



50 Years of Hadron Colliders: communicating the history of science through podcasts

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7th October 2022

Who I am: a 360° science communicator



1987 Master's degree Trieste, Simultaneous Interpreter

1990 CERN P.A. DG Carlo Rubbia

1994 CERN outreach, Section + Group leader

1997 Master's Science Journalism SISSA, science journalism in Italy (press and TV) and project leader + event and multimedia producer /host/author at CERN - documentaries for RAI (Italian national TV); writer for CERN Courier

2016 Head of Audio-visual Productions CERN: producer, host, writer, public speaker

2020 Head of editorial Content Productions



**Director for International Relations
DG-DI-IR**

**Diplomatic and Stakeholder Relations
IR-DS**

Host State
IR-DS

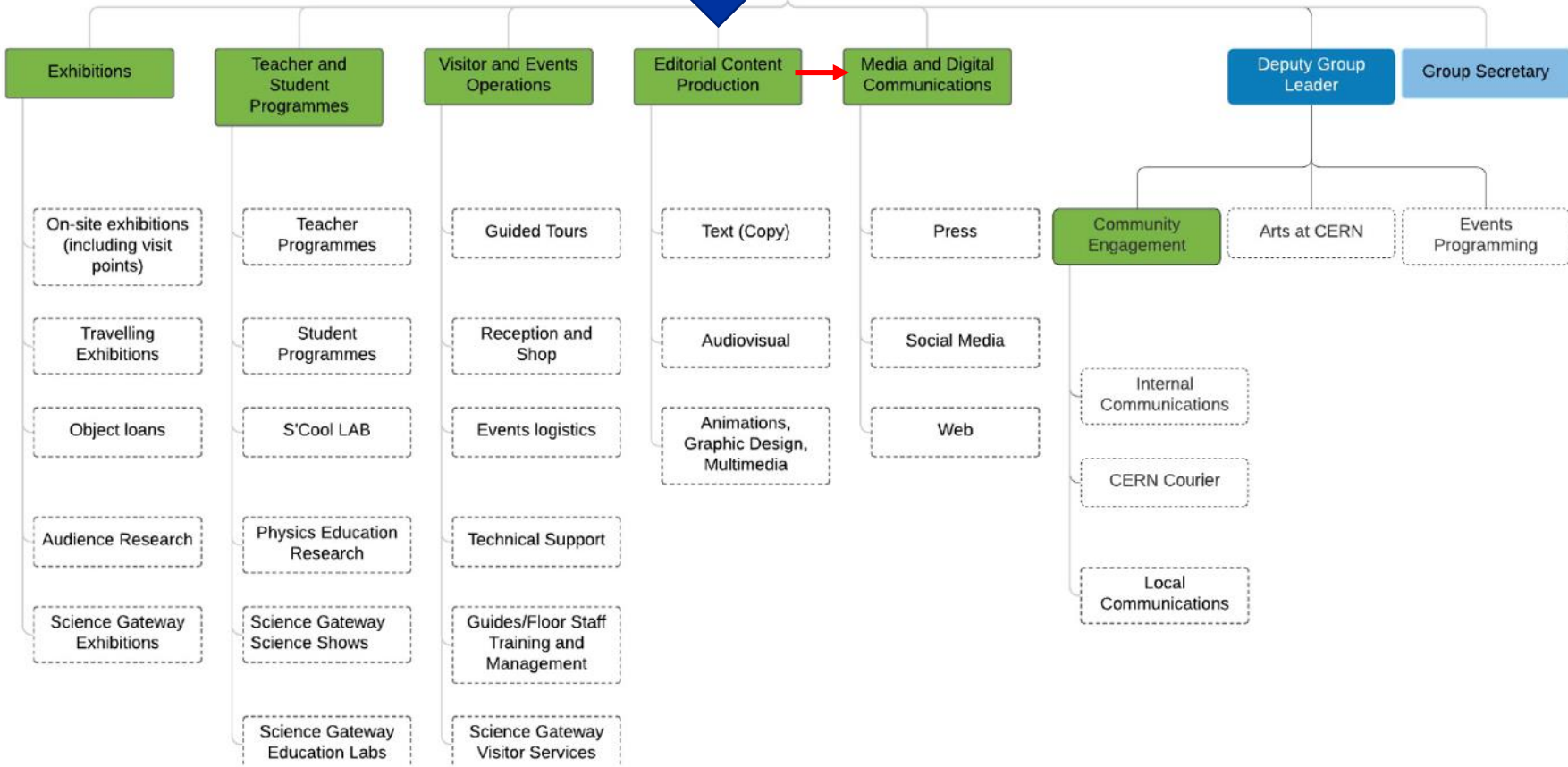
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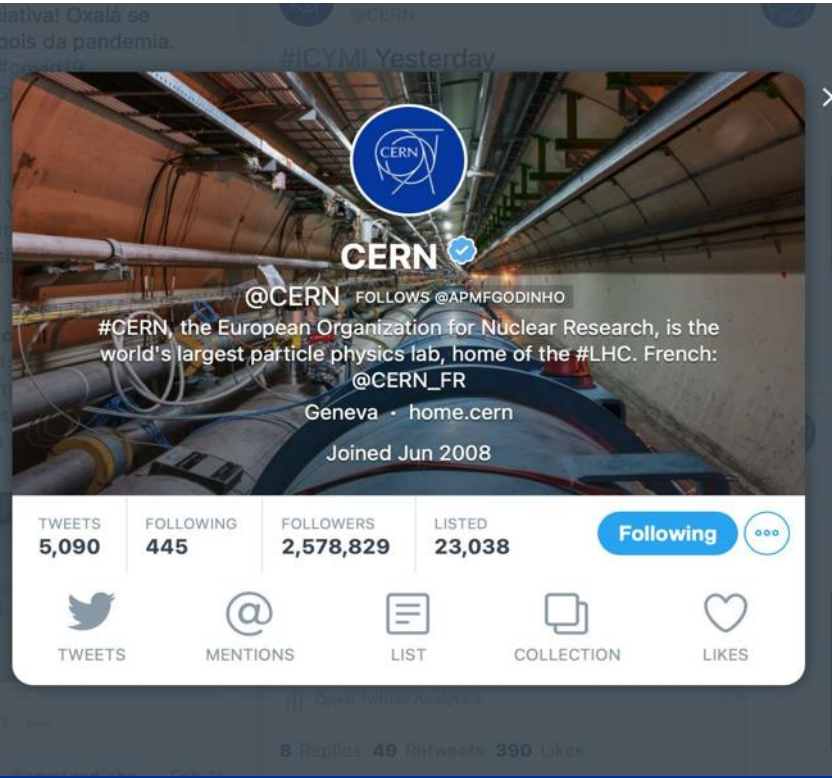
Alumni R
IR-DS

Protc
IR-DS

**Education, Communications and Outreach
IR-ECO**



How do we communicate?



VIA THE MEDIA
press-releases and media updates, media visits, relations, training

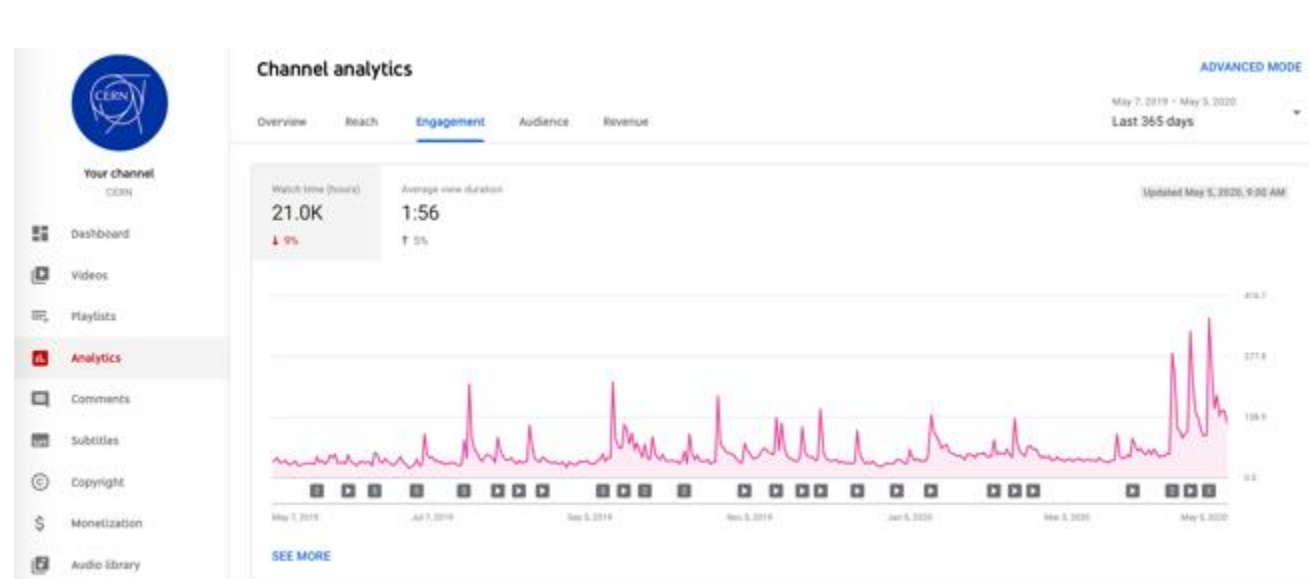
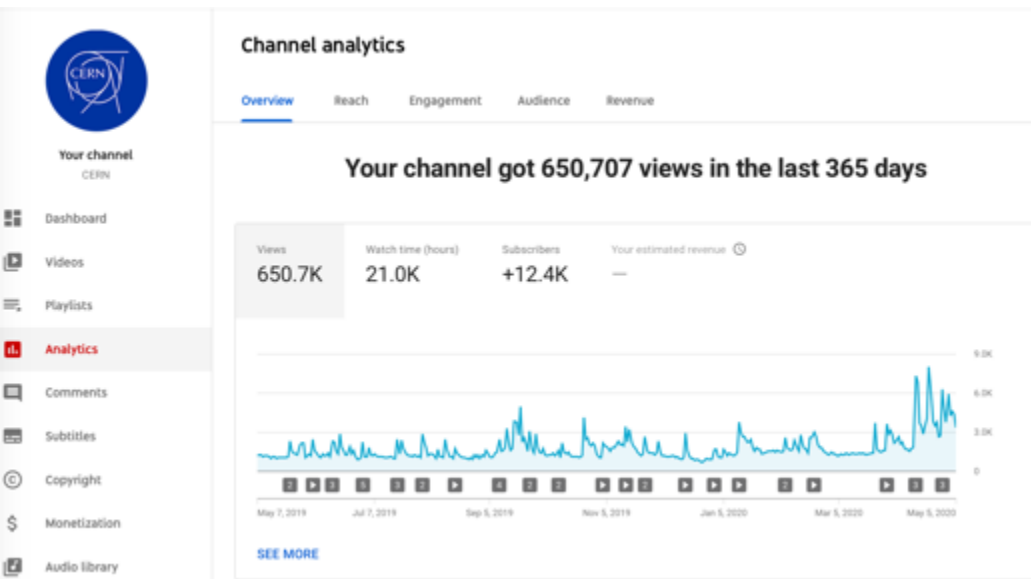


DIGITAL CHANNELS
Home.cern, Courier, Bulletin, Twitter, Fb, Instagram, LinkedIn

FACE-TO-FACE
Tours, events, teachers & students programmes, local community



Explainer-type video series on CERN specific scientific achievements and activities targeted to **non-expert science passionate/enthusiasts** (ie. the vast majority of the CERN YT Channel subscribers)



#LHCRun3 LIVE – 5 July 2022

- **Live** for 1H50, with running commentary, from 4 LHC experiments + CCC (main hub) + data centre
- Streamed on Facebook (CERN + 4 experiments), LinkedIn, Twitter, YouTube - **Total of 13 platforms** + CERN webcast + high quality Eurovision satellite
- Commentary in 5 languages – EN, FR, IT, DE, ES. Moderation by 4 social media managers + 20 experts

Outcomes

- ❑ **11,557,580** impressions (reach)
- ❑ **4,732,869** views of the LIVE, inc. Reuters
- ❑ **59,626** engagements (>**27K** comments and questions)
- ❑ **75,737** concurrent viewers
- ❑ Hashtags caught **trending** in CH, FR, UK, US



CERN
@CERN

Live from CERN: Join us for the first collisions for physics at 13.6 TeV!

CERN Control Centre

CMS

LHCb

ALICE

ATLAS

Luminosity Rate (Collisions/sec)

Energy 6800 GeV

B1 Intensity : 2.4 E11

CERN · 375.6K viewers

51:15 / 1:50:50

CERN @CERN

Live from CERN: Join us for the first collisions for physics at 13.6 TeV!

CERN Communications Strategy 2021-25

Structure

CERN's Strategic Objectives

Vision and Mission

Communication Challenges and Opportunities

Communication Goal and Objectives

Narratives and
Key Messages

Target Audiences

Key
messages

Channels

KPIs

Partners and
Ambassadors

Communication
hooks

CERN Main Objectives 2021-2025

CERN/SPC/1153/Rev.
CERN/3556/Rev.
Original: English
30 September 2021

ORGANISATION EUROPÉENNE POUR LA RECHERCHE NUCLÉAIRE
CERN EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH

Based on the 2020 update of the European Strategy for Particle Physics (ESPPU)

- **Deliver world-class scientific results and knowledge**
- **Increase the return to the Member and Associate Member States**
- **Strengthen CERN's impact on society**

All projects and activities are, or will be, carried out in cooperation with other **Labs** and **institutes in the Member and Associate Member States** and beyond.

Action to be taken

Voting Procedure

| | | |
|-----------------|--|---|
| For information | SCIENTIFIC POLICY COMMITTEE 324 th Meeting 20-21 September 2021 | - |
| For information | RESTRICTED COUNCIL 204 th Session 23 September 2021 | - |

CERN'S MAIN OBJECTIVES FOR THE PERIOD 2021-2025

This document describes the CERN Management's vision for the period 2021-2025, its term of office. The objectives envisaged cover CERN's scientific programme and other strategic activities that are crucial to the mission and future of the Organization. This updated version takes into account the feedback provided by the SPC and the Council in March 2021, with the inclusion in particular of SMART¹ targets.

¹ Specific, Measurable, Achievable, Realistic, Time-bound.

Approved by Council at Sept. 2021 session

Objective No 1

Strategy documents

- CERN Communications Strategy 2021-2025
- EPPCN Communications Strategy for the ESPPU
- CERN Enlargement Policy (CERN/2918/Rev. CERN/3436/C/Rev)

Deliver world-class scientific results and knowledge

GOAL

To help ensure the long-term future of CERN's mission and engage society in this mission

Main IR activities in support

Liaison with Host States to facilitate integration and work in the region

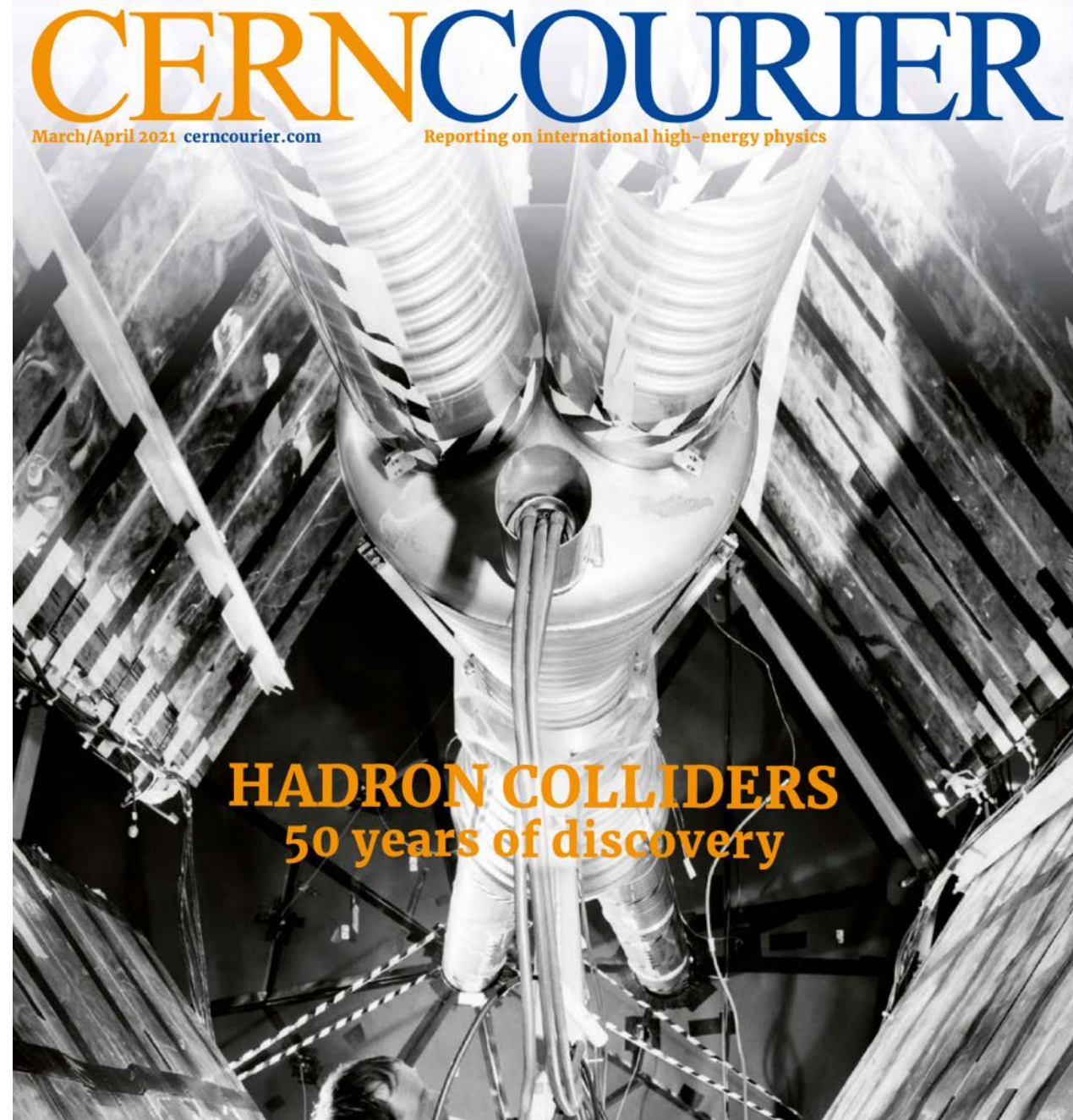
Communication of scientific results, process and values to different audiences through variety of channels

Implementing geographical enlargement strategy to enhance participation in the scientific programme

Contributing to building scientific collaboration for FCC Feasibility Study

Why “50 Years of Hadron Colliders?”

- **Sebastian White’s initial idea**
 - Worked at all 5 hadron colliders
 - Interviews with various important people from different stages of hadron collider development
 - This kind of knowledge is hands-on, personal experiences
 - There is a gap in the market for this knowledge – never has been done in this format before
 - Need to have a way of communicating this knowledge to the next generation – those who will develop the next hadron colliders at CERN



Strategic vision

STATEMENTS

CERN's vision is:

TO GAIN UNDERSTANDING OF THE MOST
FUNDAMENTAL PARTICLES AND LAWS OF
THE UNIVERSE

CERN's mission is:

1. To perform world-class research in fundamental physics;
2. To provide a unique range of particle accelerator facilities that enable research at the forefront of human knowledge, in an environmentally responsible and sustainable way;
3. To unite people from all over the world to push the frontiers of science and technology, for the benefit of all;



The FCC (Image: CERN)

To show the scientific process in action - highlighting the efforts, ingenuity and creativity it takes to build frontier scientific tools

Highlight the importance of “intellectual freedom” for ingenuity to thrive in frontier research, as opposed to a too structured organized approach

To document the succession of “eureka moments” and the importance of finding out-of-box solutions to technical challenges, through hands-on personal experiences of the interviewed characters

Create the consensus for the next collider to be built at CERN and emerge from the community

How do we turn this vision into a product?

vision



Challenges and opportunities:

- Reaching our target audience:
 - early-career scientists
 - science enthusiasts
 - specialised media
 - avid podcast consumers
- Choosing the right channel
- Deciding style, content, and duration

product



What is a podcast?

- **The audio format**
 - Listener is a participant
- **Podcast \neq radio**
 - Audience
 - Intentionality
 - Flexibility
- **The rise of the podcast**
 - Busy lives
 - Covid's influence
 - On-demand, subscription-based digital entertainment
 - Younger generations

<https://www.digitalnewsreport.org/publications/2019/news-podcasts-opportunities-publishers/>

<https://theconversation.com/podcast-revolution-the-rise-and-rise-of-audio-storytelling-128356>

<https://medium.com/acast/how-covid-19-is-changing-the-podcast-landscape-now-and-what-the-data-tells-us-about-the-future-81210e504aff>



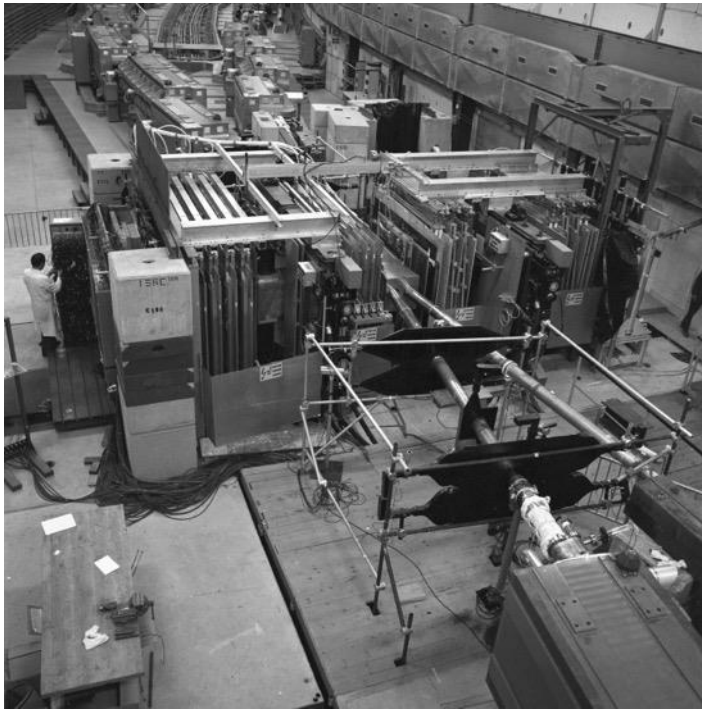
Photo by Fringer Cat on Unsplash



CERN SPARKS!

Why is a podcast suited to our vision?

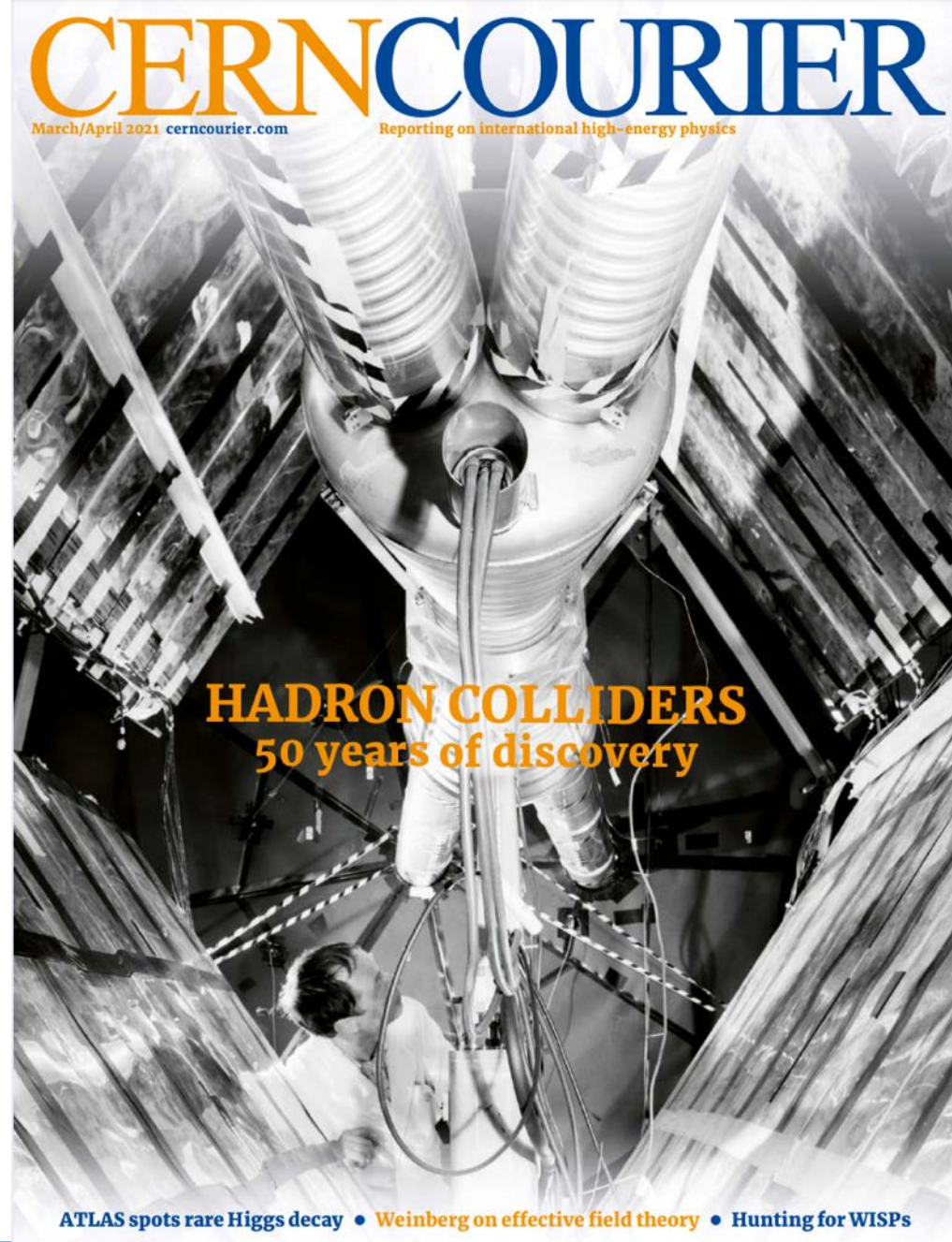
- How the style and content suits the audience
- How the material suits the format



Part of the ISR. Image: CERN



The LHC tunnel. Image: CERN



Examples of raw footage to be transformed



Steinberger - choosing a thesis topic

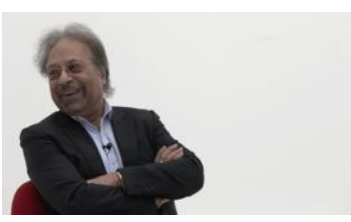


Di Lella – the beginnings of the ISR



Palmer – the 'Wild West' vs CERN

What will the series include?



Subject: How to Build a Hadron Collider: Lessons from the Past

Purpose: Information, entertainment, immersion in the field, inspiration for early career scientists

Interviews with key players throughout hadron collider history:

- The unique liason between theory and experiment from a pupil of Enrico Fermi - **Jack Steinberger**
- The first collider: how the ISR pushed the energy frontier (and missed an important discovery) - **Luigi di Lella**
- Physics results at the first colliders, Serpukhov and ISR - **Igor Dremin**
- Antimatter, cooling, and more tales from the loop - **Fritz Caspers**
- The international collboration comes to the Midwest - **Giorgio Bellettini**
- The LHC dream: the huge challenge of detecting the Higgs boson - **Jim Virdee**
- How to build a fixed-target experiment for a collider - **Tatsuya Nakada**
- What's next: betting on a muon collider - **Carlo Rubbia**
- How science works: tales from the kitchen table - **Antonija Utrobicic**
- **...and more still to come!**

Missed opportunities



Helen Edwards



Alvin Tollestrup

Full trailer



Professors Wonyong Lee and Leon Lederman with Nevis Graduate Students

Coming soon...



home.cern