EARTO Response to the EC Survey on the draft Code of practice on industry-academia co-creation for knowledge valorisation – 20 October 2023

Fields marked with * are mandatory.

Introduction

Industry-academia[1] co-creation refers to the process of joint production and valorisation of knowledge between industry, research and innovation actors and possibly other stakeholders such as public authorities and civil society[2].

Industry-academia co-creation entails systemic relations based on joint interests between different stakeholders and thus covers a wider spectrum of interactions beyond joint research and technology transfer.

Efficient industry-academia co-creation is key to accelerate the uptake of innovative solutions and to develop new technologies, products, and services to address the most pressing societal challenges such as ensuring fair green and digital transitions.

The Commission is developing a Code of practice on industry-academia co-creation for knowledge valorisation to provide detailed guidance and tools for actors involved in research and innovation (R&I). Guidance is needed to establish interactive models supporting co-creation, to foster the role of intermediaries and digital platforms that facilitate co-creation and to better match the supply and demand for innovation.

The content of the draft Code of practice presented in this survey builds on the co-creation process achieved with the community of practice on industry-academia collaboration for knowledge valorisation. The draft Code of practice reflects the new directions introduced by the Guiding principles for knowledge valorisation as it encourages connections and co-creation between all R&I actors and emphasises the importance of entrepreneurial skills and practices.[3]

All categories of actors involved in R&I such as universities and other higher education institutions, public and private research, innovation and technology organisations, research and technology infrastructures, businesses of all sizes, including start-ups, spin-offs and scale-ups, and intermediaries, such as knowledge and technology transfer professionals, incubators, science parks and corporate based intermediaries should be encouraged to follow the future Code of practice. Although parts of the draft Code of practice are formulated at the organisation level, their scope is also crucial to guide individual researchers, innovators, and their teams in industry-academia co-creation.

2

The recommendations in the Code of practice should be applied in compliance with any relevant rule at national or regional level and at the level of the Union.

In this survey the Commission is inviting stakeholders to provide further input to the recommendations in the draft Code of practice.

The deadline to reply to this survey is 20 October 2023.

[1] For the purpose of this code of practice academia refers to universities and other higher education institutions, research and technology organisations and other public research organisations. This includes also universities of applied science and other (higher) vocational education and training.

[2] Adapted from the concept of knowledge co-creation in the OECD Policy Report "Knowledge co-creation in the 21st Century".

[3] Council Recommendation (EU) 2022/2415 of 2 December 2022 on the guiding principles for knowledge valorisation (OJ L 317, 9.12.2022, p. 141).

Respondent details

You are responding as

- **an individual**
- **a representative of an organisation**

Survey

The draft Code of practice on industry-academia co-creation for knowledge valorisation is structured under the following headings:

1. Creating an enabling environment for industry-academia co-creation

1.1. Strategy, awareness raising and incentives

1.2. Skills development and lifelong learning

1.3. Networking and communication

2. Effective knowledge valorisation in industry-academia co-creation

2.1. Conditions for thriving partnerships

2.2. Involving intermediaries

2.3. Enhancing the valorisation of industry-academia co-creation outcomes

2.4. Assessing outcomes, value created and impact

1. Creating an enabling environment for industry-academia co-creation

1.1. Strategy, awareness raising and incentives

1.1.1. It is recommended to **promote industry-academia co-creation in the strategy of the organisation** by:

- Establishing a clear mission to promote industry-academia co-creation and develop fit for purpose research and development strategies endorsed by the top management.
- Creating an enabling environment by investing time and resources; providing guidance on the identification of potential partners (taking into account interests, commitment, prior experiences and complementarity of capabilities); and providing information on the types of co-creation and partnerships available (different degrees of involvement, duration and conditions).
- Establishing joint advisory boards and actively promoting activities to build trust and mutual knowledge such as networking, secondments and exchange of staff between the partners to foster more efficient and sustainable partnerships.

1.1.2. It is recommended to **raise awareness at the organisation level on the mutual benefits and value creation opportunities** offered by industry-academia co-creation by:

- Fostering a culture of intersectoral co-creation and mutual learning by exchanging ideas about topics of common interest and by sharing examples of success stories and best practices[1].
- Aligning public and private interests by identifying shared challenges and objectives between industry and academia such as addressing societal needs or advancing technological innovation.
- Informing about the benefits of knowledge co-creation for industry such as contributing to societal needs, improving industrial research, access to talent and skills exchange, access to publicly funded research programmes, sharing risks to test new ideas and technologies, enhancing products or services, and improving business competitiveness.
- Informing about the benefits of knowledge co-creation for research organisations such as contributing to societal needs, stimulating the development of spin offs, projects, and joint publications, industrial application of research results, exposure to industry, skills exchange and access to infrastructures, enhancing employability of students and researchers and financial opportunities including more funding opportunities.
- Engaging with policymakers and administrations regarding policies about industry-academia cocreation and about funding and tax incentives (for example for the funding of industrial PhDs).
- Creating joint activities such as case study competitions, hackathons, communication campaigns and joint training courses.

1.1.3. It is recommended to **provide incentives for all staff to participate in industry-academia cocreation** by:

- Recognising and rewarding successful industry-academia partnerships and participation in staff exchange/mobility schemes in performance evaluations, career assessments and progression of staff.
- Informing about the benefits offered by different co-creation and partnership possibilities for industry and academia staff such as lifelong learning, professional and personal development, experiencing research autonomy, accessing leadership roles, benefitting from research commercialisation opportunities.
- Engaging in bi-directional intersectoral mobility, from industry to academia and from academia/PRO to industry, to promote co-creation and cross disciplinary activities such as campus programmes to bridge the gap between research and practical applications by industry.
- Providing information to all staff about available tools and programmes including project grants, fellowships, scholarships, industrial doctoral and post-doctoral programmes (such as Marie Skłodowska-Curie Actions (MSCA) Post-doctoral fellowships hosted by industry[2] and MSCA Industrial Doctorates[3]), proof of concept grants[4], support services, training and coaching offers, funding opportunities and relevant events.

[1] Best practice examples can be found in the Repository of Best Practices | Research and Innovation (europa.eu)
[2] MSCA Postdoctoral fellowships
[3] MSCA Doctoral Network
[4] Proof of Concept | ERC (europa.eu)

Would you like to add or amend anything in the proposed recommendations in section 1.1. Strategy, awareness raising and incentives.
Yes No

EARTO Response

Yes

- The titles in this strategy chapter describe the importance of including industry-academia co-creation in organisation's strategy and practical operations and creating incentives for it. Such incentives should include funding and other incentives for research organisations internal processes or Offices of Industry Relations and Knowledge Transfer Offices.
- Raising awareness, especially for researchers themselves and research organisations internal Offices of Industry Relations and Knowledge Transfer Offices of the topic is important to get wider audiences to understand the importance of it.
- Joint advisory boards should be built when useful, but all unnecessary rules and bureaucracy should be avoided to avoid disempowerment of research organisations and putting in place artificial external barriers to industry / research organisation co-creation and knowledge transfer.
- PhD and post-doc funding should be offered also for research institutes and companies, not only for universities.
- Concerning mobility, international mobility should also be encouraged, however, there is an urgent need to resolve the critical issue concerning the excessive administrative burden on international mobility caused by EU directives (directives 2014/67/EU and 2018/957/EU, EU Regulation 883/04 and 987/09), e.g. for business travels and staff exchanges or secondments. The procedure for the recognition of educational qualifications must also be greatly simplified, accelerated, and made less costly. This is an issue that affects all organisations, see EARTO Position Paper on Current Hurdles to Mobility of Researchers. This is explicitly in issue in the context of MSCA projects, where secondments for a longer period are mandatory.

1. Creating an enabling environment for industry-academia co-creation

1.2. Skills development and lifelong learning

1.2.1. It is recommended to **invest in the development of skills and in lifelong learning** for enhanced industry-academia co-creation by:

- Providing coaching, mentoring, professional and personal development opportunities for all staff across industry and academia, including by facilitating access to micro-credentials, vocational training and lifelong learning.
- Investing in diverse and flexible learning opportunities to address evolving needs across industry and academia and involving relevant teachers and guest lecturers with diverse profiles especially from industry.
- Strengthening the soft skills necessary for staff across industry and academia to cooperate effectively such as communication, leadership, adaptability to evolving work environments, flexibility and negotiation skills.
- Fostering a comprehensive understanding of the functioning of businesses and offering training and possibilities for students and researchers to pitch their projects in front of panels of industrial representatives to receive feedback and create a network for future professional development.
- Developing project management, supervision and mentorship, impact assessment, communication, knowledge co-creation, valorisation and innovation skills for all staff and students across academia. This involves training on evaluation methodologies, measurement frameworks, and assessment of project outcomes and societal impact.
- Fostering strategic thinking and entrepreneurship skills for students and researchers to develop spinoffs and start-ups based on innovative products and services bringing their research results into practical applications on the market.
- Increasing training on R&I funding opportunities and fostering a comprehensive understanding of the functioning and activities of academic and research institutions across industry and in particular SMEs.
- Developing intellectual assets management skills by providing trainings and courses adapted to their needs. Trainings and courses should aim at both industry (especially SMEs) and academia (ideally in mixed groups) and should focus on the management of intellectual assets in projects and partnerships, including open science and open innovation considerations, in line with the Code of practice on the management of intellectual assets for knowledge valorisation in the ERA.
- Developing skills related to the use of digital platforms and digital tools providing opportunities to enhance co-creation between industry and academia such as lifelong learning, professional and personal development and networking.
- Developing skills related to data literacy and data management for knowledge valorisation with trainings for students and staff on data collection, analysis, and interpretation techniques, as well as data-driven decision-making.
- Encouraging the participation of all staff (including managerial and administrative staff) and students in relevant intersectoral mobility schemes between academia and industry and other schemes such as MSCA Post-doctoral Fellowships[1], MSCA Doctorate Networks[2], MSCA Staff Exchanges[3], Erasmus+[4], EIT Knowledge and Innovation Communities[5] and other similar initiatives.

[1] MSCA Postdoctoral fellowships

[2] MSCA Doctoral Network
[3] Staff Exchanges | Marie Skłodowska-Curie Actions (europa.eu)
[4] Home | Erasmus+ (europa.eu)
[5] EIT Communities | EIT (europa.eu)

Would you like to add or amend anything in the proposed recommendations in section 1.2. Skills development and lifelong learning?
Yes No

EARTO Response

Yes

Skills development and life-long learning are important aspects to effectively promote and enhance industry-academia cocreation, especially for the researchers themselves and for the research organisations Industry Relation Offices and

Knowledge Transfer Offices. Both full-time comprehensive training initiatives, as well as short courses about changing current topics, are needed. These learning offerings should follow the current and coming needs, e.g., AI and its use in research is just now a very hot topic and there is a huge need for relevant information and training matching these different needs. Such Skills development and life-long learning should also apply to research organisations Offices of Industry Relations and Knowledge Transfer Offices which should additionally benefit from more incentives and funding.

1. Creating an enabling environment for industry-academia co-creation

1.3. Networking and communication

1.3.1. It is recommended to **invest in networking, communication and relationship-building** to facilitate industry-academia co-creation by:

- Encouraging staff to engage in networking activities within the organisation and with external organisations and raising awareness about the opportunities of networking.
- Organizing and joining events bringing together industry (including SMEs, spin offs and start-ups) and academia to exchange about common interests, challenges and opportunities.
- Maintaining an active alumni network to build connections and create possibilities for alumni entrepreneurs and alumni working in industry to share their expertise with students and mentoring.

Joining clusters[1], networks[2], platforms[3], joint working groups, and advisory boards (both formal and informal) and using available support services (such as incubators, accelerators, Knowledge and Technology Transfer Offices (KT/TTOs), liaison offices and third party experts) at European, national and regional level.

- Raising awareness about the challenges related to international R&I cooperation and possible foreign interference[4] as well as promoting possible partnerships between EU businesses and global academic partners[5].
- Using available digital platforms or brokerage firms matching industry and academia, as well as other relevant stakeholders including citizens and public authorities to engage and explore co-creation opportunities.
- Identifying well-established and professionally run digital platforms providing advanced matchmaking (with search options, filters, customized alerts etc) and offering interactive opportunities for users to share their needs and to support the alignment of their goals and objectives.
- Establishing internal liaison offices with the necessary means and resources to act as contact points for industry-academia co-creation, to provide information about different opportunities and to ensure smooth relations with partners.
- Promoting long-term and sustainable post-project engagement, relationships and partnerships between industry and academia.

[1] Such as Homepage | European Cluster Collaboration Platform
[2] Such as Enterprise Europe Network | Enterprise Europe Network (europa.eu)
[3] Such as Horizon Results Platform (europa.eu)
*
[4] European Commission, Directorate-General for Research and Innovation, Tackling R&I foreign interference – Staff working document, Publications Office of the European Union, 2022
[5] Available data in RISE Impact Analysis: Marie Skłodowska-Curie Actions - Publications Office of the EU (europa.eu)

Would you like to add or amend anything in the proposed recommendations in section 1.3. Networking and communication?
Yes No

EARTO Response
Yes
Networking, communication and relationship-building are important ways to promote industry-academia co-creation. This role should be supported by the researchers themselves, who should be trained for that, and the research organisations internal Industry relations offices and knowledge and Knowledge Transfer Offices. Each organisation should organise its internal operations in the most suitable way for it. No measure should be put in

place to relieve research organisations and their researchers of responsibility in their collaboration strategy with industry, this strategy itself being linked to their scientific programming strategy which cannot be decided by artificial external intermediaries who are not other research organisations working collaboratively. The establishment of an external intermediary must in no way disrupt the collaboration strategy between research organisations, which is also closely linked to their scientific programming strategy.

2. Effective knowledge valorisation in industry-academia co-creation

2.1. Conditions for thriving partnerships

2.1.1. It is recommended to **develop a joint industry-academia partnership framework** for effective knowledge valorisation by:

- Agreeing on a shared vision, goals, expectations (including expectations about the contribution of industry partners) and objectives translating a high level of engagement and long-term commitment.
- Establishing a clear and comprehensive contractual framework, governance structure, arrangements for the management of the partnership and a conflict resolutions procedure.
- Agreeing on a detailed planning and roadmap of the partnership including milestones and deadlines and their regular review.
- Defining specific indicators to monitor and evaluate the progress, the value created and the impact (environmental, technological, economic, societal, political and health) of the partnership.
- Developing a joint intellectual assets management strategy[1] including considerations about background knowledge, exchange of data, valuation, joint management and ownership of intellectual property, open science and open innovation practices.
- Agreeing on confidentiality, data ownership and data privacy issues and a common policy on conflicts of interest.
- Establishing a clear structure for cooperation, if relevant with a dedicated team within partner organisations, with specifically trained staff. These teams may be supported by KT/TTOs for academia partners or relevant associations for industry partners.
- Establishing a cross-sectoral common working terminology between partners. Promoting equality, diversity and inclusion, as well as avoiding gender bias in the objectives and activities of the partnership.
- Fostering trust between the parties and commitment to the partnership framework by all parties involved.
- Raising awareness about the partnership framework and the different roles and resources of partners to all parties involved in the partnership.

[1] It is recommended to follow the guidance provided in the Code of practice on the management of intellectual assets for knowledge valorisation in the ERA regarding the management of intellectual assets in joint research and innovation activities and the recommendations about predominantly publicly funded projects.
*

Would you like to add or amend anything in the proposed recommendations in section 2.1. Conditions for thriving partnerships?
Yes No

EARTO Response
Yes

Shared vision and goals are important, but all the conditions mentioned shouldn't be mandatory.
Clear guidance on what can be applied case by case would help the collaboration. E. g. comprehensive contractual framework can cause unnecessary bureaucracy and other unwanted and unneeded administrative burdens.

Impact metrics would be very interesting to have, but all the impacts are very difficult to measure in a quantitative way so those metrics and indicators should be interpreted keeping in mind the possible biased results.

Joint IP strategy and practical operating plan are very important. All the parties should understand the ownership and rules of data and intellectual assets to prevent any discrepancies.

No measure should be put in place to relieve research organisations of responsibility in their collaboration strategy with industry, this strategy itself being linked to their scientific programming strategy which cannot be decided by artificial external intermediaries who are not other research organisations working collaboratively. The establishment of an intermediary must in no way disrupt the collaboration strategy between research organisations, which is also closely linked to their scientific programming strategy.

2. Effective knowledge valorisation in industry-academia co-creation
2.2. Involving intermediaries

2.2.1. It is recommended to **foster the role of intermediaries** to encourage and manage sustainable long-term industry-academia co-creation by:

- Supporting and relying on various types of intermediaries including corporate-based and other professional facilitators (such as Industrial sector or scientific associations) helping with dialogue and understanding in working relationships; contract managers overseeing formal transactions including matters relating to intellectual assets management; or organisations supervising multi-stakeholder co-creation spaces such as sandboxes, testbeds, platforms, or living labs.
- Relying on the support of intermediaries in the partnership with the role to mediate and facilitate the communication between partners (not only as an entity within partner organisations). Involving intermediaries in developing partnership frameworks and in competitive calls in association with funding agencies.
- Relying on intermediaries to give perspectives on matters relating to responsible innovation, regulatory advice, and guidance on relevant matters in which the organisation may not have expertise (such as technology risk management).
- Providing adequate resources including funding and investing in the professionalisation of intermediaries and recognising their key role in European, national and regional innovation ecosystems and in aligning multi-stakeholder, inter-sectoral and regional interests both in industry and academia.
- Empowering intermediaries and investing in necessary skills with funding of study visits and training opportunities on financial and non-financial valorisation of results and social entrepreneurship.
- Encouraging intermediaries from industry and academia to engage with regional policymakers and administrations to create and/or strengthen regional innovation hubs and attract investment.

Would you like to add or amend anything in the proposed recommendations in section 2.2. Involving intermediaries ?

EARTO Response

Yes

Efficient types of intermediaries might be needed in a case-by-case analysis. Quite often the role of the intermediary is integrated into the projects and no external intermediaries are needed. There shouldn't be any mandatory roles or expectations of intermediaries and it should be flexible case-by case-which form is best for the ongoing project. Most important is that research organisations and their internal offices of industry relations or Knowledge Transfer Offices keep the responsibility of the relations with industry, according to international best practices (RTOs, Anglo-Saxon universities, KU Leuven, worldwide technology universities, ….).

RTOs role as intermediaries is crucial in industry-academia co-creation and that could be promoted with guidance and incentives. RTOs know the functions and sides of all the parties so their role is not artificial, nor it does not create any extra burden for any of the parties. RTOs often offer research infrastructures and testbeds for the other parties which also supports their intermediary. Generalist universities on average carry out fundamental research between TRL 0 and 2. These universities and RTOs, which on average carry out applied research from TRL 2 to the market, therefore often have an interest, given their complementarity, in collaborating so that RTOs as intermediaries can bring the knowledge of these universities to the market. Furthermore, RTOs are not-for-profit research organisations with a public mission and are therefore more relevant to serve as intermediaries because they respect the general interest better than possible private intermediaries who act according to their private interests.

2. Effective knowledge valorisation in industry-academia co-creation
2.3. Enhancing the valorisation of industry-academia co-creation outcomes

2.3.1. It is recommended to **promote valorisation of the outcomes** of industry-academia co-creation activities by:

- Including for each expected result, provisions about ownership, control (including protection of intellectual property) and valorisation plan for enhanced impact.
- Establishing efficient channels and tools for ensuring uptake of results and identifying key staff and contact points for each partner.
- Encouraging targeted joint trainings on specific commercialisation and valorisation related aspects.
- Encouraging the use of already established tools and services that promote the identification of results with high innovation potential and support development of strategies and business plans for uptake in society.

2.3.2. It is recommended to **pool resources and engage in joint infrastructures** to enhance industry academia co-creation by:

- Investing in and getting involved in joint infrastructures such as shared workspaces, testbeds and innovation parks which provide help from professional staff, including business development, industry liaison, KT/TTOs managers, and research funding managers to link industry and academia.
- Providing access to resources such as shared research facilities, equipment, and data repositories to support joint activities.
- Providing guidance on co-creation methods (e.g., design thinking, user-centred approaches and participatory action) tailored to the specific goals and objectives of the partnership.

Would you like to add or amend anything in the proposed recommendations in section 2.3. Enhancing the valorisation of industry-academia co-creation outcomes?
Yes No

EARTO Response

Yes

A common understanding of IPR-related issues and legal framework for the exploitation agreement of expected results is crucial. Indirect benefits for society should be understood and the creation of those promoted.

Increase the accessibility of joint infrastructures' services (through R&I programmes and instruments and via the adoption of guidelines for common access conditions).

State-aid rules or other regulatory rules shouldn't increase the administrative burden of establishing or prevent the building of joint infrastructures, either defined as technology or research infrastructures or hinder applied Research carried out by Research and Knowledge Dissemination Organisations. Any proposed governance models should be lean and cost-effective.

Artificial pooling of resources risking relieving research organisations and their researchers of responsibility in knowledge transfer activities, relation with industry activities and RD&I collaboration with other research organisations should be avoided.

2. Effective knowledge valorisation in industry-academia co-creation
2.4. Assessing outcomes, value created and impact

2.4.1. It is recommended to **assess the outcomes, value created and impact** of industry-academia cocreation activities by:

- Jointly selecting adequate metrics to be used to evaluate the outcomes (such as identified innovations, patents, trademarks and contributions to standards), value created and impact (environmental, technological, economic, societal, political and health) of the partnership while ensuring a balance between business-, social- and research-oriented metrics.

- Measuring the outcomes of the partnership in terms of professional relationships, trust developed, and knowledge shared between the partners using targeted surveys and similar tools.
- Agreeing on the metrics to measure the value created by each expected result identified in the partnership framework and where relevant foreseeing comprehensive periodic reporting.
- Using impact case studies to systematically assess societal impact and value created for society in particular for predominantly publicly funded projects.
- Ensuring that all parties are aware of the value and impact created by the partnership in view of providing input to develop future activities and/or partnerships.

Would you like to add or amend anything in the proposed recommendations in section 2.4. Assessing outcomes, value created and impact?
Yes No

EARTO Response

Yes

Assessing and measuring the outcomes and impact of the industry-academia co-creation is not easy. New indicators should be developed, and a better understanding of the existing metrics should be gained. Qualitative analysis is needed to complete the information from the quantitative metrics.

Defining metrics should not be left only to research organisations and industry. It is the responsibility of Member States and public institutional RDI program funding agencies, including the European Commission in the FP, to define these metrics, in liaison with RDI stakeholders, in the Public Interest.

Additional comments

Please include any other comment not covered by the previous questions:
1000 character(s) maximum
We thank you for completing this questionnaire. Your responses have been saved automatically.

Contact

Contact Form