A guide to results-oriented project planning and monitoring

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1. Relevance

As a learning organisation, the DAAD is committed to working with higher education institutions, funding bodies, and other partners to continually improve the achievement of objectives and the implementation of its programmes. DAAD programmes funded by the Germany Foreign Office (Auswärtiges Amt - AA), the Federal Ministry of Education and Research (Bundesministeriums für Bildung und Forschung - BMBF) and the Federal Ministry for Economic Cooperation and Development (Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung, BMZ) are therefore supported by a results-oriented monitoring system (RoM). The collection and evaluation of monitoring data enables the DAAD and the higher education institutions to better understand results and impacts. Thus, conclusions can be drawn for the design and further development of programmes and their successful implementation. Results-oriented management is based on a continuous learning process. This aims to further enhance the effectiveness of the action of all parties involved regarding education and development policy. Results-oriented monitoring also supports transparency and accountability with respect to funding bodies, the public, and partners in Germany and abroad. Consequently, the DAAD is able to take account of the provisions of the Federal Budget Code regarding performance monitoring in the use of public funds.

2. The function of results frameworks and indicators

A results framework is a core reference document for the results-oriented planning and management of projects and programmes. Combined with indicators, it forms the basis for monitoring and evaluation.

- A results framework **visualises the funding logic** of a project or programme. It clarifies the relationships between the contributions of the various stakeholders, the measures / activities, the intended short and medium-term results, and the medium and long-term objectives and impacts.

- **Indicators** are assigned to the measures / activities, results, and objectives described in the results framework. These indicators allow the implemented measures / activities and the intended **results and objectives to be measured**.

- Results frameworks and indicators are the basis for the results-oriented planning and re-porting of projects. Thus, they are decisive for a systematic **assessment of the extent to which objectives have been implemented and achieved** by means of a comparison between target and actual performance. This is the basis for the results-oriented management of a project or programme and its further development in dialogue between the partners involved.

3. Key terms and definitions

3.1. Results framework

In a results framework, the higher-level development policy objectives (**impacts**) are formulated. The direct project/programme goals (**outcomes**) should contribute towards achieving these impacts. The project/programme goals are achieved when the results produced (**outputs**) are used by the target group. The results, in turn, are derived from the **activities and measures** of a project/programme, which are made possible through the use of resources (**inputs**).

The DAAD bases its definition of the different impact levels on the OECD/DAC definitions[1]:

Impacts: Positive and negative, primary and secondary long-term effects produced by a measure / activity, directly or indirectly, intended or unintended.

Impacts are the intended higher-level education and development policy goals, towards which a contribution is to be made in the long term through a measure / activity, eg a contribution towards the structural reinforcement of teaching at the partner institutions or towards the internationalisation of the higher education institutions. The impacts observed at this level in turn contribute towards overarching objectives, such as the creation of outstanding, cosmopolitan higher education institutions, and towards sustainable development in general. Impacts are usually reviewed by means of evaluations (often ex-post), not as part of monitoring.

Outcomes (at the DAAD: Programme/programme objectives): The anticipated or achieved short-term and medium-term effects of a measure's / activity's outputs.

Outcomes are the intended effects that result from use of the outputs for the target group (= benefits for the target group). The programme objectives are formulated at this level. Outcomes are, for example, newly developed degree courses at the partner institutions, which reflect the latest developments in science and suit the local context, or established development-related, specialist networks between the participating universities and other institutions.

Outputs (programme/project results): The products, capital goods, and services which result from a measure / activity; may also include changes resulting from the measure / activity which are directly relevant to the achievement of outcomes.

Outputs are all the products, services, and results developed and/or provided through a measure / activity required to achieve the intended outcomes. Outputs are, for example, jointly developed curricula or teaching modules compiled within projects, the crea-

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[1] Based on OECD/DAC (2009): Glossary of Key Terms in Evaluation and Results Based Management. Available online at: http://www.oecd.org/dac/evaluation/dcdndep/43184177.pdf [01/07/2016].

tion of structural conditions for degree courses at the partner universities, or the expansion and consolidation of contacts. Outputs also include personal skills gained or knowledge transmitted.

Measures / activities: Actions taken or meaningful bundling of actions through which specific outputs (results of the measures / activities) can be produced.

These include eg the organisation of events, further and continuing education activities, project-related visits, and the development/revision of teaching/learning materials.

Inputs: The financial, human, and material resources used for the measure / activity.

Inputs are eg the grant (personnel resources, material expenditure, expenditure for funded individuals financed by this) and the contribution of the grant recipient or project partner (specialist expertise and infrastructure).

3.2. Indicators

Indicators are assigned to the measures / activities, results (outputs), and effects or objectives (outcomes) listed in the results framework which are used for specification and measurement. An indicator is a value that can be measured empirically, providing information about a construct that cannot be measured directly.

According to the OECD/DAC, an indicator is defined as follows:

Variable or factor (quantitative or qualitative) that provides a simple and reliable means to measure achievement to reflect the changes connected to a measure / activity or to help assess the performance of an actor.[2]

The formulation of conclusive indicators requires a number of minimum standards. Firstly, an indicator has to measure the actual issues it ultimately ought to measure (validity). Secondly, repeated tests and measurements should, given that the conditions remain the same, always lead to the same results (reliability). Aside of these methodological requirements the indicators also need to follow practical requirements. They should thus be chosen in consideration of the given circumstances, such as resources and capacities (practicability) on the one hand and acceptance of the people concerned on the other hand (acceptance). Meaningful indicators ought to define precise target values (benchmarks). These targets specify the measures which should be deployed and implemented in the project and the specific timeframe.

The SMART rule is a useful guide towards the implementation of these requirements. Indicators should meet the following quality criteria:

Specific: precise and unambiguous in terms of quality and quantity
                       (who? what? how?)
Measurable: can be measured with reasonable effort and at reasonable cost

Attainable: objectives are realistically achievable within the specified parameters

Relevant: meaningful in terms of the intended changes

Time-Bound: has a defined timeframe

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[2] Cf. OECD/DAC (2009): Glossary of Key Terms in Evaluation and Results Based Management. Available online at: http://www.oecd.org/dac/evaluation/dcdndep/43184177.pdf [20/07/2016].

Further links:

Federal Ministry for Economic Cooperation and Development (Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung) (2006): Evaluation criteria for German bi-lateral development cooperation.
[http://www.bmz.de/de/zentrales_downloadarchiv/erfolg_und_kontrolle/evaluierungskrite-rien.pdf; Date: 12/09/2016]

Meyer, Wolfgang (2004): Indikatorenentwicklung: Eine praxisorientierte Einführung.
[http://ceval.de/modx/fileadmin/user_upload/PDFs/workpaper10.pdf; Date: 12/09/2016]

OECD/DAC (2009): Glossary of Key Terms in Evaluation and Results Based Management.
[http://www.oecd.org/dac/evaluation/dcdndep/43184177.pdf; Date: 12/09/2016]

Phineo (2013): Kursbuch Wirkung. Das Praxishandbuch für alle, die Gutes noch besser tun wollen. [https://www.phineo.org/fileadmin/phineo/2_Publikationen/Kursbuch/PHINEO_KURS-BUCH_WIRKUNG_low.pdf; Date: 12/09/2016]

4. Results framework for the programme "German-Arab Transformation Partnership: Research Partnerships"

The results framework for the programme German-Arab Transformation Partnership: Research Partnerships was developed by the DAAD. It forms the framework of reference specified by funding bodies for project funding.

At the **impact level**, the programme German-Arab Transformation Partnership: Research Partnerships is intended to support the transformation process in the partner countries and to contribute to the innovative capacity and transferability of the higher education institutions. The partner higher education institutions are links between science, business and society in the target countries. In order to achieve this, the programme is intended to make a contribution to the employability of DAAD alumni and junior scientists in the partner countries and to the development of structures that offer support for junior scientists at the partner higher education institutions while consolidating university networking in the region. In addition, the programme is intended to contribute to the promotion of quality in teaching and research at the partner higher education institutions.

To contribute to the achievement of these long-term effects (impacts), the programme pursues four **programme objectives (outcomes)**:
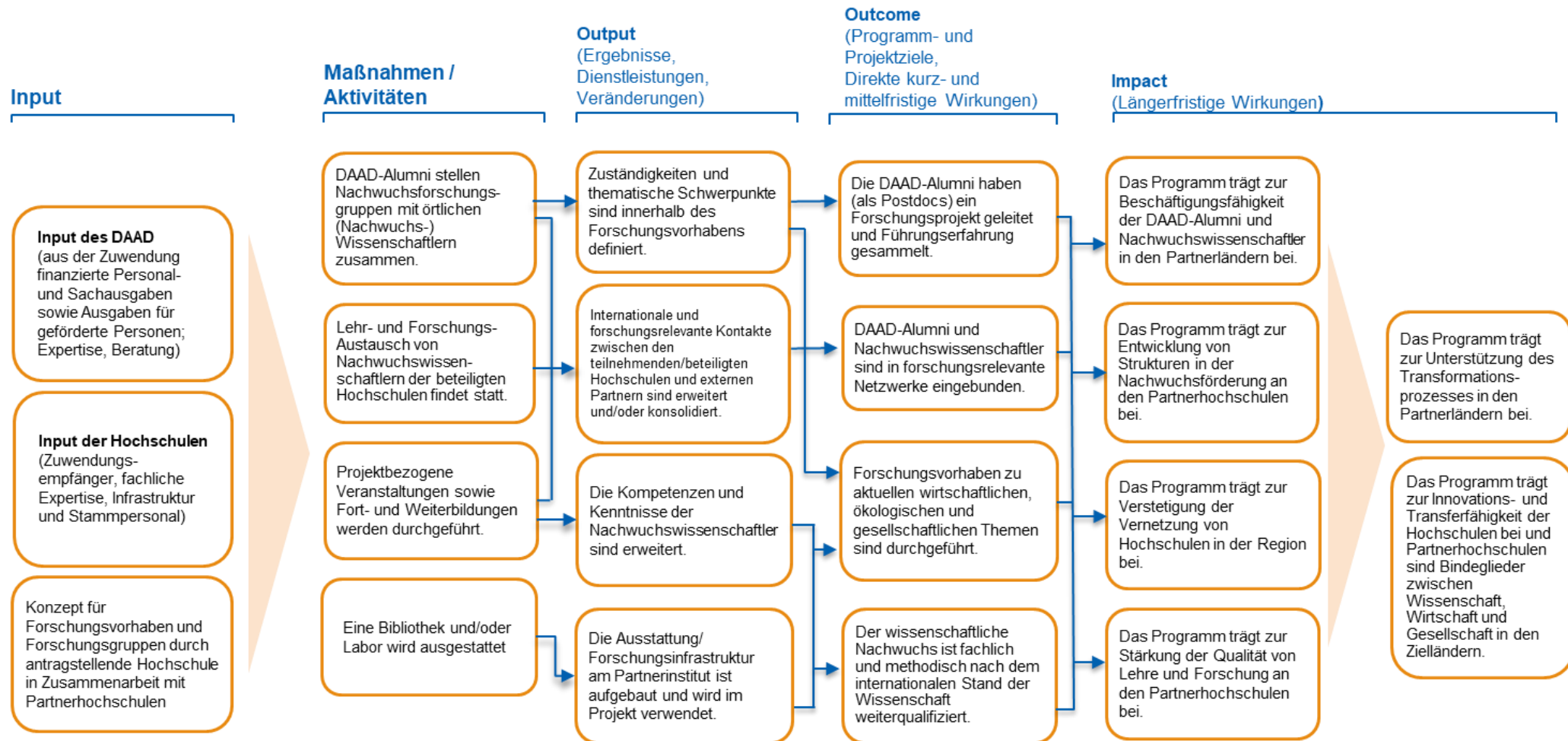
1. The DAAD alumni have led a research programme (as postdocs) and gained leadership experience.

2. The DAAD alumni and junior scientists are integrated into research networks.

3. Research projects on current economic, environmental and social topics have been implemented.

4. Junior scientists have undergone further technical and methodical training in accordance with the international state of the art in science.

To achieve this, **at the output level**, responsibilities and thematic focuses are to be defined in the research projects of the programme German-Arab Transformation Partnership: Research Partnerships and international and research contacts between the participating/involved higher education institutions and external partners are to be expanded and/or consolidated. Moreover, the competences and knowledge of junior scientists are to be broadened. In addition, the equipment/research infrastructure at the partner institute is to be expanded and used in the project.

To realise these results (outputs), the universities and higher education institutions involved can implement various **measures/ activities.** For example, expenditure is eligible if used by the DAAD alumni to put together junior researchers groups consisting of local (junior) scientists, for teaching and research exchange between junior scientists at the higher education institutions involved, to hold project-related and continuing and further education events or to stock a library and/or laboratory.

The actors involved contribute **inputs** (see above) to implement university projects. On the part of the DAAD, this is the grant (used to finance personnel expenditure, material expenditure, expenditure for funded individuals, expertise and consultants); on the part of the universities submitting the application and any additional partners, these are the contributions of the grant recipient and project partners (eg technical expertise, infrastructure and permanent staff). In addition, the university submitting the application is developing a concept for research projects and research groups in collaboration with the partner higher education institutions.

Note: The results framework is in German; however, the individual elements in the results framework are listed in English in the catalogue of indicators.

Input

Maßnahmen / Aktivitäten

Output
(Ergebnisse, Dienstleistungen, Veränderungen)

Outcome
(Programm- und Projektziele, Direkte kurz- und mittelfristige Wirkungen)

Impact
(Längerfristige Wirkungen)

Input des DAAD
(aus der Zuwendung finanzierte Personal- und Sachausgaben sowie Ausgaben für geförderte Personen; Expertise, Beratung)

Input der Hochschulen
(Zuwendungs- empfänger, fachliche Expertise, Infrastruktur und Stammpersonal)

Konzept für Forschungsvorhaben und Forschungsgruppen durch antragstellende Hochschule in Zusammenarbeit mit Partnerhochschulen

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DAAD-Alumni stellen Nachwuchsforschungs- gruppen mit örtlichen (Nachwuchs-) Wissenschaftlern zusammen.

Lehr- und Forschungs- Austausch von Nachwuchswissen- schaftlern der beteiligten Hochschulen findet statt.

Projektbezogene Veranstaltungen sowie Fort- und Weiterbildungen werden durchgeführt.

Eine Bibliothek und/oder Labor wird ausgestattet

Zuständigkeiten und thematische Schwerpunkte sind innerhalb des Forschungsvorhabens definiert.

Internationale und forschungsrelevante Kontakte zwischen den teilnehmenden/beteiligten Hochschulen und externen Partnern sind erweitert und/oder konsolidiert.

Die Kompetenzen und Kenntnisse der Nachwuchswissenschaftler sind erweitert.

Die Ausstattung/ Forschungsinfrastruktur am Partnerinstitut ist aufgebaut und wird im Projekt verwendet.

Die DAAD-Alumni haben (als Postdocs) ein Forschungsprojekt geleitet und Führungserfahrung gesammelt.

DAAD-Alumni und Nachwuchswissenschaftler sind in forschungsrelevante Netzwerke eingebunden.

Forschungsvorhaben zu aktuellen wirtschaftlichen, ökologischen und gesellschaftlichen Themen sind durchgeführt.

Der wissenschaftliche Nachwuchs ist fachlich und methodisch nach dem internationalen Stand der Wissenschaft weiterqualifiziert.

Das Programm trägt zur Beschäftigungsfähigkeit der DAAD-Alumni und Nachwuchswissenschaftler in den Partnerländern bei.

Das Programm trägt zur Entwicklung von Strukturen in der Nachwuchsförderung an den Partnerhochschulen bei.

Das Programm trägt zur Verstetigung der Vernetzung von Hochschulen in der Region bei.

Das Programm trägt zur Stärkung der Qualität von Lehre und Forschung an den Partnerhochschulen bei.

Das Programm trägt zur Unterstützung des Transformations- prozesses in den Partnerländern bei.

Das Programm trägt zur Innovations- und Transferfähigkeit der Hochschulen bei und Partnerhochschulen sind Bindeglieder zwischen Wissenschaft, Wirtschaft und Gesellschaft in den Zielländern.

5. Indicators for the programme "German-Arab Transformation Partnership: Research Partnerships"

The following **programme** indicators were set for the programme German-Arab Transformation Partnership: Research Partnerships, for which the DAAD requests data in the context of the annual substantive reporting. These data help the DAAD with programme management and accountability.

Measures / activities and allocated programme indicators

Measures / activities	Indicator
DAAD alumni put together junior researchers groups consisting of local (junior) scientists	**Number of (junior) scientists in the research groups (since funding started), differentiated by** • status (students, doctoral candidates, postdocs) • Area • Gender • Partner country/Germany • Allocated role in the project
	Qualitative description of the selection procedure for the research group (announcement, selection criteria, consideration of gender equality)
There is teaching and research exchange between junior scientists at the higher education institutions involved	**Number of implemented funding streams (in the reporting year)**

	Number of funded individuals (in the reporting year), differentiated by
	• Gender
	• Country of nationality (DAAD key)
	• Status (students, doctoral candidates, postdocs, academics holding a PhD)
	• Funding:
	  - New funding
	  - Continued funding
	• Duration of the funding: days, weeks, months
	• Subject group (DAAD key)
	• Target country:
	  - Germany
	  - Partner country

Project-related events and further training and education are held	**Number of events held with the support of the DAAD (in the reporting year), differentiated by** • Title/topic • Event location/country • Target group (students, doctoral candidates, postdocs, academics holding a PhD) • Date (start) • Duration (in days) • Format

Measures / activities	Indicator

	- Workshop/Seminar
	    - Symposium/convention/conference
	    - Planning and management meeting
	    - Excursions
	    - Other
	• Degree of digitisation
	    - In-person event
	    - Blended learning
	    - Online event

	Number of participants at the events held (in the reporting year), differentiated by • Gender

	Number of continuing and further education events held with the support of the DAAD (in the reporting year), differentiated by
	
	• Title/topic
	• Event location/country
	• Target group (students, doctoral candidates, postdocs, academics holding a PhD)
	• Date (start)
	• Duration
	• Format
	    - Workshop/Seminar
	    - Symposium/convention/conference
	    - Planning and management meeting
	    - Excursions
	    - Other
	• Degree of digitisation
	    - In-person event
	    - Blended learning
	    - Online event
	• Type of qualification
	    - technical
	    - teaching
	    - cross-disciplinary
	    - methodology

	Number of participants at the continuing and further education events (in the reporting year), differentiated by: • Gender • Status (students, doctoral candidates, postdocs, academics holding a PhD)
A library and/or laboratory will be equipped	**Volume of the material funds (in euros) for the library and/or laboratory equipment**

Programme results (outputs) and allocated programme indicators

Output	
Responsibilities and thematic priorities are defined in the research project.	**Number of (junior) scientists in the research groups (since funding started), differentiated by** • status (students, doctoral candidates, postdocs) • Area • Gender • Partner country/Germany • Allocated role in the project
	Qualitative description of the time frame for implementing the research project (since funding started)
International and research-relevant contacts between the higher education institutions and external partners have been extended and/or consolidated.	**Number of consolidated contacts with existing partners (since funding started), differentiated by** • Area: - Science/research - Business - Civil society - Public sector/politics - Miscellaneous
	Number of new contacts for collaboration (in the reporting year), differentiated by • Area: - Science/research - Business - Civil society - Public sector/politics - Miscellaneous
The competences and knowledge of the junior scientists have been extended	**Number of participants at the continuing and further education events (in the reporting year), differentiated by:** • Gender
The equipment/ research infrastructure at the partner institute have been extended and are used in the project	**Qualitative description of the most important learning and teaching materials, consumables and devices (including digital components) and their benefits in the context of the project (in the reporting year)**

Programme results (outcomes) and allocated programme indicators

Outcome	Indicator
The DAAD alumni have led a research programme (as postdocs) and gained leadership experience.	**Number of project meetings (in the reporting year) managed by the alumnus, differentiated by** • Date • Duration • Number of attendees
	Qualitative description of the gain in the alumnus' leadership experience as part of the research project (since funding started)

The DAAD alumni and junior scientists are integrated into research networks	**Number of networks relevant to research in which the junior scientists are actively involved (since funding started), differentiated by**
	
	• Network name
	• Status (exists (unchanged); extended; other)
	• Partner structure (south-south; north-south; north-south-south; other)
	• Involvement of non-university actors:
	  - Science/research
	  - Business
	  - Civil society/NGOs
	  - Public sector/politics
	  - Miscellaneous
	• Section
	• regional focus

	Number of junior scientists newly participating in the subject networks relevant to research, differentiated by • Gender
Research projects on current economic, environmental and social topics have been implemented	**Number of talks as part of conferences (in the reporting year), differentiated by** • Status of the speakers (students, doctoral candidates, postdocs, academics holding a PhD) • Event organiser of the conference • Name of the conference • Title • Type of contribution (presentation, workshop, participant of a panel discussion)
	Number of publications on the research focus in which the researchers from the project are involved (in the reporting year), differentiated by • Type of publication (eg Article in scientific magazine; book chapter (contribution in publisher's anthology); book (publisher's anthology or monograph); working paper/ technical report; poster; doctoral thesis, other) • Authors • Title • Place of publication • Implementation status

Outcome	Indicator
	Qualitative description of the technical results and of the research project's contribution to current economic, environmental and social topics and questions

Junior scientists have undergone further technical and methodical training in accordance with the international state of the art in science	**Number of participants at the continuing and further education events with technical and/or methodical focus (in the reporting year), differentiated by**
	
	• Status (students, doctoral candidates, postdocs, academics holding a PhD)
	• Area
	• Gender
	• Type of further qualification:
	   - Specialised
	   - Teaching
	   - Cross-disciplinary
	   - Methodology

6. Information on results-oriented project planning

With regard to the project applications, it is necessary to specify the results logic and the programme indicators for the respective project. For this, the measures/ activities, programme results (outputs) and programme objectives (outcomes) depicted in the programme's results framework must be stated precisely, according to the individual project concept and planning. For the planned project, each activity and measure that will be implemented in order to achieve the project-specific results (outputs) and objectives (outcomes) must be specified and assigned to the categories in the programme results framework. This produces a results-oriented project concept that is consistent with the programme's results framework.

Results-oriented project planning must be presented in textual form at the following points:

Results-oriented project planning must be presented in textual form in the **project description template** and as a table in the **project planning document**.

Project description template: The **project objectives (outcomes)** and project results (outputs) should be described in the Section "Detailed project description and reference to results logic" which must be submitted as part of the project. The description is intended to show how the project contributes to the achievement of the project's objectives (outcomes). It also contains an explanation of which project-specific results (outputs) are to achieve which project objectives (outcomes).

Important note:

Individual projects can focus on different aspects within the programme's results framework. It is not necessary for every project to aim to achieve all programme objectives (programme outcomes) to the same extent, a project should also pursue all programme objectives. Projects are also permitted room for manoeuvre in formulating their objectives and in their strategies for achieving them; whereby the project objectives must be consistent with programme objectives.

Project planning document: one meaningful indicator must be defined for each project-specific result (output) and objective (outcome) respectively – in individual cases, more than one

indicator may be required to make meaningful statements about the result (eg number of classes and number of participants). The programme indicators presented in Section 5 should be used if relevant for the project plan and management. Further indicators may be developed if necessary, where these help define and measure the project results (outputs) and objectives (outcomes). Indicators can be quantitative (number) or qualitative. Each indicator ought to be given precise target values (benchmarks). These targets specify the measures which should be deployed and implemented in the project and the specific timeframe. This helps with reviewing project progress and target achievement. The **project planning document (attachment)** documents the benchmark indicators and measures/activities planning as a table. Justified changes to the project plan are possible during the project in consultation with the DAAD.

The relevant programme indicators and the individual project indicators defined in the universities' applications create the frame of reference for the higher education institutions' annual reports to the DAAD. In addition, the programme indicators above are reviewed as part of annual substantive reporting. The report must be submitted online using a monitoring tool set up for this purpose.

Below are shown examples of how to formulate indicators for project results (outputs) and project objectives (outcomes) based on the results framework and catalogue of indicators.

Selected examples of results-oriented project planning and adaptation of programme indicators to a specific project

Formulation of project indicators at <u>output level (results)</u>

Example 1

Output (<u>programme</u> level)	**Output** (<u>project</u> level)
Responsibilities and thematic priorities are defined in the **research project**.	Responsibilities and thematic priorities are defined in the research project in the field of **Biology**.

Indicator (<u>programme</u> level)	**Indicator** (<u>project</u> level)
Number of (junior) scientists in the research groups (since funding started), differentiated by • **Status** (students, doctoral candidates, postdocs) • **Area** • **Gender** • **Partner country/Germany** • **Allocated role in the project**	**At the start of 2021**, the responsibilities of the **8 (junior) scientists (at least 3 of whom are women),** including **2 postdocs**, **3 doctoral candidates** and **3 students** from the **partner country** and **Germany**, and the thematic priorities are defined within the research project in the area of **biology**.

Example 2

Output (<u>programme</u> level)	**Output** (<u>project</u> level)
The **competences** and **knowledge** of the junior scientists have been extended.	The competences and knowledge of the junior scientists in the area of **hydraulic engineering** have been extended.

Indicator (<u>programme</u> level)	**Indicator** (<u>project</u> level)
Number of participants at the continuing and further education events (in the reporting year), differentiated by: • **Gender**	**By end of 2021**, the competences and knowledge of the **8 junior scientists (**at least **3 of whom are women)** in the area of **hydraulic engineering** have been extended.

Formulation of project indicators at <u>outcome level (objectives)</u>

Example 1

Outcome (<u>programme</u> level)		**Outcome** (<u>project</u> level)
The **DAAD alumni** have led a research programme (as postdocs) and gained leadership experience.	▷	The **DAAD alumnus of the partner university NN** has managed a research project in the area of **biology** (as a postdoc) and gained leadership experience.

Indicator (<u>programme</u> level)		**Indicator** (<u>project</u> level)
Number of project meetings (in the reporting year) managed by the alumnus, differentiated by **Date** **Duration** **Participant number**	▷	**By the end of 2021**, **10 half-day project meetings** have been held, chaired by the alumnus and attended by **8 participants**.

Example 2

Outcome (<u>programme</u> level)		**Outcome** (<u>project</u> level)
Research projects on current economic, environmental and social topics have been carried out.	▷	Research projects on the topic of **hydraulic engineering** have been carried out.

Indicator (<u>programme</u> level)		**Indicator** (<u>project</u> level)
Number of talks as part of conferences (in the reporting year), differentiated by **Status of the speakers** (students, doctoral candidates, postdocs, academics holding a PhD) **Event organiser of the conference** **Name of the conference** **Title** **Type of contribution** (presentation, workshop, participant of a panel discussion)	▷	**By the end of 2021**, **3 presentations will have been held on the topic of hydraulic engineering**, of which **2** will be from **postdocs** and **1** from an **academic holding a PhD**, as part of **NN conferences** which will be **organised by NN**.