

# SPC Report to Council

17-December-2010

E. Fernandez

## SPC Terms of Reference

CERN/SPC/313/Rev.6

CERN/2812

20 November 2008

- (a) to make recommendations to the Council on the priorities of research programmes and the allocation of research effort both within the Laboratories of the Organization and extramurally;
- (b) to examine annually the medium-term plan which defines the objectives and activities of the Organization for the following five budget years, and to make recommendations to the Council in that regard;
- (c) to assess annually the achievements of the Organization with regard to the annual goals set for the previous year;
- (d) to advise the Council from the point of view of scientific policy on the management and staffing of the Organization, including the programmes concerning the fellows and associated members of the personnel as well as senior staff appointments by the Council;
- (e) to advise the Council on any other matters which affect the scientific activities of the Organization.

## Members as from January 2010

### Members

R. Aleksan	France
J. Aysto	Finland
A. Bondar	Russia
B. P. Braun-Munzinger	Germany
M. Diemoz	Italy
R.K. Ellis	USA/UK
E. Fernandez (Chair)	Spain
D. Fournier	France
M. Harrison	USA/UK
D. Hartill	USA
H. Murayama	USA/Japan
C. Spiering	Germany
G. 't Hooft	Netherlands
K. Tokushuku	Japan
D. Wark	UK/USA
F. Zwirner	Italy

### Ex-Officio Members

P.A. Butler	Chairman INTC
C. Vallee	Chairman SPSC
T. Wyatt	Chairman LHCC
T. Nakada	Chairman ECFA
<b>Also Present</b>	
R. Heuer	Director-General
M. Spiro	President of Council
M. Steinacher	FC Chairman

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T. Nakada	Chairman ECFA
<b>Natalie Roe</b>	USA
<b>Terry Wyatt</b>	UK
<b>Leonid Rivkin</b>	CH
<b>Also Present</b>	
R. Heuer	Director-General
M. Spiro	President of Council
M. Steinacher	
<b>B. Jacobsen</b>	FC Chairman

The committee meets 4 times/year (Mon. & Tues. Council Weeks)  
+ 1 special meeting in May (devoted to MTP)

- Standing items in agenda (taken from Dec 2010):
  1. Adoption of the Agenda
  2. Approval of the Draft Minutes of the Two-Hundred-and-Sixty-Third Meeting
  3. Matters Arising
  4. Chairman's Report
  5. Briefing by the President of Council
  6. Member State Matters (Director-General – Oral)
  7. Non-Member State Matters (Director-General – Oral)

- Standing items in agenda (cont.):

8. LHC Matters:

- Status report on the LHC Machine  
(S. Myers – Oral)
- Status report on LHC Experiments and Computing  
(S. Bertolucci – Oral)

at the end of 2010:

**“...It Was a Very Good Year...”**

# LHC

- March 30, 2010: First collisions at 3.5 TeV/beam
- April 19, 2009: Doubled the luminosity (intensity and squeeze)  
One month run for experiments
- May 22, 2010: 13 bunches/beam. Peak luminosity  $2 \times 10^{29}$
- May 26, 2010: Reached design bunch intensity of  $10^{11}$  protons
- Sept. 14, 2010:  $\approx 4 \text{ pb}^{-1}$  integrated luminosity. Peak lumi.  $1.1 \times 10^{31}$
- Sept. 24, 2010: 7 trains, 8-bunches/train. Peak lumi.  $2 \times 10^{31}$ , very stable
- October 13, 2010: Peak luminosity  $1.01 \times 10^{32}$ . Exceeded goal for the year.
- November 4, 2010: End proton run  $\approx 2 \times 10^{32}$ . Exceeded goal for the year.
- November 7, 2010: Start of Lead-Ion run.  $82 \times 3.5 \text{ TeV} = 287 \text{ TeV}$  collisions
- December 6, 2010: End Lead-Ion run. Exceeded goal for the year.



# Experiments and Computing Grid

From Director for Research and Computing last year:

“The experiments are in an unprecedented state of readiness”

At the end of 2010:

**The experiments are performing in an unprecedented way**

## **Since the interim report in June:**

- **Special meeting at the end of August to discuss the Medium Term Plan**
  
- **Meeting on 13-14 of September**
  - Report on 35<sup>th</sup> International Conference on High Energy Physics (ICHEP), July 22-28, Paris (A. Bondar)
  
  - Report on the XXIV International Conference on Neutrino Physics and Astrophysics, June 14-19, Athens (D. Wark)
  
  - Presentation on ATLAS (F. Gianotti) and CMS (J. Incandela)
  
  - Preparation of the September European Strategy Session

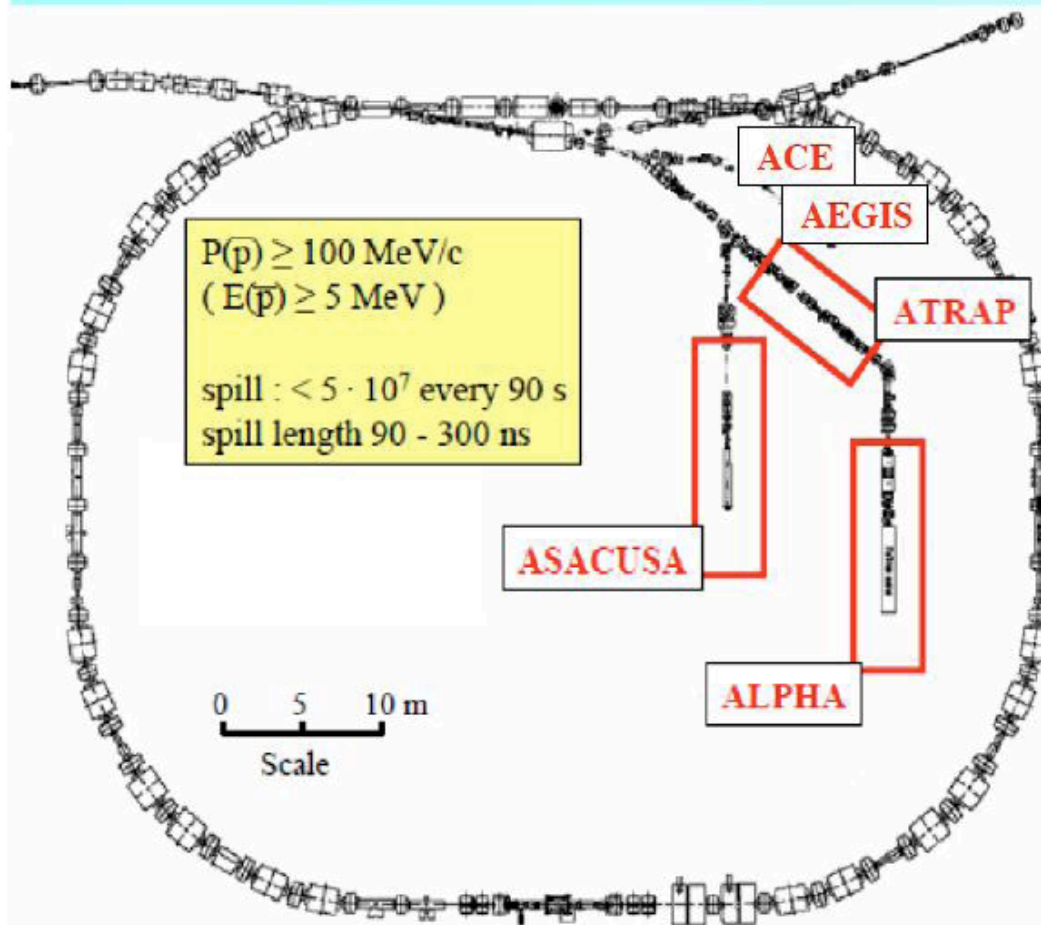
## **Since the interim report in June:**

### **- Meeting on 13-14 of December**

- Plans for MTP (running in 2012?)
- Selection of new members
- Presentation on ALICE (P. Giubellino) and LHCb (A. Golutvin)
- Preparation on ELENA (W. Oelert)
- Fellows, Associates and Students Programs (J. Purvis)
- Short report on Geographical Enlargement (R. Petronzio)

# ELENA (Extra Low Energy Antiproton Ring)

## Antiproton Decelerator (AD) @ CERN



- **Started operation** July 6, **2000**

Antiproton capture, deceleration, cooling

- **Pulsed extraction**
- **Many Experiments**

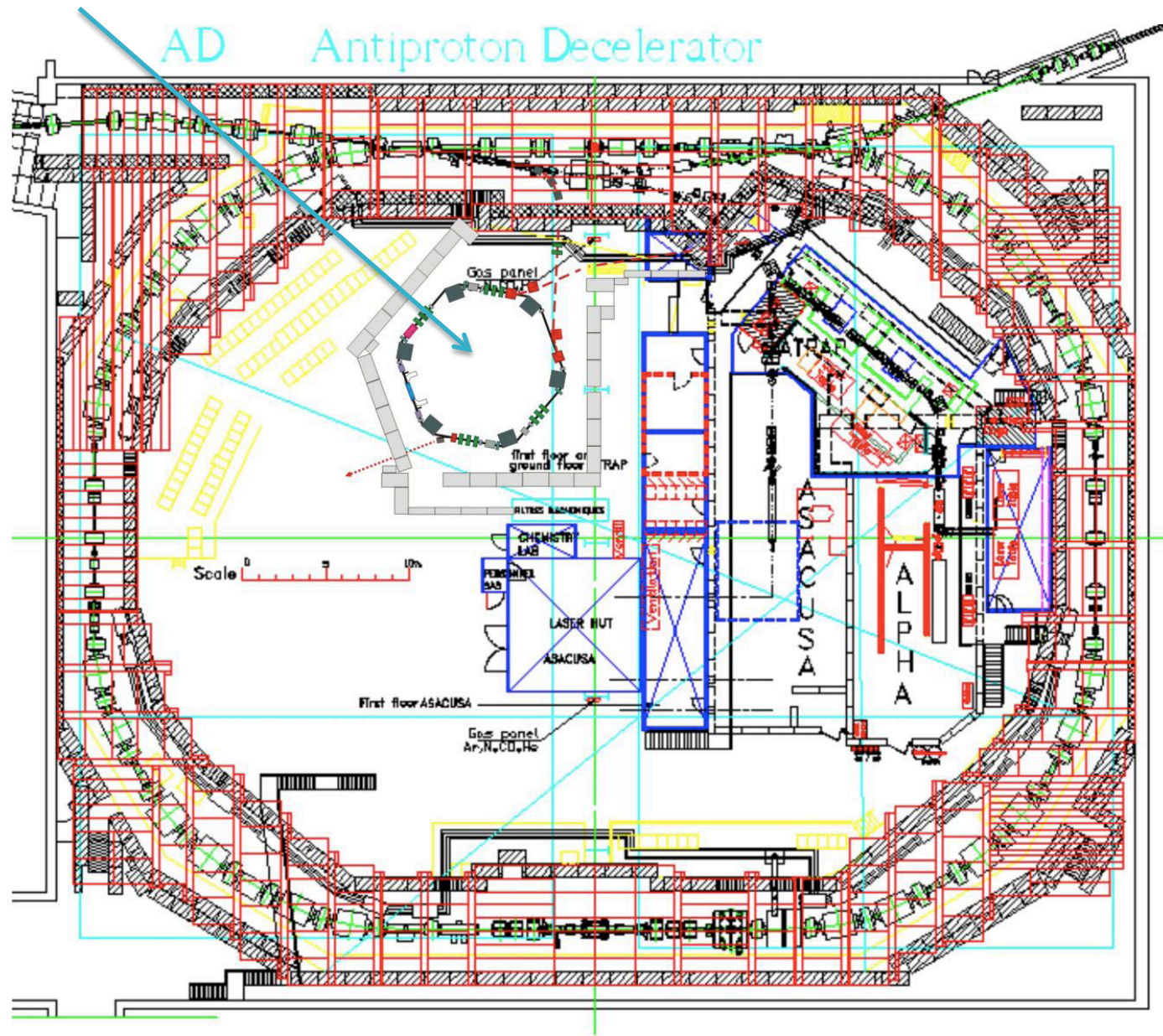
- ASACUSA
- ATRAP
- ALPHA
- AEGIS
- Free Fall
- PAX
- ACE
- .....

- **Request for more and better antiproton beams**

- To speed up progress
- To boost accuracy

⇒ **ELENA**

# ELENA (Extra Low Energy Antiproton Ring)



**On behalf of the SPC**

**Many thanks to all of you for listening to us**

**Special thanks to the “minute writers” for  
their excellent work**

**Special thanks to the Council Secretariat for  
their diligence in preparing the meetings.**