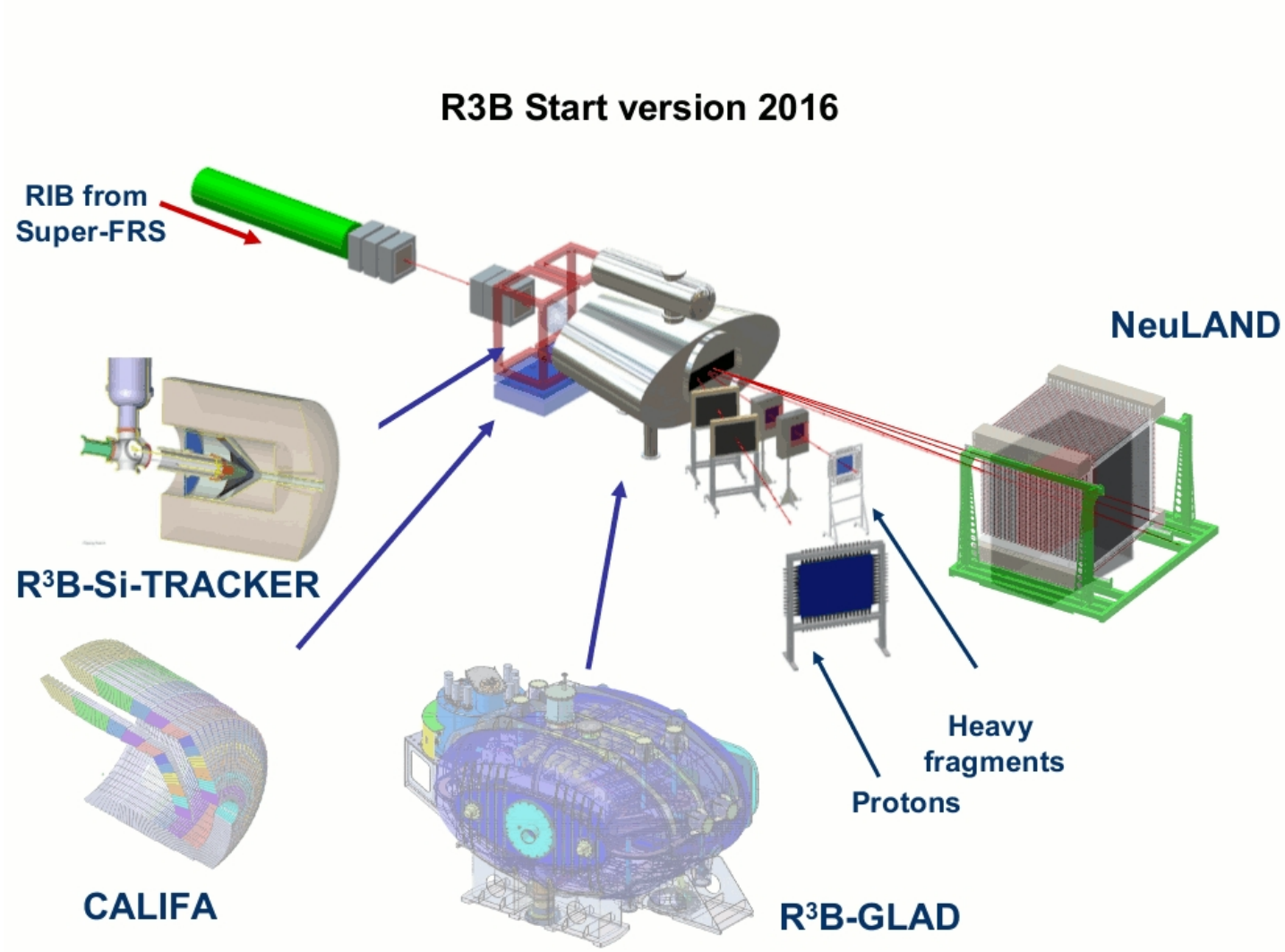
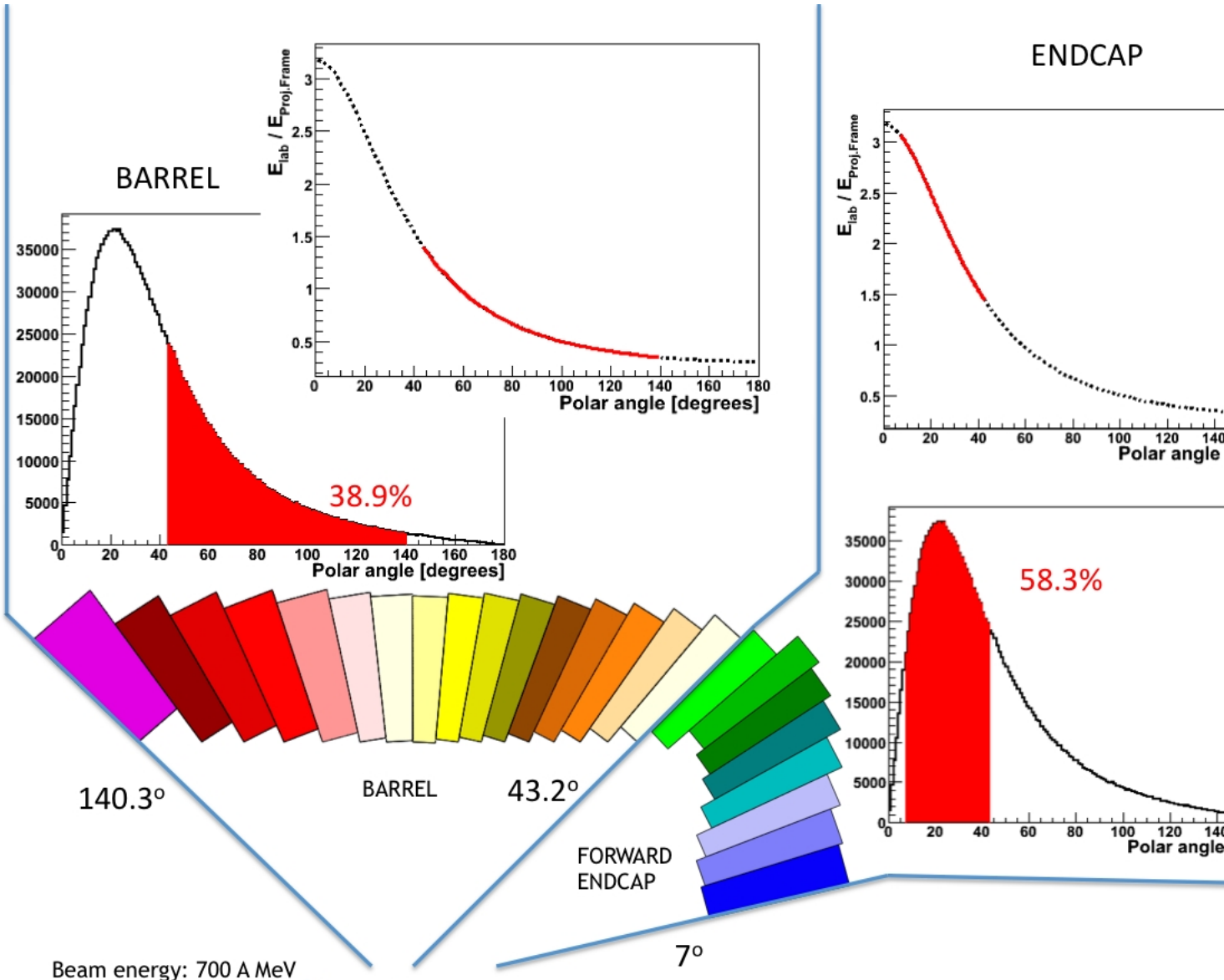
The R3B experiment

The R3B (Reactions with Relativistic Ion Beams) collaboration, at the international FAIR facility, has proposed to build a multi-purpose detection set-up to investigate reactions induced by radioactive beams at relativistic energies.

R3B wil be the only faciliy worldwide providing the capability for kinematically complete measurements of reactions with relativistic heavy-ion beams up to around 1 AGeV, which provides sufficiently high resolution to enable a comprehensive experimental investigation of fundamental questions using a wide variety of scattering experiments, such as heavy-ion induced electromagnetic excitations, knockout and breakup reactions, reactions of astrophysical interest, or light-ion (in)elastic and quasi-free scattering in inverse kinematics, and thus enabling a broad physics programme with rare-isotope beams to be performed.


R3B Start version 2016
RIB from Super-FRS
NeuLAND
R³B-Si-TRACKER
Heavy fragments
Protons
CALIFA
R³B-GLAD

[redacted]



The [illegible] is nowadays complete, being their main characteristics