
Additional Associates

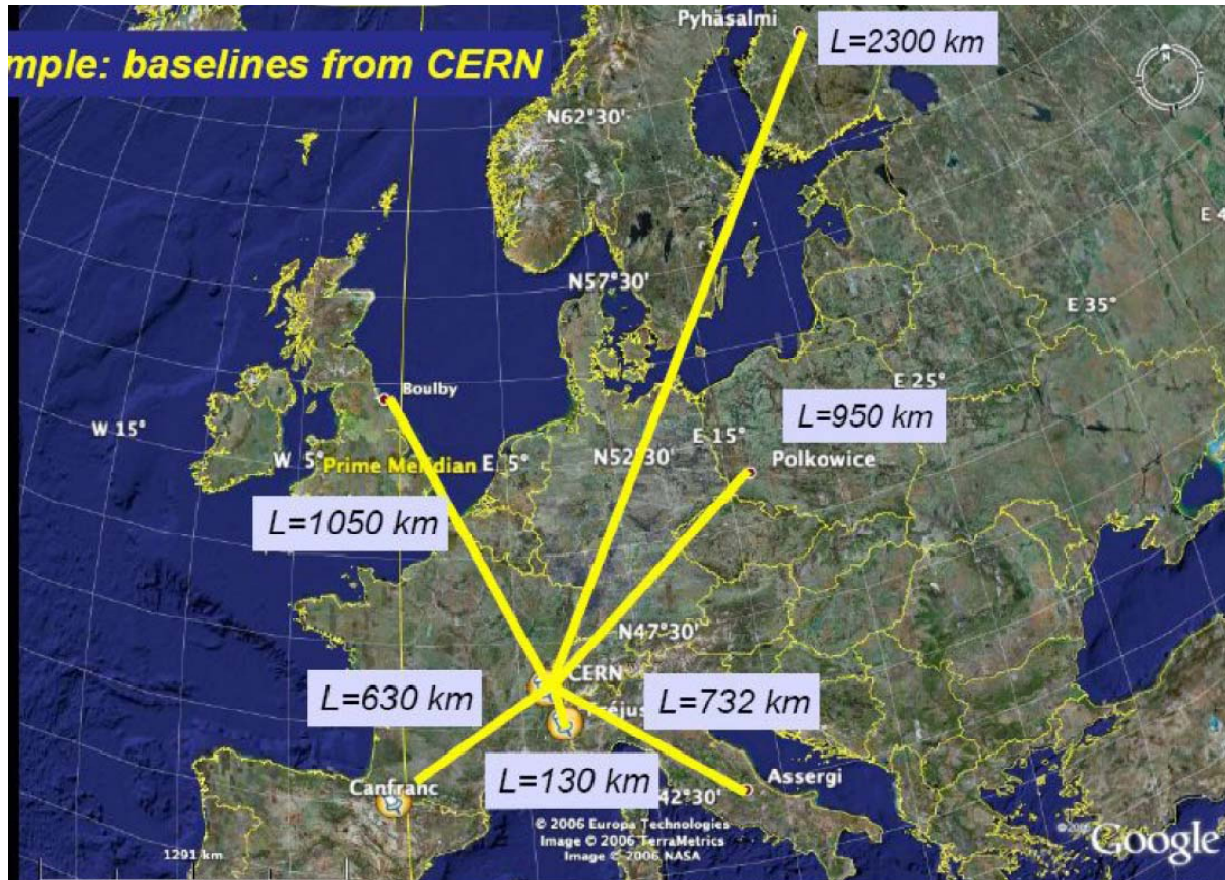
Elena Wildner
for WP4

New Associates I



- Small Group from **Physikalisches Institut B, Rheinisch-Westfaelische Technische Hochschule** in Aachen
 - Achim Stahl
 - Students
- Work Focus
 - Realization of beta beam in the Hera Tunnel (Desy)
 - Physics studies
- Added Value
 - New Site Option
 - More flexibility for a realization of a beta beam (“green field”?)

Physics Driven Choice of Site



Possible realization with one detector only (price):

ν_{μ} -beam:

SPL: $\langle E_{\nu} \rangle = 260$ MeV
 $L_{\text{opt}} = 134$ km

CERN – Frejus: 130 km

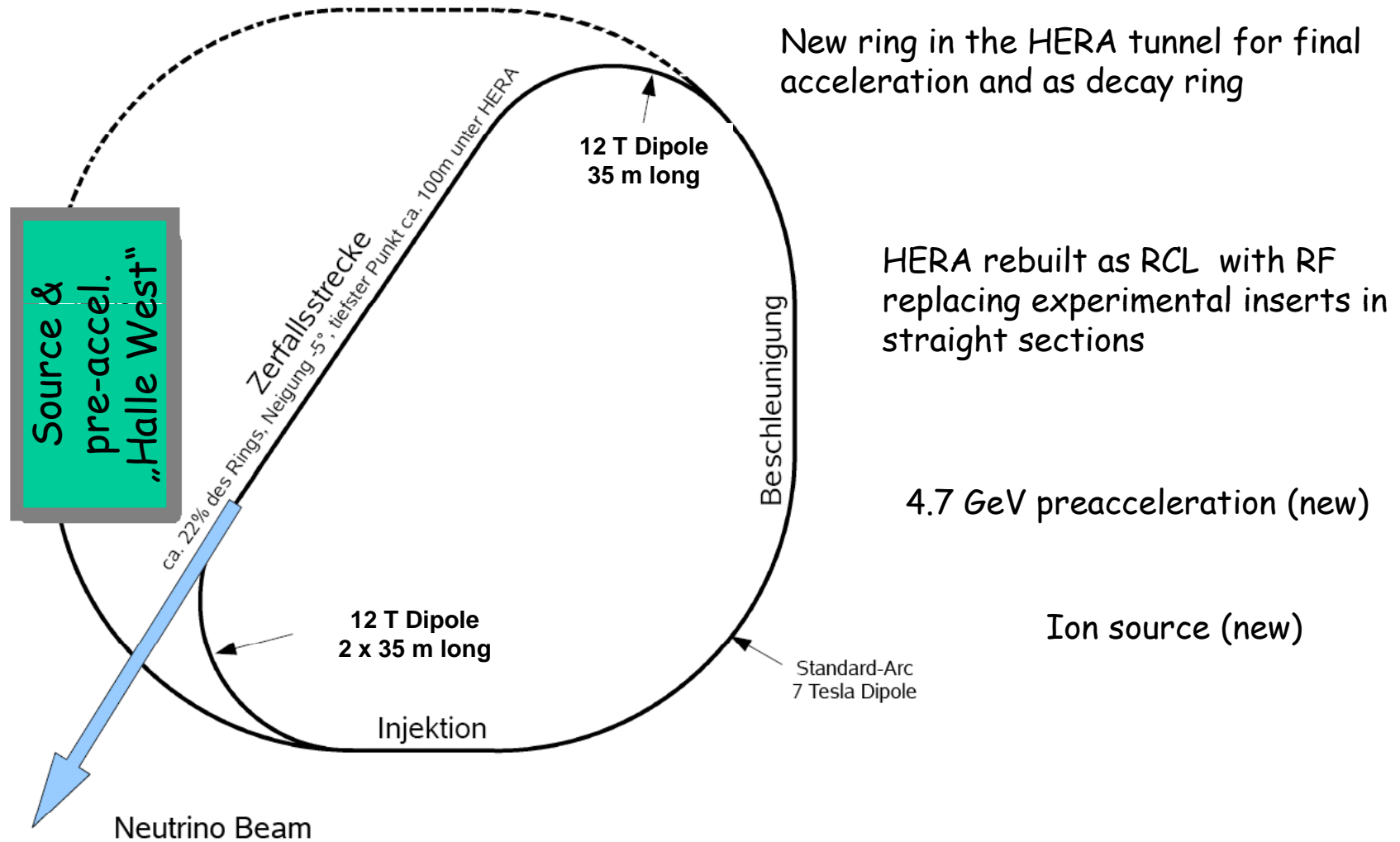
ν_e -beam:

$\gamma = 150$ $L_{\text{opt}} = 300$ km
 $\gamma = 500$ $L_{\text{opt}} = 1000$ km

CERN – Frejus: 130 km
 DESY – Frejus: 960 km

3-Flavor Oscillation needs two significantly different baselines to disentangle CP and matter effects

Conceptual Layout



New Associates II

מכון ויצמן למדע
WEIZMANN INSTITUTE OF SCIENCE



- Weizmann Institute of Science, Rehovot
 - Michael Hass
 - Partners: GANIL and Soreq
 - Collaboration with Aachen (exchange of students)
- Work Focus
 - produce light radioactive isotopes also for beta beams
 - secondary neutrons from an intense, 40 MeV d beam (^6He and ^8Li) and direct production with ^3He or ^4He beams (^{18}Ne).
 - Use of superconducting LINACs such as SARAF at Soreq (Israel) and the driver for SPIRAL-II (GANIL).
- Added Value
 - To produce strong beta beam ion candidates or production methods not in EUROnu

Courtesy Micha Hass