

The FCC design study

A conceptual design for accelerators and detectors

One software stack to support them all

- Different requirements ee vs pp
- Support physics and detector studies
 - Detector concepts: Moving targets
 - Both fast and full simulation essential
- Challenging backgrounds (computing and physics-wise):
 - Pile-up for pp: high lumi-LHC x10
 - Beam-background for ee

Future Circular Collider

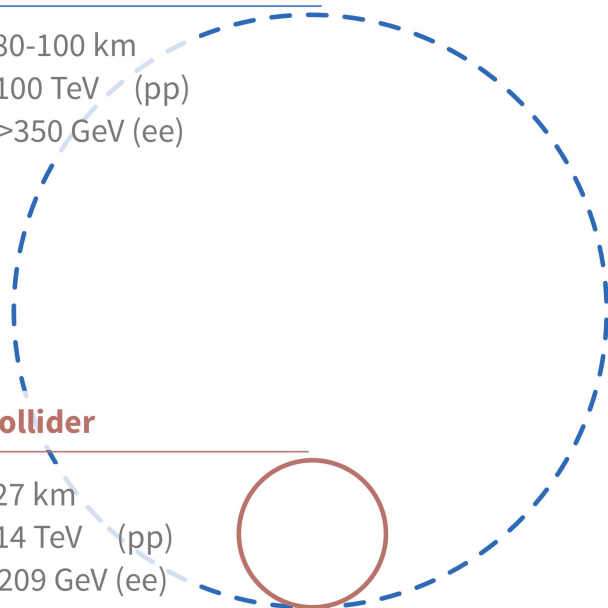
Circumference: 80-100 km

Energy: 100 TeV (pp)
>350 GeV (ee)

Large Hadron Collider

Circumference: 27 km

Energy: 14 TeV (pp)
209 GeV (ee)



The Solutions

Collaborating where possible

- LHC experiments
- Linear collider community

Synergies

- Share the effort
- **Don't re-invent the wheel**
- **Improve** existing solutions

