



INTERNATIONAL PARTNERSHIP HAMBURG WASSER - MIYAHUNA

WORK PACKAGE 3 – LABS TWINNING

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JORDAN WATER COMPANY /MIYAHUNA

BRIEF OUTLINES

Jordan Water Company / Miyahuna was **established in 2007** as limited liability company .

Miyahuna is fully owned by Water Authority of Jordan (WAJ).

Roles and responsibilities are regulated within an assignment agreement, for duration of 99 years.

It is the largest private company in Jordan with the **responsibility of management and providing water and wastewater services** to the customers in Amman -the Capital of Jordan in its start.

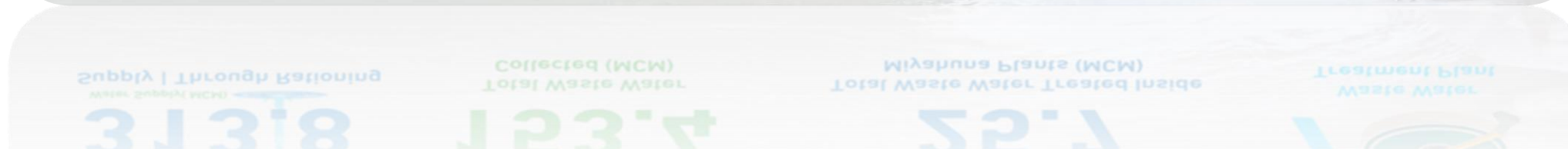
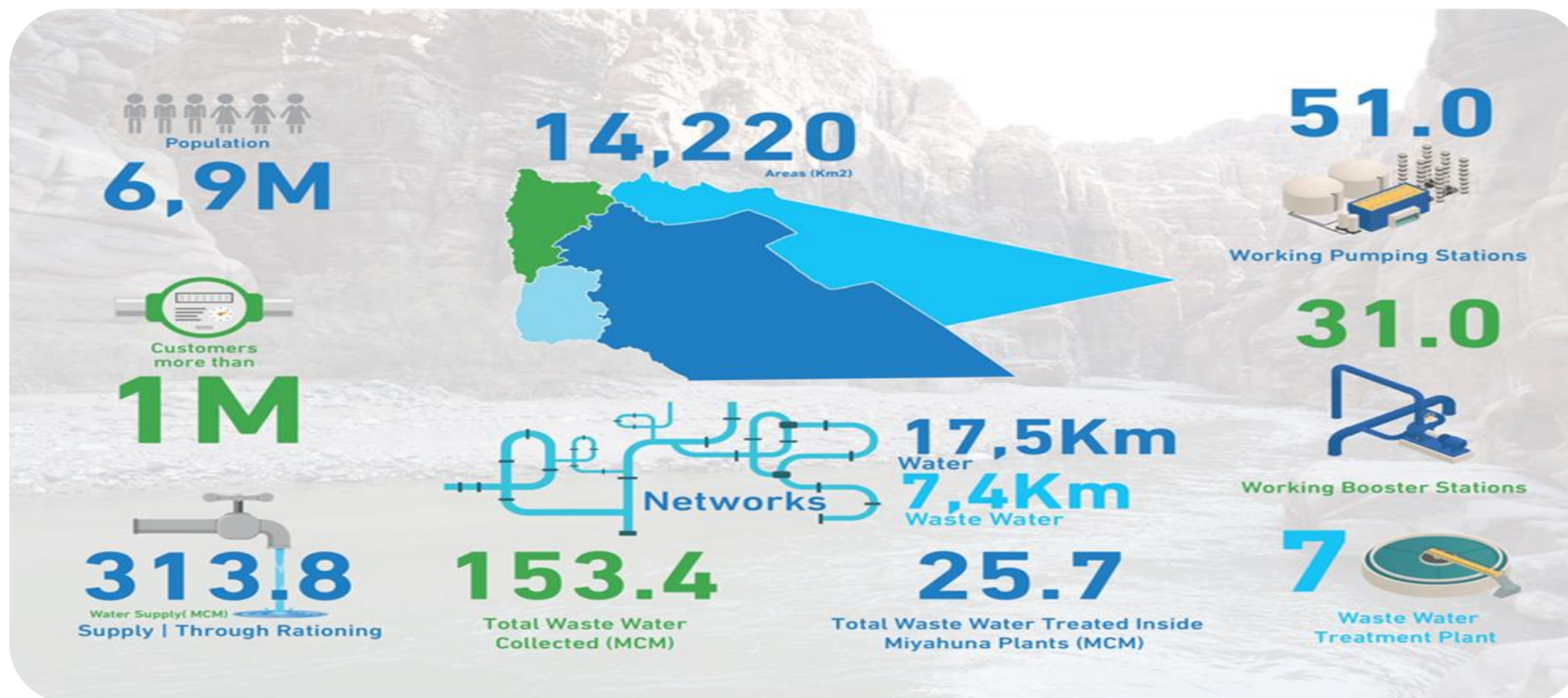
Madaba, Zarqa and parts of Al-Balqa was added to Miyahuna Service area in 2018, 2020 and 2021 respectively.

Miyahuna provides **efficient and cost effective water & wastewater services to almost (6) million citizens** within Amman, Madaba ,Zarqa and Balqa with area of service area reaches (13556) km².



CONTENT

1. **Jordan Water Company- Brief outlines**
2. **Water Quality management in Miyahuna**
3. **Miyahuna Central Labs- Brief outlines and aim to twinning**
4. **Miyahuna- Hambourg Wasser Partnerships**
5. **Work package 3- Labs Twinning**
 - **Plan**
 - **Done activities**
 - **Wins**



WATER QUALITY MANAGEMENT IN MIYAHUNA

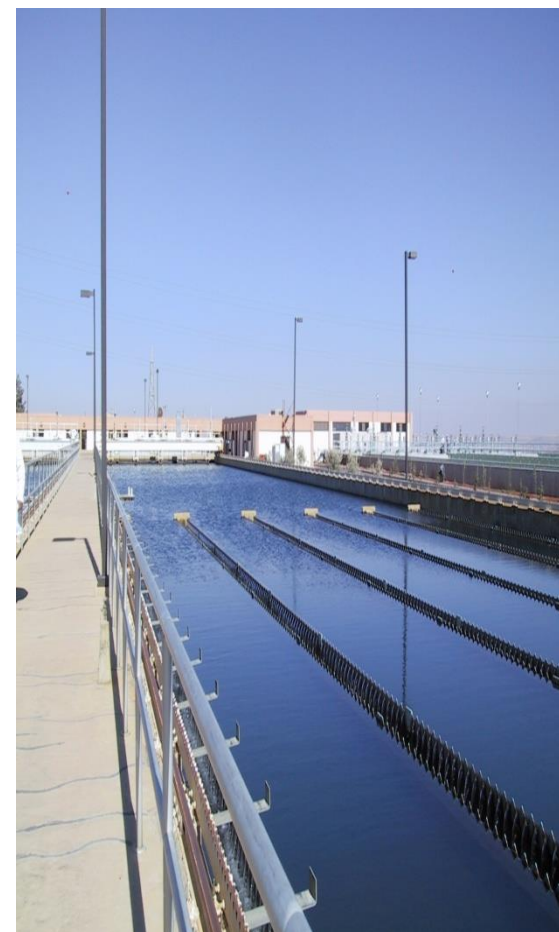
WATER QUALITY MANAGEMENT IN MIYAHUNA

Jordan is **among** the world's driest countries ,and water scarcity that impacts every aspect of life.

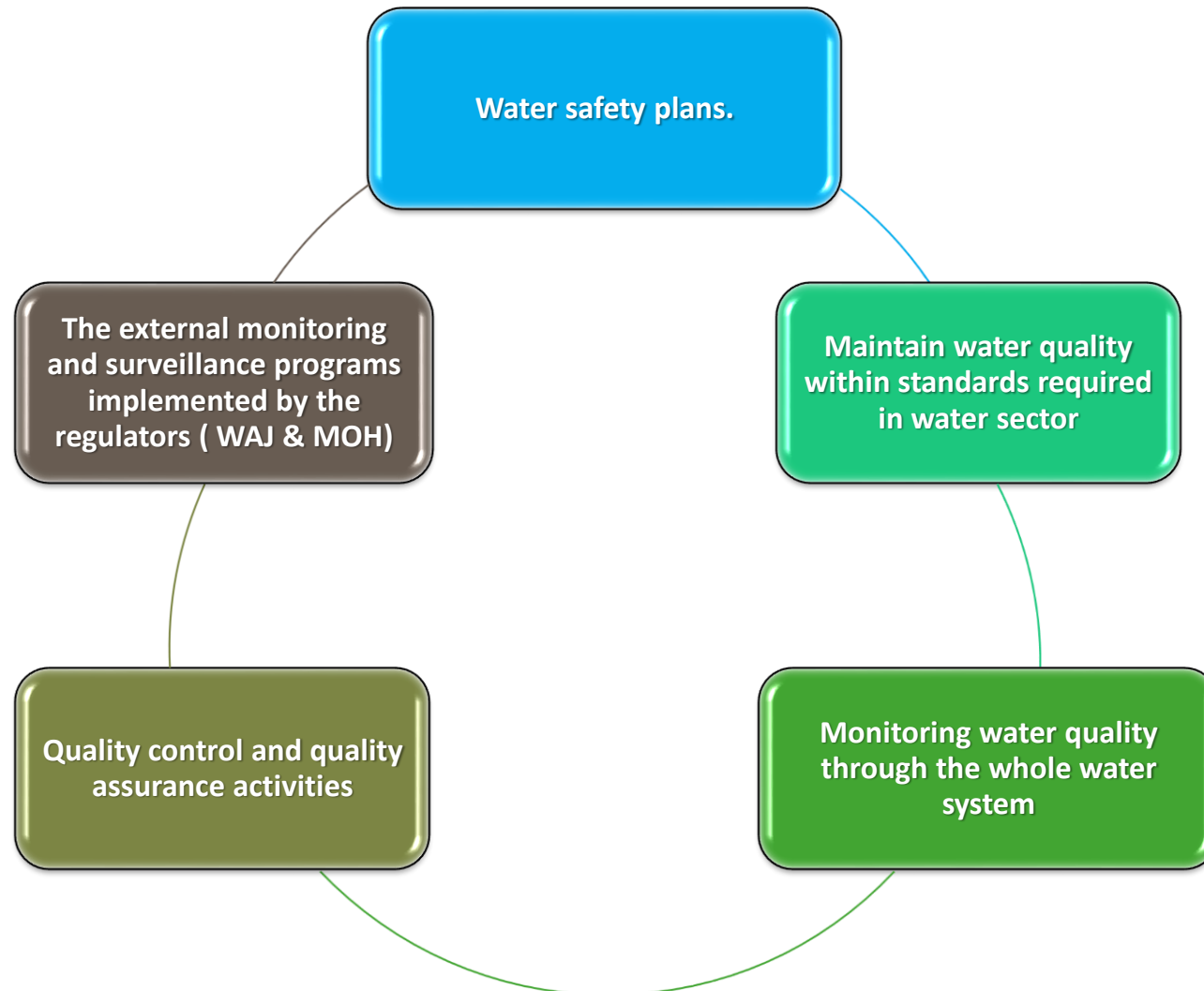
So the water quality management is one of the major priorities in its water sector.

Miyahuna shares responsibility for water management.

Miyahuna established a comprehensive approach for Water Quality Management

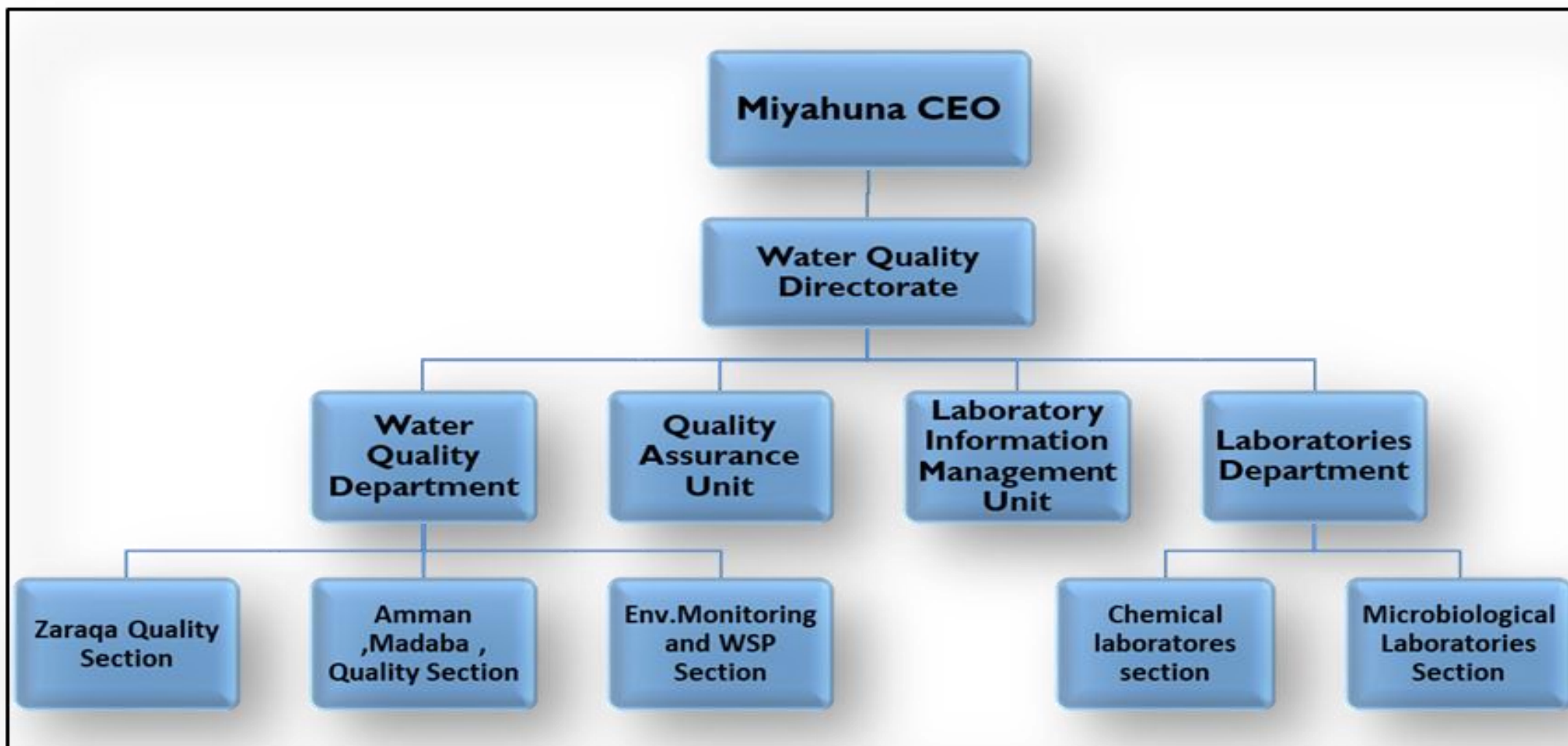


HOW MIYAHUNA MANAGE WATER QUALITY?



MIYAHUNA CENTRAL LABS

MIYAHUNA LABORATORIES



BRIEF OUTLINES

Miyahuna Central labs are responsible for monitoring quality of :

- ✓drinking water from the source until the customer tap,**
- ✓domestic and non domestic wastewater .**

Miyahuna Laboratories for drinking water at Zai and for wastewater at Abu Nusier are equipped with modern state of the art analytical .

The analytical Standard Operating Procedures (SOPs) are developed as per the requirements of the ISO17025 accreditation system which was granted since 2006 .

The laboratory personnel are skilled and undertake the periodic competency programs and the proficiency test (PT).

In 2023 (25267) samples were collected and were subjected to (110,464) field and laboratory tests.

(145)Test Methods is conducting in Drinking and Wastewater labs ,where (57) of them are internationally accredited.

BEFORE WOP

- 1- No benchmarks to verify effectiveness of our work**
- 2- New on ICP**
- 3- No peer to peer to discuss work problems**

AIM

to build an effective relationships from Twinning between Miyahuna labs and international utility labs with similar function and activities as Miyahuna

Partnership of technical working group, where peer to peer exchange and improvement take place

WOP

Utility Partnership MIYAHUNA - HAMBURG WASSER – hanseWasser Framework



Agenda
2030

SDG 6: Water & Sanitation, SDG 11: Sustainable Cities, SDG 13: Climate Action SDG 17: Global Partnerships

Improved O&M of Water Supply for
6 Mio people in Jordan

Improved O&M of Wastewater Treatment at
WWTP in Madaba and South Amman

Drinking Water

Wastewater

**Water
Quality**

**Water
Production**

**Economic
Efficiency**

**Environmental
Protection**

**Capacity
Development**

**Wastewater
Treatment**

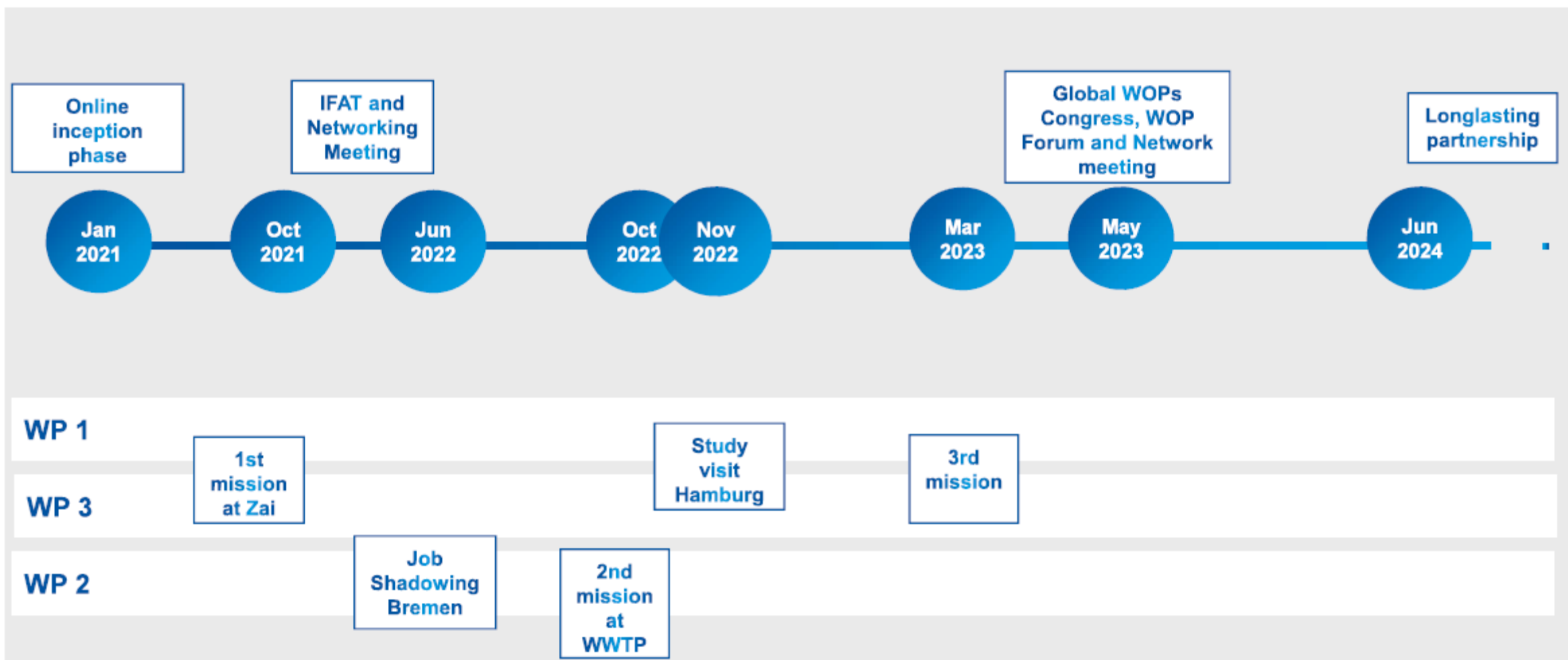
**Energy
Efficiency**

Key Performance
Indicators

Process
Performance
Indicators

Workpackage 1: Water Production
Workpackage 2: Wastewater Treatment
Workpackage 3: Water Quality Management and KPI

Utility Partnership MIYAHUNA - HAMBURG WASSER – hanseWasser Timeline



WORK PACKAGE 3 – LABS TWINNING

STUDY TOUR IN HAMBURG

In November 2022 Hamburg –Wasser Laboratories were visited by Miyahuna Staff with a several ideas to exchange :

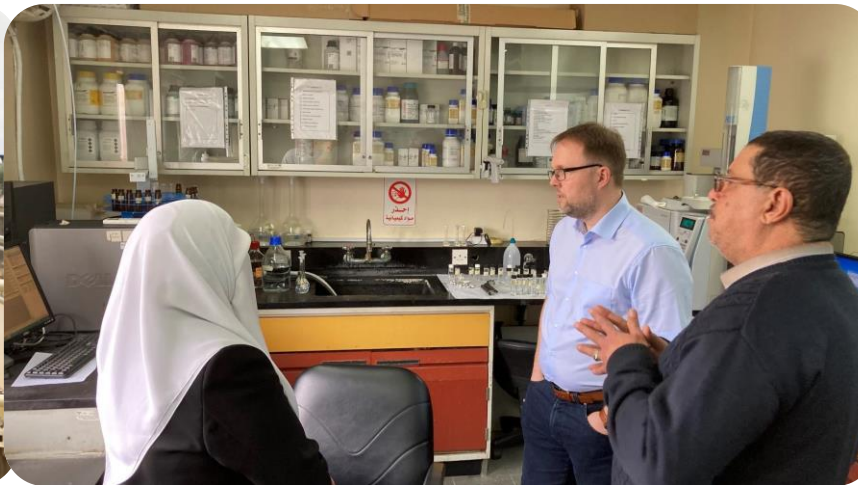
- 1- Water Quality Monitoring**
- 2- KPI 's**
- 3-Lab Analysis and Scope of Work (water and Wastewater)**
- 4- Quality Assurance procedures**
- 5- Industrial Discharges**



STUDY TOUR IN JORDAN

In March 2023, Miyahuna Laboratories were visited by Hamburg Wasser Staff to :

- ✓ Discuss the outputs of the previous study tour ,and
- ✓ Develop a plan for lab Twining between the two labs



LAB TWINNING PLAN

A Plan was developed regarding the visits outputs, under the following activities :

1- Online workshops to conducted between Related staff in :

- a) Microbiological Analysis**
- b) Industrial discharge monitoring program**
- c) Quality Assurance Audit Training**
- d) FOG workshop online in the waste water lab**
- e) ICP in chemical analysis**

2- Job shadowing in Hamburg for :

- a) ICP training**
- b) Quality Assurance Audit**
- c) Microbiological Analysis**
- d) Industrial wastewater sampling on industrial dischargers**

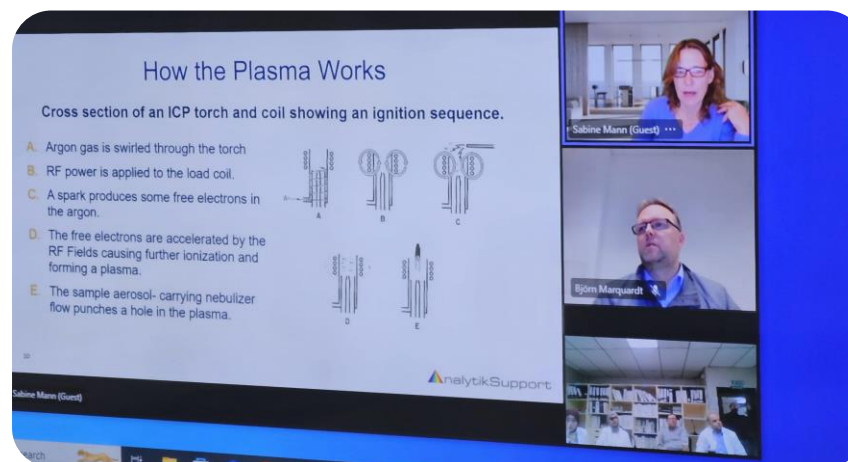
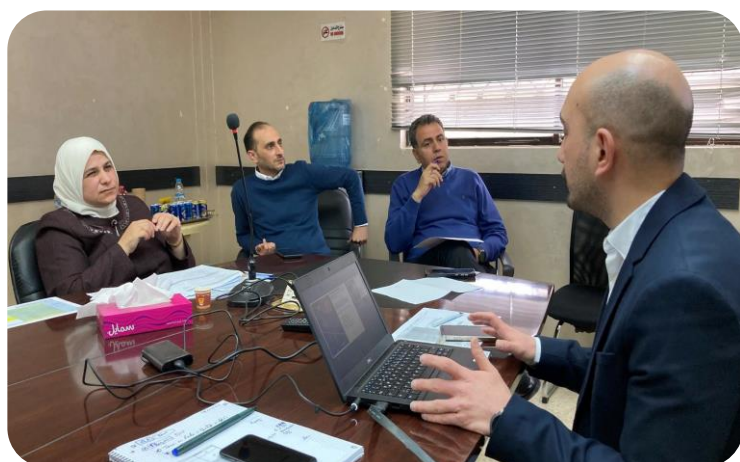
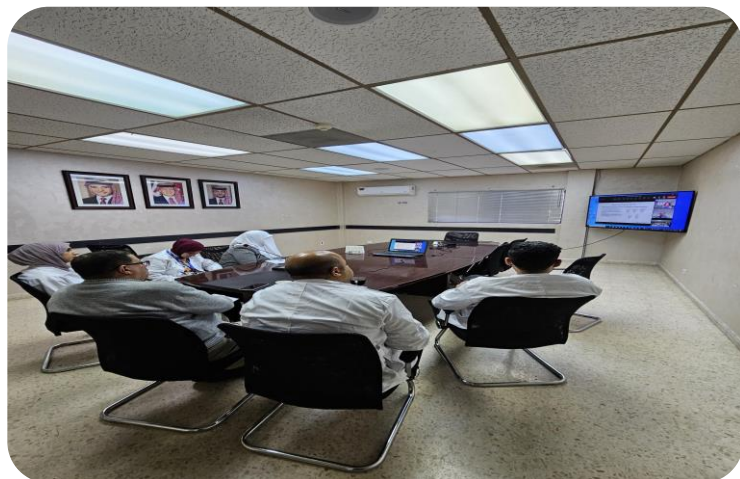
The exchange is developed over expectation with conduction of several online workshops which was in the aspects of water and wastewater chemical and microbiology analysis, and indirect discharges ,and sampling ,also in Quality assurance audit.

These workshops led regarding the chemical analysis aspect to conduct in November 2023 a two days specialized online training for ICP instrument in heavy metals analysis by an expert from Germany.

And regarding the indirect discharge of industrial wastewater in the sewer network, which could seriously affect the sewer network and the wastewater treatment processes, due of that a job shadowing in November 2023 for 3 Miyahuna staff was conducted in Hamburg water facilities.

DONE ACTIVITIES

Subject	Participants	Date
Study Tour in Hamburg	Miyhauna(Amer), Hamburg (Björn, Heiko)	Nov-22
Study Tour in Miyahuna	Miyahuna (Amer) , Hamburg (Björn, Heiko)	Mar-23
Microbiological Analysis online workshop	Miyahuna (Amer ,Nasser ,Rund,Motasem,Ahmad ,linda,Haya ,Huda ,Manal) , Hamburg (Björn, Heiko ,Thomas)	Apr-23
QA Audit online workshop	Miyahuna (Amer ,Soha,Tariq ,Manal) , Hamburg (Bojorn)	Jun-23
Indirect Discharges and Sampling	Miyahuna (Amer Munther ,Nazik ,Moyed,Afnan ,Kefah ,Yehea) Hamburg (Björn, Heiko)	Jun-23
FOG Analysis in Wastewater	Miyahuna (Amer ,Raed,Mohammad ,Nabeel ,Mutaz,Ali) , Hamburg (Heiko)	Jul-23
Job shadowing for Indirect Discharges and Sampling in Hamburg	Miyahuna (Munther ,Nazik,Ahmad) , Hamburg (Björn, Heiko)	Nov-23
ICP Online training with German Expert	Miyahuna (Amer Ghassan ,Leena ,Ayman,AbdAllah ,Surat,Shefa) , Hamburg (Björn, Sabinemann)	Dec-23



WINS FROM WOP

- 1- Benchmarking for our work (e.g. implemented Quality tools)**
- 2- New checklist for Audit.**
- 3- Specifications for Mobile sampling for indirect discharges of industrial wastewater.**
- 4- Monthly Technical discussions regarding the lab issues (e.g. Selenium testing on ICP) .**
- 5- Around 25 of Miyahuna staff have been involved in the lab twinning and are looking forward to upcoming activities.**

THANK YOU