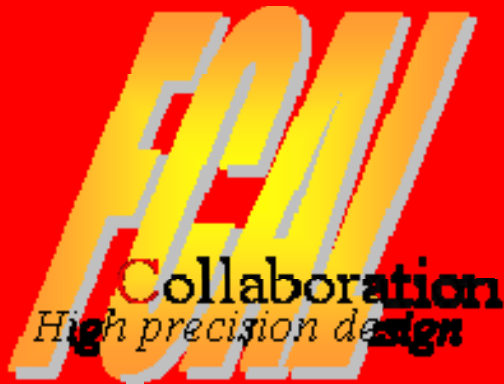


Instrumentation of the Very Forward Region of a Linear Collider Detector



Wolfgang Lohmann

Original group of Labs:

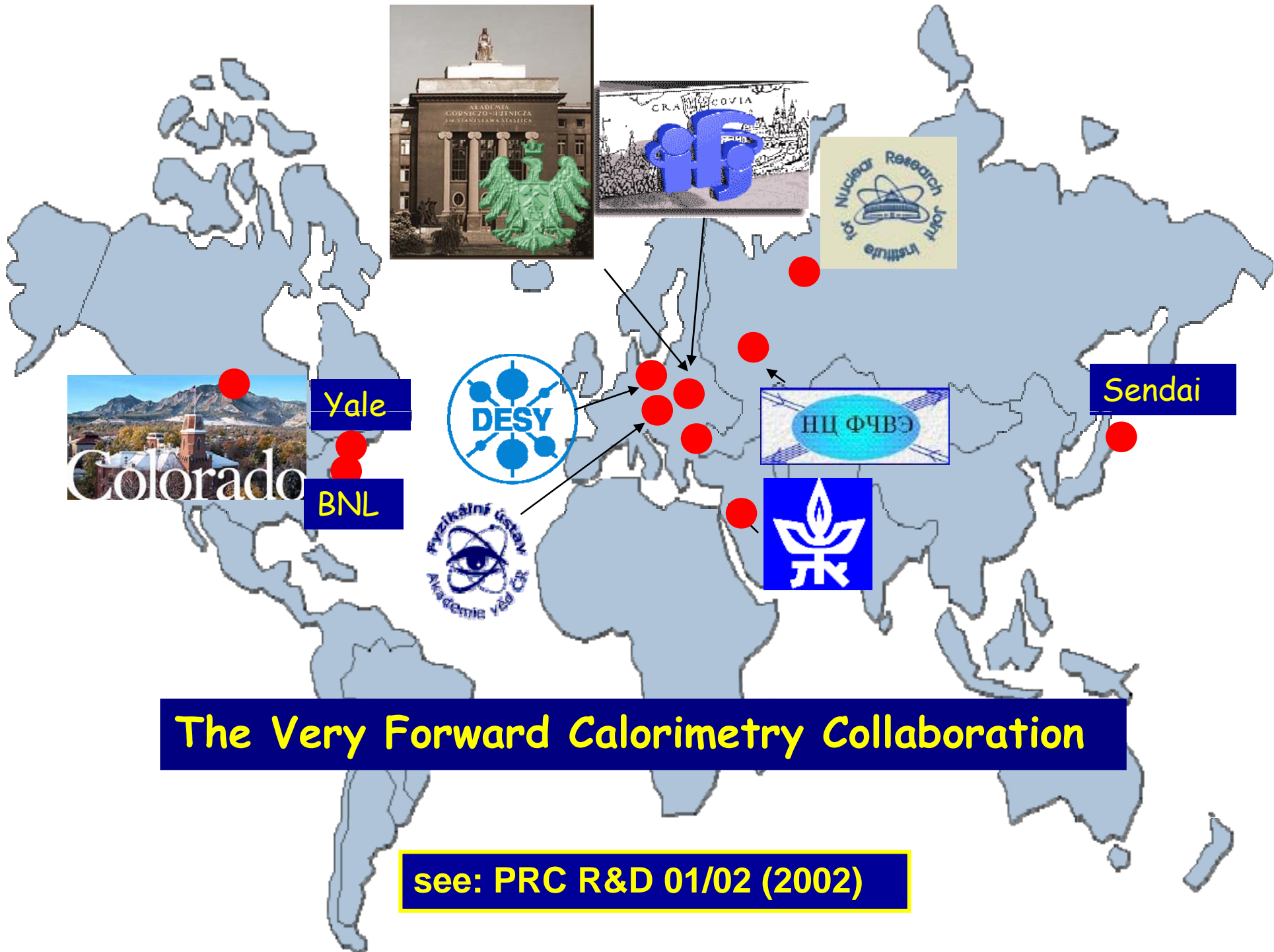
Univ. of Colorado, Boulder,
AGH Univ., INP & Jagiell. Univ. Cracow,
JINR, Dubna,
NCPHEP, Minsk,
FZU, Prague,
IHEP, Protvino,
TAU, Tel Aviv,
DESY, Zeuthen

More labs:

BNL, Brookhaven,
Yale Univ.,
Royal Holloway, London,
LAL Orsay,
Vinca Institut Belgrade,
Tohoku Univ., Sendai,
Univ. of Timisora, Bukharest,

Lost:

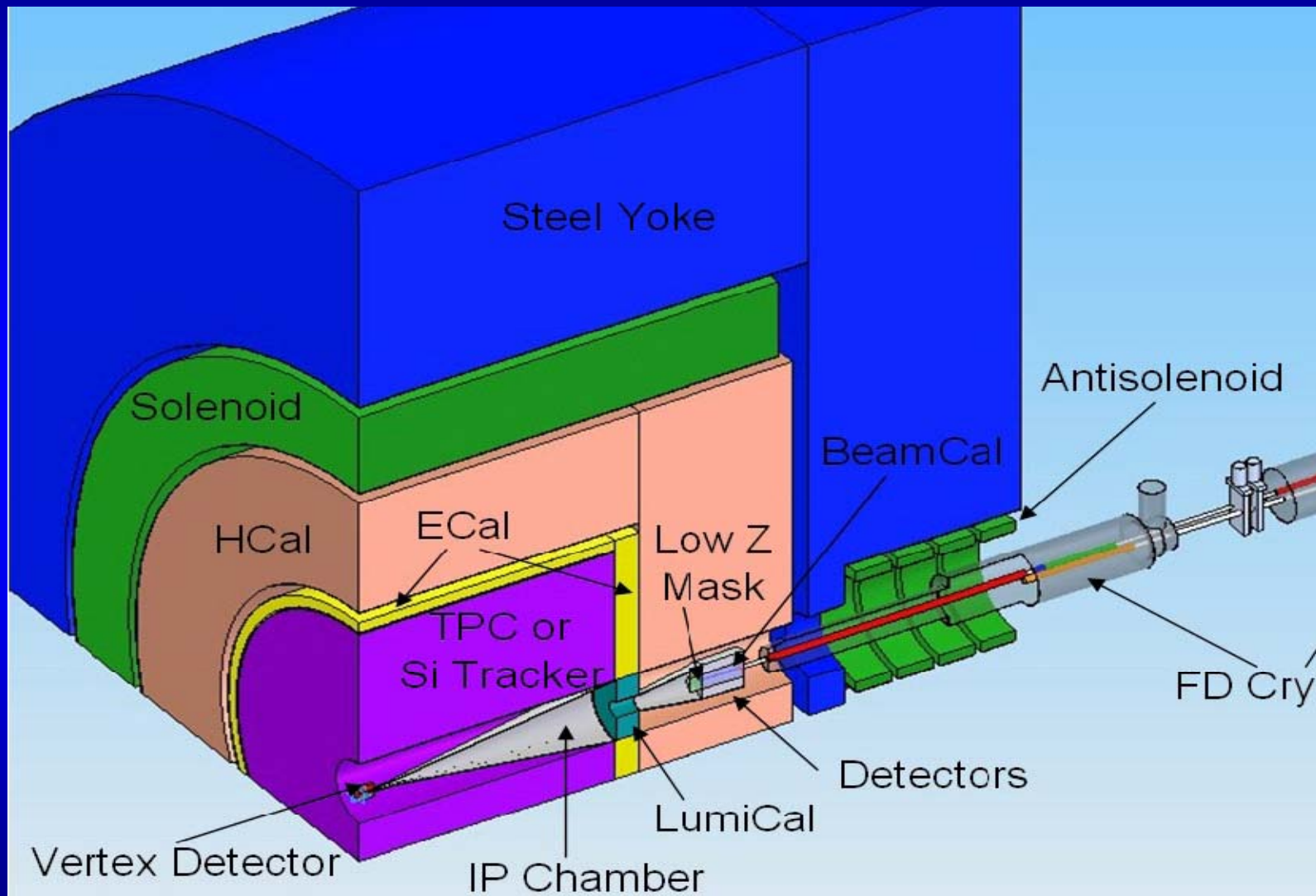
IHEP Protvino



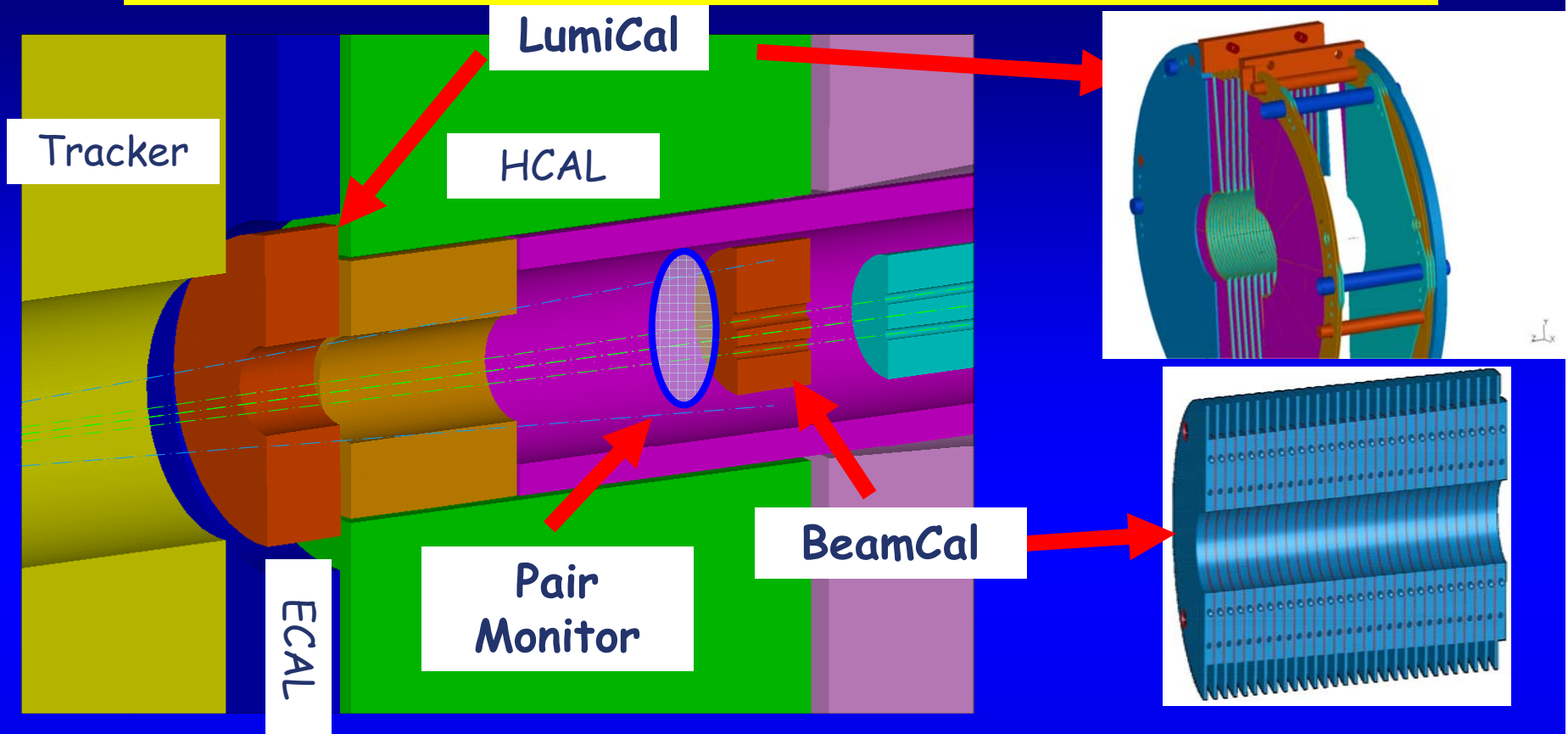
The Very Forward Calorimetry Collaboration

see: PRC R&D 01/02 (2002)

The Very Forward Region



The Very Forward Region



- Precise (LumiCal) and fast (BeamCal) luminosity measurement
- Pair Monitor for beam diagnostics
- Hermeticity (electron detection at low polar angles)
- Mask for the inner detectors
- Not shown here: GamCal, a beamstrahlung photon detector at about 180m post-IP.

FCAL funding

EUDET (2006-2009):

- Contributions from EU
- Commitments by the Labs

The last years:

- Israel and Polish Science foundations
- Lab Budgets

NoRHDia

JINR-BMBF

INTAS

EUDET

FCAL

EUROTEV

Applications to National Funding Agencies in

- Poland (in preparation)
- Israel (pending)

In kind contributions from NCHEP Minsk

Under discussion: contributions of BNL, Vinca

Where we are:

- Design studies of the calorimeters relatively advanced
- Open issues
 - realistic detector, including calibration uncertainties, cross talk, noise.....
 - realistic beam transport simulations
 - beam-pipe shape
 - design studies for GamCal

We have to enhance our effort for detector integration!

FE Asic development just started
Sensor tests are ongoing, but more effort needed
prototyping needs to be prepared

- We found new partners in US
- Japanese colleagues will join us
- We had an encouraging review by the global review committee

However:

- About 80 Physicists signed the report to the committee
 - here we are 20-30
 - in the table of 'FTEs' working for FCAL I count 25
 - engineering support is far from sufficient
 - funding in Europe is tight, in US it is far from adequate
 - support for testbeam activities is not sufficient.

On these problems;

Remember: EDR should be ready in 201x!