

CERN POLICY ON SUPPORT FOR COMPANIES ESTABLISHED TO EXPLOIT CERN TECHNOLOGIES

Knowledge Transfer Group

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1. Introduction

Context

CERN's mission is to provide for collaboration in particle physics research of a pure scientific and fundamental character and in research essentially related thereto. Article 2 of the CERN Convention requires the Organization to make the results of its research available to society.

In application of the above, and responding to wishes expressed by its Member States, in 2010 CERN adopted a policy on the management of intellectual property¹ (the "CERN IP Policy"), which sets out the principles forming the basis for the management of intellectual property in knowledge transfer activities at CERN for the benefit both of research institutes outside particle physics and of industry.

Through the CERN IP Policy, CERN undertakes to provide support to companies that are established for the purpose of exploiting CERN technologies ("spin-off companies")². The provision of support to *spin-off companies* is one way of disseminating CERN technologies, in addition to licensing to established companies and making technology available through other channels, such as open source.

However, the CERN IP Policy does not provide a detailed framework for CERN's support to *spin-off companies*.

CERN now wishes to put in place such a framework, reflecting best practice in the spirit of the European Commission Recommendation³ to:

"Develop and publicise a policy for the creation of spin-offs, allowing and encouraging the public research organisation's staff to engage in the creation of spinoffs where appropriate, and clarifying long-term relations between spin-offs and the public research organisation".

Objectives

The recent rise in entrepreneurial initiatives around CERN⁴ has made it necessary to clarify a number of issues, notably relating to the support for *spin-off companies*.

This document has thus been drawn up to supplement the CERN IP Policy by detailing the support provided by the Organization to *spin-off companies* that are established for the purpose of exploiting CERN technologies (the "CERN spin-off Policy"), and clarifying its relationship with these companies. This should also increase the general awareness of CERN personnel about this subject and, as a result, stimulate the dissemination of CERN technologies.

This document sets out the scope and general principles of the CERN spin-off Policy and details the types of support CERN makes available for *spin-off companies*. It further addresses the possible ways in which CERN personnel can be involved in *spin-off companies* and the management of potential conflicts of interest.

¹ CERN/FC/5434/RA – Policy on the management of intellectual property in technology transfer activities at CERN, available at <https://cds.cern.ch/record/1288946?ln=en>

² CERN IP Policy

³ C(2008)1329: "European Commission Recommendation on the management of intellectual property in knowledge transfer activities and the Code of Practice for universities and other public research organisations"

⁴ See Annex 2 for examples of entrepreneurial initiatives at CERN.

2. Scope

The definitions used in the CERN spin-off Policy integrate the definitions used in the CERN IP Policy (the most pertinent of which are shown in italics in the text and reproduced in Annex 1 for ease of reference), and in the CERN Staff Rules and Regulations.

The scope of the CERN spin-off Policy is determined by the following:

Use of CERN technology is the core requirement for qualification as a *spin-off company*. The founder of the company does not need to be a current or former member of the *CERN personnel*, be that an *MPE* or an *MPA*. Conversely, the mere fact that current or former *MPEs* or *MPAs* are involved in a company does not qualify it as a *spin-off company*.

For a start-up to be *established* on the basis of a CERN technology, the time between its incorporation and its request to access the CERN *technology* must not be greater than 2 years.

- "*Technology*" includes know-how, inventions, hardware, software, reports, drawings, design documents, processes and protocols having a potential for research and/or commercial exploitation.

Generalised knowledge and skills acquired in the workplace do not qualify as "know-how" and therefore cannot be construed as constituting "*technology*". Accordingly, a start-up based solely on such generalised knowledge and skills would not qualify as a *spin-off company*.

3. General principles

The general principles defined in the CERN IP Policy remain applicable to knowledge transfer through *spin-off companies*, namely:

1. Use of technology transfer practices that maximise the dissemination and visibility of technologies. In cases where revenue generation and dissemination conflict, the priority is given to dissemination.
2. Use of IP management and technology transfer practices compatible with collaborative and open research.
3. Priority given to CERN's scientific programme. In this context, CERN does not normally accept commitment for deadlines, time constraints, volume, or meeting specifications.
4. Equal opportunities for industry in all CERN Member States through e.g. wide promotion of available technologies.
5. Preference for technology transfer to industry established in CERN Member States.
6. Adoption of appropriate measures to avoid that technology transfer to industry impairs the application of the principle of fair competition in future procurements.
7. No technology transfer for military applications.
8. No competition with industry.
9. No commercial role or responsibilities for CERN.
10. CERN normally transfers technologies on an "as-is" basis and does not provide guarantees or accept liability for the use and commercial exploitation of the transferred technologies.

The following additional principles will apply more specifically to the CERN spin-off policy:

1. CERN encourages and supports the creation of *spin-off companies* that seek to exploit its technologies, through:
 - a. Access to CERN technologies, technical support, equipment and infrastructure under favourable conditions, always subject to the availability of resources and CERN's international legal status;
 - b. Access to CERN labels⁵;
 - c. Access to its network of incubators⁶;
 - d. Access to its network of entrepreneur-minded individuals;
2. CERN does not invest nor does it take equity in *spin-off companies*;
3. CERN does not provide any funding from its regular budget⁷;
4. CERN shall not be represented on boards or committees of *spin-off companies*;
5. *Spin-off companies* shall not establish their seat on the CERN site.

Spin-off companies are expected to become self-sustaining within a reasonable period of time and CERN's support – save for licensing arrangements – is on a time-limited basis.

The application of all of these principles is subject to the CERN Conflict of Interest Policy.

⁵ Such as the 'CERN Technology' label.

⁶ As of November 2017, CERN has concluded agreements regarding 9 Business Incubation Centres across Member States (see <https://kt.cern/entrepreneurship/bic-network> for more details).

⁷ CERN may provide funds in the form of prizes, grants, etc. from other sources.

4. Provision of support

CERN may provide support to *spin-off companies* only once it is satisfied that:

- The company's business plan demonstrates coherence and a clear path to sustainability;
- The founder demonstrates entrepreneurial drive and a personal commitment to exploiting the *technology*;
- The company's business is in line with CERN's values as enshrined in its various policies.

The relationship between CERN and a *spin-off company* must be governed by a dedicated agreement detailing the conditions of support and any applicable financial terms.

4.1. Access to technologies

Access to CERN *technologies* is normally granted through dedicated license agreements that can cover different types of *IP*. The licensing principles set out in the CERN IP Policy (section 4.1) apply equally to licensing to *spin-off companies*.

In addition, it is noted that exclusivity, as a key factor for attracting investment, is more critical for start-ups than for established companies. The CERN IP Policy states that exclusive licenses can be considered where significant investment is required to bring the *technology* to market and exclusivity is needed to protect the licensee's investment or is required by investors. An exclusive license may therefore be considered for *spin-off companies*, but must be limited to one or more specific fields of application, for a limited duration, and conditional upon the passing of defined milestones.

Typical *spin-off company* license agreement terms that will require particular attention include financial terms and conditions (including annual fees, milestones, royalties on sales, charges for technical support); field of use limitations; and commitments to ensure all reasonable efforts are made to bring the *technology* to market.

Where a dedicated license agreement is not required to access a *technology* (for instance where it is licensed under open source conditions), an agreement may still be required to define conditions of use of the CERN name and labels, possible technical support, *know-how* transfer, and reporting on how the *technology* is creating an impact.

4.2. Equipment, infrastructure, expertise

The principles set out in the CERN IP Policy (section 3.3) concerning access to CERN equipment and infrastructure or expertise apply equally to *spin-off companies*.

Accordingly, a key criterion for granting access is that facilities, equipment, or expertise as found at CERN are not readily available elsewhere.

Although a *spin-off company* cannot be established on the CERN site, or use CERN as an official address or venue for conducting commercial activities, it may be granted access to facilities and equipment, always subject to the availability of CERN resources, in the following cases:

- For the purpose of further research, development and testing;
- For the purpose of transferring *technologies* effectively (for instance, where a technical expert from a *spin-off company* works with one or more CERN experts to transfer know-how).

This does not mean that a *spin-off company* has automatic access to either site-based infrastructures such as the library or CERN stores, or to CERN's IT infrastructure (in particular, software tools licensed to CERN by third parties).

CERN will evaluate the access to CERN infrastructure or services, if any, the *spin-off* company might be given to enable it to perform its share of collaboration work as applicable, always subject to pre-existing obligations.

CERN will determine under which status personnel of *spin-off companies* will be entitled to access the CERN site, the assumption being that this will be neither *MPE* nor *MPA* status. Furthermore, the *spin-off company* will be solely responsible for ensuring that it has fulfilled all the necessary formalities with the Host States regarding its personnel (including visas and work permits as applicable).

4.3. CERN Labels

A set of labels has been created by CERN for use by external partners for mutual benefit. A *spin-off company* is eligible to use of some of these labels. The right to use the labels is subject to the General conditions of use of CERN labels. All use of CERN labels by *spin-off companies* shall follow the label guidelines and is subject to agreement and approval from CERN.

4.4. Financial conditions

CERN recognises that raising capital is one of the biggest challenges for start-ups. To enable them to manage their cash-flow in the early years, CERN is therefore ready to consider granting favourable financial conditions to *spin-off companies*. These conditions are always subject to negotiation and include, for non-exclusive licences:

1. No, or delayed tiered⁸, lump-sum payable for the licence fee – no upfront cost to the *spin-off company*;
2. Grace period for the payment of royalties (for instance one year during which no royalties on sales are due), including delayed minimum annual royalty (e.g. up to 5 years);
3. Preferential rate for technical support by CERN experts.

5. Conditions of involvement by CERN personnel

CERN is dedicated to the transfer of knowledge and recognises that one means by which this can be achieved is through *CERN personnel* founding or working with *spin-off companies*, subject to the applicable internal and external legal frameworks⁹.

In particular, CERN personnel must ensure that the proposed *spin-off* related activity does not give rise to any potential conflict of interest with the person's official functions at CERN¹⁰ and, in particular, must refrain from any act or activity:

“(a) which is incompatible with their functions, or

(b) which would be morally or materially prejudicial to the Organization.

The Director-General shall decide whether or not an act or activity is thus incompatible or prejudicial”¹¹.

⁸ The trigger for the delayed payment of the lump sum could be upon change of control event, first commercial sale, or similar liquidity event.

⁹ CERN can make the expertise of a *MPE* available to a *spin-off company*, either on an *ad hoc* basis or for a defined period, on the basis of an agreement between CERN and that *company*. This is to be distinguished from situations covered in this section.

¹⁰ See section 6 below.

¹¹ Staff Rule - S I 3.05

CERN personnel must consider this requirement at all times and, when in doubt, seek advice from the KT Group or the Human Resources Department.

Individual involvement in *spin-off companies* may be authorised pursuant to one more internal frameworks elaborated below. For instance, since these activities fall outside their CERN duties, MPEs must obtain the appropriate authorisation for (1) leave and / or (2) to undertake a professional activity outside the Organization. MPAs must comply with the requirements of their home institution.

5.1. Specific types of involvement

5.1.1. As director/board or committee member

Involvement in boards and committees of *spin-off companies*, even unpaid, are considered to be a professional activity in the context of Staff Regulation R I 3.02. MPEs therefore require the prior authorisation of the Director-General. While the same is not true for MPAs, it is the MPAs responsibility to comply with any requirements specified by their home institution.

5.1.2. As employee/consultant/technical expert

In some cases, *CERN personnel* may wish to join the *spin-off company* for a given period as a full-time or part-time employee, or otherwise provide services or advice to the *spin-off company*. The applicable modalities are further described in section 5.2.

Pursuant to Staff Rule S I 5.02, all rights in any intellectual property that results from, or is substantially based on, a member of the personnel's activities within or on behalf of the Organization, shall be automatically vested in CERN, except as it agrees otherwise. Where CERN considers that the intellectual property expected to be generated by the *CERN personnel's* involvement in the *spin-off company* falls within the scope of this Rule, all parties involved (namely CERN, the *spin-off company* and the *CERN personnel*) must agree on the attribution and use of such intellectual property.

5.1.3. As shareholder

While CERN does not take equity in *spin-off companies*, *CERN personnel* in principle are not forbidden from doing so, nor do they require authorisation, always subject to compliance with the Organization's Conflict of Interest policy¹².

5.2. Administrative arrangements for CERN personnel

Depending on the circumstances, MPEs may need to request leave of absence from CERN, either on a full-time or part-time basis, to work for a *spin-off company*, or reduce their working hours for the Organization.

Approval of leave or reduction of working hours do not, however, constitute authorisation to undertake an external activity; MPEs still require the express prior authorisation of the Director-General before undertaking such activity¹³. Where applicable, MPEs must ensure that they comply with Staff Regulation R V 1.39 on the non-concurrence of benefits.

While the authorisation of the Director-General is not required for MPAs, it is their responsibility to comply with any requirements specified by their home institution.

¹² See section 6 below.

¹³ Staff Regulation - R I 3.02 Professional or commercial activities: "*Employed members of the personnel wishing to engage in a professional activity or an activity of a commercial nature outside the Organization shall first obtain the written authorisation of the Director-General, who shall take a decision pursuant to Article S I 3.05.*"

All *CERN personnel* are reminded that *cartes de légitimation* and *titres de séjour spéciaux* are issued by the Host States (Switzerland and France) exclusively for the exercise of their activities for CERN (as concerns *MPEs*, in principle on a full-time basis). Therefore, *CERN personnel* seeking to work with or for a *spin-off company* must first clarify their specific situation with the CERN Cards Office.

CERN personnel seeking to pursue professional activities outside CERN must comply with all applicable local and national legislation, having particular regard to legal requirements pertaining to immigration, work permits, professional licencing and taxes.

5.2.1. Absence from CERN on a full-time basis

MPEs wishing to be absent on a full-time basis from CERN in order to work for a *spin-off company* must request prior authorisation for Special Leave for professional reasons¹⁴ or avail themselves of the Saved Leave scheme.

5.2.2. Absence from CERN on a part-time basis

MPEs wishing to be absent on a part-time basis from CERN in order to work for a *spin-off company* may also use the Saved Leave scheme or may request a reduction in their working hours.

5.2.3. Absence from CERN at end of contract

5.2.3.1. Special Leave

Where an *MPE* in the final months of employment with CERN¹⁵ can substantiate to the Head of the KT group a realistic and promising business plan for a *spin-off company*, the *MPE* may request authorization for Special Leave for professional reasons pursuant to AC 21 (II) to establish or join a *spin-off company*. Absence on special leave during this particular framework may be authorized for not more than 1 working day per week.

5.2.3.2. Unemployment benefits

As of the date of publication, the Organization has yet to decide whether, and under which conditions, *Staff members* establishing or helping to establish a *spin-off company* may still be eligible to receive CERN unemployment benefits¹⁶. *Staff members* in this situation should seek clarification of their eligibility from the Human Resources department.

6. Conflicts of interest

The document, “Integrity at CERN”¹⁷, which is applicable to all *CERN personnel*, sets out in detail the Organization’s policy on conflict of interest:

“Conflict of interest arises when the impartiality and objectivity of CERN contributors in the performance of their functions for CERN or in the fulfilment of their contractual obligations towards the Organization could be influenced or compromised by their private interests or any other professional obligations or relationships.”

Involvement by *CERN personnel* in *spin-off companies* could give rise to an actual or perceived conflict of interest. Accordingly, *CERN personnel* must take every possible measure to avoid such situations.

¹⁴ CERN Staff Rules and Regulations S II 4.05 and Administrative Circular 21(II).

¹⁵ The number of months during which the *MPE* may request the time off shall be proportional to the duration of the employment contract and shall not exceed one sixth of this duration, with an absolute maximum of 6 months.

¹⁶ Subject to appropriate modification of Administrative Circular 4.

¹⁷ <https://cds.cern.ch/record/2007473/files/IntegrityCERN.pdf>

Where an unavoidable conflict of interest arises, *CERN personnel* must immediately disclose that they have or may have a conflict of interest.

For *spin-off companies* in particular, *CERN personnel* are required to disclose to the KT Group any equity or other interest they hold in a *spin-off company*, as well as any financial or other form of compensation they receive from that source.

When a technology is optioned or licensed to a *spin-off company*, the *CERN inventors* who hold a stake in the *spin-off company* are not entitled to initiate new work on that *technology* as part of their CERN duties.

Due to incompatibility with their professional duties for CERN, members of the KT Group cannot hold or receive any equity or other interest in a *spin-off company*, or any financial or other form of compensation from that source.

Procuring from *spin-off companies*

Spin-off companies may supply goods or services to CERN, subject to the normal CERN procurement process. In cases where CERN may be a potential customer of a *spin-off company*, the Procurement and Industrial Services Group must be involved during the contract negotiation phase and appropriate measures must be taken to avoid or manage any conflict of interest situations.

7. Role of the KT Group

The KT group reports annually to the Finance Committee on activities relating to the creation of *spin-off companies*, in the KT annual report.

The KT group advises the parties interested in setting up a *spin-off company* with regard to the framework in place at CERN.

The Head of the KT group must be informed about any *CERN personnel's* participation in a Board of Directors or Advisory Board of a *spin-off company*.

Where it relates to a *spin-off company*, the KT Group must be consulted with respect to any request for:

- Approval of external activity;
- Approval of absence from CERN at the end of a contract.

8. Approvals

Authorization for:	Ref. in Spin-off policy	Recommendation by	Authorisation by	Basis	Other relevant document(s)
Access to technologies – granting of an exclusive licence	4.1	KT	DG	CERN IP Policy	Memo Signature Rights
Access to equipment, infrastructure, expertise	4.2	KT	Technical Dept (GL, DH , Director)	CERN IP Policy	Memo Signature Rights

Use of CERN KT Labels (Technology label, Spin-off label)	4.3	Communication Legal service ¹⁸	KT	Guidelines on use of CERN Labels	
Undertaking an external activity , in context of <i>spin-off companies</i>	5.1	KT ¹⁹	DG	SRR R I 3.02 ²⁰	Guidelines External activities
Special Leave (for professional reasons or personal convenience)	5.2.1 5.2.3	KT	Director-General) ²¹ After consultation with KT if necessary	S II 4.05 ²² AC 21(II)	
Saved leave (long term or PRP)	5.2.1 5.2.2		Hierarchy DG ²³ After consultation with KT if necessary	S II 4.05 AC 21(I)	Saved Leave Scheme Guidelines Admin e- guide
Part-time work	5.2.2	KT	Dept. Head ²⁴ HR	R II 1.16 ²⁵	Admin e- guide

Questions related to the interpretation and implementation of the present policy are submitted to the Director-General for decision.

¹⁸ Where considered necessary by KT.

¹⁹ As proposed in the Spin-off policy.

²⁰ "Employed members of the personnel wishing to engage in a professional activity or an activity of a commercial nature outside the Organization shall first obtain the written authorisation of the Director-General, who shall take a decision pursuant to Article S I 3.05."

²¹ See Administrative Circular 21(II) on Special Leave.

²² "Under conditions laid down in the Staff Regulations, and in accordance with AC 21(II) on Special Leave, MPEs may be entitled to unremunerated special leave for personal convenience or special leave for professional reasons, which may be remunerated.

²³ For PRP, authority delegated to the Director for Finance and Human Resources (see <https://admin-eguide.web.cern.ch/node/447>).

²⁴ According to the Admin e-guide <https://admin-eguide.web.cern.ch/en/procedure/part-time-work>

²⁵ "Where required or permitted by circumstances, the Organization may offer part-time contracts of employment or association. In the case of employed members of the personnel, the contractual working week shall not be less than 20 hours."

Annex 1

RELEVANT DEFINITIONS, including under CERN/FC/5434/RA

- The term “**CERN associated member of personnel**” or “**MPA**” means Associated members of the personnel who are not employed by the Organization but are appointed by the Director-General on the basis of a contract of association. In accordance with the mission of the Organization, the purpose of contracts of association is to promote international collaboration, contacts between and the exchange of scientists and advanced training.
- The term “**CERN employed member of personnel**” or “**MPE**” means Staff Members and Fellows. Under the sole authority of the Director-General, MPEs perform the functions entrusted to them in return for remuneration by the Organization.
- The term “**CERN personnel**” refers to both MPE and/or MPA.
- The term “**consultancy**” means the provision of expert advice or specific studies to a third party. The generation of new *IP* is not the prime purpose of *consultancy*.
- The term “**Intellectual Property or IP**” means creations of the human mind that benefit from the legal protection of a property right. The major legal mechanisms for protecting *IP* are copyrights, patents, and trademarks. *IP* rights enable owners to control access to, and use of their *IP*.
- The term “**invention**” means a product or process providing a novel solution to a technological problem.
- The term “**open source**” means software license conditions that are compatible with the principles defined by the Open Source Initiative.
- The term “**services**” means the provision of services performed with CERN specific equipment or infrastructure and related know-how. The generation of new *IP* is not the prime purpose of *services*.
- The term “**spin-off company**” means a start-up company established based on a CERN *technology*.
- The term “**technology**” or “**technologies**” means know-how, *inventions*, hardware, software, reports, drawings, design documents, processes and protocols having a potential for research and/or commercial exploitation.
- The term “**technology transfer**” means the intentional transfer of a CERN *technology* to a third party and/or its use to create technological results, for application in a research area other than Particle Physics and/or for commercial exploitation.

Annex 2

Affirmative actions to encourage spin-offs

CERN is a place that facilitates the meeting of minds, and the transfer of knowledge through people is already a reality. The purpose of the following actions is to create an ecosystem that will further foster the creation of spin-offs for which CERN will be able to claim 'It started at CERN'.

Business Incubation Centres

CERN collaborates with a network of Business Incubation Centres (*BICs*) in the Member States aimed at supporting the creation and development of companies in technical fields broadly related to CERN's areas of expertise. In the framework of the agreement between CERN and the Business Incubation Centre, CERN may agree to provide a given number of hours of technical support to BIC applicants.

The admission of a company into one of these *BICs* is not conditional upon the start-up being a CERN *spin-off company*. CERN *spin-off companies* will not receive extra advantages in terms of licensing conditions, exclusivity and use of labels by entering into a *BIC*. However, all the benefits of entering a *BIC* do apply to established CERN *spin-off companies*.

Promotion of intrapreneurship

Fostering intrapreneurship is a recognised first step towards entrepreneurship. The following actions can contribute to this objective.

- Organise courses to foster intrapreneurship, e.g. giving mandate to course participants to devise and bring a project to fruition within a defined time scale (a few years);
- Encourage out-of-the-box thinking;
- Enable change management at different levels.

Promotion of entrepreneurship

Some initiatives below are now established at CERN, others are being set-up:

- CERN Entrepreneurship Meet-Ups;
- NTNU Screening Week, possibly extended to other business schools;
- Start-up Challenge;
- CERN Entrepreneurship Student Programme (CESP);
- Entrepreneurship 101 course in the CERN Training Catalogue.