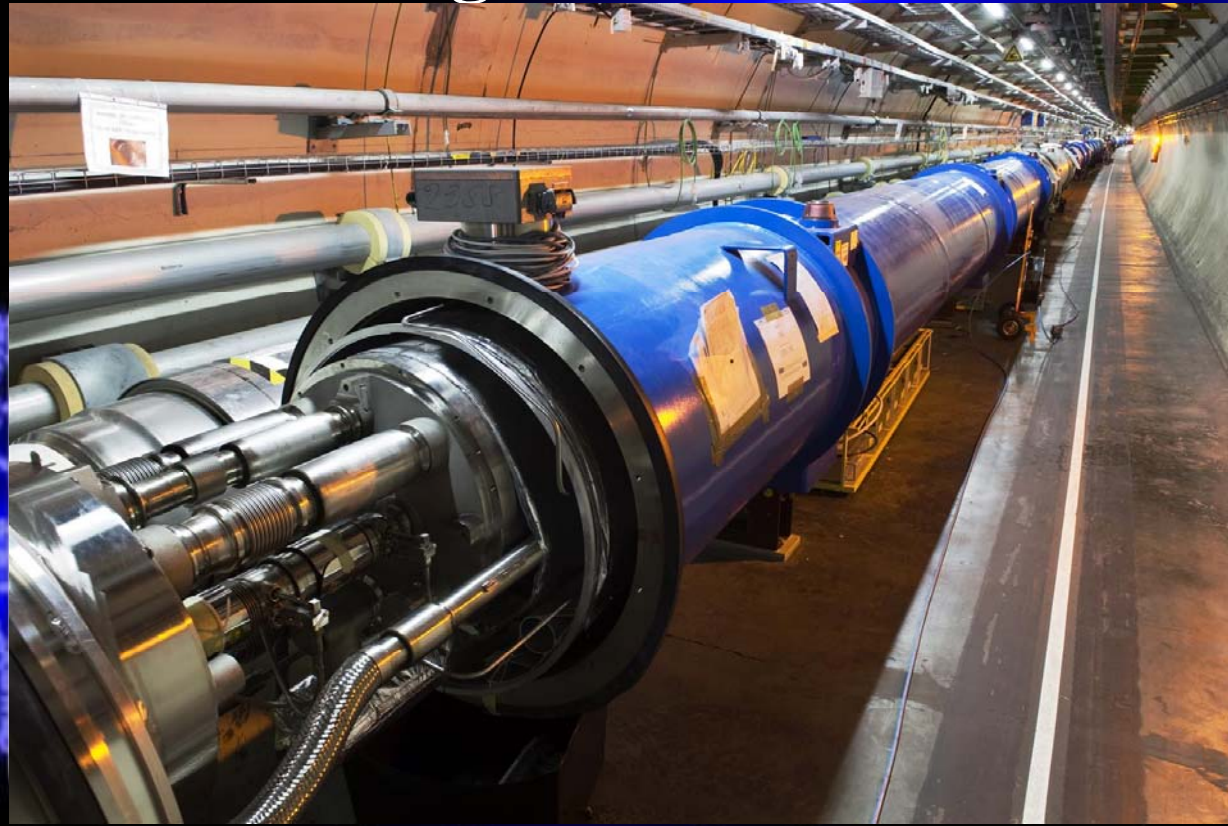


CARE08

**R. Aleksan
CARE08 meeting
CERN, December 2, 2008**

- 1. Organization of the Meeting**
- 2. General CARE information**
- 3. Conclusion**

Welcome to the 5th Annual CARE meeting



...and many thanks to
CERN
for hosting this event



09:00-09:30	Welcome			
09:30-10:00	Introduction talks	Highlight talks	Activity reports	EuCARD kickoff
10:00-10:30	Break			
10:30-11:00		Break	Break	Break
11:00-11:30	Highlight talks			
11:30-12:00		Highlight talks	Activity reports	EuCARD kickoff
12:00-12:30				
From 12:30 to 14:00	Lunch	Lunch	Lunch	conference cocktail Lunch
	Parallel sessions	Parallel sessions	Special sessions	Plenary: Main building
14:00-14:30				
14:30-15:00	NA/JRA	NA/JRA	Activity reports	EuCARD kickoff
15:00-15:30			discussion	
15:30-16:00	Break	Break	Adjourn	Break
16:00-16:30			Steering committee	EuCARD kickoff
16:30-17:00	NA/JRA Cont'd	Cont'd		
17:00-17:30				
17:30-18:00				
18:00-18:30		Governing Board		
18:30-19:00				
19:00-19:30				
From 19:30	Dinner-Globe S.I.			

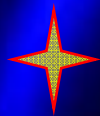
CARE Activities



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	
Accelerator R&D												
CARE			Multipurpose (e,p,v)									
CARE			SRF									
CARE			PHIN									
CARE			HIPPI									
CARE			NED									

Major
Strategic
decisions

CARE has been working for 5 years to allow one to take in due time Physics driven strategic decisions (i.e. not limited by technology)



2007 Annual report (336 pages) sent to the EC

<http://esgard.lal.in2p3.fr/Project/Activities/Current/Annual/index.php>

Both scientific and financial report have been approved by the EC

CARE general information

★ Work progress:

Progress will be shown in CARE08.

Outstanding achievements have been done.

★ Management and dissemination

✓ Steering Committee and Dissemination Board meetings on April 9, September 17-18 and during CARE08 have follow up the work

we need to pay careful attention to the deliverables

✓ CARE continue to be very productive for the scientific documentation

❖ Preparation of the 2008 Annual and Final report has to start

★ Funding Status:

✓ The 5th advanced payment (1.039 M€) was received in August

✓ The transfer of the money to all 22 institutes is done since September

✓ In total 14 019 600 € received from the EC, i.e. 99% of the promised amount

All institutes, but 4, have received 100% of the EC money foreseen in contract

✓ So far about 28 M€ was spent for the first 4 years,

i.e. 80% of the estimated total

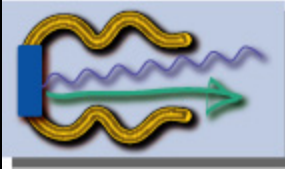


SRF

- **Systematic study of Electropolishing (HT-1)**
- **New methods for cavity construction**
- **New methods for surface preparation (dry ice cleaning)**
- **Development and industrialization of material analysis tech.**
- **Development of new couplers (HT-7)**
- **Development of new tuners**
- **New Low Level RF systems (HT-8)**
- **New Beam Position Monitors**

 **Application for FEL (FLASH, XFEL...),
Triumph e-injector, ILC...**

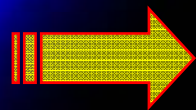
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PHIN

- CTF3 Drive beam photo-injector (HT-2)
- Superconducting photo-injector for ELBE-Rossendorf (HT-4)
- Plasma photo-injector

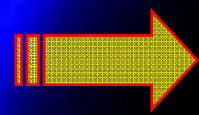
U G A R E



Application for
CLIC,
FEL (SPARC, TEUFEL, ELBE...)
PHIL (Orsay)...

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- ▶ **Developments of Normal Conducting RF Structures**
(DTL, CC-DTL, CH-DTL, SCL) (**HT-9**)
- ▶ **Superconducting RF Structure tests**
(Spoke and elliptic) (**HT-10**)
- ▶ **Development of new Choppers**
- ▶ **Beam Dynamics** (Code development, diagnostic and collimation)



Application for
LHC, SLHC, CNGS, ISOLDE (LINAC4, SPL)
ISIS (RAL), UNILAC, FAIR (GSI)

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- Thermal Studies and Quench Protection
- Development of high performance Nb₃Sn conductor (HT-15)
- Development on Insulation and Implementation
- Development of mechanical simulation tools

➤ Application for
SLHC, ILC
GSI
FRESCA

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Networking Activities

All networks have been very active and successful fostering collaborations for R&D
Also initiating, carrying and/or supporting very innovative studies, as well as R&D



EuroTEV (DS), EuroLEAP(NEST), EuCARD (IA)

ILC studies, CLIC/CTF3 studies (HT-13)
New acceleration tech.

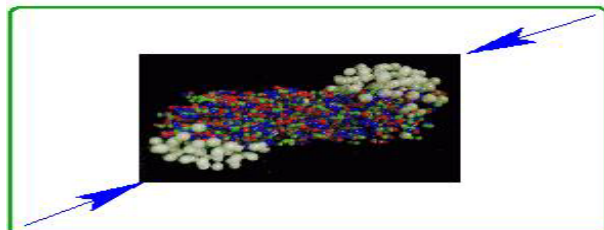


BENE

EURISOL- β beam (DS), EuroNu (DS), EuCARD (IA)

Comparative studies for SuperBeam, β beam, vFact.
MICE (HT-6), MERIT (HT-12). FFAG studies

H H H



SLHC (PP), EuCARD (IA)

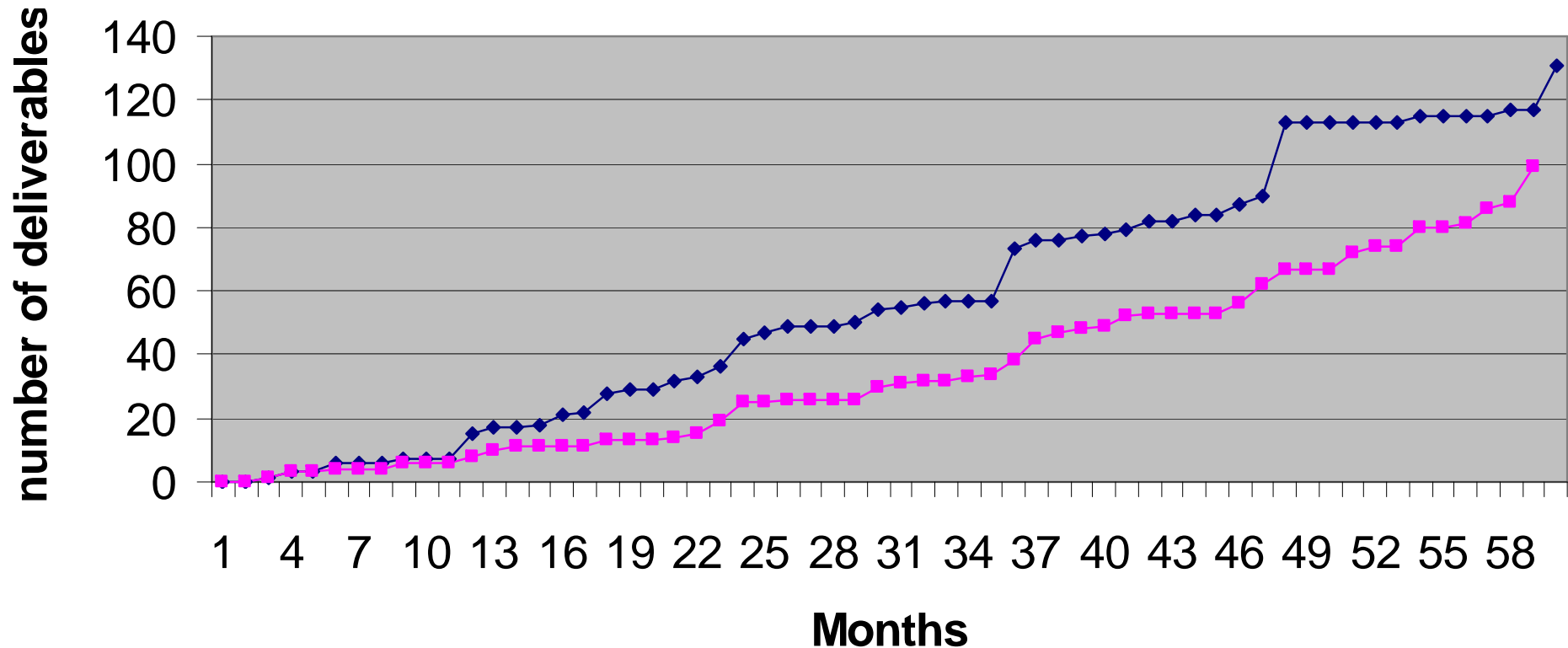
SPL and PS2 studies, Crab cavities for LHC (HT-14),
Pulsed SC Magnet for FAIR (HT-5), Crystal coll. (HT-11)
Code benchmarking (HT-13), SC database...

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Formal Status of Deliverables

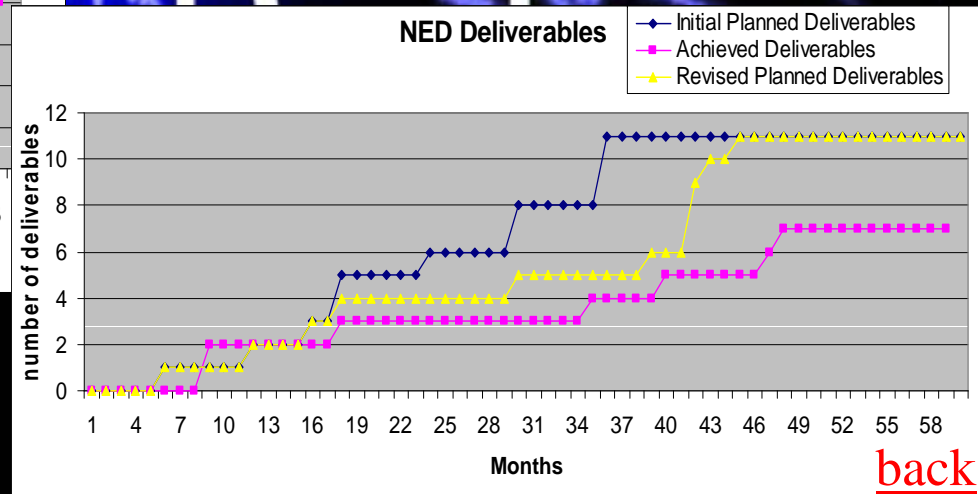
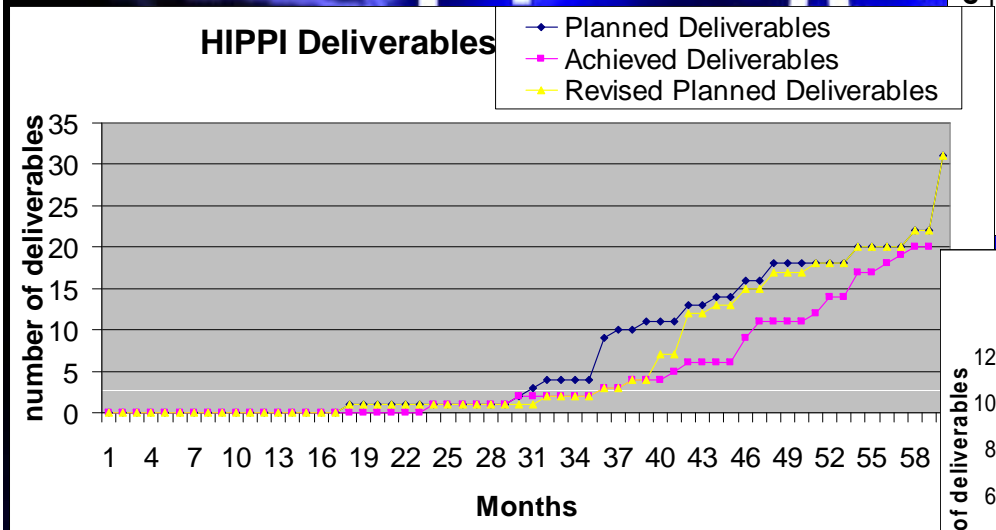
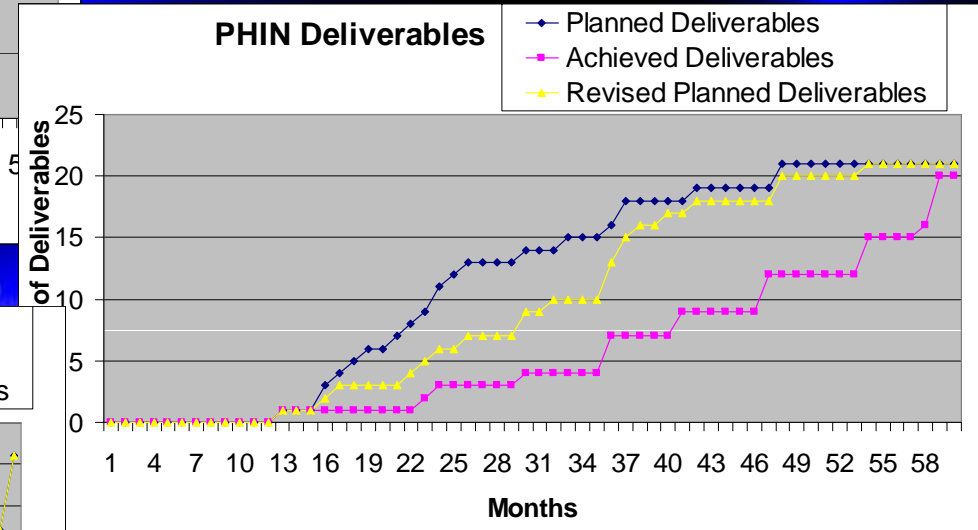
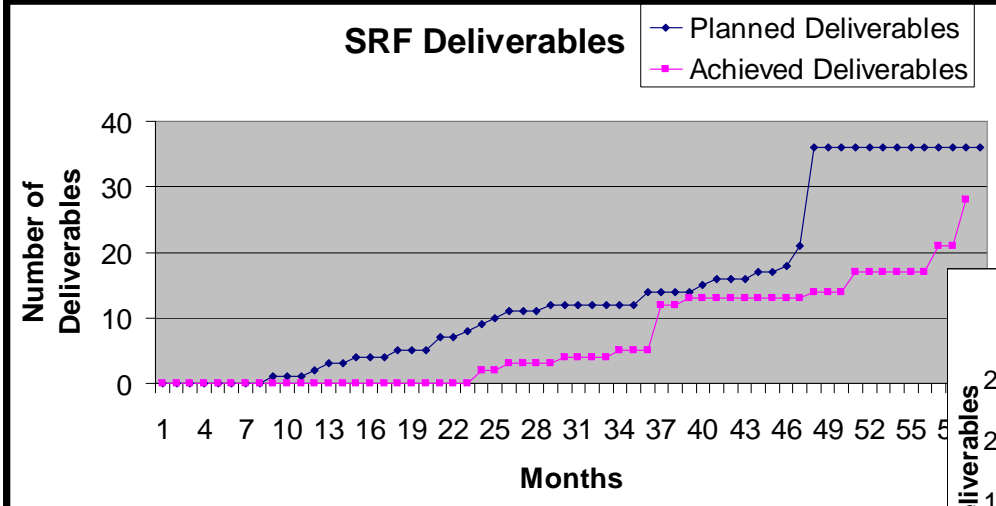
CARE Deliverables

- ◆ Planned Deliverables
- Achieved Deliverables



76% of the deliverables has been delivered (32 missing) but for 20% of remaining ones, the work is done and report in December. The work is being done for the last 4%, but no show stoppers. Reports should come in December for most, a very few in February. [back](#)

Formal Status of Deliverables

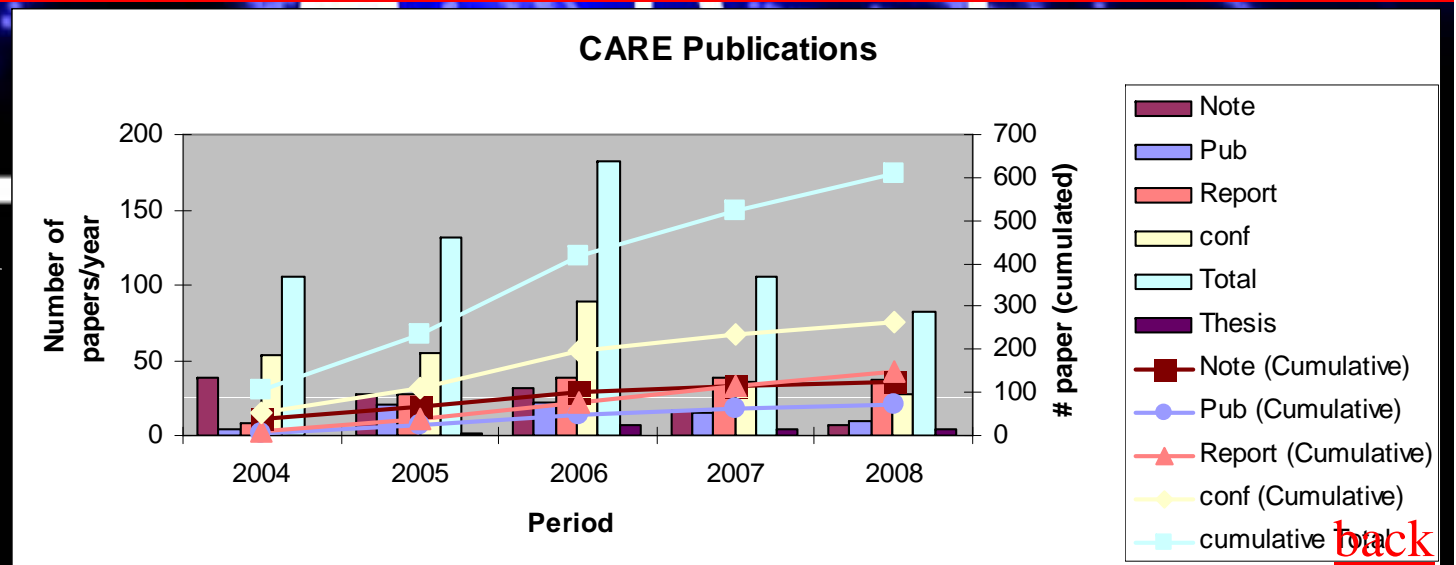


CARE Papers <http://www-dapnia.cea.fr/Documentation/Care/index.php>

CARE	Total	Total per year					N1	N2	N3	R1	R2	R3	R4	joint
		04	05	06	07	08								
Papers		04	05	06	07	08								
Note	123	39	28	32	17	7	56	5	13	18	4	27	0	0
Pub	72	4	21	22	15	10	0	7	11	30	5	3	15	1
Report	150	8	28	39	38	37	10	12	10	36	30	30	17	5
conf	262	54	55	89	36	28	4	4	64	90	13	75	11	1
Sum/y		105	132	182	106	82								
Total		607					70	28	98	168	51	135	43	7

+ many internal documents

+ 16 Thesis



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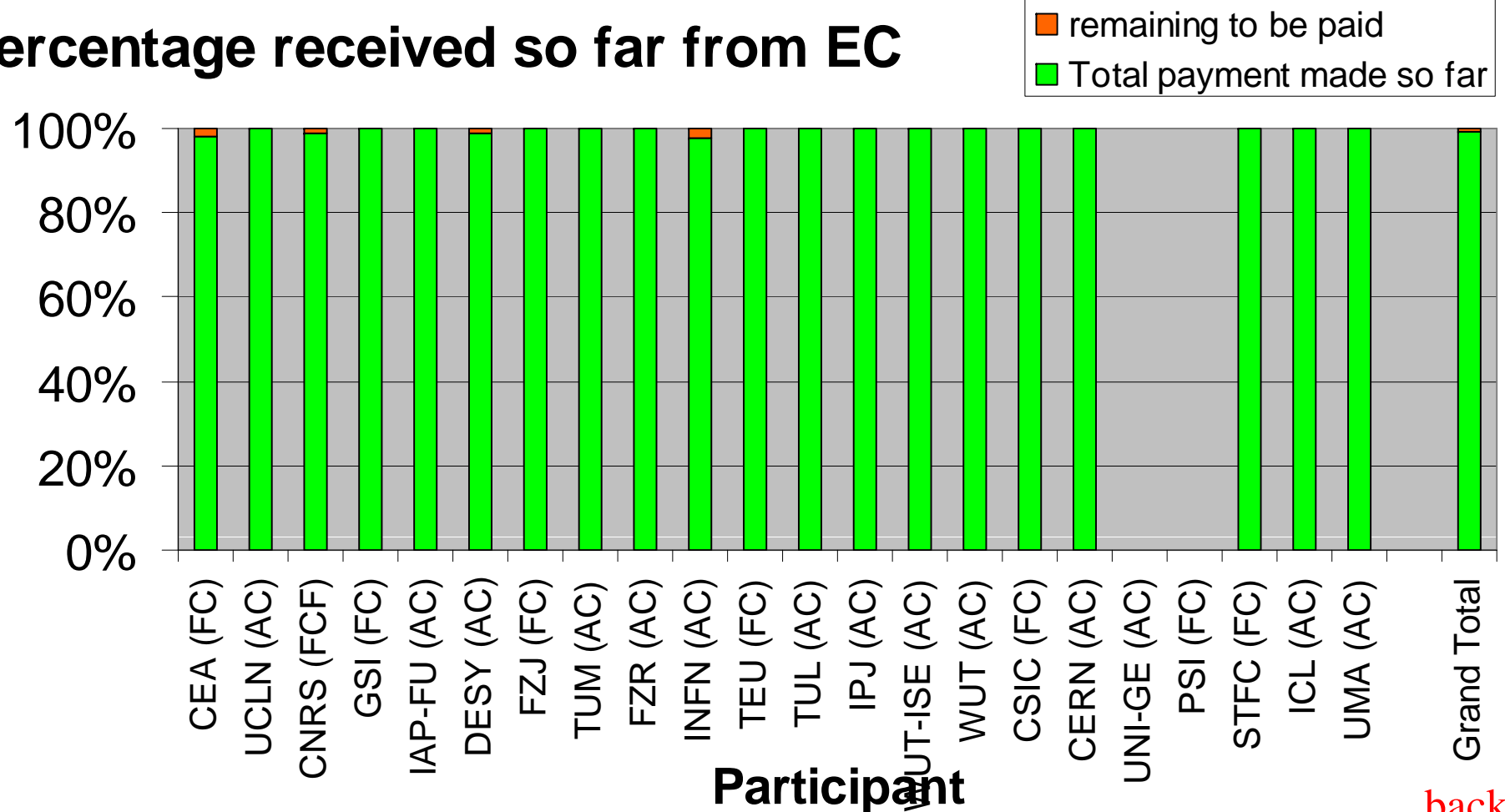
Financial situation (cont'd)

Total (5 years) expected EC funding: 15 200 000 €

We received 1 039 02710 € in 2008

Bringing the overall received amount from the EC to: 15 058 888,96 € (99%)

Percentage received so far from EC

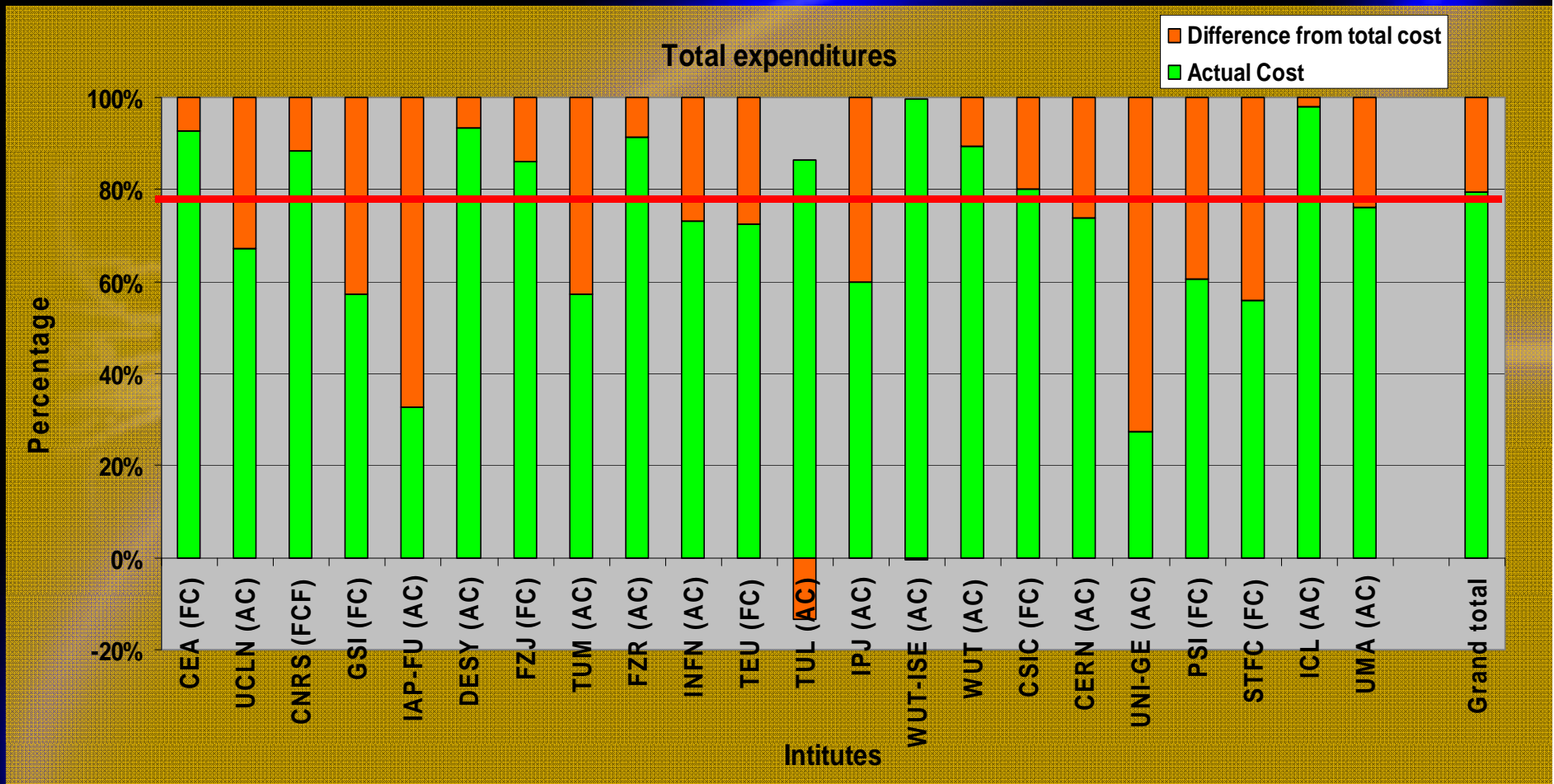


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Financial situation (cont'd)

Total (5 years) expected costs: 35 141 200 €

Total costs for past 48 months (2004-2007: 80%) : 27 935 287 € (~79%)



ESGARD actions (cont'd)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Accelerator R&D													
CARE	3 Networks (e, v, p)						EuCARD						
CARE	SRF						EuCARD (SRF)						
CARE	PHIN						EuCARD (SRF, ANAC)						
CARE	HIPPI						EuCARD (SRF, ColMat)						
CARE	NED						EuCARD (HFM)						
SLHC							PP						
EUROTEV	DS: ILC+CLIC						PP						
EURISOL	DS: Neutrino β-beam												
DS vFact	Scoping study						DS-EuroNu						
EUROLEAP	e in plasma						EuCARD (ANAC)						
B-Factory							DS-EuroEuCARD (ANAC)						

**All EC financed projects pioneered by CARE have a continuation
 ⇒ See EuCARD kickoff meeting on Friday**

Summary of Accelerator R&D projects proposed in FP7 (call 1-3)

Accelerator R&D proposals submitted by our community so far

- 2 CNI-preparatory Phase (SLHC and ILC) : May 2nd, 2007
- 2 DS (EuroNu and EUROCRAB) : May 2nd, 2007
- 1 IA (EuCARD) : February 29th, 2008

Project	Type	Beam Type	Start date	Duration Years	Total Cost	EC contribution
SLHC Preparatory	CNI	proton	1/1/08	3	11.3 M€	5.2 M€ (~80%)
ILC-HiGrade Preparatory	CNI	e ⁺ ,e ⁻ (LC)	1/1/08	3	10 M€	5.0 M€ (~70%)
EuroNu	DS	neutrino	1/9/08	4	14.4 M€	4.0 M€ (~83%)
EuroCRAB	DS	e⁺,e⁻ (also p)	1/1/08	3	6.44 M€	0 M€
EuCARD	IA	All	1/4/09	4	31.7 M€ (62%)	10 M€ (66%)
Total					67.4 M€	24.2 M€ (72%)

Conclusions

Welcome to the 5th Annual CARE meeting

The goal of this meeting is to review the great work done in CARE during this past 5 years.

Accelerator R&D is now fully part of the particle physics program in Europe

EuCARD has been approved and will continue the endeavor pioneered by CARE.

Welcome to the EuCARD Kickoff meeting

But for now, I am looking forward a fruitful meeting ...