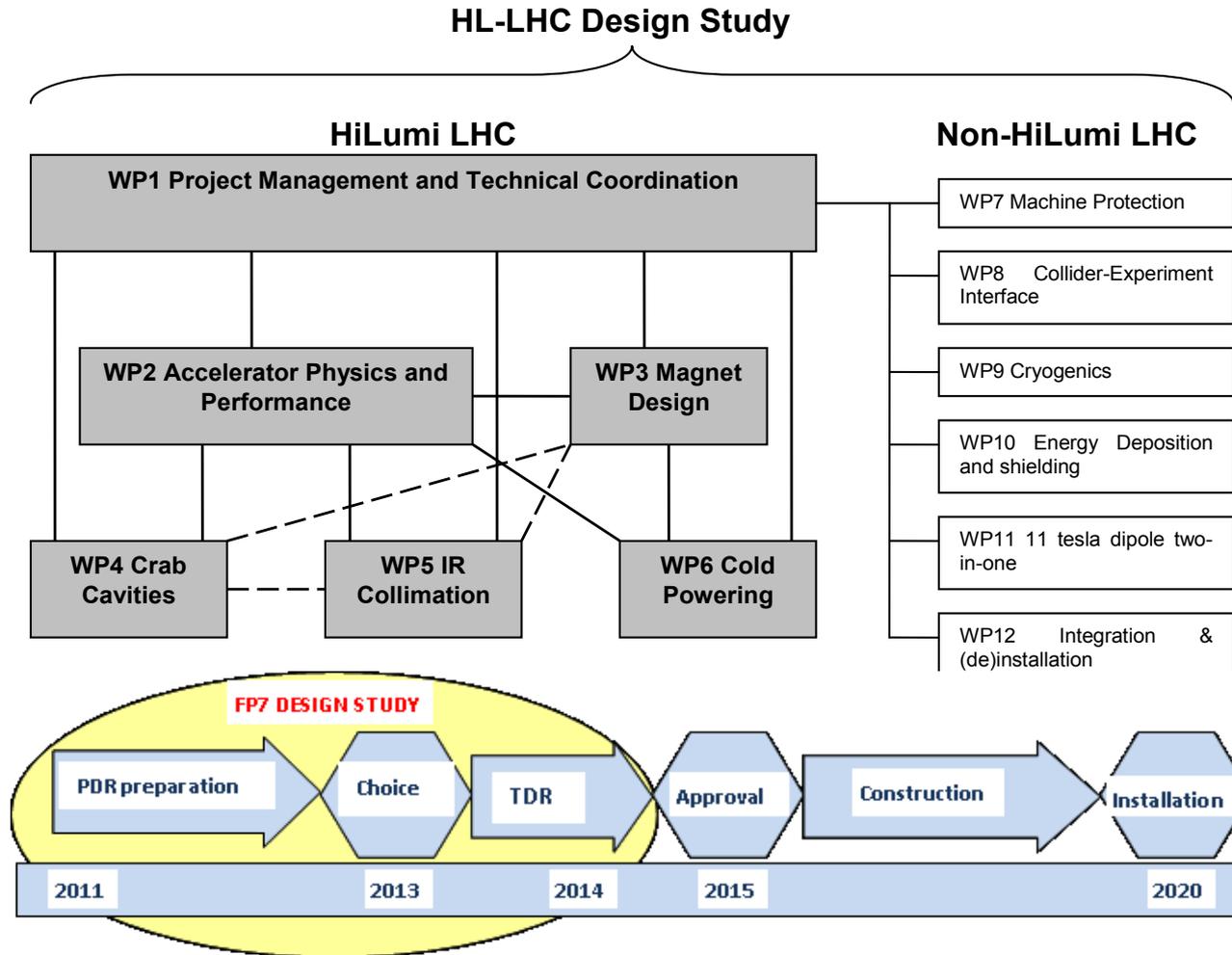


# FP7 HiLumi LHC Design Study

Lucio Rossi

CERN

# Structure of the project HL-LHC and the **FP7 HiLumi FP7 Design Study**

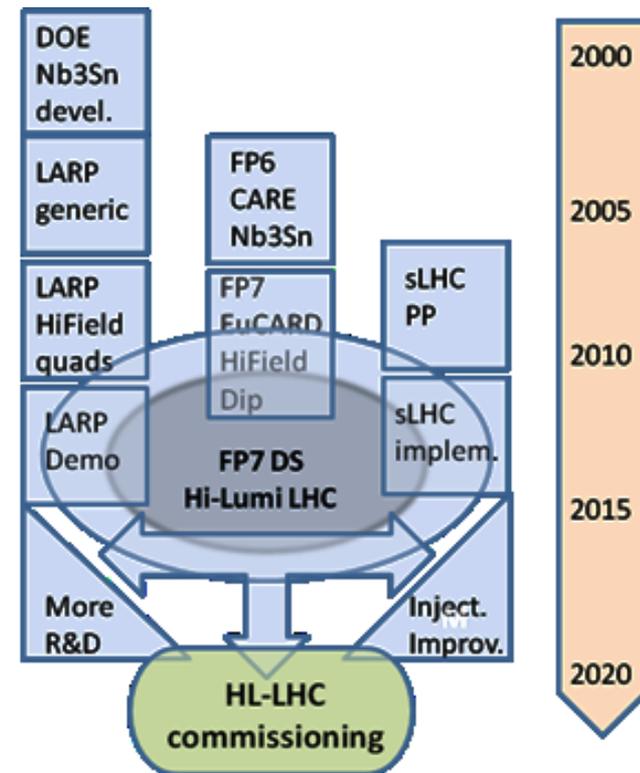


# Large participation application 25 Nov 2010

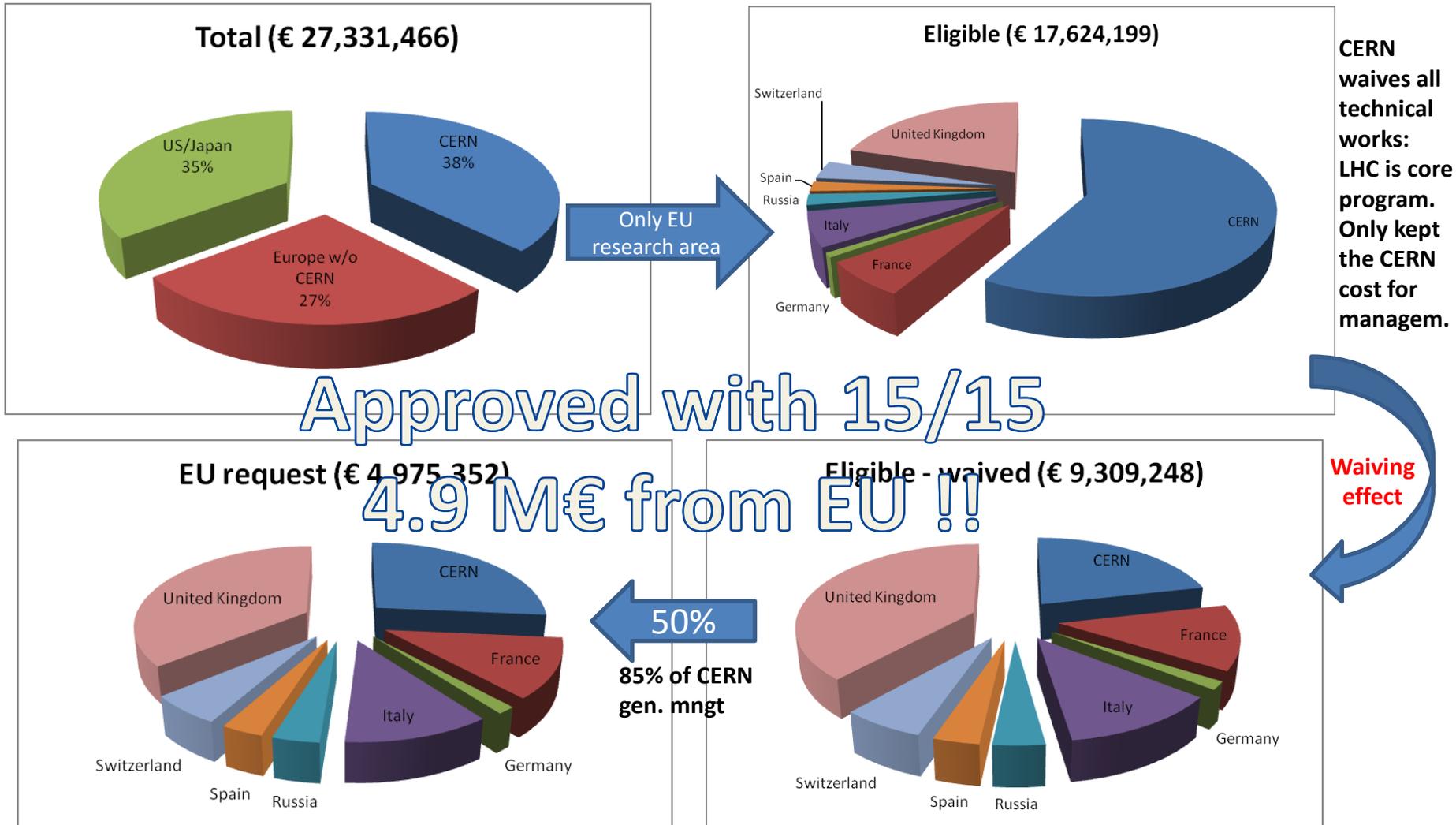
Participant no.	Participant organisation name	Short name	Country
1 (Coordinator)	European Organization for Nuclear Research	CERN	IEIO <sup>1</sup>
2	Commissariat à l'Énergie Atomique et aux énergies alternatives	CEA	France
3	Centre National de la Recherche Scientifique	CNRS	France
4	Stiftung Deutsches Elektronen-Synchrotron	DESY	Germany
5	Istituto Nazionale di Fisica Nucleare	INFN	Italy
6	Budker Institute of Nuclear Physics	BINP	Russia
7	Consejo Superior de Investigaciones Cientificas	CSIC	Spain
8	École Polytechnique Fédérale de Lausanne	EPFL	Switzerland
9	Royal Holloway, University of London	RHUL	UK
10	University of Southampton	SOTON	UK
11	Science & Technology Facilities Council	STFC	UK
12	University of Lancaster	ULANC	UK
13	University of Liverpool	UNILIV	UK
14	University of Manchester	UNIMAN	UK
15	High Energy Accelerator Research Organization	KEK	Japan
16	Brookhaven National Laboratory	BNL	USA
17	Fermi National Accelerator Laboratory (Fermilab)	FNAL	USA
18	Lawrence Berkeley National Laboratory	LBNL	USA
19	Old Dominion University	ODU	USA
20	SLAC National Accelerator Laboratory	SLAC	USA

# HiLumi is the focal point of 20 years of converging International collaboration

- The collaboration with US on LHC upgrade started during the construction of LHC
- EU programs have been instrumental in federating all EU efforts: **recently successfully ended FP7 sLHC PP has provided a valuable background of HiLumi and some important hardware**
- With Hi-Lumi the coordination makes a step further: from coordinated R&D to a common project
- CERN is not anymore the unique owner, rather is the motor and catalyzer of a wider effort.
- Managed like a large detector collaboration (with CERN in special position as operator of LHC)



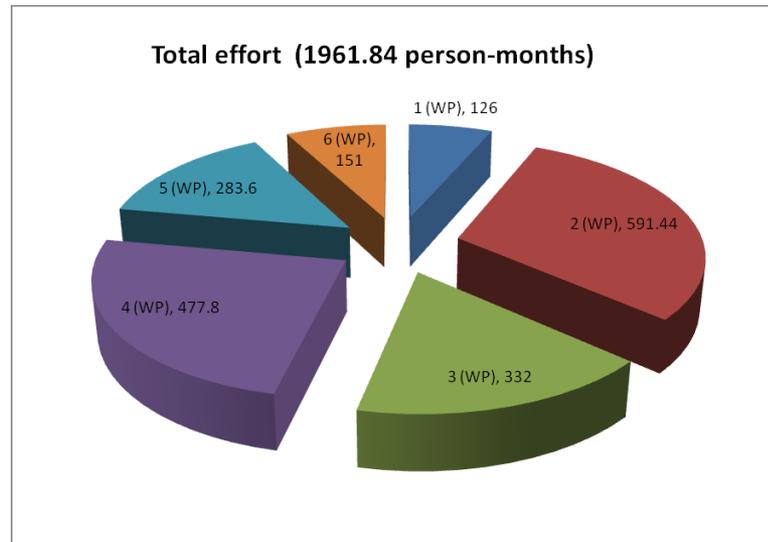
# Budget FP7 HiLumi



# Writing grant proosal and Consortium agreement (not easy with US partners)

**Start of the program:  
1 November 2011**

**Duration 4 years**



- Personnel for HiLumi by WP**
1. Manag and Tech. Coord. (6%)
  2. Acc. Physics and beam
  3. Magnets for IR
  4. Crab Cavities
  5. Collimators
  6. Sc links

**Estimated cost for the the whole HL-LHC over 10 years in M€**

	Design in FP7 HiLumi	Extra effort for Design	R&D and proto	Industrialization & Construction	TOT	Industry
W1-WP6	27	10	50	200	287	160
WP7-12	0	15	30	100	145	80
Other	0	5	10	50	65	40
TOT	27	30	90	350	497	280