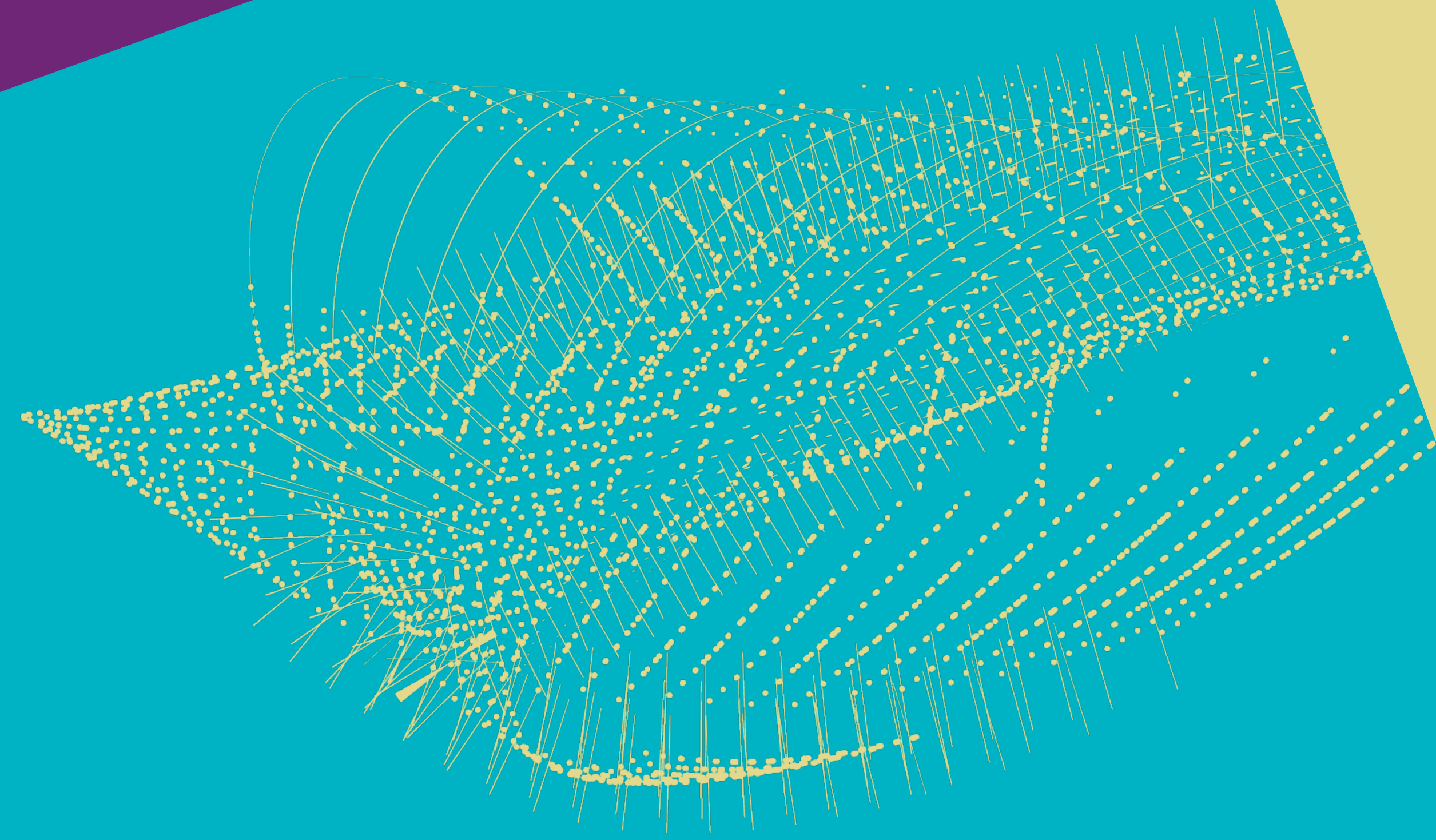




SUBTITEL

# STAFF MEETING

February 6, 2024  
Stan Bentvelsen



# CONTENT

## My concerns:

1. The long term future of CERN
2. The National Roadmap funding round 2024
3. The traction of the Einstein Telescope

## Renovation Nikhef

## SEP evaluation

# 1. THE LONG TERM FUTURE OF CERN

Obviously, CERN is the best world-wide laboratory we have

- The powerhouse expertise is fabulous
- We all cherish CERN and are concerned of its future

The broad discussion at Nikhef on post-LHC infrastructure is very welcome!

- Position Nikhef and input to the next strategy update

Organisation of the discussions on the future accelerator program

- Wouter Waalewijn, Clara Nellist and Patrick Koppenburg - Rosemarie Aben from DT
- The WAR to provide (un)solicited advice

Besides, I think we benefit from a wider discussion of CERN's activities

- Separate from the post-LHC accelerator program

# 1. THE LONG TERM FUTURE OF CERN

*A personal remark:*

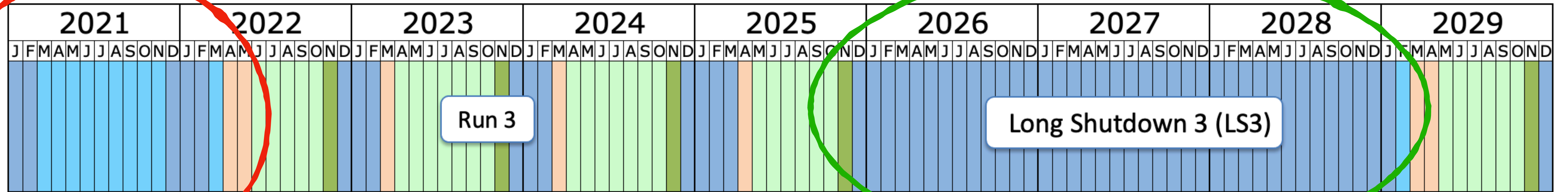
Over the years I have become skeptic about FCC

- FCC-ee is a great Higgs factory but there is no *no-lose* theorem for BSM at FCC-pp
- The sheer costs
- The lack of innovation
- The environmental impact
- *All these aspects are relevant in our discussion*

I believe that we have to combine efforts to find BSM physics

- Only then we know which direction to go forward
- CERN should be more ambitious on (accelerator) innovation
- CERN should embrace a wider scientific program
  - A number of APP experiments are promising : CERN could help/benefit
- *E.g. take Nikhef portfolio as an example to work out @CERN*

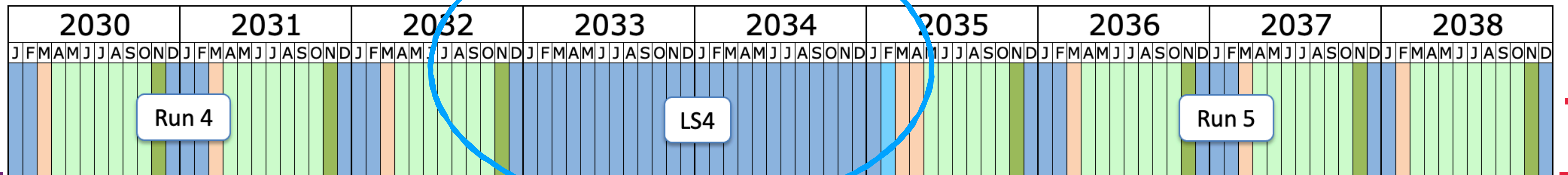
# LONG TERM AGENDA FOR NIKHEF - CERN



LHCb: RF box, VELO modules, SciFi tracker, HLT/GPU  
 ALICE: ITS-2 Alpine modules  
 ATLAS: NSW - services

ATLAS: ITk endcaps, FELIX TDAQ  
 LHCb: 4d fast timing R&D  
 ALICE: ITS-3 design

In line with ESPPU: ambitions on 4d fast timing tracking, R&D started  
 Joint efforts for ITS-3 (ALICE), HGTD (ATLAS), VELO-3 (LHCb)



## 2. NATIONAL ROADMAP

*This year we plan to submit two large proposals:*

### 4D fast timing (~20 ME)

- Coordinator: Antonio Pellegrino
- Involvement: LHCb, ALICE, ATLAS, PDP, R&D
  - Hybrid and monolithic sensors, DAQ and read-out for LS-4, plus computing

### Feeble interactions infrastructure (~12 ME)

- Coordinator: Patrick Decowski & Paul de Jong
- Involvement: KM3NeT and DM group
  - XLZD and KM3NeT - completion of ORCA together with CNRS

These infrastructures are essential for the future of Nikhef!

# Large-Scale Research Infrastructure (LSRI)

## National Roadmap consortia - 2024

- Second funding round related to the Roadmap 2021
- **Who can apply?**

consortia associated to the Roadmap Groups

-> formalised by letter of support from 1 or more Roadmap Groups by deadline statement of intent

- **What can be applied for?**

A LSRI of national importance that will enable groundbreaking scientific breakthroughs (or an update thereof)

- NWO-contribution: **≥10M€**
- Mandatory matching: **≥ 25%** of total project costs
- 4 - Project duration: 10 years

### Call LSRI 2024

Deadline statement of intent:  
28 May 2024, 2pm CEST

Deadline proposal:  
24 September 2024, 2pm CEST



# Eligible and non-eligible costs

## Eligible

- Capital investments to realize the LSRI
  - investments; personnel costs, IT costs, material costs, membership costs
- Up to 50% of the initial operating costs falling within project duration (10 yrs)

## Not eligible

Among others:

- Regular housing; modifications of housing considered to be standard facilities
- Costs related to research to be carried out with the LSRI
- Insurance costs

(see Call for proposals, Section 7.3, for an overview)





# Maximum number of LSRI proposals per Group

## LSRI proposals that fit within one Roadmap Domain

Group	LSRI 2024 Max # proposals	Roadmap Domain
Astronomy and Particle Physics	2	Technical and natural sciences
Materials	2	
Technology	2	
Geosciences	2	
Green Life Sciences	2	Life and medical sciences
Health Sciences	2	
Medical Sciences	2	
Life Sciences and Enabling Technologies	3	
Social Sciences and Humanities	2	Social sciences and humanities

Note: Cross-Group proposals within the same Roadmap Domain are counted as a proposal from 1 particular Group



# 3. TRACTION OF EINSTEIN TELESCOPE

## Momentum for ET is still growing

- Province Limburg and ministeries OCW & EZK remain in full support
  - Our minister is a real (international) ambassador

## We are working toward a bidbook (end of 2026)

- Belgium and Germany prepare for sizable contributions - Project Office
- Geology studies are underway

## Involvement Nikhef

- Lots of activities - some are open-ended
- Propose to discuss this after we received the SEP report feedback