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From: Secretary-General of the European Commission, signed by Ms Martine DEPREZ, Director

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To: Ms Thérèse BLANCHET, Secretary-General of the Council of the European Union

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Subject: COMMISSION RECOMMENDATION of 1.3.2023 on a Code of Practice on the management of intellectual assets for knowledge valorisation in the European Research Area

Delegations will find attached document C(2023) 1321 final.

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Brussels, 1.3.2023
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COMMISSION RECOMMENDATION

of 1.3.2023

**on a Code of Practice on the management of intellectual assets for knowledge
valorisation in the European Research Area**

COMMISSION RECOMMENDATION

of 1.3.2023

on a Code of Practice on the management of intellectual assets for knowledge valorisation in the European Research Area

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 292 thereof,

Whereas:

- (1) Efficient intellectual assets management 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 in line with the objective of the New European Innovation Agenda¹ while keeping in sight the open strategic autonomy of the Union in research and innovation.
- (2) About 20% of the world's scientific and technological output is produced in the Union². Knowledge-intensive and innovative companies that rely considerably on intangible assets for growth have shifted their approach towards intellectual assets control over the past two decades, as shown by the sharp increase in investment in 'intellectual property products' by 87% in the Union³. Moreover, mobilising research and innovation (R&I) capacities through efficient intellectual assets management and increased industry-academia collaboration will boost the performance of sectors in which research and development investments decreased over the past years, especially for those hit hard by the COVID-19 crisis, such as the aerospace and defence, the automotive and the chemical sectors.
- (3) In addition to formal intellectual property rights (such as patents or copyright), it is crucial to consider other types of intellectual assets such as publications, data, know-how generated by R&I actors to increase value creation opportunities and social innovation. Intellectual assets constitute a key component of knowledge valorisation for results from Horizon Europe⁴ and other EU funding programmes financed through

¹ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – A New European Innovation Agenda (COM (2022) 332 final).

² Science, Research and Innovation performance of the EU, 2022 (SRIP) Report

³ Communication from the Commission to the European Parliament, the Council, the European Economic And Social Committee and the Committee of the Regions – Making the most of the EU's innovative potential – An intellectual property action plan to support the EU's recovery and resilience (COM (2020) 760 final).

⁴ Regulation (EU) 2021/695 of the European Parliament and of the Council of 28 April 2021 establishing Horizon Europe – the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination, and repealing Regulations (EU) No 1290/2013 and (EU) No 1291/2013 (OJ L 170, 12.5.2021, p. 1).

intellectual assets to implement the Council Recommendation (EU) 2022/2415¹³. The call for this Recommendation was identified in the Commission Communication on a new ERA for Research and Innovation¹⁴ and in the Council Conclusions of 26 November 2021 on the governance of ERA and on the Pact for Research and Innovation in Europe¹⁵. Moreover, the EU Intellectual Property Action Plan¹⁶ recognises that sound intellectual property management is needed to support the valorisation and deployment of R&I results in Europe and the need to improve the use, access and sharing of research results by enhancing intellectual assets management.

- (9) This Recommendation reflects the new directions introduced by the Council Recommendation (EU) 2022/2415 as its scope covers the broader concept of intellectual assets in the R&I context. It aims to overcome the fragmentation of the innovation ecosystem of the Union and to promote innovation cohesion as identified in the New European Innovation Agenda.
- (10) R&I actors should be encouraged to strategically approach the various steps of intellectual assets management and to address challenges linked to the adequate control and sufficient leverage of intellectual assets. Moreover, the strategic sharing of knowledge should be encouraged as a sound basis for collaboration. The business opportunities arising from open innovation and the importance of the openness of research as reflected in the final Agreement on reforming research assessment¹⁷ should also be considered.
- (11) All categories of actors involved in R&I such as intermediaries, individual researchers, innovators and their teams, and organisations including universities, public and private R&I organisations, businesses of all sizes, research and technology infrastructures, public administrations, and civil society representatives should be encouraged to follow this Recommendation. This Recommendation should be applied in compliance with any relevant rule at national or regional level and at the level of the Union. Although parts of this Recommendation are formulated at the organisation level, their scope is also crucial to guide individual researchers, innovators, and their teams in the strategic management of the intellectual assets deriving from their projects.

HAS ADOPTED THIS RECOMMENDATION:

1. DEFINITIONS

For the purpose of this Recommendation the following definitions apply:

- (1) intellectual property means the result of intellectual activities that is eligible for legal protection and includes inventions, literary and artistic works, symbols, names, images, and designs;

¹³ Council Recommendation (EU) 2022/2415 of 2 December 2022 on the guiding principles for knowledge valorisation (OJ L 317, 9.12.2022, p. 141).

¹⁴ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - A new ERA for Research and Innovation (COM/2020/628 final).

¹⁵ Future governance of the European Research Area (ERA) - Council conclusions

¹⁶ Communication from the Commission to the European Parliament, the Council, the European Economic And Social Committee and the Committee of the Regions – Making the most of the EU’s innovative potential – An intellectual property action plan to support the EU’s recovery and resilience (COM (2020) 760 final).

¹⁷ Agreement on reforming research assessment of 20 July 2022

- (2) intellectual property rights include patents, trademarks, designs, copyright and neighbouring rights, geographical indications and plant variety rights, as well as trade secret protection rules;
- (3) intellectual asset means any result or products generated by any R&I activities (such as intellectual property rights, data, know-how, prototypes, processes, practices, technologies, software);
- (4) open science means an approach to the scientific process based on open cooperative work, tools and diffusing knowledge, as set out in Article 14(1) of Regulation (EU) 2021/695 of the European Parliament and of the Council¹⁸;
- (5) open innovation means the approach of opening up the innovation process outside of an organisation;
- (6) open access means access, provided free of charge to the end user, to research data, including scientific publications, in accordance with Article 14(1)(a) and Article 39(3) of Regulation (EU) 2021/695 of the European Parliament and of the Council¹⁹;
- (7) intellectual assets management means a set of strategic processes to handle intellectual assets in all stages of their life, from their creation to market, including: the identification of potential assets created or acquired, the evaluation of the technical, legal and market advantages of the potential asset, the decision making on the available forms of protection, the determination of marketing and technology transfer strategy, the identification of the best partners for their management - in accordance with the business goal and socially responsible policy of the organisation.

2. ESTABLISHING A STRATEGY FOR THE EFFICIENT MANAGEMENT OF INTELLECTUAL ASSETS

2.1. It is recommended to define and adopt strategic intellectual assets management practices by the following:

- (8) ensuring that there is a strategy at the organisation level which covers creation, management, and utilisation of all types of intellectual assets (including data, know-how, standards) in line with the mission of the organisation and that open science practices and open innovation are considered in R&I activities;
- (9) adapting the different elements of the strategy to relevant activities and partners and making it publicly available;
- (10) ensuring that the strategy addresses in particular:
 - (a) the whole research and valorisation lifecycle as soon as budget for the R&I activities is planned, what kind of knowledge assets will emerge from that process, what are the foreseen utilisation options and how they enhance or complement the existing portfolio managed by the organisation;

¹⁸ Regulation (EU) 2021/695 of the European Parliament and of the Council of 28 April 2021 establishing Horizon Europe – the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination, and repealing Regulations (EU) No 1290/2013 and (EU) No 1291/2013 (OJ L 170, 12.5.2021, p. 1).

¹⁹ Regulation (EU) 2021/695 of the European Parliament and of the Council of 28 April 2021 establishing Horizon Europe – the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination, and repealing Regulations (EU) No 1290/2013 and (EU) No 1291/2013 (OJ L 170, 12.5.2021, p. 1).

- (b) sustainability, ethics and inclusivity issues and promotion of knowledge diffusion and (re)-use of results for the economic and societal benefit while respecting ethical standards and human rights and supporting the Sustainable Development Goals²⁰ as well as the objectives of the Green Deal;
 - (c) IP valuation;
 - (d) spin-off and start-up creation;
 - (e) joint ownership situations;
 - (f) possible conflicts of interests;
 - (g) business intelligence to assess the competitive position of the organisation in the intellectual assets landscape of the field of R&I activity in question;
 - (h) effective IP strategies for business development;
- (11) establishing a thorough due diligence process for all intellectual assets generated within the organisation;
 - (12) establishing clear and transparent decision-making procedures and processes for intellectual assets management (for example, defining Knowledge/Technology Transfer Office (KTO-TTO) means and responsibilities);
 - (13) ensuring a reasonable level of professional expertise on intellectual assets management by investing in capacity building, awareness raising, training and education, hiring and mobility, and requesting support from third party experts;
 - (14) identifying incentives for researchers, inventors, knowledge (KT) and technology transfer (TT) professionals and research managers (such as career development) to apply the intellectual assets management strategy of the organisation;
 - (15) ensuring fair and equitable sharing of the value generated in R&I activities from the initial (for example, through career recognition) to the final stage (for example, through royalties sharing) considering the impact created by these activities;
 - (16) determining expected impact of R&I activities using the different dimensions: environmental, technological, economic, societal, political and health;
 - (17) providing the necessary support for the implementation of the intellectual assets management policy through appropriate tools and instruments including performance monitoring based on agreed metrics (for example, by using the KT Metrics reports published by the Joint Research Centre of the European Commission²¹); using metrics that are SMART (specific, measurable, achievable and attributable, relevant, timely), qualitative and quantitative;
 - (18) increasing awareness and taking advantage of available funding schemes for intellectual assets management including at national level or at the level of the Union;
 - (19) ensuring and exploring necessary resources and funding for maturing the intellectual assets developed in research and innovation activities by participating in programmes such as ERC Proof of Concept²² and EIC Transition²³;

²⁰ [THE 17 GOALS | Sustainable Development \(un.org\)](https://www.un.org/sustainabledevelopment/)

²¹ [Knowledge Transfer Metrics - Towards a European-wide set of harmonised indicators](https://ec.europa.eu/jrc/en/knowledge-transfer-metrics)

²² [Proof of Concept | ERC: European Research Council \(europa.eu\)](https://erc.europa.eu/)

²³ [EIC Transition \(europa.eu\)](https://eic.europa.eu/)

- (20) Periodically reviewing the intellectual assets management strategy by:
- (a) participating in European reporting of KT and intellectual assets management activities through surveys and platforms sharing best practices²⁴;
 - (b) defining a dynamic business model considering the implications for intellectual assets in emerging new technologies.

2.2. It is encouraged that intellectual assets are managed in a way to enable open science and open innovation. In that context it is recommended to:

- (21) consider the benefits of practising open science and open innovation during the different phases of the research lifecycle after assessing whether the results should be first protected through IP rights and ensure that all potential barriers to the sharing of research results are thoroughly assessed in particular considering collaboration, transfer and licensing agreements with third parties;
- (22) check any applicable funding, institutional and legal requirements enabling open access to research results²⁵ and whenever possible, provide open access to research results while considering the following in respect of:
- (a) publications: providing immediate open access to scientific publications under open licenses, in particular, when such publications result from publicly funded research;
 - (b) data:
 - applying the FAIR principles²⁶ to ensure that data resulting from the scientific process is ‘Findable’, ‘Accessible’, ‘Interoperable’ and ‘Reusable’, increasing the reuse and reproducibility of research results;
 - analysing the terms and conditions of each dataset used. If these are not clear or no consent has been given, treating it as an ‘all rights reserved’ piece of information;
 - considering providing open access to data if no legitimate interests or constraints apply;
 - encouraging researchers to use trusted repositories²⁷ such as certified, disciplinary or domain repositories commonly used, internationally recognised and endorsed by the R&I community;
 - taking into account that in certain situations data may be considered as know-how (which could be protected by trade secrets);
 - (c) database:
 - verifying if the data or the database used is protected by copyright and/or by a *sui generis* database right or by trade secrets;

²⁴ For example, the [EU Knowledge Valorisation Platform](#).

²⁵ For example, Horizon Europe beneficiaries are required to provide immediate open access to scientific publications via repositories and under open licenses and the specific rules regarding open access are set out in Annex 5 of the programme Model Grant Agreement . [Regulation \(EU\) 2021/695 establishing Horizon Europe](#)

²⁶ [FAIR Principles - GO FAIR \(go-fair.org\)](#)

²⁷ Such as [Horizon Result Platform](#) for projects funded under Horizon 2020 and Horizon Europe.

- providing open access to data or databases resulting from the scientific process when no legitimate interests or legal constraints apply (for example, third party IP rights);
- (d) software: making software users aware of the copyright notice and mention licensing conditions when distributing the software. If consistent with the overall valorisation strategy, considering making the source code available as open source, taking into account different open source licenses;
- (23) establish a publication and exploitation strategy early in the process to allow publishing while protecting confidential information and potential patent application filings by private partners, concerning joint research activities;
- (24) engage in open industry-academia co-creation of project ideas to further align scientific and industry needs and challenges;
- (25) participate in open innovation platforms which offer opportunities of open precompetitive public-private partnerships for cross-sectoral collaborations and knowledge exchange;
- (26) establish fair and flexible sharing and compensation models for partners in open innovation collaborations before the start of the collaboration.

2.3. It is recommended to invest in education, training and awareness raising by the following:

- (27) establishing a mapping and promotion of existing learning tools and material, and developing several types of learning tools adapted to the target audience to fill in the gaps (for example, online resources, manuals, flyers, seminars, self-assessment tests, visual tools, process flowcharts, template libraries) making all material available on a single platform within the organisation;
- (28) raising awareness on the whole range of intellectual assets and their potential use in portfolios to support the competitiveness of the organisation and increase its business opportunities;
- (29) fostering the understanding about the complementarity of open science and open innovation with intellectual property protection when intellectual assets are adequately managed;
- (30) organising regular awareness raising sessions and trainings, in particular focusing on:
 - (a) the benefits of establishing an intellectual assets management strategy which is to support research and open innovation and the risks of not having such a strategy;
 - (b) identification of intellectual assets within the organisation;
 - (c) success stories on efficient intellectual assets management and case studies adapted to the target audience;
 - (d) entrepreneurship, development of business routes for innovations to reach the market, the use of IP to attract investments and access to finance and building teams to create start-ups and spin-offs;
 - (e) building up skills to negotiate and enter in collaboration agreements, the structure of licensing deals and monitoring and management of the long-term relationships between licensor and licensees (including monitoring performance and enforcement options);

- (f) the use of IP rights databases;
 - (g) unprotected intellectual assets and ways in which instruments such as non-disclosure agreements and IP protection can be used;
 - (h) the existence of different IP regimes (for example, with respect to extent of protection and ownership allocation) in third countries;
 - (i) the existence of other national or regional rules (e.g. competition legislation and, if applicable, State aid rules) which may affect R&I agreements;
 - (j) enforcement of IP rights and avoiding infringement of third party IP rights;
- (31) considering, when universities and other public research organisations are concerned, in particular education and training on:
- (a) intellectual assets management in the programmes or curricula for professors, researchers and students, taking into account their different research fields (for example, business studies, science, technology, engineering, mathematics, law, arts), in accordance with the intellectual asset-related key competences for lifelong learning;
 - (b) intellectual assets for knowledge valorisation with a focus on the wider interpretation of intellectual assets;
 - (c) understanding the role of copyright in the context of teaching for professors, researchers, and students;
 - (d) identifying and understanding conflict of interest situations;
- (32) encouraging participation in relevant professional networks which can help with IP awareness raising (such as European IP Helpdesk Ambassadors²⁸, Enterprise Europe Network²⁹, PATLIB centres³⁰) and consider requesting support from existing intellectual asset management advisory services offered at national level and at the level of the Union (for example, by European IP Helpdesk³¹ and by national IP offices).

3. MANAGING INTELLECTUAL ASSETS IN JOINT RESEARCH AND INNOVATION ACTIVITIES

3.1. It is recommended to clarify ownership of intellectual assets as early as possible by the following:

- (33) defining clear ownership provisions as early as possible at organisation level for efficient identification, transfer, and use of intellectual assets, including a conflict resolution procedure;
- (34) ensuring a good understanding of programme specific ownership and access rules among the participants, in the context of publicly funded R&I activities;
- (35) agreeing with partners on ownership issues early on including access and use rights (for example, for research, education, or commercial exploitation purposes), background, results and relevant third-party intellectual assets (for example, to facilitate investments and other financial arrangements);

²⁸ [Europe - Ambassadors team \(europa.eu\)](http://europa.eu)

²⁹ [Enterprise Europe Network \(europa.eu\)](http://europa.eu)

³⁰ [EPO - Patent information centres \(PATLIB\)](http://europa.eu)

³¹ [European IP Helpdesk \(europa.eu\)](http://europa.eu)

- (36) before the start of the project, preparing a list identifying all background results, including IP, and relevant sideground information belonging to each of the partners and expected to be used during the project and update the list if necessary. During the project's lifetime, keeping track of the results generated and their envisaged owner. At the end of the project, preparing a "Results Ownership List" identifying all results generated and define their exploitation path;
- (37) considering, when preparing the collaboration with partners, to use existing toolkits, including model consortium agreements, addressing the specificities of the project in question and taking into account the limited resources of certain actors such as SMEs or start-ups in the negotiations;
- (38) ensuring that a Joint Ownership and Management Agreement or a Joint Ownership and Revenue Share Agreement is established where IP is jointly owned;
- (39) introducing guidelines addressed to the partners to ensure efficient exploitation of the results in case partners have different capacities to reach the market;
- (40) considering, where the results of joint research activities are jointly owned between a public research organisation and an industry participant, giving the public research organisation the possibility to grant licenses to third parties (such as start-ups) if the industry participant does not exploit the results within a period of time previously agreed between the joint owners;
- (41) where the projects are predominantly publicly funded:
 - (a) granting ownership of results to the participating public research organisation and giving preferential access rights to the results to industry participants. The extent of the access rights should be commensurate to the industry's contribution. If a result is an improvement over background IP introduced by the industry participant, considering granting unlimited access to the result to the industry participant for a fair and reasonable fee commensurate with their contribution;
 - (b) ensuring that intellectual assets developed in publicly funded R&I activities are managed in such a way that the socioeconomic benefits linked to their valorisation benefit the Union;
 - (c) allowing the grant of non-exclusive licences under fair and reasonable conditions to legal entities that need the results to address the public emergency and committing to rapidly and broadly exploit the resulting products and services at fair and reasonable conditions, in the event of a public emergency (for example, in the field of public security, public health or public order) and when the project is specifically funded to address a public emergency.

3.2. It is recommended to establish clear collaboration conditions by the following:

- (42) identifying the potential of R&I projects results to reach the market from the onset and discuss the possibility to grant participants options to negotiate licences to future project results;
- (43) ensuring that a clear framework for collaboration and agreements is in place within the organisation including applicable rules regarding intellectual assets;
- (44) establishing, in respect of joint research activities, a clear collaboration agreement defining in particular the scope of collaboration, the valorisation strategy, the dissemination and exploitation of results (such as licensing or transfer of results,

spin-off creation), and the intellectual assets management strategy covering the project's lifecycle and beyond. The agreement should include a procedure providing for notification of all partners about the achievement of results and the potential for their protection (for example, through patents);

- (45) ensuring that all partners declare encumbrances linked to their background (including relating to IP, such as third party rights or open source with restrictive licences);
- (46) ensuring that the differences in legal provisions are fully considered in cases where the collaboration involves partners in different countries and in particular:
 - (a) assessing how those can impact expectations regarding valorisation, dissemination and exploitation, and include the necessary clauses accordingly in the agreement;
 - (b) considering providing a framework for dispute resolution advice to help partners amicably resolve disputes;
- (47) foreseeing a role for facilitators (such as experts in different socio-cultural settings) to assist partners with different backgrounds in their international collaboration;
- (48) considering concrete measures to avoid that shared information is misused or made public without consent by discussing and establishing a non-disclosure agreement before sharing any information, where necessary, with project partners as well as the necessary requirements for trade secrets protection, if such protection is sought;
- (49) creating, in respect of joint industry-academia collaboration, the conditions for efficient cooperation between the partners from the onset, for instance by facilitating networking and organising exchanges and visit opportunities.

4. FROM INTELLECTUAL ASSETS CREATION TO THE MARKET

4.1. It is recommended to find suitable means for control by the following:

- (50) preparing a thorough intellectual assets risk analysis, including freedom-to-operate analysis³² to identify the critical components in cases where a technology is to be developed, validated, and brought to the market;
- (51) investing in the necessary skills and profiles internally to identify the adequate means of control of intellectual assets (for example, IP law specialists for support with IP rights applications) and requesting support from third party experts;
- (52) identifying whether protection through IP rights or other type of protection is necessary and considering the possibility of making the results available in open access, while assessing the different means of control;
- (53) becoming aware of the local rules, including national laws and relevant judicial decisions, and the scope of protection conferred, before entering a new market;
- (54) carrying out the appropriate IP valuation and due diligence processes, before transferring or licensing the asset.

³² A freedom-to-operate analysis serves to ensure that the commercial production, marketing and use of a new product, process or service does not infringe the IP rights of others.

4.2. The following is recommended in respect of carrying out valuation of intellectual property:

- (55) defining valuation targets based on the different types of value (organisational, cultural, economic, environmental, and social value);
- (56) defining, before carrying out the valuation of the IP, the purpose of the valuation operation as this will help in choosing the appropriate method according to international standards which vary in terms of purpose, scope, or approach:
 - (a) a qualitative-based approach will provide a descriptive analysis and/or a score for management purposes, to assist with decision-making or to communicate the significance of the IP;
 - (b) a quantitative-based approach can be based on cost, market and income and will provide a calculation of the monetary value of the IP under a specific context and at a specific time;
- (57) ensuring a good understanding of the different approaches to placing value on early-stage innovations by members of the organisation responsible for implementing innovation strategies;
- (58) collaborating with relevant partners to identify a common approach about the valuation of the IP generated as a result of a joint research activity;
- (59) investing in IP valuation skills and profiles internally (for example, IP law and valuation experts) and requesting support from third party experts;
- (60) adopting an open, transparent, and non-discriminatory approach throughout the IP valuation process.

4.3. It is recommended to establish monitoring, transfer, and licensing practices by the following:

- (61) identifying relevant stakeholders to be involved in the dissemination and exploitation of results, including possible users where appropriate, and involve them accordingly in negotiations;
- (62) considering engaging in collaborative license mechanisms such as patent pools and clearing houses;
- (63) identifying newly issued patents and newly published patent applications owned by third parties via a patent watch throughout the project, to limit possible infringements and to ensure the value of any future patent arising from the project;
- (64) identifying potential complementary patents and negotiating cross-licensing agreements to increase the value of the developed technology for potential investors and third-party licensees;
- (65) committing to sustainable socially responsible licensing practices;
- (66) considering where relevant the possibility to grant partners a contractual right to enter with priority into a business transaction with a legal entity (a Right of First Refusal) or a time-limited non-exclusive license to exploit the IP generated during the project and taking into account any applicable funding rules, in the context of joint industry-academia activities;

(67) identifying the risks of product development and marketing responsibilities and factor these in licensing agreement negotiations.

Done at Brussels, 1.3.2023

For the Commission
Mariya Gabriel
Member of the Commission

