

# JRA SRF

- **Objectives**

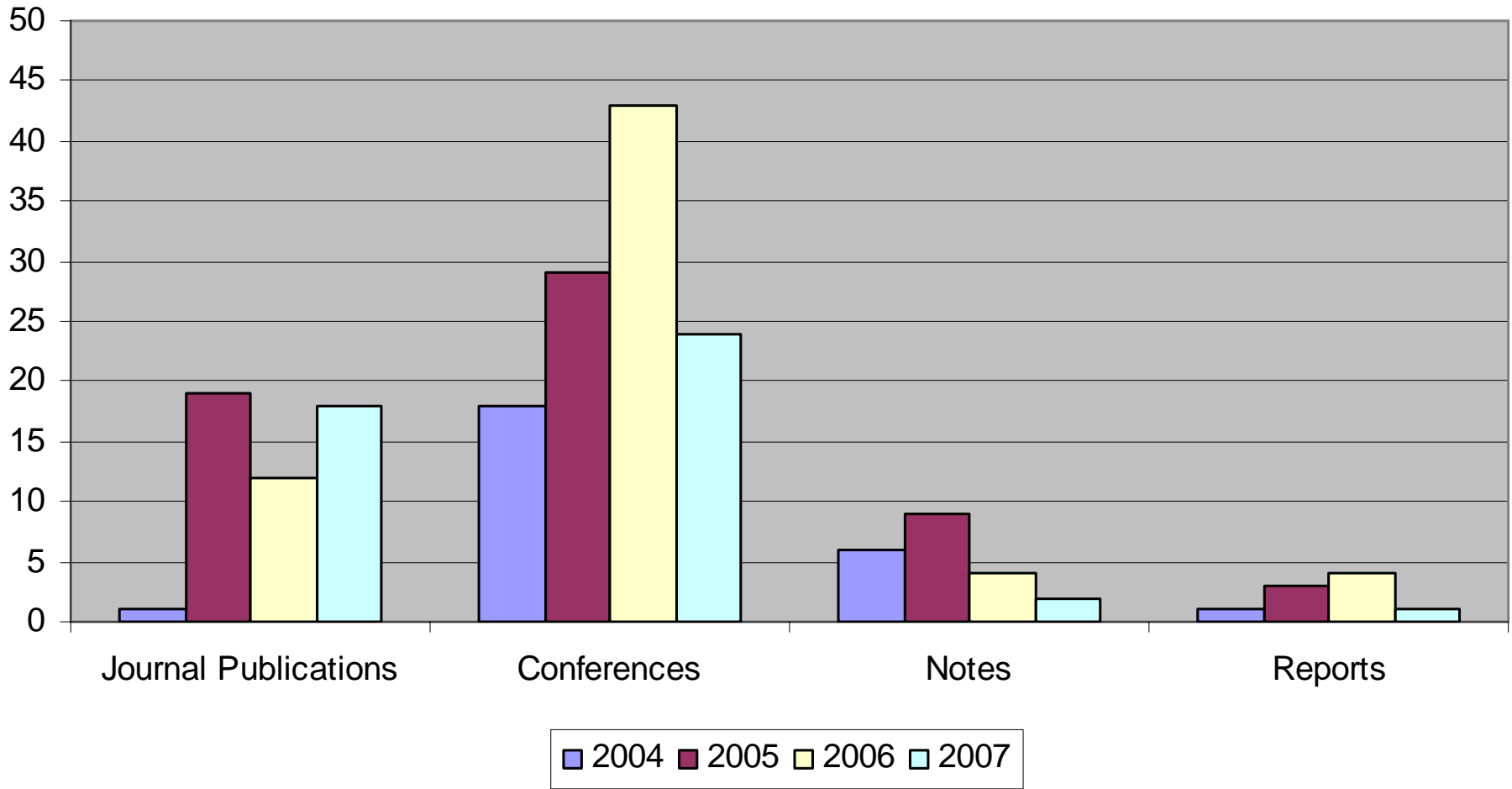
- Increase of accelerating gradient
- Increase of quality factor
- Improvement of reliability, operating performance and availability
- Reduction of cavity fabrication costs and related components

- **Main infrastructure: TFF /now FLASH**

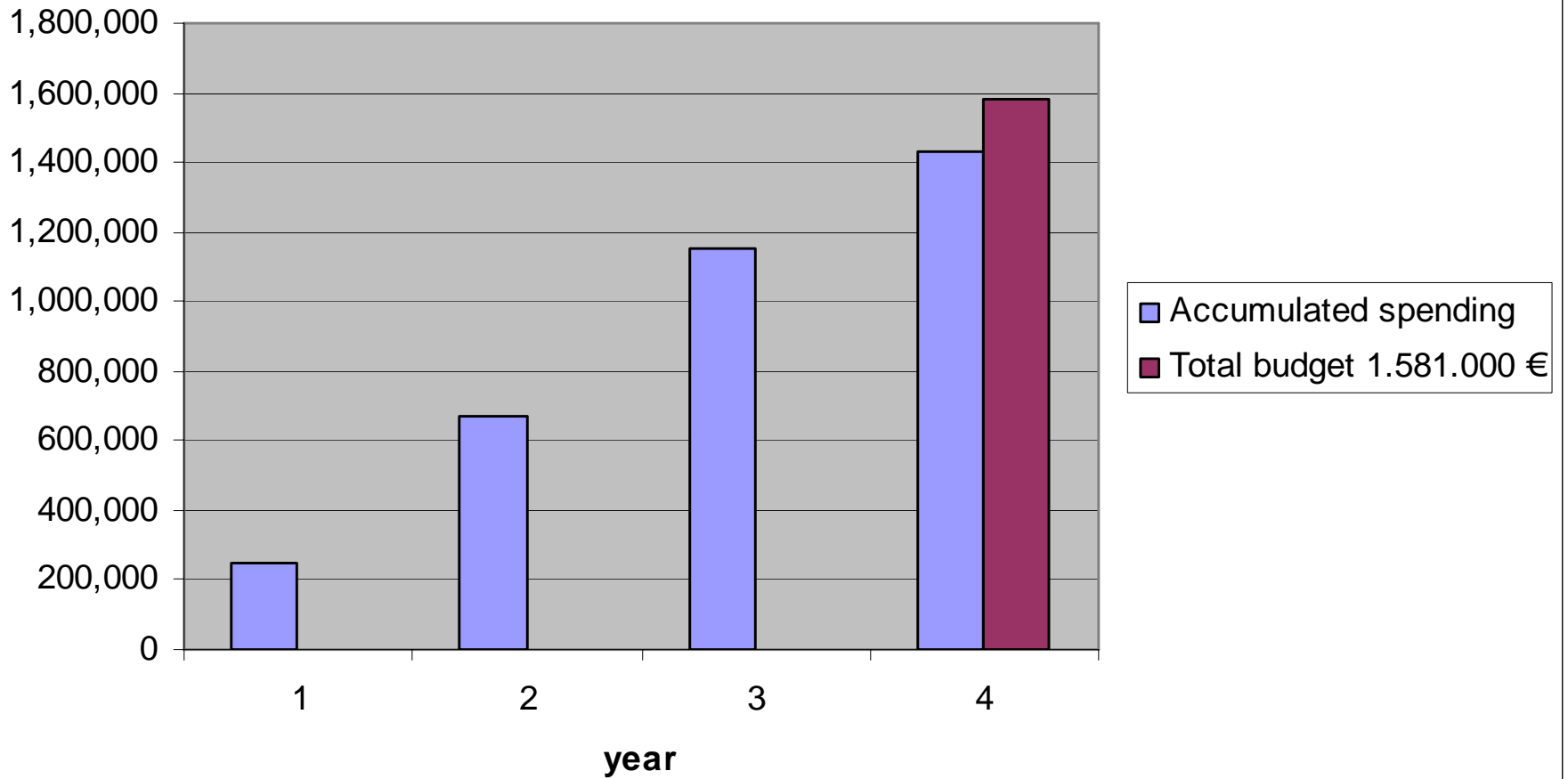
- **10 WP`s (31 tasks) are characterized by**

- Improvement of existing components (e.g. flanges)
- Development of new components (e.g. tuner, beam monitor)
- R&D on new treatment and new quality methods (electro polishing, Squid scanning)
- High risk developments:
  - Vacuum arc coating (ongoing)
  - Dry ice cleaning (ongoing)
  - Coupler conditioning

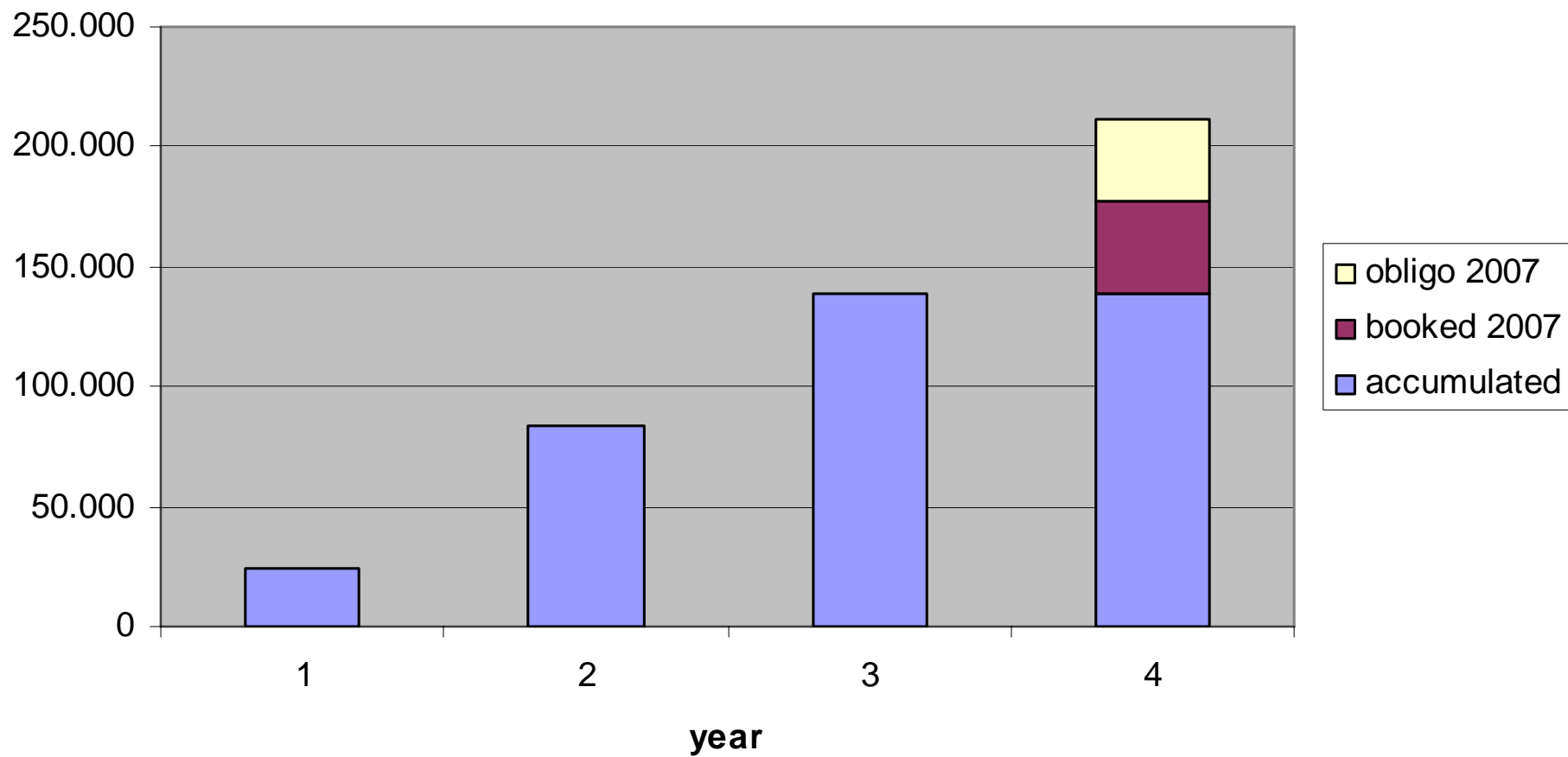
# SRF Publications



## DESY SRF spending profile

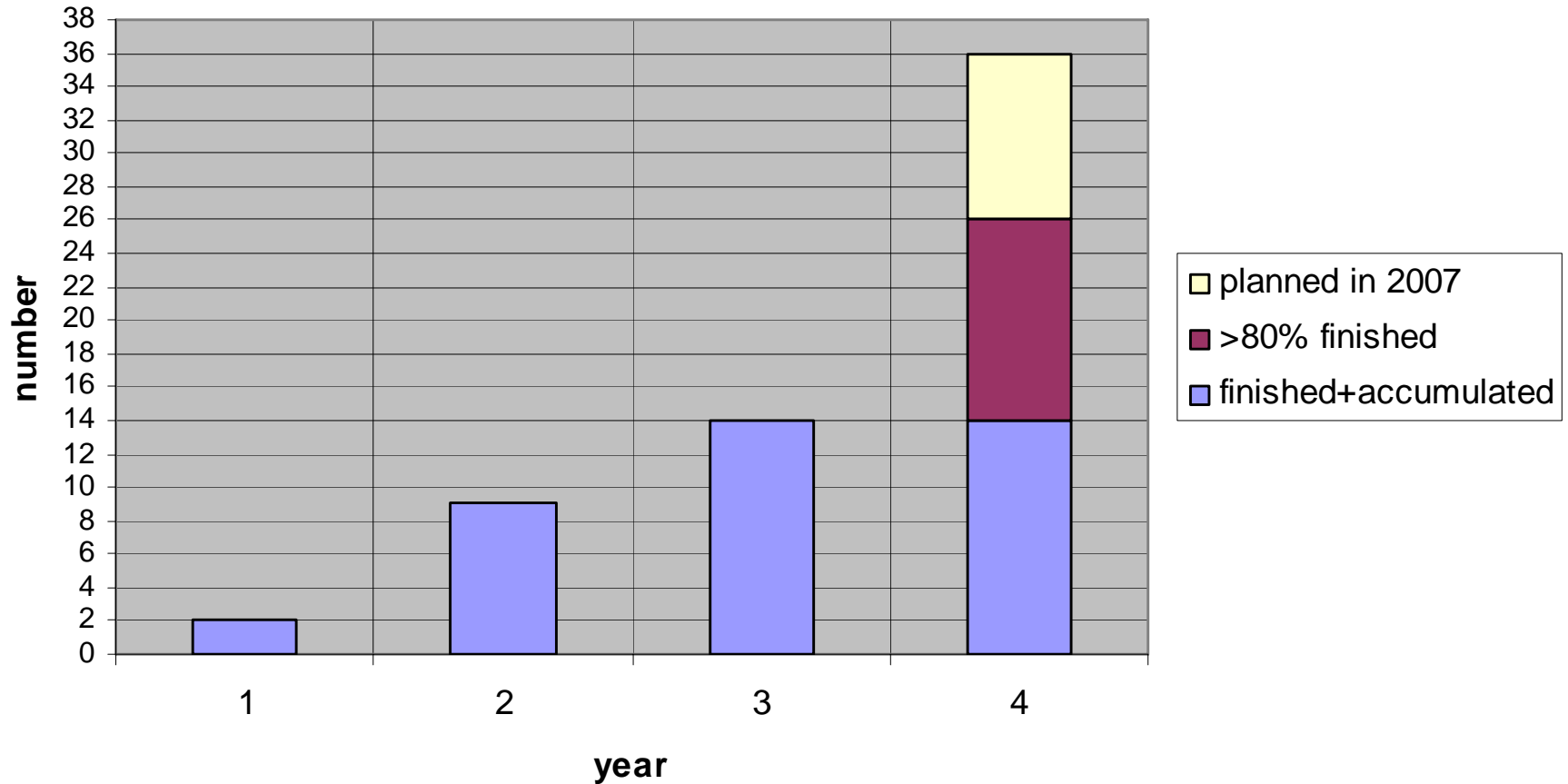


### Elan spending profile (total budget 190.000 €)



# Status JRA SRF deliverables

JRA1 - Deliverables



N°	Deliverable Name	Type	Task	Lab	Planned														WP-leader
2006/7	1-cell spinning parameters defined	Report	3	INFN-Leg	36													Palmieri	
						10	20	30	40	50	60	70	80	90	100				
		<b>2007</b>	<b>SRF</b>			<b>Progress in %</b>													
5	Fabrication of new cavity with improved components	Prototype	2.2.5.2	INFN	47													Michelato	
6	Fabrication Multi-cell cavities by spinning	Prototype	3.1.7.2	INFN-Leg	48													Palmieri/Möller	
7	Fabrication of hydroformed 9-cell cavities	Prototype	3.2.6.3	DESY	47													Singer/Möller	
8	First multicell coating with linear-arc cathode	Prototype	4.1.2.2	IPJ	48													Sadowski	
9	First multicell coating with planar-arc cathode	Prototype	4.2.2.4	INFN-Ro2	41													Sadowski	
10	Report on quality of HTc superconducting properties	Report	4.2.3.2	INFN-Ro2	48													Sadowski	
11	EP on single cells: parameters fixed	Report	5.1.5.2	CEA	48													Matheisen	
12	Evaluate oxipolishing experiments	Report	5.2.3.9	DESY	40													Matheisen	
13	Final report on industrial electropolishing	Report	5.2.4.8	DESY	48													Matheisen	
14	Automated EP: Conclude on best electrolyte	Report	5.3.5.5	INFN-Leg	44													Matheisen	
15	VT CO <sub>2</sub> of 9-cell cavities: evaluation of experimental results	Report	5.4.4.2	DESY	48													Matheisen	
16	Dry ice cleaning of horizontal 9-cell cavities: evaluation of experimental results	Report	5.4.6.2	DESY	48													Matheisen	
17	Final report on SQUID scanning	Report	6.1.5.4	DESY	48													Palmieri	
18	Conclude on comparison of SQUID scanner vs. flux gate detector	Report	6.2.6.2	INFN-Leg	48													Palmieri	
19	DC field emission: evaluation of scanning results	Report	6.3.1.9	DESY	48													Palmieri	
20	DC field emission: evaluate strong emitter investigations	Report	6.3.2.6	DESY	48													Palmieri	
21	Prototype couplers: final report on conditioning	Report	7.3.3	Ors	47													Variola	
22	Evaluation of INFN tuner operation	Report	8.1.10	INFN-Mi	48													Sekalski	
23	Cryostat integration tests: final evaluation	Report	10.6.3	CEA	46													Visentin	
24	Evaluation of BPM operation	Report	11.1.12	CEA	48													Castellano	
25	Evaluation of beam emittance monitor operation	Report	11.2.13	INFN-Ro	48													Castellano	
26	EB Welding of prototypes of components	Prototype	2.3.3.6	DESY	48													Michelato	

# Next steps

- Annual CARE meeting at CERN 29.-31. October 07
  - Two highlight talks: Beam position monitor, advances in EP
- Strong effort is required to finish our deliverables this year
- Yearly report 2007 is kind of JRA1 summary
- Delays and extension into year 5 (2008) is expected for:
  - Thin film coating
  - Dry ice cleaning
  - Multicell spinning
- Final summary of JRA1 in middle of 2008
  - Will concentrate on the detailed description of the impact of JRA1 R&D effort to SRF technology





# Preparation of CARE II in FP7

- Short summary of ESGARD meeting OMIA last week at CERN
- Priority proposals [SCRF-Proposals](#)
- Additional proposals [Additional proposals](#)