

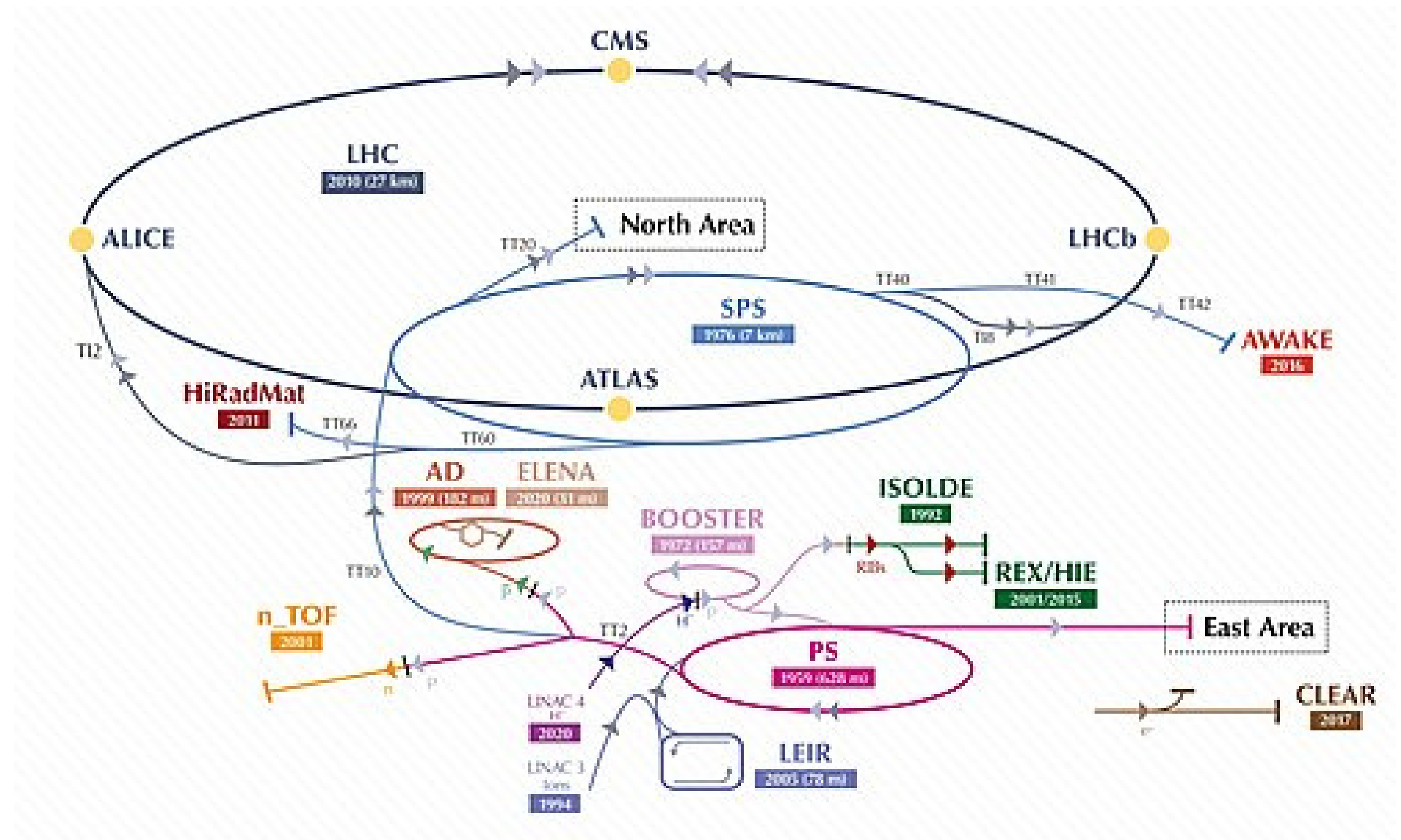
PS Digitization Project

Presented by Lydia Pieper, librarian

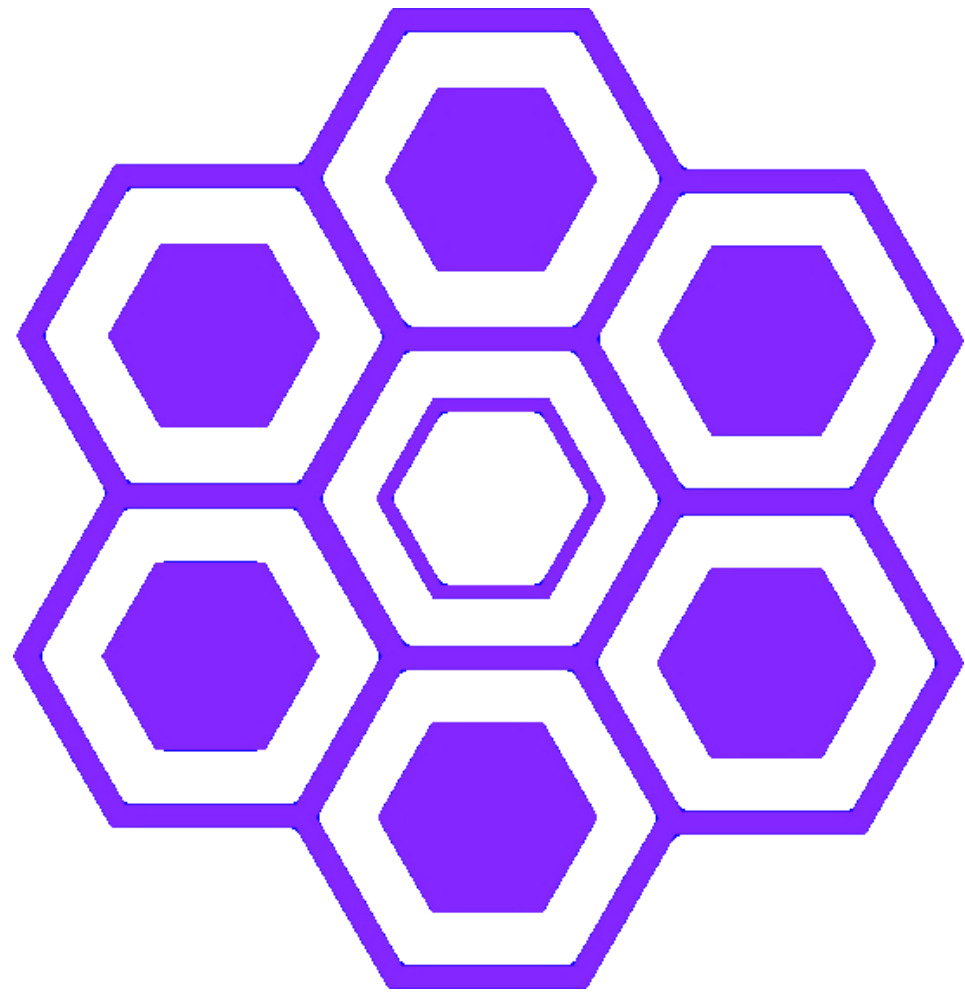
CERN Scientific Information Service



The Proton Synchrotron accelerator



Project's goals



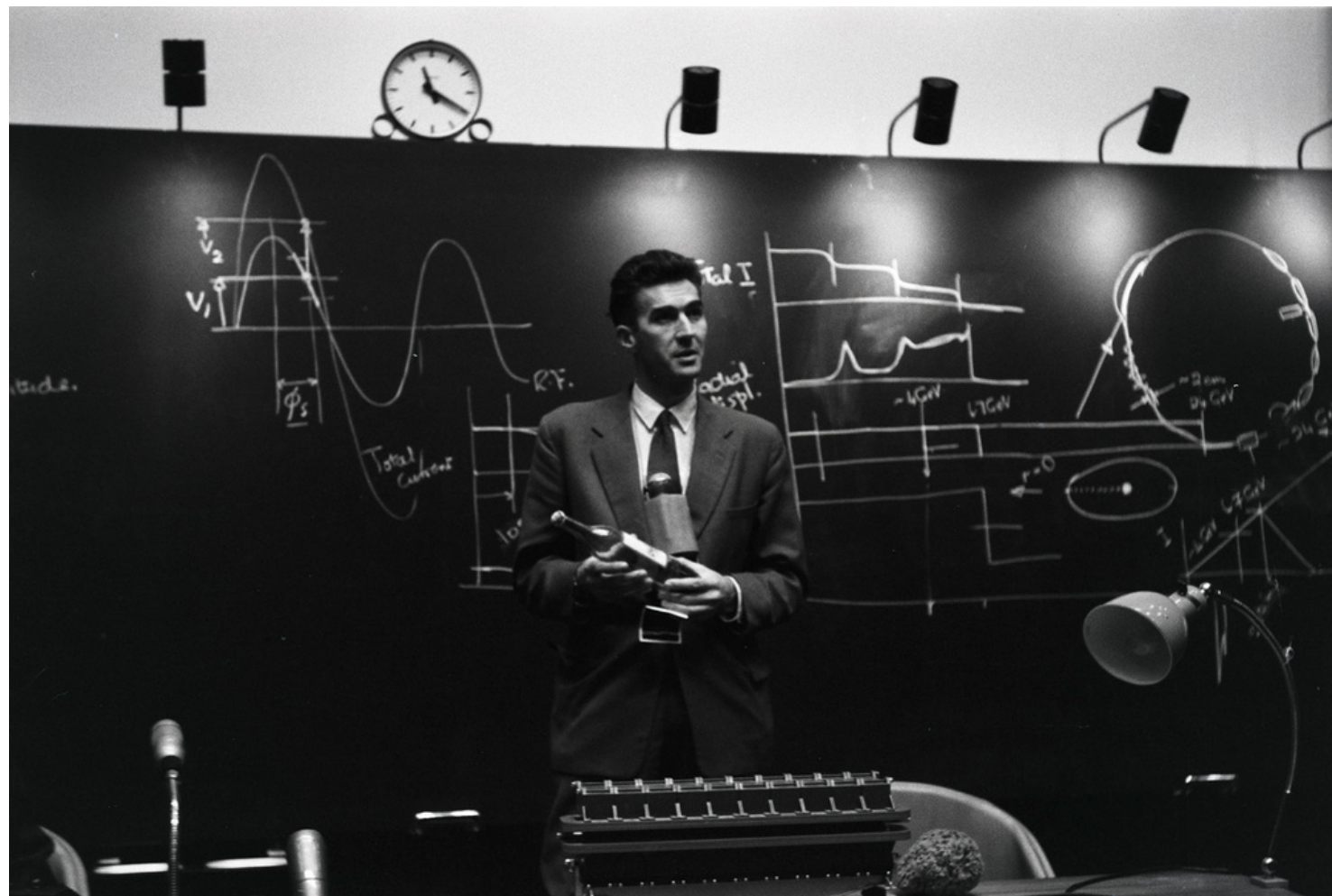
CERN's Scientific Information Service intends to expand its digital library

Digitize the PS collection and make it available via the CERN document server (CDS)

This project is inspired from the digitization of the CERN Annual Reports, the CERN Courier and the Bulletin

PS reports are much more specific, but the digitization of Council and committee documents demonstrates that specific documentation is also consulted

Why this project?



1959

Proton Synchrotron (PS) reached an energy of 24 GeV on 24 Nov.

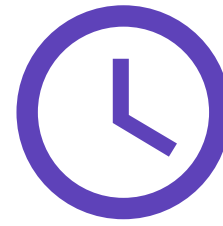
2000

Until 2000, most of the documents were hard copy

TODAY

Consultation of historical reports to solve current technical problems

Problems



Loss of time

Searching for specific information can be a real challenge



No text search

Necessity to browse the whole document



Consultation only on request

Documents are not available 24/7

Advantages



Time saver

Better access to documents at any time



OCR functionality

Searching in text will be possible and will allow much faster access to the required information



Long-term digital preservation

Master copy in TIFF format and consultation copy in PDF

About documents

20'000

REPORTS

1000 folders

260'000 pages

Technical notes, technical reports, minutes of technical meetings

3

LANGUAGES

English

French

German

A4

FORMAT

Single and double sided

Typed text

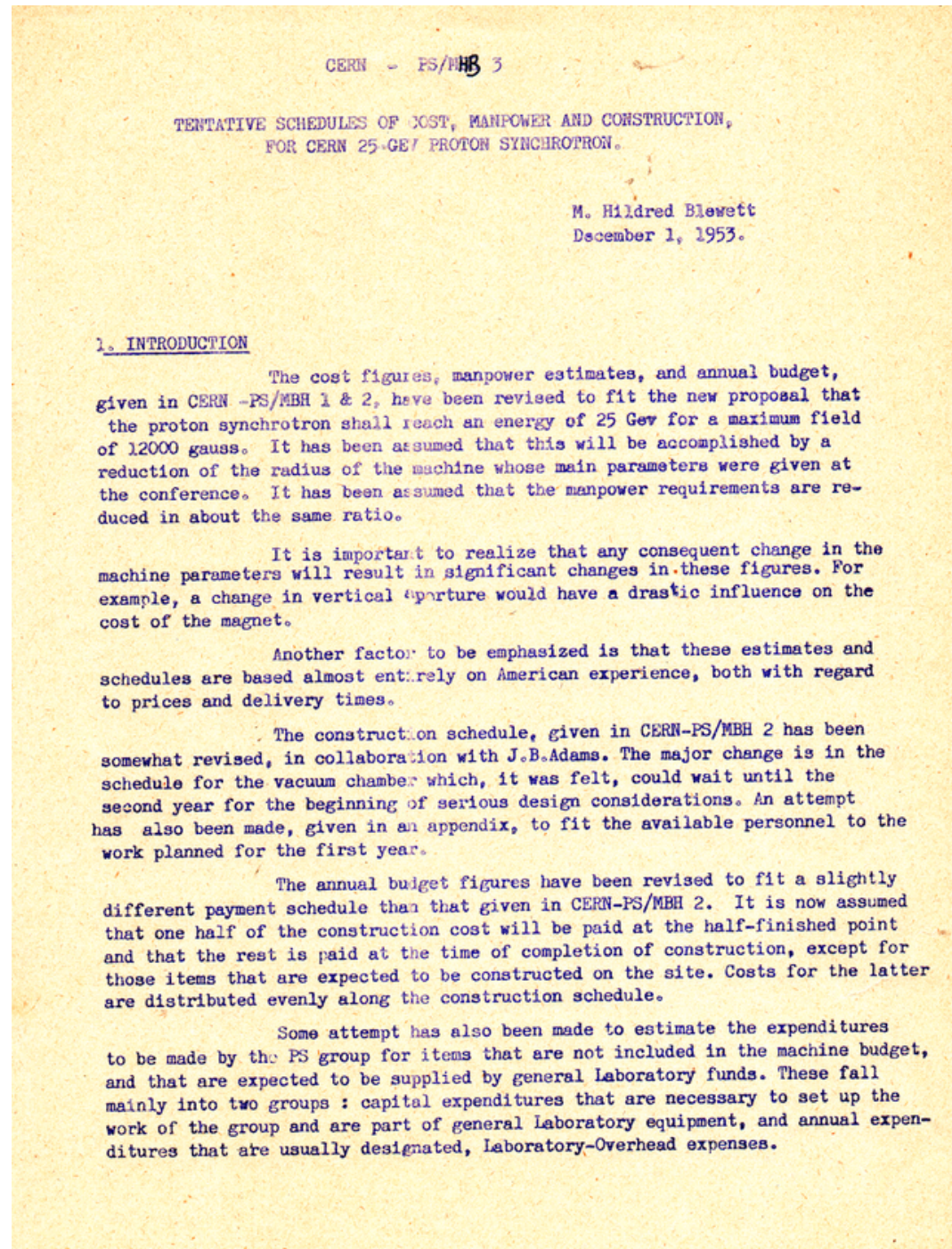
Stapled documents

No colored documents

With tables, figures, mathematical formulas...

And concretely?

TIFF



PDF

CERN - PS/MBH 3

TENTATIVE SCHEDULES OF COST, MANPOWER AND CONSTRUCTION,
FOR CERN 25 GEV PROTON SYNCHROTRON.

M. Hildred Blewett
December 1, 1953.

1. INTRODUCTION

The cost figures, manpower estimates, and annual budget, given in CERN -PS/MBH 1 & 2, have been revised to fit the new proposal that the proton synchrotron shall reach an energy of 25 Gev for a maximum field of 12000 gauss. It has been assumed that this will be accomplished by a reduction of the radius of the machine whose main parameters were given at the conference. It has been assumed that the manpower requirements are reduced in about the same ratio.

It is important to realize that any consequent change in the machine parameters will result in significant changes in these figures. For example, a change in vertical aperture would have a drastic influence on the cost of the magnet.

Another factor to be emphasized is that these estimates and schedules are based almost entirely on American experience, both with regard to prices and delivery times.

The construction schedule, given in CERN-PS/MBH 2 has been somewhat revised, in collaboration with J.B.Adams. The major change is in the schedule for the vacuum chamber which, it was felt, could wait until the second year for the beginning of serious design considerations. An attempt has also been made, given in an appendix, to fit the available personnel to the work planned for the first year.

The annual budget figures have been revised to fit a slightly different payment schedule than that given in CERN-PS/MBH 2. It is now assumed that one half of the construction cost will be paid at the half-finished point and that the rest is paid at the time of completion of construction, except for those items that are expected to be constructed on the site. Costs for the latter are distributed evenly along the construction schedule.

Some attempt has also been made to estimate the expenditures to be made by the PS group for items that are not included in the machine budget, and that are expected to be supplied by general Laboratory funds. These fall mainly into two groups : capital expenditures that are necessary to set up the work of the group and are part of general Laboratory equipment, and annual expenditures that are usually designated, Laboratory-Overhead expenses.

MARCXML

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For PDF documents

in radius. This item includes the cost of the power stations and required.

Rechercher (1/1) ×

energy of the injector ⚙

Précédent Suivant

C. Vacuum System

The total cost has been reduced by 5/6 to give S.F. 0.8 million.

D. Injection System

A 50-Mev Linac and associated injecting equipment- S.F. 6.0 million

It is probable that the energy of the injector would not be reduced since, the higher the injection field, the less trouble with field irregularities from remanent fields, eddy currents, etc. The chosen figure of 50 Mev has always been regarded as a practical maximum for a Linac injector.

CONVERSION TO
SEARCHABLE PDF
FILES

For PDF documents

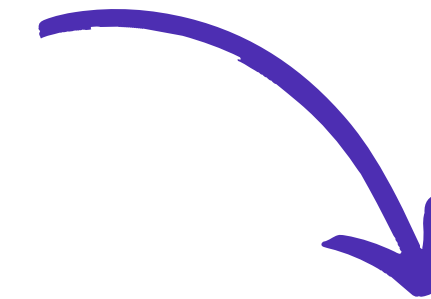
CLEANED-UP PDF
FILES

CERN - PS/JPB1

STATUS OF ALTERNATING-GRADIENT ACCELERATOR PROJECTS
IN THE UNITED STATES ON JUNE 1st, 1953.
(Reported by J.P.Blewett at Group Meeting in Paris,
June 22nd - 24th, 1953.)

Five projects in the United States now have as their goal the design of alternating gradient synchrotrons for energies of 1 Gev or higher. Of these, one, at Cornell University (Ithaca, N.Y.) is already under construction. The other four are design projects and are centered at Cambridge (Massachusetts), Princeton (New Jersey), Chicago, and Brookhaven.

The Cornell machine is an electron machine for about 1 Gev. It has removable pole tips and can be operated as a conventional synchrotron or as an alternating synchrotron with an n value of 21. Injection is at 2 Mev from a Van de Graaff accelerator. One quadrant of the magnet is complete and the remainder of the magnet should be erected this summer. This work is under the direction of R.R.



CERN - PS/JPB1

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CERN Document Server

<https://cds.cern.ch/collection/PS%20Archive>

CERN Document Server

Recherche Soumettre Aide Personnaliser

Accueil > CERN Accelerators > PS Complex > PS Archive

PS Archive

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[1st Reports](#) - [Authors Reports](#) - [PS Committees](#) - [Bulletin Info](#)

Derniers ajouts:

2023-05-08
16:01 **Instructions de service concernant l'installation de refroidissement de la chambre a bulles de 2 m / Anders, E**
CERN-MPS-PO-Note-68-04; MPS-PO-Note-68-4.- Geneva : CERN, 1968 - 6 p. **Fulltext:** [PDF](#);

[Notice détaillée - Notices similaires](#)

2023-05-08
16:01 **Instructions d'exploitation de la nouvelle alimentation du P.S. / Bayard, O**
CERN-MPS-PO-Note-68-03-Rev-2; MPS-PO-Note-68-3-Rev-2.- Geneva : CERN, 1969 - 60 p. **Fulltext:** [PDF](#);

[Notice détaillée - Notices similaires](#)

Report

Report number	CERN-MPS-LIN-Note-75-34 ; MPS-LIN-Note-75-34
Title	Instrumentation pour le LEBT
Author(s)	Tetu, P
Affiliation	(CERN)
Publication	1975.- 8 p.
Subject category	Accelerators and Storage Rings
Accelerator/Facility, Experiment	CERN PS
Copyright/License	© CERN (License: CC-BY-4.0)

Preview

1 / 8

1

2

Project timeline

2021

Final choice of the company

First batch sent to India in August: approx. 11'000 doc.

First document test in October

First scannings received in November

2022

Digitization of the first batch in progress

Second batch sent in December: approx. 5'000 documents

2023

Digitization of the first batch finished, but metadata work still in progress!

Digitization of the second batch in progress

Total of online documents today: 10'636

2024

Probably a third and last batch with the remaining documents

Planned end of project



Thanks for your attention!

Any questions?