Report on Innovation Management Across All CoEs

Additional Activities

**Summary Document**

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**Introduction**

This document presents the key recommendations from the *Report on Innovation Management Across All CoEs* prepared as an additional activity in Task 5.4 in Work Package 5 of FocusCoE. The full report provides a description, discussion, and analysis of the IPR and innovation management approaches employed by each of the 10 EU HPC CoEs which existed when the report was prepared, in order to draw useful conclusions and identify best practices with the benefit of a birds-eye-view of all CoEs. It was found that whilst the approaches taken by each of the CoEs differs slightly in the form they are presented, all activities can be framed by the 4-stage innovation management process from the European IPR Helpdesk[[1]](#footnote-1), at a high level, which includes: secure the foundations; capture project outputs; manage and protect project outputs; and disseminate, exploit and communicate project outputs. This report presents 17 key recommendations from the collective experience of the CoEs, which may be useful for current and future CoEs, across all aspects of Innovation Management and Sustainability.

**Key Recommendations**

**Recommendation 1**: CoEs should remain open minded regarding their definition and scope of what constitutes an ‘**Innovation**’. This helps to ensure all innovations are captured, not just those relating directly to advances in science and technology.

**Recommendation 2**: CoEs should include or explicitly signpost the location of their publicly available deliverables on their website.

**Recommendation 3**: CoEs should utilise an online repository (such as *zenodo*[[2]](#footnote-2)or *EU OpenAire*[[3]](#footnote-3)) and larger academic partners should disseminate deliverables via their website to offer redundancy, and to ensure the information remains in the public domain long beyond the lifetime of the project.

**Recommendation 4**: CoEs should aim to indicate the existence of all deliverables on their website, whether confidential or publicly available, presenting at least the deliverable title and submission date. Such information should also be available elsewhere, perhaps on CORDIS, ensuring it is available beyond the project lifetime.

**Recommendation 5**: In terms of timings of deliverables, it is recommended that they are delivered in line with the official reporting periods to make sure key metrics are consistently provided, syntax and semantics of the listing and labelling of innovations should also be as uniform as possible, and frequency changes should be avoided. This will make it easier for parties interested in the CoEs to learn about these and identify the right contacts.

**Recommendation 6**: CoEs should consider dual licencing options for software and other assets, if appropriate. This can be extended to all innovations arising from the project. Routes towards exploitation may be different amongst different markets and demographics, so should be adaptive.

**Recommendation 7**: CoEs should allocate appropriate resources at the start of the project to acquire the services of a professional web developer for at least an initial build of the community website, containing basic information. CoEs should also plan to have their website or a placeholder live ahead of their project launching, along with social media accounts linked to the project. This allows interested parties to confirm the existence of the project, follow and interact with the CoE and be alerted of important updates.

**Recommendation 8**: CoEs should promote each other’s content due to a proven multiplier effect, and engage in joint activities where possible. They should also engage with the media where possible and permissible. If the consortium of a CoE does not contain a specialist media-savvy partner, university partners often have access to dedicated media departments, who often have excellent media connections.

**Recommendation 9**: CoEs should focus their methods of engagement towards the demographic targeted. When the target audience includes non-experts for example, liberal use of images, graphs, and animations is recommended, with minimal technical content. The European Commission considers the general public as a key stakeholder, if the CoE can capture the interest of the media, it is a low cost-high impact means of targeting a wider audience. CoEs may need to consider activities that have a larger than typical cost in order to target these with high impact, such as production of computer generated or animated videos, and the running of general public-facing events.

**Recommendation 10**: Online events and conferences are recommended where possible. These are however not always suitable replacement for face-to-face event, such as tradeshows and virtual booths, where networking is key and often less effective without face-to-face contact. Online presentations, by contrast, have been shown to attract greater participation, both in attendee numbers and their ability to attract keynote speakers who are more likely to agree due to the reduced time commitment. Global reach can also be significantly increased by posting the recordings online following an event.

**Recommendation 11**: The length and format of feedback questionnaire should reflect and be proportional to the event or activity feedback is being requested for. The use of online and interactive questionnaires should also be considered. Online questionnaires and surveys offer a more trivial route to analysing data because the information is presented in a digital form, and the ease of completion may lead to greater uptake. There are also potential environment benefits which can be associated with a departure from the use of paper.

**Recommendation 12**: Feedback collection should not be limited to external stakeholders. It may be possible to obtain feedback from partners not directly involved in development activities, such partners may also be more likely to respond and may provide a useful, non-standard point of view on results.

**Recommendation 13**: CoEs should take an active approach to capturing IP, for example having a dedicated innovation management representative participate in each work package meeting.

**Recommendation 14**: CoEs should record and report instances of failure within their approach, highlighting the failure of historical and conventional approaches and the steps taken to improve such approaches. Such information will be useful in future decision-making processes.

**Recommendation 15**: If it is deemed that particular sustainability activities are incompatible with exascale scale development, then those particular sustainability activities should give way and/or be de-emphasised in order to ensure transition to the exascale. If development towards the exascale would struggle without additional public funding then this should be clearly communicated to the commission. This should not however prevent other sustainability routes being considered. If the CoE’s DoA includes work on sustainability then this should be addressed, but the emphasis should be on the exascale.

**Recommendation 16**: CoEs consider training and consultancy services as part of their sustainability plan, alongside other revenue streams they are able identify. Consultancy services in particular should not however be offered at the expense of the project research goals.

**Recommendation 17**: CoEs should consider sustainability as early as possible within the project and develop, and periodically update, two sustainability plans based on polar financial outcomes. A hypothetical scenario where the project receives full funding for another iteration, and a hypothetical scenario in which it is not possible to obtain any additional funding. It is unlikely that either scenario will be the outcome of the project, knowledge and planning for the extremes however will make formulation of a final sustainability plan more straightforward.

# Annex 1. Toolkit for Innovation Management Support and Resources

**IPR Helpdesk** (<https://www.iprhelpdesk.eu/>) is a public service with many resources, guidelines and training material to help organizations to manage their IP effectively, it can help promote your businesses or maximise the impact of research & innovation projects. Some relevant guidelines are to be found here:

* [Your Guide to IP Commercialisation](https://op.europa.eu/en/publication-detail/-/publication/a75b3213-ebf4-11e9-9c4e-01aa75ed71a1/language-en/format-PDF/source-search)
* [Your Guide to IP and Contracts](https://op.europa.eu/en/publication-detail/-/publication/c0988b95-4017-11eb-b27b-01aa75ed71a1/language-en/format-PDF/source-188383298)
* [Your Guide to IP Management in International Business](https://op.europa.eu/en/publication-detail/-/publication/bb7327c0-12a2-11eb-9a54-01aa75ed71a1/language-en/format-PDF/source-188386935)
* [Your Guide to IP in H2020](https://op.europa.eu/en/publication-detail/-/publication/e20da012-ec16-11e9-9c4e-01aa75ed71a1/language-en/format-PDF/source-164620712)
* [Your Guide to IP in Europe](https://op.europa.eu/en/publication-detail/-/publication/ddf8fb93-ec0e-11e9-9c4e-01aa75ed71a1/language-en/format-PDF/source-164620483)

Also [factsheets](https://intellectual-property-helpdesk.ec.europa.eu/regional-helpdesks/european-ip-helpdesk/europe-fact-sheets_en) are available to quickly check common IPR issues such as IP Enforcement, Trade secrets, Commercialising IP & License Agreements, Non-Disclosure Agreements as a Business tool or Trademarks or Copyright & related rights in the Digital Single Market. A [glossary](https://intellectual-property-helpdesk.ec.europa.eu/regional-helpdesks/european-ip-helpdesk/europe-glossary_en) with definitions of common IP terms, and related IP training and webinars are available in many topics from the [events section](https://intellectual-property-helpdesk.ec.europa.eu/news-events/events_en) in the website.

**Horizon IP Scan (** [**Horizon IP Scan (europa.eu)**](https://intellectual-property-helpdesk.ec.europa.eu/horizon-ip-scan_en) **).** Horizon IP Scan is a tailored, free-of-charge, first-line IP support service provided by the European Commission specifically designed to help European start-ups and other SMEs involved in EU-funded collaborative research projects to efficiently manage and valorise IP in collaborative R&I efforts.

Building on a vast network of experienced, local IP experts across Europe, the Horizon IP Scan team performs an individual, professional, jargon-free assessment of the intangible assets from SME’s in order to

* Show how the existing IP can be protected when starting on a research and innovation endeavour with multiple partners;
* Assist SMEs in developing a shared strategy with project partners to manage and exploit new IP jointly generated in your project.

**Horizon Results Booster** (<https://www.horizonresultsbooster.eu>) is a package of specialised services to maximise the impact of R&I public investment and further amplify the added value of the Framework Programmes (FPs). Services include:

* Support to projects in the creation of a portfolio of project results, a dissemination plan and the definition and improvement of an exploitation strategy.
* Support in the definition of a business plan to bring results closer to market, including: market analysis, competitor identification, business strategy, operations plan, action plan and estimation of time to market.
* Support in go-to-market activities including pitching, IPR support, innovation management, commercial development, and spin-offs and start-ups creation support.

Services are provided free of charge and any H2020 project can apply for it either as individual project or part of a project group.

**Horizon Results Platform (** [**Horizon Results Platform (Europa.eu)**](https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/horizon-results-platform) **)** . In H2020, a result is defined as: “*Any tangible or intangible output of the action, such as data, knowledge and information whatever their form or nature, whether or not they can be protected, which are generated in the action as well as any attached rights, including intellectual property rights*”. Article 26, Annotated Model Grant Agreement (AMGA)[[4]](#footnote-4).

A Key Exploitable Result (KER[[5]](#footnote-5)) is an identified main interesting result which has been selected and prioritised due to its high potential to be “exploited” – meaning to make use and derive benefits – downstream the value chain of a product, process or solution, or act as an important input to policy, further research or education.

Horizon Results Platform is the website provided by the European Commission to upload project Key Exploitable Results. Project participants and coordinator can upload the results from the participants portal. In there some basic information on each of the results is provided in different steps:

* Section 1: Basic information on the result (Title, Short description, Target Audiences, Needs, etc.)
* Section 2: Basic information about the project (including other related projects, result owners and contributors, etc.)
* Section 3: Result Description and Influence (such as business sectors, relevant key words, contribution to sustainable development, etc.)
* Section 4: Result and Business Maturity (including TRL level, current stage and next level, unique value proposition)
* Section 5: Investors Corner (for specific information related to investors (public or private)
* Section 6: Summary

Horizon Results Platform is used by policy-makers, investors, entrepreneurs, researchers, innovation, legal, business development or financing experts, or any interested citizen.

**European Enterprise Network (EEN**) ( [Enterprise Europe Network (europa.eu)](https://een.ec.europa.eu/) )

The Enterprise Europe Network helps businesses innovate and grow on an international scale. It is the world’s largest support network for small and medium-sized enterprises (SMEs) with international ambitions. The Network is active in more than 60 countries worldwide. It brings together 3,000 experts from more than 600 member organisations – all renowned for their excellence in business support. Member organisations include technology poles, innovation support organisations, universities and research institutes, regional development organisations, chambers of commerce and industry.

Individual businesses can’t become Network members, but they can enjoy the many services offered, such as Advise & Support for International Growth, Business Innovation and International Partnerships.

# Annex 2: Innovation Radar

The methodology of the Innovation Radar was originally described in following Joint Research Center Report: Innovation Radar: Identifying Innovations and Innovators with High Potential in ICT FP7, CIP & H2020 Projects (Giuditta De Prato, Daniel Nepelski, Giuseppe Piroli, 2015).[[6]](#footnote-6) The paper duly describes the different innovation metrics and criteria considered for the assessment of the innovation potential and capacity of results in ICT FP7, CIP and H2020 Projecs. Report included an early assessment of main outcomes at the date incuding 279 ICT FP7/CIP Projects between May 2014 and January 2015. Report included a sample of the questionnaire for data collection. Following questionnaire is filled by independent innovation experts contracted by the European Commission, and in some cases consortium itself also contributes to fill it in.

Further details on the indicators are provided at the Innovation Radar website[[7]](#footnote-7) :

Innovation Potential Indicator considers:

* The Innovation Readiness – related to the technical maturity of the technology and accounts project activities related to prototyping, demonstration, testing or feasibility studies).
* The Innovation Management – related to the capability of the consortium to bring innovations to the market and accounts how project is tackling issues related to ownership, IPR, preparation of business / exploitation plan, market study or securing follow up funding from public or private sources.
* Market Potential – related to the target markets and how the technologies created under the project are able to fulfil them.

Innovator Capacity Indicator considers

* The innovator’s ability of organizations, and is evaluated by means of the number of times organizations have been spotted by the innovation radar, and external reviwer’s opinions.
* The innovator’s environment, by means of the willingness and commitment of relevant partners within the consortium to exploit innovations or to spill-over innovations to their environments.

As a result of those indicator four maturity levels of innovations have been defined: Market Ready – when both indicators are excellent. Tech ready, Business Ready and Exploring for earlier stages in both.

A full list of innovations spotted by Innovation Radar can be found on the HPC CoE website:

<https://www.hpccoe.eu/2021/03/22/list-of-innovations-by-coes-spotted-by-innovation-radar/>

# Annex 3: Social Media Information

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| **CoE** | **Website** | **Twitter** | **LinkedIn** | **YouTube** |
| **BioExcel** | https://bioexcel.eu/ | @BioExcelCoE | https://www.linkedin.com/company/bioexcel/ | https://www.youtube.com/c/BioExcelCoE |
| **ChEESE** | https://cheese-coe.eu/ | @Cheese\_CoE | https://www.linkedin.com/company/cheese-coe/ | - |
| **CoEC** | https://coec-project.eu | @CoEC\_EU | https://www.linkedin.com/company/coec-eu/ | - |
| **CompBioMed** | https://www.compbiomed.eu/ | @bio\_comp | https://www.linkedin.com/company/compbiomed/ | https://www.youtube.com/channel/UCUiIfmesH\_psiArXT3xcppA |
| **EoCoE** | https://www.eocoe.eu/ | @EoCoE\_project | https://www.linkedin.com/company/hpc-energy/ | https://www.youtube.com/channel/UCfgL4SiiztRrquNMRY\_h8Nw |
| **ESiWACE** | https://www.esiwace.eu/ | @esiwace | - | https://www.youtube.com/channel/UC4VnUf-ZZOE2OOnK5MOGPmg |
| **Excellerat** | https://www.excellerat.eu/ | @EXCELLERAT\_CoE | https://www.linkedin.com/company/excellerat/ | - |
| **E-CAM** | https://www.e-cam2020.eu/ | @ECAM2020 | https://www.linkedin.com/company/e-cam/ | - |
| **FocusCoE** | https://www.focus-coe.eu | @FocusCoE | https://www.linkedin.com/company/focus-coe/ | https://www.youtube.com/channel/UC6izVHHZxW2ybxw4lLR9BCg |
| **HiDALGO** | https://hidalgo-project.eu/ | @EU\_HiDALGO | - | https://www.youtube.com/channel/UCajIi2XMTsQRDMKcvgvoaAg |
| **MaX** | http://www.max-centre.eu/ | @max\_center2 | https://www.linkedin.com/company/max-centre/ | https://www.youtube.com/channel/UCcoGe0aUy4gDVRNgjQlVf3g |
| **POP** | https://pop-coe.eu/ | @POP\_HPC | - | https://www.youtube.com/channel/UCUdzIjq5dfPd3X5cO7482ow |
| **NOMAD** | https://www.nomad-coe.eu/ | @NoMaDCoE | - | https://www.youtube.com/channel/UCG1B2E82zuJ-MChCuofOBaA |
| **PerMedCoE** | https://permedcoe.eu/ | @PerMedCoE | https://www.linkedin.com/company/permedcoe/ | https://www.youtube.com/channel/UClZV7luI2oU-TV-jKtEPzKw |
| **RAISE** | https://www.coe-raise.eu/ | @CoeRaise | https://www.linkedin.com/company/coe-raise/ | https://www.youtube.com/channel/UCAdIZ-v6cWwGdapwYxdN7dg |
| **TREX** | https://trex-coe.eu/ | @trex\_eu | https://www.linkedin.com/company/trex-eu/ | https://www.youtube.com/channel/UCgkQzeUW6O77jLpUEtm2RDA |

1. <http://www.iprhelpdesk.eu/> [↑](#footnote-ref-1)
2. https://zenodo.org/ [↑](#footnote-ref-2)
3. https://explore.openaire.eu/ [↑](#footnote-ref-3)
4. https://ec.europa.eu/research/participants/data/ref/h2020/grants\_manual/amga/h2020-amga\_en.pdf [↑](#footnote-ref-4)
5. https://webgate.ec.europa.eu/funding/display/ECResearchGMS/Managing+Project+Results+in+the+Horizon+Results+Platform#ManagingProjectResultsintheHorizonResultsPlatform-KER\_definition [↑](#footnote-ref-5)
6. http://publications.jrc.ec.europa.eu/repository/bitstream/JRC96339/jrc96339.pdf [↑](#footnote-ref-6)
7. https://www.innoradar.eu/methodology [↑](#footnote-ref-7)