

Summary / Next Steps

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Plan Complementario AstroHEP:
**Tecnologías avanzadas para la exploración
del universo y sus componentes**



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la Unión Europea



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Plan de
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GENERALITAT
VALENCIANA
Conselleria d'Innovació,
Universitats, Ciència
i Societat Digital

CCAA: Andalucía, Aragón, Baleares, Cantabria, Cataluña, Madrid, C. Valenciana

Coordinación:

Coordinador Científico:

Ramon Miquel (IFAE, Cataluña)

Vice-Coordinador Científico:

Antxon Alberdi (IAA, Andalucía)

Coordinador Administrativo:

Joaquim Bosch (IFAE, Cataluña)

Objetivos:

1. Dar un salto cualitativo en la participación española en la siguiente generación de proyectos internacionales líderes en astrofísica y física de altas energías, enfatizando sus aspectos más tecnológicos
2. Potenciar la sinergia existente entre las comunidades de astrofísica y física de altas energías, tanto a nivel autonómico como nacional
3. Involucrar al tejido industrial interesado en ciencia

Presupuesto:

22.858.544 € | 16.848.801 €

Líneas de Actuación:

- 1: Futuros experimentos de Física de Partículas y Nuclear (AN, AR, CAN, CAT, MAD, CV)
- 2: Instrumentación astrofísica para ICTS, proyectos ESFRI, y misiones espaciales (AN, AR, CAN, CAT, MAD, CV)
- 3: Experimentos de ondas gravitacionales y astronomía de multi-mensajeros (CAT, IB, CV)
- 4: Grandes cartografiados astronómicos (AN, AR, CAN, CAT, CV)
- 5: Búsquedas directas de materia oscura (AR, CAN, CAT, MAD, CV)
- 6: Física de neutrinos (AN, CAT, CV)
- 7: Exploración espacial con nanosatélites (AN, CAT)
- 8: Computación, big data e IA (AN, AR, CAN, CAT, IB, CV)

What was the purpose of this meeting?

- First (?) joint scientific meeting between many of the members of the Spanish Astrophysics and High-Energy Physics communities:
 - Getting to know each other: people, research topics, etc.
 - Looking for opportunities to collaborate: intra- and inter-regional and also intra- and inter-field of research (the second of our goals!).
- Sometimes the border is somewhat arbitrary: neutrino and gravitational-wave astronomy in particle physics vs CMB and SKA in astrophysics, for instance (Plan Nacional...).
- Interesting connections through quantum technologies, for instance (axion search, CMB).
- Disclaimer: We have to keep in mind that we are NOT the whole Spanish community: Galicia, Basque Country and Canary Islands are missing, for instance. We shouldn't pretend we represent the community.

Next steps (I)

- We already heard on Monday by Jesús Salvador from MICINN that we will be asked about the “impact” of our program:
 - Economical impact on society (the third of our goals!).
 - Patents, spin-off, etc.
- We should keep this in mind and put the basis to be able to prepare a narrative about impact.
- Our program is quite disperse: we should also try our best to give it some coherence.
- Any (real) collaboration between different CCAA will be extremely well received.

Next steps (II)

- We are planning a follow-up meeting like this one towards the fall of 2025:
 - The exact dates will depend on the possible extension of the current program, which nominally ends on September 30, 2025. We are trying to push for an extension until March 31, 2026.
 - We should be able to present the almost-final results of the program and provide the inputs for the final report, due at some point in 2026.
 - We will be asking for volunteer sites to organize it.

Next steps (III)

- We heard on Monday that there could be a new call for Planes Complementarios focused on Knowledge and Technology Transfer (KTT):
 - It might be harder for us to get in there, but we should, of course, try.
- There might be a new call for scientific projects:
 - Not obvious if the areas will be the same or complementary... Ditto for the interests of each regional government.
 - Again, we should be ready to re-apply if the opportunity arises.

Thanks

- Thanks a lot to all of you for coming here.
- Thanks a lot to the University of Zaragoza for hosting us in this fantastic building.
- Thanks to Ígor, Javier and all the members of the LOC for the super-smooth organization, even when given very little time.



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Next session

- Now there's a 90-min time slot for separate meetings of the people from each region.
- Then, lunch will be on your own.
- Have a safe and pleasant trip back home!