Acknowledgments

Many people, scientists, engineers, technicians, administrators and others have contributed to the success of LEP. Without their dedication and efforts LEP could never have been realized. It is impossible to thank all of them individually.

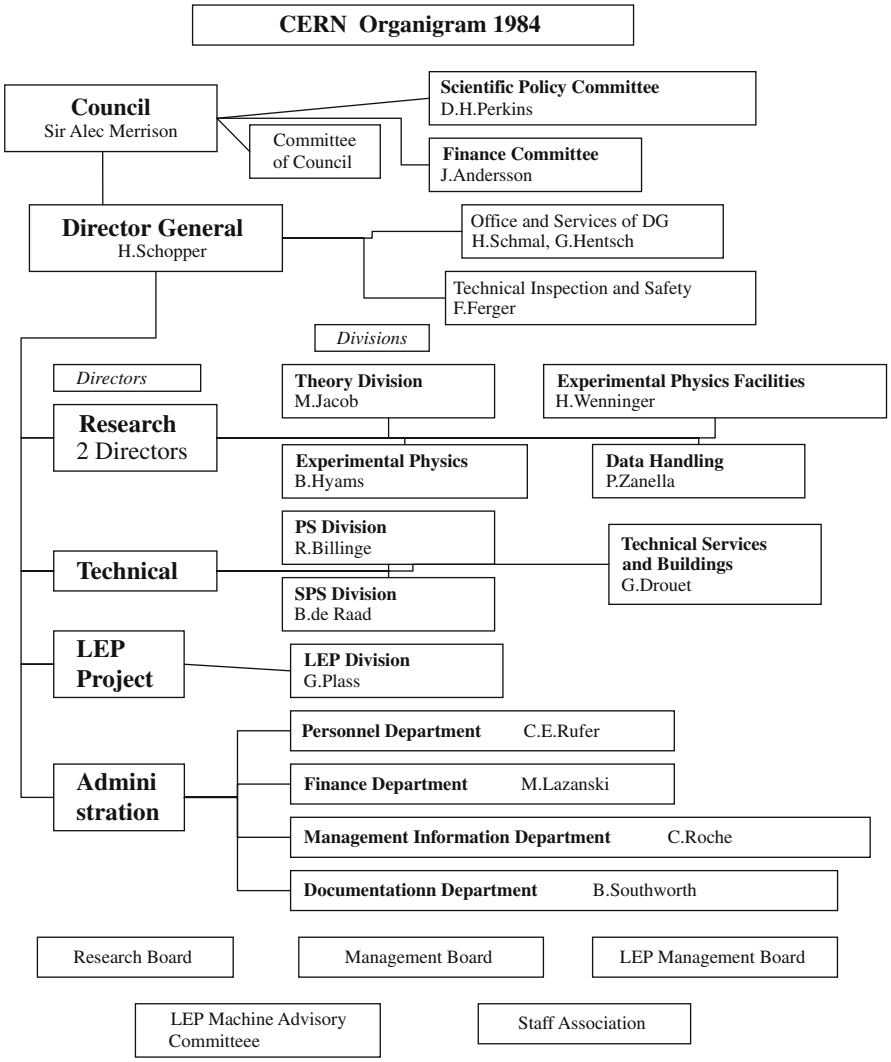
My special thanks go to some colleagues who have helped in editing this book. In particular I should like to thank warmly Emilio Picasso for reading the whole book very carefully. He checked many details, applied many corrections and made a number of suggestions. Sir Chris Llewellyn-Smith gave me many hints concerning the later stages of LEP when he was Director General. Christian Caron from Springer Verlag and the staff were essential in putting the book into its final form.

All the photos were taken from the CERN archives or CERN brochures and CERN has the copyright. Sometimes it was not easy to find them and some were not in a digitized format. Keith Potter and Ray Lewis deserve many thanks for helping in this respect. The quality of some of the figures is therefore not optimal but for a historical report it seemed better to reproduce them as they were used at that time.

I would also like to thank warmly Rolf-Dieter Heuer for contributing the Foreword in spite of his heavy engagement as Director-General of CERN.

Finally my incessant thanks are due to my wife Ingeborg for her steady moral support and her patience.

Appendix: CERN Organigram 1984



Appendix: Leading CERN Staff During the LEP Project
(Appointed by CERN Council)

Directors-General

L. van Hove (Scientific Director-General) and J. Adams (Managing Director-General) (1976–1980)
H. Schopper (1981–1988)
C. Rubbia (1989–1993)
C. Llewellyn-Smith (1994–1998)
L. Maiani (1999–2003)

Directorate

Research (two in parallel):

E. Gabathuler (1981–1986), R. Klapisch (1981–1986), I. Butterworth (1983–1986), J. Thresher (1987–1991), P. Darriulat (1987–1993), W. Hoogland (1989–1993), L. Foà (1994–1998), H. Wenninger (1994–1999), C. Detraz (1999–2003), R. Cashmore (1999–2003)

Accelerators: G. Brianti (1981–1989), G. Plass (1990–93), K. Hübner (1994–2003)

LEP Project Leader: E. Picasso (1981–1989)

LHC Project Leader: L. Evans (since 1994)

Administration: H. Heyn (1981–1988), G. Vianès (1989–1991), H. Weber (1992–1994), M. Robbin (1995–2000)

Human Resources: G. Martinez (1986–1988)

Technologies: H.F. Hoffmann (1990–1999), J. May (1999–2003)

Informatics: R. Billinge (1992–1993)

Forecast and Planning: C. Roche (1992–1993)

Division and Department Leaders

Theory: J. Prentki (until 1982), M. Jacob (1983–1988), J. Ellis (1989–1991), G. Veneziano (1994–1997), A. de Rujula (1997–2000)

Experimental Physics: A. Wetherell (1981–1983), B. Hyams (1984–1987), F. Dydak (1988–1990), J.V. Allaby (1991–1995), G. Goggi (1995–2001)

Experimental Physics Facilities: A. Minten (1976–1983), H. Wenninger (1984–1989), P.G. Innocenti (1990–1994), M. Turala (1994–1998)

Data Handling: P. Zanella (1981–1988), D.O. Williams (1989–1997), J. May (1997–1999)

LEP: G. Plass (1983–1989)

SPS+LEP: L. Evans (1990–1993), K.H. Kissler (1994–1999), S. Myers (2000–2003)

Proton Synchrotron: G. Munday (1973–1981), R. Billinge (1982–1990), K. Hübner (1991–1993)

Super Proton Synchrotron: G. Brianti (1979–1980), B. de Raad (1981–1989), L. Evans (1990–1994), K.H. Kissler (1994–2000)

Technical Services and Buildings: H. Laporte (1981–1982), G. Drouet (1983–1985)

Finance Department: C. Tièche (1970–1981), M. Lazanski (1982–1988), A. Naudi (1989–2003)

Personnel Department: F. Niemann (until 1981), C. Rufer (1982–1986), N. Blackburn (1986–1987), G. Michel (1988–1990), W. Middelkoop (1991–1995), B. Angerth (1996–1998)

Documentation Department: B. Southworth (1982–1985)

Management and Information Department: H. Roche (1982–1985)

Technical Inspection and Safety Commission: F. Ferger (1983–1986), K. Potter (1987–1990), B. de Raad (1991–1996)

This list does not give details on the creation, reorganization or dissolution of divisions and departments. More information can be obtained at http://library.cern.ch/archives/internorg/internalorganization.html.

Glossary

AdA	Anello di Accumulazione; the first electron–positron collider built in the 1960s at Frascati National Laboratories, Italy
ACO	Anneau de Collisions d'Orsay; an electron–positron collider in Orsay, France
ADONE	The bigger successor of AdA at Frascati National Laboratories
ALEPH	Apparatus for LEP Physics; one of the four LEP experiments
ALICE	A Large Ion Collider Experiment; one of the four LHC experiments
ATLAS	One of the four LHC experiments
BEBC	Big European Bubble Chamber; built at CERN in the 1970s
CEA	Commissariat à l'Energie Atomique; a major French organization for research and development, in particular and originally, for atomic and nuclear energy research
CERN	Conseil Européen pour la Recherche Nucléaire; original name of the European Laboratory for Particle Physics in Geneva
CHEEP	An electron–positron facility proposed for the SPS at CERN in the 1970s
CMS	Compact Muon Spectrometer; one of the four experiments at the LHC
DELPHI	Detector with Lepton, Photon and Hadron Identification; one of the four LEP experiments
DESY	Deutsches Elektron Synchrotron; research laboratory in Hamburg, Germany
DORIS	Doppelspeicher Ring-System; an electron–positron collider with two rings at DESY, also used for synchrotron radiation experiments
ECFA	European Committee for Future Accelerators
ELECTRA	One of the experiments proposed for LEP but not accepted
EPA	Electron–Positron Accumulator; part of the beam injection system for LEP

EUROLEP	International consortium for the tunnelling of LEP consisting of the companies Impresa Astaldi (Italy), Entrecanales y Tavora (Spain), Fougerolle (France), Philipp Holtzmann (Germany) and Rothpletz Lienhart et Cie (Switzerland)
FKZ	Forschungszentrum Karlsruhe; at Karlsruhe, Germany
FNAL	Fermi National Accelerator Laboratory; near Chicago, USA
GLLC	International consortium for the tunnelling of LEP consisting of the companies C. Baresel (Germany), Chantiers Modernes (France), CSC Impresa Costruzioni (Switzerland), Intrafor-Cofor (France), Locher (Switzerland), and Wayss et Freitag (Germany)
HERA	Hadron-Elektron-Ring-Anlage; a proton–electron collider at DESY
IHEP	Institute for High Energy Physics; at Protvino, Russia
ILC	International Linear Collider; a possible successor to the LHC under discussion as a world project
INFN	Istituto Nazionale de la Fisica Nucleare; the Italian National Institute supporting nuclear and elementary particle physics
ISR	Intersecting Storage Rings; the first proton–proton collider at CERN (30 GeV)
JADE	Japan, Deutschland, England; a compact magnetic detector at PETRA (DESY)
JINR	Joint Institute for Nuclear Research; in Dubna, Russia, created according to the CERN model for the Warsaw-block states
KEK	High Energy Accelerator Research Organization, in Japan
L3	One of the four LEP experiments; named so because of the third submitted letter of intent
LAL	Laboratoire de l'Accélérateur Linéaire; near Paris, France
LEP	Large Electron–Positron Collider; at CERN, Switzerland/France
LHC	Large Hadron Collider; at CERN, Switzerland/France, the largest proton–proton collider ever built, successor to LEP using the LEP tunnel
LHCb	One of the experiments at the LHC; specialized for B physics
LIL	LEP Injection Linac; part of the LEP beam injection system

LOGIC	A plastic ball detector; one of the experiments proposed for LEP but not accepted
LRPC	Long Range Planning Committee; created by CERN Council in 1985
OPAL	Omni-Purpose Apparatus for LEP; one of the four LEP experiments
PEP	Positron–Electron Project; a positron–electron collider at SLAC
PETRA	Positron–Elektron-Tandem-Ring-Anlage; a positron–electron collider with a beam energy of 19 GeV at DESY
PS	Proton Synchrotron; a proton accelerator at CERN (30 GeV), now also accelerating electrons and ions
QCD	Quantum chromodynamics. The (quantum field) theory of the strong nuclear force
QED	Quantum electrodynamics. The (quantum field) theory of the electromagnetic force
RAL	Rutherford Appleton Laboratory; in the UK
RICH	Ring imaging Cherenkov counter. A detector giving information on the speed of particles
STAC	Sampling total absorption counter. A detector component measuring the energy of hadrons, usually called a 'hadron calorimeter'
SC	Synchro-Cyclotron; the first accelerator at CERN (proton energy of 600 MeV)
SERC	Science and Engineering Research Council; in the UK
SESAME	Synchrotron Light for Experimental Science and Applications in the Middle East; a synchrotron radiation laboratory created under the auspices of UNESCO according to the CERN model
SLAC	Stanford Linear Accelerator Center; in Stanford, California, USA, with a 1-mile-long linear accelerator for electrons
SLC	Stanford Linear Collider; a positron–electron collider with a beam energy of 50 GeV at SLAC
SPC	Scientific Policy Committee; advising the CERN Council

SPS	Super Proton Synchrotron; a proton accelerator at CERN (400 GeV) which started operation in 1976. Later it was transformed into a proton–antiproton collider, leading to the discovery of the W and Z particles in 1983
SSC	Superconducting Super Collider; large proton collider with a beam energy of 20 TeV in the USA. Construction was started but stopped by the US Congress
SUSY	Supersymmetry. An extension of the standard model by requiring a further symmetry between matter particles and particles carrying the forces (interactions)
TEVATRON	Proton accelerator and storage ring at FNAL, reaching beam energies of 1 TeV
TPC	Time projection chamber. A detector to reconstruct particle tracks in three dimensions
TRISTAN	Electron–positron collider at KEK in Japan
UNESCO	United Nations Educational, Scientific and Cultural Organization
UA1, UA2	The two experiments at the SPS, discovering the W and Z particles in 1983
VBA	Very Big Accelerator; a hypothetical accelerator discussed as a world project
World Wide Web	A system of extensively linked hypertext documents; developed at CERN

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