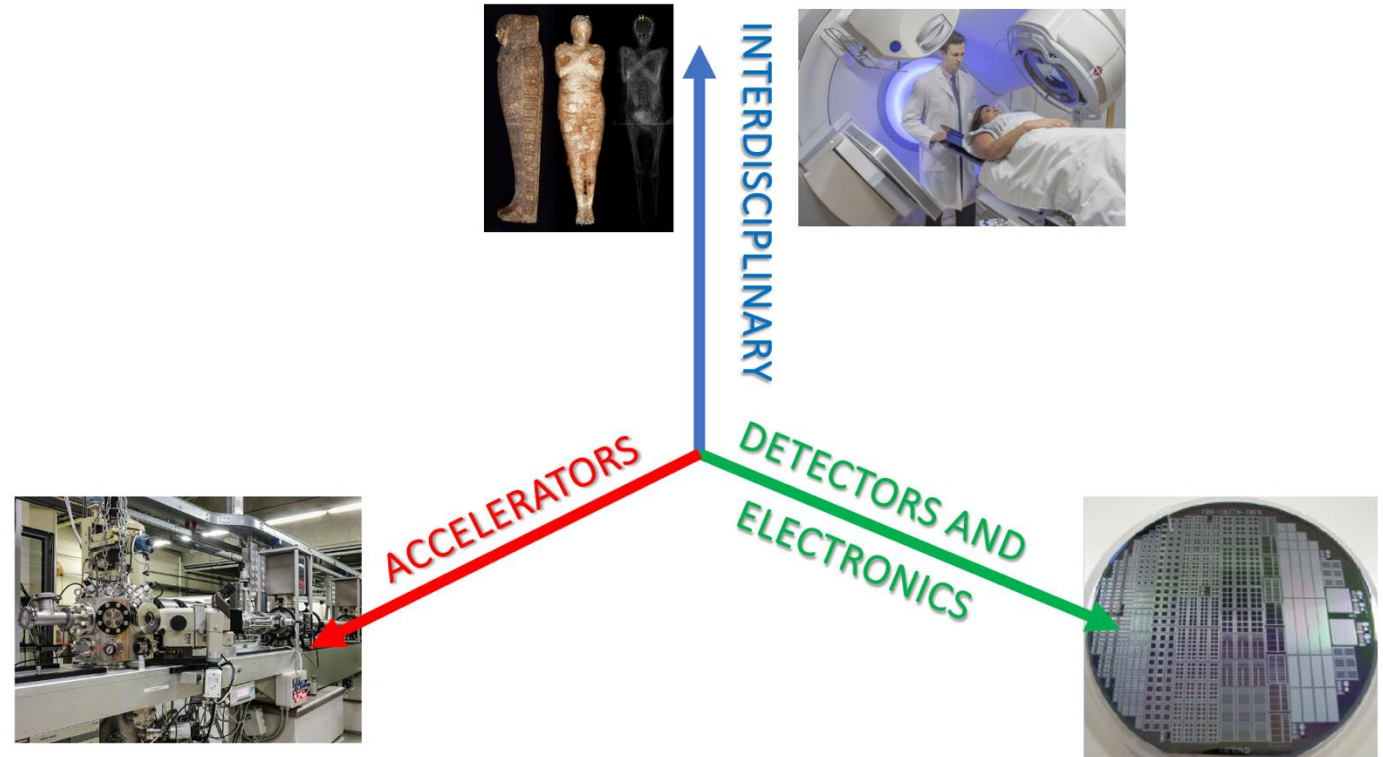# CSN5
GRANT GIOVANI

C. Vaccarezza

The CSN5
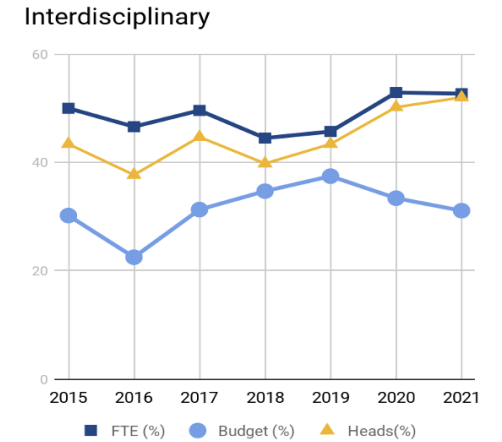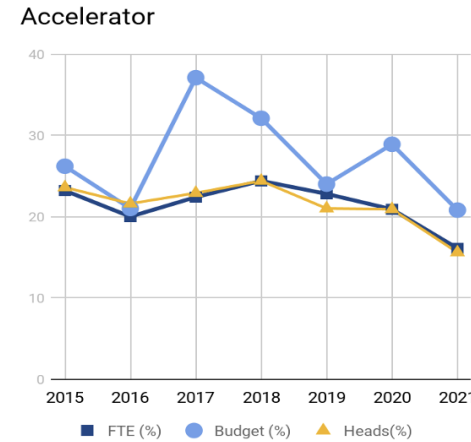
- ➤ 25 coordinators
- ➤ In 2024 86 Experiments
- ➤ 1300 Researchers (568 FTE)

Research Lines
and
SubCommittees

INTERDISCIPLINARY

ACCELERATORS

DETECTORS AND ELECTRONICS

Distribution of funding

Courtesy of A. Quaranta
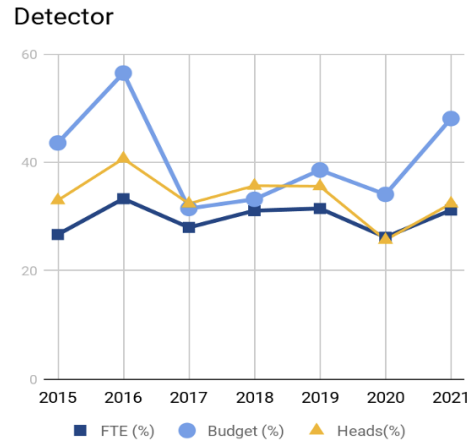
Budget	2021	2022	2023	2024
Accelerators	21%	22%	22%	24%
Detectors	48%	52%	44%	40%
Interdisciplinary	31%	26%	34%	36%

TOPICS

- **Sensori per esperimenti di fisica fondamentale e applicata**.
  - HEP, neutroni, radiazione em (anche MW).
  - Readout.
  - Dosimetri.

- **Tecnologie avanzate per acceleratori di particelle**.
  - Magneti superconduttori.
  - Cavità RF e materiali per rivestimenti.
  - Metodi di accelerazione laser-plasma.

- **Tecnologie Quantistiche**.
  - Sensori e dispositivi quantistici.

- **Scienze della vita**.
  - Adro/radioterapia.
  - Imaging.
  - Piani di trattamento.

- **Calcolo**.
  - AI – ML per la fisica fondamentale e applicata.

- **E ancora**…
  - Beni culturali.
  - Monitoraggio ambientale (radiazioni).

Project Categories

- **Sigle Standard**: 2-4 year projects with medium-low budget ($\sim$ 50k€/y).
  - Incubators of promising activities and of interest to INFN.
  - Niche sectors and of interest to INFN.
  - High levels of risk allowed.

- **Grant Giovani**: Experiments (max 75k€/year) of 2 years for young people (PhD ≤ 4 years – from 2024). The experimental activity and the AdR of the PI are funded.
  - Young researchers with innovative ideas and solid projects.
  - Development of scientific autonomy and management skills.

- **Call**: High budget projects and large network ($\sim$1M€ max over 3 years of the call).
  - Projects with a large impact on research and INFN.
  - Large and qualified network.
  - Research grants.

GRANT GIOVANI

- 2-year projects with a maximum funding of 75k€/y plus the Research Grant for the PI.

- The call comes out in mid-May with a deadline in June.

- There is a template and the applications must be uploaded to the contest website.

- The Chairman shall appoint a panel of members from outside the CSN5 committee who shall make an initial selection.

- The selected ones (about 12-14/30) are heard in plenary at the November meeting.

- An appointed subcommittee (President + 3 internal + 1 external) at the end makes a ranking and the first 6 are admitted to funding.

- The winners can renounce the scholarship during the course and continue the activity with the assigned funding as for a standard experiment case.

CSN5

GRANT GIOVANI

Nome: DeSAP
Titolo: Detecting Super-Asymmetric Particles
Proponente: Amy Farrah Fowler
Unità partecipanti: INFN Sezione di …
                       Dipartimento di Fisica, Università di …
                       Department of Physics, University of …

La proposta può essere sottomessa in italiano o in inglese.

Per la preparazione della proposta si raccomanda l'uso del font Times, Arial o simile e di dimensione almeno 11 pt.

Nei limiti di lunghezza sottoindicati non sono comprese figure, tabelle e relative didascalie.

Sommario

Lunghezza massima: 2000 caratteri, spazi inclusi.

Includere una breve descrizione di: contesto della ricerca, motivazioni, obiettivi della proposta, metodologia, principale risultato atteso.
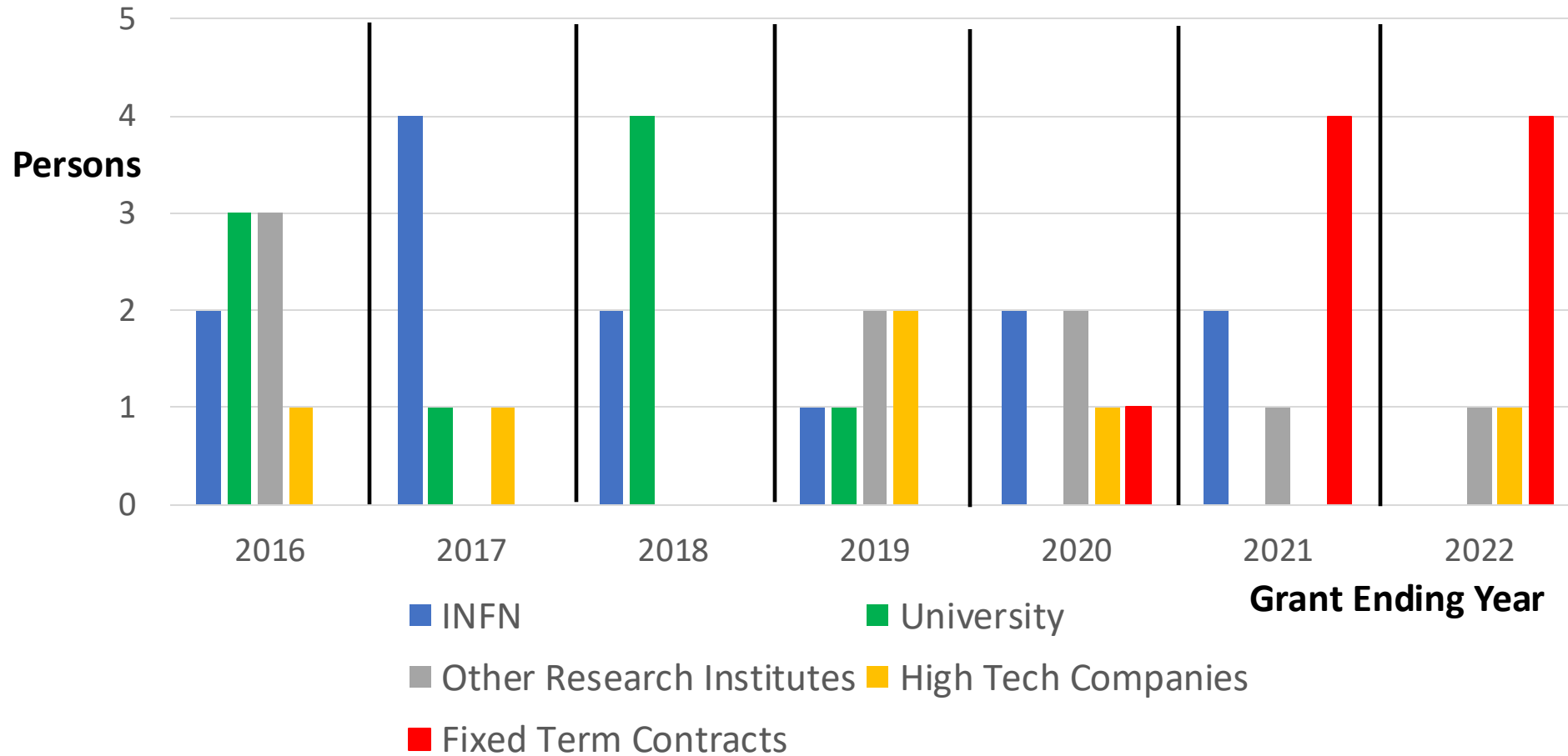
Indice

Recommendations in the 2022 CVI Report

- Since the beginning of the institution of CSN5 Grants there were 58 winners.
- We checked their present career status and past achievements.

i) *INFN as research agency* – Is the scheme effective in attracting first-rate young scientists? What is the relationship, if any, with ERC or other similar competitive funding? Do INFN Grants act as a "stepping stone" in getting future external funding or could they discourage efforts to obtain additional funding? Do Grant-winners remain with the INFN or do they move to other national or foreign institutions?

ii) *Researchers* – Is the post-Grant performance of researchers who have been awarded a grant better than the performance of comparable researchers?

Recommendation
CSN5-1. Plan a review of the "Grants for young researchers" scheme and report on it at the 2023 CVI meeting.

Present Positions

Persons

Grant Ending Year

- INFN
- University
- Other Research Institutes
- High Tech Companies
- Fixed Term Contracts

➤ Career analysis shows that a Grant winner typically is hired mainly by research Institutes, Universities or private companies within 2-4 years from the end of the Grant.

Details

➢ Among 46 winners who concluded the Grant period within 2022:

- 13 (28%) have researcher positions in INFN.

- 9 (20%) have academic positions : 6 Associate Professors and 3 academic tenure to AP continuing. the collaboration with INFN as Associate Researchers.

- 8 (17%) have researcher positions in both Italian and foreign institutes like CNR and CNRS.

- 6 (13%) have been hired by high tech private companies.

- 10 (22%), the younger ones, have fixed-term contracts waiting for a position as researchers: 3 fixed-term university researchers (still working with INFN), 3 INFN research grants and 2 INFN-PNRR contracts.

➢ 2 ongoing grants changed the position for a Marie-Curie Grant and an INFN-PNRR contract, but they are still following the research activity funded with the Grant.

➢ Among the past winners;

- 3 are PI of EU projects (ERC Stanting Grant, FET Open).

- 1 is a coordinator of a H2020 project.

- 1 was a winner of a ministerial project for more than 500k€

- 2 are currently CSN5 (female) coordinators.

- Many of them are PI of new CSN5 projects, Regional projects or Technological Transfer projects.

Conclusions

Grant winners demonstrated to be able to realize a successful career as researchers and new research projects.

Most of the Grant winners is presently collaborating with INFN research activities.

INFN hires Grant winners with a rate which is constant in the years and better than Universities.

CSN5 Grants, even if few, are an important connection between INFN and young scientists. This is a scouting tool for promising researchers and improves their motivation allowing independence and leadership in projects.

THANKS for your attention