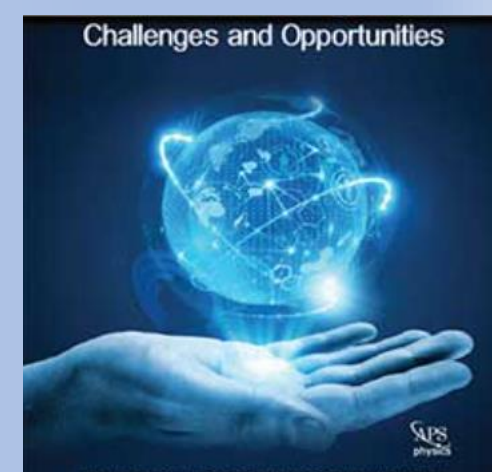


Working Group WG16 “Physics and Industry”



- **History:** 2017: creation of WG16 by 29th GA Sao Paulo but not much action before 2020
2020 July: first WG template draft with mandates and objectives
2021: submission of [report with recommendations](#) to 30th GA (Geneva, virtual)
2022: continuation of WG16 until 2024 approved by 31st GA (Trieste, virtual)
- **Mandate:** - Provide recommendations to GA and Executive Council on how to foster international cooperation in physics between industry and academia
<https://iupap.org/who-we-are/internal-organization/working-groups/wg16-physics-and-industry/>
- **Objectives:** - Acquire new Corporate Associate Members (CAMs)
 - Co-organize international meetings, workshops, prizes with IUPAP Commissions and WGs
 - Provide resources of interest to industrial physicists and students interested in industrial careers
- **Actions:** - Invite potential companies and organizations to become CAMs
- Develop a dedicated webpage outlining CAMs’ benefits & rights and providing specific resources
<https://iupap-corporate-associate-members.web.cern.ch/>

Working Group WG16's members

- **Membership: 13 members, 11 males, 2 females from 8 countries** ←→ monthly meetings
- Christophe Rossel (IBM Research-Zurich, Switzerland), *Chair, liaison officer for [EPS](#)*
- Cyrus Walther (IAPS, Germany), *Vice-Chair, liaison officer for [DPG](#) and [IAPS](#)*
- Nisha Holla (C-CAMP, India) *Secretary, (parental time-out)*
- Andranik H. Sarkissian, (PLASMIONIQUE Inc., Canada)
- Pablo Garcia Tello (Spain-Belgium-CERN)
- Lawrence Woolf (General Atomics Aeronautical Systems, Inc., USA), *liaison officer for the U.S. and [APS](#)*
- K.S. Narayan (JNCASR, India) (former chair)
- Tariq Ali (University of Liverpool, United Kingdom)
- James Kneller (IAPS, UK)
- Michel Spiro (Ex officio, IUPAP President, France)
- Jens Vigen (Ex officio, IUPAP Secretary-General, France)
- Barbora Bruant Gulejova (Switzerland)
- Navin Alahari (France) *liaison officer to WG9*



Working Group WG16: CAMs webpage

International Union of Pure and Applied Physics—Corporate Associate Members

[Home](#) [List of CAMs](#) [Rights and benefits](#) [Jobs in physics](#) [Benefits of physics to society and the economy](#) [Grand challenges](#)

IUPAP Corporate Associate Members

[The leadership](#) of the [International Union of Pure and Applied Physics](#) (IUPAP) and the [IUPAP Working Group on Physics and Industry](#) welcomes commercial companies or international research organizations working outside academia to easily interact with and influence the world-wide community of physicists by joining the Union as Corporate Associate Members (CAM).

As IUPAP seeks to strengthen the links with and between physicists working outside academia, this new class or membership, CAM, was introduced at the [General Assembly held in 2021](#).

CAMs can create partnerships, sponsor [prizes](#) and initiatives, and can make the international physics community aware of employment opportunities as well as inform that community about their organization via IUPAP. CAMs can fully participate to the life of IUPAP.



Corporate Associate Members – rights and benefits

- CAMs are international or national research organizations and commercial companies
 - CAMs can make **nominations and hold positions in IUPAP but have no voting rights**
 - CAMs could contribute and participate in IUPAP **conferences, workshops or commercial exhibits**
 - CAMs can submit **proposals** to other CAMs to collaborate on R&D projects
 - CAMs can sponsor **prizes, awards, or focused initiatives** in their field of interest that will be publicized within IUPAP
 - CAMs can get more **visibility** within IUPAP and physics community platforms
 - CAMs have **access** via IUPAP's website to other **key stakeholders, industry insiders, and decision makers** (partnerships)
 - CAMs have **access to information and job posting sites, career guidance** for students and young physicists.
-
- Examples of **benefits of physics to society and the economy, and to grand challenges** are available on dedicated WG16 webpage together with **specific resources** of interest for new CAMs.

BUT THIS DOESN'T SEEM TO BE ENOUGH ! WHAT IS THE RETURN ON INVESTMENT FOR COMPANIES ?

Working Group WG16 “Physics and Industry”

- **Status:** - As of today, we have 5 CAMs from 5 countries

***ALLS:** Advanced Laser Light Source (Varenne, Canada 2022)*

***CERN:** European Organization for Nuclear Research (Geneva, Switzerland, 2022)*

***JINR:** Joint Institute for Nuclear Research (Dubna, Russia, 2023) via Grigory V. Trubnikov, WG9 & B. Sharkov*

***SESAME:** Synchrotron-Light for Experimental Science and Applications in the Middle East (Jordan, 2022)*

***PARK SYSTEMS Corp.:** (Suwon, South Korea, 2023) via Young Dong Kim, chair of the C8 commission*

- Ongoing discussion with interested companies and organizations

- Invitation letters sent to >30 potential CAMs with some personal online exchange

→ **limited success:** *IBM, SHELL, QUANTUM DESIGN (USA), COSYLAB (SLO), SIGMAPHI (F), THALES (F)
L'OREAL (F), BOSCH (D), ZEISS Research (UK), PSI (CH), ITER, ESRF(F), TRIUMF, CLS, AECL (CAN),*

- **What do other organizations?**
 - IUPAC :** 36 CAs in 13 countries, no list of benefits but platform, networking, recognition
 - EPS:** 39 AMs in 14 countries, list of benefits @ 3 levels of sponsorship, fee related
 - APS:** no AMs, Career advice, Mentoring, Forum on Industrial & Applied Physics....
 - DPG:** no AMs, WG Industry & Business, Mentoring, Industry Days, Workshops,....



What's next?

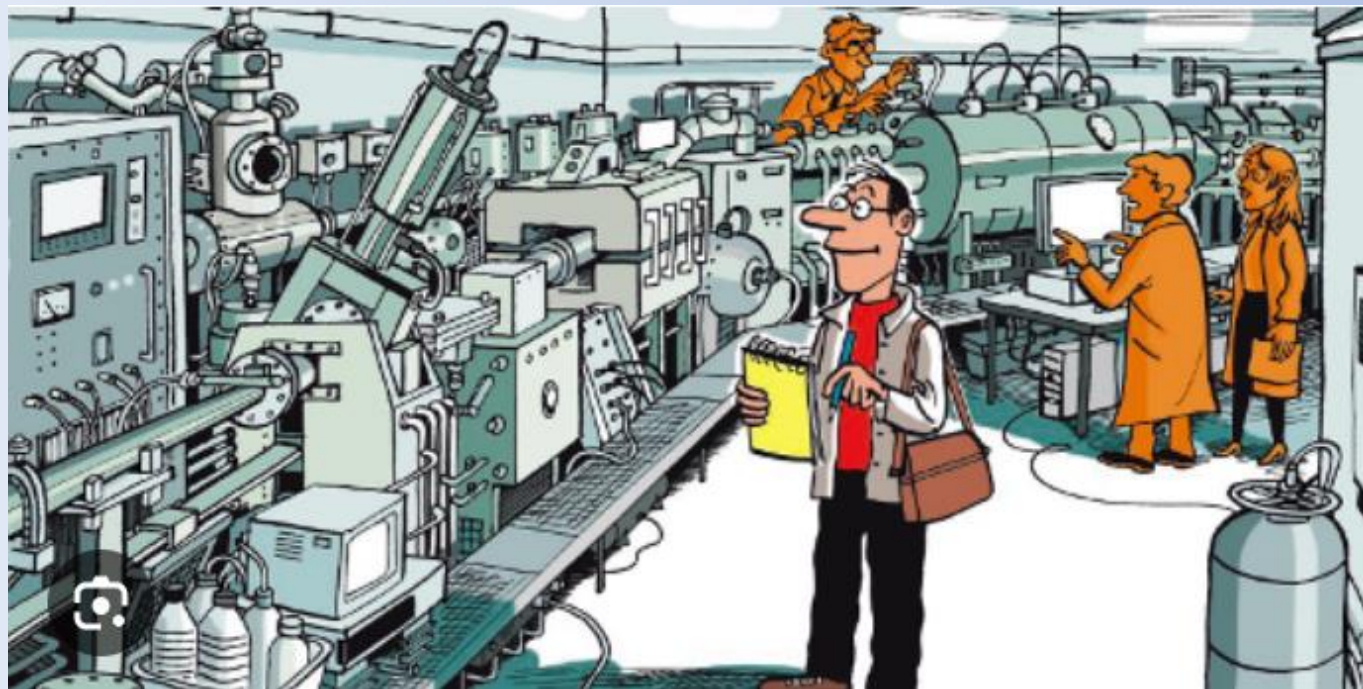
Based on discussion of last week at Executive Council

- **WG16 will remain as such until next GA in 2024 and plan various activities**
- **Conversion into a Commission is premature: not field centered, no specific community, more flexibility in WG**
- **A restructuring plan will open for new types of entities where WG16 will better fit.**
- **Possible to combine industry with physics for development, sustainability, education, etc.**
- **A proposal will be submitted to next GA**

In the meantime: **WE NEED YOUR HELP IN GETTING NEW CAMs VIA YOUR PERSONAL CONTACTS !**

ALL SUGGESTIONS WELCOME on email address: iupap-wg16@cern.ch

Thank you for your attention



Happy CAM's CEO visiting a Research Lab !

Working Group WG16 “Physics and Industry”

- **Activities:** - Regular monthly WG16 meetings since 2021
 - WG16 webpage and specific one for CAMs with links to ext. sites such as INSPIRE HEP for job posting
 - New LinkedIn profile <https://www.linkedin.com/company/iupap/> (over 850 followers)
 - Discussion on industrial mentoring program for physicists (like APS)
 - *Memorandum of Understanding* created to be signed by both parties.
 - Letter mailed to all chairs of IUPAP commissions and WGs to develop better collaboration
 - only 2 answers: *Navin Alahari* for WG9 (Angela Bracco chair) – new WG16 member
 - Mei-Yin Chou*, Chair of C20 (Comp. Physics) with list of suggestions
- **Future actions/ideas**
 - Acquire more female members (Nadia Thalmann (CH), Thian Feng (Singapore) resigned, idem Didier Roux (F))
 - New strategy for CAMs (refocus)
 - Survey questionnaire to potential CAMs (expectations, needs)
 - Organize special workshop or session within IUPAP
 - Develop information “newsletter” in relation with Sissa Medialab (<https://medialab.sissa.it/en.>)
 - Participate in 3rd meeting of the *Big Science Business Forum* BSBF in Trieste in Oct. 2024. (via S. Fantoni)
 - Support *International Year of Quantum Sciences and Technologies IYQST2025*
 - Create a Young Industrial Scientist prize? (sponsored by CAMs)



Working Group WG16 “Physics and Industry”

- **General Issues**

- WG16 commitment in taking actions. Many ideas, less follow-up !
- Most contacted CAMs don't respond to invitation letters. Importance of personal contact/network
- CAMs require more concrete benefits and a visible return on investment (... *'IUPAP hasn't produced any successful applications for funding of projects in collaboration with industry to date...'* dixit Cosylab)
- Quo vadis WG16? Budget of 2420€/year, capital of 19'700€ until 2024
- **Should WG16 turn into a Commission in 2024?**

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