Overview EUROTeV

E.Elsen

Elements of Annual Report 2008
– Management Activities
– Financial Overview
– Deliverables at the end of the project

Some numbers still preliminary and likely to change somewhat

Governing Board, January 29, 2009

4th Annual Report

EUROTeV

European Design Study Towards a Global TeV Linear Collider

Design Study

implemented as

Specific Support Action

Contract number: *011899*

Project Co-ordinator: *Dr. Eckhard Elsen, DESY*

Project website: *www.eurotev.org*

Reporting period: from *01/01/2008* to *31/12/2008*

**Project funded by the European Community
under the "Structuring the European Research Area" Specific Programme
Research Infrastructures action**

to be submitted by February 15, 2009

Scientific Workshop 2008 in Uppsala

UPPSALA UNIVERSITET

European Design Study Towards a Global TeV Linear Collider

Final EUROTeV Scientific Workshop, Uppsala University, 26-28 August 2008

- Welcome Page
- Scientific Program
- Registration Form
- Hotel Information
- Arlanda Airport
- About Uppsala
- Map of Uppsala
- Uppsala Tourist and Congress Agency

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Contact:

Final EUROTeV Scientific Workshop

26-28 August 2008, Uppsala University, Sweden

Purpose and organization

In view of the completion of the EUROTeV project at the end of 2008, this final scientific workshop aims at summarizing the activities carried on by all member institutions over the last 3-4 years, which will be summarized in a "book" of EUROTeV scientific achievements. The contents of the book will be discussed during the meeting. The scientific program is available here.

The workshop will take place at the Ångström Laboratory located on a campus south of the city center.

Registration

There is an online INDICO Registration Form. We ask you to register at your earliest convenience. Since June 30, the nominal workshop fee has become 2.200 SEK. This includes all coffee breaks

Many thanks to our Swedish colleagues for being a perfect host and in particular to A Ferrari for his huge commitment to the project.

Results of Scientific Workshop

- Preparation of the Annual Report

  due 45 d after end of year

  15.2.2009

  - Status of (formal) deliverables

- Preparation of Final Report

  due 45 d after end of year, a prolongation of period by 45 d on request

  31.3.2009

  - more later

- Preparation of a Final Scientific Summary

  - This is a physics summary of the findings in EUROTeV (Editors: P Burrows, E Elsen, D Schulte and N Walker)

    similar

External Audits

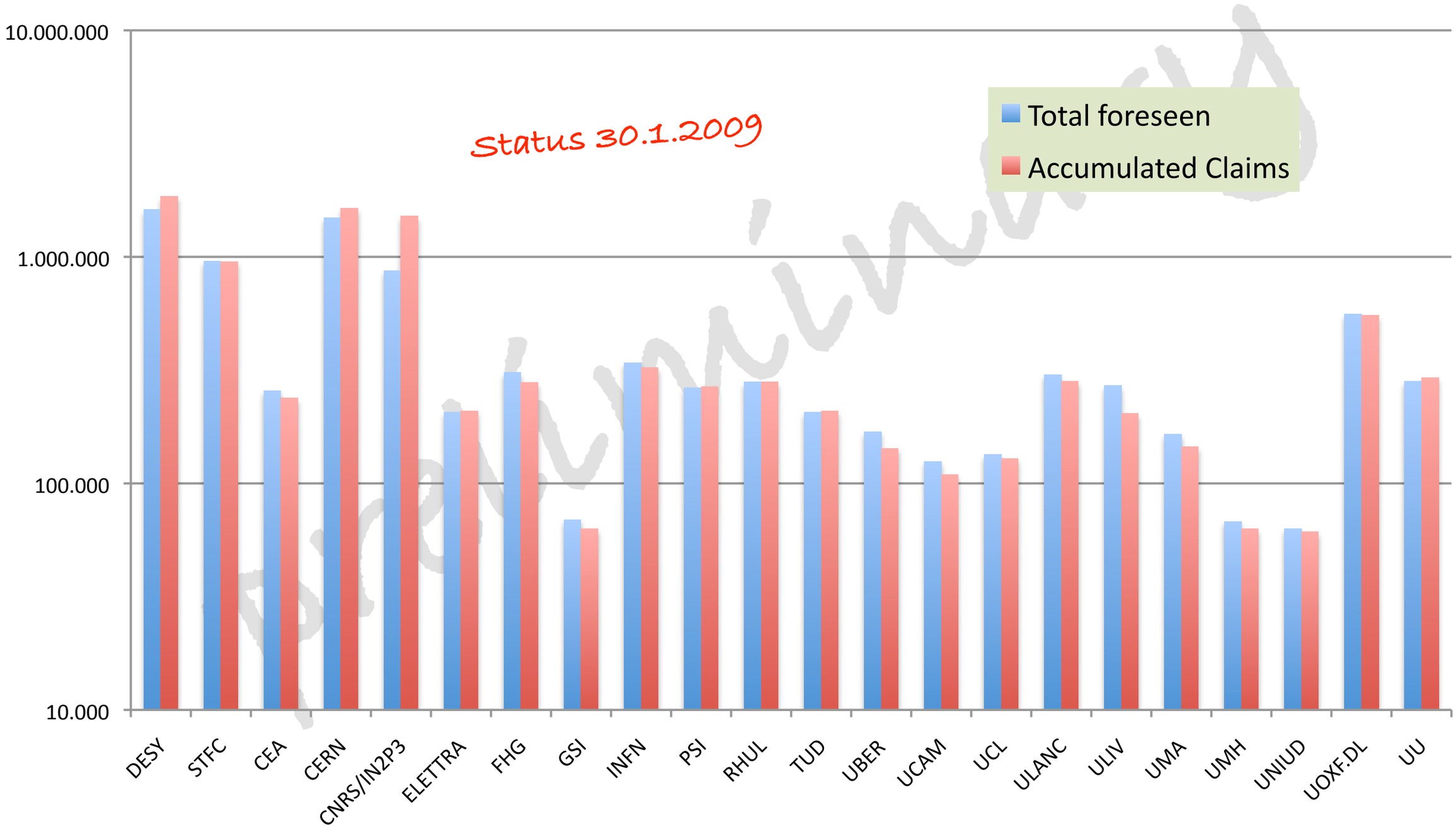
- Performance Audit
  - Two visits by representatives of the European Court of Auditors (Luxemburg). Evaluation of the effectiveness of the "instrument" Design Studies such as EUROTeV
  - Auditors seemed overwhelmed by the size of the collaboration and the magnitude of the scientific projects. Was difficult for them to grasp the scientific impact
- Financial Audit at DESY
  - Intense verification of the DESY internal financial tracking.
    - Report not yet available. However, I expect comments on the depreciation procedures at DESY

Make sure that you preserve the financial records, purchase orders for five more years...

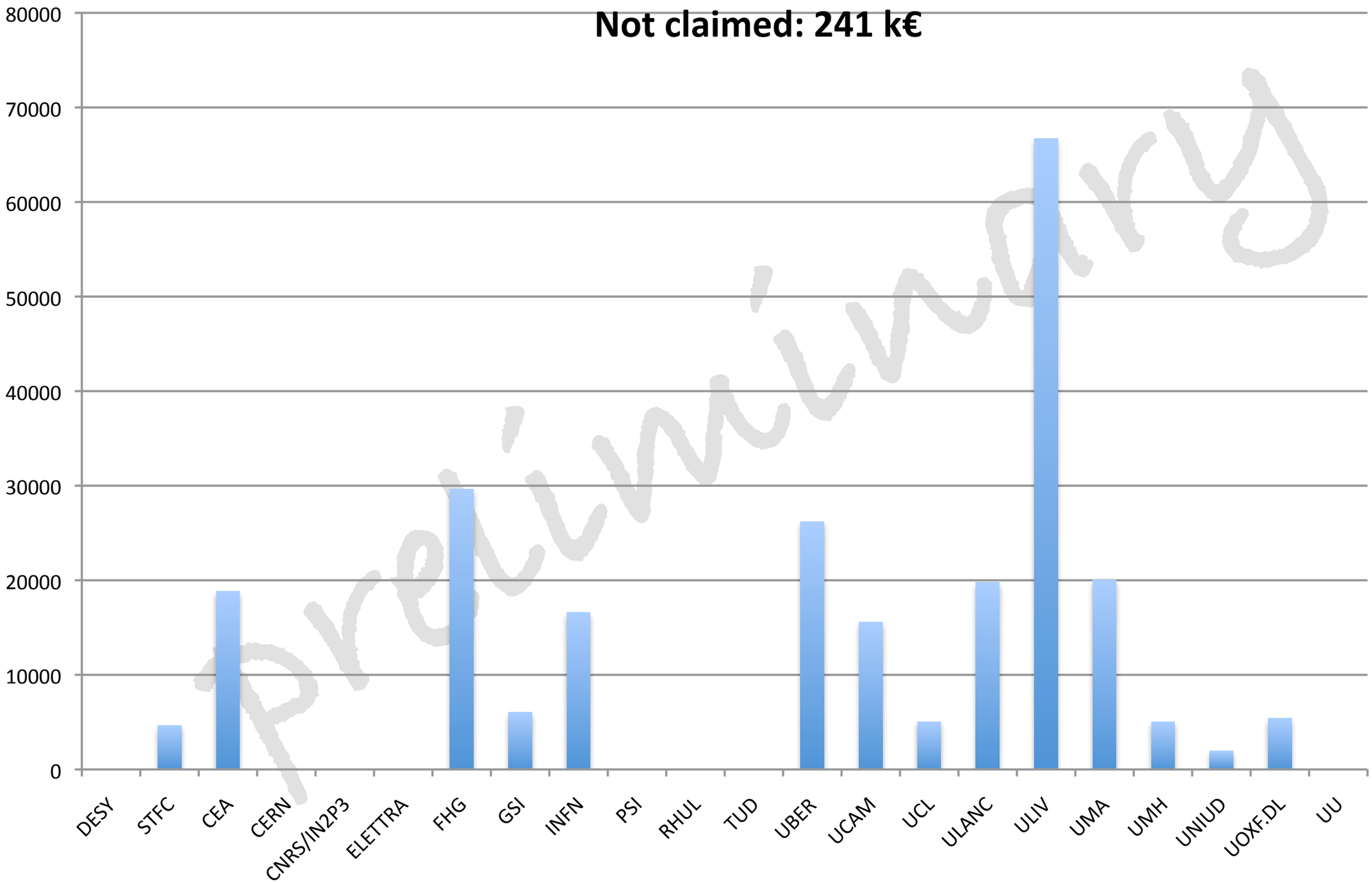
Steps towards preservation of Web-page

- The EUROTeV web-pages have moved to the new version of a contents management system.
  - We had to restrict the access rights to external accounts.
    - If this is a problem please contact us
    - The functional account access remains (although we have observed irregularities recently)
- Goal is preservation of the web-pages and scientific library.
  - We still have to discuss with the DESY library how to settle the long-term preservation

Overview Finances



Amounts not claimed per Institute



Why funds left after 4 years?

- The prolongation of the project was supposed to facilitate completion of all projects and use of all funds

- With only few exceptions all institutes were on track over the year. At the end of the year the Pound Sterling £ lost a quarter of its value. The relevant exchange rate is that of 2.1.2009

  - Example:
    1.1.2008: an RA hire with the expectation of 50k€ reimbursement
    in 2008: The RA is paid the equivalent of 50k€ in £ over the year
    2.1.2009: only 40k€ reimbursement can be expected.

- Tried to suggest mitigation methods…

a nightmare for all accountants

Status Deliverables

- Most EUROTeV deliverables are expected at the end of 2008 (month 48)
  - in most cases the deliverables have to be presented in the form of a written EUROTeV Report
  - These document will be included in the CD of the Annual Report

WP2 – BDS

Milestone No	Milestone Name	WP	Lead Contractor	Planned (in months)	Achieved (in months)
1	Detailed scope and planning report to First Workshop	2	2	6	6
2	Presentation of results and detailed implementation at second workshop	2	2	18	25
3	Presentation of phase 2 results to Third workshop; plans for GDI-TDR input and further R&D (phase 3 & beyond)	2	2	30	30
4	Optimised BDS lattice design with component specification available.	2	2	30	30
5	Demonstration of high-field super conducting quadrupole in strong solenoid complete	2	3	48[1]	(48)
6	CRAB RF low-power systems test (including phase stability studies) available.	2	16	48[1]	46
7	Mechanical spoiler design complete	2	2	48	42
8	Demonstration of prototype intra-train feedback and scanning systems available.	2	21	48	36
Deliverable No	**Deliverable Name**	**WP**	**Lead Contractor**	**Planned (in months)**	**Achieved (in months)**
1	Fully documented optimised BDS lattice, including component (magnet) specification	2	2	30	30
2	Engineering design for ILC mechanical spoiler, including prototype evaluations of wakefield and beam-damage performance	2	2	48	42
3	Prototpye intra-train feedback stabilisation and scanning system	2	21	48	40
4	Report on CRAB RF low-power prototype tests, including phase-stability system	2	16	48	47
5	Report on demonstration of superconducting quadrupole in strong solenoid field	2	3	48[1]	(48)

WP3 – DR

Milestone	Milestone name	WP	Lead Contractor	Planned (months)	Achieved (months)
1	Detailed scope and planning report	3	9	6	6
2	Presentation of results and detailed implementation at Second Workshop	3	9	18	25
3	Presentation of results and detailed implementation at Third Workshop	3	9	30	30
4	Full report on electron-cloud benchmarking and simulation studies	3	9	48	48
5	Comparative study of existing beam-based alignment strategies complete	3	1	48	48
6	Development and Benchmarking of Wiggler Models complete	3	9	48	
7	Final evaluation report on RF separator technology	3	9	48	

Deliverable No	Deliverable Name	WP	Lead Contractor	Planned (in months)	Achieved (in months)
1	Documented and experimentally benchmarked code for e-cloud simulations	3	9	48	48
2	Report on impact of e-cloud and fast-ion instabilities on DR performance, including recommendations for controlling the effects	3	9 / 1	48	48
3	Report on impact of wiggler dynamics on DR dynamic aperture	3	9	48	48
4	Report on comparative studies of beam based alignment	3	9	48	48

WP4 – PPS

Milestone	Milestone name	WP	Lead Contractor	Planned (months)	Achieved (months)
1	Detailed scope and planning report to First Workshop	4	2	6	6
2	Presentation of results and detailed implementation at second workshop	4	2	18	25
3	Computer model/simulations of complete source available	4	2	18	18
4	Presentation of phase 2 results to 3rd Workshop. Plans for GDE input and further R&D	4	2	30	30
5	Low-energy polarimeter prototype complete	4	1	48	48
6	Prototype undulator constructed and measured	4	2	48	48
7	Full engineering design for photon target and collimator complete	4	2	48	48
Deliverable No	**Deliverable Name**	**WP**	**Lead Contractor**	**Planned (in months)**	**Achieved (in months)**
1	Fully engineered undulator prototype based on chosen technology	4	2	30	30
2	Report on performance simulations of polarized source system	4	2	18	18
3	Report on conceptual design for spin-flipping system, including estimates of errors	4	1	18	18
4	Fully tested low-energy polarimeter	4	1	48	48

WP5 – DIAG

Milestone	Milestone name	WP	Lead Contractor	Planned (months)	Achieved (months)
1	Detailed scope and planning report to First Workshop	5	11	6	6
2	Presentation of results and detailed implementation at Second Workshop	5	11	18	25
3	Presentation of phase 2 results to Third Workshop; plans for GDI-TDR input and further R&D (phase 3 and beyond).	5	11	30	30
4	Design and performance studies of the fast luminosity monitor complete.	5	1	30	30
5	Fully operational prototype laser-based beam profile monitor complete.	5	11	48	
6	Prototype confocal resonator tested and performance evaluated.	5	UU	48	
7	Prototype precision transformer monitor tested and performance evaluated.	5	11	48	
8	Prototype wide-band beam current monitor tested and performance evaluated.	5	4	48	
9	Prototype timing and phase monitoring system tested and performance evaluated.	5	4	48	
10	Prototype magnet chicane-based precision spectrometer tested and performance evaluated.	5	15 / 14	48	
11	Prototype high-energy polarimeter tested and performance evaluated.	5	5	48	

Deliverable No	Deliverable Name	WP	Lead Contractor	Planned (in months)	Achieved (in months)
1	Prototype laser profile monitor	5	11	48	
2	Prototype confocal monitor	5	4	48	
3	Prototype transformer precision position monitor	5	4	48	
4	Prototype wide-band beam current monitor	5	4	48	
5	Prototype timing and phase monitoring system	5	4	48	
6	Prototype high-energy precision spectrometer	5	15 / 14	48	
7	Prototype high-energy polarimeter	5	5	48	

WP6 – ILPS

Milestone	Milestone name	Work-package	Lead Contractor	Planned (months)	Achieved (months)
1	Detailed scope and planning report to first workshop	6	4	6	6
2	Presentation of results and detailed implementation at Second Workshop	6	4	18	25
3	Presentation of phase 2 results to Third Workshop; plans for GDI-TDR input and further R&D (phase 3 and beyond)	6	4	30	30
4	Simulation/evaluation of selected failure modes complete	6	4, 1	48	
5	Multi-TeV bunch compressor system design studies complete	6	10	48	
6	Post collision diagnostic beamline performance studies complete	6	22	48	
7	Benchmarking and code enhancements to GUINEA-PIG complete	6	5	48	
8	Halo and beam-tail generation studies complete	6	4	48	
9	Halo collimation and detector background studies complete	6	4	48	
10	Luminosity performance and alignment studies complete	6	21	48	

Deliverable No	Deliverable Name	WP	Lead Contractor	Planned (in months)	Achieved (in months)
1	Advanced software package(s) for modeling luminosity performance	6	4	48	
2	Report on luminosity tuning and control strategies	6	4	48	
3	Report on failure modes and their effects	6	4, 1	48	
4	New version of GUINEA-PIG	6	5	48	
5	Design report on multi-TeV bunch compressor system	6	10	48	
6	Report on possible performance of post-collision diagnostics	6	22	48	
7	Computer models for halo and beam-tail generation	6	4	48	
8	Report on performance of collimation systems	6	4	48	

WP7 – METSTB

Milestone N°	Milestone Name	Work package	Lead Contractor(s)	Planned (in months)	Achieved (in months)
1	Detailed scope and planning report to first Workshop	7	5	6	6
2	Presentation of results and detailed implementation at Second Workshop	7	5	18	25
3	Presentation of results and detailed implementation at Third Workshop	7	5	30	30
4	LICAS RTRP prototype test programme complete	7	21	48	48
5	Evaluation of mechanical stabilisation techniques complete.	7	5	48	44
6	Site ground vibration characterisation programme complete	7	1	48	36

Deliverable No	Deliverable Name	WP	Lead Contractor	Planned (in months)	Achieved (in months)
1	Prototype mechanical stabilization system	7	5	48	42
2	Prototype laser-based stabilization system	7	21	48	48
3	3 and 5 car prototypes of laser-based RTRS system	7	21	48	48
4	Database (with public web interface) of catalogued and characterized ground vibration spectra	7	1	48	36

WP8 – GANMVL

Milestone N°	Milestone Name	Work package	Lead Contractor(s)	Planned (in months)	Achieved (in months)
1	Detailed scope and planning report to first Workshop	8	**1**	6	6
2	Evaluation of human requirements available	8	19, 20	9	16
3	Design of MVL system complete	8	1	9	30
4	First prototype MVL constructed and initial evaluation complete	8	1, 6, 7, 8, 9	18	21
5	Presentation of results and detailed implementation at Second Workshop	8	All	18	25
6	Second prototype MVL constructed and initial evaluation complete	8	1, 6, 7, 8, 9	27	27
7	Presentation of phase 2 results to Third Workshop; plans for GDI-TDR input and further R&D (phase 3 and beyond)	8	All	30	30
8	Results of prototype field-trials available	8	6	48	48

Deliverable No	Deliverable Name	WP	Lead Contractor	Planned (in months)	Achieved (in months)
1	Report on evaluation of human requirements	8	19, 20	9	6
2	First phase MVL prototype	8	1, 6, 7, 8, 9	18	21
3	Second phase MVL prototype	8	1, 6, 7, 8, 9	27	27

Final Report for the European Commission

- In addition to the reports for the last period, **final activity and financial reports** referred to in Article **II.** 7.4 (except for the report referred to in Article **II.** 7.4d)) shall be submitted to the *Commission* at the latest 45 days after the end of the *project*. This delay may be increased by 45 days at the request of the consortium. Where the work is completed before the end of the duration of the *project*, the related activity and financial reports shall cover the period up to that date.

- What is it supposed to contain?

suggest to ask for an extension

Elements of Final Report

4. In addition to the documents referred to in paragraph 2 of this Article for the last period, the *consortium* shall submit the following final reports to the *Commission* after the end of the *project*:

   a) a final activity report covering all the work, objectives, results and conclusions, and the final *plan for using and disseminating the knowledge*, including a summary of all these aspects;

   b) a final management report covering the full duration of the *project* including a summary financial report consolidating the claimed costs of all the *contractors* in an aggregate form covering the entire duration of the *project*, based on the information provided in Form C by each *contractor;*

   c) supplementary final reports required by any Annex of the *contract;*

   d) a report on the distribution between *contractors* made after the end of the *project* of the *Community* financial contribution, which shall be submitted 60 days after receipt of the final tranche of the *Community* financial contribution to the *consortium*.

5. The *consortium* shall transmit these documents to the *Commission* by electronic means in accordance with the provisions of Article 11.2. However, the originals of each of these documents and the audit certificates shall be submitted in accordance with the provisions of Article 11.1. In such cases, the date of receipt pursuant to Article 11.1 prevails.

   The layout and content of the reports shall conform to the instructions and guidance notes established by the *Commission*.

   The reports for publication should be of a suitable quality to enable direct publication.

6. Where the *Community* financial contribution is a lump sum the references to financial statements above are replaced by payment requests. None of the provisions in the *contract* relating to eligible costs apply in such cases.

Still considerable work for the WP coordinators and Coordinator