

GUIDELINES FOR IP-BASED SPIN-OFFS AT HELMHOLTZ

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Introduction

In recent years, the promotion of spin-offs from science has played an increasingly important role in the modern and successful technology transfer of German non-university research institutions. Spin-offs not only enable the exploitation of research results in the form of licenses and investments, but also support the transfer of knowledge in the form of founders and the further development of the culture of innovation in the institutions themselves. They make a particular contribution to maintaining Germany's competitiveness in the long term and create new jobs through the introduction of innovations.

This further development is a central concern of Helmholtz. Helmholtz is following the general trend of recent years to define standards, terms and framework conditions for the spin-off process. In this context, numerous national and international guidelines and models have been developed in the field of IP-based spin-offs that can serve as benchmarks (see further reading). In addition, the Association has developed its own Helmholtz Transfer Strategy for the years 2021-2023, which defines concrete implementation corridors and indicators for transfer. Procedures and instruments for the creation of optimized framework conditions with regard to spin-offs were also defined. These include, for example, regulations to minimize risk for founders (e.g. return option), financial support for spin-off projects via internal innovation funds, the teaching of entrepreneurship content and increased cooperation with external founder and investor networks.

Since 2005, a total of 307 spin-offs have emerged from the Helmholtz Association, which were founded under a formal agreement with the centers (usage, license and/or participation agreement under company law).

The working group "Technology Transfer and Intellectual Property" (AK TTGR) accompanies and moderates the above-mentioned activities together with the Transfer & Innovation division of the Helmholtz Association's Head Office.

Objective

Many stakeholders are involved in the spin-off process and the growth of a company: Inventors, founders, key employees, transfer offices, investors and funding partners. They are typically united by a common goal: to bring innovative solutions to the market in order to increase social impact and create sustainable economic growth. In addition to generating the greatest possible benefit for society, the basic understanding is that the Helmholtz Centers should also participate appropriately through licensing and investments. This requires a common language and transparent communication in order to make the relationship between the parties involved as trusting as possible and thus support complex negotiations, for example. To achieve the most satisfactory and successful outcome possible, all parties must work together in a spirit of trust and agree on a joint proposal (consensus).

This guideline was created to facilitate simpler and faster negotiations between the parties involved in a Helmholtz spin-off, to ensure transparent communication and to identify the scope and rules for joint commitment.

Helmholtz pursues a strategy in which the 18 centers define their own transfer priorities that correspond to their individual research profiles. This also applies to the topic of spin-offs. The recommendations for action compiled here are an overview of typical spin-off practices at the centers to provide orientation. They are intended to encourage them to (further) develop their own IP and participation policies in order to remove any obstacles to the spin-off process.

IP protection as the basis for the spin-off

INTELLECTUAL PROPERTY IN THE HELMHOLTZ ASSOCIATION

Germany's economic strength, economic growth and competitiveness are based on innovation, i.e. the implementation of the latest findings from research into new products, processes and services on the market.

These actions are based on the intellectual property created by the employees and the resulting technical and non-technical property rights as assets. In order to enable quality-assured and sustainable handling, the Helmholtz Centers act in accordance with the principles of IP management (IPM), e.g. in accordance with the DIN 77006 standard "Intellectual Property Management Systems - Requirements".

Furthermore, intellectual property rights and their quality are a benchmark for the creativity and performance of a scientific institution and contribute to its positive image among experts and the public. Intellectual property thus often forms the basis for the sustainable success of technological and scientific transfer projects and spin-offs.

INTELLECTUAL PROPERTY RIGHTS (IPR)

Intellectual property refers to rights to intangible assets. In application of the **German Employee Inventions Act (ArbnErfG)** and the German Copyright Act (UrhG) in conjunction with the German Civil Code (BGB), the respective Helmholtz Centers are the owners of all work results generated by their employees, in particular technical and non-technical intellectual property rights:

Technical property rights

Patents, utility models - (service inventions)

Non-technical property rights

Essentially: Trademarks, designs, copyrights, protection of secrets (know-how protection), database protection law

In order to transfer intellectual property rights to themselves, the Helmholtz Centers must comply with the legal requirements, e.g. in the case of job inventors, the ArbnErfG.

With a view to commercial exploitation in the context of knowledge and technology transfer, all necessary commercial rights of use and exploitation must be secured at an early stage. To this end, if third parties not bound by the ArbnErfG (e.g. freelancers, visiting professors, students and scholarship holders) are involved in the R&D work, separate agreements must be concluded with them in which the handling of the work results and any property rights based on them are regulated.

The use of service inventions and the exercise of rights of use to technical property rights or copyrights, e.g. computer programs, by the respective Helmholtz Centres entitles the inventors to inventor remuneration (ArbnErfG) or, if applicable, the authors to appropriate remuneration (UrhG) in the event of exploitation. The requirements and the amount of the remuneration are set out separately in the respective regulations of the Helmholtz Centers.

VALUATION OF INTELLECTUAL PROPERTY

For knowledge-based research institutions, such as the Helmholtz Centers, whose asset base consists predominantly of intangible assets, the question of the "monetary" valuation of their intellectual property in terms of economic value creation is becoming increasingly important.

The **valuation process** comprises the introduction, collection, linking and monitoring of the incoming influencing variables in relation to the area of application, reason for valuation and

object of valuation. A valuation must be based on valid and relevant inputs and assumptions, as well as taking into account the time of the value date.

The evaluation process basically comprises the following steps:

- 1) Reason for valuation
- 2) Identification of the valuation object
- 3) Valuation basis (survey of legal, technological, market and financial aspects)
- 4) Evaluation:
 - a) Qualitative assessment
 - b) Quantitative assessment

A patent is an industrial property right for an invention that is granted by the state for a limited period of time. For a market-driven and transparent valuation of property rights, it is necessary to evaluate the value-influencing factors in an easily understandable and standardized manner for all parties involved. The processes for monetary patent valuation (utility models) are generally based on the standard DIN 77100 "Patent valuation - Principles of monetary patent valuation". Based on this standard, the Federal Agency for Springboard Innovations (SprinD) has developed the so-called [IP scorecard](#) together with the Stifterverband, which comprehensibly evaluates the influencing factors. In addition, external service providers (e.g. auditors and law firms) can be used to obtain written expert opinions to evaluate the IP.

For research software in knowledge and technology transfer, there are method kits for evaluation, such as the BMBF's SoftWert project [[softwert.org](#)] "Development and implementation of a method kit for the exploitation of research software".

IP transfer models & participation options

The instruments and corridors proposed here reflect general and basic empirical values for license agreements and participations with spin-offs of the various Helmholtz Centres. The specific contractual implementation and its conditions can vary greatly in individual cases between the respective centers or their spin-offs, without there being any legal claim to the conditions presented here. In principle, the recommendations for action listed here are aimed at creating start-up-friendly framework conditions and ensuring efficient contract processing. The Helmholtz Centres generally have the option of granting licenses to spin-offs as a matter of priority, even if there are license requests from third parties.

Typically, **founder-friendly terms for license agreements** may include any or all of the following elements:

- Exclusive licensing (or non-exclusive license; or restricted exclusive license regionally or by area of application).
- Possibility of sublicensing; sublicense fees depending on the industry in the range of 20-80%; possibly staggered (e.g. clinical phases).

Industry	Share [%] of the license fees paid by the sublicensee to the main licensee
Electrical industry	10 to 50
Machine and tool industry	10 to 50
Chemical industry	30 to 70
Pharmaceutical industry	20 to 60
IT	30 to 80

- No initial payment.
- No repayment of patent costs incurred prior to the conclusion of the contract.
- Liquidity-preserving (low) annual minimum license fees (maintenance costs) that can be offset against royalties.
- Late milestone payments (if applicable), depending on area and development status.
- Ongoing license fees (royalties) customary in the market according to industry, turnover, market size and development status; typical amounts 1-10%; graduated rates possible where applicable.
- Negotiations in the low end of the market range.
- Contract design with temporary retention of payment obligations, i.e. payment terms that protect liquidity, in particular late and performance-related payment obligations (backloaded); often in combination with participation models (see below).

- Long-term or permanent contract terms.
- Transfer of IP or IP purchase option (possibly in combination with back-licensing for R&D, orders, etc.).

The above-mentioned contractual instruments and conditions are often combined with share-holdings in the related spin-offs. Typically, these can include the following elements:

- Company shares depending on industry, sales, market size and development status as well as possible license conditions (see above), generally dilutable and in the range of 5-15%.
- Possible negotiation of dilution protection.

Adjustment of shares in case of repayment obligation of the center in the event of liquidation (e.g. HGF validation fund, etc.).

The decision on the type and scope of a possible participation lies with the respective Helmholtz Centre, whereby various options such as participation by external service providers, direct participation under company law, virtual shares or participation by external organizations (e.g. Beteiligungs-GmbH) are possible.

Additional support measures

Furthermore, the Helmholtz Centers can promote new spin-offs within the legal framework by providing additional support measures such as **advice** on start-up-related issues, assistance in **acquiring funding opportunities** through public funding programs or venture capital.

Within the scope of available capacities, the Helmholtz Centers can make their existing scientific **infrastructures** available to the spin-offs that have taken place in return for standard market conditions. This may also include the shared use of general facilities of the respective Helmholtz Center. In addition, the Helmholtz Centers offer **personnel measures** to give employees the opportunity to use all or part of their manpower for a limited period of time for the establishment, development and operation of the spin-off. The following options may be considered; the decision on the respective offers and arrangements is the responsibility of the individual Helmholtz Centers on the basis of labor law and collective bargaining requirements:

- Secondary employment for a limited period of time
- Leave of absence with option to return after 2-3 years
- Secondment of personnel within the scope of cooperation agreements

Deviating conditions are generally possible within the framework of the so-called de minimis regulation. However, the Helmholtz Center must determine the value of the aid granted and certify it to the spin-off so that it can declare the aid to BAFA. Support of up to EUR 300,000 can currently be granted within three years.

Further reading:

https://startupverband.de/fileadmin/startupverband/mediaarchiv/Politik/20211012_IP-Prozessleitfaden_TransferAllianz_StartupVerband.pdf

<https://www.stifterverband.org/ip-transfer-3-0/transfer-taschenmesser>

https://softwert-softwert-wiki-a3c9a90fc5bed228e0fd71c4d81003984ee706c5.pages.desy.de/Tools/Booklet_SoftWert.pdf

<https://techventures.columbia.edu/term-sheet-recommendations-for-launching-university-startups>

<https://www.bioindustry.org/static/70bc6769-bd9f-41cc-9a6711d8357dc66d/USIT-Guide-2023.pdf>

https://filelist.tudelft.nl/TUDELFT/Technology_Transfer/Dealterm%20Principles%20UNL.pdf

<https://www.unibas.ch/en/Innovation/Start-Up-Policy.html>

https://www.sprind.org/cms/uploads/ip_transfer_policy_paper_2023_SPRIND_98f67d6694.pdf

Model guidelines for sustainable research software - Helmholtz Open Science Office Recommendations for guidelines of the Helmholtz Centers on handling research data (gfz-potsdam.de) or

Research Data Policies - Helmholtz Open Science Office

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