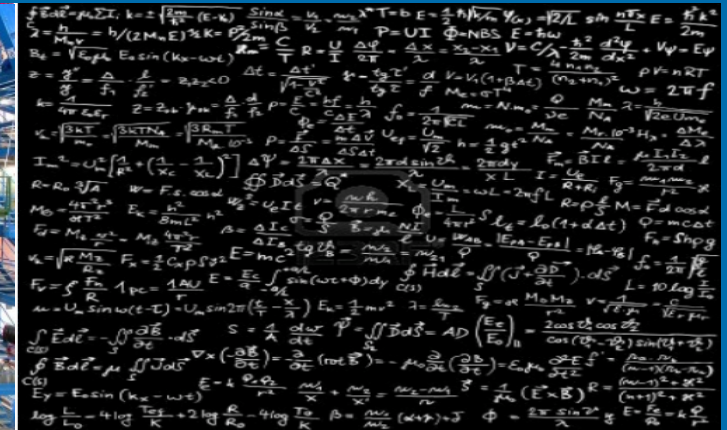
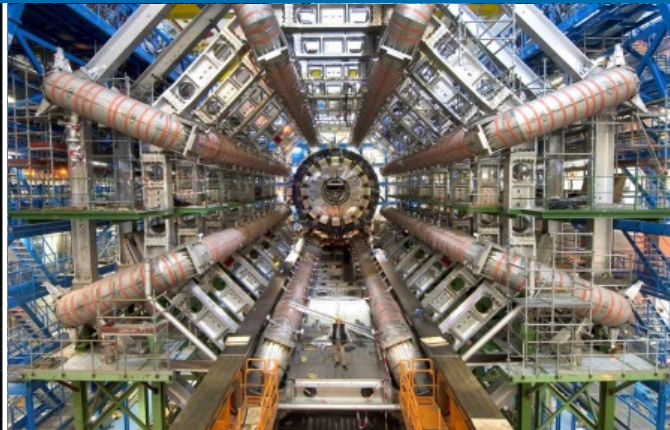
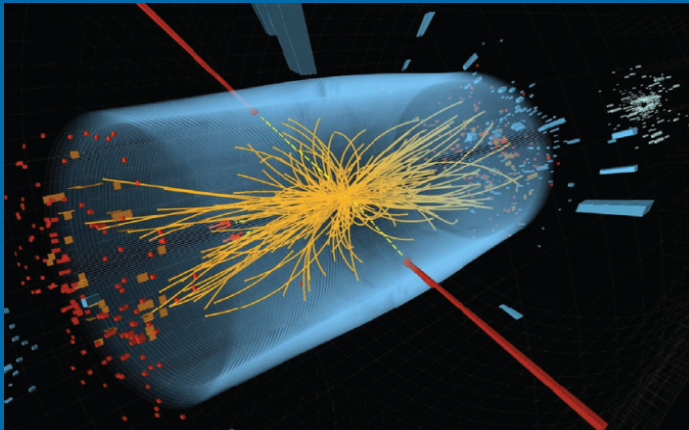


Fundamental Particles and Forces – Parallel Session –



J. Mnich (DESY)

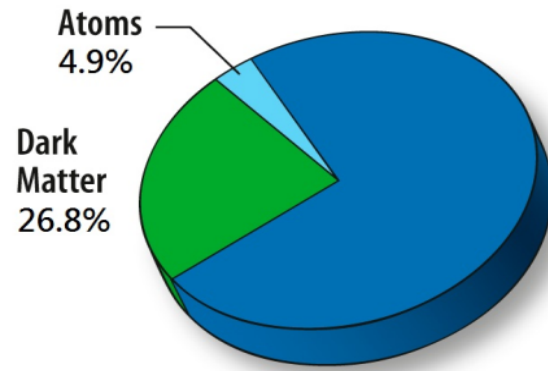
List of Prepared Talks

Isabell Melzer-Pellmann	Proton-proton physics (LHC)
Eckhard Elsen	e^+e^- physics
Georg Weiglein	Theory
Paul Millar	Computing developments

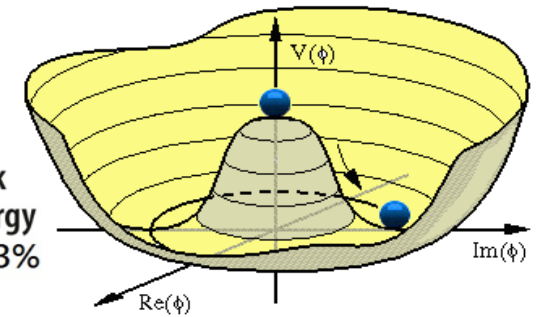
Reminder: Particle Physics

The Big Questions:

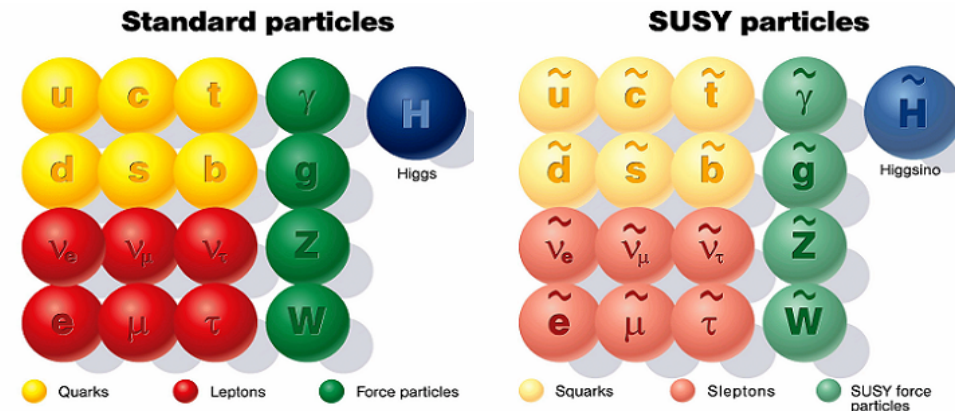
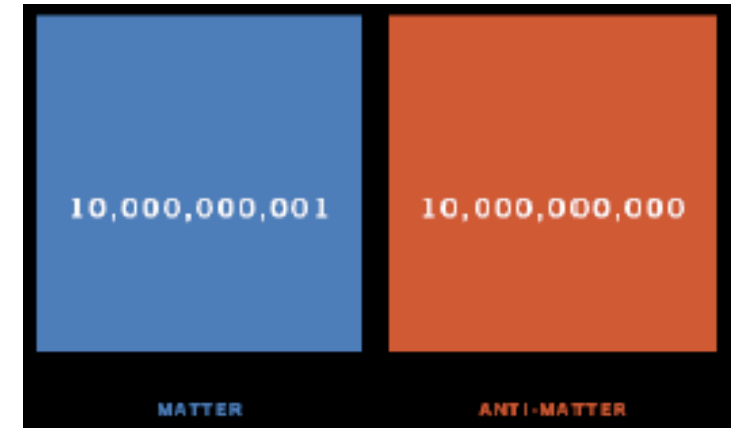
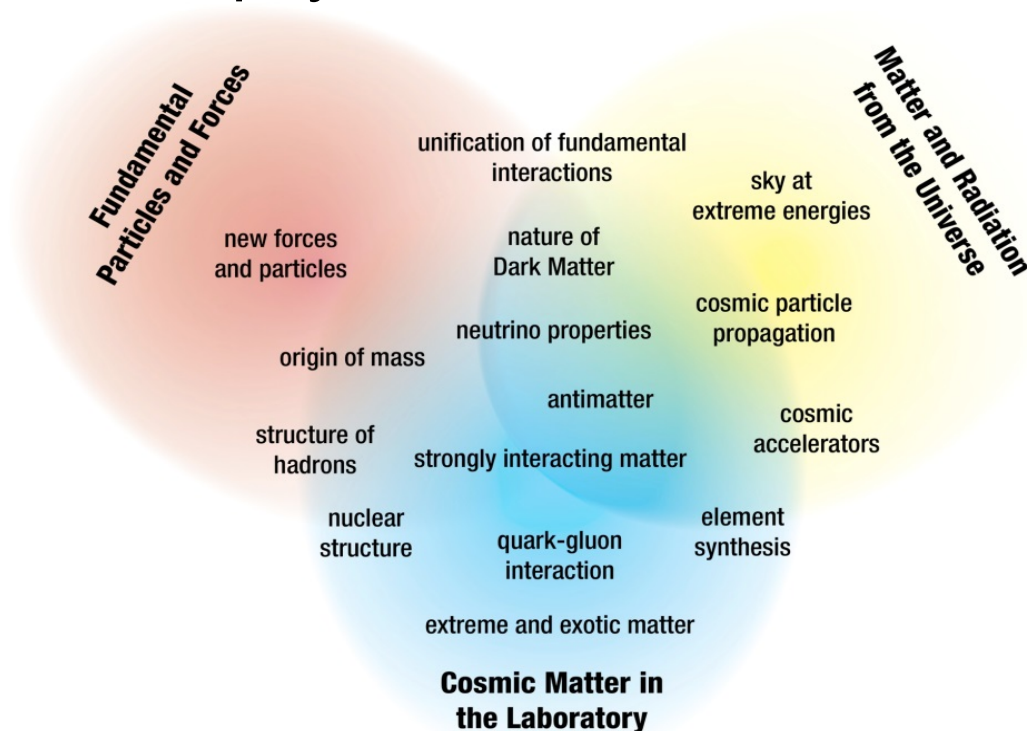
- Origin of mass
- Nature of Dark Matter
- New forces and particles
- Matter-antimatter asymmetry
- Unification of fundamental forces



TODAY

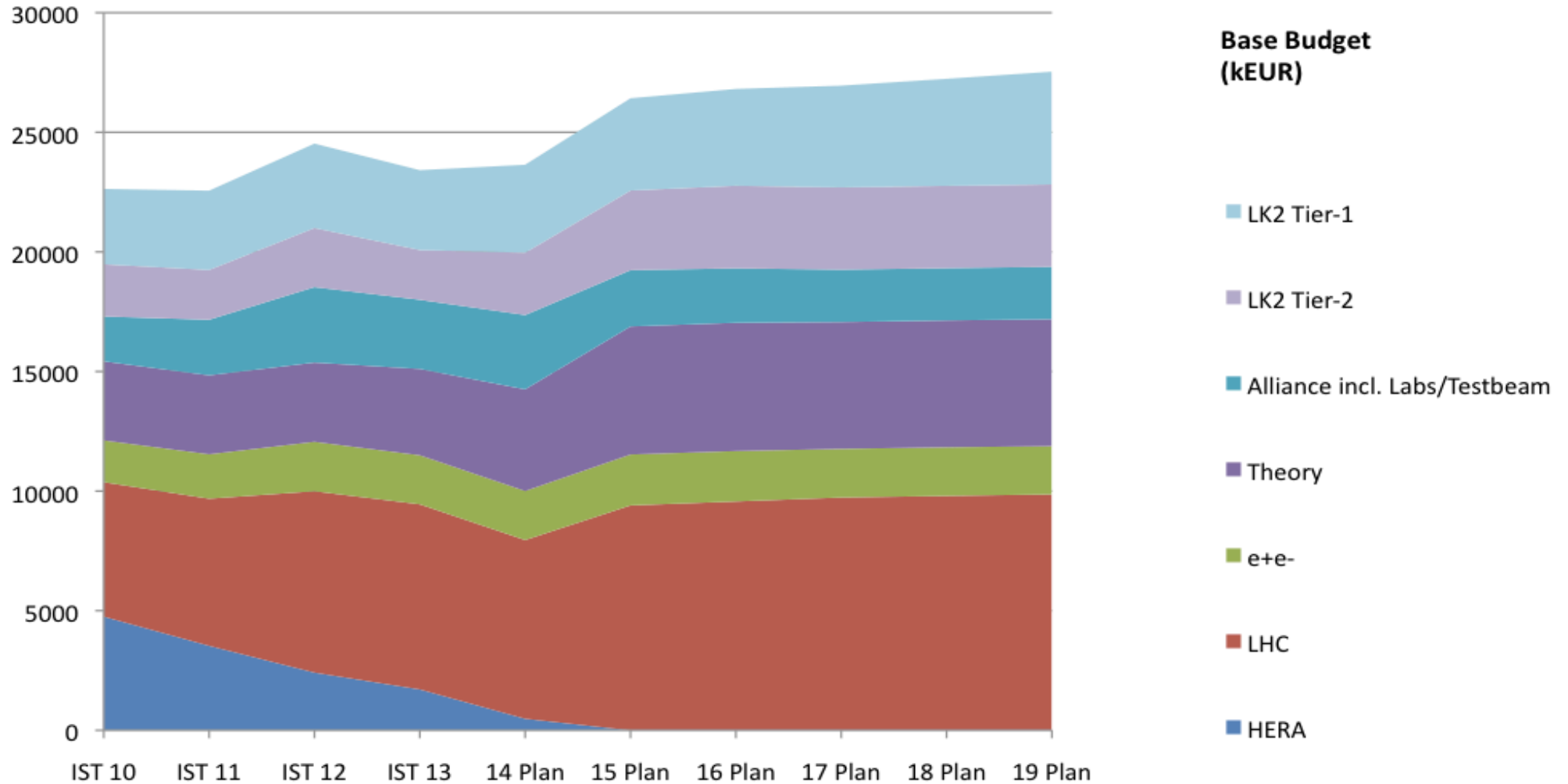


Particle physics in Matter & Universe:



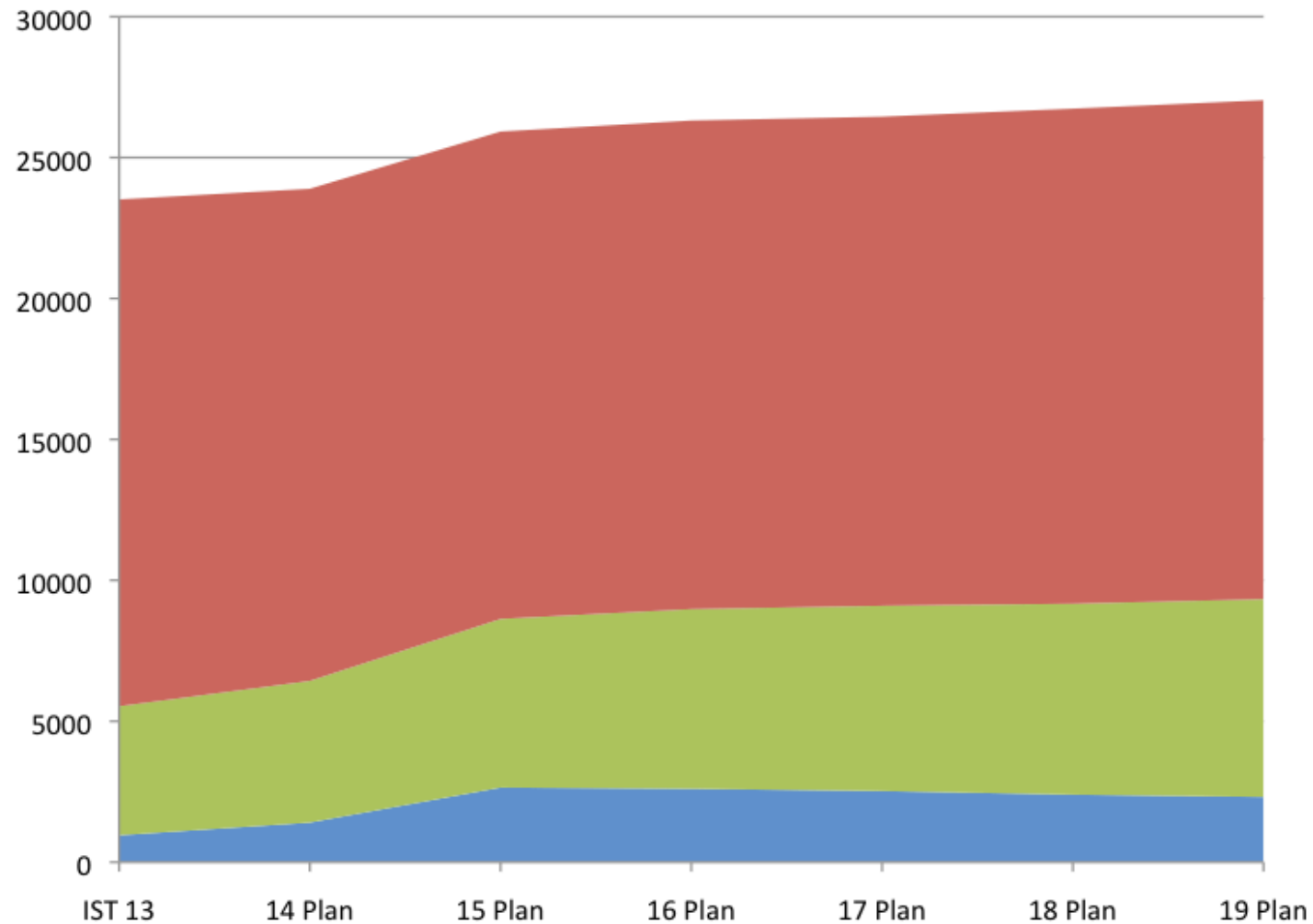
Funding – Base Budget

Direct Expenses for DESY+KIT



Funding Structure

DESY+KIT



Particle Physics Funding Structure (kEUR)

- Personnel Costs
- Non-Personnel Costs
- Invest

Development PoF-II → PoF-III

Goal set by Senate Commission Recommendations 2009:

Strengthen leadership position nationally + internationally!

HERA: Major analyses finished by end of 2014

PDF expertise transferred to LHC; data preservation ongoing

LHC: Higgs discovery – Nobel prize. Helmholtz contribution

Helmholtz at central positions in LHC experiments

Helmholtz well connected to German universities

Large investment proposals for Phase 2 upgrades in 2014

ILC: TDR published, strong DESY contributions.

Japanese site selected.

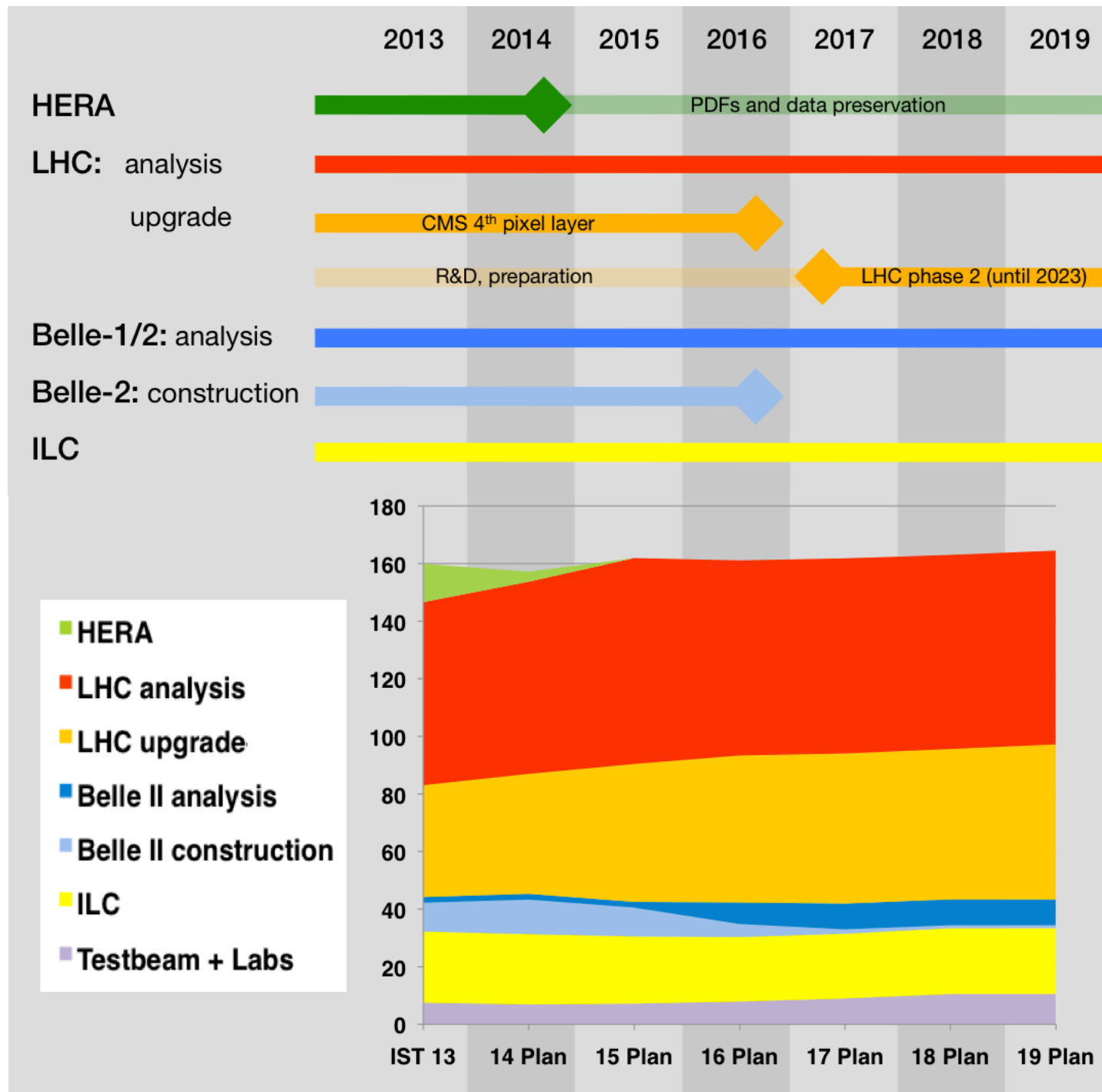
DESY: unique knowledge for SCRF cavities + for ILC integration

Theory: Considerable strengthening of collider phenomenology.

Alliance efforts sustained; testbeam in high demand;

Computing (Tier-1/2, NAF) constantly adapted to user needs and technology

Projects



Backup

Not for referee handout

DESY Fraction in D-HEP

From RECFA Study 2012/13

		Germany	DESY*	DESY Fraction [%]
Professors		129	12	9
	females [%]	6	0**	
permanent scientists		192	92	48
	females [%]	12	15	
YIGs etc.		40	11	28
	females [%]	33	27	
temporary staff	Postdocs	463	110	24
	Ph.D. students	695	95	14
	females [%]	17	22	

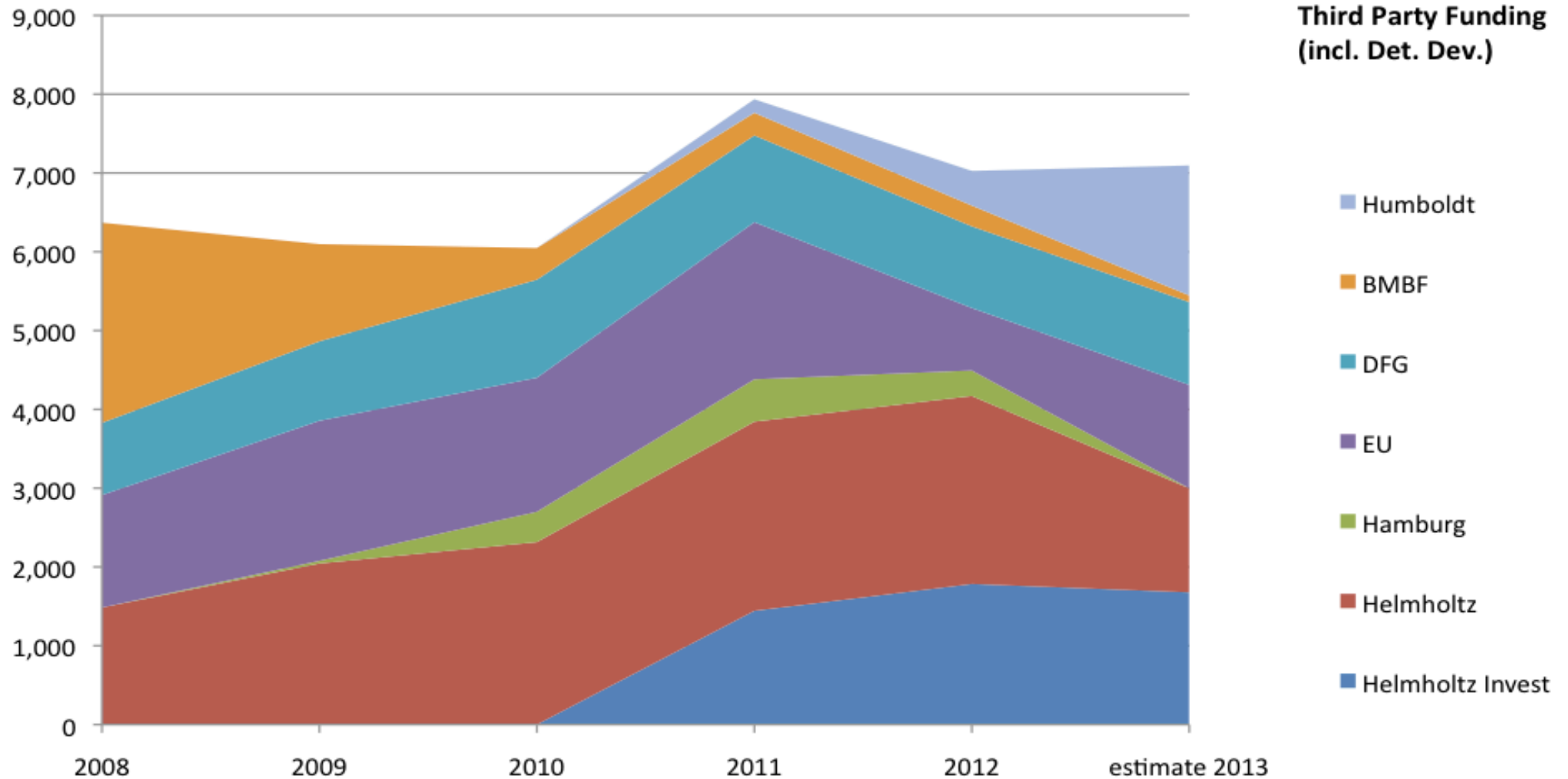
* including third-party funding, M&T, LK-2

** 3 appointment procedures ongoing

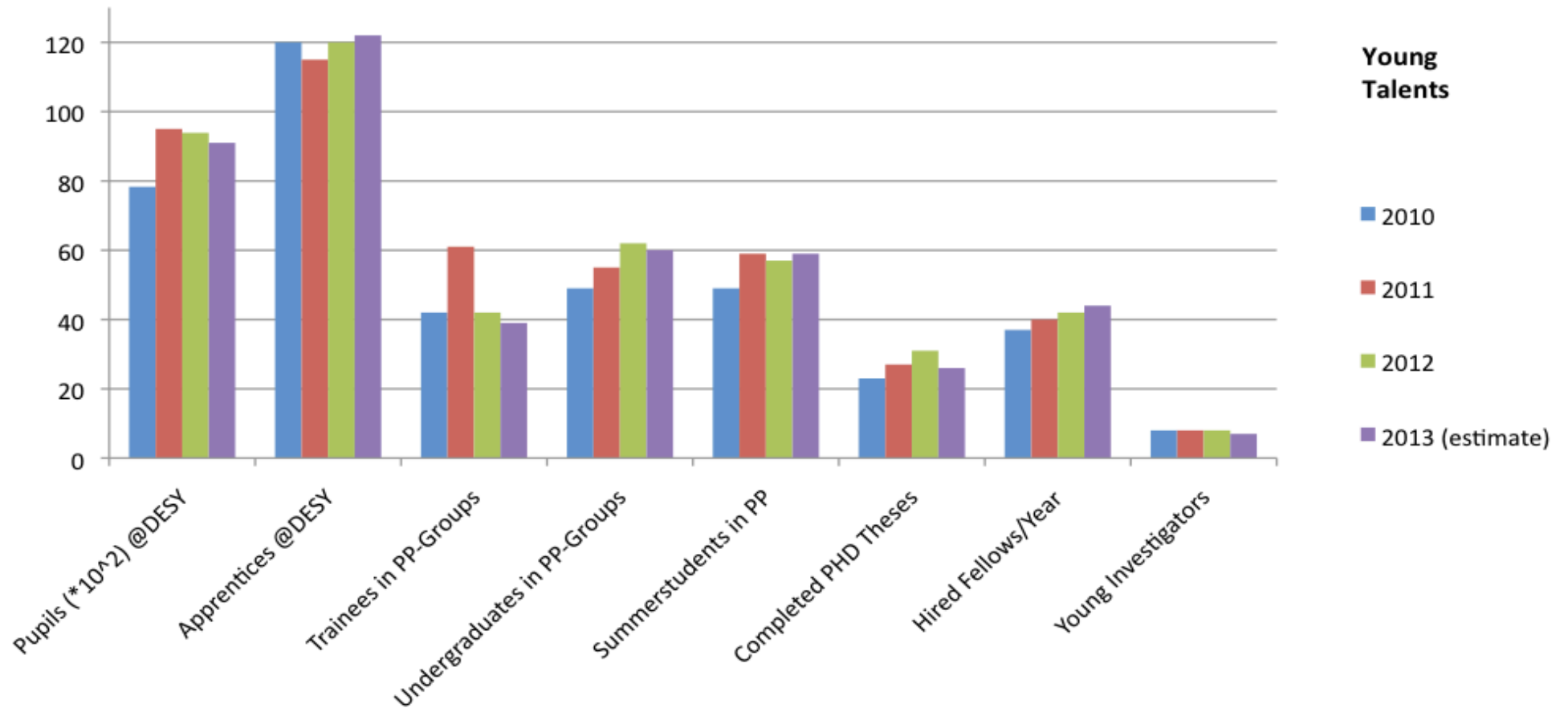
Ph.D. physicists		825	225	27
all physicists		1520	320	21

Third-Party Funding

DESY, incl. detector development

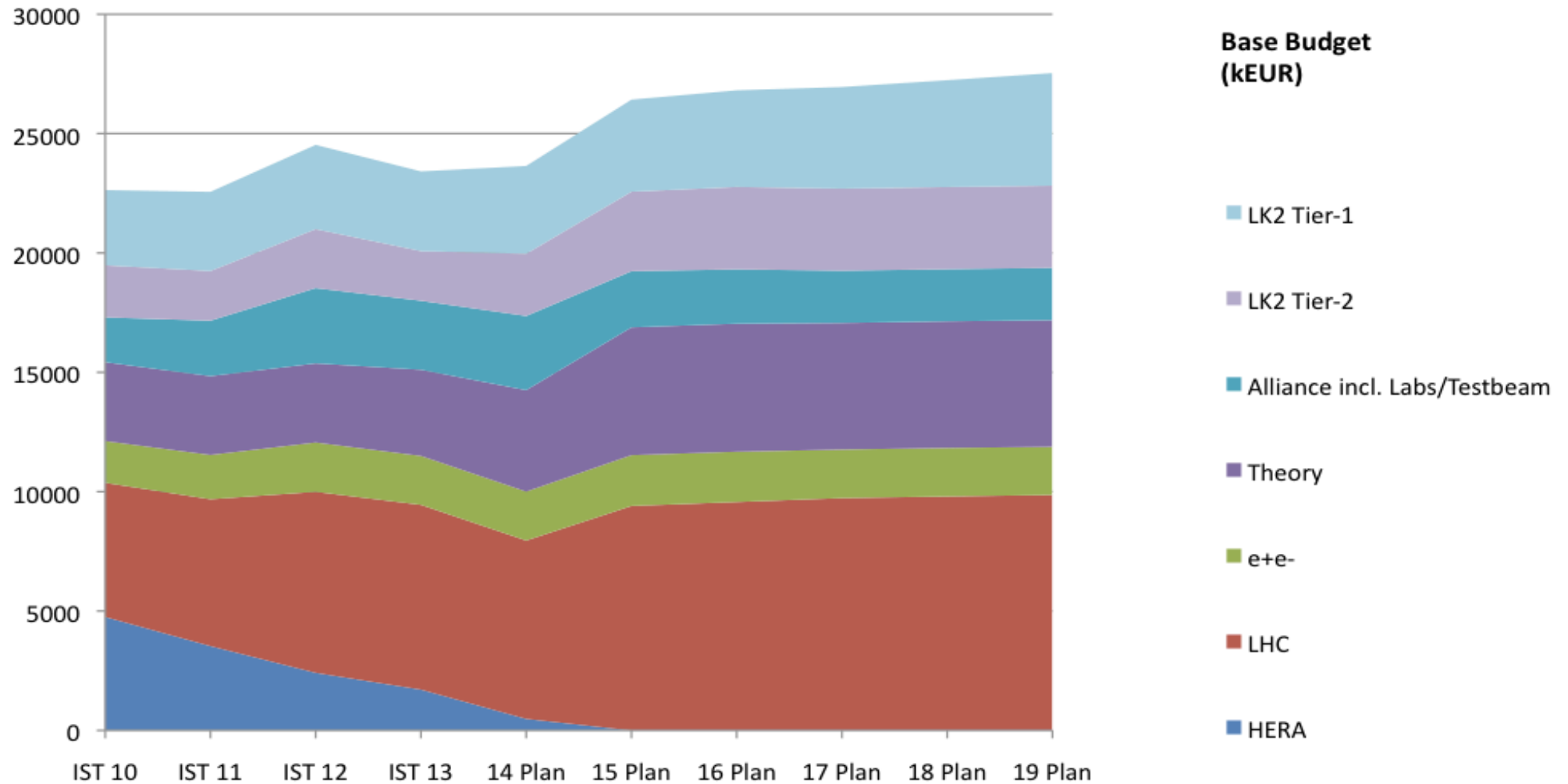


Young Talents at DESY



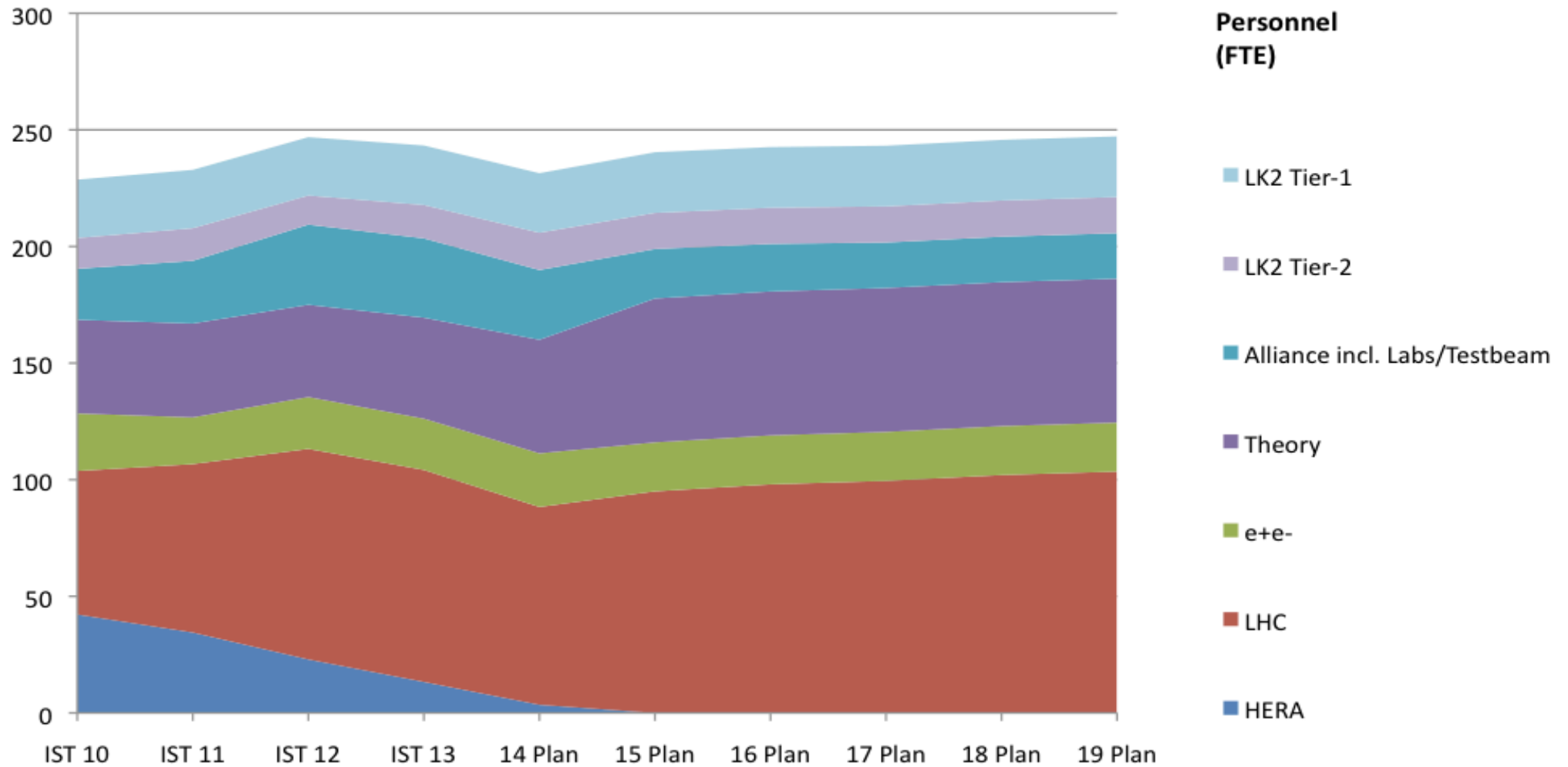
Funding – Base Budget

Direct expenses for DESY+KIT



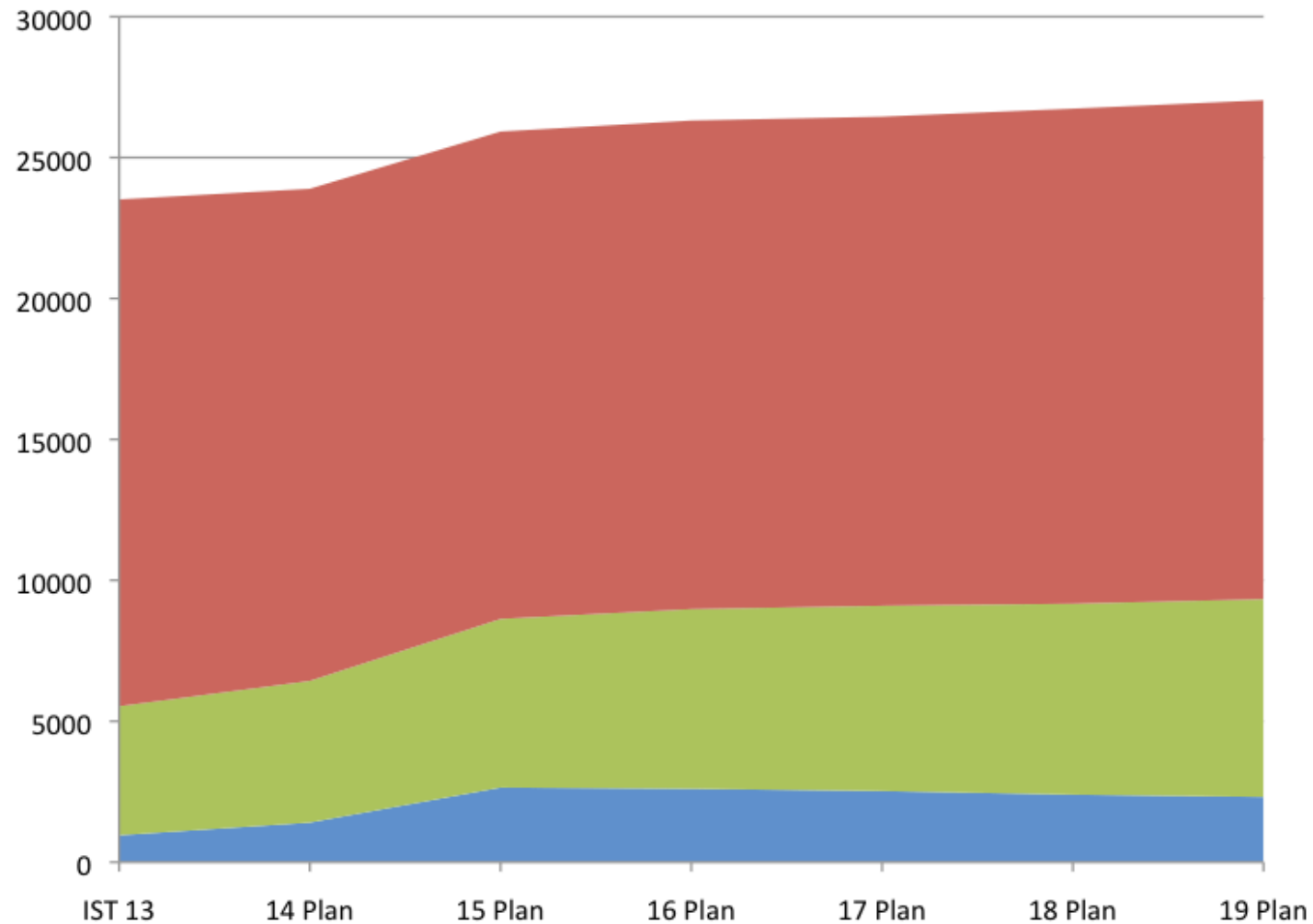
Personnel

DESY+KIT



Funding Structure

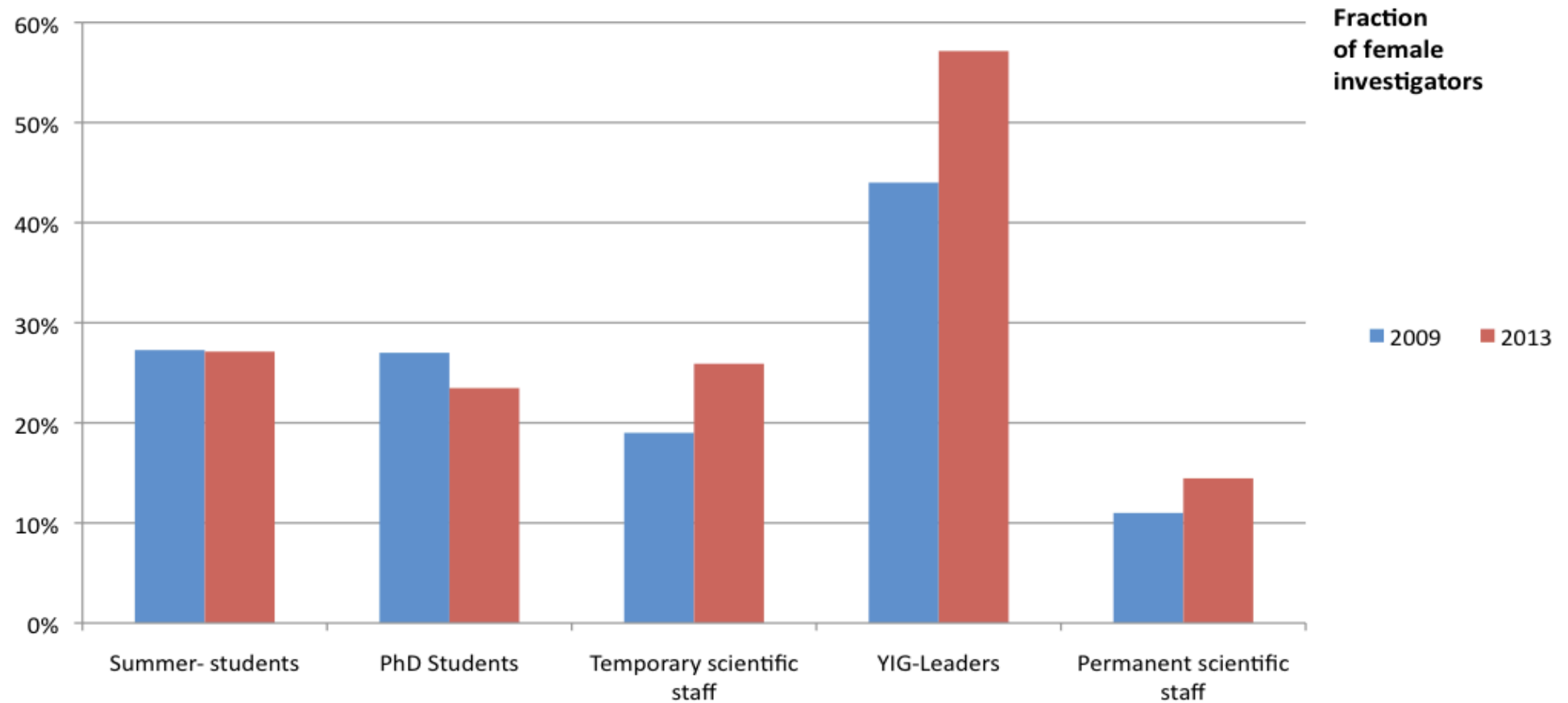
DESY+KIT



Particle Physics Funding Structure (kEUR)

- Personnel Costs
- Non-Personnel Costs
- Invest

Gender Distribution at DESY



Age Distribution

at DESY in LK-1 and LK-2

