

# CERN (my?) comments on & plans for future collaboration

Frank Zimmermann, ATF2 Project Meeting, 2 July 2010

# CERN visitors & potential visitors

## CERN visitors to ATF/ATF2

- **Eduardo Marin**, PhD student, regular visits to ATF2.  
Next visit foreseen in December for about ~1 month for 2 weeks of **continuous FFS tuning**.
- **Yves Renier**, fellow, will start at CERN in October, and will spend about 10% of his time for **ATF2 tuning and commissioning**, will visit ATF for 2 weeks in December
- **Benoit Bolzon**, fellow, participation suggested by Philip Bambade, to be clarified
- **Daniel Schulte**, staff, organizing CLIC design effort
- **Rogelio Tomas**, staff, leading CLIC beam delivery design
- **Frank Zimmermann**, staff, ATF linkman & TB member

# ATF2 studies with CERN contributions

## CERN projects:

CLIC FFS design validation: **ultra-low beta\* operation of ATF2**

Major CERN involvement is in **tuning** for both design ATF2 & ultra low beta

- Eduardo Marin recently did measurements to test the **beam-based alignment using a quadrupole shunting technique**.
- Daniel Schulte has plans to test **ground motion feedback using sensors at every quadrupole**.
- Contributions to the nominal ATF2 are **design/optimization and tuning/alignment studies and simulations**.
- MAPCLASS with PTC is the only code suite that takes into account the multipolar errors of any order in the optimization of the lattice and Eduardo Marin together with Rogelio Tomas are contributing a **re-designed/optimized nominal ATF2 lattice**.
- CERN has not committed to any further software development, but this might be required in the future.

# comments on work organization

- *prioritization and focus to meet the primary goals !*

# future landscape

status of ATF & ATF2 goals by 2012 or later

LHC physics indicators by 2012 or 2015

## model of collaboration?

ATF/ATF2

CTF-3 (like high-energy physics experiment)

CERN type?

ITER – probably not

transnational access facilities supported by EU  
(HiRadMat at CERN, MICE in UK)

# CERN Council opens the door to greater integration – 18 June 2010

Geneva, 18 June 2010. At its 155<sup>th</sup> session today, the CERN<sup>1</sup> Council strongly congratulated the Laboratory on the excellent performance of the LHC .... Council also opened the door to greater integration in particle physics when it unanimously adopted the recommendations of a working group set up in 2008 to examine the role of the Organization in the light of increasing globalization in particle physics.

The key points agreed at today's meeting are that:

**All states shall be eligible for Membership, irrespective of their geographical location;**  
**A new Associate Membership status is to be introduced to allow non-Member States to establish or intensify their institutional links with the Organization;**  
**Associate Membership shall also serve as the obligatory pre-stage to Membership;**  
**The existing Observer status will be phased out for States, but retained for International Organizations;**

International co-operation agreements and protocols will be retained.

**Applications for Membership from Cyprus, Israel, Serbia, Slovenia and Turkey** have already been received by the CERN Council, and are undergoing technical verification. At future meetings, Council will determine how to apply the new arrangements to these States.

*“This is a milestone in CERN’s history and a giant leap for particle physics”,* said Michel Spiro, President of the CERN Council. *“It recognizes the increasing globalization of the field, and the important role played by CERN on the world stage.”*

*“Particle physics is becoming increasingly integrated at the global level,”* said CERN Director General Rolf Heuer. *“Today’s decision contributes to creating the conditions that will enable CERN to play a full role in any future facility wherever in the world it might be.”*

# Cern to open membership to non-European countries

**Israel and Turkey could join Cern, Europe's Big Bang particle research group, after the organisation said it would open its membership.**

Published: 10:07PM BST 21 Jun 2010, *Telegraph*, UK

Until now, the 56-year-old European Centre for Nuclear Research, which operates the £5bn [Large Hadron Collider](#), has admitted only European states, though people of all nationalities take part in its work.

**"This is a giant leap for particle physics that recognises the increasing globalisation of the field," said Michel Spiro, president of Cern's ruling council, which made the decision at the weekend.**

Rolf Heuer, director-general of the body whose scientists have won a raft of Nobel prizes and where the World Wide Web was invented in 1989, said the change reflected global interest in research into the birth of the universe.

The change will not necessarily mean more money coming into Cern, whose budget is fixed for five years and then shared among its members, according to spokesman James Gillies.

Supporters, and the governments who vote its budget, say there are many economic and health spin-offs from its work.