



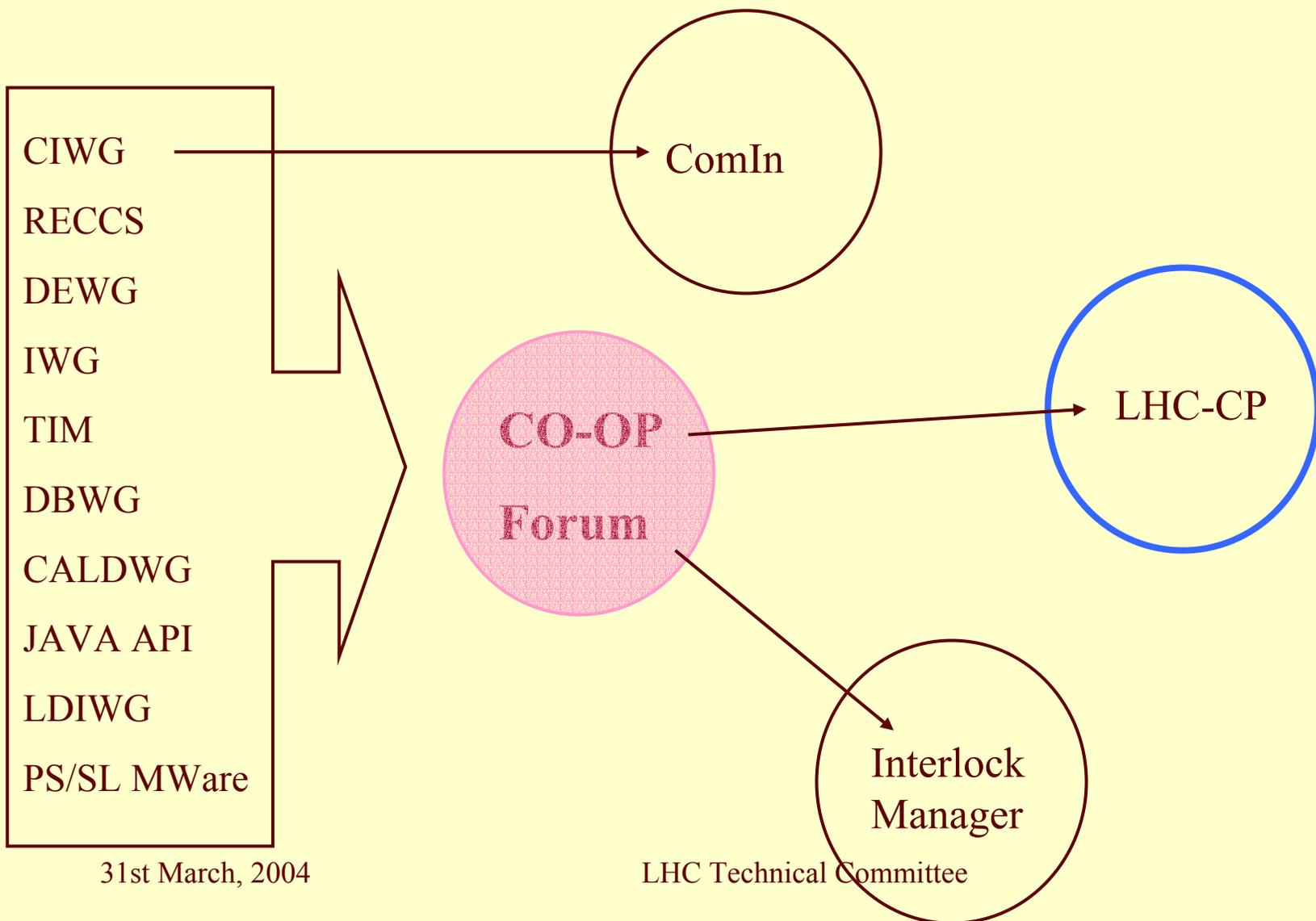
# LHC-CP Close-Out 2000 - 2003

## Final Report to LTC

R. J. Lauckner



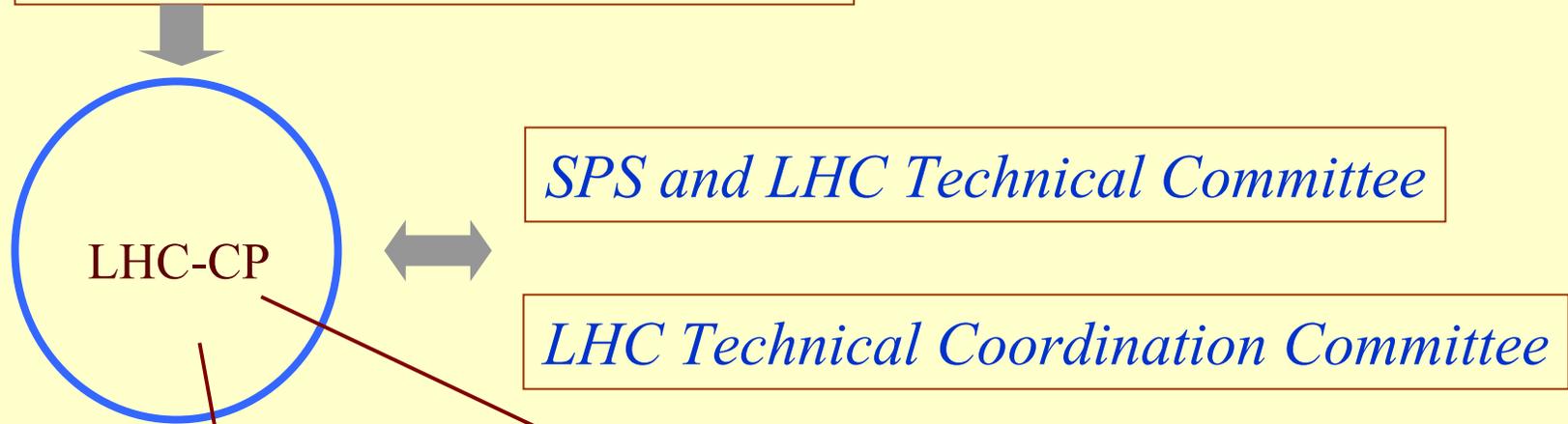
# Launch 1999/2000





# Organization

*LHC Commissioning Committee*



LHC-CP

*SPS and LHC Technical Committee*

*LHC Technical Coordination Committee*

## **Mandate**

- Efficient Use of Resources
- Consistent Technical Choices
- Meet Operational Requirements

## **Activities**

- Requirements Analysis
- Architecture
- Services e.g. alarms, data management
- Guidelines
- Planning



# Organization

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## Core Team

- Robin Lauckner SL/DI
- Philippe Gayet LHC/IAS
- Mike Lamont SL/OP
- Marc Vanden Eynden  
SL/CO

## Assisted by:

- Scientific Secretary: Maria  
Elena Angoletta AB/BDI
- Planning Officer: Axel  
Daneels SL/DI

About 20 groups from 4 divisions nominated linkmen to the  
LHC-CP



### **Alarms**

The LASER project (LHC Alarm Project) was launched in 2000 as a joint activity between ST and SL division. At the end of the LHC-CP era the project had made the key technical choices, defined the client API and defined an implementation strategy targeting the end of 2004. Continues in the [AB-CO](#) group.

### **CMW**

The LHC-CP consistently endorsed this joint PS / SL activity as the strategic tool for the LHC Controls environment. Today this is finally well established and responsibility continues in [AB-CO](#).



## **Real Time**

The preparations for a real time feedback system for the LHC were set on a strong theoretical footing by SL/OP and SL/CO in collaboration with EPFL, LHC Project Note 278. Theoretical support continues in **AB-OP** while **AB-CO** are investigating technical issues.

## **LHC Software Analysis**

These studies carried out by SL/CO and SL/AP led to a first documented study of LHC operation, Project Note 313 (and an SL Seminar). Requirements analysis continues in **LHCOP** and the **Hardware Commissioning Working Group**.



## **LHC Logging**

Launched in September 2001 as a joint activity between SL/MR and LHC/IAS. First goal was capture of QRL reception test data but switched to TT40 Shot by Shot logging. Continues in [AB-CO](#).

## **Signals**

Launched in May 2002 to cover delivery of analogue data to the PCR from CERN accelerators. Joint team from SL/HRF, SL/BT, SL/OP, PS/CO, PS/OP, LHC/IAS. Delivered first system for TT40 commissioning and recommendations for second phase (in preparation). Continues in [AB-CO](#).



## **SPS 2001**

Adopted by LHC-CP in November 2001, focussed on LHC Beams from Summer 2002. Delivered TT40 software September 2003. Continues in [AB-OP](#) and [AB-CO](#), re-named LSA, with TI 8 and LHC Commissioning as next milestones.

## **Post Mortem**

Never resourced by the participating groups but a lot of ground work by an ad hoc working group from SL/OP, SL/RF, AC and LHC/ICP, published as LHC Note 303. Continues in [AB-OP](#) and [AB-CO](#).



# *Meetings and Workshops*

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The LHC-CP held about 12 project meetings per year for linkmen, except during the final year. These meetings monitored the sub-projects and were also general information meetings. Narrower meetings continue in **AB-CO-TC**.

There were 4 annual workshops which were catalysts for the sub-projects. Another important result from the 2000 workshop was the search for a project wide SCADA. This was pursued at the CERN Controls Board and way beyond and lead to the final selection of PVSS. After the last workshop we saw the need for a wider scope in future.



# Planning

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After Axel Daneels joined the project in 2001 it took about 12 months to establish a complete overall controls planning for the QRL related controls systems covering all divisions involved. There is no longer a mandate for this activity but recently some of the work is being covered by the **LHC Project** planning, Sylvain Weisz and the **Hardware Commissioning Working Group**.

In parallel with this the LHC-CP worked with the LTI project on the planning and technical coordination for TT40 controls. This continues under the wing of the **LTI project**.



## *Summary*

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The LHC-CP initialised many important projects which have helped shape the future LHC Control System.

Working without a budget was extremely difficult as groups only saw this as a second priority – the reverse should have been the case.

During the re-organisation LHC-CP continued to drive its sub-projects as responsibilities changed. During 2003 most of the work has now been integrated into the new structure.

With the merging of SL/CO and LHC/IAS a strong alternative to the LHC-CP was created. Adding PS/CO changed the priorities so that 2003 was a transition with the project closing at the end of the year.



*And Finally*

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**Thanks to the many collaborators for their support, most especially the Core Team!**