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WaReNam

Multi-Scale Water Reuse Strategy for Namibia: Technology, Governance and Capacity Development

WASA Programme Kick-off Conference
September 26th, 2024, Stellenbosch

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WaReNam

Setting the stage: Key findings from the initial phase

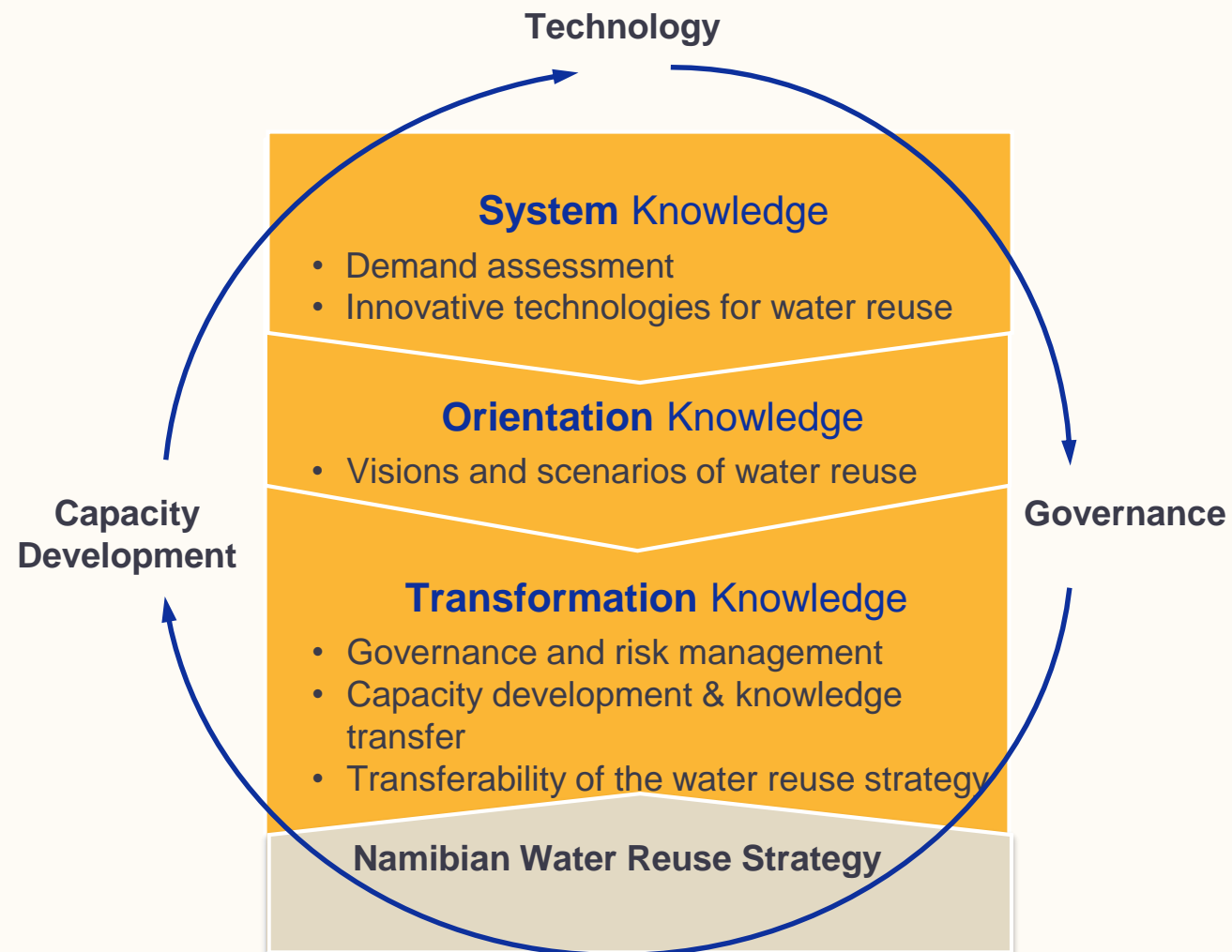
Water Reuse Potential and Challenges:

- **Water Security Threats:** Climate change is expected to increase droughts, exacerbating water scarcity in Namibia.
- **Untapped Potential:** Despite these challenges, there is significant potential for water reuse, as Namibia currently lacks a comprehensive national water reuse strategy.
- **Promising Solutions:** Diversifying water resources through water reuse can enhance resilience and water security.
- **Established Demand Profiles:** Identified key needs in technology, governance, and capacity development to support the implementation of a national water reuse strategy.

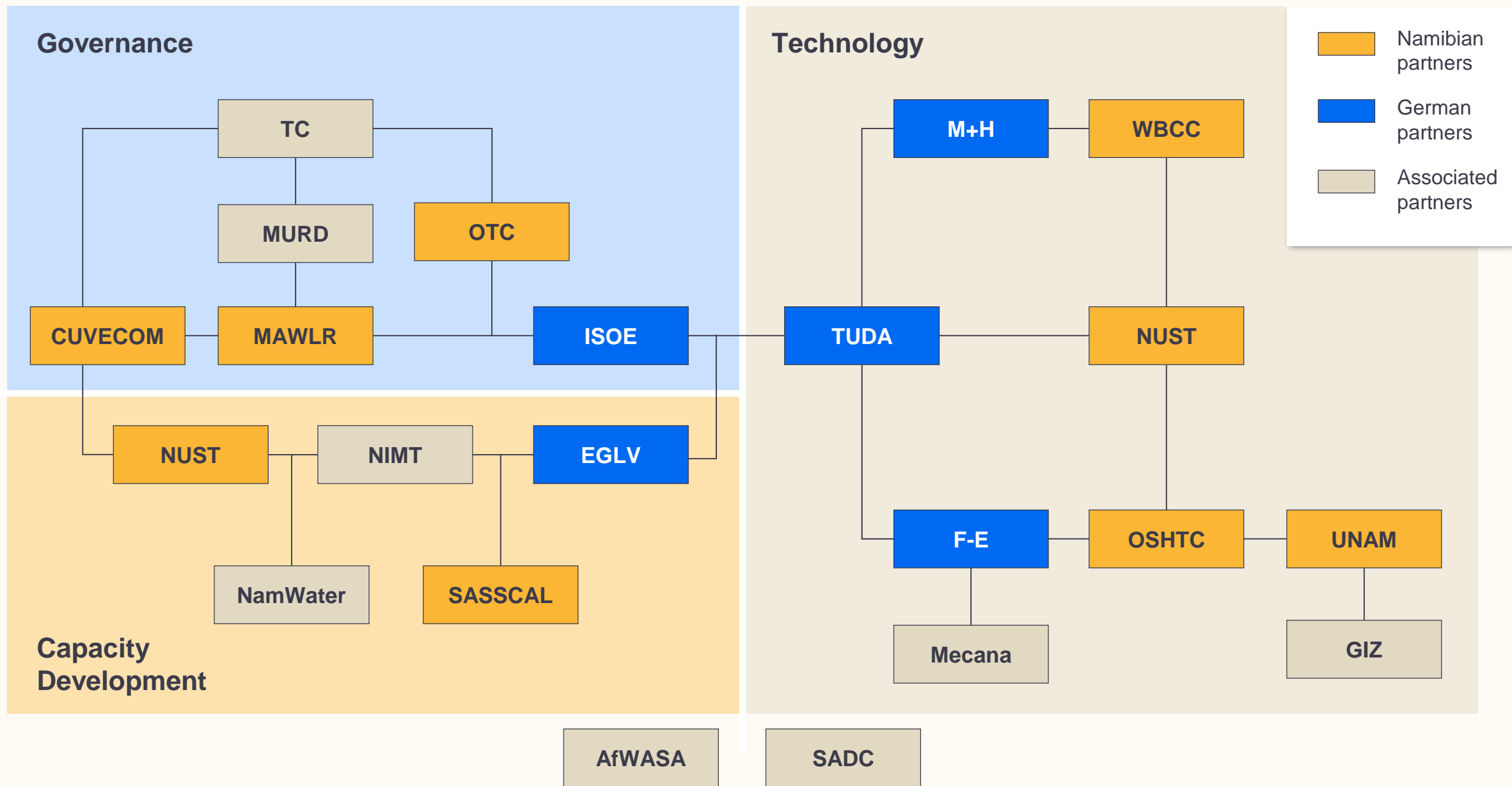
Lessons Learned from the Initial Phase:

- **Technical Challenges:** Shortage of materials and spare parts for O&M.
- **Institutional Challenges:** Need for stronger institutional support and lack of unified legislation.
- **Financial Challenges:** Insufficient funding for municipalities.
- **Capacity Challenges:** Lack of technical expertise at various levels.

JOINT DEVELOPMENT AND IMPLEMENTATION OF A NATIONAL WATER REUSE STRATEGY

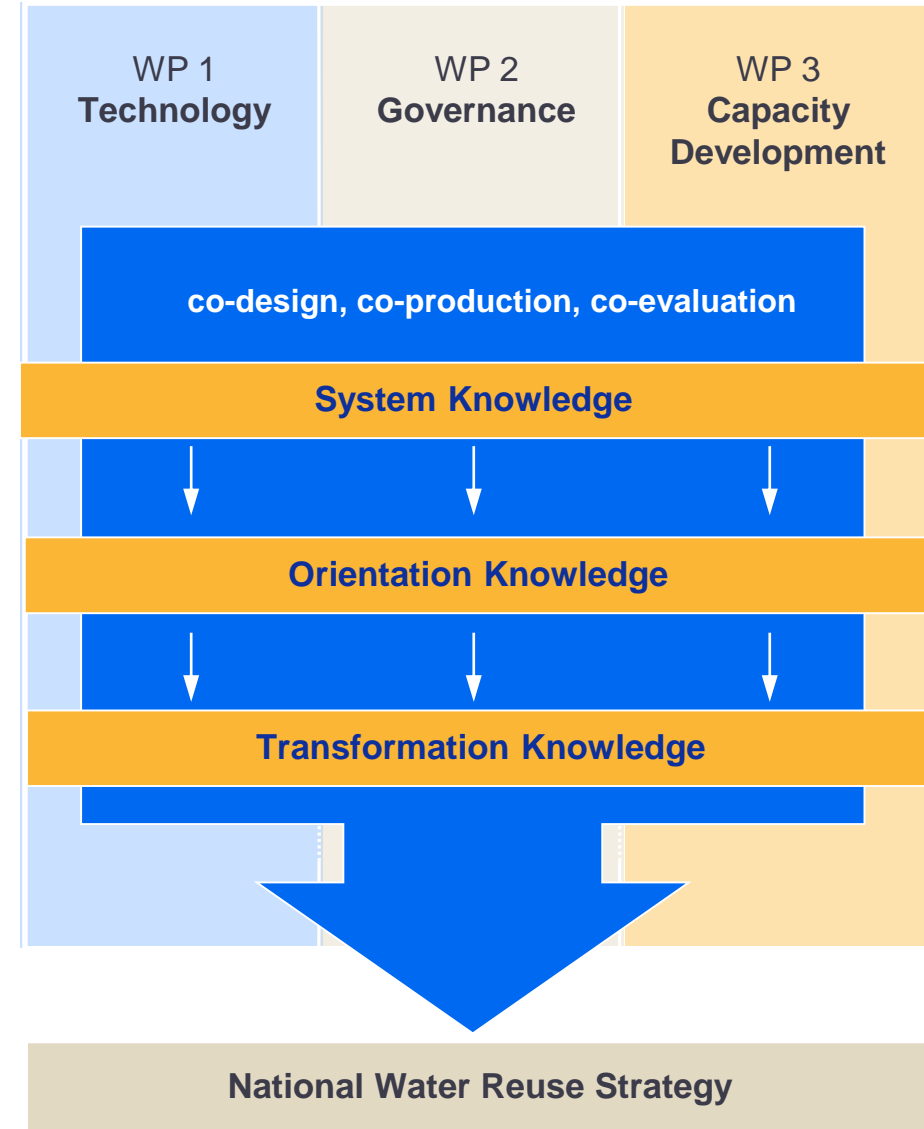


PROJECT PARTNERS

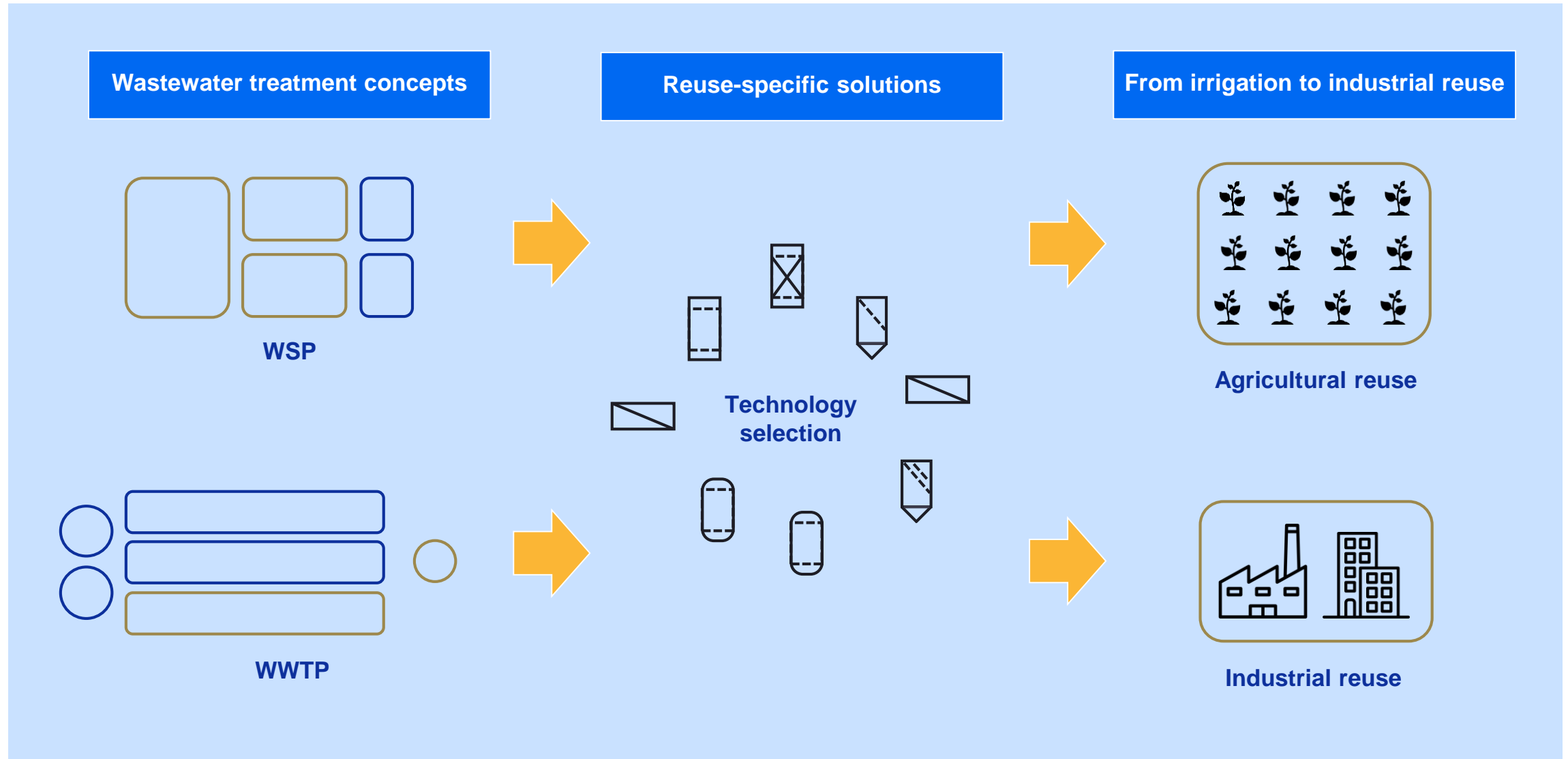


Living Lab Approach in WaReNam

- **Collaborative Co-Production:** Involves diverse stakeholders from science, industry, and local communities.
- **Real-World Testing:** Solutions are developed and tested in real-world settings, ensuring relevance and effectiveness.
- **Dynamic Adaptation:** Continuous learning and adaptation to local conditions.
- **Scalability and Replication:** Enables context-specific solutions to be scaled and applied in other regions.
- **Holistic Strategy:** Ensures technical feasibility, social acceptance, and institutional support for sustainable water reuse.



ADAPTIVE TECHNOLOGY APPROACH: FLEXIBLE SOLUTIONS FOR DIVERSE SCALES AND REUSE PURPOSES



Xxxxx, own illustration

MULTI-LEVEL GOVERNANCE APPROACH: ENCOURAGING VERTICAL AND HORIZONTAL COMMUNICATION

Steering Committee

- National level, inter-ministerial
- Preparing policies and strategy

Task Forces

- National level
- Preparing recommendations

Round Table

- Cross-level, cross-sectoral
- Knowledge sharing, advisory support

Network of Local and Regional Authorities

- Regional level, cross-municipal
- Knowledge sharing, cross-municipal support

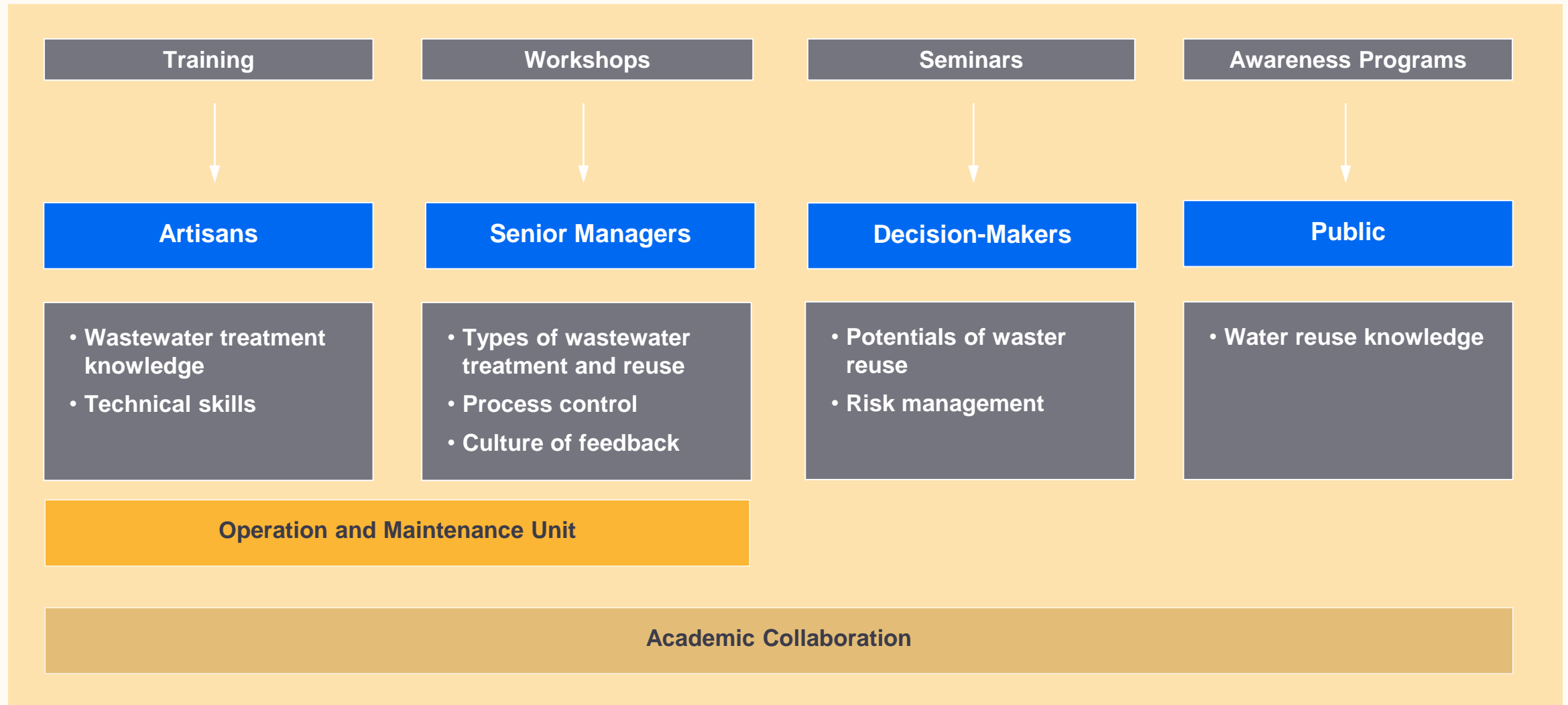
Implementation Office

- National level
- Supporting, coordinating, organizing



National Implementation Committee, own illustration

MULTI-LEVEL CAPACITY DEVELOPMENT APPROACH: ENCOURAGING MUTUAL LEARNING



Multi-level Capacity Development, own illustration

Long-Term Vision: Ensuring Uptake and Continuation

Sustainable Financing:

- **Detailed Financing Report:** Explore potential funding sources, focusing on the Green Climate Fund, KfW, and the African Development Bank.
- **Align Funding Applications:** Ensure alignment with project goals and compliance with eligibility criteria to increase funding success.
- **Strategic Partnerships:** Strengthen collaborations with PPPs and financial institutions to secure stable support.

International Transfer and Adoption:

- **Guidelines for Transfer:** Develop adaptable guidelines for scaling and transferring the water reuse strategy to other countries and regions.
- **Strategic Engagement:** Build partnerships with international organizations (AfWASA, SADC) to support global adoption and adaptation of water reuse strategies.
- **Adapting Global Models:** Conduct comparative studies and adapt successful water reuse models (e.g., Israel, Jordan) to local contexts, ensuring relevance and effectiveness.

Potential Relevance of a National Water Reuse Strategy

Climate Resilience and Resource Management:

- **Diversifying Water Resources:** Reduces dependence on traditional water sources, enhancing resilience to climate change and aligning with WASSMO's goals.
- **Mitigating Drought Impact:** Reuse of wastewater in agriculture and industry reduces the strain on freshwater supplies, directly addressing water scarcity in drought-prone areas.

Regional Collaboration and Governance:

- **Integrated Governance Structure:** Provides a unified framework for water reuse activities, serving as a model for other countries in integrated water management.
- **Cross-Sectoral Policy Support:** Links water, food, and energy security, supporting AMCOW's agenda and fostering collaboration among member states.
- **Scalable Regional Model:** Facilitates harmonization of water reuse practices across the Southern African region, promoting a cohesive approach to water management.

Next steps

- WP relevant discussions online October – November 2024
- Preparation of pilot plants October – December 2024
- Steering committee set up by February – March 2025
- Launch of the implementation office in February – March 2025
- Next project meeting in Namibia, February – March 2025
- Pilot plants ready in Q2/2025

THE WARENAM TEAM IN WINDHOEK, SEPTEMBER 23RD, 2024



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<https://www.isoe.de/en/nc/research/projects/project/warenam-main-phase/>

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