## Each talk to address:

- 1. Energy per beam and cme and ability to change it and scan it (range)
- 2. Peak luminosity, annual luminosity
- Time structure of collisions
- 4. IP parameters and conditions: beam sizes 3D, crossing angles, crabs, radiation, etc
- 5. Potentials for upgrades: of Energy (main obstacles), of Luminosity (main obstacles)
- 6. Main advantages: from the point of view of accelerator
- 7. Very briefly: status of technology, status of project, technically limited schedule [pre-start, construction, commissioning, ops], cost range, facility power estimate.
- 8. detectors backgrounds known issues, challenges

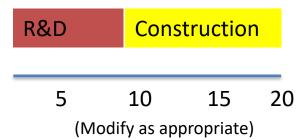
## **Facility**

- Brief Description in any order, eg:
  - [ for particle physics audience ]
  - General : main systems
  - Key technologies and maturity (approx.)
    - Define max energy and cost risks (see slide #4)
  - Key beam physics challenges
    - Define luminosity risk
  - Key parameters and input to the "Big Table" (#5)
  - Timeline(s) technically limited, other

## **Technical Maturity**

- Overall Technical Maturity
- 1- Significant R&D required
- 2– Some R&D in a few key areas required
- 3 Shovel ready
- Critical Technologies and TRL level
  - A
  - B
  - C

Technically limited timeline



Facility / Your name\*

Peak Luminosity (10<sup>34</sup>)

Transv. Beam sizes at IP x/y

Rms bunch length / beta\*

Beam Energy

Int. Luminosity

Beam dE/E at IP

Crossing angle

**Bunch spacing** 

# of bunches

Cost range

# of IPs

Rep./Rev. frequency

Length/Circumference

Facility site power

6/11/20 Timescale till operations

**Particle species** 

GeV

cm-2 s-1

ab-1/yr

um

cm

urad

Hz

ns

km

MW

\$B US

\* Contact email for Qs

(day 2 speakers – feel free to skip)

## June 24 and July 1 AF-EF talks (10 am EST)

day 1: 10 min + 5 min Q&A = 15 min total/talk day 2: 10 min + 10 min Q&A = 20 min total/talk

- Day 1 (matured projects with TDRs and CDRs)
  - 1.1 FCCee
  - 1.2 CepC
  - 1.3 ILC
  - 1.4 CLIC
  - 1.5 EIC
  - 1.6 LHeC
  - 1.7 HE-LHC
  - 1.8 SPPC
  - 1.9 FCChh

- Day 2 (off-mainstream yet)
  - 2.1 Cold NC-LC
  - 2.2 ERL-FCCee
  - 2.3 Gamma-gamma Higgs factories
  - -2.4 Plasma Laser (1 TeV + )
  - 2.5 Plasma Beam (1 TeV + )
  - 2.6 Dielectric WF/advanced structures (1 TeV + )
  - 2.7 Muon Higgs Fact and 3-14
    TeV Collider