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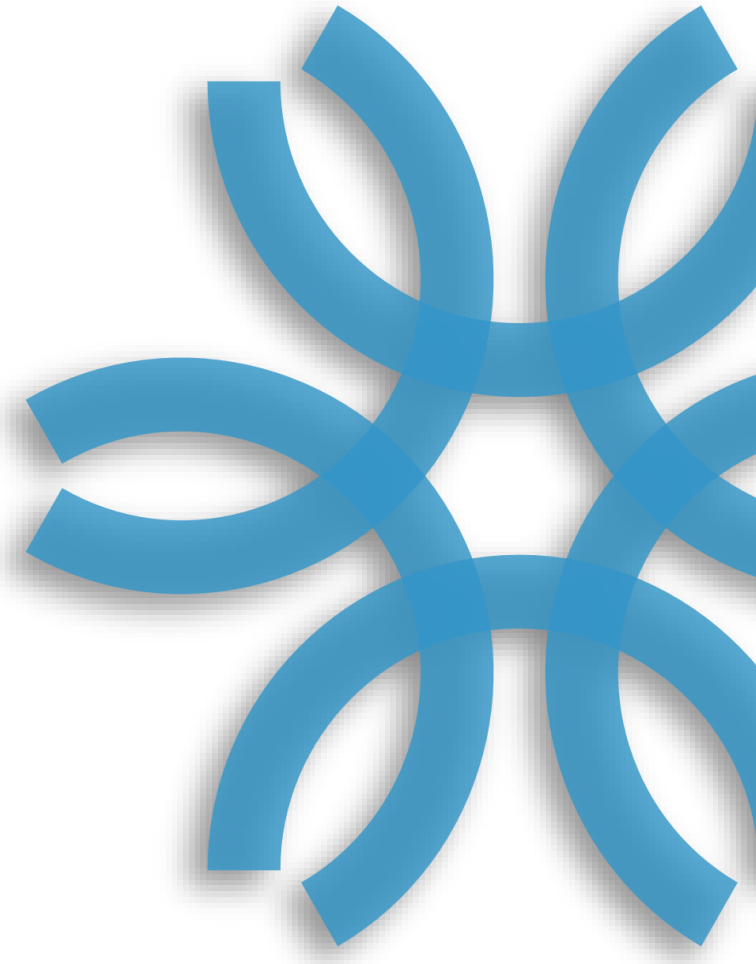
Due Diligence in Science

Manual for an assessment process: safeguarding science and scientific cooperation

DLR Projektträger Safeguarding Science Team



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Content

1. Due Diligence in Science: introduction

The Due Diligence in Science concept presented here is part of the DLR Projektträger's approach towards safeguarding science and international scientific cooperation.

This overarching approach and all associated materials, support and concepts are based on our five guiding principles:

1. Science itself must shape the safeguarding of science and scientific cooperation.
2. Openness to cooperation as an integral part of science must be protected.
3. Research security concepts must be designed in such a way that cooperation is not made more difficult.
4. The benefits of Due Diligence in Science measures must be proportionate to the effort involved.
5. The measures must be comprehensible and reasonable for the researchers.

This manual aims to introduce the concept of Due Diligence in Science to research institutions and universities (both hereinafter referred to simply as institutions). They are thus supported in adapting an assessment process to the needs of their own institution and implementing it accordingly.

The term „due diligence" describes an obligation to exercise due care. In the business context, it refers to a comprehensive analysis and examination of a company, particularly with regard to its financial, legal, tax and business circumstances.

In the scientific context, the term refers to a comprehensive analysis and examination of a cooperation (subdivided into cooperation topic and cooperation partner), in particular with regard to objectives, strategies, ethical aspects, etc. Therefore, we use the term Due Diligence in Science.

It should be noted that a request for scientific cooperation is usually based on the assumption of „good intentions" and a trusting and respectful collaboration.

However, individual examples in the past have shown that blind trust is inappropriate and can also lead to undesirable results in international scientific cooperation. Nevertheless, it must be clearly stated here: For Due Diligence in Science to be supported by researchers, it must be understood and designed in principle to support cooperation - not to hinder it.

The aim of Due Diligence in Science is to know your cooperation partner as well as possible. This ensures that trusting, secure and profitable collaborations can be carried out, but that at the same time potential risks can be recognized at an early stage and damage averted.

Every form of cooperation with persons or institutions is associated with effort, opportunities and risks. The three aspects must be balanced both for the responsible persons (e.g. research group leaders) and for the institution in such a way that the positive effects outweigh the negative ones and that at the same time no rules and laws are violated.

Due Diligence in Science comprises two levels:

Knowledge of partners and employees: Demonstrate an open, attentive and risk-informed attitude, and encourage this among your employees. This overarching „culture of critical openness" should form the basis of the working culture of every research institution or university at all levels of work and management.[1]

Assessment of partnerships: Comply with legal requirements in accordance with the embargo and sanctions regimes and export control regulations. In the case of sensitive topics or cooperation with partners from particular countries, also carry out checks in your own interest in accordance with your own performance and risk profile. Use a systematic, transparent, cost-benefit-efficient and comprehensible assessment process that defines clear responsibilities and accountabilities.

The vast majority of international collaborations are not formalised. Often there are no contracts or agreements in place, and the institution management or administration are not involved. But also in the case of informal collaborations, it is essential that all employees are aware of the need to safeguard science and scientific cooperation in a university or research institution. They should be made aware of this and trained accordingly.

However, international collaborations are often also characterized by formalized actions, such as the joint acquisition of research funds or the conclusion of contracts. Possible opportunities and risks of a cooperation must be analysed and evaluated, a decision on the cooperation must be taken and any risk-minimizing measures have to be defined in advance. During the analysis, the backgrounds of the partners are examined and possible associated cooperation risks are identified. This applies both to self-disclosures by the international partners and to targeted background checks.

This guide describes Due Diligence in Science as an assessment process.

The basis for an aligned and cost-appropriate Due Diligence in Science process are the legal requirements on the one hand and the assessment criteria defined by the respective institution on the other.

An institution should take a close look at its understanding of values, its performance profile, its risk profile[2] and its international approach and, against this background, enter into international collaborations and partnerships.

Sensitive research areas, technologies and infrastructures are identified, business policy objectives and ethical criteria are determined and sensitive topic and country lists are defined. The respective responsibilities are also documented. Each institution must determine which assessment criteria are to be applied. It is important to focus the assessments on areas of sensitive research and cooperation based on the institution's risk profile and cooperation strategy.[3]

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[1] See JASON-Report „Safeguarding the Research Enterprise", 21 March 2024, page 5: „NSF should foster a culture of research security awareness by providing substantive information to researchers about real risks, making resources available for researchers to voluntarily seek guidance, and continuously engaging with researchers and their institutions about the efficacy of research risk mitigation and control efforts" and page 3: „Research controls, such as CUI, are only one component of a broader strategy of risk mitigation and management to ensure that U.S. research contributes significantly and positively to the national interest."

[2] The EU Commission has created building blocks for risk appraisal: c0c0dbae-c7d7-45d8-b59b-413f54aa8983_en (europa.eu)

[3] See JASON-Report „Safeguarding the Research Enterprise", 21 March 2024, page 3: „Resources should be concentrated on areas of maximum risk to ensure that benefits outweigh the costs."

1.1. What and who is assessed?

Due Diligence in Science aims to analyse all relevant aspects of partners, context and topics. The purpose of the analysis is to achieve the highest possible information density in order to be able to make an informed decision on the cooperation on the basis of the above-mentioned institution-specific principles (values, risk profile, cooperation strategy, etc.) and to be able to work together in a legally compliant manner. The possible risks are compared with the expected benefits of the cooperation.

The following aspects are examined:

People: The background check of people, in particular researchers, visiting scientists or cooperation partners, includes the following points:

- Naming on sanctions and/or embargo lists
- Academic qualifications and skills, publication activities, patent applications
- Current and, if possible, past affiliations and employers
- Individual funding, successful participation in the acquisition of funding
- Professional connections, possible activities or investments in the private sector
- Memberships in military-related associations (reservists, etc.)
- Relationships with groups or institutions that pursue terrorist purposes
- If applicable, criminal past
- Recognisable dependencies (e.g. sources of research funding or scholarships)
- Possible conflicts of interest

In special cases, it may also be checked whether the person has made public statements that discriminate, glorify criminal acts or are otherwise not in line with the law or the ethical principles of their own institution.

Research topic: The planned research topics and the object of research are examined for potential risks. At the same time, the expected benefits of the cooperation are recorded.

The following points are evaluated:

- Conformity of the planned cooperation with the export control regime
- Proliferation risks (risks of knowledge about weapons of mass destruction being passed on)
- Dual-use and dual-use research-of-concern (DURC)[4] aspects (dual-use of research, e.g. military use of civilian research),
- Potential violation of human rights or other overriding values
- Negative and positive effects on the institution's own competitiveness
- Risks for the own innovation base

Institutions: The following points are checked for institutions:

- Naming on sanctions and/or embargo lists
- Mention on other relevant lists
- Background, reputation and achievements in science
- Main financial backers and acquisition successes
- Memberships in associations
- Possible connections to military institutions or organizations
- Potential interactions with sensitive or risky topics

[4] What is dual-use research of concern? (who.int)

- Possible private sector interests
- Active connections to other institutions in Germany or Europe/worldwide
- Involvement in national or international committees
- Participation in national or international standardization efforts

Legal basis and third-party standards: In addition to the direct partners and the topics of a cooperation, the regulatory framework conditions that apply for the country of domicile or origin of the partners or possibly also for other countries can also be relevant. In Europe, European regulations must be taken into account in addition to national regulations. Legal provisions of the partner's country of origin and, if applicable, regulations of third countries (such as the USA)[5] may be relevant due to their extraterritorial effect.

Contractual obligations: Contractual obligations must also be considered. Restrictions on entering into new partnerships or the access of persons to data or technologies may arise from existing contracts of the organisation (from grant agreements, orders, supplier relationships, but also from contracts associated with the procurement of infrastructure).

Example: Technology components purchased in the USA can be installed and used in German laboratories, but they may be subject to restrictions when used in collaborations with other countries. If different groups are to work with the same infrastructure in a laboratory, this can lead to restrictions on collaborations.

Interdependencies with existing cooperations: The opportunities and risks must be identified and assessed against the background of the organisation's own scientific interests and existing collaborations with other partners. In addition to the above-mentioned contractual effects of agreements with third parties, all existing formal and informal relationships with other international partners can also influence new partnerships.

Data protection in the context of Due Diligence in Science

For each form of assessments specific to an individual, personal data is compiled, stored and passed on or made accessible according to the need-to-know principle. GDPR rules must be observed. Before a personal Due Diligence in Science process is introduced in a research organisation, a GDPR-compliant data policy must be established. As extensive personal and professional information is disclosed, special and sensitive care is required.

1.2. When is the assessment carried out?

The institution should determine when an assessment needs to be initiated according to its risk profile and infrastructure situation. The background of the institution or the person concerned, the topic to be researched, the type of cooperation or the duration of a stay, as well as the intended access to infrastructure or technology are all relevant (see filter criteria in the next chapter).

Example: Participants to a conference held in the auditorium of a university do not need to be checked to the same extent than visitors to a highly sensitive laboratory area. In between these two scenarios lies a whole range of other (potential) Due Diligence in Science-relevant situations.

The researchers responsible for the respective collaboration initiate the Due Diligence in Science process in accordance with the institution-specific assessment criteria. This may also include non-

[5] The DLR Projektträger has published the study Risks in international research cooperation (safeguarding-science.eu) on the risks arising from first, second and third countries.

formalised collaborations (i.e. collaborations without a written agreement, e.g. participation in advisory committees, joint publications). The assessments are usually carried out before the start of a cooperation. Ongoing collaborations should also be reviewed if necessary.

Person-related checks should be indicated and carried out as early as possible in order to ensure no delays in the possibly lengthy process of inviting the person. The check should be completed before the organisation issues an invitation letter for a visa or at the latest before a contract is signed.

For cooperation-related checks, on the other hand, several assessment steps at different times are recommended. During the initial contact, for example before the start of joint research work or the submission of a joint application, a check should already be carried out for possible exclusion criteria (e.g. mention on sanctions and embargo lists). The complete Due Diligence in Science assessment should be carried out before the collaboration is formalised (conclusion of a cooperation agreement, joint application, etc.).

1.3. What is the scope of the assessment?

The organisation must define the scope of the assessment (assessment depth and breadth, assessment stages, decision escalation) in accordance with its risk profile and infrastructure situation. This is a critical point, as the desire to analyse the partner in as much depth as possible clashes with the desire for minimal effort and rapid implementation.

Therefore, organisation-specific filter criteria should be developed in order to only carry out the checks required in each individual case. Filters are used to decide when which assessment steps are to be carried out.

Possible filters are:

- List of countries of origin[6]
- Lists of sensitive topics[7]
- Field of activity, location, access to (critical/sensitive) infrastructure, technology or data in the organisation
- Duration of the planned stay at the facility
- Involved budgets: Definition of budget limits for assessment and decision stages
- Academic level (students, people with a degree, during their doctorate or experienced researchers, etc.)
- Professional activity in the organisation
- Other possible filters depending on the profile of the institution, e.g. relevant treaties binding under international law in individual specialist areas

Example country list: The definition of lists of critical partner countries can, for example, be based solely on relevant legislation - such as the country embargo list of the German Federal Office of Economics and Export Control (BAFA). Categorisation based on other parameters, e.g. the Academic Freedom Index (AFI), is also possible. A traffic light system can also be used within the respective lists to facilitate categorisation and classify risks more quickly.

[6] DLR Projektträger will publish an annotated collection of „Critical Country Lists“ in the summer of 2024 on the www.safeguarding-science.eu website.

[7] DLR Projektträger will publish an annotated collection of „Lists of sensitive technologies” in the summer of 2024 on the www.safeguarding-science.eu website.

The filter criteria are applied in parallel and can also be used for a step-by-step check, in which additional information may be accessed with greater effort from step to step.

1.4. Who carries out the assessment and who makes decisions?

The results of Due Diligence in Science assessments not only provide information on decision-making, but also on the level at which decisions need to be made. It can be assumed that not all cooperation decisions can be made at the highest management level, but that some must be made at the highest management level. Transparent and comprehensible principles for the decision-making process are particularly useful in research institutions with a high degree of academic autonomy for researchers.

The basic responsibility for the legally binding parts of Due Diligence in Science lies with the management of the respective institution. Management determines further responsibilities or delegates tasks. The responsibilities must be documented transparently. The form in which and the specialist department to which the entire Due Diligence in Science assessment or individual assessment steps (sanctions, embargo, export control, background of the institution or person, interconnections, etc.) are delegated depends on the institution.

One person should be responsible for the overall coordination of the assessment process. Overall coordination includes, for example, organising the process, advising the inviting or responsible researchers, ensuring compliance with the assessment process, summarising the opinions and preparing the assessment results of all departments involved for submission to the decision-making process and communicating with the responsible persons.

Despite the support of administrative units at the university or research institution and the final responsibility of the management, the main active level of responsibility is that of the leading researcher, i.e. the person in charge of a research group, institute, laboratory, collection or department (in English and EU parlance „principal investigator“) who wishes to invite a particular visiting researcher or initiate and establish a project with international partners.

2. Due Diligence in Science: an assessment process

Due Diligence in Science is a preventative measure. It helps to ensure a trusting and legally compliant collaboration that takes into account the interests of one's own institution. The measure must be organised transparently, the results must be comprehensible and the timeframe must fit the needs of the researchers. These requirements can be met with a systematically organised process.

2.1. Institution-specific, preparatory measures

The management level is responsible for this process step.

To introduce Due Diligence in Science, the management of the institution should assess which of the following measures need to be initiated specifically for the institution:

Create a performance profile: In which topics and in collaboration with which people, in which technologies, methods and infrastructures is the institution very good? This can be measured by bibliometrics, patent geometry, the amount of third-party funding acquired, the infrastructure on offer (e.g. large-scale research facilities), etc. This serves to clarify which are the institution's own scientifically and technologically valuable areas.

Create a risk profile: In which topics, with which people and with which infrastructures does the institution fit into the focus of interest of state or industrial players in other countries? This can be narrowed down, for example, by comparing your own performance profile with the objectives and strategies of other players. The risk profile is used to focus countermeasures, such as training for employees or in-depth assessments, on the areas that are most at risk and also serves as an argumentation aid for the introduction of supplementary assessments.

Create a cooperation strategy: In which topics and with which international partners does the institution have a strategic interest in exchange, in addition to the diverse cooperation interests of its own researchers? (One does not replace the other.) Which cooperation offers a relevant performance profile? Which cooperation provides access to special infrastructure? Your own cooperation strategy helps you to assess the opportunities and risks and to focus resources.

Create „assessment filter criteria": Each institution must determine which criteria make a due diligence assessment necessary (keyword: filter criteria, see chapter 1.3).

Define responsibilities: The responsibilities for the individual process steps, the overall coordination and the responsibilities for decisions must be defined. Different departments may be responsible for the individual steps.

Determine assessment process and its duration: The entire assessment process must be presented in a transparent and comprehensible manner. The effort should be kept as low as possible and the individual steps should only be carried out when they are necessary.

Plan information and communication measures (awareness): Implementing Due Diligence in Science and conducting assessments requires transparency, support from the institution's management as well as training and opportunities for employees to help shape the process.

2.2.Initiating the assessment process: applying filter criteria

The applicant is responsible for this process step.

The assessment process is usually initiated by the principal investigator who accepts a new employee as a guest or permanently into their team, plans a research stay, initiates a project, acquires a customer, intends to use a new supplier or starts an international collaboration (hereinafter always referred to as „the applicant"). The first step is to decide whether an assessment is necessary at all. The defined filter criteria (see chapter 1.3 and preparatory measures in chapter 2.1) can be used for this first step.

If, according to these criteria, cooperation with partners who do not necessitate the assessment process is planned, no further assessment is required and the cooperation agreement or employment contract can be drawn up.

The legal requirements must be complied with regardless of the defined filter criteria. However, they can be included in the filter criteria in a suitable place to improve clarity. A risk/opportunity/expense analysis of the planned cooperation can also be carried out.

However, if the analysis of the filter criteria indicates a „result", e.g. cooperation with a partner from a „listed" country, or if cooperation projects with high budgets are planned, the in-depth Due Diligence in Science process must be carried out.

2.3. Check-in form: compiling information

The applicant is responsible for this process step.

The responsible researcher briefly and clearly outlines the project proposal or the cooperation background on the basis of a predefined check-in form (sample check-in forms can be found in Annex 3.1 and 3.2).

Institution-specific check-in form: The document and any attachments show:

- basic information on the responsible researcher (PI) and his/her institute/research group (topics, number of staff, contacts, any relevant contracts or other collaborations)
- basic data of the planned cooperation partner or visiting researcher, e.g. name (also in original characters if applicable), nationality, country of origin, passport number, current country of residence and address, e-mail address, previous affiliations, publications relevant to the assessment
- subject of the collaboration, form of collaboration, details of the collaboration if applicable: Research data collection (Will public or non-public data be used? Is there a need for data collection in and data transfer from the partner country?), ethical aspects, aspects relating to the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation, etc. (if applicable)
- additional information, e.g. committee work of the applicant, etc.
- assessments (briefly formulated) on possible risks (dual-use, export control, access to sensitive know-how, technology readiness level[8], etc.) and also on the opportunities (how strong is the cooperation country or the cooperating research institution in the relevant subject area compared to Germany and its own research department? How will the institution/research department benefit from the planned cooperation?)

[8] For an explanation of the technology readiness level: trl-assessment-tool-guide-final.pdf (horizoneuropencpportal.eu)

- information on the funding of the cooperation/research (will the visiting researcher come to the German institution on a scholarship? Who finances a possible institutional partnership on the other side?)

Tools to be used:

- institution-specific check-in-form (sample see Annex 3.1 and 3.2)

2.4. Obtaining a self-disclosure form

The applicant is responsible for this process step.

In the case of personal exchanges, recruitment, hosting guest researchers, etc., the invited person may be asked to complete a self-disclosure form to supplement the information in the check-in form. This self-disclosure is primarily aimed at additional findings that contradict the values of the organisation. This self-disclosure should be based on a predefined form and attached to the check-in form. It must be determined on an organisation-specific basis in which cases self-disclosures should be obtained. Discrimination against individual groups of people must be avoided (e.g. all guests from non-EU countries could be obliged to provide self-disclosure and not just guests from certain countries).

Tools to be used:

- institution-specific self-disclosure form

2.5. Legally required assessment

2.5.1 Export control and embargo regulations

The office for export control is in charge.

The legally required assessment is carried out on the basis of the information in the check-in form and, if applicable, the attachments (publication list, etc.). The focus here is on the proliferation risks in research with the export control assessment (export control relevance). For this step, the German Federal Office of Economics and Export Control (BAFA) has explained the relevant documents and process steps in the „Outreach to Academia" initiative.[9] Among other things, the „Export Control and Academia Handbook"[10] was published.

Compliance with the embargo regulations must be ensured by checking the desired cooperation against country and person-related embargo measures. BAFA also offers the relevant documents for this purpose.[11]

The legally required assessment includes other topics that are rarely encountered but should be briefly mentioned here: Regulations on the Chemical Weapons Convention, regulations on war weapons control, regulations on cross-border shipments of radioactive materials and regulations on satellite data security. BAFA offers suitable information on all regulations.

Potential tools to be used (see Annex 3.3):

- institution-specific check-in form
- institution-specific self-disclosure form, if applicable

[9] BAFA - Export Control and Academia

[10] BAFA - Export Control and Academia - Export Control and Academia Manual (2nd Edition)

[11] BAFA - Export Control

- export control: relevant laws, ordinances and regulations
- sanctions and embargo list control
- dual-use assessment

2.5.2 Treaties binding under international law

The applicant and the administration are responsible for this process step.

In addition to legal requirements, treaties binding under international law stipulate certain rights and obligations, some of which are also relevant for international research collaborations. These treaties become effective with the consent and ratification of the parties involved and regulate various aspects of intergovernmental behaviour. Disregarding binding international treaties in a research collaboration can lead to legal, financial and reputational risks.

Due to their profile, institutions generally know which international treaties must be observed. In the case of corresponding collaborations, the questions regarding compliance with the treaties must generally be explained by the responsible researchers in the check-in form.

Examples of binding international treaties with relevance to research

Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation (Nagoya Protocol): This protocol regulates access to genetic resources and the fair and equitable sharing of the benefits arising from their utilisation. In order to comply with the protocol, authorisations for access to genetic resources must be obtained for international cooperation projects and the benefits must be shared fairly.

Convention on Biological Diversity (CBD): The CBD aims to conserve and sustainably utilise biological diversity. In international cooperation projects, compliance with the CBD must be ensured by using biodiversity sustainably and taking into account the protection of ecosystems.

Convention on the Protection of the Underwater Archaeological Heritage (UNESCO): The Convention aims to protect and preserve the underwater archaeological heritage. In the case of relevant research, the underwater archaeological heritage must be protected.

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): CITES regulates international trade in endangered species.

2.6. Institution-specific assessment

The departments and committees involved are responsible for this process step under an overall coordination.

The individual components of the in-depth assessment are carried out by all relevant and involved departments (e.g. Export Control, International Department, Legal Department, Contract Department, Technology Transfer, Human Resources, Ethics Committee). This is also based on the information in the check-in form. The institution-specific assessment process should be coordinated by a designated body/person.

2.6.1 Assessment of possible proliferation and dual-use risks

The responsible body (e.g. Export Control, Legal and Contract Department, Committee for Ethics in Security-Relevant Research) is in charge together with the applicant.

In addition to the examination under export control law, further considerations may be suitable for dual-use in some subject areas. The term „Dual-Use Research of Concern" (DURC)[12] should be mentioned here in particular. This refers to research that is intended to bring a clear benefit but can be misused to do harm. The term comes from the life sciences, but the principles are also valid for other areas. Deliberate or inadvertent misuse of research results can have a variety of consequences (e.g. virus research: drugs and biological weapons).

The responsible researcher is usually aware of whether DURC needs to be considered in the topic of the planned collaboration. As an example, many German institutions have committees for ethics in security-relevant research (in German: „Kommissionen für Ethik sicherheitsrelevanter Forschung", KEFs)[13] that can provide support with these questions. In the case of corresponding collaborations, these questions must be explained by the applicant in the check-in form and subsequently dealt with jointly with the relevant departments on a case-by-case basis.

Possible tools to be used:

Risk assessment tools (see Annex 3.3: e.g. TIM Dual-use Web Platform, OPERATE)

- institution-specific topic and country lists
- country-specific search applications (e.g. search in Chinese with search engines such as Baidu)
- search in scientific publications/patents: e.g. Dimensions, Scopus, Web of Science, PATSTAT

2.6.2 Business policy assessment

The responsible office (e.g. staff unit, management) is in charge.

Institutional interests: A business policy assessment is carried out to ensure the institution's specific research, business and cooperation strategy for projects that affect the institution's business policy or fundamental principles. These can be, for example, contracts with large volumes, collaborations with high foreign legal risks or presences abroad. This assessment is carried out against institution-specific self-imposed standards and takes into account aspects of both scientific cooperation and commercial cooperation (contract research). Possible effects of a planned cooperation on existing cooperations (and vice versa) should also be identified.

State and societal interests: In addition to the institution-specific policy, there is also an obligation to consider the interests of the state/province in which the publicly funded institution is located. Any cooperation (of an institute) must not lead to disadvantages for Germany or Europe as a technology hub. So-called cascade risks[14], i.e. the sum of the risks of many small measures, must also be taken into account. Cooperation projects should not run counter to the values of German or European society.

Possible tools to be used:

- institution-specific regulations and standards (e.g. civil clause)
- national strategy documents on technology sovereignty
- lists of sensitive technologies[15]

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[12] What is dual-use research of concern? (who.int)

[13] Gemeinsamer Ausschuss zum Umgang mit sicherheitsrelevanter Forschung (security-relevant-research.org)

[14] Risks in international research cooperation

[15] An example published by the European Commission: C_2023_6689_1_EN_ACT_part1_v8.pdf (europa.eu)

2.6.3 Economic assessment

The responsible department (e.g. Controlling) is in charge.

The economic assessment should be carried out for collaborations with relevant economic aspects. The main focus here is on weighing up the effort, costs and economic risks against the expected income or other economic consequences.

Possible tools to be used:

- Institution-specific profitability assessment

2.6.4 Contractual assessment

The responsible department (e.g. contract or legal department) is in charge.

The contractual assessment should be carried out for collaborations that may have an impact on existing contracts. Restrictions on entering into new partnerships or on the access of persons to data or technologies may arise from existing contracts of your own organisation (from grant agreements, orders, supplier relationships, but also from contracts associated with the procurement of infrastructure).

Possible tools to be used:

- Institution-specific contract management systems or processes

2.6.5 Ethical assessment

The responsible body (e.g. ethics committee) is in charge.

Institutions have an understanding of values and ethics that is usually based on internationally recognised ethical principles and statements from committees and experts on relevant research areas and technologies. Generally, the institutions have appropriate structures and processes for examining ethical issues.

Ethical issues include data protection, studies involving human and animal subjects, but also questions about the academic freedom of the partner institution, openness and personal and academic autonomy, integrity, censorship, etc. The possibilities of misuse of research results described above are also included. This examination is carried out in consultation with the responsible researchers.

Possible tools to be used:

- institution-specific ethics assessment processes

2.7.Result of the assessment

2.7.1 Drafting a decision paper

The results of the individual test steps have different relevance depending on the area considered. The weighting is to be decided on an institution-specific basis.

Once all opinions and assessment results have been obtained from the departments involved, the results are analysed by the person or unit responsible. A decision paper is drawn up with a vote that shows the risks and opportunities of the planned cooperation. Uncertainties and questions about the project background, the planned partners and the individual test steps and results are clarified in

dialogue with the applicant or documented in the event of differing assessments. The exact process for this must be determined on an institution-specific basis. If departments come to different recommendations and no clear result in favour of or against cooperation can be derived from the opinions, further measures are necessary to reach a decision. For example, a round table discussion can be organised between the departments involved and/or external expertise can be obtained.

The aim is to provide the decision-making authority with a summarising document on the desired cooperation that presents and evaluates the context of the cooperation. This document serves as the basis for an informed decision.

Possible tools to be used:

- Institution-specific template, e.g. annotated check-in form

2.7.2 Decision by authorised body

The body authorised to make decisions is responsible for this process step.

The decision can be made at different levels, depending on the type of cooperation requested. If there is a clear and comprehensible negative assessment in one of the assessment steps, the applicant does not pursue the cooperation any further or does not invite or hire the desired person. Escalation of the decision to the next higher or top management level is only necessary if the decision is of high relevance to the organisation or if there is disagreement. A decision at management level (Board of Directors or Executive Committee) may also be necessary if, for example, the assessment process has identified relevant risks and at the same time significant opportunities. If further questions arise during the decision-making process, feedback from other departments may also be necessary.

Consent to a planned cooperation can also only be given with reservations and be linked to conditions, e.g. for the cooperation agreement or for the access of a person, in order to minimise possible risks.

2.7.3 Drafting the cooperation agreement or employment contract

The responsible office for legal and contractual matters and/or the HR department in cooperation with the applicant is responsible for the contract negotiations.

The employment contract is drawn up by the Human Resources department. The cooperation agreement is drawn up by the responsible department with the involvement of the responsible researcher and the international partners. If necessary, conditions for cooperation must be taken into account. This means, for example, that contractual clauses are added to minimise potential risks that were identified during the Due Diligence in Science assessment.

It is important to consider the contractual framework conditions at an early stage (e.g. whether German or foreign law applies).

Negotiations on a cooperation agreement with the potential cooperation partner do not always have to lead to a positive conclusion. Consequently, the approval of the competent authority for a planned cooperation does not always lead to a successful start of a cooperation.

After successful negotiations, the authorised signatories sign the cooperation agreement or employment contract.

2.8. Occasion-based assessments of ongoing collaborations

Assessments can also be carried out while a cooperation is already underway, e.g. in particularly high-risk projects if there is a change of personnel on the partner's side or if the regulatory framework changes (see also section „1.2. When is an assessment carried out?").

Possible tools to be used:

- Contract management programmes

3. Annex

3.1. Example of an application form for the recruitment of foreign employees or the admission of guest researchers

For foreign guest researchers, scholarship holders, students, diploma students, doctoral candidates, research assistants, interns, etc. (hereinafter always the planned employee)

The information in points 1-2 is required for all planned employees.

The person responsible for the planned employee in terms of technical or human resources law is responsible for the categorisation of the technology required under point 3 and the assessment of the possible uses that can be considered for the scientific exchange.

1. Basic data of the host institution
   - Name of institute/institution/research group
   - Thematic/specialised focus of the institute
   - Address
   - Surname, first name of the head of the institution
   - Name, e-mail, telephone of the supervisor of the planned employee
   - Topic and work programme of the planned employee: in which topics/research projects will the planned employee be involved?

2. Basic data of the planned employee (possibly to be filled in with his/her help)

   - Title, surname, first name(s), gender, date of birth, place of birth (name may also be written in the native tongue, not only in English)
   - Scientific Unique Identifier[16] , if applicable (e.g. author ID number for publishing companies)
   - Nationality/nationalities (all if more than one nationality)
   - Contact: current address (street, postcode, city, country), address in Germany, e-mail, telephone number
   - If applicable, place(s) of employment in home country, employer(s) in home country (all – if more than one)
   - Home address, if applicable
   - Current/last employer/affiliation
   - Health insurance? Yes/No
   - Residence status/residence permit
   - Education level: Graduate/Post-Doc/Senior Scientist
   - Planned status/position: foreign exchange student, visiting scholar, scholarship holder, doctoral student, academic staff, intern, others
   - Planned duration of stay: < 1 month, 1-3 months, 3-12 months, > 1 year, permanent

[16] There are duplicate names and translation errors. This is why clear author IDs, for example for publications and affiliations, makes it much easier to assess persons, for example ORCID ID: https://orcid.org/

- Funding/financial support for the planned employee[17] (e.g. employment contract or scholarship from host organisation, EU funding, scholarship from home country, private funding[18], other)

Possible documents to be enclosed:
- Copy of passport/proof of identity
- Resume/CV
- If applicable, documents/explanations on financing of the planned employee
- Self-declaration/disclosure of the planned employee, if applicable
- Research plan, project outline as PDF
- Publication list of the planned employee

3. Information on the scientific content of the planned topic or research work

- Should the planned employee have access to knowledge, procedures, technologies that are not generally accessible? Yes/No
- Should the employee have access to goods, devices, samples, processes, technologies that are listed (foreign trade regulations/dual-use regulations)? Yes/No
- Is the collaboration in a field of applied research? Yes/No
- Are there possibilities of military use or use for civilian nuclear facilities of the research results? Yes/No

Possible documents to be enclosed:
- Research plan, project outline as PDF
- Publication list of the planned employee

Additionally for planned employees from an embargoed country

If an embargo has been imposed on the country of origin of the planned employee, no scientific or technical information on weapons, munitions and armaments may be passed on to him/her. In addition, no information on nuclear issues or on nuclear/biological/chemical (NBC) weapons technology or on carrier technology for NBC weapons may be passed on without prior authorisation from a responsible body (e.g. in the case of Germany, the Federal Office of Economics and Export Control). The following questions must therefore be clarified:

- Is the knowledge that will be passed on to the planned employee as part of the research work already published or generally known (at the time of transfer)? Yes/No
- Is the knowledge part of basic research? Yes/No
- Does the knowledge imparted/acquired as part of the research work relate to
    - the development, production, handling, maintenance, storage, localisation, identification, dissemination or operation of NBC weapons? Yes/No
    - the development, production, maintenance or storage of missiles for the delivery of NBC weapons? Yes/No
    - o the construction or operation of nuclear facilities in Algeria, Iraq, Iran, Israel, Jordan, Libya, North Korea, Pakistan or Syria? Yes/No

[17] If sources of funding are not known, documents should be requested (contracts, contractual conditions, ancillary provisions, etc.)

[18] If the applicant indicates private financing, this financing should be critically scrutinised.

  - the development, manufacture, maintenance or repair of specialised communications surveillance equipment? Yes/No
- Do any of the project participants have a military background or work in the military sector? Yes/No
- Are dual-use goods (goods that can be used for both civilian and military purposes; e.g. certain chemicals, machines, technologies and materials, in particular software or technologies) used in the projects, measuring instruments, etc.? Yes/No
- Will the planned employee have access to documents, files or knowledge that are not generally accessible and do not constitute basic research? Yes/No
- Questions about US export controls:
  - Should the planned employee work with goods, software, technical information or data sourced from the USA? Yes/No
  - Is the planned employee to work with software or computers of US origin that are non-standard computers or non-standard software? Yes/No
  - Is it planned to pass on technical knowledge or technical data obtained from the USA to the planned employee as part of the supervision?

3.2. Example of a registration form for international cooperations (contracts, agreements and arrangements)[19]

1. Basic data of the organisation/institution with the intention to cooperate

   - Name of the institution
   - Specialised focus of the institute
   - Address
   - Surname, first name of the head of the institution
   - Responsible Principle Investigator/project manager
   - Telephone number
   - E-mail address

2. Basic data of partner organisation (specify individually if there are several contractual partners)

   - Name, down to the level of the planned cooperation (i.e. University XY, Faculty Z. Institute ABC etc. (also in the national language)[20]
   - Legal form/type (public or private institution, university or research centre, private or state-owned company, local or multinational company, etc.)
   - Specialist focus of the partner
   - Address (street, postcode, town, country)
   - Persons responsible for the partnership at the organisation (title, full name (also in the script of the national language if applicable), e-mail, telephone number)
   - Other relevant information (e.g. financing, parent company or subsidiaries of the contractual partners in other countries, state participation)

   Possible documents to be enclosed:
   - ➢ Short description of the partner institution (organisation chart, ownership structures, financial overview, key topics, references in rankings, etc.)

3. Object of cooperation

   - Topic and work programme of the planned cooperation
   - Duration and format of the planned cooperation
   - Information on other partners and other framework conditions (e.g. EU projects, international alliances, politically desired cooperation, etc.)
   - Opportunities: what is the aim of the collaboration, what benefits will it bring for your own institution? In what form is research conducted abroad and what benefits does it bring for the institution?

[19] For formal cooperation, a process should be created within the organisation that defines responsibilities, decision-making levels, necessary documents, etc. It should also be established which country groups may be subject to more intensive scrutiny. The organisation should also decide whether and in what form informal cooperation should be recorded and documented. The registration form can be used in both cases.

[20] In some countries, institutions have several names or public universities are also companies under private law.

- Risks: What risks could arise from the intended cooperation? Are there risks in the specific country context of the partner(s) (government stability, legal security, travel security, corruption, respect for human rights and environmental law, etc.)?
- Should access to knowledge, processes and technologies that are not generally accessible be granted as part of the cooperation? Yes/No
- Should access to goods, equipment, samples, processes, technologies that are listed (foreign trade regulations/dual-use regulations) be granted as part of the cooperation? Yes/No
- Is the planned cooperation application-oriented research? Yes/No
- Are there any possibilities of military use or use for civilian nuclear facilities of the research results? Yes/No
- Is an export control assessment of the planned cooperation appropriate? Yes/No
- Are export control clauses[21] included in the cooperation agreement/contract? Yes/No

Possible documents to be enclosed:

- Research plan, project outline as PDF
- Relevant publications of the partners

In addition, for planned collaborations with partners from an embargoed country

If an embargo has been imposed on the country of origin of the planned cooperation partner, no scientific and technical information on weapons, ammunition and defence equipment may be passed on. In addition, no information on nuclear issues, nuclear/biological/chemical (NBC) weapons technology or carrier technology for NBC weapons may be passed on without prior authorisation from a responsible body (e.g. in the case of Germany, the German Federal Office of Economics and Export Control). The following questions must therefore be clarified:

- Is the knowledge that will be passed on to the planned employee as part of the research work already published or generally known (at the time of transfer)? Yes/No
- Is the knowledge part of basic research? Yes/No
- Does the knowledge imparted/acquired as part of the research work relate to
    - the development, production, handling, maintenance, storage, localisation, identification, dissemination or operation of NBC weapons? Yes/No
    - the development, production, maintenance or storage of missiles for the delivery of NBC weapons? Yes/No
    - o the construction or operation of nuclear facilities in Algeria, Iraq, Iran, Israel, Jordan, Libya, North Korea, Pakistan or Syria? Yes/No
    - o the development, manufacture, maintenance or repair of specialised communications surveillance equipment? Yes/No
- Do any of the project participants have a military background or work in the military sector? Yes/No

[21] Export control clauses include compliance with local, regional and international export control laws, in particular in accordance with EU and US law and, for example, the following obligations of the contractual partners: to obtain the necessary export authorisations and licences when exchanging goods, technologies and services; to cooperate with the authorities and report possible violations of human rights and the environment; to use research results only for peaceful purposes; to submit an end-use statement and not to misuse research results and/or the exchange of goods, software or technology. This also includes a specific non-proliferation clause (for contractual partners based in embargoed countries).

- Are dual-use goods (goods that can be used for both civilian and military purposes; e.g. certain chemicals, machines, technologies and materials, in particular software or technologies) used in the projects, measuring instruments, etc.? Yes/No
- Will the planned employee have access to documents, files or knowledge that are not generally accessible and do not constitute basic research? Yes/No
- Questions about US export controls:
    - Should the planned employee work with goods, software, technical information or data sourced from the USA? Yes/No
    - Is the planned employee to work with software or computers of US origin that are non-standard computers or non-standard software? Yes/No
    - Is it planned to pass on technical knowledge or technical data obtained from the USA to the planned employee as part of the supervision?

3.3. Examples of tools for analysing cooperations and individuals

There are various instruments available for assessing cooperations and persons. The following selection does not claim to be exhaustive.

Bundesanzeiger (https://www.bundesanzeiger.de) (free of charge, German only)

The Bundesanzeiger (Federal Gazette) is an official publication of the Federal Republic of Germany and is published by the Federal Ministry of Justice.

China Defense Universities Tracker (https://unitracker.aspi.org.au/) (free of charge)

The China Defence Universities Tracker, published by the Australian Strategic Policy Institute (ASPI) and last updated in 2021, is a database of Chinese institutions involved in military or security-related research.

Datenna (https://www.datenna.com/) (fee-based)

Datenna is a Dutch provider that offers its services to government-related organisations. Datenna provides information on research funding, publications, procurement efforts, and patent applications as well as the ownership structure of companies and research organisations in the People's Republic of China.

Dimensions (https://www.dimensions.ai/) (full version is fee-based)

Dimensions is a service by a US provider that was launched in 2018. The database is based on publication data and public data from other sources and enables, among other things, the assignment of persons to affiliations or the presentation of a timeline that shows parallel publications at different (e.g. military-related) research institutions.

FiSaLis (https://www.finanz-sanktionsliste.de/fisalis) (free of charge, German only)

The Financial Sanctions List (Finanzsanktionsliste, FiSaLis) can be used to check sanctioned persons, groups or organisations. The tool searches the comprehensive list of sanctioned persons and organisations compiled by the EU, which takes into account all EU sanctions regulations. [22] The service is primarily aimed at users from the judicial sector.

Haddex-Online (https://shop.reguvis.de/online-ausgabe/haddex-online) (fee-based, German only)

The Handbook of German Export Controls (HADDEX) is published by the German Federal Office of Economics and Export Control (BAFA) and contains relevant export control laws, ordinances and regulations that can be accessed in a database.

Kharon (https://www.kharon.com/) (fee-based)

Kharon is a US provider that can use its database to identify sanction and compliance risks for companies and research institutions or universities, among other things.

OPERATE (https://www.safeguarding-science.eu/tools/operate/) (free of charge)

OPERATE is a methodological application developed by the DLR Projektträger for researchers to assess opportunities and risks in cooperation with international partners.

PATSTAT (https://www.epo.org/de/searching-for-patents/business/patstat) (fee-based)

The PATSTAT database PATSTAT Global contains bibliographic data on more than 100 million patent documents from leading industrialised and developing countries as well as the EPO's worldwide legal events database (INPADOC), which comprises legal events data from more than 40 patent authorities.

[22] „Consolidated list of persons, groups and entities subject to EU financial sanctions" (last update 14 Nov 2023). https://data.europa.eu/data/datasets/consolidated-list-of-persons-groups-and-entities-subject-to-eu-financial-sanctions?locale=en

Scopus (https://www.scopus.com) (fee-based)

Scopus is an abstract and citation database that provides various tools for analysing and visualising publications and additional information such as cross-references and metrics.

Strider (https://www.striderintel.com/) (fee-based)

Strider is a US provider. The company was founded in 2019. The Sentry module can be used to identify background information of individuals.

TIM Dual-Use Web Platform (https://knowledge4policy.ec.europa.eu/text-mining/tim-dual-use_en) (free of charge)

The TIM Dual-Use Web Platform (online database) is based on the „EU Control List of Dual-Use Items" and is organised thematically according to ten dual-use technologies and eight emerging technologies with dual-use potential. The TIM database contains three types of documents that are updated annually: scientific publications in Scopus, patents via PATSTAT of the European Patent Office and CORDIS. As the TIM Dual-Use Web Platform is organised by topic, the research topic to be investigated must first be precisely classified in the topics covered in the database in order to be able to carry out a specific search.

Web of Science (https://www.webofscience.com/) (fee-based)

Web of Science is a multidisciplinary database platform that makes it possible, for example, to track research developments retrospectively and prospectively.