

The end of an ERA: the achievement of the LHC

-
- Robert AYMAR
- Colloquium on the occasion
of LYN EVANS' retirement
- CERN, 15 June 2010

LYN EVANS 'retirement Colloquium

We are here today to recognize the “Master Work”, the LHC, of our colleague LYN, an “Artist in Accelerator Technology” and give our friendly appreciation with a lot of congratulations.

This cannot be done without a personal touch which is linked to our relationship, public and private, during the last twenty years

In my case, my connection with Lyn begins with the start of the LHC Project at the end of the eighties, when it was evident that the performances of a superconducting hadron collider, to be inside the LEP Tunnel, require the use of a new technology if it should be interesting for physics: cooling by Helium at 1.8 K, 1 atm.

The proof of this technology was available from Tore Supra start of operation in 1988 at Cadarache

LYN EVANS' retirement Colloquium

In November 1993, after the SSC cancellation, the first ERC met at CERN with 14 participants (4 from SSC) including G. Claudet and myself as Chair.

-the HeII technology had been already retained after a collaboration of G. Brianti with CEA-DSM, and the project reviewed for the first time in 1991 (B. Wiik Group)

LYN EVANS' retirement Colloquium

The ERC main conclusions were:

.the design of “two in one” cooled by superfluid is realistic for 7 TeV per beam, $10^{34}/\text{cm}^2\cdot\text{s}$

.a clear focus and commitment to a project is necessary to launch more focused R&D at home, to strengthen the manpower if appropriately organized and supported-

15 JUIN 1994



COMMISSARIAT A L'ENERGIE ATOMIQUE

→ R Perin
for action

RECHERCHE
FONDAMENTALE

DIRECTION
DES SCIENCES
DE LA MATIERE

CENTRE D'ETUDES DE SACLAY
ORVE DES MERISIERS
91191 GIF-SUR-YVETTE CEDEX

TELEPHONE: (1) 69 08 74 85
TELECOPIE: (1) 69 08 38 16

Saclay, le 13 juin 1994

DSM/DAPNIA
Service des Techniques
de Cryogénie et de Magnétisme

Monsieur L. EVANS
CERN
CH- 1211 GENEVE 23

N/Réf: S94 086A/RA/AR

Objet: LHC - Accord cadre CEA-CERN sur le développement des technologies nécessaires à la construction des aimants supraconducteurs

Monsieur,

A la suite des réunions que nous avons eues au cours du premier trimestre 1994, vous avez demandé au Service Technique de Cryogénie et de Magnétisme (STCM) une proposition pour des essais et mesures "Point Milieu" du quadripôle LHC n°2. Ces essais comprennent le cycle de refroidissement, de réchauffage et une campagne de dix jours d'essais.

Nous avons évalué le coût de ces prestations à 834 700 FF. Etant donné l'intérêt technologique de cette activité, le CEA est disposé à prendre à sa charge la somme de 118 600 FF.

La somme due par le CERN sera donc de **716 100 FF**, qui sera exigible dans les conditions suivantes :

- 40% à la date de la commande,
- 60% à la fin des essais du quadripôle n°2.

Les paiements seront effectués à trente jours fin de mois de réception des factures, par virements adressés à :

BNP
3-5 place de la République
91400 ORSAY

au compte n° 2110004068, ouvert au nom de Monsieur le Trésorier délégué du CE/Saclay.

La durée des travaux est estimée à 2,5 mois.

Le coût de chaque jour supplémentaire d'essais est fixé à 43 100 FF, le CEA étant disposé à prendre à sa charge 10 860 FF, la somme due par le CERN sera donc de **32 240 FF**.

Si ces dispositions vous agréent, je vous demande de bien vouloir me renvoyer, signé, le double ci-joint de la présente lettre ou de m'adresser une commande dont les termes seront identiques.

Je vous prie de croire, Monsieur, à l'expression de mes sentiments distingués.

Robert AYMAR
Directeur des Sciences de la Matière

LYN EVANS' retirement Colloquium

Lyn was in charge of reporting to the ERC: the development strategy, the industrial policy and the possible schedule.

His contribution provided me and all Committee Members the confidence in his personality and competences to become the future Head of the Project.

The second ERC in 2002 (nine participants, including S. Lettow, E. Fernandez, I. Mannelli, J. Peoples and myself as Chair) was a more difficult job: how to overcome financial difficulties and how to adapt the management procedures to the LHC challenges .

In conclusion, a positive assessment of the technical basis, much less satisfactory in matter of financial reporting and cost awareness

LYN EVANS' retirement Colloquium

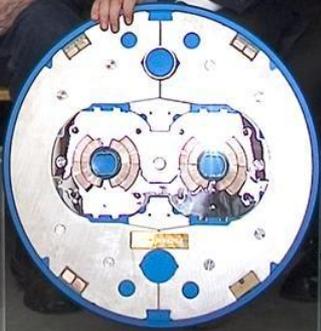
- -The Project Office was too small a structure for such a large project; no new cost analysis from 1996 until 2001 and a lot of changes in-between .
- -The introduction of EVM gave Lyn the possibility to get the hand on cost-schedule-performance and available manpower for each Group Activities (other management tools were also helpful)-
- -A large number of Committees were built with different charters distributing extensively a large amount of information, somewhat redundant, not clearly linked to decisions.



BINP, NOVOSIBIRSK, 09.02.2004

DAYS TO COMPLETION
DIPOLES TO COMPLETION
TODAY DEADLINE

7 MARS 2005
DIPOLE
n° 616





08:36
DAYS TO COMPLETION
13
DIPOLES TO COMPLETION
13
TODAY DEADLINE

27 November 2006
DIPOLE
n° 1232
... THE LAST ONE

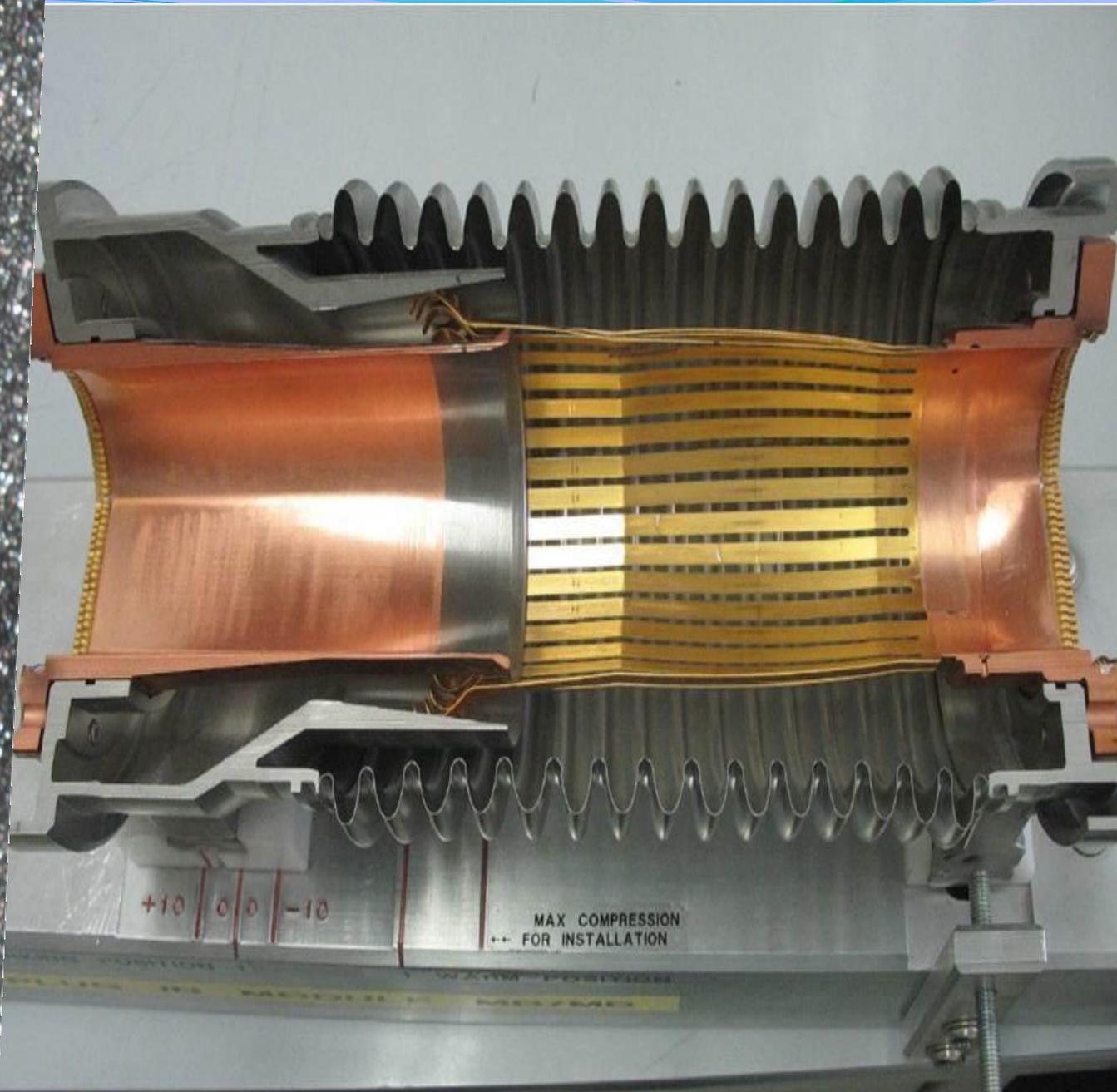
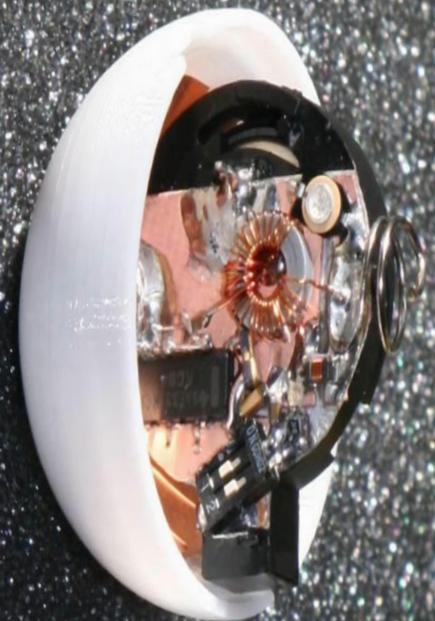
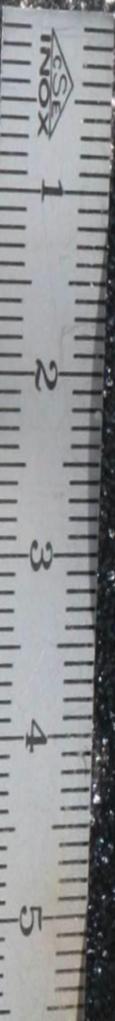
Alstom
Belfort
Director Cockers
Ernesto Molteni
Giovanni F. Milan
Simec SpA
Generale Conest

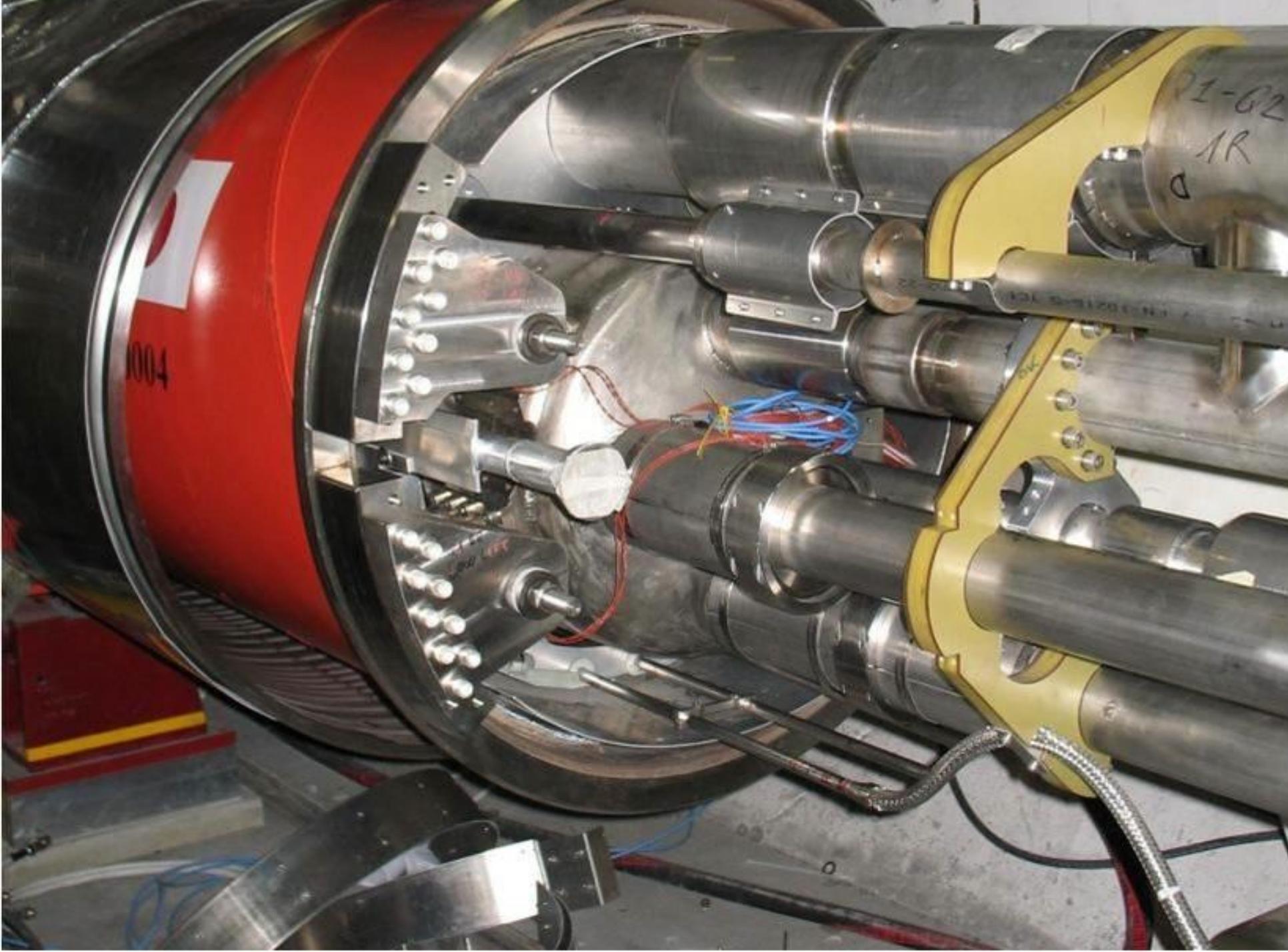




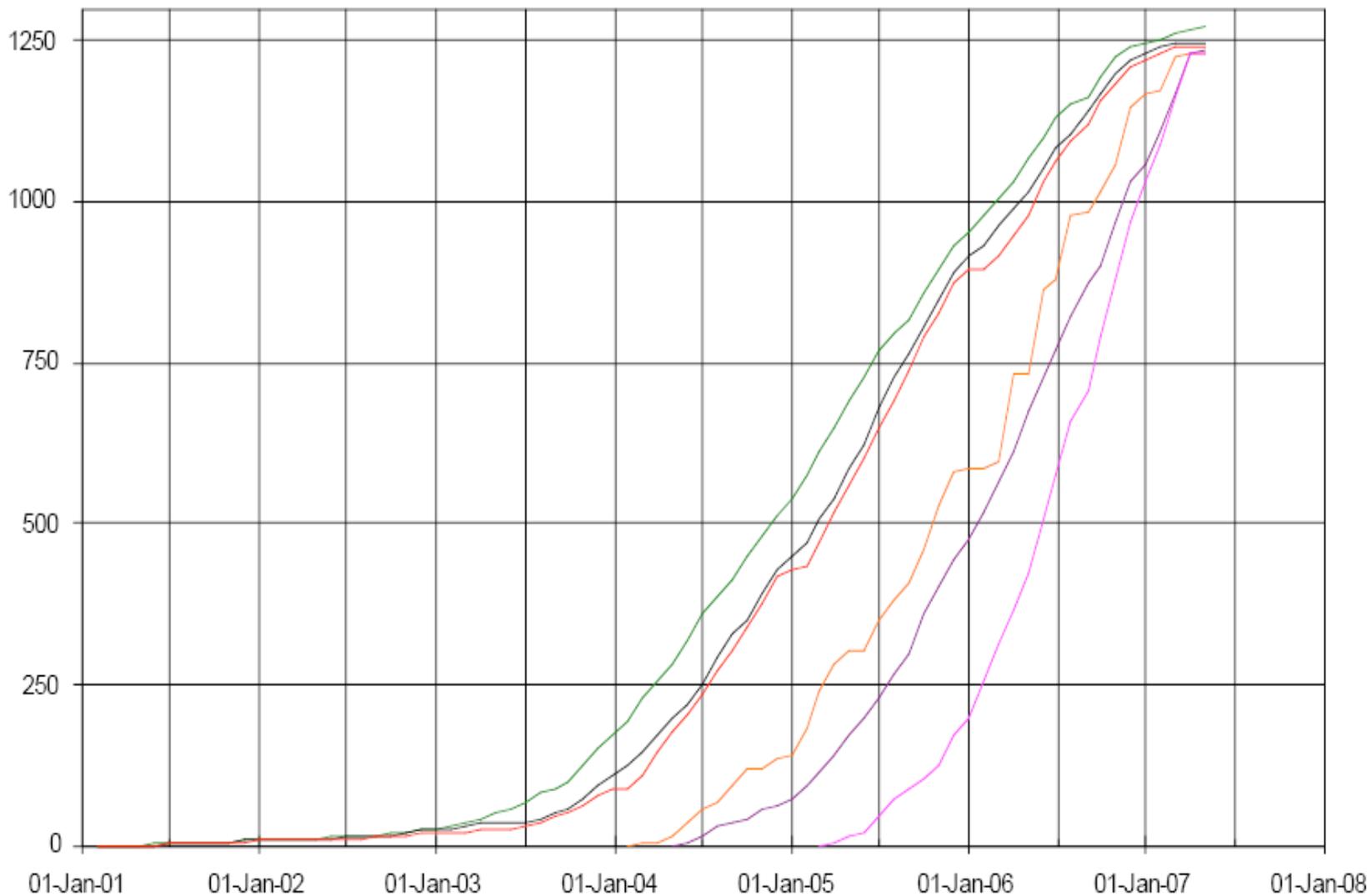
LYN EVANS' retirement Colloquium

-
- The most effective leaders are recognized when facing
- Adversity; the LHC construction offered (as usual)
- a lot of opportunities to LYN to show his strength:
- - industrial failures, bankrupts, etc...
- - the cryogenic distribution lines fabrication/installation
a nightmare with a reasonable end !
- -the PIMS difficulties and an elegant solution
from a golf player !
- - the Triplets ...not appreciated as a system but in-situ cured
- - the Infamous "Incident" of September 19th 2008.....





Equivalent dipoles



LYN EVANS' retirement Colloquium

What about Lyn' personality and competences?

- an extremely competent “Technical Leader”, with a well balanced judgment and a lot of common sense, which builds confidence; a “pur produit” of CERN: much more interested by technical than administrative matters;
- very open to dialogue, able to listen carefully, supportive of Committees members, when in agreement, but strongly decisive in other conditions ;
- full of attention and respect for in-field work, he was going there every day, better pleased than in committee; but very active in meetings as soon as an issue becomes a problem till it is solved;
- not a standard “Manager”, but capable with specialized help to lead a Project as complex as LHC to success.



LHC first beam 10 September 2008









LHC Inauguration
Geneva, 21 October 2008



Inauguration LHC
Genève, le 21 Octobre 2008



Inauguration
Geneva, 21st October 2008



LHC Inauguration
Geneva, 27th October 2008

LHC Inauguration
Geneva, 27th October 2008



LHC Inauguration
Geneva, 27th October 2008



LYN ,

YOU HAVE BUILT THE LHC,

YOU SHOULD BE PROUD OF YOUR ACHIEVEMENT

which will allow CERN to add this success to the preceding ones and thus continue enjoying the worldwide highest reputation.

I am sure that those, who have work around you, will join me to express our Esteem and Respect, looking forward to remain your Friends.

CONGRATULATIONS and BEST WISHES