

Future plans for RHIC

Machine goals for next 4 years (pre-RHICII):

- Enhanced RHIC luminosity (112 bunches, $\beta^* = 1\text{m}$):
- Au – Au: $8 \times 10^{26} \text{ cm}^{-2} \text{ s}^{-1}$ (100 GeV/nucleon)
- For protons also 2×10^{11} protons/bunch (no IBS):
- $p\uparrow - p\uparrow$: $60 \times 10^{30} \text{ cm}^{-2} \text{ s}^{-1}$; 70 % polarization (100 GeV)
 $150 \times 10^{30} \text{ cm}^{-2} \text{ s}^{-1}$; 70 % polarization (250 GeV)
(luminosity averaged over store delivered to 2 IRs)
- Review by Machine Advisory Committee, Nov 8-9, 2004

4× design
2× achieved

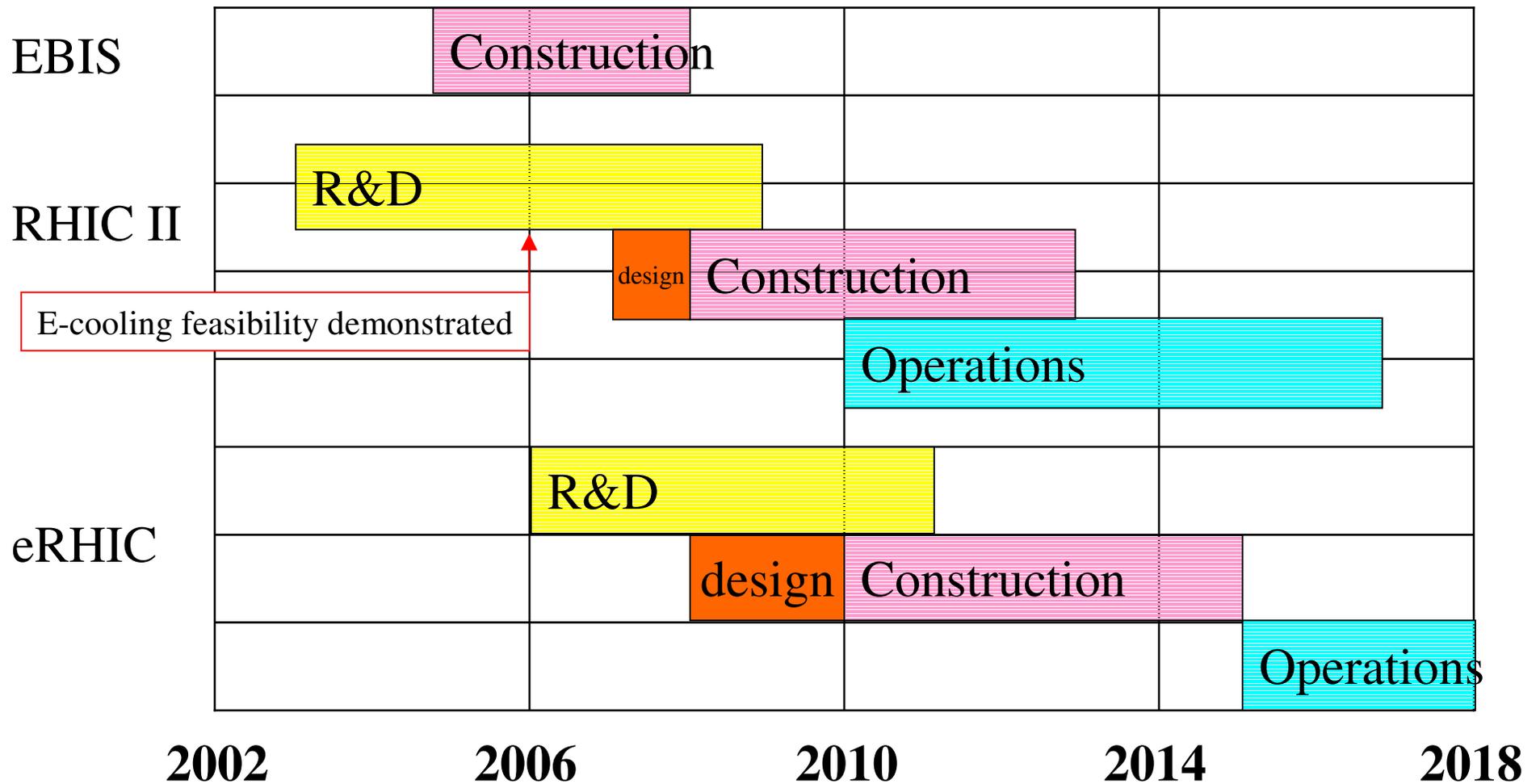
16× design
6× achieved

EBIS received CD0 this summer; interest in Uranium beams for RHIC

RHIC II (e-cooling, 40 × design)

eRHIC

Technically Driven Schedule (in Fiscal Years)



RHIC Beam Experiments

Beam experiments are critical to performance development of RHIC beyond present running period.

12 hours/week (including end effects) during physics running

Accelerator Experiments Approval Committee (AEAC):

- **Members: Jie Wei (Chair), Steve Peggs, Fulvia Pilat, Wolfram Fischer, Derek Lowenstein (ex-officio), Thomas Roser (ex-officio), Peter Yamin (ex-officio)**
- **Appointed by Department Chair**
- **Designates proposals as Class-1 (“for RHIC”) or as Class-2 (“not for RHIC”, may require ALD approval especially if more than 20 % of Beam Experiment time is needed)**
- **Approves Class-1 experiments**
- **Meets about twice per running period**