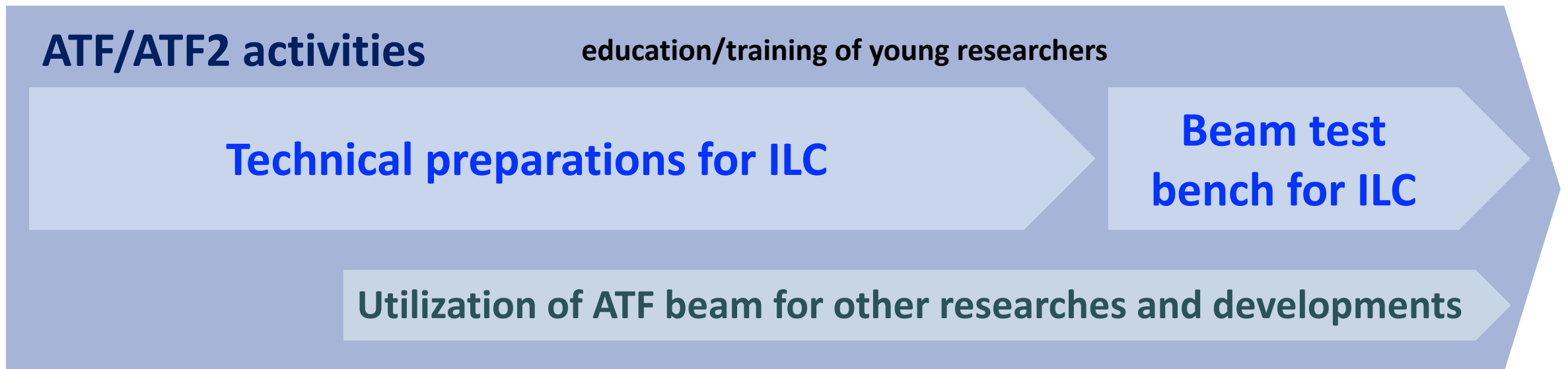
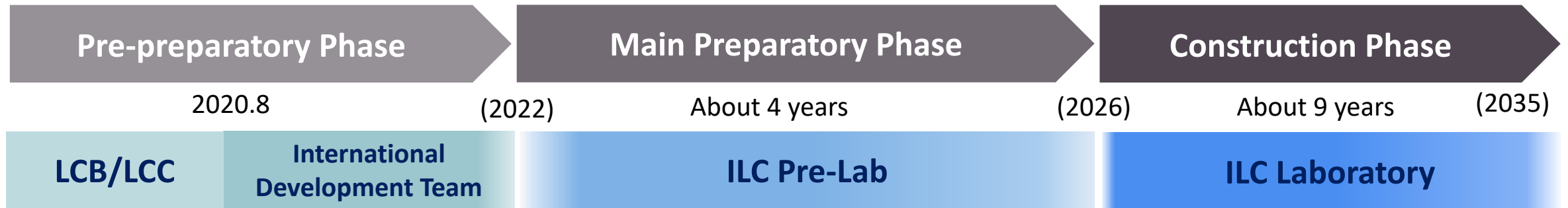


Timeline: ATF and ILC Implementation Plan

Nobuhiro Terunuma, KEK

ILC expected timeline and ATF/ATF2

In August 2020, ICFA established the International Development Team (IDT) for ILC as a successor of the Linear Collider Board (LCB) and Linear Collider Collaboration (LCC). IDT-WG2 is discussing the accelerator activities of the ILC Pre-Lab, where **the 'ATF3' as an upgraded ATF2 is expected to have a key role.**



ATF/ATF2 is expected to play an important role in technical preparations of ILC.

The **main preparatory phase** is expected to be **approximately four years**, so it is important to maintain current activity and improve the beam status of ATF2 in order to **get effective performance** from the **beginning** of the main preparatory phase.

Therefore,

it is essential to **continue the efforts to upgrade and test the ATF** in the current pre-preparatory phase, **eliminating as much as possible the known difficulties** in conducting the current studies **through the nanometer beam** (described in Sec. 2.3).

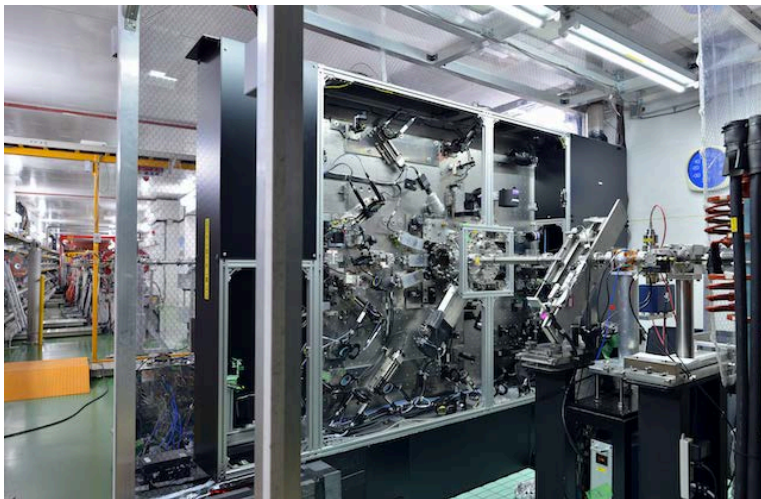
It is essential to continue

- **improving the current beam situation**
- **keeping or increasing the manpower**
- **education/training of young researchers**

Upgrade of ATF2 for technical preparations of ILC



ATF2 final focus test beamline



IPBSM (nanometer beam size monitor)

Building on the achievements of the ATF2 project
a follow-on, upgraded facility ('ATF3') for pursuing R&D aimed at maximising the luminosity potential of ILC is necessary.

An overhaul and upgrade of the existing ATF2 beamline so as to **model more accurately the energy-scaled ILC final-focus system.**

Example of what to improve,

- **Wakefield sources mitigation**

Beamline sections and components that act as wakefield sources and currently limit the achieved beam size at beam intensities above 1×10^9 electrons would be removed and replaced.

- **Improvement of Laser for IPBSM (nanometer beam size monitor)**

It could be upgraded to provide for stable, long-term operations.

- And other minor improvements ...

Details will be given in a talk by T. Okugi "ATF2 future R&D".