

# FCAL Workshop CERN 2019

Report to the Collaboration

Wolfgang Lohmann

# Trends, Risks and Creativity

What to learn:

- Human behaviour is influenced by constitutional and economic conditions
- Science should be free. the topics we consider as relevant are based on our understanding, creativity, and our risk
- However, funding of science is influenced by constitutional and economic conditions

So, lets try to decide freely our science topics, and make actively promotion for our science in universities, institutes, politics, and particular in funding agencies

Since we are in a critical phase, the latter is of growing importance !



# Publications

Eur. J. Phys. Publication almost ready

- Excellent result, demonstrating that we are approaching the technological limit for the Moliere radius

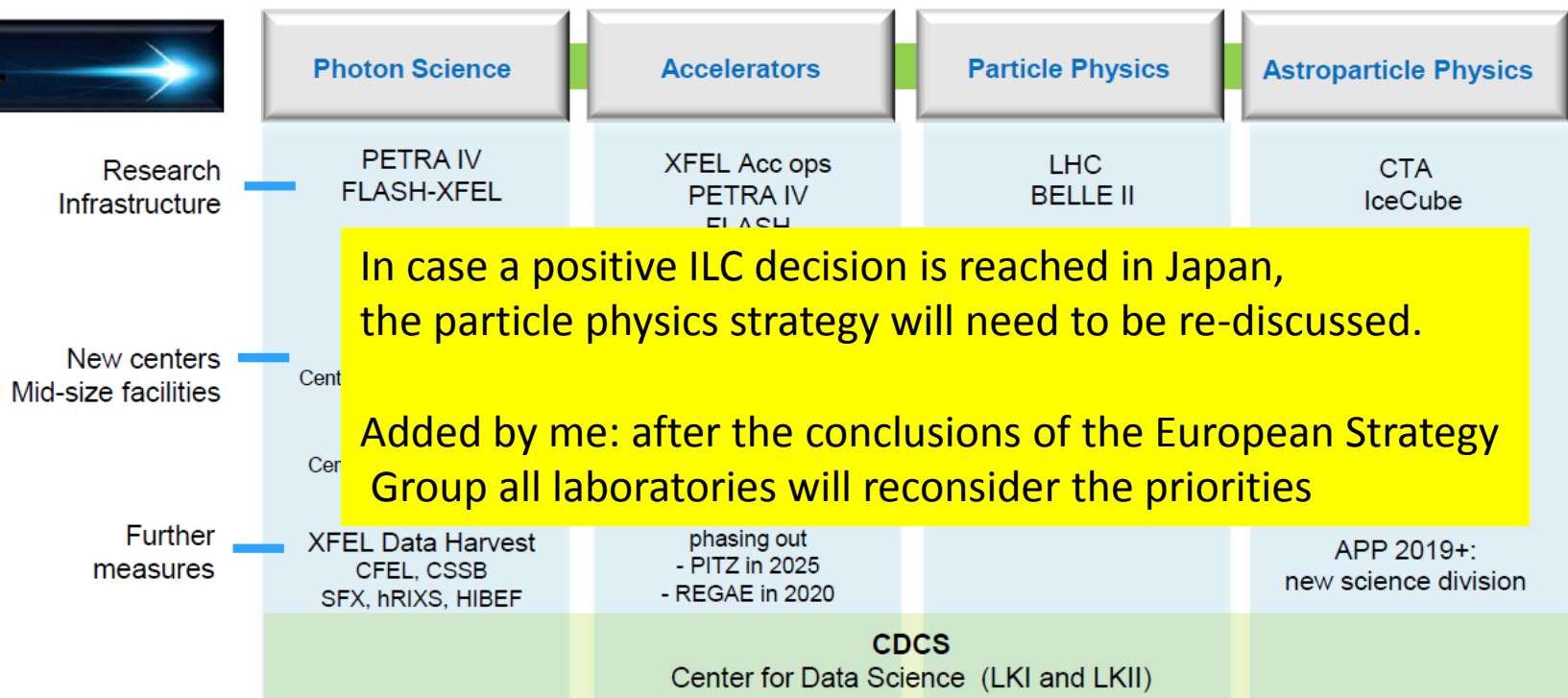
Conference contribution to Vienna conference of instrumentation

- A new publication is in preparation



# DESY Strategy for ILC (last workshop)

- Major Results from Strategy Process 2016-17: „Priorities 2018+“ (details during the review process)



In case a positive ILC decision is reached in Japan, the particle physics strategy will need to be re-discussed.

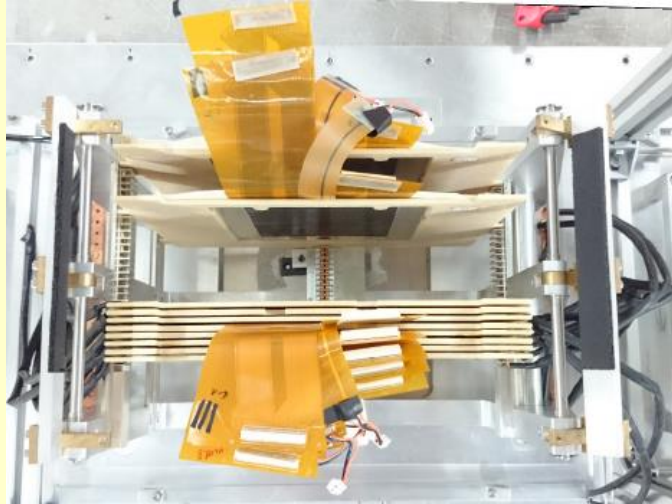
Added by me: after the conclusions of the European Strategy Group all laboratories will reconsider the priorities



# Urgend topic for this meeting

## construction of a demonstrator calorimeter

- completion of the mechanical structure (+laser alignment)
  - production of sufficient ASICs in 130 nm technology
  - demonstration of power pulsing
  - readout board with data concentrator and data transfer
- much work to be done



## beam tests

- Energy resolution (luminosity spectrum)
- spatial resolution (angular spectrum and fiducial volume)
- bias in the angular measurements (systematic shift to be quantified)

# Demonstrator and test-beam

## status

- Sensors (available, but to be qualified)
- Absorber planes (available, but need mechanical integration)
- Detector plane (technology available, production to be done)
- ASICs (to be produced), APV25 with charge divider as second option
- DAQ with FPGA in preparation
- Laser alignment?

Test-beam: since CERN is not providing test-beam in 2019/20, should try get beam-time at DESY,

# New Collaborator

## THE PARTNER

National Research Tomsk State University

Declares that he agrees with the content in the Memorandum of Cooperation of the FCAL collaboration

## Done in PLACE

36, Lenin Ave., Tomsk, Russia, 634050

## Date

Jan 25, 2019

## For the PARTNER

National Research Tomsk State University

## NAME

Eduard V. Galazhinskiy

## FUNCTION

Acting Rector of National Research Tomsk State University



# Welcome to Anton Tyazhev from Tomsk State University

14 Institutes Collaborate within FCAL

unclear situation:

INPPAS Cracow

NCPHEP Minsk

# Forthcoming events

- Linear Collider Community meeting, Lausanne, April 8-9  
~ 90 participants, several directors
- Open Symposium ``European Strategy for Particle Physics``,  
Granada, May 13-16
- EPS, Ghent July 10-17
- Lepton-Photon, Toronto, August 5-10
- Physics in Collision, Taipei, Sept. 16-20

More informations from the Conf. Committee