

# ITN Briefing Meeting Sources

ZOOM meeting on 2023.12.7

Participants:

Speakers

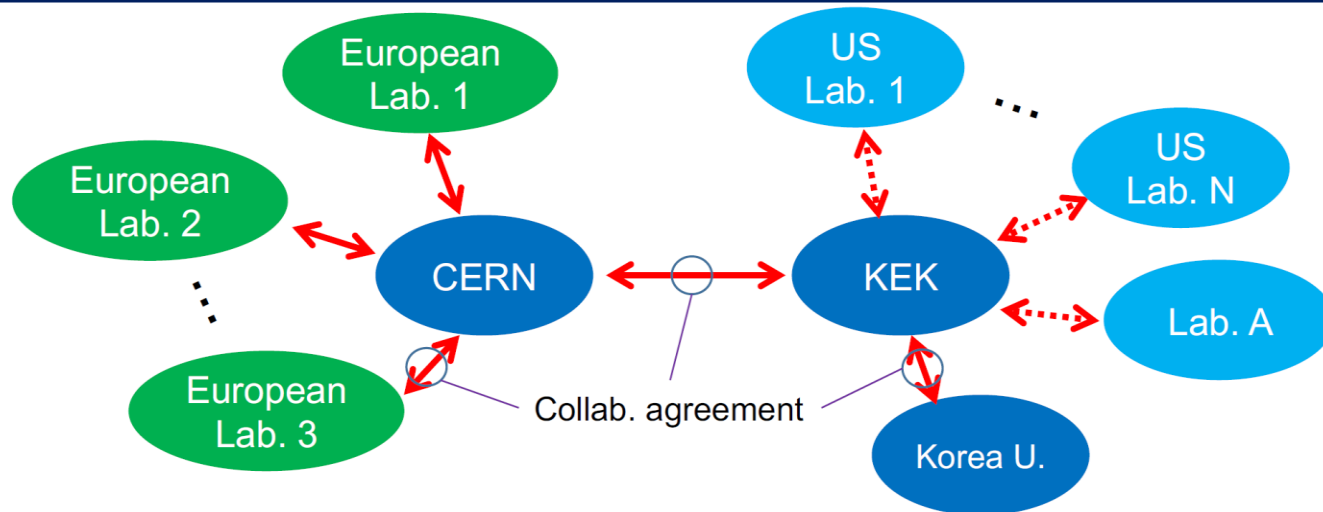
Contact Persons

Steering Members of Sources

IDT EB

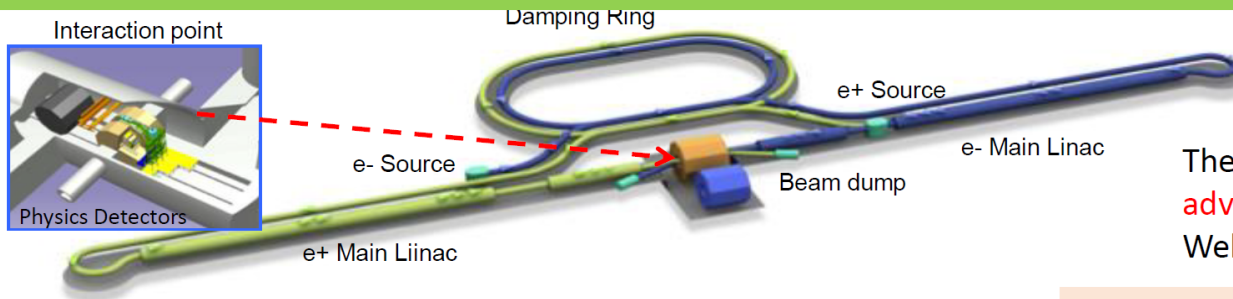
# ILC Technology Network (ITN)

- The ITN is jointly initiated by KEK and IDT to execute high priority work packages identified by the IDT-WG2 from the ILC Pre-lab Proposal.
  - ITN is an independent organization based on Arrangements between KEK and participating laboratories, and it takes full responsibility for the execution of those work packages.
- In Europe, CERN agreed to serve as an European hub of the ITN, and an agreement was signed by KEK and CERN.



From Yamauchi, ITN Information Meeting, Oct 16-17

# WP-Primes at ILC Technology Network



These WPs can be applied to various advanced accelerators.

Welcome to join!

- Creating particles
  - polarized electrons / positrons
- High quality beams
  - Low emittance beams
    - Small beam size (small beam spread)
    - Parallel beam (small momentum spread)
- Acceleration
  - superconducting radio frequency (SRF)
- Getting them collided *Final focus*
  - nano-meter beams
- Go to *Beam dumps*

*Sources*

*Damping ring*

*Main linac*

*Final focus*

SRF  
for energy-reach

e-, e+ Sources  
for ensuring e-/e+ collision

Nanobeam  
for high luminosity

WPP	1	Cavity production
WPP	2	CM design
WPP	3	Crab cavity
WPP	4	E- source
WPP	6	Undulator target
WPP	7	Undulator focusing
WPP	8	E-driven target
WPP	9	E-driven focusing
WPP	10	E-driven capture
WPP	11	Target replacement
WPP	12	DR System design
WPP	14	DR Injection/extraction
WPP	15	Final focus
WPP	16	Final doublet
WPP	17	Main dump

From Michizono, ITN Information Meeting, Oct 16-17

# Possible Participation of Labs

				Region or Host	KEK	BNL	JLab	CERN	INFN	JAI	ANSTO	Korea.U	PAL	DESY	ASTeC
SRF	WPP	1	Cavity production	Asia/Eu./Am.	✓		✓	✓	✓			✓	✓	✓	
	WPP	2	CM design	Asia/Eu./Am.	✓				✓				✓		
	WPP	3	Crab cavity	RFD, QMIR, (Elliptical)			✓	✓							
Sources	WPP	4	E- source				✓						✓		
	WPP	6	Undulator target					✓							
	WPP	7	Undulator focusing					✓							
	WPP	8	E-driven target		✓		✓								
	WPP	9	E-driven focusing		✓										
	WPP	10	E-driven capture		✓										
	WPP	11	Target replacement		✓										
Nano beam	WPP	12	DR System design		✓	✓				✓	✓		✓		
	WPP	14	DR Injection/extraction		✓					✓					
	WPP	15	Final focus	KEK-ATF	✓			✓		✓		✓			
	WPP	16	Final doublet		✓	✓									
	WPP	17	Main dump		✓			✓					✓		

# Contact Persons (Sources)

	contact person	WPP	lab	head
Asia-Pacific				
	Yoshinori Enomoto	8-11	KEK	
Europe				
	Iryna Chaikovska	8,9	IJCLab	Achille Stocch
	Steffen Doebert	6,7	CERN	Steinar Stapness
	Gudrid Moortgat-Pick		Uni. HH	Gudrid Moortgat-Pick
US				
	Jared Maxson	4	Cornell	

# Scope of Today's Meeting

- Start to decide the participation of each lab in each WPP
  - ✓ First step : explain each WPP to contact persons
- Unfortunately, US labs are not ready to talk about WPP (till P5)
- Next step after this meeting
  - ✓ Establish formal formation of lab participation in a few weeks