

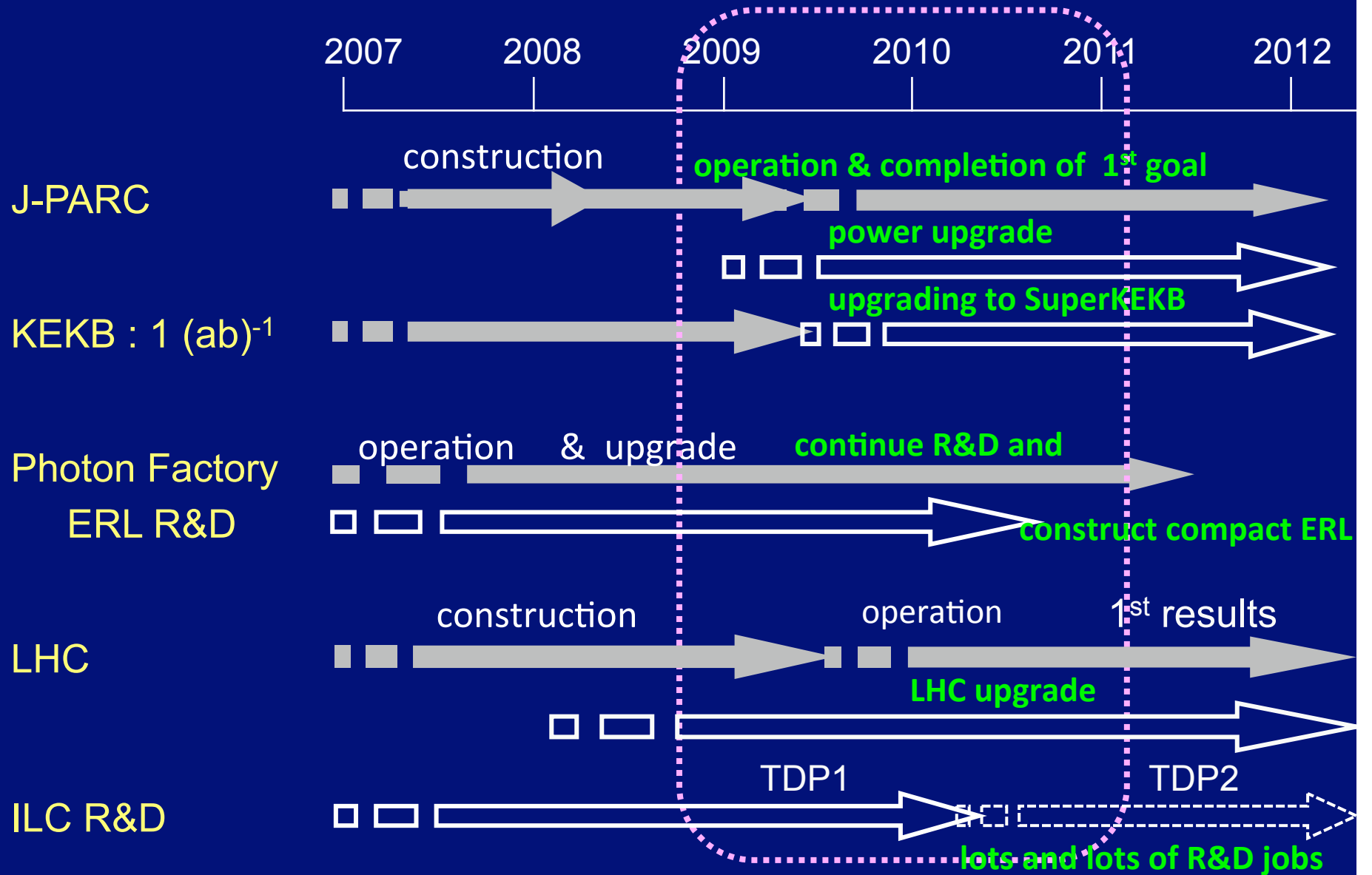
*Feb. 07, 2011*

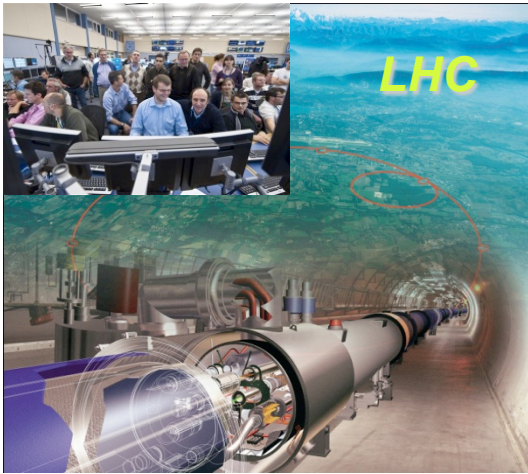
# KEKB Accelerator Review Committee





# Timeline of Current Projects : 2007





LHC

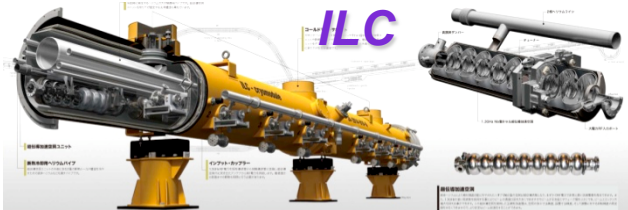
# HEP Project in the Next Decade

Energy frontier experiments  
LHC, ILC, ...

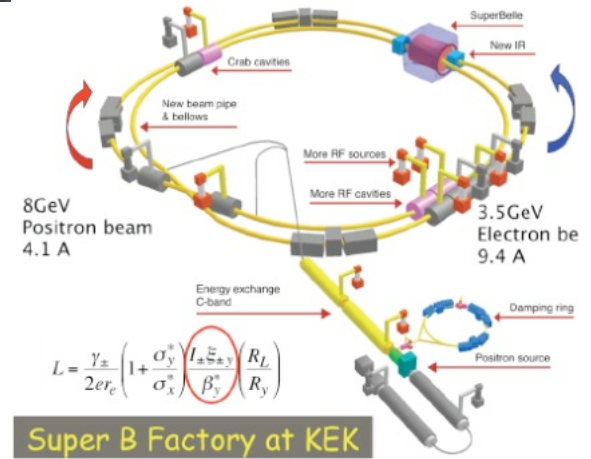
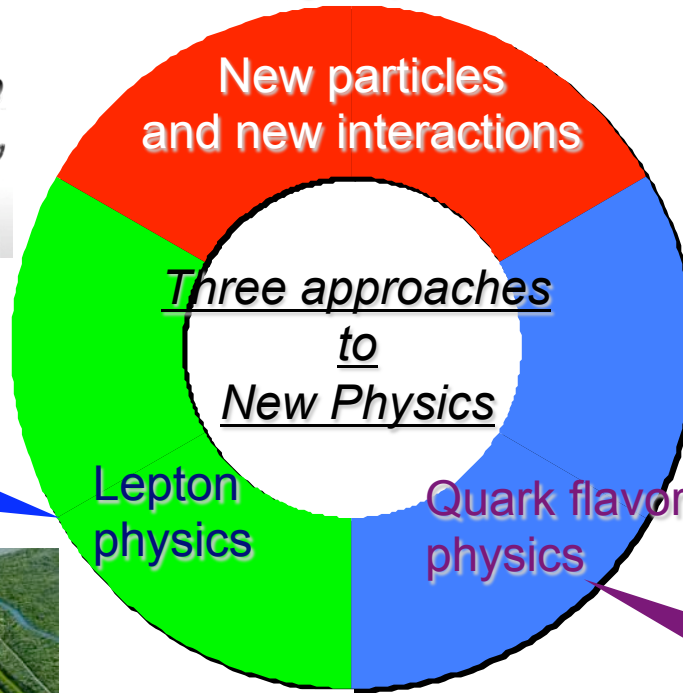
Higgs, SUSY, Dark matter,  
New understanding of space-time...



SuperKEKB



ILC



$\nu$  exp.,  $\mu$  LFV,  $\tau$  LFV,  
 $g_{\mu-2}$ , ...

Lepton physics

Quark flavor physics

SuperKEKB,  
K exp., etc.

Neutrino mixing/masses,  
Lepton number non-conservation...

CP asymmetry, Baryogenesis,  
Left-right symmetry, New sources  
of flavor mixing...



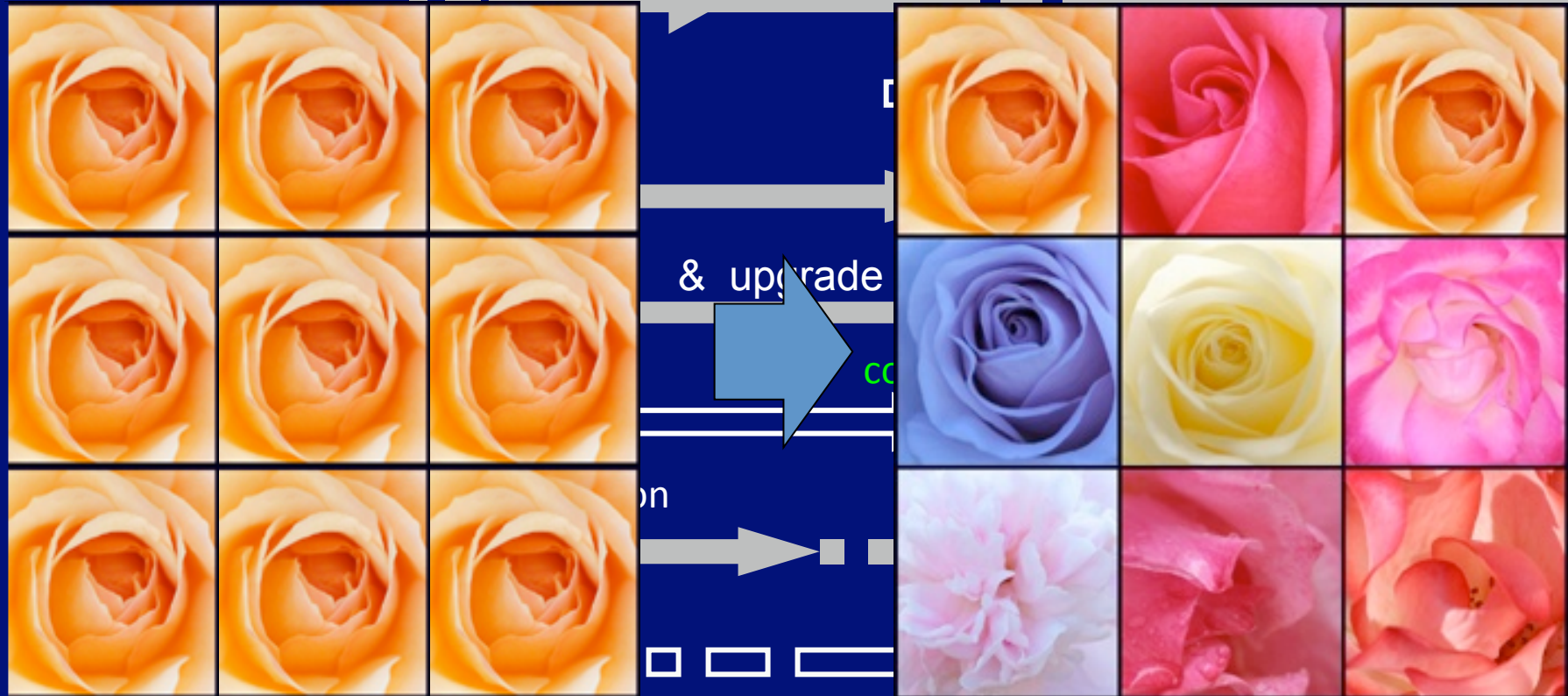
J-PARC

# Summary of KEK Roadmap

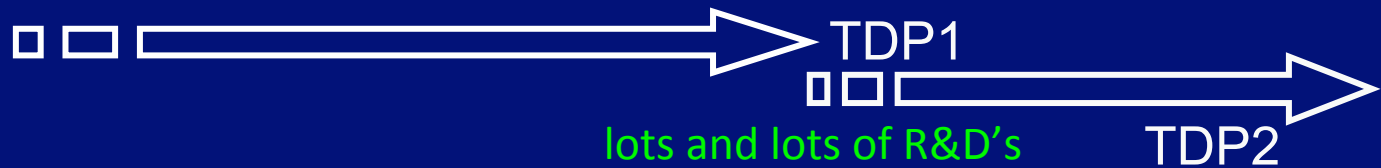
2007 2008 2009 2010 2011 2012

J-PARC

operation & completion of 1<sup>st</sup> goal



ILC R&D



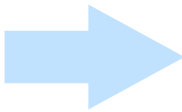
# *International Roadmap Review Committee* *in March 2008*



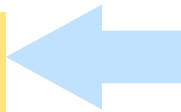
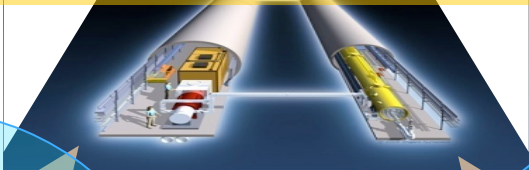
Y. K. Kim, R. Heuer, J. Ellis , J. Rosner , M. Tigner , S. Ozaki,  
A. Hutton, J. Zinn-Justin, J. White, M. Gibson, K. Hodgeson,  
H. Takeda, T. Kishimoto, M. Sakata, T. Yamanaka



Quest for Birth-Evolution of Universe



International Linear Collider (ILC)



Quest for Unifying Matter and Force

**Lepton CP Asymmetry**

Power-Upgrade



J-PARC



Upgrade

LHC



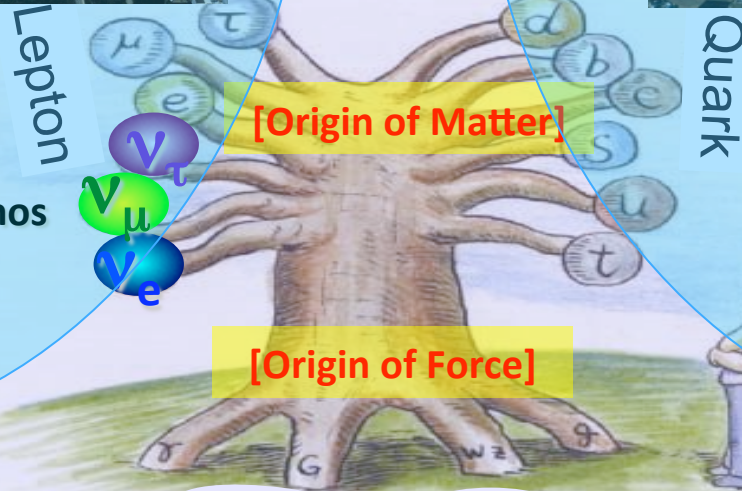
KEK-B

Quark CP Asymmetry

**Beyond Standard Physics**

SuperKEKB

**Scientific Activities  
Technology Innovations  
Talented Human Resources**



[Origin of Matter]

[Origin of Force]

Higgs Particle [Origin of Mass]

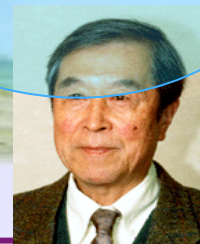
Quest for Neutrinos



Quark



Quest for 6 Quarks





Cost estimation :  
for 5 years

• first class : 720 M\$

nightmare



cost

• business class : 530 M\$

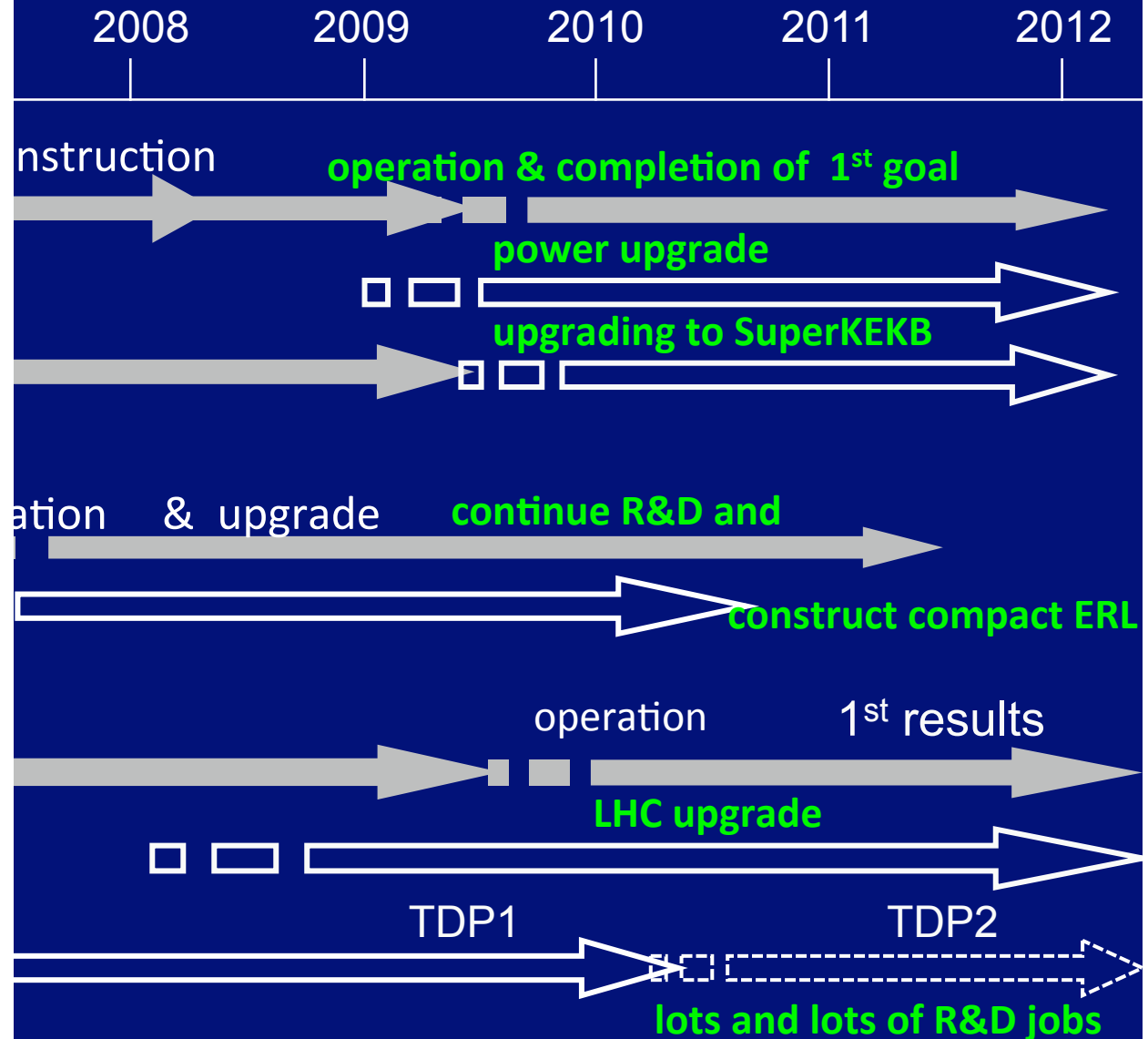
sleepless-nights

• economy class : 370 M\$



personnel and operation  
(PF & J-PARC) : not included

Projects : **2007**



# KEKB to SuperKEKB : current status

- **KEKB** operation finished at 9:00 am June 30, 2010



- **SuperKEKB** budget is partially approved

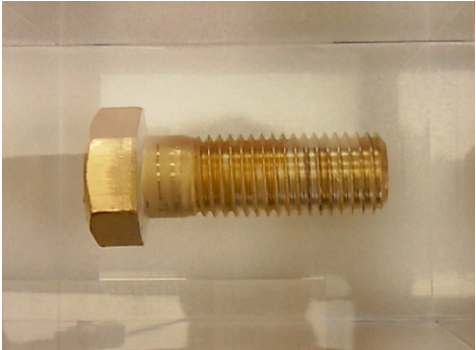
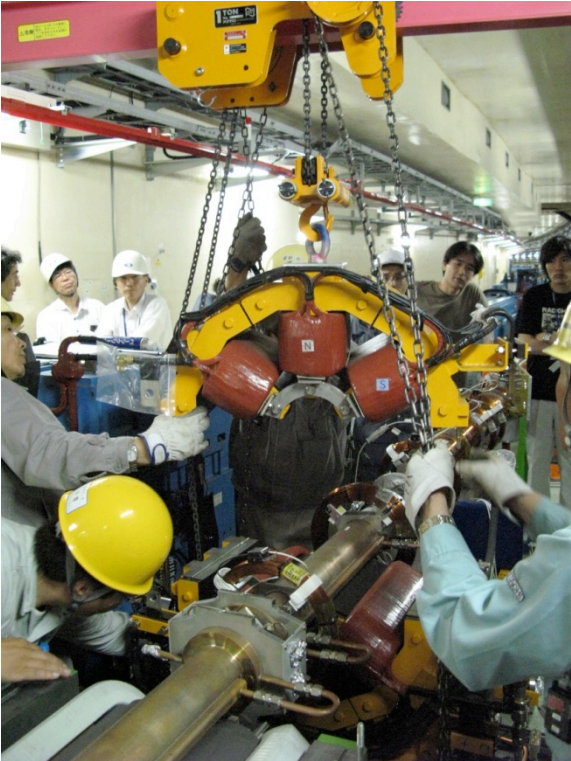
- Damping ring : 580M yen (~5.8M\$) (FY2010)
- Special budget “Very Advanced Research Support Program”  
1B yen (~100M\$) (FY2010-2012)

**→Start construction (FY2010-2013)**

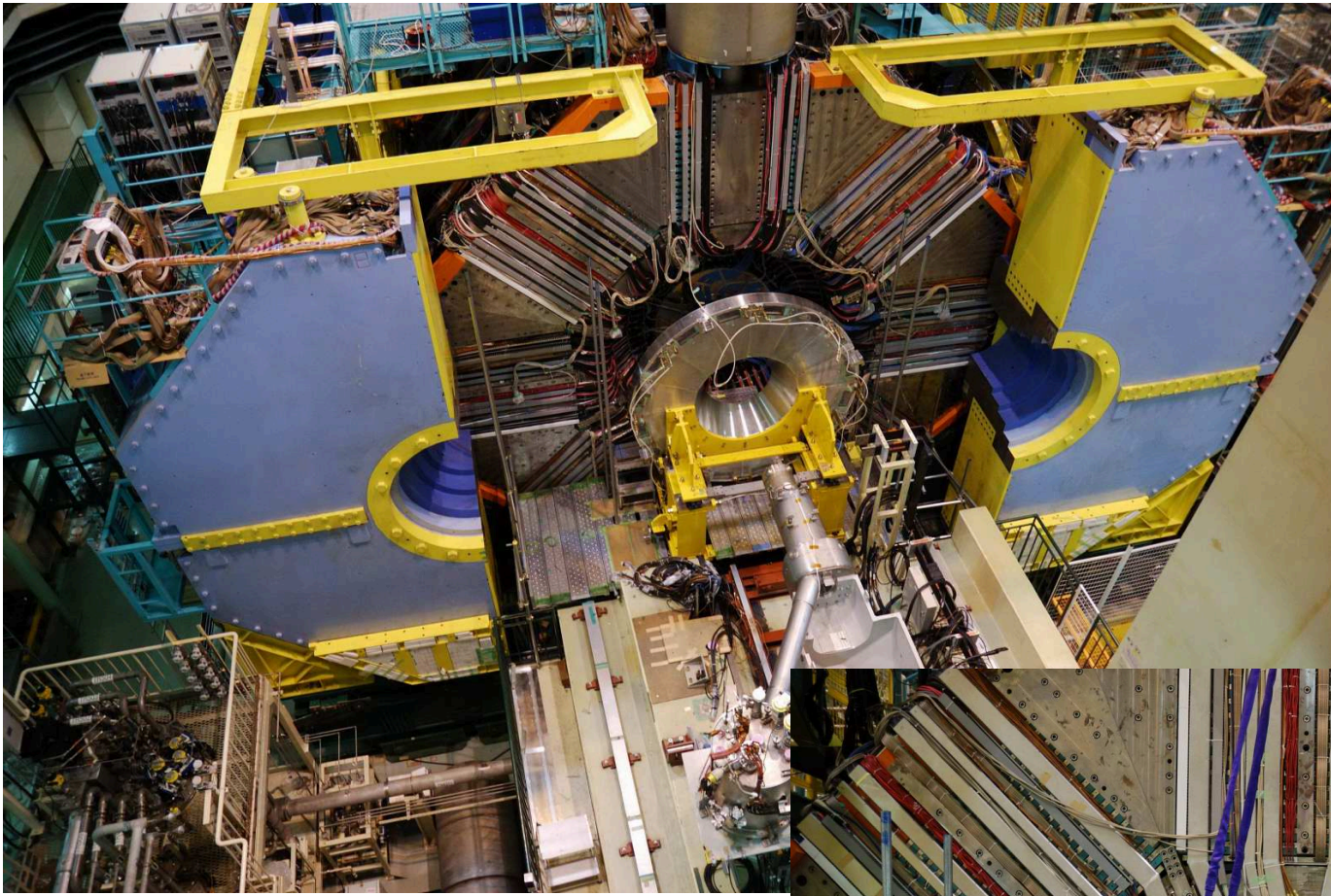
*J.P.Delahaye/CERN :  
ICHEP2010*



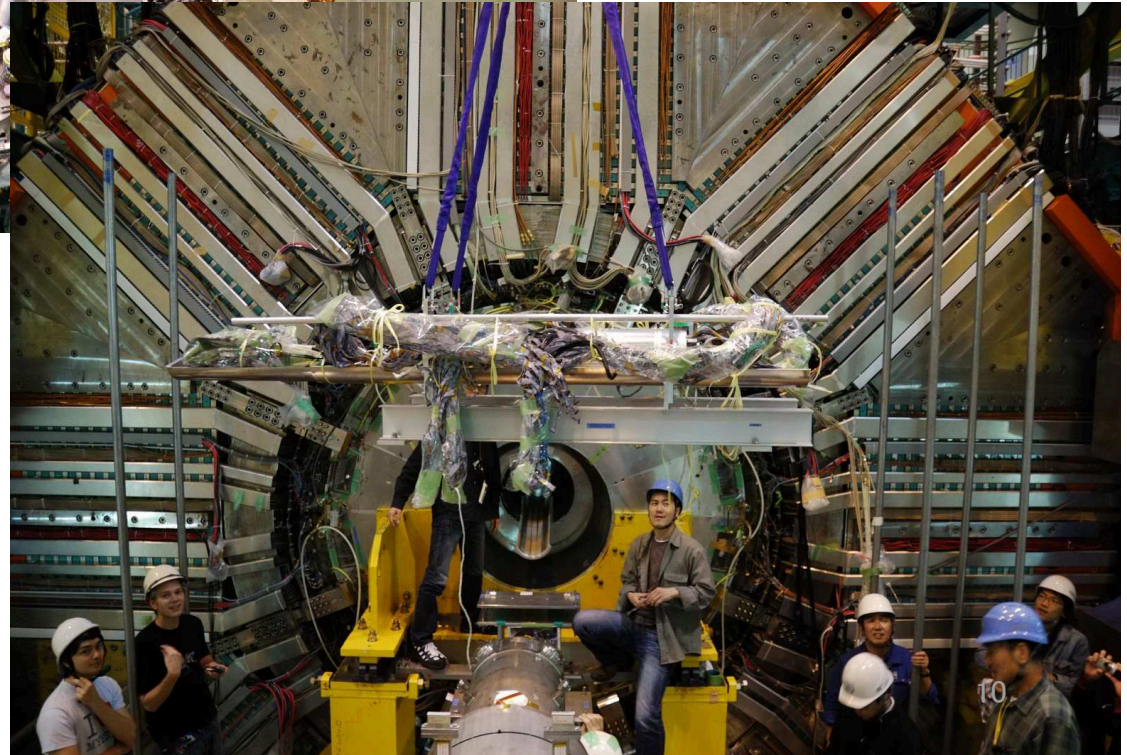
# KEKB being disassembled







**Belle is also being disassembled to revive as Belle-II.**





**My Concern**  
:  
**SuperKEKB Cost**

• **first class** : 700 M\$

nightmare



• **business class** : 500 M\$

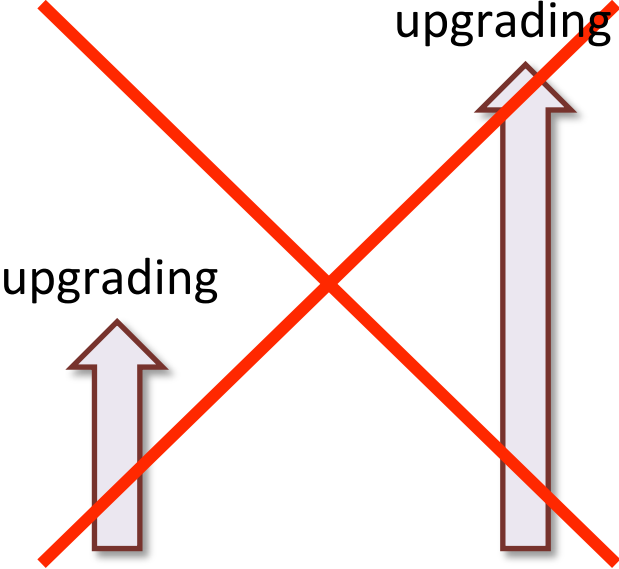
sleepless-nights

• **economy class** : 315 M\$



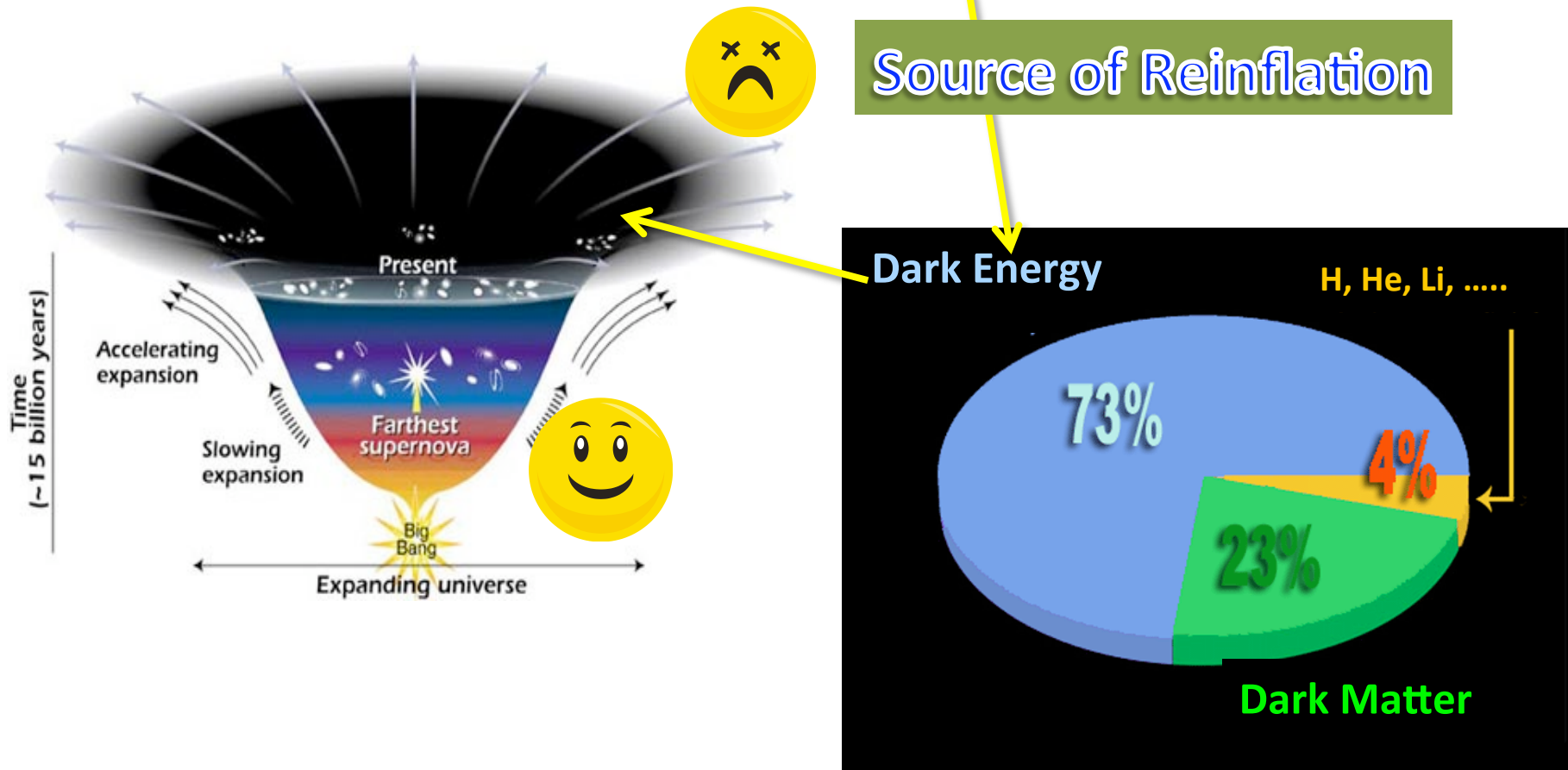
*Cost Upgrade (Inflation)  
by Redesigning,  
Redesigning,*

*Absolute Ban*



# Hope : Review Committee :

## Obviate Dark Energy from SuperKEKB Cost Evaluation







Thank you again  
for your contributions.