CONCLUSIONS :*

- ADVANTAGES

  1. Reduced synchr. rad.$\rightarrow$ ring 10^3 turns
  2. Full energy projectile available for new particles production
  3. Both beams partially polariz. (lower $\mathcal{L}$)
  4. Fairly compact (see Fig.). Multipurpose: intense π, K, ν, μ. Possibility of μp collisions. Physics of rare K and μ decays.
  5. Start with 0.5 TeV and progress to 2 TeV over time

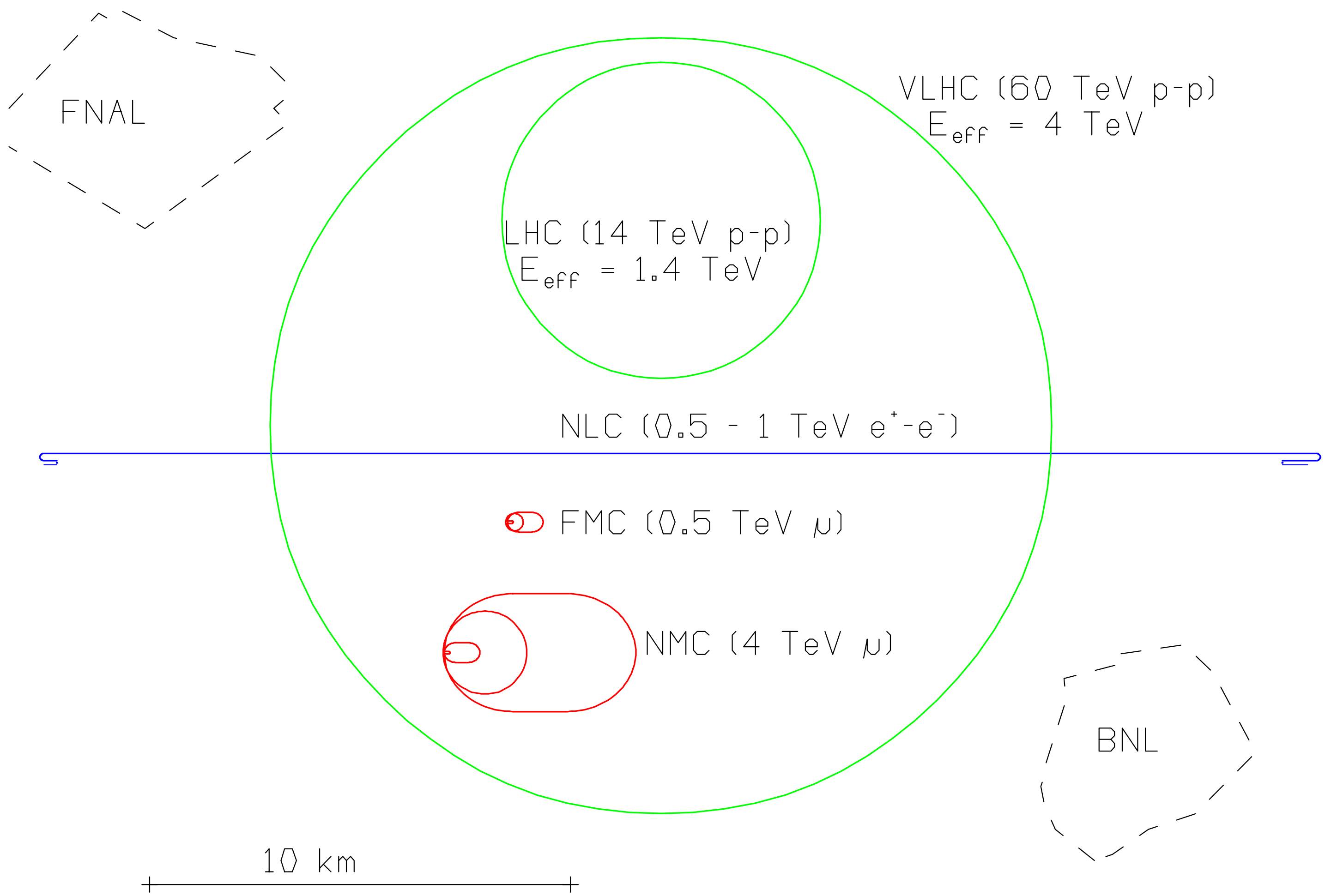
- DIFFICULTIES

1. making sufficient μ's cooling, accelerate and collide them before DECAY
2. Problem decay products (magnet heating) and detector (background)

- TECHNICAL DEVELOPMENTS
  1. Demonstrate working cooling system without losses
  2. target high field solenoid
  3. low frequency linacs for phase rotation and cooling
  4. accelerator magnets, shielding and SC rf cavities
  5. Quads at IP

A great deal of progress has been accomplish; however, many questions remains (you may have many more) that require theoretical study as well as R&D on hardware[†]

[†]



FNAL
VLHC (60 TeV p-p)
E_{eff} = 4 TeV
LHC (14 TeV p-p)
E_{eff} = 1.4 TeV
NLC (0.5 - 1 TeV e^+-e^-)
FMC (0.5 TeV μ)
NMC (4 TeV μ)
BNL
10 km