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WATER RESEARCH COMMISSION

INRH
INSTITUTO NACIONAL DE RECURSOS HÍDRICOS

Research and Education Program

WASA - Water Security in Africa -

1st Main phase for southern Africa

Webinar for Applicants 05.04.2023

PTKA
Project Management Agency Karlsruhe
Karlsruhe Institute of Technology

Agenda

- Opening and Housekeeping
- Overview of the WASA program and the call for proposals (Leif Wolf)
- Remarks from African contact points (Mamohloding Tlhagale, WRC)
- Questions and Answers

Virtual meeting housekeeping

- Please turn off your microphone when not talking
- Indicate questions/interventions by virtually raising your hand or writing into the chat
- Please enter your name and affiliation in Zoom. (e.g. Leif Wolf, PTKA)

1. Join a Zoom meeting on the Zoom desktop client.
2. On the Zoom in-meeting controls, click **Participants** .
3. Hover your mouse over your name, then click the ellipses •••.
4. Click **Rename**.
   A pop-up box will appear.
5. In the pop-up box, enter your display name.
6. Click **Change**.

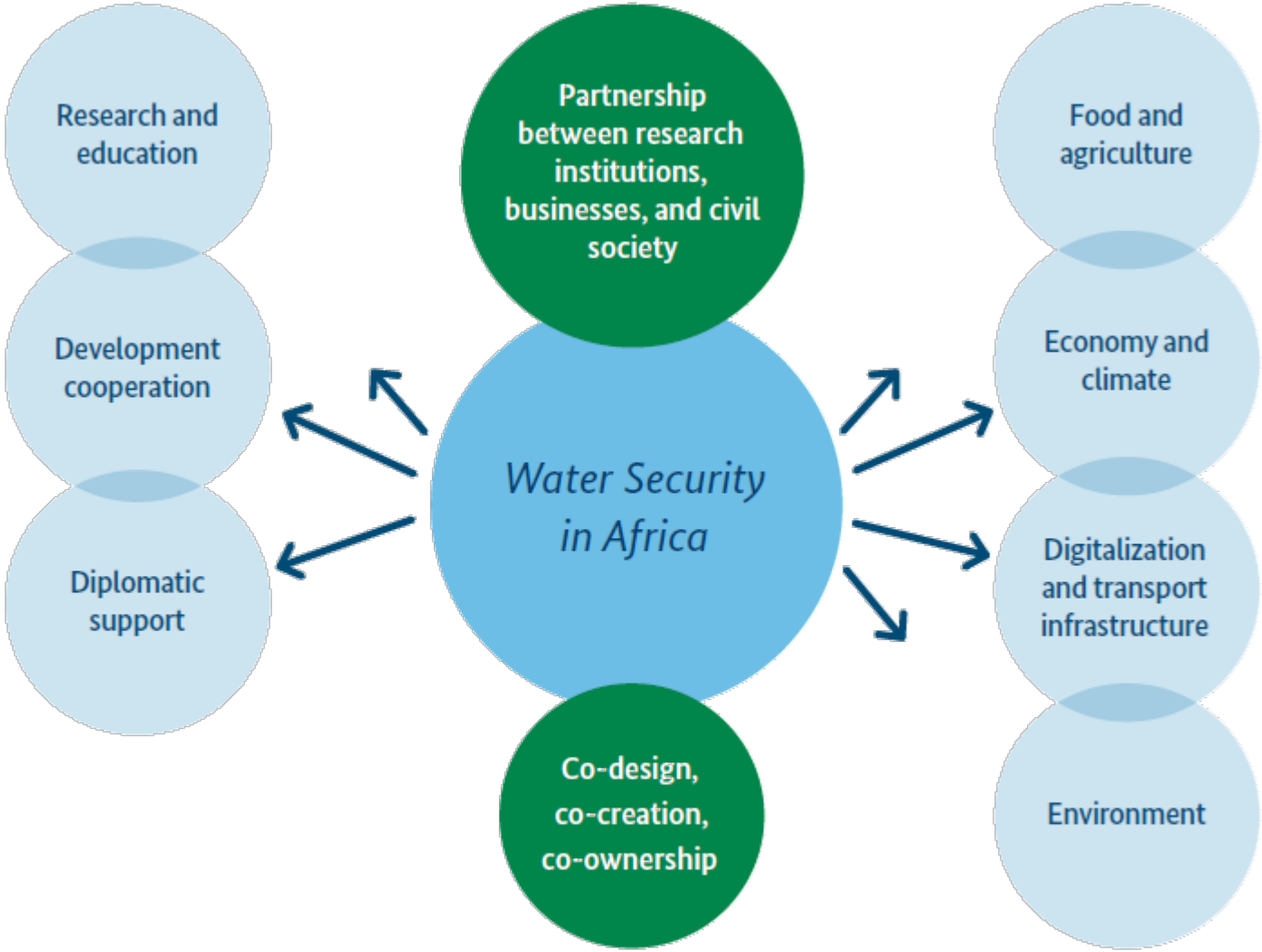
Welcome & Disclaimer

- We are very happy that WASA is progressing towards the main phase. This presentation summarizes only selected key points of the call for proposals.
- WASA is an open and evolving program. This presentation does not comprise all details and different national funding regulations. It **focuses on the BMBF contribution to the WASA program** and the BMBF call for proposals.
- For information on potential **co-funding and in-kind contributions** from other countries and ministries (if your ideas correspond to relevant national agendas) please approach the **respective national contact points**.
- The full text of the announcement of the BMBF funding is available at the BMBF website. https://www.fona.de/en/measures/funding-measures/water-security-in-africa-wasa.php
- Please note that the English texts **are for information purposes only**; they do not constitute an official German funding announcement. While we took care with translating, only the official version of the announcement published in the German Federal Gazette is legally binding.

Synergies

- The initiative actively seeks to leverage the potential for synergy in the context of research cooperation, development cooperation, and economic development.

- As an example on the German side, the following stakeholders were involved in the development of WASA: the **Federal Ministry of Education and Research (BMBF)**, the **Federal Foreign Office (AA)**, the Federal Ministry for **Economic Cooperation and Development (BMZ)**, the Federal Ministry for the **Environment, Nature Conservation**, Nuclear Safety and Consumer Protection **(BMUV),** the Federal Ministry of **Food and Agriculture (BMEL)**, the Federal Ministry for **Digital and Transport (BMDV)**, the Federal Ministry for **Economic Affairs and Climate Action (BMWK)** as well as the relevant subordinate organizations.



Innovative cooperation formats facilitated through the joint involvement of different areas of activity, all of which are working to achieve the common goal of ensuring water security in Africa

1 Aim and purpose of funding

- Contribute to the **sustainable improvement of water security in Africa**. This includes improving water supply and sanitation systems as well as the conservation of natural ecosystems.
- This shall be achieved by the development of **innovative tools and holistic solutions**.
- Sustainable water resources management, appropriate water infrastructure and hydrologic forecasts are key areas defined in the call.

WASA guiding principles:

Collaborative project development involving African and German partners from the very beginning.

Synergetic, integrated approach thanks to the involvement of **different ministries and stakeholders**.

Long-term concept along an envisaged implementation path from knowledge generation to demonstration and implementation, transfer and consolidation.

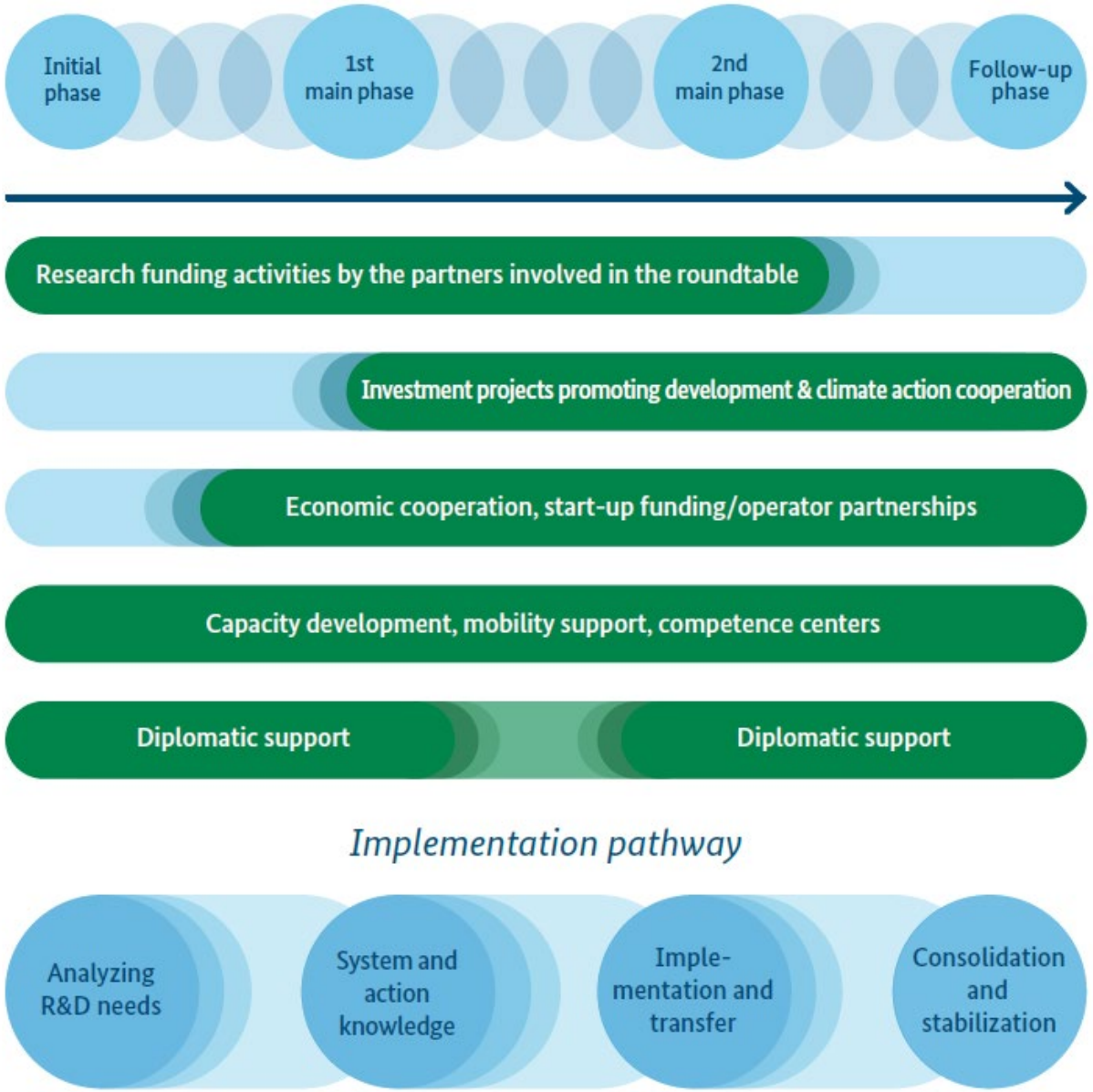
Contributions to existing strategies

- UN Agenda 2030 - SDGs
- Agenda 2063 of the African Union
- African Water Strategy 2025 of the African Union
- SADC Water Research Agenda
- Roadmap for EU-African Union S&T cooperation
- G20 Compact with Africa
- Strategies of the German Federal Government and the German Federal Ministries
  - Federal Government Africa Policy Guidelines
  - Federal Government's Strategy for the Internationalisation of Education, Science and Research
  - Africa Strategy of the BMBF
  - BMZ Water Strategy / BMZ Africa Strategy
  - BMZ Marshall Plan with Africa
  - BMWi initiative Pro! Africa

Achieving a better and more sustainable future for all

Implementation Path

- The WASA initiative began with an ***initial phase*** in southern Africa. Following a call for proposals that generated dozens of submissions, thirteen projects were selected to receive funding from the BMBF for a co-design process.
- The next step is the **first main phase**, which focuses on **research and development, capacity development as well as demonstration and innovation**. The first WASA main phase builds on the knowledge generated during the initial phase, however submissions to the call for proposals by new applicants are possible.
- The WASA program concept includes also a ***second main phase*** with a focus on implementation/transfer and a *follow-up phase* to consolidate the results. The decision about the establishment of these phases will be based on the achievements during the preceding phase.



WASA Initial Phase Southern Africa - 13 Projects

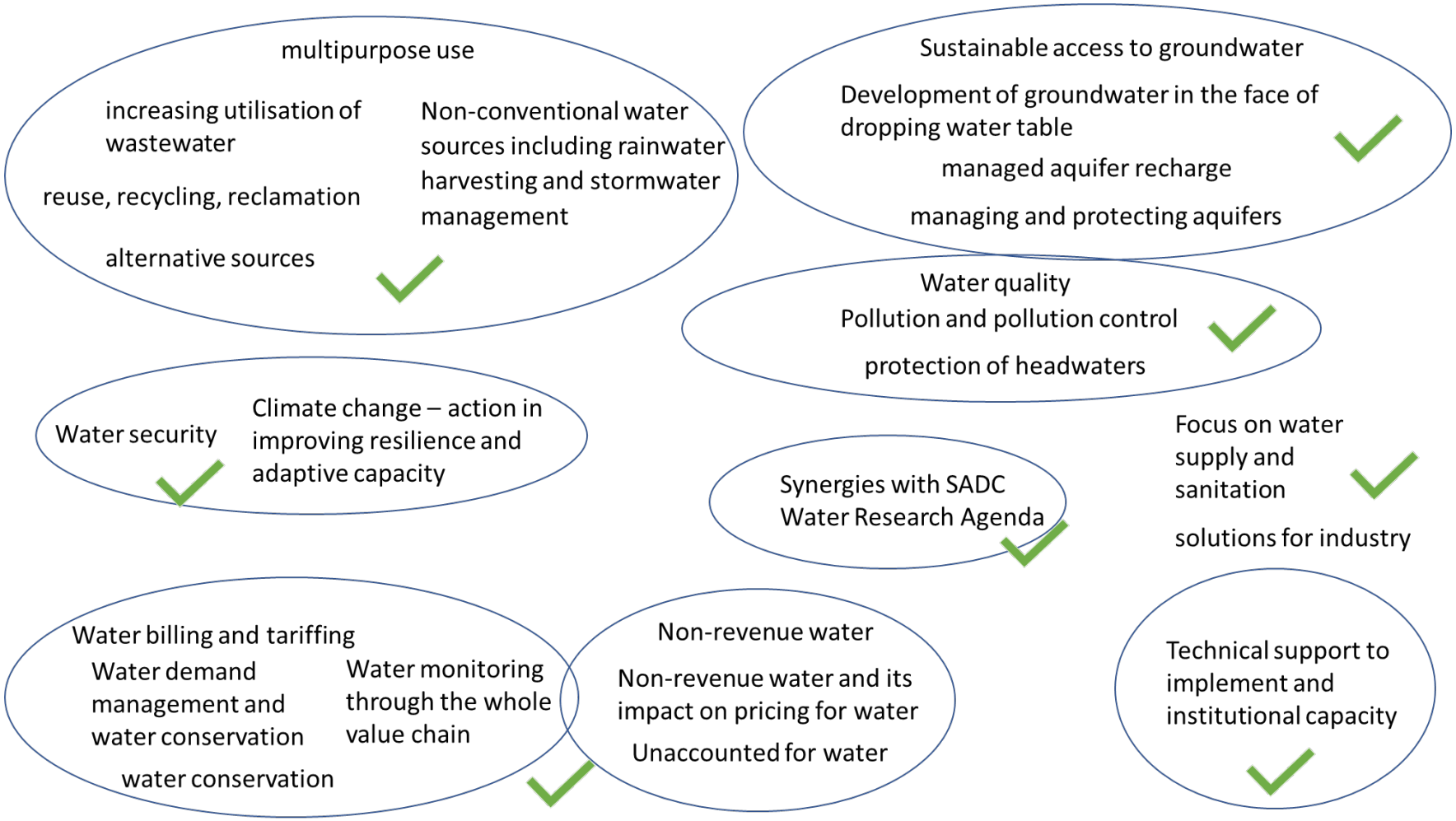
- Sustainable water resources management:
  - Transboundary Hydro-Economic Modelling (Limpopo River Basin)
  - Climate resilience, sanitation and water safety
  - Open science to support local water security in Southern Africa
  - Community-based water management and observation system
- Water infrastructure and water technology:
  - Water & Mining: Management, Remediation, Reuse (3 Projects)
  - Nature engineered Urban Design for Water recycling & reuse
  - Frugal Innovation and Entrepreneurship in Water 4.0 in Africa
  - Innovative water infrastructure management
  - Multi-Scale Water Reuse Strategy
- Hydrological forecasts and predictions:
  - Co-design of a hydrometeorological information system

https://www.fona.de/medien/pdf/WASA/WASA_ProceedingsInitialPhase-final.pdf?m=1665128929&

Ministerial bodies involved in different WASA initial phase projects

- South Africa:
  - Water Research Commission
  - Department of Water and Sanitation
  - Department of Science and Innovation
  - South African Weather Service (SAWS)
- Namibia:
  - Ministry of Agriculture, Water and Land Reform (MAWLR)
- Sambia:
  - Water Resources Management Authority (WARMA)
- Zimbabwe
  - Zimbabwe National Water Authority
  - Department of Water Resources Development and Utilisation
- Botswana:
  - Department of Water and Sanitation / Dep. of Meteorological Services
- Mosambique
  - Department of Water Affairs at the Ministry of Public Work and Water Resources
- Transnational Organisations
  - AMCOW
  - SADC
  - CUVECOM, LIMCOM, SASSCAL

WASA progam development workshop October 2022, held with African ministries at the WaterNet/WARFSA/GWP-SA workshop



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2 Object of funding

- Thematic fields:
  - Sustainable water resource management
  - Water infrastructure and water technology
  - Hydrological forecasting and management of hydrological extremes
- Proposals can refer to one of these thematic fields or combine multiple topics; in the latter case, one thematic field must be selected as main focus.
- Projects shall contribute to support young researchers and capacity development and vocational training in Subsahara Africa.
- Applicants are asked to identify synergies with the SADC water research agenda.

2.1 Sustainable water resource management

- Improvements in the overall provision of clean water and access to sanitation are a priority in southern Africa as part of the ongoing process of integrated water resource management. Interactions of the nexus issues of water and health, water and nutrition, and water and energy must thereby be considered. Significant water losses in distribution networks affect the economics, pricing, and consumption management of water utilities. Special attention is required to ensure sustainable use and to consider water dependent ecosystems.

- With regard to the research and development work, the following thematic complexes are mentioned as examples:
    - New approaches to transboundary water resources management
    - Adaptive, urban water management taking account of dynamic growth and informal settlements
    - Minimizing the environmental impact of the mining and energy sectors and utilizing the potential for water reuse
    - Adapting water management to climate change
    - Sustainable development and use of groundwater resources
    - Protecting water quality and avoiding water pollution
    - Research on good governance in the water sector
    - Effective use of digital technology and hydroinformatics in water management processes

2.2 Water infrastructure and water technology

- In response to strong population growth and climate change, energy-efficient innovations for water infrastructure and water technology are urgently needed in both urban and rural areas. All technologies must be tailored to local-specific needs, acceptance and capacities in southern Africa, both in terms of system operation and maintenance as well as costs and business models, in order to be deployed successfully in the long term. Multifunctional, socially inclusive and integrated planning of infrastructure is important. Wherever promising, the potential of digitization should be exploited. In this context, reference to demonstration platforms in southern Africa (e.g. the Water Technologies Demonstration Program - WADER) should also be examined.
- With regard to research and development work, the following topics are mentioned as examples:
    - Improved access to sustainable water supply and sanitation
    - Improving water use efficiency, water storage, and water quality
    - Utilization of alternative water resources including the sustainable use of groundwater reservoirs, wastewater reuse, mining water, brackish water or rainwater
    - New strategies for the establishment and long-term operation of decentralized systems and nature-based solutions
    - Adapting water infrastructure and water technologies for handling climate change in order to increase resilience

2.3 Hydrological forecasts and management of hydrological extremes

- Climate change adaption and mitigation through appropriate water management are critical for sustainable development and essential for achieving the goals of the 2030 Agenda, the Paris Climate Change Agreement, and the Sendai Framework for Disaster Risk Reduction. It seems appropriate to shift focus from straightforward natural disaster and extreme events recovery ("post-disaster mentality") towards making stronger associations with the topics of foresight, prevention and preparedness.
- With regard to research and development work, the following complexes of topics are mentioned as examples:
    - Hydrological extreme events - development of innovative early warning systems adapted to local conditions based on climate and weather information
    - Integrated management of water-related disasters – fast and safe action, technological measures, use of social media, local information systems
    - Innovative models and systems for monitoring and simulation of the status of surface waters and groundwater bodies
    - Studies on the regional distribution and future development of water demand for agriculture, energy supply, mining and industry, and urban centers
    - Optimized use of hydrological resources through advanced observation technologies and remote sensing

2.4 Networking and transfer project

- The WASA funding measure shall be accompanied by an independent networking and transfer project, which will perform organizational and content-related tasks. It will be carried out in close coordination with PTKA and BMBF. The main objectives are synthesis and processing of the results of the individual research projects, cross-thematic coordination and public presentation of the funding measure.

- The tasks include in detail:
    - Processing of project results for different target groups (scientific community, general public, industry, politics and other decision-makers)
    - Preparation, implementation and analysis of working meetings, discussion forums and status seminars on cross-project issues
    - Support for coordination with relevant ministerial stakeholders in Africa and Germany to promote the exploitation of the results of research projects
    - Establishing an overarching professional knowledge management strategy to improve utilization of the results obtained under this funding measure
    - Preparation and provision of information on the funding measure (press and advertising material, website, etc.)
    - Establishing links with relevant national and/or international activities.

3 Eligibility & 4 Special prerequisites

- Each cooperation project requires **at least one partner from science, industry and practice**.
- The consortium must comprise at least one German partner and **at least one partner from one or more of the following countries in southern Africa: Angola, Botswana, Namibia, South Africa, Zambia, Zimbabwe.**
- In principle, it is also **possible to include partners from other countries in southern Africa**, whereby the complexity of the overall project should be kept to a manageable level and practical feasibility must be ensured.
- Applications to BMBF may be submitted by commercial companies, universities, research institutions, local, Länder and federal authorities as well as associations and other social organizations. Applicants are required to have a plant or branch (company) or another entity to act as funding recipient (university, research institution, local, Länder or federal authority, association or other social organization) in Germany at the time of grant payment.
- The **participation of small and medium sized enterprises** (SME) is **explicitly welcome**.

Geographic Focus

- Eligibility: Southern African Development Community (SADC)

- Minimum requirement: at least one partner from one or more of the following countries: Angola, Botswana, Namibia, Sambia, Simbabwe, South Africa

5 Type, scope and rates of funding

- Funding may be derived from various sources and different countries. The **maximum BMBF contribution to a cooperation project is 2.000.000 €**. Examples for eligible costs types are **personnel, costs for equipment, travel** – additional details are provided in *"Richtlinien für Zuwendungsanträge auf Ausgabenbasis (AZA)"* or *„Richtlinien für Zuwendungsanträge auf Kostenbasis (AZK)"*. ***Slightly different regulations for networking and transfer projects, please see the CfP or contact us.***
- Maximum project duration is **4 years** (48 months).
- African partners need to be **integrated with own contributions** (cash or in-kind; e.g. personnel, equipment, premises). Funding opportunities in the respective partner countries need to be taken into account.
- In addition, African partners may benefit from a BMBF **funds forwarding mechanism**. The BMBF funds forwarding mechanism is limited to **100.000 Euro** per cooperation project. In addition, a limited amount of **subcontracting** is possible (up to ca. 100.000 € per project). Also PhDs in bilateral sandwich models are possible.
- WRC in South Africa is providing a co-funding/top up to the funds the SA researchers will be leveraging from BMBF. The WRC funding will be subject to the proposal meeting the WRC priority areas and contracting requirements
- A significant own contribution provided by German business and practice partners is required for each project.

6 Additional regulations

- Slightly different regulations for the networking and transfer project
- **Ensure open electronic access** when publishing the results of the research project in a scientific journal.
- This can be done through publication in an electronic journal which is accessible to the public free of charge. If the results are initially published in a way which does not provide the public with free electronic access, the article must be made publicly available free of charge by electronic means, following a suitable embargo period where appropriate (secondary publication). Embargo periods for secondary publication must not exceed 12 months. The **BMBF expressly welcomes secondary open access publication** of scientific monographs resulting from the project.
- **Status seminars** are planned as part of the overall WASA program management. Project participants are obliged to **participate in accompanying and evaluation measures** and to provide information for evaluating the success of the funding measure.

7 Selection criteria

- Overall contribution to achieve the aims of the WASA Program
- **Relevance** for the addressed problem (scientific-technical, economic and societal relevance, relevance to strategies of African partner countries)
- **Innovation and originality** of the scientific-technical concept
- **Plausibility and chances of success** (financing, work plan, time frame)
- **Prospects for utilization and transfer** (planned use of results in practical application, transferability of the approach)
- Building or continuation of **international partnerships**
- **Qualification** of the consortium and project structure (competence, cooperation between economy, science and practice; appropriateness of resource planning)

> *The evaluation will involve international experts (Africa and Germany) both from science and practice*

Project Outlines & Submission

- English language with one page Abstract in German (max. 3300 characters).
- Maximum of 15 pages (including abstracts), Font Arial, Font size 11, Line spacing 1.5, Page margins 2 cm.
- The **only attachments allowed are LOI or MoUs** of associated project partners (**max. 1 page per partner**).
- The cover page needs to follow the template available at https://www.ptka.kit.edu/wasa.html
- Both an **African and a German speaker** for the project consortium shall be identified.
- The project outline has to make clear how all partners are involved in the tasks and outcomes of the project.
- The project outline needs to be submitted **electronically** to BMBF **via the platform** https://foerderportal.bund.de/easyonline by the designated coordinator of the German side.
- **Deadline 15.06.2023**.
- *Sligthly different rules for the networking and transfer project – Please see the CfP or contact us*

Cover page:

Project title:

Insert project title

Acronym: → *Insert project acronym*

Research area: → *Select research area*

Project term: → *Insert project term*

Total funds: → *Add total funds* EUR

Requested BMBF funding: → *Add requested BMBF funding* EUR

Requested WRC funding: → *Add requested WRC funding* EUR

Consortium speaker in Germany:

Insert German consortium speaker

Consortium speaker in Africa:

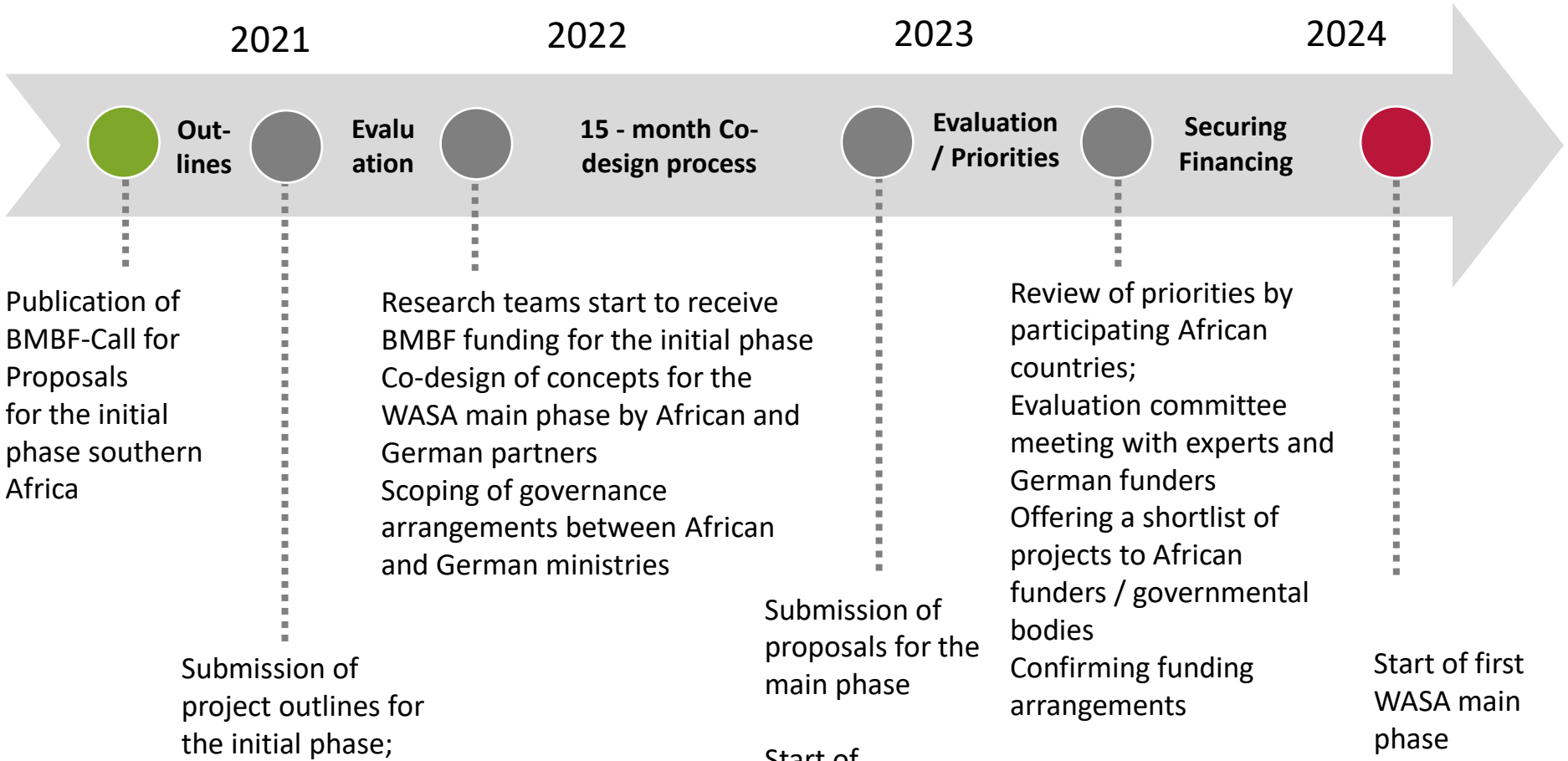
Insert African consortium speaker

Core project consortium:

No.	Institution	Project lead representative[1]	Country[2]
1			
2			
3			
4			
…			

Abstract (max. 200 words)

WASA – Initial Phase and Co-Design Process



(Draft status 05.04.2023)

Information about WRC – top up funding

- To apply for South African Top-Up funding by WRC, no separate forms are required in the first stage
- Relating to the current WRC Priority Themes and Focus Areas is recommended.
- Applicants indicate the amount applied for in the cover page template which is available at: https://www.ptka.kit.edu/wasa.html and describe the intended use of the resources within the 15 page project outline.
- There is only one deadline (15.6.2023) and one starting date.
- The applications are only submitted in Germany. After submission, all WASA applications with South African Participation will be forwarded by PTKA to WRC.
- No separate submission to WRC is required.

Further information / Points of contact

- Germany: Projektträgerschaft Ressourcen, Kreislaufwirtschaft, Geoforschung, Projektträger Karlsruhe (PTKA), Dr. Leif Wolf, E-Mail: leif.wolf@kit.edu
- South Africa: Water Research Commission, Dr. Mamohloding Tlhagale, E-Mail: mamohlodingt@wrc.org.za (general queries) & Mr Jay Bhagwan jayb@wrc.org.za (technical questions)
- Namibia: Ministry of Agriculture, Water & Land Reform, Maria Amakali; E-mail Maria.Amakali@mawlr.gov.na
- In addition, German Embassies in the respective partner countries and representatives of BMZ mandated institutions may be contacted to explore potential synergies.

- https://www.fona.de/en/measures/funding-measures/water-security-in-africa-wasa.php