CHIPP Board meeting, March 14, 2008

Swiss Institute of Particle Physics

1. Report on CHIPP-EB activities

2. Reports from other committees
   - council (incl. European Strategy session, FALC, ICFA)
   - ASPERA (tbc)
   - NuPECC (tbc)
   ...etc.

3. Status SUK funds and plans
   - PostDocs
   - PRO*DOC

4. Communication:
   - Status LHC Communication network
   - Fact sheet of Swiss LHC construction contributions

5. Tier-2 status

6. Funding larger projects in 2012-2015
   - concept
   - examples: Neutrino, CTA, others?

7. a.o.b.

EB Activities: Organisation

The present executive board

- held 4 meetings sofar (minutes on the web)

- distributed work:

• Antonio Ereditato: neutrino physics, CHIPP-prize, CHIPP-tables,
• Tatsuya Nakada: astroparticle, RRB, MandO,
• Martin Pohl: detector R&D, PRO*DOC
• Ueli Straumann: chair, collider experiments, SUK request,

Proposal for change of constitution

present constitution reads:

The CHIPP Board elects an Executive Board consisting of a Chair and two Deputy Chairs.

It is proposed to change to:

The CHIPP Board elects an Executive Board consisting of a Chair and one to three Deputy Chairs.

Will need to be approved by CHIPP plenary in autumn.

2008 CHIPP Prize for the best PhD student in Experimental or Theoretical Particle Physics

All PhD students affiliated to the Swiss Institute for Particle Physics (CHIPP) are kindly invited to participate in the selection procedure for the 2008 CHIPP Prize for the best PhD student in Experimental or Theoretical Particle Physics.

The Prize will be awarded to a graduate student who has not yet submitted his/her PhD Thesis by 30 June 2008. In the evaluation, emphasis will be given to the quality of the present scientific work and to its relevance within the student's research group, as well as to novel ideas possibly brought up by the candidate. Applicants must submit their CV, Diploma Thesis, list of publications and internal notes, a report (≤ 15 pages, including figures and references) outlining their achievements within the PhD work, the proposal/recommendation letter by the Thesis Supervisor, and reference letters by two other professors or researchers not belonging to their institution. All papers and communications must be written in English.

The awarding ceremony will take place at the plenary CHIPP meeting that will be held at PSI on 8-9 September 2008. The prize amounts to 3000 CHF. The winner will be asked to give a talk at the plenary CHIPP meeting presenting his/her current research activity.

More information on the Prize can be found on the CHIPP web page (www.chipp.ch). Applications must be sent to the CHIPP Executive Board (Prof. Ulrich Straumann) by 30 June 2008.

CHIPP Prize

2008 CHIPP Prize for the best PhD students in Experimental or Theoretical Particle Physics

- The goal of the CHIPP PhD student Prize is to reward the best students preparing their PhD Thesis in Experimental or Theoretical Particle Physics. Emphasis will be given to the quality of their present work and to its relevance within their research group, as well as to novel ideas possibly brought up by the students.

- All PhD students affiliated to CHIPP that **did not complete yet their PhD thesis** may apply upon nomination of their Supervisor. Each student can apply only once.

- The Prize advertising must be issued by April 30 of each year. It will be posted on the CHIPP web site and sent as a poster and e-mail to all CHIPP Board members. Applications must be sent to the CHIPP Executive Board (EB) by June 30 of each year.

- Applicants must submit a CV, the Diploma Thesis, the list of publications and internal notes, a report (≤ 15 pages, including figures and references) outlining their achievements in the PhD work, the proposal/recommendation **letter by the supervisor, and reference letters by two other professors** or researchers not belonging to their institution. All papers and communications must be written in English.

- The CHIPP EB selects a short list of 3-6 students. This is done by attributing a total of ≤100 points:

≤ 15 for the diploma work
≤ 20 for the CV and publication list
≤ 25 for the reference letters
≤ 40 for the written document

The attribution of points is made by averaging the marks given by the CHIPP EB members.

- **The list of selected students is submitted to all ordinary professors of the CHIPP Board. The student's marks will be forwarded as guidance to the CHIPP professors in view of the final selection. Each professor chooses 2 students at large and communicates their names to the CHIPP EB. The dead line for communicating this choice is defined by the CHIPP EB. The student with the largest number of nominations is winner. In the case of equal number of nominations the CHIPP EB will decide. The CHIPP EB unofficially informs the winner.**

- The awarding ceremony will take place at the plenary CHIPP board in Fall. The winner will get a diploma plus 3000 CHF. The CHIPP EB will write a 40-50 words motivation to be printed on the Diploma. The motivation will also be posted on the CHIPP Web page, year by year.

- The winner will have to give a 30 m talk at the plenary CHIPP meeting presenting his/her current research activity.

CHIPP school

See file from Guenther.

Future CHIPP workshops

Research field	*Responsible*	*Date*	*Place*
Detector R&D (all research fields)	**M. Pohl**	11./12. June 2008	Univ. of Geneva
"Beyond present generation neutrino experiments"	**A. Ereditato / A. Rubbia**	18./19. Nov. 2008	ETH Zürich
High energy frontier	**U. Straumann**	January 2009	Uni Zürich
Astroparticle	**T. Nakada**	June 2009	

SPS

Swiss Physical Society:

Contributions from particle physics significantly improved due to common effort in the last year. But lack of presence from Prof.

Next meeting in Geneva, March 26-27: Please take part in discussion

Centennary in Berne, June 27.

Next spring: common meeting with Austria.
They expect a plenary contribution from us (about LHC ?)

Visit of new Sts Dell'Ambrogio

DSU-VIP-gk
2008-02-22

VISIT PROGRAMME

Dr Mauro Dell'Ambrogio
State Secretary for Education and Research
Swiss Confederation

Wednesday, 2nd April 2008

http://www.sbf.admin.ch/htm/sbf/staatssekretaer_en.html

(x visitors)

Information for the visitors:
For safety reasons visitors are required to wear closed, flat or block-heeled shoes for the site visits (duckboard).
Helmets will be provided.

10:00	Arrival at the Cointrin train station (airport). Meet up with A. Ereditato, T. Nakada, M. Pohl and U. Straumann and the CERN driver near the "Aux Bonnes Choses" restaurant Transport to Point 1, SX1
10:15	Stop at SX1. Collect helmets at the lift entrance (*F. Bais, B. Lebègue*) and take lift to visit the underground ATLAS experimental area (P. Jenni, M. Nessi)
11:00	Meet the site manager (*P. Pinget*) at the top of the PM 15 lift to view the LHC tunnel at Point 1 UJ14
11:15	Back to surface
11:20	Transport from SD1 to building 500
11:25	Refreshments served in the 6th floor conference room, building 60
11:40	Introduce those present A. Ereditato, P. Jenni, T. Nakada, M. Nessi, M. Pohl, U. Straumann Presentations of other Swiss contributions by Swiss PostDocs
11:45	10' CMS 10' LHCb 10' presentation on CHIPP and its activities as well as non-LHC activities at CERN
12:15	Discussion
12:20	CERN Director-General, R. Aymar and Chief Scientific Officer, J. Engelen enter the conference room
12:25	Welcome and presentation on the subject of international collaboration at CERN (R. Aymar)
13:00	Luncheon presided by CHIPP for those involved in the programme (Glass Box, Restaurant No. 1)
14:20	Transport from the steps, building 500 to building 513
14:30	LHC Computing Grid Project (LCG) brief presentation W. von Rüden) Tier-2 at Manno (C. Grab)

FORCE

funded since 1998: (might not exactly correspond to actual spending)
ATLAS: 11.87 MCHF CMS: 8.79 MCHF LHCb: 4.55 MCHF
common M&O: 0.9 MCHF

OPERA: 1.74 MCHF
other (DIRAC, NA 49/61, ICARUS, ATHENA, ...): 2.65 MCHF

In 2007 total cuts were 15% (compared to 40-50% in earlier years)
"thanks to coordination efforts of CHIPP"

New guide lines for 2008:
(now 3.5 MCHF for detectors, 1.3 MCHF for M&O and computing)

1st priority: Finish construction of ATLAS, CMS, LHCb; Tier-2, M&O
2nd priority: other CERN projects, LHC upgrade R&D.

CHIPP RRB representative from 2008: T. Nakada
coordinates also next common M&O request (autumn 2008 for 2009)

CHIPP - tables

FP7 Proposal DevDet

- RECFA initiated common proposal for all detector R&D efforts
- Coordination group lead by N. McCubbin and S. Stapnes:
  - J. Mnich (Linear Collider Detectors),
  - N. Hessey and J. Nash, (upgrade coordinators ATLAS, CMS),
  - L. Linssen (CERN),
  - R. Heuer (DESY),
  - A. Blondel (neutrino detectors),
  - F. Forti (flavour factory detectors)
- Advantages: Priorities managed internally, overall control of funding level requested
- Disadvantages: self-censorship, difficult convergence

- Original survey of proposals: > 30 MEuro
- Ordre de moufti (CERN): < ESGARD proposal
- Final outcome after negotiation with Brussels : 11 MEuro
- Participants: 50 institutes and consortia
- Switzerland: Scientific coordination = CHIPP, administrative coordination = UniGe

Take it with the Olympic spirit…

Proposal text: http://project-fp7-detectors.web.cern.ch/project%2DFP7%2Ddetectors/

FP7 Proposal DevDet

Detector Development Infrastructures for Particle Physics Experiments – DevDet
Constitutes an Integrating Activity with three main objectives:

- The creation and improvement of key infrastructures required for the development of detectors for future particle physics experiments;
- The provision of trans-national access for European researchers to access these research infrastructures,
- Integrating the European detector development communities planning future physics experiments, and increasing the collaborative efforts and scientific exchange between them.

Proposal coordinated by RECFA, managed by CERN.

"The European Strategy for Particle Physics" identified four priority areas for the future of particle physics in Europe:

- Luminosity-upgraded Large Hadron Collider (Super-LHC),
- Future Linear Colliders (ILC and CLIC),
- Future accelerator-driven neutrino facilities (Super-beams, Beta-beams or Neutrino Factories) and
- B-physics facilities (Super-B Factories).

Proposal text: http://project-fp7-detectors.web.cern.ch/project%2DFP7%2Ddetectors/

Swiss Participation in FP7 Proposal DevDet

Work Package	Work PackageTitle
WP1	DevDet project management
WP2	Common software tools
WP3	Network for Microelectronic Technologies for HEP PSI
WP4	Project office for Linear Collider detectors UniGE(lead), ETHZ
WP5	Coordination office for long baseline neutrino experiments ETHZ, UniBE, UniGE, UniZH
WP6	Transnational access to CERN test beams and irradiation facilities
WP7	Transnational access to DESY test beam
WP8	Transnational access to European irradiation facilities PSI
WP9	Construction of irradiation facilities at CERN
WP10	Test beam infrastructures for fully integrated detector tests UniGE(Vertex), ETHZ (ECAL)
WP11	Detector prototype testing in test beams UniGE (SLHC)

Details: http://project-fp7-detectors.web.cern.ch/project%2DFP7%2Ddetectors/

DevDet Budget by Workpackage

Work package No	Work package title	Type of activity	Lead participant No	Lead participant short name	Person-months	Start month	End month	Indicative Total costs (MEuro)	Indicative requested EC contribution
1	DevDet project management	MGT	1	CERN	108	1	48	1.56	0.80
2	Common software tools	COORD	11	DESY	385	1	48	3.61	1.20
3	Network for Microelectronic Technologies for High Energy Physics	COORD	1	CERN	437	1	48	5.63	1.20
4	Project office for Linear Collider detectors	COORD	38	UNIGE	338	1	48	3.42	0.52
5	Coordination office for long baseline neutrino experiments	COORD	34	CSIC	68	1	48	0.74	0.25
6	Transnational access to CERN test beams and irradiation facilities	SUPP	1	CERN	2	1	48	0.23	0.15
7	Transnational access to DESY test beam	SUPP	11	DESY	2	13	48	0.15	0.10
8	Transnational access to European irradiation facilities	SUPP	3	UCL	10	1	48	0.86	0.75
9	Construction of irradiation facilities at CERN	RTD	1	CERN	176	1	48	3.00	1.00
10	Test beam infrastructures for fully integrated detector tests	RTD	11	DESY	1198	13	48	12.95	3.14
11	Detector prototype testing in test beams	RTD	1	CERN	539	1	48	5.65	1.89
	TOTAL				3263			37.80	11.00

Switzerland:	PM	RTD	COORD	SUPP	Total	EU Req.
	269	1.238	1.709	0.108	3.055	0.717

Details: http://project-fp7-detectors.web.cern.ch/project%2DFP7%2Ddetectors/

DevDet Budget by Swiss Participant

	WP3 Micro electr.	WP4 ILC Proj. Off.	WP5 ν Coord. Off.	WP8 Irad. Facility	WP10 EUVIF	WP11 Proto. TB	Total
ETHZ total EU		461'440 78'400	34'560 11'600		111'360 0		607'360 90'000
PSI total EU.	141'760 29'000			108'260 92'900			250'020 121'900
UniBE total EU			71'680 24'100				71'680 24'100
UniGE total EU		855'840 108'400	108'800 36'500		482'240 109'800	644'800 214'900	2'091'680 469'600
UniZH total EU			34'560 11'600				34'560 11'600
Total total EU	141'760 29'000	1'317'280 186'800	249'600 83'800	108'260 92'900	593'600 109'800	644'800 214'900	3'055'300 717'200

Details: http://project-fp7-detectors.web.cern.ch/project%2DFP7%2Ddetectors/

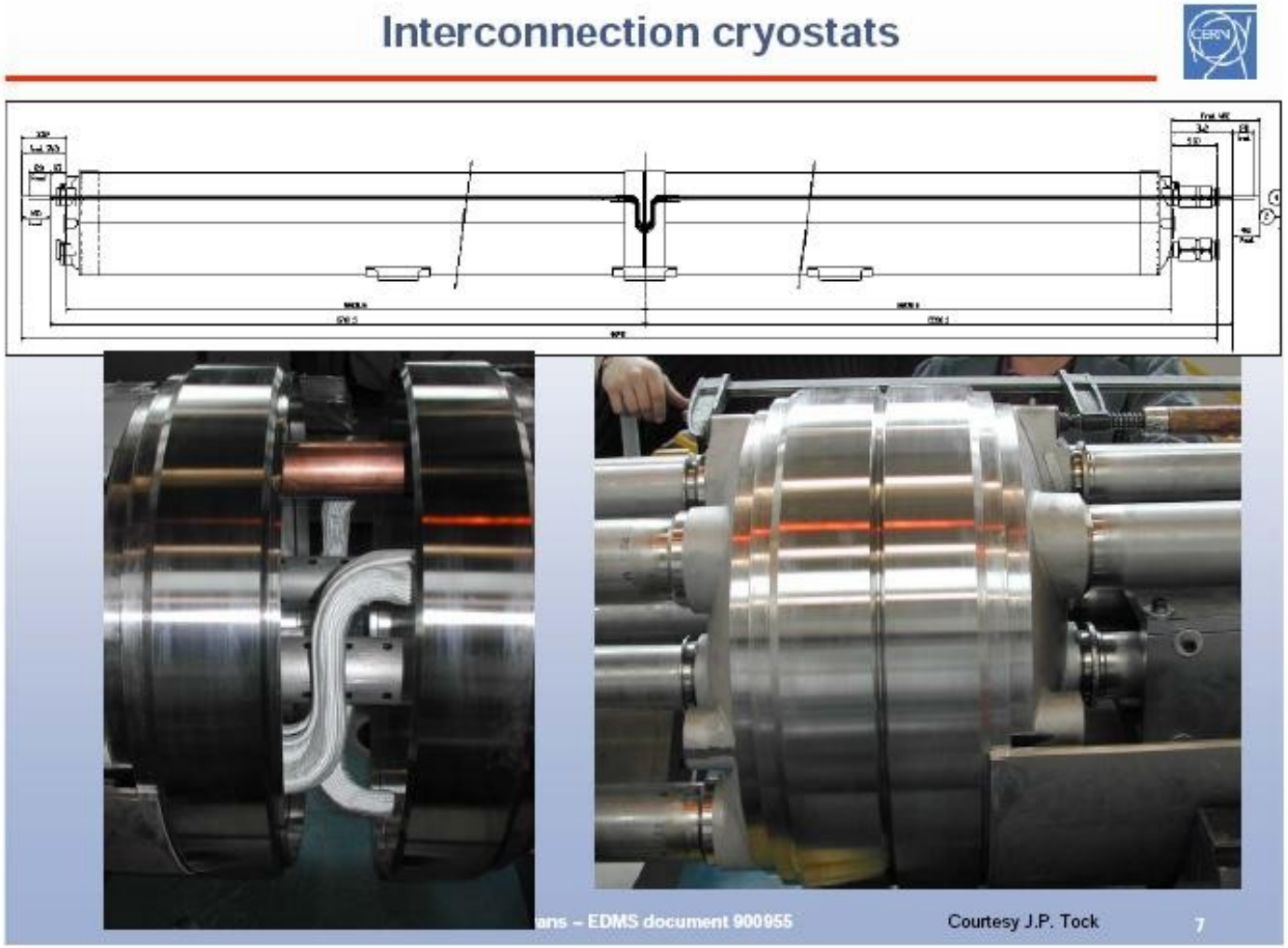
2. News from other committees

a) council

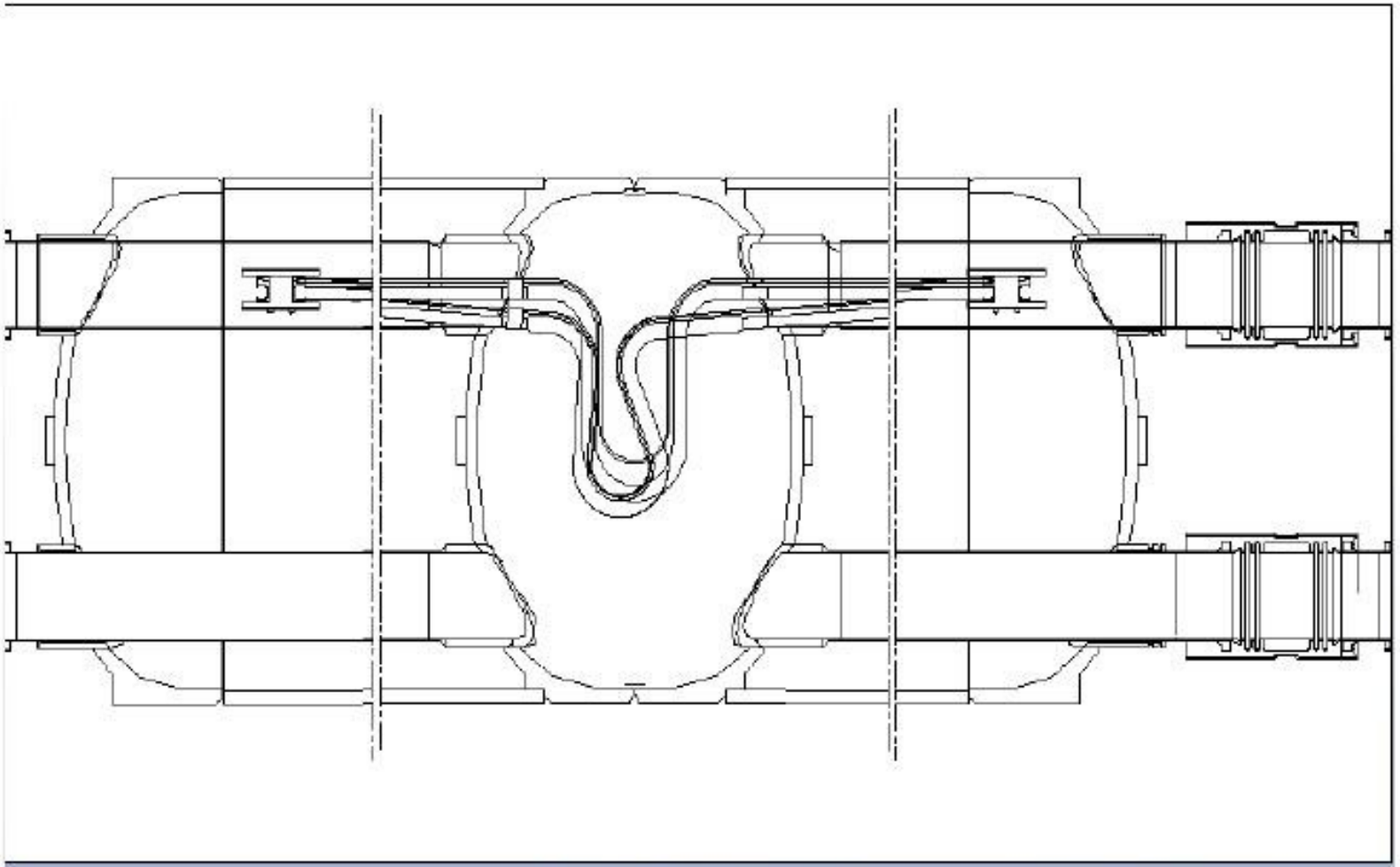
LHC status: "no major problem"

probably start with about 5 TeV instead of 7 TeV.
(experienced some quenches at higher currents -> needs training)

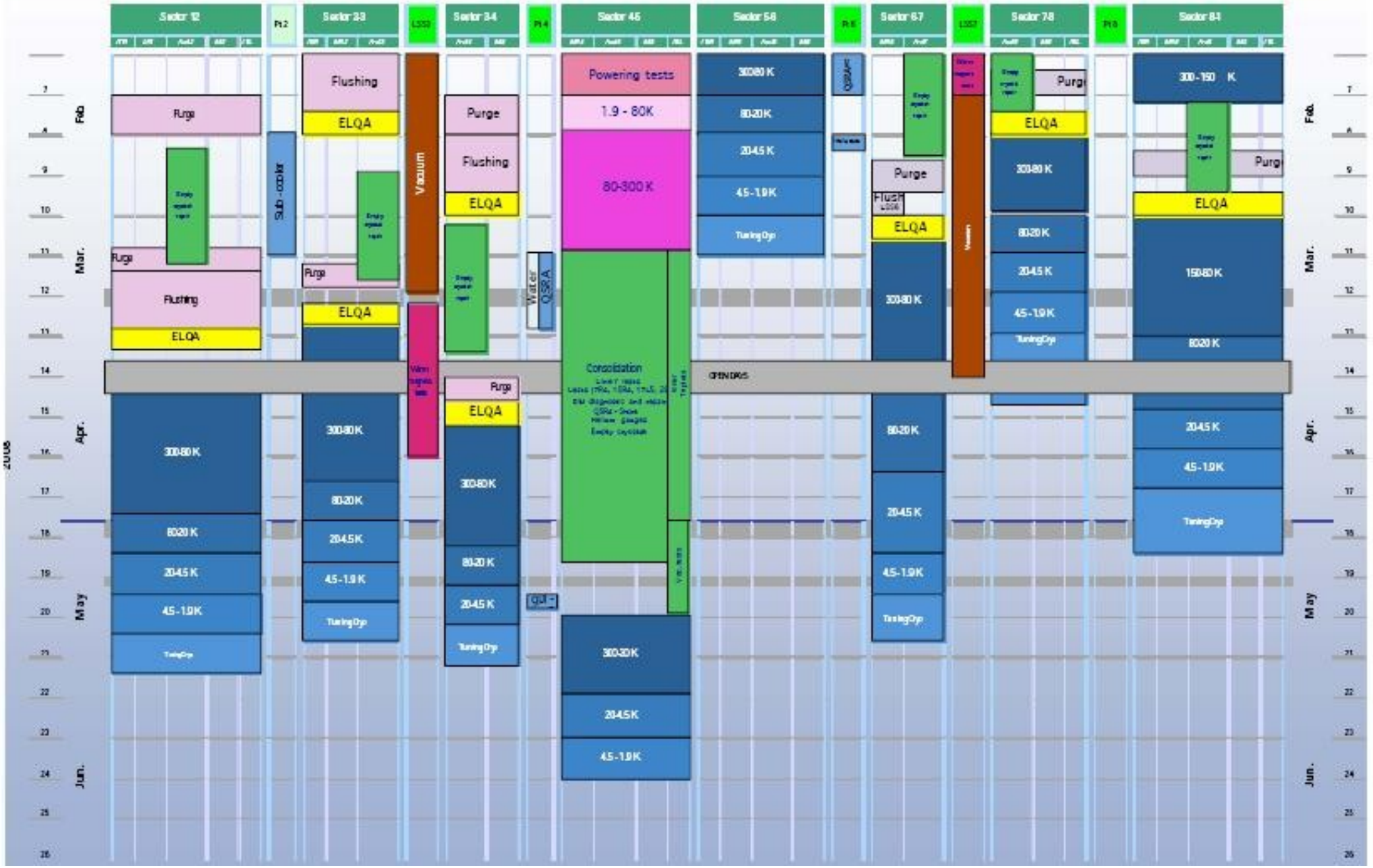
Small problem with compensation for thermal expansion:



Interconnection cryostats



General Coordination Schedule – 06.03.08



More from council:

LHC inauguration ceremony 21. October 2008

Increase of budget for 2008 -2011 by 6%
- officially to work on the implementation of the Lissbon strategy
- in practice reducing effect from paying back the loans (10-20%)
- source of money: 3% increase of annual membership fee
  + 30 MCHF/y by hosts states (CH and F)

In addition: Switzerland pays for new office building 40a (12.3 MCHF)

Rolf Heuer unanomously elected to become the next DG from 1. Jan. 2009.

Further discussions on
- term of reference of SPC and its election procedure
- government cycle of the CERN management
- composition and remit of the scientific secretariat of the Eurpean session of Council
- reports on FALC and ICFA (discussion on sudden budget changes in US and UK)
  -> ILC EDR delayed to 2012,
  -> detector development EoI end 2008, LoI delayed to end 2009
- next ICFA seminar on status of particle physics (incl. astroparticle):
  SLAC, end of October 2008
- still no Swiss contribution to SCOAP3
- pension fund ....

2b) News from other international organisations

ECFA, last meeting in Dec.07: DevDet (see Martin)
ep option in LHC: report, study group

NUPECC:

ASPERA: report from Maurice Bourquin received
on Swiss national ASPERA day, Dec. 3, 2007

...

3. SUK+ETHrat money

Swiss Centre for Advanced Studies in Particle Physics in the LHC Era

Swiss Institute of Particle Physics

Official decree from SUK received through SBF
draft decree from ETHrat received yesterday.

Total money available for 2008 - 2011: 3.5 MCHF
+ Univ. "own contrbutions" 120k/year/Uni => 1.5 MCHF

The SUK+ETHrat money can not be used for PhD salaries

All PhD's to be requested through PRO*DOC system

Swiss Centre for Advanced Studies in Particle Physics in the LHC Era

Swiss Institute of Particle Physics

Due to unforeseen delays, due to the fact that all PhD student salaries have been moved to PRODOC and because we expect some overhead money from PRODOC, we can now allow ourselves to hire one more PostDoc (i.e. 10 in total) => new distribution:

Group	*April 2008*	*October 2008*	*July 2009*
ATLAS UniGe	1		1
ATLAS Berne	1		1
CMS ETH	1		1
CMS UniZH		1	
LHCb EPFL	1		1
LHCb UniZH		1	

- 33 applications in respond to the first advertisement!
- consider administrative support available for all CHIPP activities.

Nouveau programme ProDoc de la CRUS

Module de formation: Thématique

- ≥ 2 hautes écoles suisses
- 1 requête au FN, 1 requérant responsable
- Aval écrit des rectorats requis
- Collaboration internationale possible
- ≥ 12 cand doc
- ≤ 10 rémunéré par ProDoc
- Autres par sources tierces (état, requêtes FN)
- Durée 36 mois, rapports après 12 et 30 mois
- Prolongation par nouvelle requête
- Critéres:
  - Qualité scientifique et nécessité du ProDoc
  - Programme de formation et de l'encadrement
  - Stratégie locale et nationale, durabilité
- Frais couverts:
  - Organisation du ProDoc
  - Frais de formation

→ **Module de recherche 1:**
- 1haute école, 1 projet
- Avec ou après MF
- ≤ 3 rémunéré par ProDoc
- Frais de recherche spécifique
- Frais en Suisse uniquement
- Rapports FN usuels

→ **Module de recherche 2**

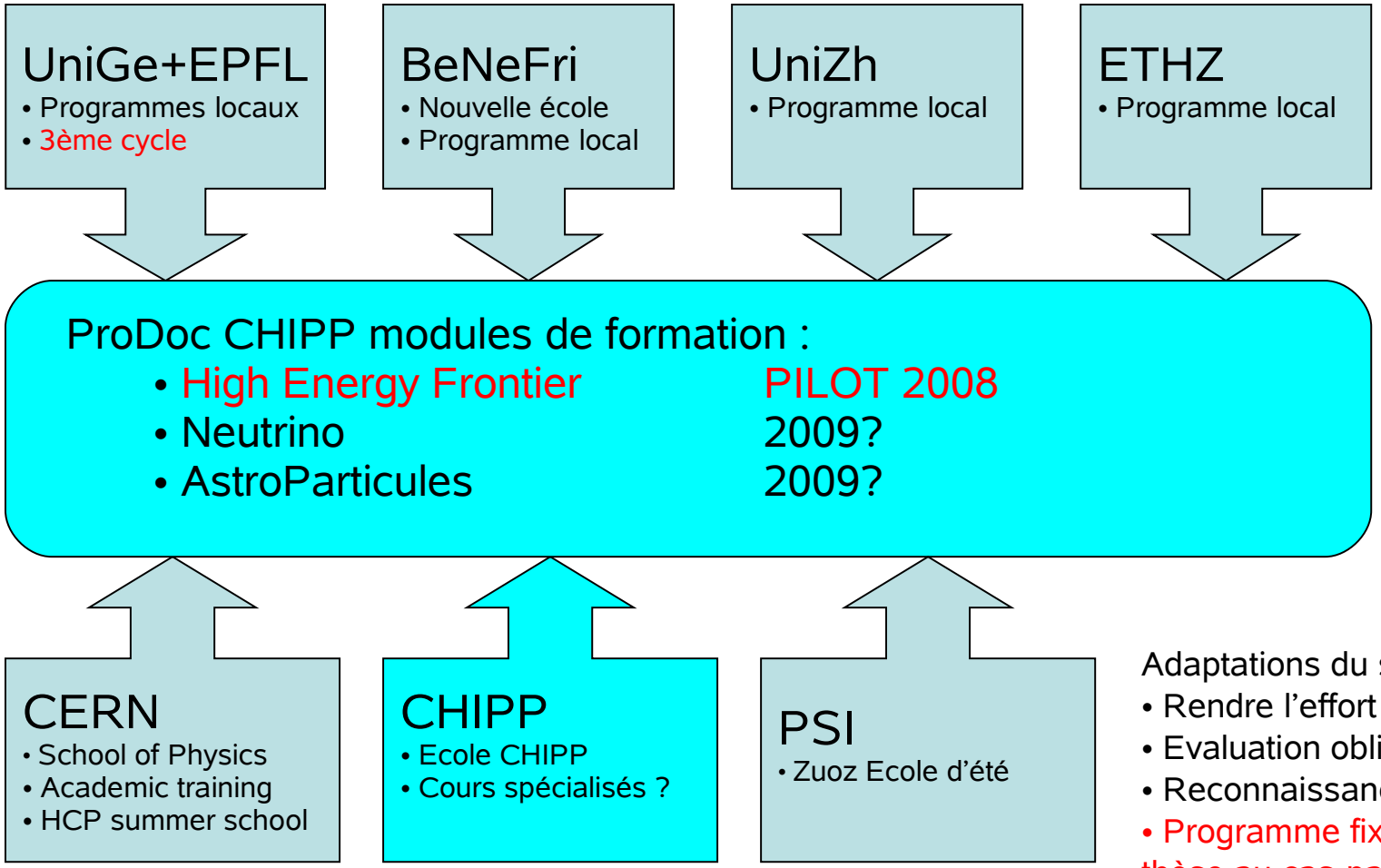
→ **Module de recherche 3**

→ **Module de recherche 4**

Détails: http://www.snf.ch/f/encouragement/personnes/prodoc/

Prochain délai de soumission (auprès du FNS): 1er avril 2008
Début des subsides allouées: à partir du 1er octobre 2008
Modules de recherche ultérieurs: 1er mars ou 1er octobre

Ressources ProDoc CHIPP



Adaptations du système actuel:
- Rendre l'effort comparable
- Evaluation obligatoire
- Reconnaissance mutuelle
- Programme fixé par le directeur de thèse au cas-par-cas

CHIPP ProDoc High Energy Frontier

Argumentaire:

- Participants: tous les institutions membres de CHIPP
- Urgent: obtenir l'aval par écrit des rectorats
- Liste des postes étudiants existants
- Qualité scientifique: programme physique du LHC
- Nécessité: exploitation des données LHC, return on investment
- Stratégie nationale: feuille de route CHIPP

Budget demandé:

- Coordinateur au niveau senior post-doc/MER:
  - Etablit un catalogue complet des ressources
  - Gère les invitations pour cours additionnels
- Professeurs invités: s'inspirer de la procédure et du budget 3ième cycle
- Maison mère?

Délais:

- Module formation: 1er avril 2008
- Modules de recherche (1 par Uni): 1er octobre 2008

4. Communication network

There is room for improvement in the communication to the national media.
Switzerland is specially bad. For instance the last lowering of big Atlas
equipment was reported in about 600 news articles all over the world,
but not recognized in the German-speaking part of Switzerland.

There will be a special LHC coverage of radio suisse romande soon.

CERN initiated a communication network: each country is supposed
to provide an entrance point, where CERN can dump information.

After some discussion it was decided to use the ETHZ communication departement
for this.

ETHZ has started to define a concept. Guenther Dissertori is CHIPP contact person
ideas: use Science et Cite infrastructure, web, travelling exhibition,
national event on Bundeshausplatz, etc. still rather CMS centered, to be changed.
estimated 0.5 MCHF for 3 years.

Fact sheet:

Swiss contributions to construction of LHC experiments

- to be used as input for outreach activities, communication
  to politicians (for instance Dell'Ambrogio, April 2nd),
  communication network,
  take as (good) example for future engagements.

- in tabular form

- intellectual contributions: for instance
  "development of silicon strip detector
  with very long strips and fast readout"
  or "construction and test of ..."
  or "project leadership of ..."

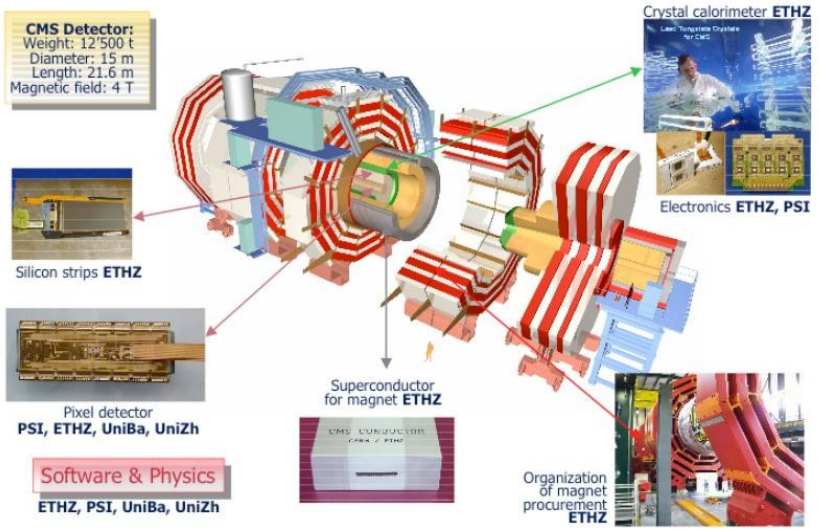
- financial contributions: sum of contributions from each of
  SNF, FORCE, Kanton/ETH, only investment, no salaries

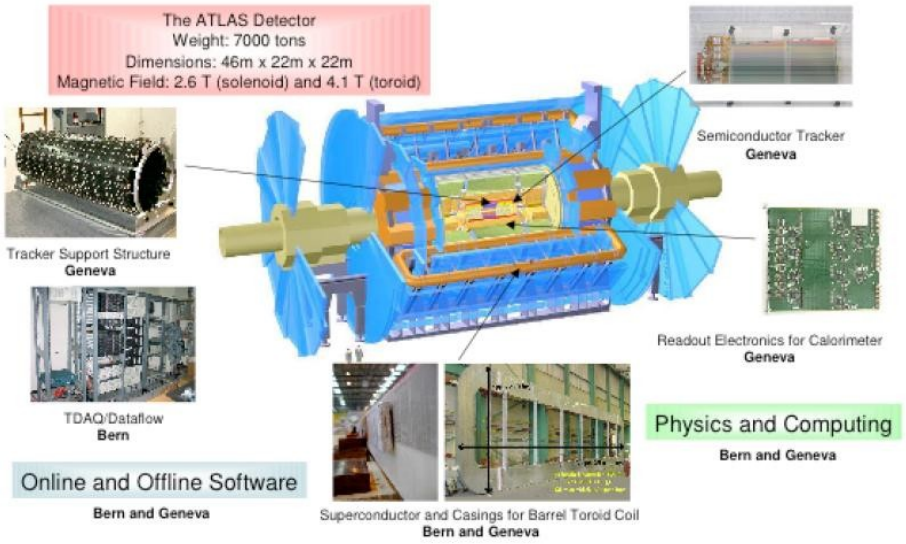
Fact sheet:

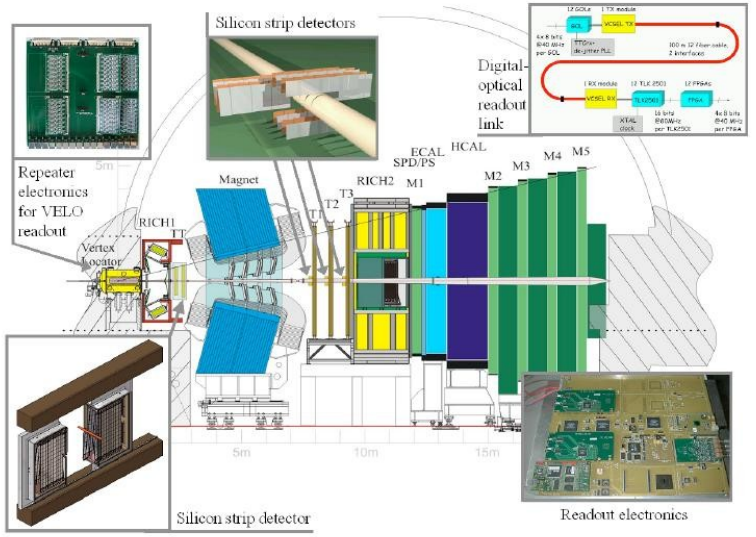
start from roadmap

Manpower as of 1.Jan.2006:

		Senior	PhD students
Atlas		21.4	7
CMS		37.2	13
LHCb		24.8	11
	SUM	83.4	31







5. TIER-2

see file from Christoph

6. Funding period 2012-15

Swiss contributions to new
large scale, international research facilities
through federal government ??

Needs well prepared request to be handed in to SBF by end 2010

Proposed action plan:

- 2008: establish the projects
- 2009: discuss details of Swiss contribution, make ideas known to all relevant people. Workshops etc.
- 2010: write up requests, evaluate by an international peer review committee

Examples: T2K, CTA, SwissPixelCollaboration?

7. a.o.b.

Swiss Institute of Particle Physics