

ECFA Chair Report

Plenary ECFA Meeting
17th November 2022

*Karl Jakobs, ECFA Chair
University of Freiburg / Germany*

ECFA

European Committee for Future Accelerators



Topics addressed

1. Update on Detector R&D Roadmap Implementation
2. Short summary of the 2022 ECFA e^+e^- workshop in Hamburg
3. RECFA Country visits
4. Joint ECFA-NuPECC-APPEC Activities
5. ECFA Schedule 2022 and 2023

1. Implementation of the 2021 ECFA Detector R&D Roadmap

*In December 2021, ECFA was invited by CERN Council to elaborate, in close contact with the SPC, funding agencies and relevant research organisations in Europe and beyond, a **detailed implementation plan***

*Likewise, the European Lab Director Group (LDG) was mandated to work out an implementation plan for the **Accelerator R&D Roadmap***

- **ECFA Roadmap Coordination Group** has worked out a proposal
(P. Allport, S. Dalla Torre, J. D'Hondt, K. Jakobs, M. Krammer, S. Kuehn, F. Sefkow and I. Shipsey)
- Discussed and iterated with RECFA, national contacts for detector R&D, CERN management, managements of existing RD Collaborations, SPC and Council, and with Funding Agencies
- Open presentation at the July Plenary ECFA meeting by Phil Allport
<https://indico.cern.ch/event/1172215/>
- **“Sign-off” by SPC and Council in their Sept. meetings (26 – 30 Sept.)**
→ Implementation should start!

11. Implementation plans for the Accelerators and Detectors R&D roadmaps

The SPC heard the update reports on the implementation plans of the roadmaps. The SPC again **strongly recommends** to the Council that the setting up of the proposed organisational structure proceeds immediately to enable the community to move forward, meeting the time line envisioned for the implementation.

Importantly, the SPC encourages the LDG to assure that the nomination process for the coordination panels is finished ASAP and that all funding agencies are given opportunity to discuss new funding for this program. The SPC looks forward to hearing more about the topics covered by the different panels timely with funding becoming available for this work and clear deliverables agreed, as well as information about the human resources involved in the various activities.

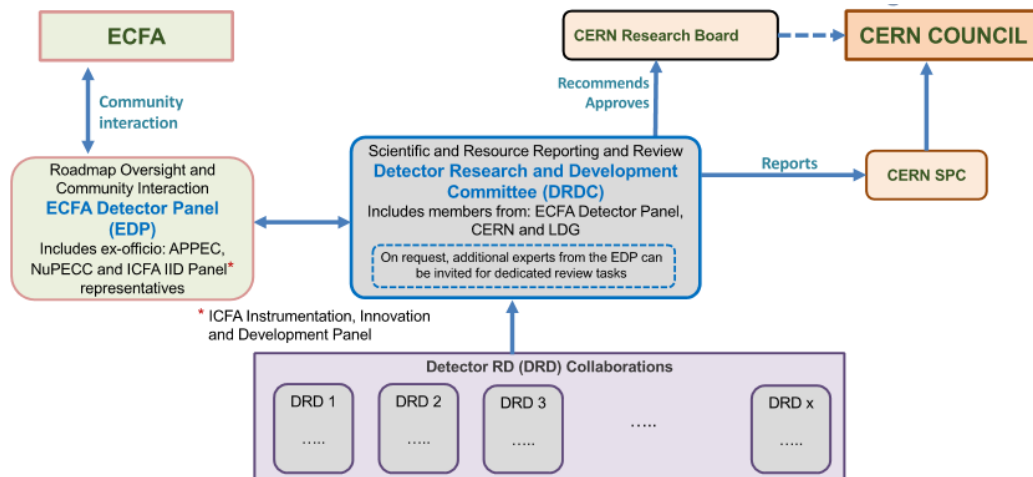
The SPC welcomes the updated implementation plan for the ECFA Detector R&D roadmap, with a clearer and simpler review structure provided by a yet-to-be-formed new scientific committee, the Detector Research and Development Committee (DRDC). This committee will provide both scientific and resource oversight, and will connect to the relevant CERN bodies. The ECFA detector panel provides direct input, through appointed members to the DRDC and monitors the overall implementation of the ECFA detector R&D roadmap. The SPC strongly recommends moving forward with this structure now, and encourages the existing RD collaborations and the wider European detector R&D community to actively engage with this new structure to define the scope of the process of forming new DRD collaborations, matched to the goal of having new collaborations in place at the beginning of 2024. The SPC looks forward to hearing updates on the progress in one of its coming meetings.

21. *DETECTOR R&D ROADMAP IMPLEMENTATION PLAN* (Item 21 of the Agenda) (CERN/SPC/1190/RA-CERN/3679/RA)

The Council took note of document CERN/SPC/1190/RA-CERN/3679/RA, of the introductory remarks by the Chair of ECFA, Professor Jakobs, outlining the main changes made to the implementation plan since its presentation at the June Session, and of the report by the Chair of the Scientific Policy Committee, Professor Rivkin, on the Committee's discussion of the plan at its September 2022 meeting.

The Council further thanked ECFA for organising the development of the roadmap, warmly welcomed the implementation plan and encouraged ECFA to move forward with the implementation phase.

Review and Approval Process



For details, see presentation in Plenary ECFA meeting on 22 July:

<https://indico.cern.ch/event/1172215/>

1. Scientific and Resource Reporting and Review by a Detector Research and Development Committee (DRDC)

Assisted by the ECFA Detector Panel (EDP): the scope, R&D goals, and milestones should be vetted against the vision encapsulated in the Roadmap. (EDP: <http://cds.cern.ch/record/2211641/files/>, exists, hosted at DESY)

2. Funding Agency involvement via a dedicated Resources Review Board (~once every two years)
3. Yearly follow-up by DRDC → report to SPC → Council

Suggested Implementation Timeline

Through 2023, mechanisms will need to be agreed with funding agencies in parallel to the process below for country specific DRD collaboration funding requests for Strategic R&D and for developing the associated MoUs.

- Q4 2022** Outline structure and review mechanisms agreed by CERN Council.
Detector R&D Roadmap Task Forces organise **community meetings** to establish the scope and scale of community wishing to participate in the corresponding new DRD activity.
(Where the broad R&D topic area has one or more DRDTs already covered by existing CERN RDs or other international collaborations these need to be fully involved from the very beginning and may be best placed to help bring the community together around the proposed programmes.)
- Q1 2023** **DRDC mandate formally defined** and agreed with CERN management; Core DRDC membership appointed; and EDP mandate plus membership updated to reflect additional roles.
- Q1-Q2 2023** **Develop the new DRD proposals** based of the detector roadmap and community interest in participation, including light-weight organisational structures and resource-loaded work plan for R&D programme start in 2024 and ramp up to a steady state in 2026.
- Q3 2023** **Review of proposals by DRDC** leading to recommendations for formal establishment of the DRD collaborations.
- Q4 2023** DRD Collaborations receive formal **approval from CERN Research Board**.
- Q1 2024** New structures operational for ongoing review of DRDs and R&D programmes underway.

Through 2024, collection of MoU signatures

Next steps:

- **Community meetings** organised by Task Forces, involving managements of existing RD collaborations (where relevant)

Call to sign up to the different Task Force areas was sent on 25th October (Phil Allport, Susanne Kühn):
<https://indico.cern.ch/event/957057/page/27294-implementation-of-the-ecfa-detector-rd-roadmap>

Goal: sort out interests of the community, set up a proposal-writing group with goal to prepare DRD proposals by end of July 2023

@ECFA: make sure the detector community in your country engages in this process

- Process will be accompanied by the ECFA Roadmap Coordination Group;
Regular meetings to follow up on progress in various areas and to address upcoming issues

Guidelines for DRD Proposal writing are being prepared (will try to keep it light-weight)

- ECFA Detector Panel (EDP) has been re-activated, needs to be adapted to the new role;

EDP mandate and composition have been updated

Implementation of the ECFA Detector R&D Roadmap



After the publication of the ECFA Detector R&D Roadmap, CERN Council requested ECFA to develop the plan for its implementation.

The document approved by the SPC and CERN Council in September 2022 can be found at https://indico.cern.ch/event/1197445/contributions/5034860/attachments/2517863/4329123/spc-e-1190-c-e-3679-Implementation_Detector_Roadmap.pdf.

As proposed in the document, topic specific community meetings will now be held in the course of the coming months. To sign up for these and to register your interest in participating on the corresponding R&D Collaborations being developed please see the links below.

- TF1 Gaseous Detectors <https://indico.cern.ch/event/1214405/>
- TF2 Liquid Detectors <https://indico.cern.ch/event/1214404/>
- TF3 Solid State Detectors <https://indico.cern.ch/event/1214410/>
- TF4 Photon Detectors and PID <https://indico.cern.ch/event/1214407/>
- TF5 Quantum and Emerging Technologies <https://indico.cern.ch/event/1214411/>
- TF6 Calorimetry <https://indico.cern.ch/event/1213733/>
- TF7 Electronics and On-detector Processing <https://indico.cern.ch/event/1214423/>
- TF8 Integration <https://indico.cern.ch/event/1214428/>
- TF9 Training <https://indico.cern.ch/event/1214429/>

Main features of EDP mandate:

The ECFA Detector Panel (EDP) is a subcommittee of ECFA, hosted at DESY

So far: a committee to review detector development efforts for future projects

<http://cds.cern.ch/record/2211641/files>

The ECFA Detector Panel

Updated Mandate

- provides direct input on DRD proposals, through the appointment of members to the DRDC, in terms of the Roadmap's R&D priorities (as encapsulated in the Detector R&D Themes);
- assists, particularly via topic-specific expert members, in the conduct of annual DRDC reviews of the scientific progress of DRD collaborations;
- monitors the overall implementation of the ECFA detector roadmap and the specific DRDTs;
- follows up targets and achievements in the light of evolving specifications from experiment concept groups, as well as proto-collaborations for future facilities;
- helps plan for future updates to the Detector R&D Roadmap.

Main features of EDP mandate (cont.):

- The **membership of the EPD** reflects the needs to provide expertise in each of the key detector areas identified in the Roadmap: Gaseous Detectors; Liquid Detectors; Silicon Detectors; Photon Detectors and Particle Identification; Quantum and Emerging Technologies; Calorimetry; Electronics and On-detector Processing; and Integration.
(The area of Training now being addressed by the dedicated ECFA Training Panel.)
- The EDP also has **two Co-chairs** who are also permanent members of the DRDC to advise and regularly report on EDP deliberations, as well as a **Scientific Secretary**.
- It is proposed that the **terms of the Co-chairs** be defined as **three years** with periods in office to run eighteen months out of phase with each other to provide continuity. The **mandate of each co-chair can be renewed once**, for a maximum period of six years.
- It is proposed that the positions of **Scientific Secretary and Member have terms of three years, renewable once**, but also staggered in time to ensure reasonable overlaps of experience when terms come to an end.

The membership of the EDP reflects the needs to provide expertise in each of the key detector areas identified in the Roadmap: Gaseous Detectors; Liquid Detectors; Solid-State Detectors; Photon Detectors and Particle Identification; Quantum and Emerging Technologies; Calorimetry; Electronics and On-detector Processing; and Integration.

- The EDP is proposed to have two Co-chairs (as worked well for the Roadmap TFs) who could also be permanent members of the DRDC to advise and regularly report on EDP deliberations.
- It is proposed that the terms of the Co-chairs be defined as three years with periods in office to run eighteen months out of phase with each other to provide continuity. The mandate of each Co-chair can be renewed once, for a maximum period of six years.
- It is proposed that the positions of Scientific Secretary and Member have terms of three years, renewable once, but also staggered in time to ensure reasonable overlaps of experience when terms come to an end.
- The proposed membership includes the **current EDP** augmented with the following **new members**:
 - Co-chairs: **Phil Allport (Birmingham)** and **Didier Contardo (IP2I Lyon)**
 - Scientific Secretary: **Doris Eckstein (DESY)** Solid State Detectors

Silvia Dalla Torre (INFN Trieste) Gaseous Detectors; **Inés Gil Botella (CIEMAT)** Liquid Detectors; **Roger Forty (CERN)** PID & Photon Detectors; **tbc** Quantum and Emerging Technologies; **Laurent Serin (Orsay LAL)** Calorimetry; **Arno Straessner (Dresden)*** Electronics; **Valerio Re (Bergamo)** Electronics;

- **Karl Jakobs (Freiburg)** ex-officio (ECFA Chair); **Ian Shipsey (Oxford)†** ex-officio ICFA IIDP Chair;
- APPEC and NuPECC appointed Observers.

* Leaving 2023

† Quantum and Emerging Technologies expertise

Next steps (cont.)

- **DRDC Mandate and composition** need to be worked out
 - CERN management
- In each country / laboratory the DRD proposal process has to be discussed with the respective funding agencies;

RECFA delegates can help to launch this process and to set up the right structures (most likely, it will be different from country to country)
- Also the question came up what role the **ECFA Roadmap National Contacts for detectors** should play;
 - We will keep them in “stand-by” for any detector R&D-related issues that will come up over the forthcoming years (e.g. short term: accompany and help in national coordination of the DRD proposal writing process)
- **Finally: ECFA – LDG working group to address some of the GSRs need to start up its work**
 - under discussion, more information in this week’s RECFA meeting

Detector R&D Roadmap: General Strategic Recommendations

GSR 1 - Supporting R&D facilities

GSR 2 - Engineering support for detector R&D

GSR 3 - Specific software for instrumentation

GSR 4 - International coordination and organisation of R&D activities

GSR 5 - Distributed R&D activities with centralised facilities

GSR 6 - Establish long-term strategic funding programmes

GSR 7 - Blue-sky R&D

GSR 8 - Attract, nurture, recognise and sustain the careers of R&D experts

GSR 9 - Industrial partnerships

GSR 10 - Open Science

First ideas on how to address them have been developed;
To be worked out by ECFA-LDG Working Group



HOW? INSTALLING LDG-ECFA WORKING GROUP

GSR 1: Supporting R&D facilities

(irradiation / testbeam / infrastructure facilities)

- First phase
 - Assign a sub-team from the group (3-4 people) to present the status and summarise the needs of these facilities
 - Needs must be evaluated; Status quo is probably in reach;
- Second phase
 - Initiate more political discussion with LDG directors and eventually several FAs (incl. CERN) how the load can be mastered and shared
- Remarks
 - Timescale throughout 2023, given the nature of the input, and not immediately

Similarly with GSR2 and GSR3

WORKGROUP COMPOSITION

Workgroup ECFA-LDG needs broad representation

- Directors of National Labs
- ECFA community
 - Including smaller countries
 - Role of Funding Agencies?

We need to set-up a charter

- Mandate and deliverables
- *Follow the progress of the DRDs*

Co-chairs

- Marko Mikuz (ECFA, Slovenia)
- Stan Bentvelsen (LDG, ECFA, the Netherlands)

LDG Members:

- J. Mnich (CERN)
- One other representative

ECFA members:

- Rep. from BMBF/Universities Germany
- Rep. from IN2P3/Universities France
- Rep. from Italy INFN:
- Rep. from UK universities
- Rep. from smaller countries

Ex officio

- Dave Newbold, LDG
- Phil Allport, ECFA
- Karl Jakobs, ECFA

Plans for “TF9” on “Training”

First proposal, for feedback from RECFA and for discussion! (Phil Allport, Johann Callot, Erika Garutti, Karl Jakobs)

The conclusions of the detector R&D roadmap document (<https://cds.cern.ch/record/2784893>) explicitly stress the need to train and maintain a work force in instrumentation for particle physics, targeting, with the highest priority, graduate students and Early Career Researchers (ECR). One of the two “Detector Community Themes” (DCTs) that emerged from the deliberations of the training task force (TF9), calls for the **creation of a dedicated panel in this area under the auspices of ECFA**, in consultation with organisations or communities representing neighbouring disciplines and ICFA. The role of this coordination panel would primarily be to enhance the synergies between existing training programmes and stimulate the creation of complementary ones where relevant, in particular multidisciplinary schools or academia-industry-joined training programmes. The second equally important DCT sets out as a goal the creation of a European master's degree programme in HEP instrumentation, to also be a potential responsibility of this proposed panel to help coordinate.

During the roadmap process it realised that there was a **mutual interest to also involve training in accelerators and to support cross-disciplinary activities** with this area. As a result, the recommendations state that the same panel should also coordinate the synergies between HEP instrumentation and accelerator training provision.

→ ECFA Training Panel

The membership of this panel could encompass that of the detector roadmap R&D TF9 group, plus one more expert on training in accelerators, plus a representative of ICFA, a representative of APPEC, a representative of NuPECC and a representative of the ECFA ECR Panel.

2. ECFA workshop in Hamburg

- Hamburg, 5 – 7 October 2022
- 200 registrants in person and 145 online
- Plenary and parallel session organised by WG conveners
- Poster session on Thursday afternoon (16 posters)
- Public event on Thursday evening (not well attended from the outside)



<https://indico.desy.de/event/33640/>



Some impressions

- Despite the fact that the workshop was followed by ~200 people, the real work-force is still very small!

Reasons:

- Nearly all people busy with LHC, Phase-II upgrade or other HEP projects (e.g. Belle-II)
- Theory community not fully engaged yet
- LHC people not yet there (see bullet 1, above)
- US colleagues not yet there, we need to make efforts to include them in the post-Snowmass era
- Not sure that we have the full support of all e^+e^- project groups (ILC, FCC_ee, CLIC, CEPC, C³ ..)
- Concrete e^+e^- project not yet approved!

- Conveners, especially WG1 and WG2 (now accompanied by WG3) have worked very hard to set up an interesting programme

In addition, they have proposed high-priority topics, to focus the efforts!!
(see e.g. summary talk by Aidan Robson in Hamburg)

A summary will be presented by Aidan Robson in the ECFA Plenary tomorrow!

- We also held a “brainstorming session” with the IAC on 15 Nov.

Next steps / goals

- We must **build a stronger community** to work on the Physics and Experiment/Detector topics for an e+e- collider!
 - Physics case (Higgs, electroweak, top, flavour, ... complementarity to LHC, e.g. EFT analysis, differential cross sections at high- p_T , ..
 - Updated science case (for us, but not only for us...)
We need to present a clear physics case to the decision makers
 - There are many **common topics on software, simulation, reconstruction**, ...) → goes in right direction
 - **Detector requirements need to be understood** (← Driven by Physics we want to do / can do)
 - They have **implications on the Detector R&D** (define, sharpen R&D goals, make sure they can be reached in time when we need to have them)
 - We need to act as a community, standing behind an e+e- project
- How can this be achieved?
 - Given unitarity, and shortage of person power, cooperation among the various projects is important
 - Try to get additional resources, discussion with Funding Agencies;
ECFA will continue to raise this issue strongly at country visits
 - Allow postdocs / students to work part of their time on such studies
This **calls for the support of the group leaders / PIs** ...
 - ECFA delegates should help to communicate this message in their countries

3. RECFA Country Visits



Hungary, Budapest, 23 - 24 September 2022



Israel, Weizmann Institute, 3 - 4 November 2022

<https://ecfa.web.cern.ch/executive-summaries-and-letters-member-states>

Hungary: Main conclusions



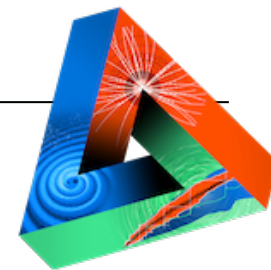
- The Hungarian particle physics community **is strongly engaged in and makes significant contributions** to today's particle physics research programme in both experiments and theory. (focus is on CERN-based experiments)
- The basic funding for particle physics, provided by the Ministry of Culture and Innovation, is complemented by several other funding opportunities that – by their nature – lead to large fluctuations in the research budget. In addition, unfunded areas exist.
→ Suggest that consideration should be given to establishing a more reliable funding scheme
- In order to maintain the industrial return from CERN and knowledge transfer at a high level, we recommend establishing an **industrial liaison office** in Hungary.
- We recommend that the particle physics community carry out a **coordinated longer-term strategic planning effort** and enter into dialogue on this with the Ministry / funding agency in order to establish a coherent long-term particle physics programme in Hungary.
- We are pleased that **improvements in the PhD and postdoctoral programmes have been made** since our last visit in 2013. However, further efforts are required to make these programmes more attractive and internationally competitive.
- We are concerned about the change in the governance structure of most Hungarian universities. The role of universities is to guarantee free research, including fundamental research for the creation of knowledge as cultural property, regardless of any economic benefits.

Israel: Main conclusions (preliminary)



- **Significant contributions to today's particle physics research programme in both experiments and theory.** On the experimental side, the focus is on the ATLAS experiment at CERN.
- Israel has an **outstanding science culture and has established a successful funding model**, with the Planning and Budget Committee (PBC) acting as an interface between the government and the higher research institutions. Israel's membership of CERN (since 2013) is an important asset, which has increased Israel's visibility in the international science landscape and opened up new opportunities.
- The funding situation for participation in CERN experiments supported by the PBC is solid. Base funding + several competitive grants, mainly provided via the Israel Science Foundation (ISF). Given the **change of policy by ISF to abandon larger combined grants**, we see a **risk that the coherence** that has been achieved **in physics exploitation could be jeopardised**. We encourage the ISF to think about alternative structures that are adapted to large science projects based on collaborative efforts.
- We are very concerned about Israel's **low rate of industrial return** from CERN. We recommend that structural changes be made and suggest that an **industrial liaison office be established in Israel**, which could act as a link between CERN, and possibly other international organisations, and Israeli industry.
- Given the strength and experience of the community, **a more ambitious and coherent detector research and development (R&D) programme would be desirable**, e.g. expanding into new technologies.

4. Joint ECFA-NuPECC-APPEC Activities



- Short article about JENAS meeting in Madrid will be published in the CERN Courier and in the APPEC Newsletter (NuPECC contribution appeared already in *Nuclear Physics News* in Sept. 2022)
→ see next slide
- Discussions of work plan of joint activities with Eol coordinators not yet done, however, meetings are being arranged now with all activity coordinators for early January 2023
- Follow-up on Madrid recommendations (computing, detector R&D, accelerator R&D, training and outreach, sustainability, knowledge transfer) needed;
Detector and accelerator R&D: basically covered, synergies should be used in DRDs and panels on accelerator R&D;
Computing: common workshop in preparation
Others: not yet addressed!
- NuPECC Long Range Plan process has been kicked off;
Bottom-up input could be submitted until 30 Sept;

Process is followed by K. Jakobs and J. Mnich as member of LRP Coordination Group;

FIELD NOTES

Reports from events, conferences and meetings

JENAS 2022

JENAS picks up the pace in Spain



Intersection Members of the particle, nuclear and astroparticle-physics communities meet at the CSIC auditorium in Madrid for the JENAS 2022 symposium.

The second JENAS (Joint ECFA (European Committee for Future Accelerators), NuPECC (Nuclear Physics European Collaboration Committee) and APPEC (AstroParticle Physics European Consortium) Seminar) was held from 3 to 6 May in Madrid, Spain. Senior and junior members of the astroparticle, nuclear and particle-physics communities presented their challenges and discussed common issues with the goal of achieving a more comprehensive assessment of overlapping research topics. For many of the more than 160 participants, it was their first in-person attendance at a conference after more than two years due to the COVID-19 pandemic.

Focal point

The symposium began with the research highlights and strategies of the three research fields. A major part of this concerned the progress and plans of the six joint projects that have emerged since the first JENAS event in 2019: dark matter (iDMeu initiative); gravitational waves for fundamental physics; machine-learning optimised design of experiments; nuclear physics at the LHC; storage rings to search for charged-particle electric dipole moments; and synergies between the LHC and future

electron-ion collider experiments. The discussions on the joint projects were complemented by a poster session where young scientists presented the details of many of these activities.

Detector R&D, software and computing, as well as the application of artificial intelligence, are important examples where large synergies between the three fields can be exploited. On detector R&D there is interest in collaborating on important research topics such as those identified in the 2021 ECFA roadmap on detector R&D. In this roadmap, colleagues from the astroparticle and nuclear-physics communities were involved. Likewise, the challenges of processing and handling large datasets, distributed computing, as well as developing modern analysis methods for complex data analyses involving machine learning, can be addressed together.

Overview talks and round-table discussions related to education, outreach, open science and knowledge transfer allowed participants to emphasise and exchange best practices. In addition, the first results of surveys on diversity and the recognition of individual achievements in large collaborations were presented and discussed. For the latter, a

joint APPEC-ECFA-NuPECC working group has presented an aggregation of best practices already in place. A major finding is that many collaborations have already addressed this topic thoroughly. However, they are encouraged to further monitor progress and consider introducing more of the best practices that were identified.

Synergy

One day was dedicated to presentations and closed-session discussions with representatives from both European funding agencies and the European Commission. The aim was to evaluate whether appropriate funding schemes and organisational structures can be established to better exploit the synergies between astroparticle, nuclear and particle physics, and thus enable a more efficient use of resources. The positive and constructive feedback will be taken into account when carrying out the common projects and towards the preparation of the third JENAS event, which is planned to take place in about three years' time.

Andreas Haungs APPEC chair,
Karl Jakobs ECFA chair and
Marek Lewitowicz NuPECC chair.

The goal was achieving a more comprehensive assessment of overlapping research topics



JENAS: Synergies on the Path of European Astroparticle, Particle and Nuclear Physics

Andreas Haungs, KIT (APPEC chair)
Karl Jakobs, U Freiburg (ECFA chair)
Marek Lewitowicz, GANIL (NuPECC chair)

The second JENAS, Joint ECFA (European Committee for Future Accelerators) - NuPECC (Nuclear Physics European Collaboration Committee) - APPEC (AstroParticle Physics European Consortium) Seminar was held in May 2022 in the auditorium of CSIC in Madrid: see <https://indico.cern.ch/event/1040535/>. For three days members of the European astroparticle, nuclear and particle physics communities presented their overlapping challenges and strategies. The symposium offered both senior and junior scientists of the three communities as well as representatives of the relevant funding agencies the opportunity to get a taste of each other's activities. For many of the more than 160 participants, it was their first on-site attendance at a conference after more than two years of the Covid pandemic. The aim of the JENAS symposium series is to achieve a comprehensive assessment of overlapping research topics in order to explore more efficiently our understanding of both the smallest and largest structures in nature.

The symposium started with overview talks on research highlights and strategies of the three individual research fields. A major part of the symposium concerned the progress and plans of the six joint projects that have emerged since the first JENAS in 2019: dark matter (iDMeu initiative); gravitational waves for fundamental physics; machine-learning optimised design of experiments; nuclear physics at the LHC; storage rings to search for charged-particle electric dipole moments; and synergies between the LHC and future electron-ion collider experiments. All these projects are open networks in which interested people can participate at any time (contact points see under <http://nupecc.org/jenas/?display=cois>). The discussions on these joint projects were complemented by a poster session where young scientists presented details of these activities.

R&D of detectors, Big Data computing and applications of Artificial Intelligence in the analysis and design of detectors and telescopes are just a few examples of developments that are important for our research and that were discussed at the meeting. Overview talks and round-table discussions on organizational matters related to education, outreach, open science and transfer of knowledge, provided lively debates between the participants. In addition, first results of surveys on diversity and the recognition of individual achievements in medium-size and large collaborations were presented and discussed. For the latter, a joint APPEC-ECFA-NuPECC working group has presented an aggregation of best practices already in place. A major finding is that many collaborations have already addressed this topic thoroughly.

However, they are encouraged to further monitor progress and consider introducing more of the best practices that were identified.

The physics presented at the seminar, especially in the context of future large-scale global research facilities such as the FAIR accelerator complex, the HL-LHC or the Einstein Telescope, which always deal with cross-cutting issues, requires concerted action not only among scientists but also with the relevant funding agencies. One day of the seminar was dedicated to presentations and closed discussions with representatives of the European funding agencies and the European Commission. They were asked to assess whether appropriate funding programmes and organisational structures could be created to exploit synergies between the research fields to enable a more efficient use of resources. The recommendations made and feedback received from the seminar participants and the funding agencies will be very thoroughly considered and in particular the third JENAS seminar in about three years will be very carefully planned and coordinated with the three communities and the funding agencies at an early stage.

The excellent organization and hospitality of the local organizers in Madrid, led by Maria Jose Garcia Borge, largely contributed to the success and the enjoyable atmosphere of JENAS 2022.

See also:

Nuclear Physics News, 2022, Volume 32/3, p 32; <https://www.tandfonline.com/toc/gnpn/20/32/3>
CERN Courier, Nov/Dec 2022; <https://cerncourier.com/p/magazine>.



Members of the astroparticle, nuclear and particle physics communities met in Madrid (CSIC) in May 2022 for the second JENAS Symposium



(i) Plenary ECFA meetings:

- 17 – 18 Nov. 2022 at CERN
- During 2023 EPS Conference in Hamburg (21 – 25 Aug. 2023)
- 16 – 17 Nov. 2023 at CERN

(ii) ICFA Seminar in Berlin, 28 – 31 March 2022

(European quota: 50 seats at CERN),
<https://icfa2022.cern.ch/>

Cancelled, no new date yet



Comments on ECFA-EPS meeting at EPS in August 2023

- The EPS-HEP Conference will take place in Hamburg from 21 – 25 August (change of format, Monday – Friday)
- This results in limited time of 2.5h for the ECFA-EPS block
(used to have a Saturday afternoon session of ~3 – 3.5 hours)

Present planning: (4h for ECFA + EPS Prizes → 2.5 hours, content to be defined by ECFA + EPS-HEPP Board)

First proposal: Focus on implementation of the European Strategy

- FCC feasibility study
- ECFA e^+e^- study
- Status of other e^+e^- projects (ILC, CLIC, CEPC, C^3)
- Detector Roadmap (implementation status, overview on proposals)
- Report on US Snowmass

Plenary talks (present thinking):

- Overview on Detector R&D highlights / recent achievements
- Overview on Accelerator R&D highlights / recent achievements

Comments on the ICFA seminar

- The ICFA seminar, planned to be held in Berlin, has been moved / cancelled a three times (was scheduled in 2020, moved to 2021, moved to 2022, then got cancelled)
- We have discussed this within RECFA
 - We consider it important to have such a seminar soon, i.e. in 2023, and we will give this feedback to ICFA;
This is as well supported by LDG (discussion at their last meeting)
- An ICFA seminar would be an ideal place to also foster cooperation between various regions / common projects / synergies
 - Synergies and cooperation in Accelerator R&D
 - Synergies and cooperation in Detector R&D
 - Physics and detector studies
 - ...

RECFA Country Visits (2022) and plans for 2023

Italy	4 - 5 March 2022	✓
Germany	1 -2 April 2022	✓
Ukraine	13 -14 May 2022	
Denmark	12 - 13 May 2022	✓
Hungary	23 - 24 Sept. 2022	✓
Israel	3 - 4 Nov. 2022	✓

2023: Planned country visits: Czech Republic 31 March - 01 April
Norway 28 - 29 April
Portugal 15 - 16 Sept.
Greece 10 - 11 Nov.

2024: Serbia
United Kingdom

...

In addition, a first visit to **Ukraine** is on hold

Stronger Involvement of Plenary ECFA members

- All ECFA members are welcome to send any ideas for initiatives, suggestions, complaints to

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