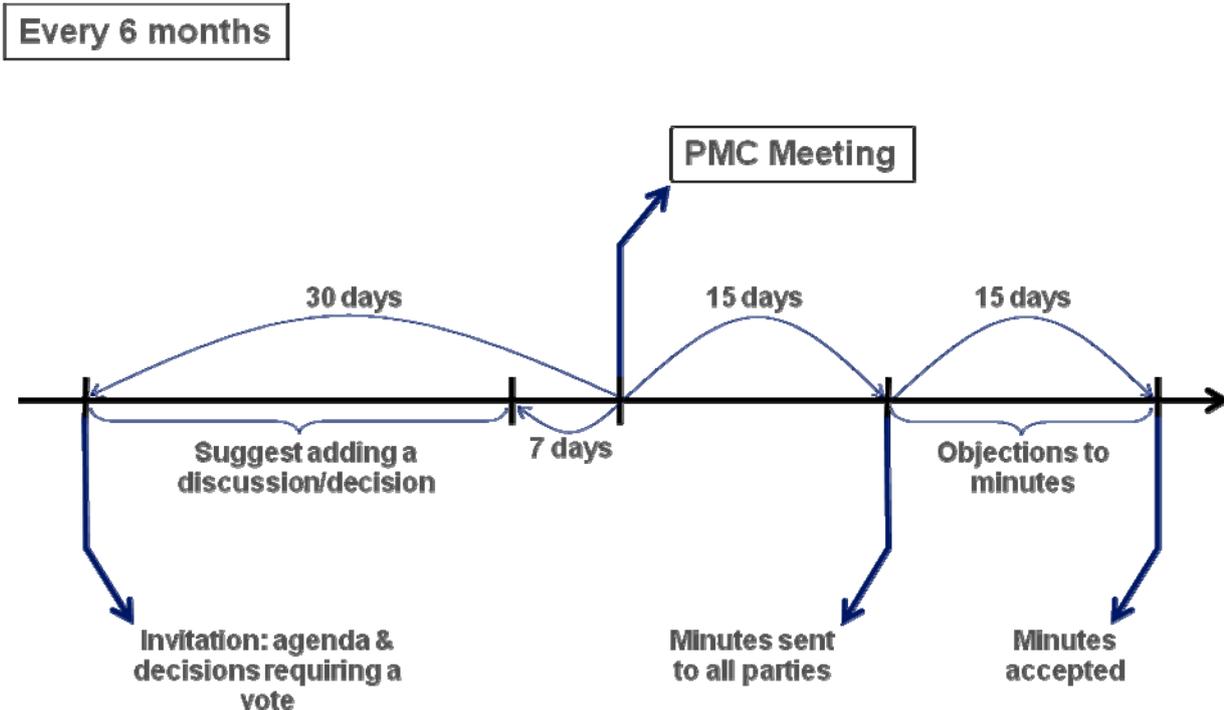
The chairperson of a Consortium Body shall convene meetings of that Consortium Body, as listed below.

	ORDINARY MEETING	EXTRAORDINARY MEETING
PMC	Twice a year	At any time upon written request of any Party in the case of an emergency situation
PTC	Quarterly	at any time upon written request of any member of the Project Technical Committee in the case of an emergency situation
Working Meetings	Quarterly	At any time upon written request of any Member of the Work Package
IAC	Once a year	None

3.3.1. Invitations and Meeting minutes

Project Management Committee

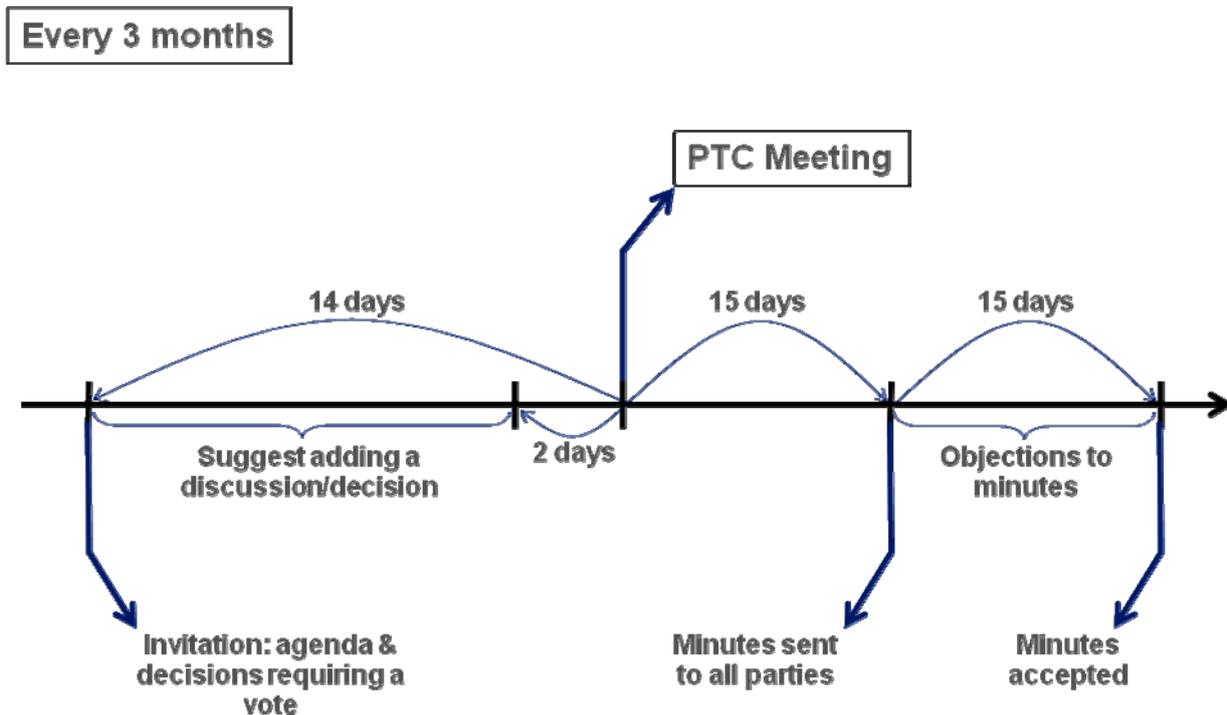
The following figure depicts the typical invitations and meeting minutes delays for a Project Management Committee Meeting:



Any decision requiring a vote at a Project Management Committee meeting must be identified as such on the invitation. Should a Party suggest adding a discussion/decision to the proposed agenda, it shall do so in writing to all other Parties at least seven calendar days prior to the meeting date.

Project Technical Committee

The following figure depicts the typical invitations and meeting minutes delays for a Project Management Technical Meeting:



The Coordinator gives each of the Parties at least thirty calendar days notice in writing of such meetings or seven calendar days notice in case of an emergency situation.

Any decision requiring a vote at the Project Technical Committee meeting must be identified as such on the invitation.

Should a member of the Project Technical Committee suggest adding a discussion/decision to the proposed agenda, it shall do so in writing to all other members at least seven calendar days prior to the meeting date.

3.3.2. Other Meetings

Next to the project working meetings, Review Meetings will be held at least at the end of each reporting period (see Section 3.4). The EC requests the Review Meetings. The EC together with the Project Leader determine date, agenda, duration and location.

3.3.3. Project Calendar

The Management Support Team will maintain a Project Calendar, containing all relevant events of project meetings, reviews, reporting deadlines and major deadlines (e.g., availability of deliverables). It is everyone's responsibility to keep this calendar up-to-date and to inform the Project Leader of changes. External or public events will also be put on the public part of the Web site.

Private and public Project Calendars are available on the Public and Private CHOReOS Web site, respectively.

3.3.4. Meeting Schedule

The following tables summarize the meetings schedule for pre-planned working meetings.

Year 1

Meeting	Date / Organizer	Main objective
M03	12-14 Jan. 11 CNR - Pisa	PTC 2 (WP status) WP3, WP4 KO
M06	6-8 April 11 EBM - Toulouse	PMC 2, PTC 3 (WP status) WP5 KO WP6, WP7, WP8 KO WP10 KO
	27 April 2011 Av. de Beaulieu 25, Brussels	1 st Review
M09	4-6 July 11 INRIA - Paris	PTC 4 (WP status)
M12	12-14 Sept. 11 VTRIP - Athens	PMC 3, PTC 5 (WP status)

Year 2

Meeting	Date / Organizer	Main objective
	14 & 15 Nov. 11 INRIA - Paris	2 nd review
M15	11-13 Jan. 12 MLS - Thessaloniki	PTC 6 (WP status)
M18	2-4 April 12 CNR - Pisa	PMC 4, PTC 7 (WP status)
M21	July 12 TBD	PTC 8 (WP status)
M24	Oct. 12 TBD	PMC 5, PTC 9 (WP status)

Year 3

Meeting	Date / Organizer	Main objective
	Nov.-Dec. 12 TBD with EC	3 rd review
M27	Jan. 13 TBD	PTC 10 (WP status)
M30	April 13 TBD	PMC 6, PTC 11 (WP status)
M33	July 13 TBD	PTC 12 (WP status)
M36	Oct. 13 TBD	PMC 7
	Nov.-Dec. 13 TBD with EC	Final Review

3.4. Project Reporting

3.4.1. Reporting Periods

The following reporting periods are distinguished in the Project:

- P1: from month 1 to month 12 (1 October 2010 – 30 September 2011)
- P2: from month 13 to month 24 (1 October 2011 – 31 September 2012)
- P3: from month 25 to month 36 (1 October 2012 – 31 September 2013)

A strict planning is established for the production of each deliverable so as to ensure quality and timely delivery. The planning for Report deliverables shall in particular account for:

- 1) Production of the outline (Table of content and planning to be set by the Deliverable Leader),
- 2) Collaborative authoring of the documents,
- 3) Appointment of reviewers,
- 4) Release of draft for internal review,
- 5) Revision of the document according to review, and
- 6) Final release.

In any case, the deliverables of a given reporting periods shall always be sent at least 3 weeks before the matching review meeting (see section 3.3.4 for pre-planned working schedule).

Deliverables include the WP11 deliverables entitled “Annual progress and financial reports”, providing in particular:

- An overview of the activities carried out, by the consortium as a whole and by project partner, during the reporting period;
- A description of progress toward the objectives of the project;
- A description of progress towards the milestones and deliverables foreseen; and

- The identification of the problems encountered and corrective action taken.

The Management Support Team coordinates the realization of these reports.

Templates for all reports will be available in the internal Web site - section Templates.

3.4.2. Project Deliverables

The following table lists the Project Deliverables, as agreed with the Commission in the DOW.

Del. n°	Deliverable name	WP n°	Lead benef. name	Nature	Level	Date
D1.1	CHOReOS SoTA, baseline and beyond	1	INRIA	R	PU	M3
D1.2	CHOReOS perspective on the Future Internet and initial conceptual model	1	UDA	R	PU	M6
D1.3	Initial architectural style for CHOReOS choreographies	1	INRIA	R	PU	M12
D1.4	Description of the CHOReOS conceptual model and architectural style and their relation with the CHOReOS development process and related method, tools and middleware	1	INRIA	R	PU	M24
D2.1	CHOReOS dynamic development model definition	2	UDA	R	PU	M12
D2.2	Definition of the dynamic development process for adaptable QoS-aware ULS choreographies	2	UDA	R+P	PU	M24
D2.3	CHOReOS dynamic development process: methods and tools	2	UDA	R+P	PU	M36
D3.1	CHOReOS middleware specification	3	UOI	R	PU	M12
D3.2.1	CHOReOS middleware first implementation	3	EBM	R+P	PU	M18
D3.2.2	CHOReOS middleware implementation	3	EBM	R+P	PU	M24
D3.3	Integrated CHOReOS middleware and deployment of ULS, QoS-aware adaptive choreographies	3	USP	R+P	PU	M36
D4.1	Governance V&V policies and rules	4	CNR-ISTI	R	PU	M12
D4.2.1	V&V tools and infrastructure – strategies, architecture and first implementation	4	CNR-ISTI	R+P	PU	M18
D4.2.2	V&V tools and infrastructure – strategies, architecture and implementation	4	CNR-ISTI	R+P	PU	M24
D4.3	Final release of the V&V tools and infrastructure	4	CNR-ISTI	R+P	PU	M30
D4.4	Testing and monitoring tools and infrastructure final evaluation report	4	CNR-ISTI	R+P	PU	M36
D5.1	Requirements for the CHOReOS IDRE	5	THA	R	PU	M6

Del. n°	Deliverable name	WP n°	Lead benef. name	Nature	Level	Date
D5.2	Specification of the CHOReOS IDRE	5	EBM	R	PU	M12
D5.7.1	Integration plan – 1 st version	5	EBM	R	PU	M12
D5.3.1	CHOReOS IDRE and user manual – 1 st version	5	EBM	R+P	PU	M24
D5.4	Implementation of the test-bed	5	EBM	R+P	PU	M24
D5.7.2	Integration plan –2 nd version	5	EBM	R	PU	M24
D5.3.2	CHOReOS IDRE and user manual – revised version	5	EBM	R+P	PU	M30
D5.5	CHOReOS IDRE as open-source packages	5	EBM	R+P	PU	M30
D5.6	Final version and assessment of the CHOReOS IDRE	5	MLS	R+P	PU	M36
D6.1	Requirements and scenarios for the “Passenger-friendly airport”	6	THA	R	PU	M12
D6.2	“Passenger-friendly airport” service & choreographies design	6	THA	R+P	PU	M18
D6.3	Validation test plan of the “Passenger-friendly airport” use case	6	THA	R	PU	M24
D6.4	“Passenger-friendly airport” use case prototype, testing, verification and validation	6	THA	R+P	PU	M30
D6.5	Assessment and demonstration from the “Passenger-friendly airport” use case	6	THA	R+D	PU	M36
D7.1	“Mobile-enabled coordination of people” requirements specification and use case definition	7	WIND	R	PU	M12
D7.2	“Mobile-enabled coordination of people” service & choreographies design	7	WIND	R+P	PU	M18
D7.3	Validation test plan of the “Mobile-enabled coordination of people” use case	7	WIND	R	PU	M24
D7.4	“Mobile-enabled coordination of people” use case prototype, testing, verification and validation	7	WIND	R+P	PU	M30
D7.5	“Mobile-enabled coordination of people” use case assessment and demonstration	7	WIND	R+D	PU	M36
D8.1	“DynaRoute” scenario specification and requirements analysis	8	MLS	R	PU	M12
D8.2	“DynaRoute” architectural design	8	VTRIP	R	PU	M18
D8.3	“DynaRoute” implementation, testing, verification and validation	8	VTRIP	R	PU	M30

Del. n°	Deliverable name	WP n°	Lead benef. name	Nature	Level	Date
D8.4	Assessment of the “DynaRoute” pilot deployment and demonstration	8	VTRIP	R+D	PU	M36
D8.5	The “DynaRoute” pilot implementation	8	VTRIP	R+P	PU	M36
D9.1	Public CHOReOS web site	9	OW2	O	PU	M1
D9.2.1	CHOReOS flyer – 1 st year	9	NME	O	PU	M6
D9.9.1	CHOReOS collaboration plan	9	THA	R	PU	M6
D9.3.1	Annual report on CHOReOS dissemination – 1 st year	9	INRIA	R	PU	M12
D9.7.1	Plan of CHOReOS open source community building	9	OW2	R	PU	M12
D9.9.2	First report and updated plan on CHOReOS collaboration	9	THA	R	PU	M12
D9.2.2	CHOReOS flyer – 2 nd year	9	NME	O	PU	M18
D9.4	CHOReOS whitepapers	9	NME	R	PU	M18
D9.3.2	Annual report on CHOReOS dissemination – 2 nd year	9	INRIA	R	PU	M24
D9.5.1	Recording of virtual training session – beta version	9	NME	O	PU	M24
D9.6.1	CHOReOS courseware – beta version	9	NME	O	PU	M24
D9.7.2	Report on CHOReOS open source community building	9	OW2	R	PU	M24
D9.9.3	First report and updated plan on CHOReOS collaboration	9	THA	R	PU	M24
D9.2.3	CHOReOS flyer	9	NME	O	PU	M36
D9.3.3	Annual report on CHOReOS dissemination – 3 rd year	9	INRIA	R	PU	M36
D9.5.2	Recording of virtual training session – alpha version	9	NME	O	PU	M36
D9.6.2	CHOReOS courseware	9	NME	O	PU	M36
D9.7.3	Final report on CHOReOS open source community building	9	OW2	R	PU	M36
D9.8	Proceedings of the CHOReOS international workshops	9	INRIA	R	PU	M36
D9.9.4	Final report on CHOReOS collaboration	9	THA	R	PU	M36
D10.1.1	Exploitation Plan – preliminary version	10	VTRIP	R	CO	M6
D10.1.2	Exploitation Plan – year 1	10	VTRIP	R	CO	M12
D10.5.1	Plan of CHOReOS standardisation activities and groups	10	THA	R	PU	M12
D10.1.3	Exploitation Plan – year 2	10	VTRIP	R	CO	M24
D10.2	Market analysis	10	SSII VIA	R	CO	M24
D10.5.2	Report on CHOReOS standardisation activities and groups	10	THA	R	PU	M24

Del. n°	Deliverable name	WP n°	Lead benef. name	Nature	Level	Date
D10.1.4	Exploitation plan – final	10	WIND	R	CO	M36
D10.3	Final technical assessment report	10	SSII VIA	R	PU	M36
D10.4	Socio-technical assessment report	10	THA	R	PU	M36
D10.5.3	Final report on CHOReOS standardisation activities and groups	10	THA	R	PU	M36
D11.1	Quality plan	11	THA	R	CO	M3
D11.2	Internal web site	11	THA	O	CO	M3
D11.3.1	Annual progress and financial report	11	THA	R	CO	M12
D11.3.2	Annual progress and financial report	11	THA	R	CO	M24
D11.3.3	Annual progress and financial report	11	THA	R	CO	M36
D11.4	Final report	11	THA	R	PU	M36

4. Project Planning and Timetable

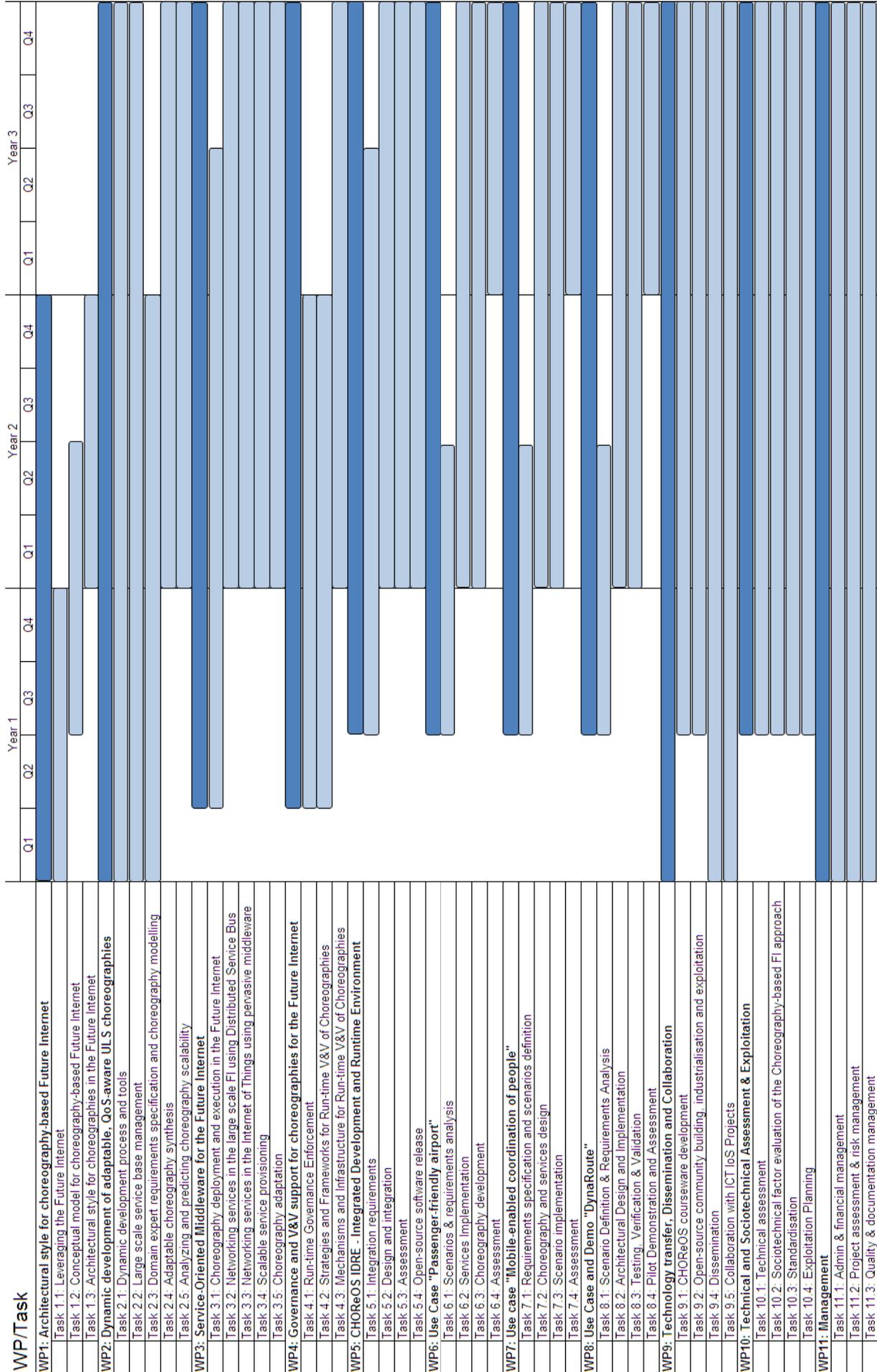
This section gathers:

- The Project milestones (§4.1), and
- The Project Gantt chart (§4.2).

4.1. Major Milestones

Milestone n°	Milestone name	WPs	Lead benef.	Date	Means of verification
1	CHOReOS perspective on the Future Internet	WP1	INRIA	M6	D1.2
2	Initial architectural style for CHOReOS choreographies	WP1-4	INRIA	M12	D1.3, D2.1, D3.1, D4.1
3	CHOReOS first individual components	WP2-4	UDA	M18	D3.2.1, D4.2.1
4	CHOReOS IDRE 1 st integration	WP2-5	EBM	M24	D2.2, D3.2.2, D4.2.2, D5.3.1
5	CHOReOS IDRE 2 nd integration & Open source release	WP2-5	EBM	M30	D4.3, D5.3.2
6	CHOReOS demonstrations and exploitation	WP6-10	THA	M36	D6.5, D7.5, D8.5, D9.3.3, D10.1.4, D10.3, D10.4

4.2. Gantt chart



5. Project Dashboard: Indicators and Metrics

The Project Leader continuously maintains a dashboard with metrics and associated indicators that allow him, the PTC as well as the PMC to supervise the progress status of the project. The following metrics and indicators will be used from the start of the project:

- The total number of new actions per quarter: less than 10 per month
- The number of opened actions: less than 15.
- The delay for each deliverable (see Section 3.4.2): less than 3 weeks.
- The cumulative delay for all the deliverables (see Section 3.4.2): less than 2 months.
- The delay w.r.t. the schedule per task (see Section 4.1.2 for the initial schedule): less than 3 weeks.
- The number of reschedulings: less than 7.
- The delay for each Milestone (see Section 4.1.1): less than 2 weeks.
- The cumulative delay for all the Milestones (see Section 3.4.2): less than 1 month.
- The cumulative overspending per deliverable (see Section 3.4.2): less than 5 Person.Month.
- The cumulative overspending per Work Package (see Section 3.1): less than 10 Person.Month.
- The number of rectifying actions taken after a quality review of a deliverable (see Section 6.1): less than 10.
- The indicators related to the scientific researches.
- The indicators related to the collaboration activities.

The Project Dashboard is an excel file made of 7 sections: actions, deliverables, work packages and tasks, milestones, performance & Research targets, risks and collaboration. Each section is made of subdivided in information parts, indicators and metrics. Metrics are shown by painting or not the matching indicators.

Each of these sections are described in the following paragraphs.

5.1. Actions

This section is made up of 2 sheets: the actions per se and the associated indicators and metrics.

The following picture gives an example of each.



A	B	C	D	E	F	G	H	I	J
3	Actions								
4									
5	ID	What	Who						
6									
7	PMCI-001	Publish a template for LaTeX	CNR	04/10/2010	01/11/2010	01/11/2010	-	-	Closed
8	PMCI-002	Publish templates for OpenOffice	OW2	04/10/2010	01/11/2010	01/11/2010	-	-	Closed
9	PMCI-003	Info about MagicDraw (free) license for interested partners Info about proposal on UML profile for BPMN 2 at OMG (processes activity) Provide references/documentation about BPMN 2, soaML, and related MagicDraw plugins	BPI	04/10/2010	12/01/2010		-	-	Opened
10	PMCI-004	To be better clarified/discussed (clearly we know that this must be investigated but, please, start to think about it) How to automatically build an adaptor between a service abstraction and its concrete instance The gap (if any) between the func. and non-func. abstractions you intend to deal with and the ones to be given as input to the choreography synthesis phase	UOI	04/10/2010	12/01/2010		-	-	Opened
11	PMCI-005	Does i* have a meta-model (even "implicit")? If yes, please provide documentation about it Provide (even small) concrete i*-based modelling examples (we know you are already working on it) (to be uploaded to the CHOReOS Wiki)	CITY	04/10/2010	12/01/2010		-	-	Opened
12	PMCI-006	What does it mean for services to cooperate in order to realize the specified choreography? in other words, what's the (executable) result of the choreography synthesis? We already have our vision but we should all agree on that	UDA	04/10/2010	12/01/2010		-	-	Opened
13	PMCI-007	Provide (even small) concrete examples (to be uploaded to the CHOReOS Wiki) Concepts of dependency management, module dependency and stability to be clarified A short description accompanied with simple examples is enough (to be uploaded to the CHOReOS Wiki)	USP	04/10/2010	12/01/2010		-	-	Opened
14	PMCI-008	Comment on www.choreos.eu	All	04/10/2010	15/09/2010	15/09/2010	-	-	Closed
15	PMCI-009	Restructure the public web site taking into account comments from meeting as well as preceding action	OW2	04/10/2010	29/09/2010	29/09/2010	-	-	Closed
16	PMCI-010	send comments/suggestions in which groups we should participate and with which other projects collaborate	THA	04/10/2010	25/09/2010	25/09/2010	-	-	Closed
17	PMCI-011	draft of ICT IoS Collaboration Plan	THA	04/10/2010	31/12/2010		-	-	Opened
18	PMCI-012	provide a draft of CHOReOS flyer	BPI	04/10/2010	31/12/2010		-	-	Opened
19	PMCI-013	set up a Doodle questionnaire about the social networks for public communications	OW2	04/10/2010	15/10/2010	15/10/2010	-	-	Closed
20	PMCI-014	Vote on the preceding action	All	04/10/2010	22/10/2010	22/10/2010	-	-	Closed
21	PMCI-015	Create a social network group	OW2	04/10/2010	29/10/2010	29/10/2010	-	-	Closed
22									
23									
24									
25									

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3	Deliverables																									
4																										
5																										
6																										
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• The cumulative delay for all the deliverables: < 2 months

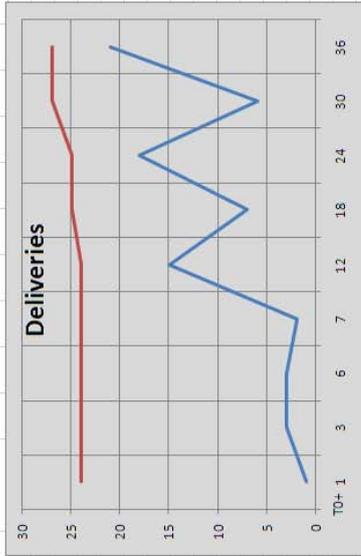
Cumulative delay: 0,70 (month)

• The cumulative overspending per deliverable: < 5 PM

Cumulative overspending: 0 (MP)

Number of Deliveries per month and year

TO+	1	3	6	7	12	18	24	30	36
Deliveries N	1	3	3	2	15	7	18	6	21
Total per year	24	24	24	24	24	25	25	27	27



In this figure, the metrics “Delay for each deliverable” is valued at 3 weeks for the D9.1 and so the matching indicator is highlighted. This deliverable needed to be delivered very soon in the project (M1) and so suffered from the “warm-up lap”.

The graphic gives the number of deliverables to be delivered wrt the time and the cumulative one.

5.3. Work Packages & Tasks

This section is made up of 1 sheet giving the packages and tasks, their metrics and indicators.

The following picture gives an example of it

• The delay w.r.t. the schedule per task: < 3 weeks.

• The number of reschedulings: < 7.

Rescheduling: 0,00

• The cumulative overspending per WP: < 10 PM

Cumulative overspending: 0

ID	WP	Task	Lead	Planned			Realised			Over-spend	Post. (Days)	Nb of Reschedules
				Start	Dur	End	Start	End	MP			
<p>WP1: Architectural style for choreography</p> <p>Task 1.1: Leveraging the Future Internet</p> <p>Task 1.2: Conceptual model for choreography</p> <p>Task 1.3: Architectural style for choreography</p> <p>WP2: Dynamic development of adaptable</p> <p>Task 2.1: Dynamic development process</p> <p>Task 2.2: Large scale service base management</p> <p>Task 2.3: Domain expert requirements specification</p> <p>Task 2.4: Adaptable choreography synthesis</p> <p>Task 2.5: Analyzing and predicting choreography</p> <p>WP3: Service-Oriented Middleware for the</p> <p>Task 3.1: Choreography deployment and adaptation</p> <p>Task 3.2: Networking services in the large scale</p> <p>Task 3.3: Networking services in the Internet</p> <p>Task 3.4: Scalable service provisioning</p> <p>Task 3.5: Choreography adaptation</p> <p>WP4: Governance and V&V support for choreography</p> <p>Task 4.1: Run-time Governance Enforcement</p> <p>Task 4.2: Strategies and Frameworks for Governance</p> <p>Task 4.3: Mechanisms and Infrastructure</p> <p>WP5: CHOReOS IDRE - Integrated Development</p> <p>Task 5.1: Integration requirements</p> <p>Task 5.2: Design and integration</p> <p>Task 5.3: Assessment</p> <p>Task 5.4: Open-source software release</p> <p>WP6: Use Case "Passenger-friendly airport"</p> <p>Task 6.1: Scenarios & requirements analysis</p> <p>Task 6.2: Services implementation</p> <p>Task 6.3: Choreography development</p> <p>Task 6.4: Assessment</p> <p>WP7: Use case "Mobile-enabled coordination"</p> <p>Task 7.1: Requirements specification and analysis</p> <p>Task 7.2: Choreography and services design</p>												



5.4. Milestones

This section is made up of 1 sheet giving the milestones, their metrics and indicators.

The following picture gives an example of it.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1														
2														
3		Milestones												
4														
5														
6														
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39														

• The cumulative delay for all the Milestones: < 1 month

• The delay for each Milestone: < 2 weeks

Cumulative delay: 0,00 (Month)

ID	Name	WPs	Lead	Delivery Date Planned	Realised	Post. (Weeks)	Deliverables
1	CHOREOS perspective on the Future internet	WP1	INRIA	01/04/2011		0,00	D1.2
2	Initial architectural style for CHOREOS choreographies	WP1-4	INRIA	01/10/2011		0,00	D1.3, D2.1, D3.1, D4.1
3	CHOREOS first individual components	WP2-4	UDA	01/04/2012		0,00	D3.2.1, D4.2.1
4	CHOREOS IDRE 1 st integration	WP2-5	EBM	01/10/2012		0,00	D2.2, D3.2.2, D4.2.2, D5.3.1
5	CHOREOS IDRE 2 nd integration & Open source release	WP2-5	EBM	01/04/2013		0,00	D4.3, D5.3.2
6	CHOREOS demonstrations and exploitation	WP6-10	THA	01/10/2013		0,00	D6.5, D7.5, D8.5, D9.3.3, D10.1.4, D10.3, D10.4

5.5. Performance/Research Targets

This section is made up of 1 sheet giving the targets.

The following table lists the targets.

Target Outcome (Objective 1.2)	Planned results
Service Architectures and Platforms for the Future Internet	Peer reviewed publications
	<ul style="list-style-type: none"> • Journal articles: 5
	<ul style="list-style-type: none"> • Conferences papers: 6
	<ul style="list-style-type: none"> • Workshop papers: 3
	Open source repository
	<ul style="list-style-type: none"> • Release of a Middleware platform for enactment of Choreographies in ultra large scale environments (according to CHOReOS definition given in Section B.1.1), whose features are detailed as part of the presentation of WP3.
	<ul style="list-style-type: none"> • 1,000 downloads of CHOReOS software distribution package from open source repository by the end of the project.
	<ul style="list-style-type: none"> • 200 community members, at least 30% from industry.
	<ul style="list-style-type: none"> • 20+ contributors
	White papers
	<ul style="list-style-type: none"> • Service oriented middleware for the Future Internet
	<ul style="list-style-type: none"> • Web service choreography and high performance computing
	Workshop organization
	<ul style="list-style-type: none"> • International workshop to promote the creation of a developer community around the CHOReOS integrated solution, to be affiliated with a major event of the open source area (e.g., OW2 annual conference, Open World Forum, DevOxx, JavaOne, OSCON, NASAC, CONSEGI) and to be organized in the final year of the project.
	<ul style="list-style-type: none"> • Seek 40+ participants with 30% industry attendees
Training activities	
<ul style="list-style-type: none"> • Tutorial on service-oriented middleware for the Future Internet to be submitted to and given at a major event in the area of middleware/Future Internet, during the project's final year. The tutorial will also be made available on the Web as open teaching material. 	
Highly Innovative Service / Software Engineering	Contribution to standards
	<ul style="list-style-type: none"> • Contribution to revisions of BPMN (Standardization body – OMG)
	<ul style="list-style-type: none"> • Contribution to revisions of SoaML (Standardization body – OMG)
	Peer reviewed publications
<ul style="list-style-type: none"> • Journal articles: 8 (target includes: ACM TOSEM, IEEE Software, IEEE TKDE, IEEE TSC, IEEE TSE, IJWSR, JSS, PMC, REJ, SoSyM) 	

<ul style="list-style-type: none"> Conferences papers: 10 (target includes: ASE, CSMR, ECMFA, FSE, ICSE, ICSOC, ICST, ICWS, ISSTA, ITC, ICST, MoDELS, RE, SCC)
<ul style="list-style-type: none"> Workshop papers: 3
Open source repository
<ul style="list-style-type: none"> Release of a set of MDE-based tools for the development of choreography for the Future Internet, in particular addressing support for requirements engineering, specification, refinement and synthesis, and V&V. Target functionalities for the toolset are defined as part of the description of WP2 and WP4.
<ul style="list-style-type: none"> 1,000 downloads (including middleware solution) of CHOReOS software distribution package from open source repository by the end of the project.
<ul style="list-style-type: none"> 500 community members (including middleware solution), at least 30% from industry.
White papers
<ul style="list-style-type: none"> Service engineering for the ultra large-scale Future Internet
<ul style="list-style-type: none"> Model-driven service definition and integration in the Future Internet
<ul style="list-style-type: none"> Requirements process for very-large service-based systems
<ul style="list-style-type: none"> Testing Web services coordination
<ul style="list-style-type: none"> Governance V&V of choreographies
Workshop organization
<ul style="list-style-type: none"> International scientific workshop in conjunction with major event in the area of service/software engineering (e.g., ICSOC, ICSE, ESEC, FSE), to be organized during the 2nd year and to be held in the last year of the project.
<ul style="list-style-type: none"> Seek 50+ participants with 10% attendees from industry
Training activities
<ul style="list-style-type: none"> Tutorial on development process and supporting toolset for ultra-large-scale service-oriented systems of the Future Internet to be submitted to and given at major event in the area of service/software engineering, during the project's final year. The tutorial will also be made available on the Web as open teaching material.

5.6. Risks

This section is made up of 1 sheet giving the targets.

The following table lists the risks at the time of writing.

Risk	Impact on project	(I)	(P)	(R)	Prevention and contingency strategies	Ms
Scientific & Technological Risks						
Key requirements change	Project delay	C	H	H	The key requirements are captured at the beginning of the project. Upon risk detection minor corrective actions are identified to align the project objectives	Ms2

Risk	Impact on project	(I)	(P)	(R)	Prevention and contingency strategies	Ms
Poor definition of the CHOReOS architectural style for Future Internet choreographies	Project delay Poor quality of results	C	L	M	The definition of the CHOReOS architectural style is going to be produced through an iterative refinement process whose steps correspond to distinct tasks of WP1. These steps provide the opportunity of carefully reviewing the target architectural style in various stages of the project and consequently mitigate this risk. The extensive experience of the consortium in software engineering, in general, and software architecture, in particular, are further means to cope with this risk.	Ms2
Poor definition of the CHOReOS development process	Project delay Poor quality of results	C	L	M	The baseline experience of the consortium in software engineering, in general, and model-driven development in particular are the primary means to alleviate this risk.	Ms2
Competitive systems emerge	Adjustment of the project	C	M	M	Partners regularly survey technical and market trends and events.	Ms2
Difficulty to analyze and predict scalability and QoS of adaptable QoS-aware ULS choreographies due to (i) <i>a priori</i> unknown actual services to be used, (ii) not fixed dependencies established by dynamic rearrangement of services.	Poor S/T result	M	M	M	The consortium has extensive expertise in: - Predicting QoS, and analyzing interdependencies and stability of services in a large scale context - Defining abstractions, beyond standard-specific services, bindings and choreographies, that allows organizing the vast amount of available services and enable the evolution of ULS choreographies. The core of the middleware will be designed with scalability in mind from the start.	Ms3 to Ms6
Poor scalability of the CHOReOS abstraction recovery methods and tools with respect to the vast amount of available services	Project delay Poor quality of results	C	M	M	The CHOReOS abstraction recovery methods and tools and the CHOReOS service base shall be developed incrementally allowing examining various alternative design options against the scalability issue through a common prototyping procedure. The consortium's background in	Ms3 to Ms6

Risk	Impact on project	(I)	(P)	(R)	Prevention and contingency strategies	Ms
					data-mining and managing scale are further means to mitigate this risk. Specifically, members of the consortium have worked in repository management and data warehousing.	
The CHOReOS runtime environment is too 'heavy' for resource-constrained devices	Poor performance Poor exploitation	C	M	M	Early performance considerations and preliminary analysis. [M6] Contingency: Re-design the platform / middleware for improved performance with less resource requirements. [M18]	Ms3 to Ms6
Poor integration of the platform and IDRE components, due to the high degree of heterogeneity of the individual contributions.	Complexity, Poor usability, Poor exploitation	C	M	M	Develop proper requirements and specifications to ensure homogeneous contributions and proper interfaces among them. [M6] Contingency: Re-implement the heterogeneous components. This situation must be realized and proper action must subsequently be taken at M18.	Ms3 to Ms6
Poor precision of the CHOReOS abstraction recovery methods and tools, leading into inability to synthesize adaptable choreographies	Project delay Poor quality of results	C	M	M	The CHOReOS abstraction recovery methods and tools and the CHOReOS service base shall be developed incrementally, enabling the investigation of various alternative design options against the precision issue through a common prototyping procedure. The aforementioned procedure shall be guided by our prior experience in approaches for service substitution.	Ms3 to Ms6
Poor performance of the querying mechanisms that support the CHOReOS service base	Project delay Poor quality of results	M	L	L	The previous work of consortium members on approaches for service substitution specifically focused on reducing the complexity of retrieving services that may serve as substitutes of services that no-longer fulfil client requirements. Moreover, consortium members have worked on efficient query processing and indexing, in P2P and distributed databases.	Ms3 to Ms6

Risk	Impact on project	(I)	(P)	(R)	Prevention and contingency strategies	Ms
The requirements process and tools fail to scale to a level of scalability that is agreed in the consortium as the target level of scalability for the consortium	Poor S/T result	C	M	M	CHOReOS partners have longstanding experience in developing and releasing advanced scalable open source software. First tests including scalability issues start as early as M18 in WP5 as well as use case WPs (mainly WP8).	Ms3 to Ms6
Difficulty to integrate V&V framework into CHOReOS middleware	Poor S/T result	M	L	M	Plan for joint strategy identification between WP3 and WP4	Ms3 to Ms6
V&V model-based approach does not scale up to ULS	Not usable S/T result	C	M	M	Consider to include sampling strategies based on which V&V on-line execution can be activated/deactivated so to reduce impact on choreography performances. Enforcement engine will be design according to a “plug-in” architecture allowing adding or retracting easily some specific QoS enforcement components.	Ms3 to Ms6
Difficulty to integrate project results into a common platform	Poor S/T result Lack of validation	C	L	M	WP5 is dedicated to the integration of the other WPs and particularly of RTD WPs. Moreover, the consortium has extensive expertise in developing systems integrating diverse technologies from various domains.	Ms4
Delay in releasing Open source software	Delayed exploitation	M	M	M	Most CHOReOS partners have longstanding experience in developing and releasing advanced open source software. Fallback solution is to release elements of the IDRE individually, as they can be exploited in isolation towards supporting the development of choreographies.	Ms5
Fail to start effective exploitation	Delayed exploitation	C	M	M	CHOReOS exploitation is based on the significant interest of the industrial partners for the technologies that will be developed regarding various perspectives: technology developers, technology integration and exploitation for	Ms6

Risk	Impact on project	(I)	(P)	(R)	Prevention and contingency strategies	Ms
					innovative systems. In addition, CHOReOS exploitation also relies on the creation of an open source community	
The domain experts in the target domains lack adequate knowledge and/or motivation to describe their requirements for new service-based systems in the proposed case studies	Poor exploitation	M	L	L	WP6 to WP8 leaders are renowned industrials in their domain and CHOReOS take advantage of this know-how. For instance, WP6 leader has more than 15 years of experience in WP6 domain.	Ms6
The requirements processes and tools fail to achieve the required levels of usability to be taken widely by the industrial partners	Poor exploitation	C	M	H	First tests including usability issues start as early as M18 in WP5 as well as use case WPs (mainly WP8).	Ms6
Project Management Risks						
A partner withdraws	Project delay Poor quality of results	C	M	M	Transfer tasks to another partner with equivalent skills, possibly leading to look for an additional partner.	Ms1 to Ms6
Cost/time is exceeded	Poor quality of results	C	M	M	Regular progress reviews allow taking corrective actions as necessary.	Ms1 to Ms6
Insufficient involvement of the partner	Project delay Poor quality of results	C	L	M	Regular project management meeting and progress reviews to bring into line disputed areas.	Ms1 to Ms6
Problems with communication among partners	Project delay Poor quality of results	C	L	M	Regular project management meeting and progress reviews to bring into line disputed areas. Moreover, a reference conceptual model is devised in WP1 early in the S/T process in order to build a common ground for all the partners.	Ms1 to Ms6
Underestimating time necessary	Deliverables are not delivered on	M	M	M	Regular progress reviews allow taking corrective actions as	Ms1 to

Risk	Impact on project	(I)	(P)	(R)	Prevention and contingency strategies	Ms
for producing deliverables	time				necessary.	Ms6
Difficulties for Brazilian partners to travel	Project delay Poor quality of results Poor integration	H	L	M	Advanced planning of quarterly meetings and extensive use of videoconferencing and Web collaborative tools promote a good level of interaction with the Brazilian partners. Moreover, the integration work package (WP5) provides an identified work area to deal with non-interoperability issues.	Ms1 to Ms6
Dissemination & exploitation Risks						
Too little interest in CHOReOS	Failure to achieve dissemination indicators	C	M	H	Make plan for dissemination at academic and industrial events.	Ms3
Poor quality of the resulting platform	Bad exploitation of results	C	M	H	Development of enabling technologies for the Future Internet is already a key concern for the future portfolios of the industrial partners, thus being encouraging wrt exploitation perspectives for CHOReOS. Further use cases have been carefully chosen so that they match exploitation consideration of the industry partners.	Ms5
Lack of acceptance of runtime governance enforcement	Bad exploitation of results	M	H	M	Make plan for dissemination to standard bodies	Ms5
Ineffective dissemination	Inefficient leverage of results	L	L	L	Diversification of dissemination strategies. Actively participate in conferences and publication in the knowledge area.	Ms6
Sociotechnical assessment of CHOReOS approach	Viability and sustainability of CHOReOS does not clear	M	M	M	To obtain quantitative measures from developers, qualitative parameters from audience and other data from industry, economy and society, monitoring of the CHOReOS developing approach must be implemented.	Ms6
Demonstration Risks						

Risk	Impact on project	(I)	(P)	(R)	Prevention and contingency strategies	Ms
Interconnected mobile devices to be used in the DynaRoute demo may have less activity range than expected	Communication among devices may be unavailable for longer ranges	M	M	M	The largest possible number of different devices will be evaluated to match the specifications and selection criteria.	Ms6
Applications that support DynaRoute demo lack user-friendly features and are difficult to use	Low quality of choreography services will be provided to the end-user	M	M	M	Questionnaire for alpha & beta testers. In depth analysis and redesign of end-user GUI and changes in functionality.	Ms6
Problems in choreographic content transmitted by things to people	Poor quality of transmission	M	L	L	Provision for alternative transmission protocols to be used and code adaptation to various transmission protocols i.e. 3G, GPRS, wireless etc.	Ms6
Risks added during the project						
WP9: CHOReOS website is not attracting visitors	Dissemination & OSS community building failure	M	H	M	Use Twitter and LinkedIn channels to advertise about the web site	Ms1 to Ms6
WP4: Dependence on other WP results	Low quality of results	L	L	L	Be proactive and raise relevant issues	Ms2
WP4: Centrality of Governance infrastructure neglected by other WPs	Low quality of results	L	L	L	Relationship with others components should be introduced in WP1 (abstract level) and WP5 (concrete level)	Ms2
WP1: Much abstract WP yet Important WP	Low quality of results	L	L	L	Key target innovations to be understood by all - Key role of the WP should be shared by all	Ms2
WP2: Failure to agree on definitions of service quality and quality requirement taxonomies	Low quality of results	L	L	L	Enforce agreement within consortium – taxonomies led by one partner OR Agree different domain-specific taxonomies to use between partners within consortium	Ms2
WP2: Failure to agree nature of association between quality user requirements and choreography strategies	Low quality of results	L	L	L	Enforce agreement within consortium	Ms2
WP2: Failure to associate user task patterns and choreography patterns effectively	Low quality of results	L	L	L	If primary hypotheses cannot be accepted, prepare alternative hypotheses for association with choreography strategies based on emerging CHOReOS research	Ms2

Risk	Impact on project	(I)	(P)	(R)	Prevention and contingency strategies	Ms
WP2: Absence of concrete service (description)s	Low quality of results	L	L	L	Consortium to locate and/or develop domain-specific services to work with	Ms4
WP5: Instability and lack of respect of the agreed interfaces	Difficulty to integrate the IDRE	H	L	M	Enforce agreement within consortium – Clearly specify the interfaces	Ms2 to Ms6
WP5: Lack of performance of some components	Poor performance of the resulting IDRE	H	L	M	Specify performance integration tests as early as possible	Ms2 to Ms6
WP5: The delay in providing some components	Delay in providing the integrated IDRE	M	L	L	Keep the delay of delivery within 1month of the forecasted date	Ms3 to Ms6

5.7. Collaboration

This section will be initialized from the content of the deliverable D9.9.1 “CHOReOS collaboration plan” at M6.

6. Documents and Publication Procedures

This section provides a summary about procedures for:

- Documents production (§6.1),
- Quality assurance (§6.2),
- Paper publications (§6.3),
- Intellectual property rights (§6.4),
- Privacy of test participants (§6.5), and
- Archiving (§6.6).

6.1. Documents Production

Public documents and/or Project Deliverables should be readable by outsiders.

Care should be taken of writing enough introduction, problem description, executive summary etc.

It should also be made sure that no (company) confidential information is in there.

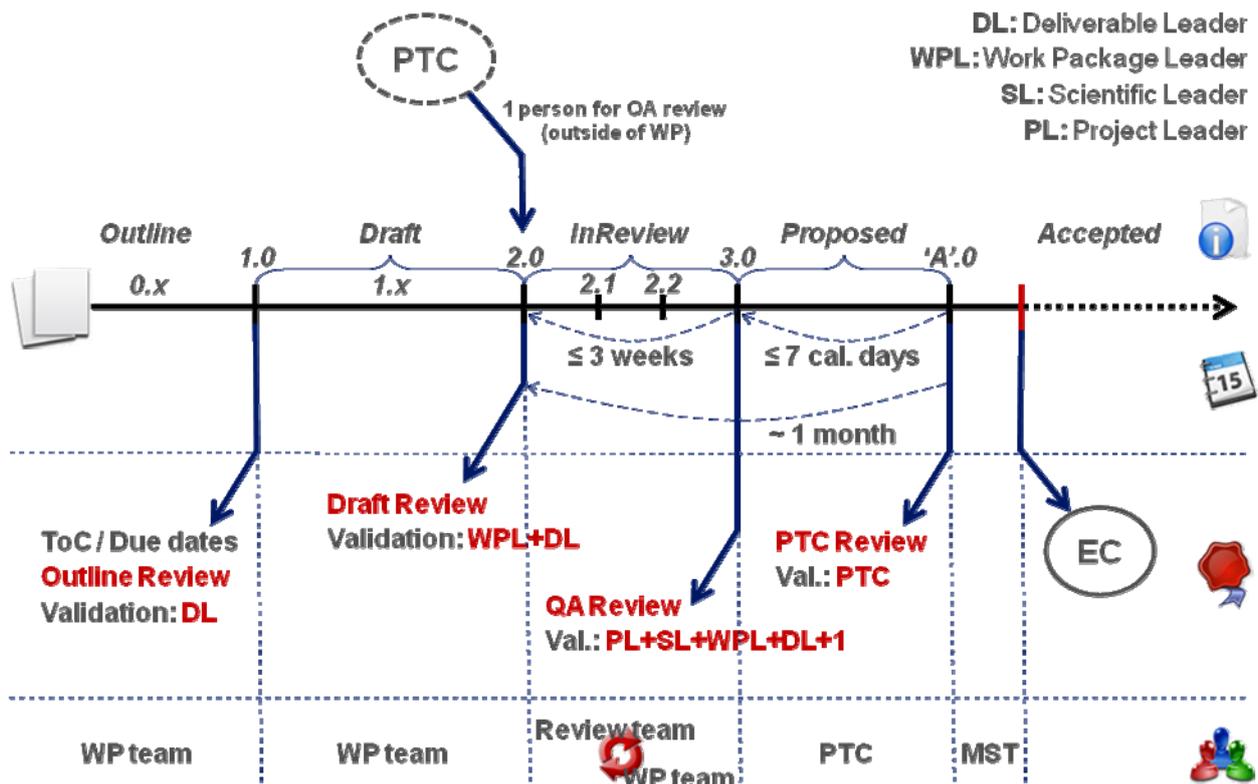
When using pictures, they should all be well understandable when printed in black and white, unless colour is really adding value to the quality of the report.

Finally, it should be made sure that all authors are mentioned.

6.1.1. Document Life Cycle

Each to-be-delivered document has a lifecycle of 4 phases: Outline, Draft, InReview, Proposed and Accepted (within the Consortium). In particular, all documents should have proper reviews.

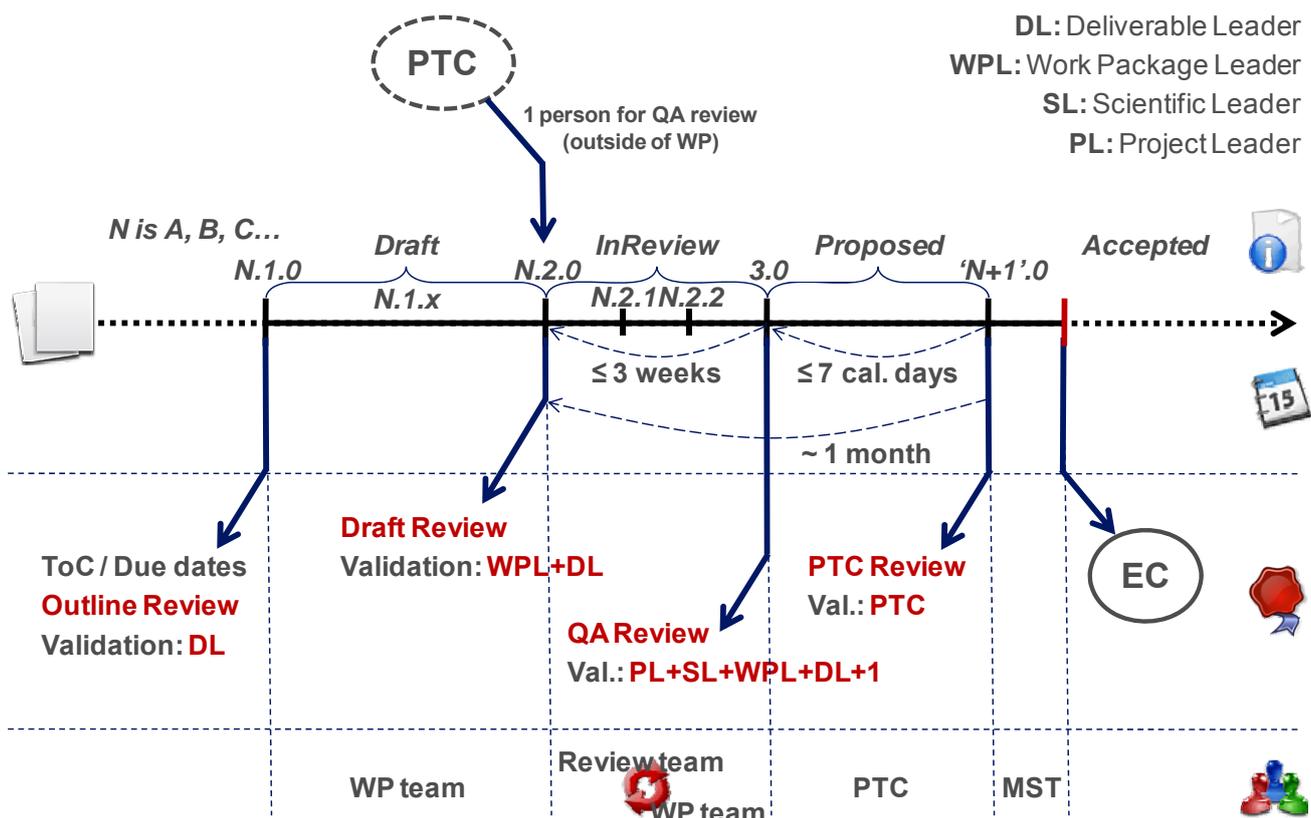
The following figure summarizes the phases, the mandatory delays that have to be forecasted, the reviews and the reviewers and who's actually working on the deliverable for the first version of a document.



For a document, the main milestones are:

- 1) Version 1.0 is the final outline which gives at least the table of content of the future document, the file format of the document (MS-office, Open Office or Latex: see Section 6.1.3) as well as the due dates for the following versions. This version was drafted by the WP team and is reviewed by the Deliverable Leader.
- 2) Version 2.0 is the final draft which initiates the main review process (ended by the “QA Review”). This version was drafted by the WP team and is reviewed by the Deliverable Leader and the WP Leader.
- 3) Version 3.0 is the version as reviewed and accepted in “Quality Acceptance” (QA). This version was drafted while exchanging between the Review team and the WP team, and is reviewed by the Deliverable Leader, the WP Leader, the Scientific Leader, the Project Leader as well as one more person nominated by the PTC. This review may take, preferably at its maximum, 3 weeks.
- 4) Version ‘A’ is the version as accepted by the PTC during a formal vote. This vote is conducted following the usual policy (by email and for 7 calendar days).
- 5) This version is sent to EC as quick as possible by the MST.

The second figure summarizes the phases, the mandatory delays, the reviews and the reviewers and who’s actually working on the deliverable for the second and following versions of a document.



The main discrepancies are the absence of the outline phase, which is meant to start a document, is the addition of the number of the main version of the document: A.1.0 to A.3.0, next B.0 and so forth.

6.1.2. Document File Naming

In order to have a consistent way of documentation and archiving, the project will use the following standardized file naming conventions:

CHOReOS_<WP>_[<DL>_]<NAME>_<VERSION>.<EXT>

where:

<WP>	Work package or management identifier e.g. 'WP01, 'WP02, 'PMC', 'PTC', etc.
<DL>	Deliverable identifier (cf. Section 3.4.2) – optional e.g. D11.1, D09.2.1
<NAME>	Name of the document (cf. Section 3.4.2). Separate the words with underscores ('_') e.g. Quality_Plan;
<VERSION>	Version identifier (optional except for deliverables where abovementioned versioning applies)
<EXT>	File name extension

Examples of names are:

- CHOReOS_WP11_Quality_Plan_V0.3.doc
- CHOReOS_WP11_Internal_Web_Site_VA.ppt

6.1.3. Document Exchange

The following document exchange format conventions will be used:

- For distribution, all partners must use email, or any other electronic medium supplied by the MST;
- For document processing, either MS-office, Open Office or Latex formats shall be used, where for each document its editor is in charge of setting the file format in agreement with all the authors;
- For figures/graphs, preferably do not use postscript, use TIFF for public documents, otherwise GIF, JPG and BMP;
- Documents are circulated in PDF format;
- In order to facilitate final editing and lay-out, CHOReOS templates are to be used;
- CHOReOS templates shall further be used for any communication with the EC (e.g., for deliverables).

6.2. Quality Assurance

Quality assurance (QA) measures are applied to all activities of the project.

The following QA measures in particular apply:

- CHOReOS documents (management reports, project deliverables, etc) have to pass three QA iterations:
 - To reach the status "InReview", documents need to be reviewed and approved by the Work Package Leader as well as the Deliverable Leader;
 - To reach the status "Proposed", documents need to be reviewed and approved from project members other than the author(s) of the document;
 - To receive the status "Accepted", documents need to be formally approved by the respective management team (i.e., the PTC), where it needs to be ensured that the review comments have been taken into account to the satisfaction of the reviewers.
- Internal Results and Deliverables to the EC shall be reviewed and approved by the PTC.

- Publications of project results (other than Project Deliverables) shall follow the procedure introduced in the next section. In the case where the paper is peer reviewed, then internal review within the CHOReOS consortium may be skipped.
- Reviewers have to communicate their review comments in written form to the author(s) of the document; the author(s) have to keep track of the history of the document (incl. processing of the review comments received) in one of its appendices.
- When applicable, electronic annotation should be employed.

6.3. Procedure for Paper Publications

Procedure for abstract/full paper submission for publication (journal, conference proceedings, book...) is as follows:

- In case the paper involves material from beneficiaries who are not authors, the full content of the abstract must be sent to all partners 45 days prior to deadline for submission.
- Partners have 30 days to react on the content of the abstract and have the possibility to block the submission of the abstract or request to revise the abstract. Absence of reaction will be considered as consent.
- Send the full conference/journal paper to all partners ONE week prior to submission (in case –as above– the paper involves material from beneficiaries who are not authors).
- Partners have 5 days to react on the content of the full conference paper and have the possibility to request revision of the full conference paper. Again, the absence of reaction will be considered as consent
- Authors have 2 days left for changing the full conference paper before deadline of submission.
- EC-support has to be explicitly acknowledged, using the following sentence or the like:
The researches leading to these results have received funding from the European Community's Seventh Framework Programme FP7/2007-2013 under grant agreement number 257178 (project CHOReOS – Large Scale Choreographies for the Future Internet).
- Send an accepted copy of the publication to the MST for the project archive, the internal Web site and, when allowed by the media policies, the public Web site.

6.4. Procedure for Public Web site Publications

Procedure for modifying the public web site is as follows:

- Send the description of the modification (including the detailed information, classification and hyperlink to any source) to the WP9 mailing list;
- The Public Web Site Administrator (see section A.8) performs the requested modification within the following week.

6.5. Procedure for Intellectual Property Rights (IPR)

Patents are normally dealt with within the organizations of the Partners separately or collectively in case of joint ownership, taken into account the PMC, the general conditions of the EU contract on IPR and the specific rules foreseen in the CA.

Partners, who want to patent foreground knowledge, which is content of a publication, should act pro-actively to protect this knowledge.

IPR will be regularly put on the agenda of the PTC for monitoring.

See Section 7.1 hereunder for specific procedures for open source software

6.6. Procedure for Privacy of Test Participants

In case assessment of project results involves test participants (for instance during the demonstration in WP8), participants have to give explicit approval for their participation on (user) tests, focus groups etc. and can revoke this approval at all times.

Test results normally will be de-personalized for publications, i.e., no reference to specific individuals will be given. When specific data of an individual is used in a publication, for example a picture or a quote, written permission to publish is needed from the participant. This permission to publish personal results is separate from the approval to participate in the original test(s). The main author of the article is responsible to have gathered this permission before publication. The full name and/or address details of test participants should never be published.

6.7. Project Archive

All relevant papers (documents, minutes, action lists, etc.) of the project are stored in the Internal Project Web site.

Cost statements are archived by the coordinator. The archive accepts only commonly used WWW document formats including PDF, HTML and Microsoft/Open Office formats.

The information stored in the Web site is accessible for all Partners. The Web site is maintained by the coordinator, when material is electronically available. However, all partners shall actively participate in either uploading relevant documents on the Web site or forwarding electronic copies to the MST for archiving.

Public CHOReOS documents (PU deliverables and published papers) are further made available from the CHOReOS public site.

7. Specific Procedures for Software Publication

7.1. Procedure for Access Rights to Open Source Software

The following steps are to be followed when *using* or *adapting* OSS (apart from those from CHOReOS itself):

- 1) Identify as soon as possible after the start of a task which Software and what you want to use it for. Submit a proposal describing the intended use of Open Source Software to all partners via e-mail (choreos@inria.fr). Describe the context of use of the Software and include applicable Open Source Software License (or a link to them). ***The licenses allowing linking with code using a different but non viral license, such as the LGPLv3 and BSD like licenses shall be favoured.***
- 3) Partners review license requirements for that context and gives green/red light. Partners have one (1) week to respond.
- 4) If necessary, objections are discussed within PTC and eventually PMC.
- 5) When agreement is reached, the Software is added to the correct appendix of the CA.

When *creating* a new component, as stated in the DoW, this new component shall be disclosed as OSS. Again, ***the LGPLv3 license shall be favoured.*** The following steps are to be followed *if* the foreseen license is not LGPLv3:

- 1) Identify as soon as possible after the start of a task which non LGPLv3 license is wanted.
- 2) Submit a proposal describing the intended component and license to all partners via e-mail (choreos@inria.fr). Describe the reason why the LGPLv3 seems to be not suitable.
- 3) Partners review these reasons and give green/red light. Partners have three (3) weeks to respond.
- 4) If necessary, objections are discussed within PTC and eventually PMC. When agreement is reached, the Software is added to the correct appendix of the CA

7.2. Software Life Cycle

The main difference between the life cycle of document and software within CHOReOS is the importance of the Integration Work Package (WP5) for combining the software artefacts to form a coherent whole.

The following figure summarizes the phases, the mandatory delays that have to be forecasted, the reviews and the reviewers and who's actually working on the software.

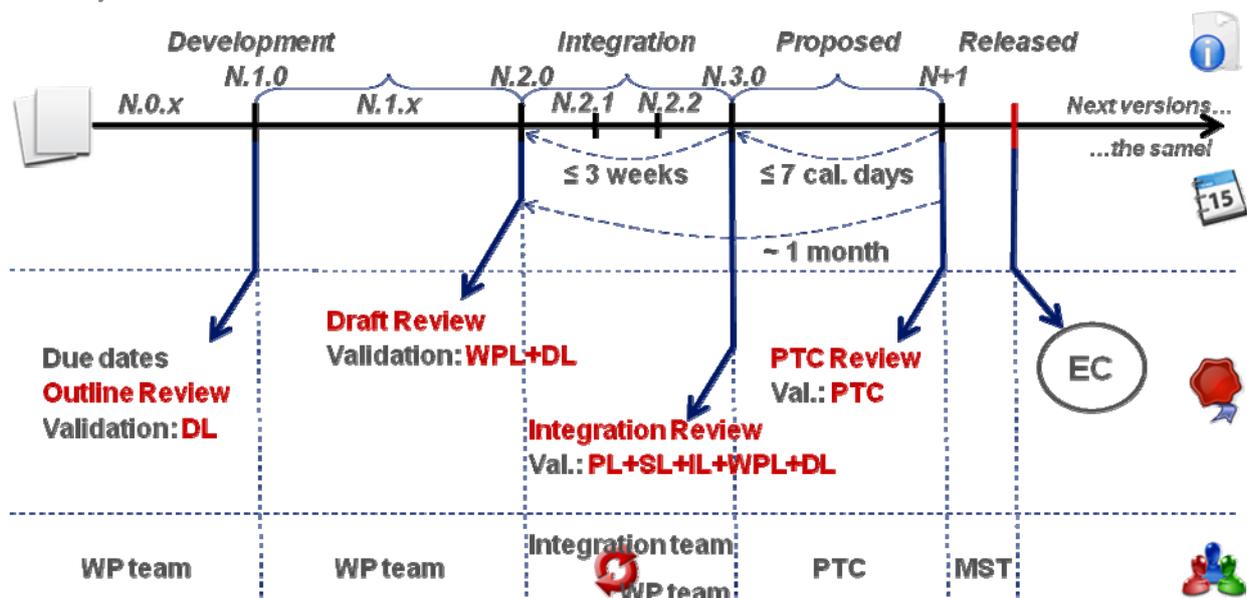
DL: Deliverable Leader

WPL: Work Package Leader

IL: WP5 Leader

SL: Scientific Leader

PL: Project Leader



For software in version N (N being here 1, 2, 3...), the main milestones are:

- 1) Version N.1.0 gives the due dates for the following versions. This version was drafted by the WP team and is reviewed by the Deliverable Leader.
- 2) Version N.2.0 is the final draft which initiates the main review process (ended by the “QA Review”). This version was drafted by the WP team and is reviewed by the Deliverable Leader and the WP Leader.
- 3) Version N.3.0 is the version as reviewed and accepted in “Quality Acceptance” (QA). This version was drafted while exchanging between the Review team and the WP team, and is reviewed by the Deliverable Leader, the WP Leader, the Scientific Leader, the WP5 Leader (aka Integration Leader) and the Project Leader. This review may take, preferably at its maximum, 3 weeks.
- 4) Version N+1.0.0 is the version as accepted by the PTC during a formal vote. This vote is conducted following the usual policy (by email and for 7 calendar days).
- 5) This version is sent to EC as quick as possible by the MST.

7.3. Procedures for Software Configuration Management

See deliverable D5.7.1 “Integration plan – 1st version” at M12.

8. Project Communication Mechanisms

All partners will actively and timely inform the management support team about changes of their coordinates, contact persons or changes in any other information needed for executing the project. Contact details may in particular be found in Appendix A.

The following facilitators are managed by the MST to facilitate communication within the Consortium and beyond:

- E-mail reflectors (§8.1),
- Web site (§8.2).

8.1. E-mail Reflectors

Specific e-mail reflector lists support e-mail communication. The following reflectors have been created so far.

- choreos@inria.fr: all project members;
- choreos-ca@inria.fr: persons in charge of legal aspects;
- choreos-wp1@inria.fr to choreo-wp11@inria.fr: dedicated to work package centric issues – the last one being for administrative issues

For changes, deletions or additions of mailing lists, please contact the MST.

8.2. Project Web Site

8.2.1. Public Web Site

The public CHOReOS Web site is located at: www.choreos.eu.

For changes, deletions or additions see Annex A.8.

8.2.2. Internal Web Site

The internal Web site has restricted access and every CHOReOS member has its own user name and password. Partners can obtain access and password via the MST.

The internal CHOReOS Web site is located at: <https://collab.thesis.org/display/choreos>.

For changes, deletions or additions please contact the MST.

Annex A: Project Contact Details

A.1 Project Leader (PL)

Name	Mr. Hugues VINCENT
Partner	Thales Communications & Security S.A. (THA)
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Mobile	+33 6 47 64 21 66
Fax	+33 1 69 41 56 99
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A.2 Scientific Leader (SL)

Name	Ms. Valérie ISSARNY
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Phone	+33 1 39 63 57 17
Fax	+33 1 39 63 54 00
E-mail	valerie.issarny@thalesgroup.com

A.3 EC Project Officer (PO)

Name	Mr. Arian ZWEGERS
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E-mail	Arian.ZWEGERS@ec.europa.eu

A.4 Project Management Committee (PMC) Members

Partner	Representative
Thales Communications & Security S.A.	Mr. Hugues Vincent (Chair)
NoMagic Europe	Mr. Darius Silingas
Consiglio Nazionale delle Ricerche	Ms. Antonia Bertolino
EBM WebSourcing S.A.S.	Mr. Jean-Pierre Lorré
Institut National de Recherche en Informatique et en Automatique	Ms. Valérie Issarny
MLS Multimedia A.E.	Mr. Nikos Zissis
OW2 Consortium	Mr. Cédric Thomas
The City University	Mr. Neil Maiden
Università degli Studi dell'Aquila	Ms. Paola Inverardi
University of Ioannina	Mr. Apostolos Zarras
Vidzemes Augstskolas aģentūra "Sociotehnisku Sistēmu Inženierijas institūts"	Mr. Egils Ginters
Virtual Trip Ltd.	Mr. Dimitris Tsigos
Wind Telecomunicazioni S.p.A	Mr. Riccardo Mazza
Universidade de São Paulo	Mr. Fabio Kon
CEFRIEL – Societa' Consortile Responsabilita' Limitata	Mr. Gianmarco Panza

A.5 Management Support Team (MST) Members

Name	Ms. Sylvie Raynaud	Ms. Patricia Bedoui	Mr. Pierre Châtel
Roles	Financial Management	Legal Aspects	Internal Web Site E-mail lists contact point
Tel.	+33 1 46 13 26 42		+33 1 69 41 55 65
Fax	+33 1 46 13 32 80		
E-mail	sylvie.raynaud@thalesgroup.com	patricia.bedoui@thalesgroup.com	pierre.chatel@thalesgroup.com

A.6 Project Technical Committee (PTC) Members

Partner	Representative
Thales Communications & Security S.A.	Mr. Hugues Vincent (Chair)
NoMagic Europe	Mr. Darius Silingas
Consiglio Nazionale delle Ricerche	Ms. Antonia Bertolino
eBM WebSourcing S.A.S.	Mr. Jean-Pierre Lorré
Institut National de Recherche en Informatique et en Automatique	Ms. Valérie Issarny
MLS Multimedia A.E.	Mr. Nikos Zissis
OW2 Consortium	Mr. Cédric Thomas
The City University	Mr. Neil Maiden
Università degli Studi dell'Aquila	Ms. Paola Inverardi
University of Ioannina	Mr. Apostolos Zarras
Vidzemes Augstskolas aģentūra "Sociotehnisku Sistēmu Inženierijas institūts"	Mr. Egils Ginters
Virtual Trip Ltd.	Mr. Lefteris Trimintzios
Wind Telecomunicazioni S.p.A	Mr. Riccardo Mazza
Universidade de São Paulo	Mr. Fabio Kon
CEFRIEL – Societa' Consortile Responsabilita' Limitata	Mr. Gianmarco Panza

A.7 Work Package Leaders (WPLs)

Work Package	Leader (co-Leader)	Partner	E-mail
WP1	Ms. Valérie Issarny (Mr. Nikolaos Georgantas)	INRIA	valerie.issarny@inria.fr nikolaos.georgantas@inria.fr
WP2	Ms. Paola Inverardi (Mr. Marco Autili)	UDA	inverard@di.univaq.it (marco.autili@di.univaq.it)
WP3	Mr. Fabio Kon (Mr. Apostolos Zarras)	USP (UOI)	fabio.kon@ime.usp.br (zarras@cs.uoi.gr)
WP4	Ms. Antonia Bertolino (Mr. Andrea Polini)	CNR	antonia.bertolino@isti.cnr.it andrea.polini@unicam.it
WP5	Mr. Jean-Pierre Lorré (Ms. Amira Ben Hamida)	EBM	jean-pierre.lorre@petalslink.com (amira.ben-hamida@petalslink.com)
WP6	Mr. Benoit Bruyère (Mr. Pierre Châtel)	THA	benoit.bruyere@thalesgroup.com (pierre.chatel@thalesgroup.com)
WP7	Mr. Riccardo Mazza (Mr. Gianmarco Panza)	WIND (CEFRIEL)	riccardo.mazza@mail.wind.it (gianmarco.panza@cefriel.com)
WP8	Mr. Lefteris Trimintzios (Veranis Giorgos)	VTRIP (MLS)	lefteris.trimintzios@vtrip.net (gveranis@mls.gr)
WP9	Mr. Darius Silingas	NME	darius.silingas@nomagic.com
WP10	Mr. Riccardo Mazza (Mr. Lefteris Trimintzios)	WIND (VTRIP)	riccardo.mazza@mail.wind.it (lefteris.trimintzios@vtrip.net)
WP11	Mr. Hugues Vincent	THA	hugues.vincent@thalesgroup.com

A.8 Public Web Site Administrator

Name	Mr. Olivier Lizounat
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