



The European Strategy

Outline – will follow the timeline of the Strategy implementation:

- The European Strategy for Particle Physics in 2006
- Main developments since then
- Some items discussed in the European Strategy Sessions of Council during 2008-10 – in particular since previous P-ECFA meeting in November 2009:
<http://indico.cern.ch/materialDisplay.py?contribId=5&sessionId=0&materialId=slides&confId=72225>
- Towards next Strategy Update

The European Strategy – 2005-2010



- **2006:** The CERN Council, in a special meeting held the 14th of July in Lisbon, agreed on the European strategy for particle physics.
- **2008:** Council appointed a Strategy Secretariat with four members to prepare the European Sessions of Council and follow up the Strategy in a continuous manner – since then (Sept 2008) there has been regular European Strategy Sessions of Council prepared by the Strategy Secretariat
- **Strategy Secretariat:**
 - Four regular members: the **Scientific Secretary**, elected by the Council at the European Strategy Session to lead the secretariat, the **SPC Chair**, the **ECFA Chair**, the **representative of the European Laboratory Directors' meeting** elected by the latter to attend the European Strategy Sessions.
 - In addition, the **CERN Director-General** is closely associated with the Strategy Secretariat's work.
- **The Strategy Sessions of Council agendas** are at:
 - <http://indico.cern.ch/categoryDisplay.py?categId=1697> (papers normally available (open) after the meeting)
 - Typical “standing/standard” items:
 - Presidents report, Scientific Secretaries Report, Possibility for members states to bring up issues.
 - FALC and ICFA reports if applicable.
 - ECFA report every September (note that ECFA also reports in Open Council in December).
 - Reports of the CERN communication and the CERN Technology Transfer Networks – yearly.
 - News from and relations with the ESFRI process (when appropriate)
 - **Special presence:** European Commission (from September 2009), ApPEC* representatives (from September 2008), three observes: Israel, Russia and Turkey.



FP7 projects in 2009-10

- Two key projects submitted in December 2009
 - AIDA (Integrating Activity addressing the topic: Infrastructures for Detector R&D)
 - 4 years, EU support requested 10 MEURO, **8 MEURO granted.**
 - TIARA (Invited preparatory phase project from the European Strategy: Infrastructures for Accelerator R&D)
 - 3 years, EU support requested 6 MEURO, **3.9 MEURO granted.**
- New calls expected in July 2010 – with submission end Nov 2010
 - Most relevant for us: Design Studies (bottom up, not targeted) and Integrating Activities:
 - Topical but less suited for us than last time, however contains an interesting opening for high energy cosmic rays, multi-messenger project for astroparticle physics.
 - New type of projects: "Implementation of common solutions for a cluster of ESFRI infrastructures in the field of "Physics and Analytical Facilities". Synergies in the development of key critical components common to the ESFRI Infrastructures in the field of Physics and Analytical Facilities such as, for example, accelerator elements, targets, detectors, or radiation protection and safety components, that are needed for their implementation.





ESFRI text draft

- The ESFRI report will be updated during 2010 and we have been asked to start preparing our input – assuming a format similar to our 2008 input
- Likely to be required during the summer, hence draft distributed to SPC and Council for general comments
- Note – changes must be modest, it is supposed to follow very closely our Strategy with “minor” updates
- Changes in text since 2008:
 - Mentions “our” Preparatory Phase Projects started since 2006 (SLHC-PP, ILC-HiGrade and TIARA)
 - Mentions R&D for HE-LHC
 - Mentions Global Projects (possibly at CERN) beyond LHC
 - Several smaller updates ...

European Strategy Forum
on Research Infrastructures

ESFRI

EUROPEAN ROADMAP
FOR RESEARCH
INFRASTRUCTURES

Roadmap 2008

UPDATE 2008

> Structure of the report

>ESFRI and its mission	3
>Foreword.....	5
>Structure of the report.....	7
>Achievements of ESFRI.....	9
>The Updated Roadmap – what is new?	11
>The Roadmap: the landscape and its Projects	14
>Social sciences and Humanities	17
>Environmental Sciences	25
>Energy	39
>Biological and Medical Sciences.....	47
>Materials and Analytical Facilities.....	61
>Physical Sciences and Engineering	71
>e-Infrastructures	85
>What next?	88
>Glossary.....	89
>Roadmap Working Group Members, Experts, Drafting Group and Review Group Members	92
>ESFRI National Delegates.....	94
>References	98
>Notes.....	99

The European Strategy



	Strategy Point	Comments
General issues	Council will update the Strategy	Next update in 2012
Scientific Issues	<p>LHC completion and SLHC R&D Accelerator R&D Linear Collider Neutrino Physics</p> <p>Links to Astroparticle Physics Flavour Physics</p> <p>Links to Nuclear Physics Theory</p>	<p>Refer to talks of Bertolucci and Heuer yesterday TIARA project (FP7 project) and also EUCARD Refer to talks of Foster, Delahaye, Richard Neutrino SPC panel, Workshop 2009, RECFA Committee for Interim Design Rep. (K.Long), EuroNu FP7 project, several key experim. starting CERN-ApPEC workplan SuperB and also European participation in SuperKEKB, refer to talk of Giorgi and Aihara SPC and ECFA reports in 2010 Not addressed</p>
Organisational issues	<p>Strategy follow up and set up strategy secretariat Engagement with other regions EU relationship Non member states relation to Strategy definition</p>	<p>Many of these aspects are being addressed: •European Strategy Sessions of Council and Secretariat •EC-CERN MoU •Council Enlargement Working Group Reports (refer to talk of Heuer yesterday)</p>
Complementary Issues	<p>Communication Network Technology Network and Transfer</p>	<p>Being followed up in European Strategy Sessions of Council – will not discuss today</p>



CERN-EC Memorandum of Understanding (MoU)

- Signed in July 2009
- Very important recognitions of the role of CERN Council as responsible for definition and follow up of the European Strategy for Particle Physics
- The European Commission is represented in the European Strategy Sessions of Council – from September 2009
- A number of important point to point contacts between the Particle Physics area and EC, annual meetings to monitor progress
 - First annual meeting in Brussels early September
- Future development of the MoU (an “action plan for 2010-11”) approved in Council meeting in March:
<http://indico.cern.ch/materialDisplay.py?contribId=31&materialId=0&confId=85784>
 - Covers a number of common activities 2010-11 ranging from research infrastructures, e-infrastructures and international co-operation to technology transfer, open access, careers and mobility, science communication, etc





The CERN - ApPEC connection

- The European Strategy for Particle Physics point 7 (from 2006):
 - “A range of very important non-accelerator experiments take place at the overlap between particle and astroparticle physics exploring otherwise inaccessible phenomena; Council will seek to work with ApPEC to develop a coordinated strategy in these areas of mutual interest” <http://council.web.cern.ch/council/en/EuropeanStrategy/ESStatement.pdf>

- Discussions in Council in 2009 and in the March Session:
 - The work with and with participation of ApPEC representatives in the Council and Strategy Secretariat has lasted more than a year and is successful
 - ECFA chair Prof. Nakada and the Scientific Secretary have been invited to the ApPEC meetings since the middle of 2009, CERN is observer in ApPEC (represented by Research Director Sergio Bertolucci)
 - The leader of the ApPEC SAC Christian Spiering works with the Strategy Secretariat as needed to prepare issues with relevance for ApPEC for European Strategy Sessions of Council

- The next step discussed in Council is to consider in more detail how projects and issues of common interest are addressed in practice, and what these issues are – covering the period until the next Strategy Update (2012)

Possible elements of a CERN-ApPEC workplan



The areas of cooperation discussed are divided into two broad categories:

- *General Policy Issues*, which address overall implementation aspects and future orientations of the two main operational activities of the two Sides:
 - Cross-representation and consultancy
 - Discussion of ApPEC's role in the forthcoming Strategy Update (and CERN's role in the ApPEC roadmap update)
 - ApPEC's involvement in the CERN Scientific Enlargement discussions over the coming 2 years.
 - Discussion of future more formal links between CERN and ApPEC.

- *Thematic Cooperation Areas*, where concrete cooperation activities can be identified and implemented over the 2-year duration of the workplan. Possibilities are:
 - Common CERN-ApPEC theory programme.
 - CERN/ApPEC common outreach activities.
 - Common issues related to Open Access, IT tools, Administrative tools
 - Common R&D calls and more generally CERN participation in ASPERA where CERN is a partner.
 - Use of testbeams and other facilities relevant for projects of common interest.
 - CERN participation in possible future projects in the area of astroparticle physics.

Format:

Short text with a description and objectives, contact points on each side (point by point), a description of how the workplan is approved, monitored and kept updated.



The European Strategy Update

- The update should not happen more often than every 5 years. Usually 2011 was assumed, but it is too early to have LHC results (and in as planned today in the middle of the long 2010-11 run)
- Given the status and plans for LHC data-taking in 2010-2011, followed by a long shut-down in 2012 and preparation work in several major areas (e.g. sLHC, Linear Colliders, Neutrinos, Astroparticle Physics, Accelerator and Detector R&D), the Strategy Secretariat believes that the next Strategy Update **should be concluded by the middle of 2012**.
- If the provisional timescale for the conclusion of the Strategy Update by the middle of 2012 is confirmed the Strategy Secretariat would prepare the **proposed remit and composition** of the European Strategy Group, together with those of the Preparatory Group, for approval by the European Strategy Session of Council in **March 2011**.
- The exact timescale will need to be confirmed in the second half of 2010 in the light of the progress of the LHC and any other relevant new information at that time.
- The composition of the extended Strategy Group including Preparation Group that need to be set up to prepare the Strategy Update is described in the Council documents from 2007-2008 (Secretariat, members from SPC, ECFA, Director's Meeting and Member State Representation).
- In addition to these actors, the remits and detailed compositions of the forthcoming Strategy Group and Preparatory Group, will also need to **accommodate the involvement of the European Commission, ApPEC, NuPECC, FALC, ESFRI, Observers, Associate Members and non-Member States**

REMIT for Strategy Update (2005 version)



- At a meeting in Zeuthen-Berlin from 2-5/6 May 2006, the Strategy Group shall produce a Draft Strategy Document (DSD) addressing the main lines of Particle Physics in Europe, accelerator-based and non-accelerator based, including R&D for novel accelerator and detector technologies. [Representatives of the Observer States, and the chairmen of FALC, ApPEC and NuPECC will be invited to attend the meeting as observers.](#)
- The DSD shall comprise a series of ordered and concise statements, of 1-2 pages, followed by presentations and discussions of the initiatives not exceeding 25 pages.
- In the DSD, the SG shall aim:
 - to enhance the visibility of existing European particle physics programmes;
 - to foster increased collaboration among Europe's particle physics laboratories and institutes;
 - [to promote a coordinated European participation in world-wide projects;](#)
 - [to reiterate the CERN Council's 2004 position on the European strategy for the International Linear Collider;](#)
 - to encourage knowledge transfer to other disciplines, industries, and society;
 - to outline priorities, at least implicitly;
 - to consider time scales;
 - [to follow a thematic or project approach, whichever is more appropriate.](#)
- The SG shall submit the DSD to the CERN Council for discussion and unanimous approval at a special meeting in July 2006.
- The Preparatory Group of the SG shall organize and carry out all the necessary preparatory work required to bring the Berlin meeting to a successful conclusion.
- [The term of office of the SG will end at the time of the special Council meeting dedicated to the discussion and approval of the Strategy Document.](#)



Timeline – very preliminary

- Start in March 2011 Council week, remit, composition of Strategy Group and Prep. Group, procedures/steps and timescales
- June 2011 Council: A fairly complete name list for the Strategy Group
- July 2011 EPS: “Kick off” meeting, review status, raise (some) main questions (half a day), discussion
- From July 2011: Be prepared for and encourage/collect input from community, international interactions and consultancy – for Briefing Books or equivalent
- Sept 2011 Council: Final implementation plans discussed
- An “Orsay like” meeting ~Feb 2012 (~2-3 days)
- A “Zeuthen like” meeting ~May-June 2012 (~a full week)
- Approval in September 2012 Council session (currently there is a proposal to hold this meeting in Brussels).



ECFA roles wrt to the Strategy

Role of ECFA wrt strategy – discussed in the RECFA meetings in Moscow, at CERN and in Brussels in March. Some roles already discussed in Council document in 2007 and are **well established**:

- ECFA has a key role related in incubation of ideas – ECFA studies and workshops
- Various review committees (example SuperB in 2008)
- Community/personnel reviews (as the one just carried out)
- Country visits – and report directly to the Strategy Session of Council about them.
- ECFA members to be involved in the Strategy Upgrade Preparation Group when we get to that phase

New initiatives:

- Working Group for coordination of detector R&D for LC and other projects (see talk of Y. Karyotakis).
- Status Report on establishing possible way to help coordination of neutrino activities (See talk of K. Long) As a first step receive and review IDS-NF IDR and EUROnu interim design reports.
- Use P-ECFA/R-ECFA meetings to “review” specific areas:
 - November 2009 being the neutrino area
 - This meeting Flavour physics, some LC topics (and also reports from Asia)
 - November: Long Term Plan 2010 from NuPECC etc ...
- In general we also use RECFA meetings to discuss/inform about EU projects, complementary to discussions to ESGARD and in Council.
- All these developments, summary of discussion can be/should be reported to the European Strategy Sessions of Council (including Open Council Sessions)

Strategy Session Friday

17.9.2010



- Full day 9.30-15.30 – in Council Chamber
 - Fixed items, for example Scientific Secretary's and President's reports
 - Final ESFRI text
 - Strategy status – point by point compact report
 - Format: Short status, progress, current issues (refer to documents presented in SPC, Council meetings and ECFA during the last year for details)
 - Reports from ECFA
 - Report from TT Network, Communication Network
 - EC-CERN workplan and annual meeting
 - ApPEC workplan
 - Scientific Enlargement
 - FALC and ICFA reports
 - SuperB status update
 - Strategy Update – discussion of new Remit



Summary

- The European Strategy for Particle Physics defined in 2006
 - Specific follow up structure and work defined, and started in earnest during second half of 2008
 - Progress/reporting linked to specific European Strategy Sessions of Council
 - Relies strongly to existing structures (ECFA, Director's meeting, SPC, ApPEC) – attempts to increase coherent discussions and information flow between these bodies
- Make important use of EC programmes and connections – also to ESFRI
- Update of the Strategy foreseen for 2011-12