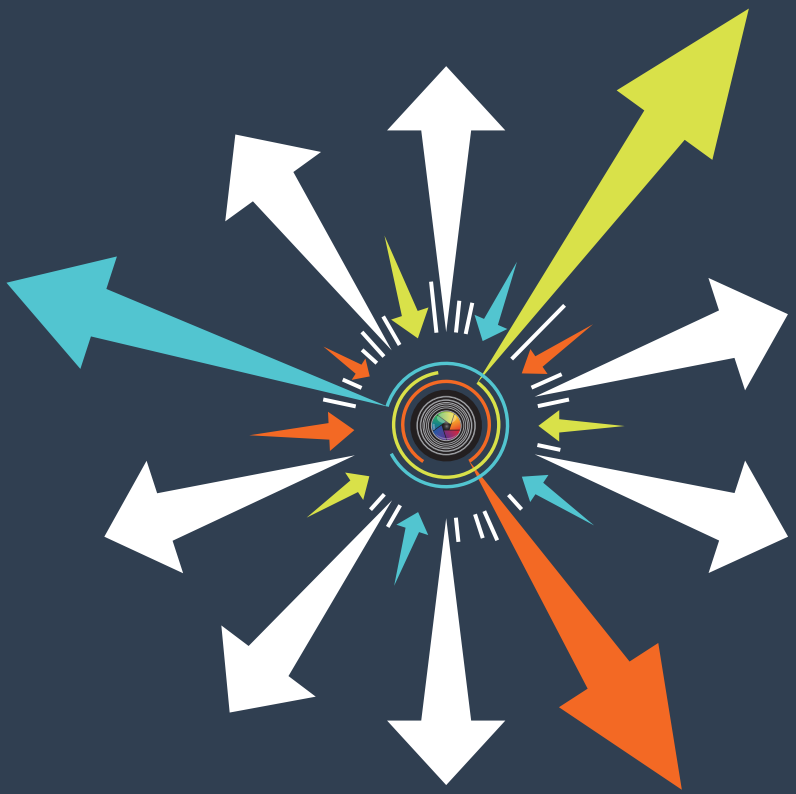
UTILITY OF THE FUTURE

Taking water and sanitation utilities beyond the next level 4.0



FEDERICO PEREZ PENALOSA
CAMILO LOMBANA
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A methodology to ignite transformation in water and sanitation utilities

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GLOBAL WATER SECURITY & SANITATION PARTNERSHIP

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About the Water Global Practice

Launched in 2014, the World Bank Group's Water Global Practice brings together financing, knowledge, and implementation in one platform. By combining the Bank's global knowledge with country investments, the practice generates more firepower for transformational solutions to help countries grow sustainably.

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About GWSP

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About Utility of the Future Center of Excellence

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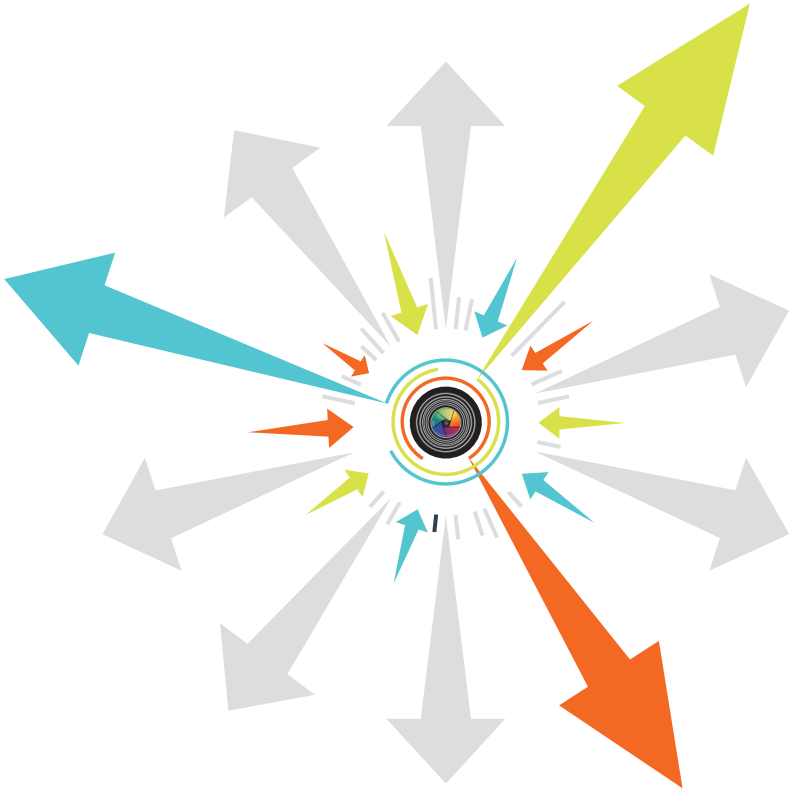

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Executive Summary

The Sustainable Development Goal (SDG) for water and sanitation—"to ensure availability and sustainable management of water and sanitation for all" (United Nations. n.d.[a])—represents both a formidable challenge and a significant opportunity in global development. Despite progress, approximately 2.4 billion people lack access to improved sanitation facilities, and some 0.7 billion people still do not have reliable sources of drinking water. For those with access, issues such as intermittent supply, sewerage system overflows, and inadequate customer service remain prevalent. The Utility of the Future (UoF) program provides a structured approach to address these challenges and guide water and sanitation utilities through a comprehensive transformation process.

Definition of Utility of the Future

A Utility of the Future (UoF) is defined as a **future-focused**, **action-oriented**, and **continuously improving** utility that provides **reliable**, **safe**, **inclusive**, **transparent**, and **responsive** water supply and sanitation (WSS) services. It achieves these services through best-fit practices that enable it to operate dynamically, efficiently, resiliently, adaptively, and sustainably. This definition underscores the program's goal to transform utilities into providers that not only meet current service needs but also anticipate and adapt to future challenges.

Utility of the Future Process

The UoF program's methodology, is divided into two main phases: the UoF Standard and UoF Advanced. The **UoF Standard** phase focuses on establishing a solid foundation for transformation through initial 360-degree analysis, action planning, and strategic vision development. The

UoF Advanced phase builds on this foundation by implementing a comprehensive business and investment plan, followed by a tailored one-year deep-change program designed for each utility on the basis of context, need, priorities, internal capacities, and resources. This approach aims to address both immediate and long-term needs, ensuring utilities are well-equipped to meet evolving demands and achieve sustainable success. The UoF Program **guides utilities to initiate their transformation journey**; however, the **true success of a utility's improvement extends beyond the implementation of the UoF Program** presented in this document. Successful implementation of the program identifies performance gaps, areas needing attention and highlights opportunities for improvement to trigger the reform momentum. Becoming the Utility of the Future, however, **requires utility's sustained efforts to materialize the improvement actions identified and initiated through the program**.

UoF Standard: The UoF Standard phase establishes the foundation for transformation through three stages:

1. **Ignition:** This stage involves a comprehensive 360-degree analysis of the utility's current state. The analysis evaluates service delivery, performance levels, and operational maturity to identify opportunities for improvement. It results in a detailed report that highlights gaps and potential areas for action in both the short term and long term.
2. **Action:** Building on insights from the Ignition stage, the Action stage focuses on implementing a 100-day action plan. This plan includes high-impact, short-term initiatives aimed at generating immediate improvements and engaging staff in the transformation process.
3. **Vision:** The Vision stage involves defining or refining the utility's strategic architecture, including the vision statement, mission statement, and strategic objectives. This stage provides a clear direction for the utility's future and establishes long-term priorities, forming the baseline for the five-year business and investment plan.

UoF Advanced: The UoF Advanced phase is a tailor-made component and extends the transformation efforts with a focus on detailed planning, removing barriers, and creating internal capacities for sustained improvement through two stages:

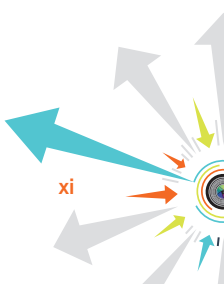
4. **Plan:** The Plan stage involves creating a comprehensive business and investment plan that includes a baseline analysis, SWOT analysis, strategic objectives, KPIs, and

financial forecasts. The plan outlines a transformation roadmap and tracking process to monitor progress and ensure alignment with strategic goals.

5. **Acceleration:** The Acceleration stage consists of a one-year Deep-Change Program designed for each utility to enhance internal capabilities, implement customized actions, and overcome barriers to change. This program pursues process optimization, talent development, technology upgrades, and other activities.

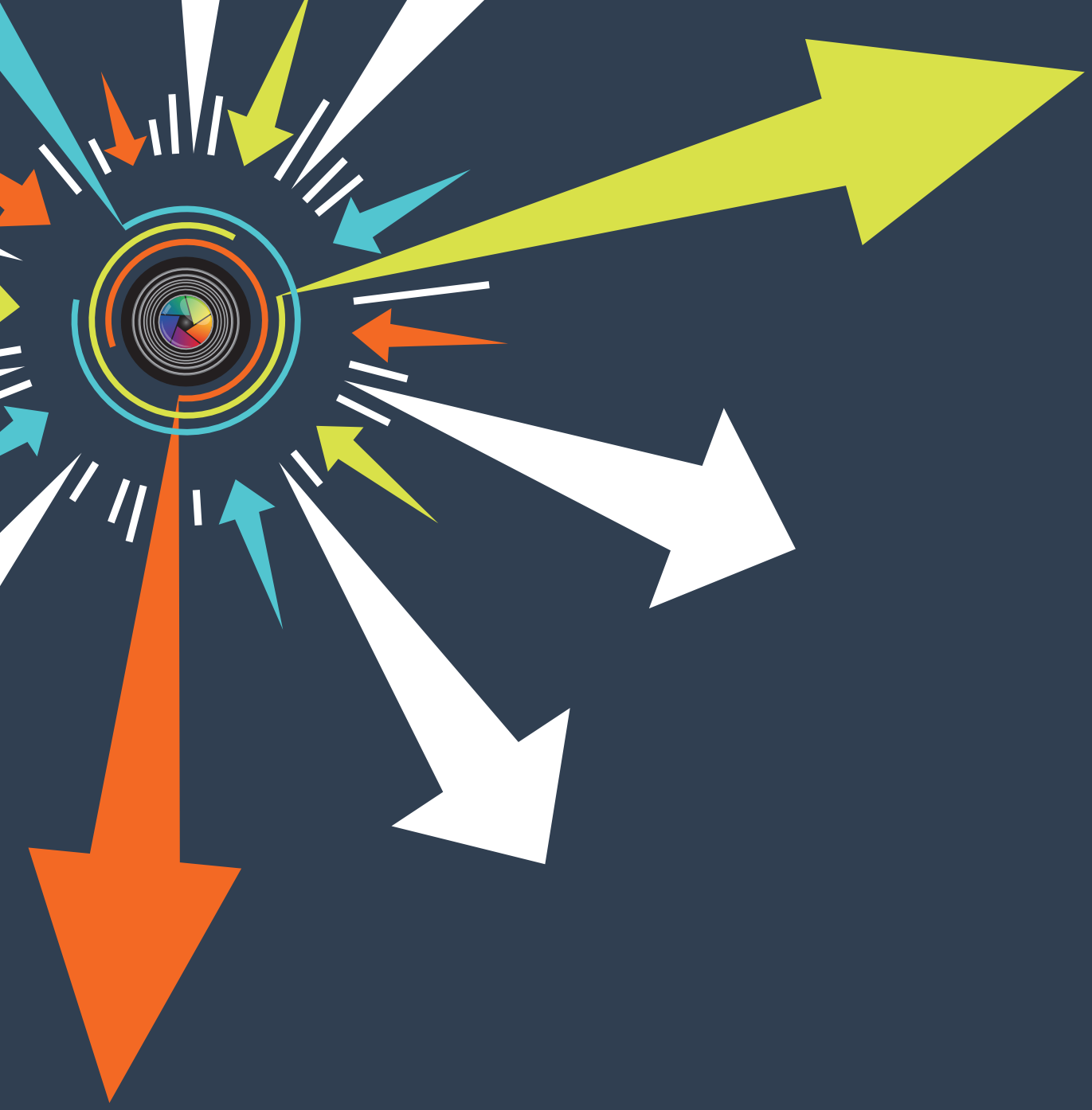
Parallel to this process is the **SPEED** dimension—**S**hake up, **P**ursue, **E**nvision, **E**nergize, **D**ynamize—which takes a **human-centered approach** to the transformation process. The SPEED dimension ensures that utilities focus not only on technical and operational improvements but also on leadership development, behavioral change, and staff engagement for a solid and sustainable transformation.

The UoF program has demonstrated exceptional scalability and adaptability through its implementation in 100-plus utilities in more than 35 countries. This widespread application highlights the program's capacity to be effectively customized for diverse operational environments and regulatory contexts. Its flexible framework accommodates various utility sizes and characteristics, from small municipal systems to large metropolitan networks, addressing a wide range of performance levels and challenges. Whether in developing regions grappling with rapid urbanization or in developed areas facing aging infrastructure, the UoF program could be a helpful platform to drive meaningful changes and improvements in water and sanitation services worldwide.



Abbreviations

CEO	Chief Executive Officer
EBITDA	Earnings Before Interest, Tax, Depreciation, and Amortization
GHG	Greenhouse Gas
FSM	Fecal Sludge Management
HRM	Human Resource Management
KPI	Key Performance Indicator
NRW	Nonrevenue Water
PIR	Policy, Institutions, and Regulation
SDG	Sustainable Development Goal
SPEED	Shake up, Pursue, Engage, Energize, Dynamize
SWOT	Strengths, Weaknesses, Opportunities, and Threats
UTF	Utility Turnaround Framework
UoF	Utility of the Future
UoF-CoE	Utility of the Future Center of Excellence
WSS	Water Supply and Sanitation



1

Introduction

The Sustainable Development Goal (SDG) for water and sanitation—"to ensure availability and sustainable management of water and sanitation for all"—embodies a critical and ambitious global objective. However, despite ongoing efforts, some 2.4 billion people still lack access to improved sanitation facilities, and approximately 0.7 billion are without reliable drinking water sources. Even for those who do have access, intermittent water supply, sewerage system overflows, and suboptimal customer service, and other issues continue to pose significant challenges (Mumssen, Saltiel, and Kingdom 2018).

To address these challenges effectively and drive meaningful progress, the Utility of the Future (UoF) program offers a transformative approach. This program envisions a utility that is forward-looking, action-oriented, and continuously evolving, providing reliable, safe, inclusive, transparent, and responsive water and sanitation services.

This document outlines the UoF program's methodology, which is divided into two main phases: the UoF Standard and UoF Advanced. The UoF Standard phase focuses on establishing a solid foundation for transformation through initial analysis, action planning, and strategic vision development. The UoF Advanced phase builds on this foundation by implementing a comprehensive business and investment plan, followed by an intensive one-year deep-change program. This approach aims to address both immediate and long-term needs, ensuring utilities are well-equipped to meet evolving demands and achieve sustainable success.

A key aspect of the UoF methodology is integration of the SPEED dimension—Shake up, Pursue, Envision, Energize, Dynamize. This human-centered approach ensures that the transformation process not only addresses technical and operational improvements but also fosters behavioral change, leadership, and staff engagement. The SPEED dimension is embedded throughout the UoF program, reinforcing the importance of motivating teams, driving organizational change, and ensuring sustained commitment to the transformation objectives.

The UoF program's structured methodology aims to provide utilities with the tools and strategies necessary for effective transformation. It begins with building a solid framework and progresses through advanced stages that involve detailed planning and deep-change initiatives. By incorporating the SPEED dimension, the UoF framework ensures a holistic approach that addresses both operational and human factors, facilitating a successful and sustainable transformation process.

2

The Utility of the Future Framework

The Sustainable Development Goal for water and sanitation—"to ensure availability and sustainable management of water and sanitation for all" (United Nations n.d.[a])—is a lofty one. Worldwide, 2.4 billion people remain without access to improved sanitation, and nearly 0.7 billion remain without access to improved drinking water sources. Those who have access to water supply and sanitation (WSS) services often must cope with intermittent water supply, sewerage system overflows, and poor customer service (Mumssen, Saltiel, and Kingdom 2018).

Poor service frequently stems from a vicious cycle of dysfunctional political environments and inefficient practices. Global forces—including climate change, water scarcity, population growth, and rapid urbanization—exacerbate these challenges to providing high-quality, sustainable WSS service delivery. Therefore, WSS utilities require a new approach to planning and sequencing reforms to provide WSS services in a sustainable manner. The **Utility of the Future (UoF)** program provides this new approach, building on an extensive body of knowledge on utility performance improvement.

Water and sanitation utilities are encountering both unprecedented challenges and significant opportunities. To effectively navigate this complex landscape and drive meaningful progress, a UoF program can be crucial. The following objectives of the UoF program are crafted to address needs comprehensively, ensuring that utilities not only adapt but also thrive:

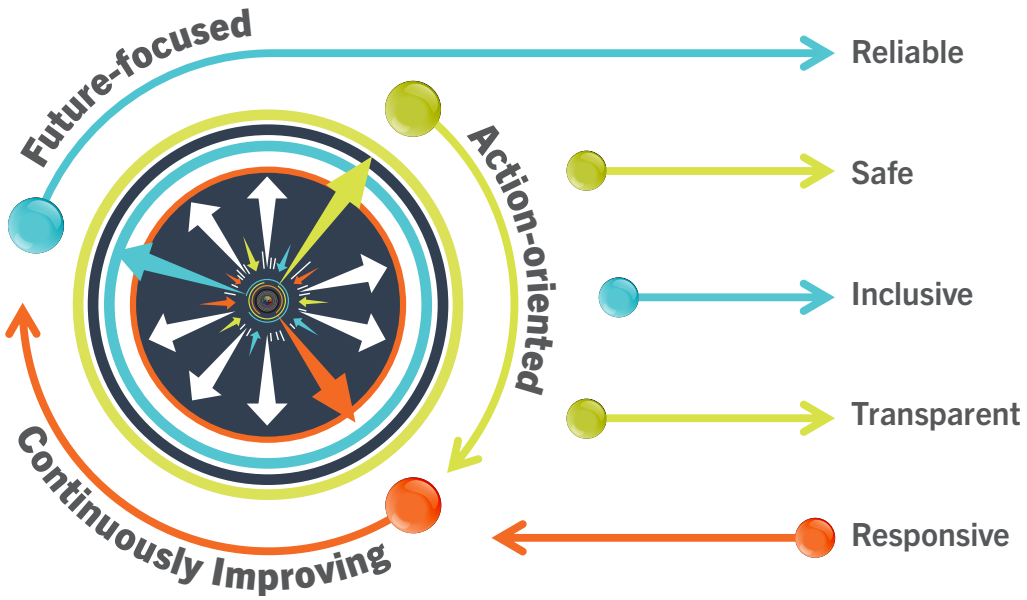
1. **Ignite sustainable transformation:** Facilitate the sustainable transformation of water and sanitation utilities.
2. **Guide utilities through the trans formation:** Lead utilities through a comprehensive and structured transformation process.

3. **Provide effective methodologies and learning opportunities:** Offer practical, straightforward, and effective methodologies for implementation.
4. **Strengthen internal capabilities and utility staff engagement:** Enhance the internal capabilities of utilities, including operations, management, and leadership, and secure the active participation and engagement of utility teams.
5. **Foster global networking and community building:** Connect utilities with their peers globally to share best practices and insights.

2.1 Utility of the Future Concept

The Utility of the Future (UoF) is defined as a **future-focused, action-oriented, and continuously improving** utility that provides **reliable**, **safe**, **inclusive**, **transparent**, and **responsive** water supply and sanitation (WSS) services through best-fit practices that allow it to operate in a dynamic, efficient, resilient, adaptative, and sustainable manner (figure 2.1).

FIGURE 2.1 The Utility of the Future



Source: World Bank.

The UoF will set for itself ambitious objectives, such as helping meet Sustainable Development Goal (SDG) 6 to "ensure availability and sustainable management of water and sanitation for all" (United Nations n.d.[a]). Box 2.1 provides the relevant SDG 6 targets.

BOX 2.1
Relevant Targets of Sustainable Development Goal 6

- **6.1:** By 2030, achieve universal and equitable access to safe and affordable drinking water for all.
- **6.2:** By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.
- **6.3:** By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater, and substantially increasing recycling and safe reuse globally.
- **6.4:** By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.

Source: United Nations n.d.(b).

Other relevant SDG targets include developing resilient infrastructure (target 9.1), increasing resource-use efficiency and adoption of clean and environmentally sound technologies (target 9.4), strengthening resilience and adaptive capacity to climate-related hazards and natural disasters (target 13.1), achieving universal access to basic services (target 1.4), reducing water-pollution-related deaths (target 3.9), and improving energy efficiency (target 7.3) (United Nations n.d.[a]).

A **"future-focused utility"** is

- **Forward-thinking:** having short-, medium-, and long-term actions and strategies that are all interconnected
- **Informed:** constantly identifying trends, external drivers, and market/sector signals
- **Visionary:** thinking strategically about possible and probable future scenarios
- **Foresighted:** anticipating, adapting, and withstanding complex conditions
- **Progressive:** being aspirational, innovative, and self-challenging

An **"action-oriented utility"** is

- **Proactive:** taking initiative to address challenges and opportunities
- **Decisive:** making timely and effective decisions
- **Goal-driven:** focusing on achieving specific and clear objectives
- **Execution-focused:** emphasizing prompt implementation of plans over extensive/ excessive planning
- **Efficient:** aiming for quick and effective operations

A **"continuously improving utility"** is

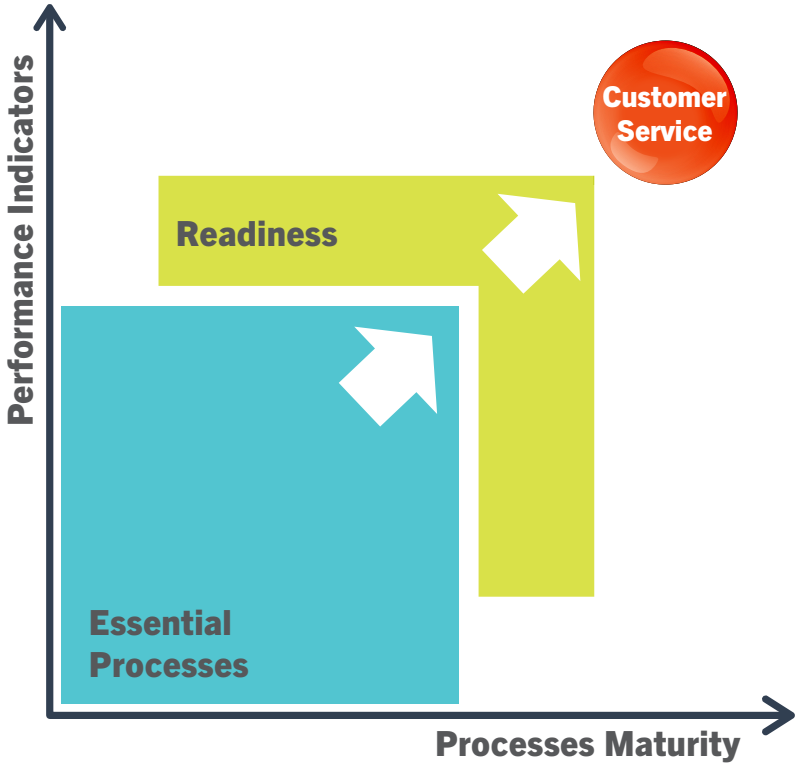
- **Lean:** applying actions to enhance efficiency and agile models to respond swiftly to changes
- **Self-assessed:** frequently evaluating performance and identifying rooms for improvement
- **Learning-focused:** fostering an environment where learning and development are key priorities
- **Collaborative:** encouraging a culture of teamwork and knowledge sharing for problem-solving
- **Human-centered:** investing in staff education and skill enhancement

Providing **"reliable, safe, inclusive, transparent, and responsive WSS services"** for all is the ultimate goal of the UoF, for which

- **Reliable** means 24/7 continuous supply.
- **Safe** means adhering to quality standards.
- **Inclusive** means not excluding any party or group from the provision of service.
- **Transparent** means relevant information is disclosed, clear, and accurate
- **Responsive** means providing customers with a high-quality and timely response to ensure customer satisfaction.

The UoF Program aims to enhance **essential processes** to ensure efficiency and continuity by leveraging world-class practices. It seeks to strengthen **readiness**, staying one step ahead in a rapidly changing environment. By improving processes and performance levels, the program is dedicated to deli vering superior customer service (figure 2.2).

FIGURE 2.2 Achieving Superior Customer Service



Source: World Bank.

Essential Processes Strengthening:

- Ensure operational continuity: Guarantee the uninterrupted continuity of operations to maintain consistent service delivery.
- Enhance critical processes: Strengthen key processes to improve efficiency and effectiveness across the organization.
- Optimize resource use: Optimize the use of resources within the utility's value chain to maximize productivity and cost-effectiveness.
- Elevate quality standards: Improve the quality standards of essential processes to meet and exceed sector benchmarks.
- Foster a culture of continuous improvement: Create and nurture a culture of continuous improvement to drive ongoing enhancements in all areas.

Readiness:

- Develop a strategic and long-term vision: Cultivate a forward-looking perspective to anticipate future trends and align organizational goals with long-term objectives.

- Promote dynamic and continuous learning: Encourage ongoing learning and development to adapt to evolving quality standards and sector conditions.
- Incorporate new technologies and innovations: Embrace cutting-edge technologies and innovative solutions to stay up to date and drive growth.
- Ensure long-term business sustainability: Implement strategies to ensure the sustainability and resilience of the business model over the long term.
- Foster agile decision-making: Develop agile decision-making processes to quickly and effectively respond and adapt to emerging opportunities and challenges.

2.2 The UoF Success Pyramid

The UoF is a new paradigm for providing WSS services far beyond those most utilities have even aimed for, much less achieved.

A UoF delivers high-quality services efficiently while maintaining innovation, inclusivity, resilience, and a market-oriented approach. The success pyramid (figure 2.3) illustrates the interdependencies and complexities of a UoF, as well as the different perspectives from which a utility can be analyzed. The ultimate objective, as shown at the top of the pyramid, is **service to customers**, which clearly depends on **technical operations and commercial management**, though not exclusively so. Other elements of sound utility management are **strategy, organization and planning, human talent**, and **financial management**, all interconnected and supported by a digital back-end architecture, or **digital enterprise**. At the bottom of the pyramid is the **enabling environment**, or the policy, institutions, and regulation (PIR) (World Bank 2022) under which the utility operates and which shape its environment, autonomy, restrictions, and flexibility to change. In addition, the UoF methodology incorporates complementary elements, called "**zoom-in lenses**," such as energy efficiency, environmental and climate change management, and gender balance and diversity which are optional for implementation, depending on the specific priorities, timing, and needs of each utility.

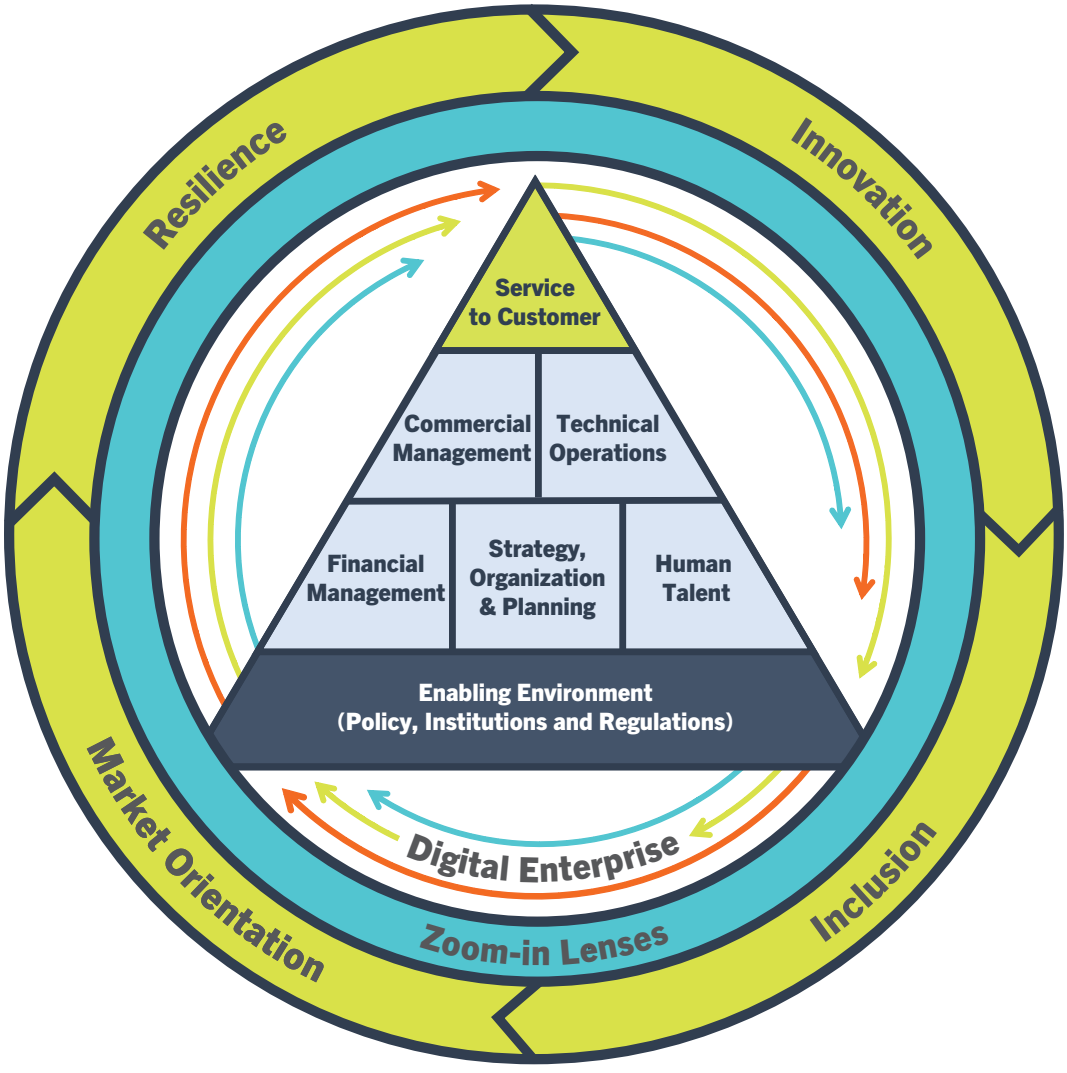
In a rapidly changing world, success depends on more than these managerial and governance factors. As shown by the yellow circle surrounding the pyramid in figure 2.3, a UoF is also innovative, inclusive, market-oriented, and resilient. For the purposes of this methodology,

- **Innovation** means "a change made in the nature or fashion of anything; something newly introduced; a novel practice, method, and so on" (OED Online n.d.).
- **Inclusion** means "the process of improving the ability, opportunity, and dignity of people, disadvantaged on the basis of their identity, to take part in society" and "leveraging the utility's assets and operations to benefit the larger community, lessen negative impacts

from utility activities, and provide service equitably across the service area, particularly for traditionally underserved neighborhoods" (World Bank 2013; AWWA 2019).

- **Market-oriented** means that the utility functions like a business in a competitive market by adopting practices that prioritize efficiency, differentiation, and customer needs. It treats customers as though they have the option to switch providers if dissatisfied, ensuring that service quality remains a top priority.
- **Resilience and business continuity** means "the capacity of any entity—an individual, a community, an organization, or a natural system—to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience" (Rodin 2014).

FIGURE 2.3 UoF Success Pyramid



Source: Adapted from Heymans et al. 2016.

2.3 Knowledge Integration

The UoF builds on the foundation of the *Utility Turnaround Framework: A Guide for Improving Performance (Vol. 2)* (Soppe, Janson, and Piantini 2018) and serves as an integrator of strategic initiatives developed by the World Bank Water Global Practice. This approach intentionally incorporates and aligns with existing tools and initiatives that support the mission of strengthening Water and Sanitation Utilities. The goal is to create a cohesive and synergistic program, where exposure to multiple initiatives ensures that the collective impact surpasses the implementation of individual programs. The UoF also draws on insights and lessons learned from previous iterations, enriched by feedback gathered during implementation. Since 2020, this approach has accumulated knowledge through engagements with over 100 utilities supported in approximately 35 countries, enhancing both the effectiveness and comprehensiveness of the program.

The Utility Turnaround Framework

The *Utility Turnaround Framework* offers guidance for turning around poorly performing WSS utilities and identifies five critical elements (or pillars) of sound management and performance: technical operations, commercial operations, HRM, organization and strategy, and financial management (appendix F). It describes how to conduct a comprehensive assessment of a utility's performance and maturity level using qualitative and quantitative indicators for each of the five elements. The outputs of this assessment are a performance cobweb score and a maturity cobweb score of 1 (elementary) to 5 (world class). Action matrices and guidance notes describe how to translate the assessment into a prioritized action plan to initiate and sustain the utility's turnaround.

International Benchmarking Network for Water and Sanitation Services (New IBNet)

IBNet is an independent global information system that provides data to help utilities, regulators, and researchers enhance utility performance and inform decision-making. It plays a critical role within the UoF by offering comprehensive data-driven insights that contribute to informed strategies for improvement. The indicators used for the quantitative analysis of the UoF are the same as those utilized by IBNet, ensuring consistency in the assessments conducted during UoF implementation and in any potential follow-up evaluations using IBNet. IBNet supports utilities in measuring and benchmarking their performance across various metrics, which are incorporated into the UoF's 100-day plan as part of efforts to strengthen data management and performance tracking. (New IBNet)

Gender Equality in the Water Sector (Equal Aqua)

The Equal Aqua Platform promotes gender diversity in water sector jobs. Established in 2019, the initiative offers tools, resources, and services to support gender equality efforts among water institutions worldwide. Equal Aqua is a core component of UoF, used to develop a "Zoom-in Lens", which focuses on identifying gender balance gaps within water utilities and exposing organizations to best practices that enhance women's roles and leadership, and promote strategies to foster a culture of gender balance and diversity, driving inclusivity and equality across the sector. (EqualAqua)

Utility Creditworthiness

As part of a renewed effort to scale up financing for water, the Water GP is intensifying its focus on mobilizing finance for development to promote sustainable private sector investments and solutions. The Utility Creditworthiness initiative is incorporated into the UoF program as one of its areas of analysis, or "Zoom-in Lens," and includes a training program for utility staff: the Water Utility Creditworthiness Course. (Water Utility Creditworthiness)

Digital Water

Digital Water is an initiative by the Water Global Practice Group that supports water utilities globally in undergoing digital transformation. The initiative encourages the integration of digital solutions such as smart metering, e-billing, remote sensing, data integration, supervision, GIS, predictive maintenance, active leak detection, cybersecurity, and various software platforms into utility operations, driving the modernization of water and sanitation services. Digital Water, especially in the "Digital Initiator" phase, is embedded in the UoF analysis and is part of the improvement actions in both the 100-day and 5-year plans, which aim to develop a digitalization roadmap as part of a comprehensive improvement process within a utility. (Digital Water)

Field-level Leadership Program (FLL)

Field-level Leadership (FLL) is a value-driven change management approach that engages broad groups of change leaders within public agencies. As a staff-led, end-to-end process, FLL has multiple positive effects on organizational effectiveness, culture, and staff morale. The reorientation it provides toward improving service quality and customer engagement leads to tangible performance improvements. The UoF approach integrates key elements of change management within the human dimension of the methodology called SPEED dimension, which supports behavior change analysis throughout the implementation phases of the UoF program. (FLL Program)

Water Knowledge

The Water GP and GWSP support knowledge management from various perspectives, which have been gradually integrated into the UoF methodology and will continue to be included as new initiatives emerge. The UoF also compiles collective knowledge and leverages the expertise of World Bank staff, ensuring that the program is grounded in both practical insights and technical proficiency. These initiatives and knowledge have been incorporated into the UoF program through the development of "Zoom-in Lenses," which, following the UoF methodology, provide utilities with the tools to discuss and identify opportunities for improvement in areas such as energy efficiency, non-revenue water, environmental management, and climate change, among others. (more about GWSP)

Utility of the Future 2020–2023

The UoF methodology began, in 2020, as a prototype (UoF-Version 0.0) implemented at 10 utilities in 8 countries. This prototype established the foundation for future developments. Version 1.0, released in 2021, evolved into a comprehensive framework with an implementation toolkit available in five languages. It marked the start of the UoF program's expansion, reaching 40 utilities in 20 countries.

UoF-Version 2.0, introduced in 2022, extended the program to 80 utilities in 30 countries. This version included new areas of analysis, including environmental management, energy efficiency, and gender balance and diversity. It also integrated the change management dimension (SPEED), which emphasizes the importance of human factors in transformation processes. By the end of this phase, the program had reached more than 90 utilities in 34 countries.

UoF Version 3.0, launched in 2023, included more than 300 case studies, examples, and resources, providing additional tools to strengthen the learning process for utility staff. Additionally, the structured "Utility Changers," a train-the-trainer program, was introduced to build capacities and make the UoF methodology scalable, replicable, and adaptable. By this stage, the program had expanded to more than 100 utilities in more than 35 countries worldwide.

Each UoF implementation represents a reciprocal learning opportunity. On the one hand, utilities are exposed to new practices and innovations within the water sector, enabling them to enhance their operations and service delivery. On the other hand, the UoF program gains valuable insights from the utilities' existing practices and unique implementation challenges. These insights are crucial in refining not only the program's content but also its methodologies, practical examples, and implementation model. Through a continuous exchange of knowledge, both the utilities and the UoF program evolve, driving innovation and improvement.

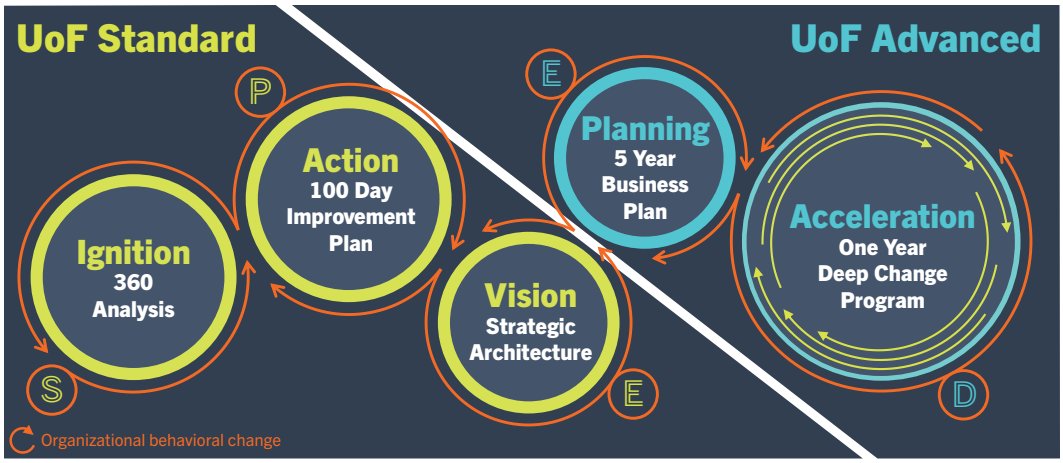
3

Become a Utility of the Future

The UoF implementation methodology is structured as a comprehensive five-stage cycle with two main phases (figure 3.1).

- **UoF Standard** (stages 1 to 3): The UoF Standard phase comprises the foundational, structured steps necessary for a utility to begin its transformation journey. These steps are designed to set up a solid framework for the transformation process, typically requiring four to five months for implementation. This phase focuses on analyzing key processes, defining objectives, and setting the groundwork for subsequent stages.
- **UoF Advanced** (stages 4 and 5): The UoF Advanced phase builds on the foundational work of the UoF Standard phase and is an optional extension of the UoF program that can be implemented after a comprehensive internal analysis of available resources and organizational capacity. This analysis helps a utility determine whether the phase will add value and aligns with its long-term goals. The UoF Advanced phase encompasses the more flexible, ongoing efforts needed to fully realize the utility's transformation. This phase is tailor-made, adaptable to each context, and can extend beyond one year, depending on its design and implementation specifics.

FIGURE 3.1 UoF Implementation Methodology



Source: World Bank.

UoF Standard

1. **Ignition | 360-degree Analysis of Operations and Service Delivery and Identification of Opportunities for Improvement:** In stage 1, the utility assesses its current state of operations and service delivery. It identifies opportunities for enhancement, prioritizes potential short-term actions, and establishes some initial long-term strategic priorities to drive sustainable growth and organizational effectiveness.
2. **Action | 100-day Action Plan:** In stage 2, the utility initiates change by implementing high-impact, easy-to-execute short-term actions. This stage emphasizes staff involvement in kickstarting transformation through practical initiatives that pave the way for broader organizational improvements.
3. **Vision | Strategic Architecture:** In stage 3, the utility defines or updates its vision statement, mission statement, and strategic objectives to meet key long-term priorities identified in the previous stages. The strategic architecture serves as the baseline for developing a robust five-year business and investment plan.

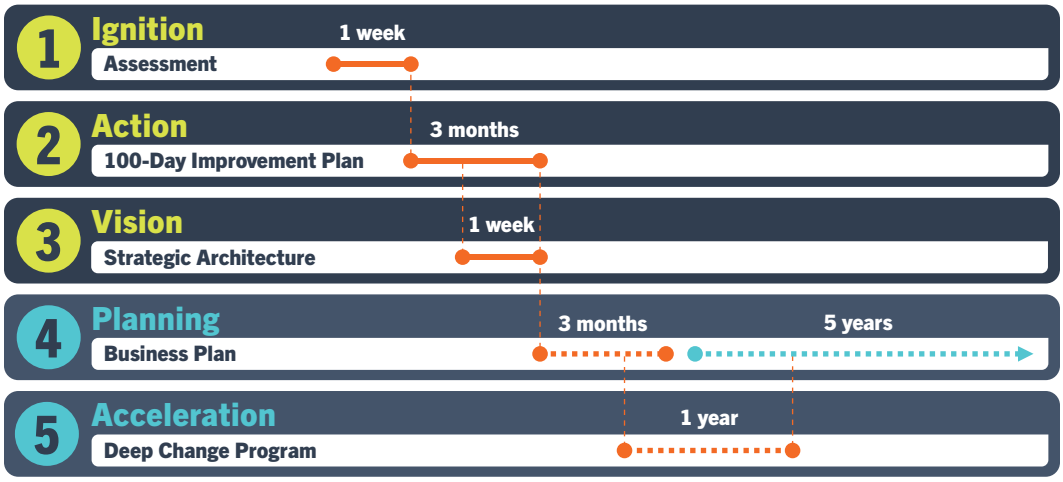
UoF Advanced

4. **Plan | Business and Investment Plan:** In stage 4, the utility develops a clear and achievable five-year business and investment plan built on the UoF Standard. The plan should contain a background analysis, a SWOT analysis, a demographic analysis, strategic objectives, key performance indicators, a project charter for each initiative to achieve the utility's strategic objectives, a financial forecast with tariff and sensibility analysis, and a tracking process.
5. **Acceleration | Deep Change Program:** In stage 5, the utility creates a one-year program to strengthen its internal capabilities and to implement customized actions to realize its transformation. The Deep Change Program reflects the context in which the utility operates and its available resources and external support. The program should include specific actions to optimize key processes, reduce costs, remove barriers for performance improvement, and invest in training and development of staff in all areas of the organization.

UoF Timeline

Figure 3.2 depicts the average timeline for UoF implementation.

FIGURE 3.2 UoF Implementation Timeline



Source: World Bank.

UoF Change Management Dimension

The UoF methodology incorporates a human-centered dimension called **SPEED** (**S**hake up, **P**ursue, **E**ngage, **E**nergize, **D**ynamize), which provides guidance on behavioral change, leadership, and teambuilding:

Shake up the Status Quo: Disrupt the current situation within the utility by challenging existing practices and assumptions. The goal is to move the organization out of its comfort zone and raise the relevance of change. This goal is achieved by highlighting the need for transformation and encouraging a willingness to embrace new approaches.

Pursue the Change: Actively involve the utility team in the change process by motivating and engaging employees to take actionable steps toward transformation. By building momentum and fostering a collective commitment to change, the organization starts to gain traction and align its efforts with the desired outcomes.

Envision the Future: Actively involve utility staff in the process of shaping the future vision. By engaging employees at all levels, the utility fosters a strong sense of ownership and ensures that the vision aligns with both individual and organizational goals. This inclusive approach helps cultivate a deeper commitment to the utility's long-term success and helps embed the vision into the utility's culture.

Energize Change: Encourage staff to contribute meaningfully, identifying clear, actionable steps and fostering collaboration across departments. Success depends on instilling a sense of ownership and responsibility in staff, with leadership playing a crucial role in maintaining momentum and addressing challenges.

Dynamize Actions: Engage staff in self-reflection to identify personal barriers to improvement and to recognize their active role in the transformation process. By fostering internal awareness, employees become key drivers of change. Additionally, the program highlights the importance of cross-departmental collaboration, helping the utility identify synergies that enhance cooperation, break down silos, and maximize the impact of transformation efforts.

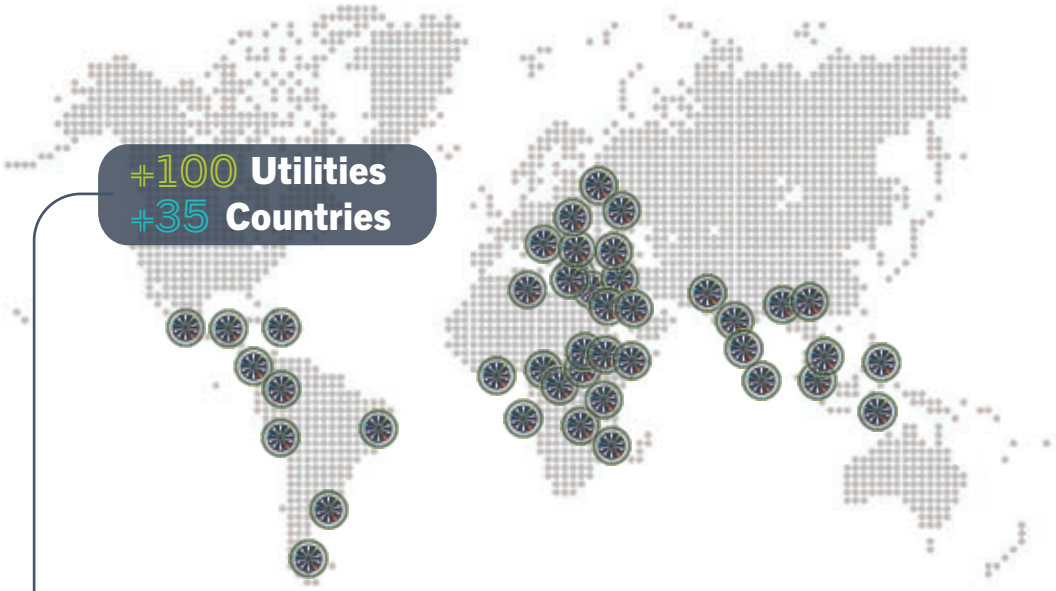
Experience has shown that change management is best implemented through an approach that is collective, staff-led, and organic, rather than prescribed by the top management.

UoF Worldwide

The UoF program has been implemented in 100-plus water and sanitation utilities in more than 35 countries (figure 3.3). This extensive reach underscores the program's robust scalability and its capacity to address the needs of different regions and operational contexts. The methodology's inherent flexibility and adaptability make it suitable for utilities of different sizes and performance levels and with different operational realities.

Each implementation of the UoF program not only contributes to the specific utility's transformation but also provides invaluable insights into best practices and innovative approaches used globally. These insights are systematically incorporated into the UoF Toolkit, ensuring that the methodology remains at the forefront of water sector advancements. By continuously integrating new practices and lessons from around the world, the program evolves to meet emerging challenges and drive sustained improvements across the sector.

FIGURE 3.3 Utility of the Future Worldwide



Albania
Arab Republic of Egypt
Argentina
Bangladesh
Belarus
Bosnia and Herzegovina
Brazil
Burundi
Cambodia
Central African Republic
Democratic Republic of the Congo
El Salvador
Ethiopia
Ghana
Honduras
India
Indonesia
Jordan
Kenya
Kosovo
Lebanon
Mexico
Moldova
Mozambique
Nepal
Nigeria
Pakistan
Peru
Philippines
Poland
Republic of Türkiye
Rwanda
São Tomé
Sri-Lanka
Timor-Leste
Uruguay
Zambia

Source: World Bank.

The UoF methodology is detailed in the UoF Toolkit, which can be accessed at www.worldbank.org/uof. The toolkit, along with the Implementation Guideline, are regularly updated to incorporate the latest practices and innovations. This ongoing refinement ensures that the resources remain aligned with the cutting edge of sector trends in water and sanitation management and operations.

4

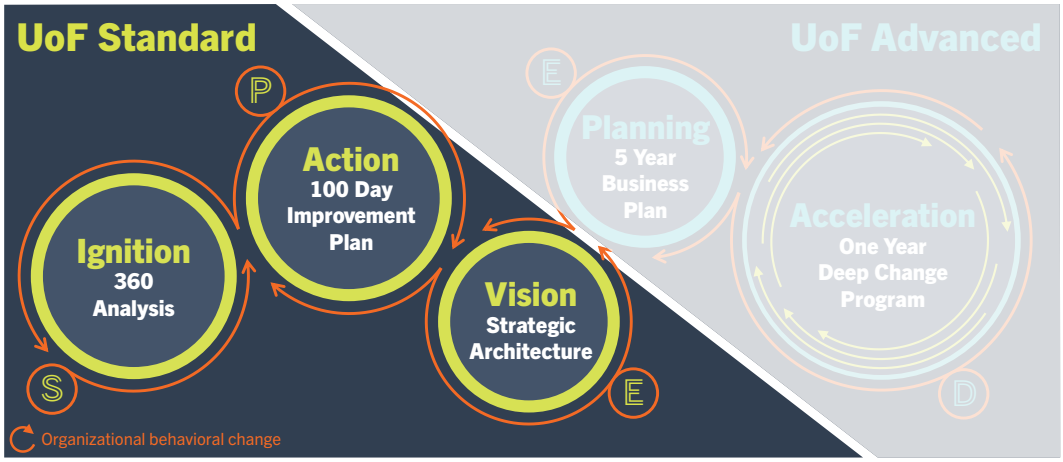
Utility of the Future Implementation Process

Before commencing the transformation process, each utility should assess its genuine interest in and motivations for adopting the UoF program. These incentives might include staff learning and development opportunities through exposure to international best practices, interaction with international experts, and access to potential external resources for implementing specific improvements. Utilities should carefully consider the benefits of the UoF program and determine the most appropriate timing for implementation. Because the process requires a commitment of internal time and resources for at least three months (UoF Standard) or more than a year (UoF Advanced), it is essential to ensure that the program aligns with the utility's priorities and will deliver tangible benefits. Finally, securing commitment from the utility's general director and endorsement from the board of directors is crucial because strong leadership is necessary to motivate staff, allocate resources, make timely decisions, maintain team momentum, and ensure continuity throughout the transformation.

4.1 UoF Standard

UoF Standard is designed to establish a robust framework for the transformation process, typically requiring four to five months for implementation. Figure 4.1 depicts the three stages of this phase.

FIGURE 4.1 UoF Standard



Source: World Bank.

Preliminary Steps

1. **Devise implementation strategy:** The implementation strategy involves outlining the scope of the UoF methodology to be applied, whether it involves the UoF Standard or an expanded version of UoF Advanced with additional elements. The strategy should define the expected results, identify outputs, and detail milestones and deliverables. Additionally, the strategy should align with any ongoing projects, leveraging their resources and expertise.
2. **Establish implementation plan:** The implementation plan involves assembling a cohesive team that includes utility staff and external support (if any) to ensure effective collaboration and execution. It establishes a comprehensive timeline detailing each phase of the UoF methodology, from Ignition Week (figure 4.2) through subsequent stages to set the foundation for the UoF program and to align all resources and activities for successful implementation.
3. **Gather preliminary information (data input and sector overview):** Collecting accurate basic data is essential for performance assessment. Some key metrics include population served, total water service connections, domestic wastewater connections, and number of staff and annual revenues. Accuracy is crucial to ensure that the analysis reflects the utility's true state. Additionally, understanding the enabling environment, sector trends, policies, regulatory frameworks, and recent contextual factors is

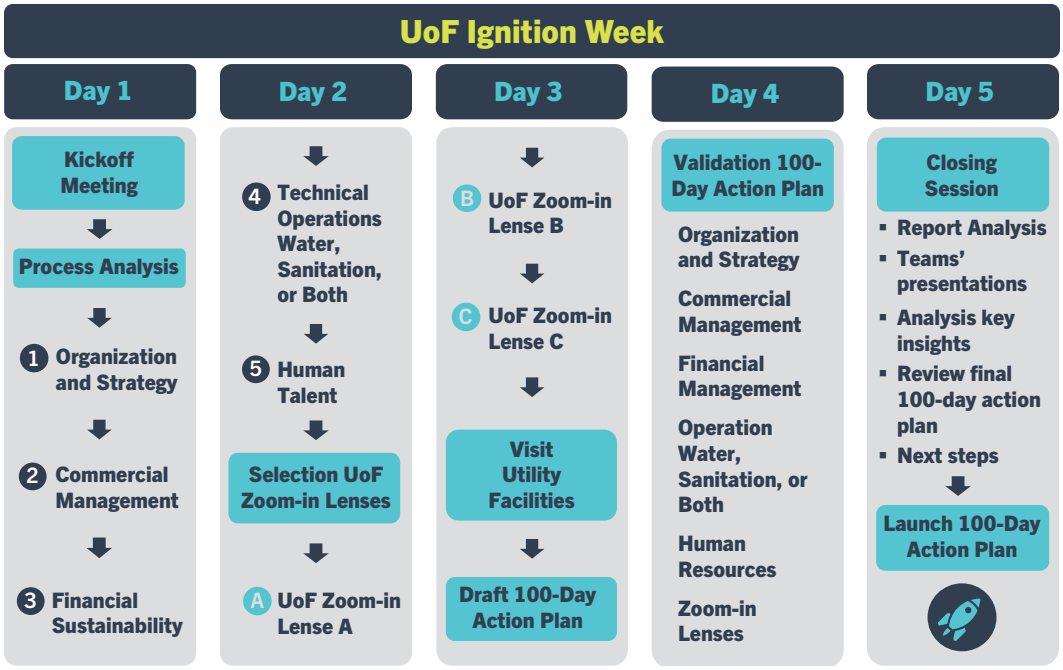
important for providing a comprehensive view of the utility's operating environment and ensuring alignment with sector reality.

4. **Set up a utility team:** Effective implementation of the UoF program requires coordinated roles across key positions. The **general manager** plays a crucial role in securing the necessary resources for UoF implementation. The **general manager** is responsible for keeping the team motivated and engaged throughout the transformation process. Additionally, the manager must ensure continuity in the process by overseeing its progression and addressing any disruptions, thus facilitating implementation. The **utility focal point** is tasked with monitoring work plan progress, thereby ensuring that milestones and objectives are met according to schedule. This individual should be a recognized natural leader within the utility, someone possessing the authority and respect necessary to drive the initiative forward. Direct interaction with the utility focal point is essential for coordinating efforts, addressing issues, and ensuring that the utility's strategic goals are aligned with implementation of the UoF program. The **utility team** is responsible for key elements of the UoF methodology, including strategic planning, commercial management, technical operations (water, sanitation, or both), financial management, and human resources. The team should include young professionals to bring fresh perspectives and to ensure diversity in terms of age, gender, knowledge, and hierarchical level. This diversity enhances the team's effectiveness and fosters a more comprehensive approach to addressing the utility's needs and challenges.
5. **Schedule UoF Ignition Week:** UoF Ignition Week marks the official commencement of the transformation process. In addition to launching the UoF program, it sets the stage for the subsequent activities. The date of this event should be carefully selected and communicated to ensure that all relevant parties are available and prepared to participate. Effective coordination during this week will help build momentum, align expectations, and lay a solid foundation for the entire transformation journey.

UoF Ignition Week

UoF Ignition Week is an immersion period during which the utility's key processes are thoroughly reviewed to identify areas for improvement (figure 4.2). Utility staff engage in detailed analysis to pinpoint inefficiencies and gaps. The outcome is a short-term action plan that addresses these issues.

FIGURE 4.2 Example UoF Ignition Week



Source: World Bank.

1 Ignition | 360-degree Analysis and Identification of Key Opportunities for Improvement

A 360-degree analysis is a comprehensive assessment that evaluates the current situation of service to customers, performance level, and maturity level.

Current Service to Customers

Service to customers is evaluated based on the basis of data uploaded in the UoF Toolkit on five critical parameters: **reliable** service continuity, ensuring consistent and uninterrupted service; **safe** service based on quality standards, guaranteeing that the water meets health and safety requirements; **inclusive** service coverage, ensuring access for all segments of the population; **responsive** attention to users, addressing customer inquiries and issues promptly and effectively; and **transparent** information, providing clear and accessible communication about services and performance.

Output: The customer service output is expressed as a percentage level for each of the five key parameters, as depicted in figure 4.3.

FIGURE 4.3 Current Service to Customers

Source: World Bank.

Parameters: Five parameters are used to assess the quality of customer service (table 4.1). Appendix D provides detailed explanations of the parameters and their ranges.

TABLE 4.1 Parameters of Service to Customers

Reliable	**24/7 continuous supply**	▪ Continuity (hours per day on average) ▪ Continuity (customers with 24/7 supply) (%) ▪ Availability (liters/per capita/day) ▪ Availability of FSM emptying services (provided 24 hours after service requested) (%)
Safe	**Adheres to quality standards**	▪ Water quality (samples meeting all WHO guidelines for drinking water quality) (%) ▪ Wastewater and fecal sludge treatment (%)
Inclusive	**Excludes none from the provision of service**	▪ Drinking water coverage (%) ▪ Sanitation service coverage (%)
Transparent	**Discloses information clearly and accurately**	▪ Key information disclosure (%) ▪ Application of practices to generate clear information (%) ▪ Application of practices for ensuring accurate information (%)
Responsive	**Capacity to provides quality and timely responses**	▪ Customers satisfied with service (based on assessment in the past two years) (%) ▪ Grievances satisfactorily resolved within seven days (%) ▪ Percentage of sewer blockage complaints addressed within 48 hours (%)

Source: World Bank.

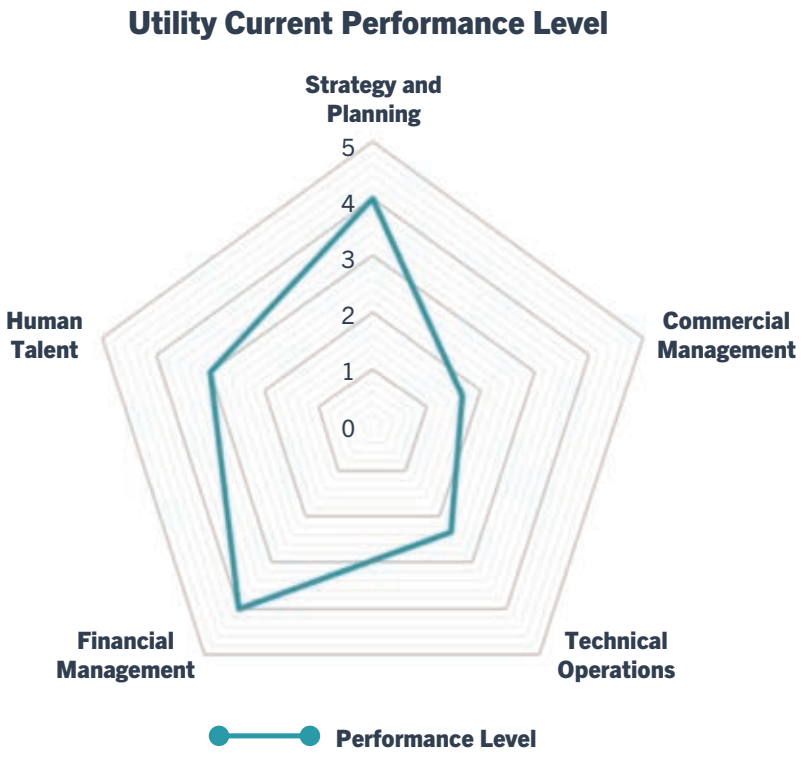
FSM = fecal sludge management.

Current Performance Level

Performance level is assessed by combining key indicators that evaluate the five core elements and selected zoom-in lenses using the data provided in the UoF Toolkit. These indicators provide a comprehensive view of how well the utility performs across various dimensions, reflecting its overall operational effectiveness and efficiency.

Output: The current performance level is expressed on a scale from 1 (elementary) to 5 (world class). The level is derived by combining the respective indicators for each core element (figure 4.4). This comprehensive scoring system provides a clear and quantifiable measure of the utility's overall effectiveness and service quality.

FIGURE 4.4 Representation of Current Performance Level



Source: World Bank.

Parameters: Five parameters are used to assess the current performance level (table 4.2). Appendix D provides detailed explanations of the parameters and their ranges.

TABLE 4.2 Parameters of Performance Level

Strategy and Planning	▪ Adherence to planning schedule (%) ▪ Budget adherence (%)
Commercial Management	▪ Collection rate (%) ▪ Metered water connections (%) ▪ Service complaints resolved (%)
Technical Operations	▪ Nonrevenue water (liters/connection/hour) ▪ Nonrevenue water (%) ▪ Sewer blockages (blockages/100km))
Financial Management	▪ EBITDA margin ▪ Operation cost coverage (%)
Human Talent	▪ Employees per 1,000 connections ▪ Employee turnover rate (%) ▪ HR costs as % of total operating costs

Source: World Bank.

EBITA = earnings before interest, taxes, and amortization.

Current Maturity Level

Maturity level is measured by analyzing the current practices employed by the utility a cross all processes using the evaluation developed in the UoF Toolkit. This assessment looks at how advanced and effective these practices are implemented according to standards. The current maturity level for each process reflects the utility's reality, as determined through an in-depth analysis of more than 150 processes within the five core elements, selected zoom-in lenses, and UoF dimensions (Figure 4.5).

FIGURE 4.5 Example: Current Maturity Level

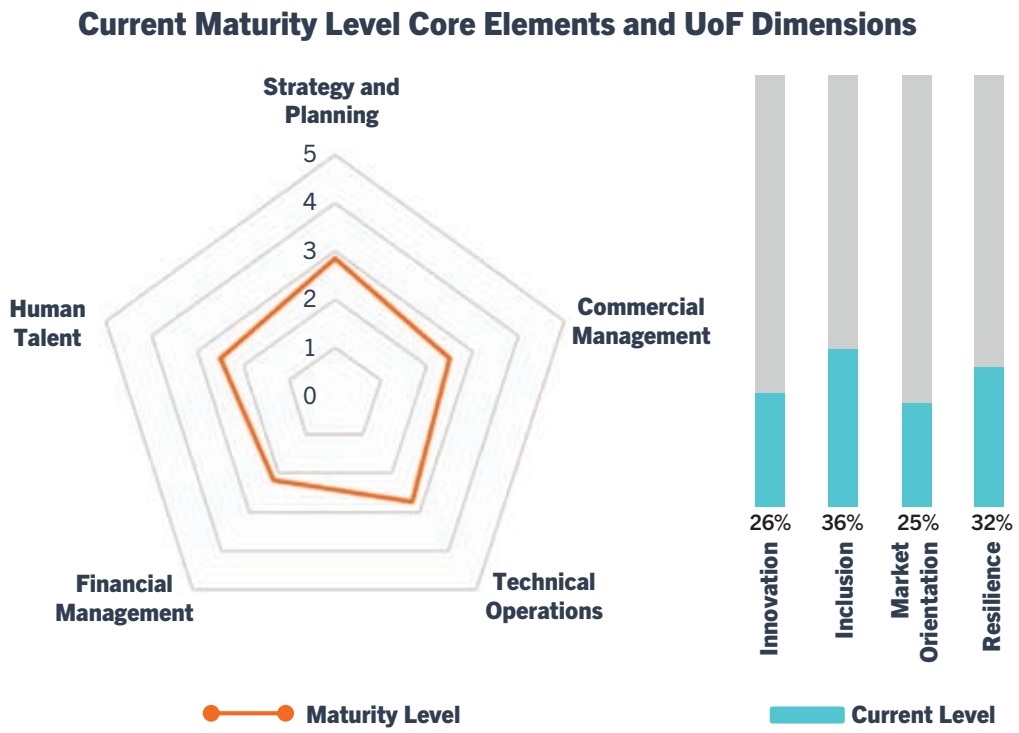
Area	Topic	Essential Processes (Select ONE Current Level and ONE Next Level)					Future Thinking Processes (Select ALL THAT APPLY Current Level and Next Level)			
		1	2	3	4	5	Innovation	Inclusion	Market Orientation	Resilience
Business Strategy	Strategic Architecture	No strategic architecture.	Mission and vision in place, but not updated and not known within the utility. No strategic objectives.	Mission, vision, and strategic objectives in place, not updated and not known within the utility. Annual plan and budget not aligned with strategic objectives, mission, and vision.	Strategic framework in place but not updated, contains vision, mission, values, strategic objectives. Annual plan is partially aligned with strategic framework, and utility's employees are familiar with it.	Strategic framework contains vision, mission, strategic objectives, tratégic programs, projects by program, corporate values, risk analysis, SWOT analysis, PEST analysis, constraint analysis, scenario analysis. The strategic framework is communicated to all staff and external stakeholders. It is reviewed/updated annually.	Utility incorporates innovation as a core strategy. This commitment involves fostering a culture of continuous improvement and creativity across all operational facets. Utility aims to identify and implement cutting-edge technologies, processes, and solutions.	Utility embeds inclusion as a core strategy both within its workforce and in its customer. This involves fostering a diverse and respectful workplace culture while ensuring services are accessible and relevant to all customers.	Utility integrates practices modeled after competitive markets, drawing inspiration from successful strategies employed in the private sector. By adopting private sector proven methodologies, the utility ensures a proactive approach to adapting to sector dynamics, and effectively meeting the evolving needs of its customers and stakeholders.	Utility integrates resilience into the strategic framework including proactive measures to anticipate and mitigate risks, ensuring operational continuity and the ability to adapt to unforeseen challenges effectively. By embedding resilience into the core strategy, the utility enhances the ability to sustain reliable service delivery, protect critical infrastructure, and safeguard against disruptions, thereby fostering long-term sustainability and customers and stakeholder confidence.
	Current Level	-	x	-	-	-	-	x	-	-
	Next Level	-	-	-	-	x	-	x	x	x

Current Level

Source: World Bank.

Output: The current maturity level is expressed on a scale from 1 (elementary) to 5 (world class). This level is derived by combining the respective process analyses for each core element. Figure 4.6 represents the overall maturity level of the utility, highlighting strengths and identifying areas for improvement.

FIGURE 4.6 Representation of Current Maturity Level



Source: World Bank.

Parameters: The following parameters are utilized to evaluate the current maturity level of each of the five core elements. Regarding the UoF dimensions (innovation, inclusion, market orientation, and resilience), the current situation is assessed on the basis of the number of best practices implemented by the utility within each component. The UoF zoom-in lenses apply the same logic, providing a detailed analysis as outlined in the UoF Toolkit. This comprehensive approach ensures a thorough understanding of the utility's operational maturity and highlights areas for potential improvement (Table 4.3). Appendix D provides detailed explanations of the parameters and their ranges.

TABLE 4.3 Parameters Current Maturity Level

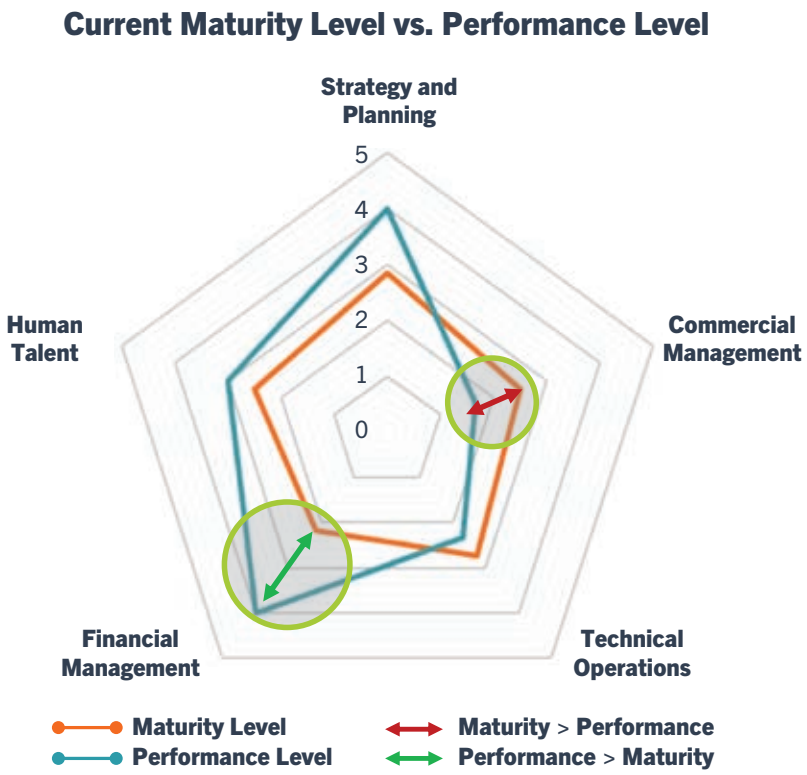
Strategy and Planning	▪ Business strategy ▪ Monitoring and reporting ▪ Efficiency and Continuity	▪ Digital strategy and governance ▪ Digital enterprise ▪ Project management, IT, and technology
Commercial Management	▪ Customer relationship management ▪ Customer service ▪ Metering	▪ Billing ▪ Collections ▪ Customer centricity
Technical Operations	▪ Asset management ▪ GIS management and operation ▪ Drinking water quality ▪ Nonrevenue water (NRW)	▪ Wastewater management ▪ Environment and climate change ▪ Energy efficiency ▪ Smart operations
Financial Management	▪ Financial strategy and management ▪ Planning and budgeting ▪ Accounting and financial reporting	▪ Asset accounting ▪ Control and transparency ▪ Financial sustainability
Human Talent	▪ Human resources management ▪ Attraction and recruitment ▪ HR sustainability ▪ Training and development	▪ Performance management ▪ Remuneration, incentives, and benefits ▪ Culture and values ▪ Digital and innovation culture

Source: World Bank.

Current Maturity Level vs. Performance Level

To develop a comprehensive 360-degree analysis from a different perspective, utilities can superimpose the performance cobweb on the maturity cobweb, as demonstrated in figure 4.7. This approach reveals discrepancies between performance and maturity levels. When an element exhibits a higher performance level than maturity level, the utility may need to enhance its maturity through improved processes, best practices, and systems to sustain or further elevate its performance. Conversely, if an element exhibits a higher maturity level than performance level, the utility has robust processes in place and the potential to improve performance more readily. In such cases, targeted efforts—such as focusing on specific indicators, forming task forces for key improvements, and addressing bottlenecks—can be helpful. Analyzing the utility from maturity and performance perspectives enables the team to collaboratively explore diverse and innovative solutions, driving more effective and sustainable improvements.

FIGURE 4.7 Representation of Current Maturity Level vs. Performance Level



Source: World Bank.

Gap Analysis

The 360-degree analysis of all processes encourages the utility to envision its desired state five years into the future, identifying areas for improvement and starting to brainstorm potential actions to bridge existing gaps (Figure 4.8). This dual focus on present conditions and future aspirations helps the utility uncover opportunities for short-term (100-day), medium-term (one-year), and long-term (five-year) enhancements. The UoF methodology fosters a pro-active approach, motivating the utility to set strategic goals and to begin implementing initiatives that drive continuous improvement and operational excellence.

FIGURE 4.8 Example: Desired Maturity Level

Area	Topic	Essential Processes (Select ONE Current Level and ONE Next Level)					Future Thinking Processes (Select ALL THAT APPLY Current Level and Next Level)			
		1	2	3	4	5	Innovation	Inclusion	Market Orientation	Resilience
Business Strategy	Strategic Architecture	No strategic architecture.	Mission and vision in place, but not updated and not known within the utility. No strategic objectives.	Mission, vision, and strategic objectives in place, not updated and not known within the utility. Annual plan and budget not aligned with strategic objectives, mission, and vision.	Strategic framework in place but not updated, contains vision, mission, values, strategic objectives. Annual plan is partially aligned with strategic framework, and utility's employees are familiar with it.	Strategic framework contains vision, mission, strategic objectives, trategic programs, projects by program, corporate values, risk analysis, SWOT analysis, PEST analysis, constraint analysis, scenario analysis. The strategic framework is communicated to all staff and external stakeholders. It is reviewed/updated annually.	Utility incorporates innovation as a core strategy. This commitment involves fostering a culture of continuous improvement and creativity across all operational facets. Utility aims to identify and implement cutting-edge technologies, processes, and solutions.	Utility embeds inclusion as a core strategy both within its workforce and in its customer. This involves fostering a diverse and respectful workplace culture while ensuring services are accessible and relevant to all customers.	Utility integrates practices modeled after competitive markets, drawing inspiration from successful strategies employed in the private sector. By adopting private sector proven methodologies, the utility ensures a proactive approach to adapting to sector dynamics, and effectively meeting the evolving needs of its customers and stakeholders.	Utility integrates resilience into the strategic framework including proactive measures to anticipate and mitigate risks, ensuring operational continuity and the ability to adapt to unforeseen challenges effectively. By embedding resilience into the core strategy, the utility enhances the ability to sustain reliable service delivery, protect critical infrastructure, and safeguard against disruptions, thereby fostering long-term sustainability and customers and stakeholder confidence.
	Current Level	-	x	-	-	-	-	x	-	-
	Next Level	-	-	-	-	x	-	x	x	x

Source: World Bank.

Once the gap analysis is completed, the UoF Toolkit systematically calculates the number of gaps identified in each process (table 4.4). Additionally, it collects a set of preliminary actions, defined by the utility team, for inclusion in the 100-day action plan, along with potential initiatives for the five-year strategic plan. This comprehensive evaluation not only highlights areas requiring immediate attention but also suggests actionable steps and longer-term initiatives to be considered in the strategic plan.

TABLE 4.4 Gap Analysis

Gap Analysis	Preliminary gaps identified	Potential short- term actions (100 days)	Potential key long-term actions (5 days)
Strategy and Planning	21	6	4
Commercial Management	6	5	2
Technical Operations	7	3	2
Financial Management	5	2	2
Talent Management	9	3	3
Total	**48**	**19**	**13**

Source: World Bank.

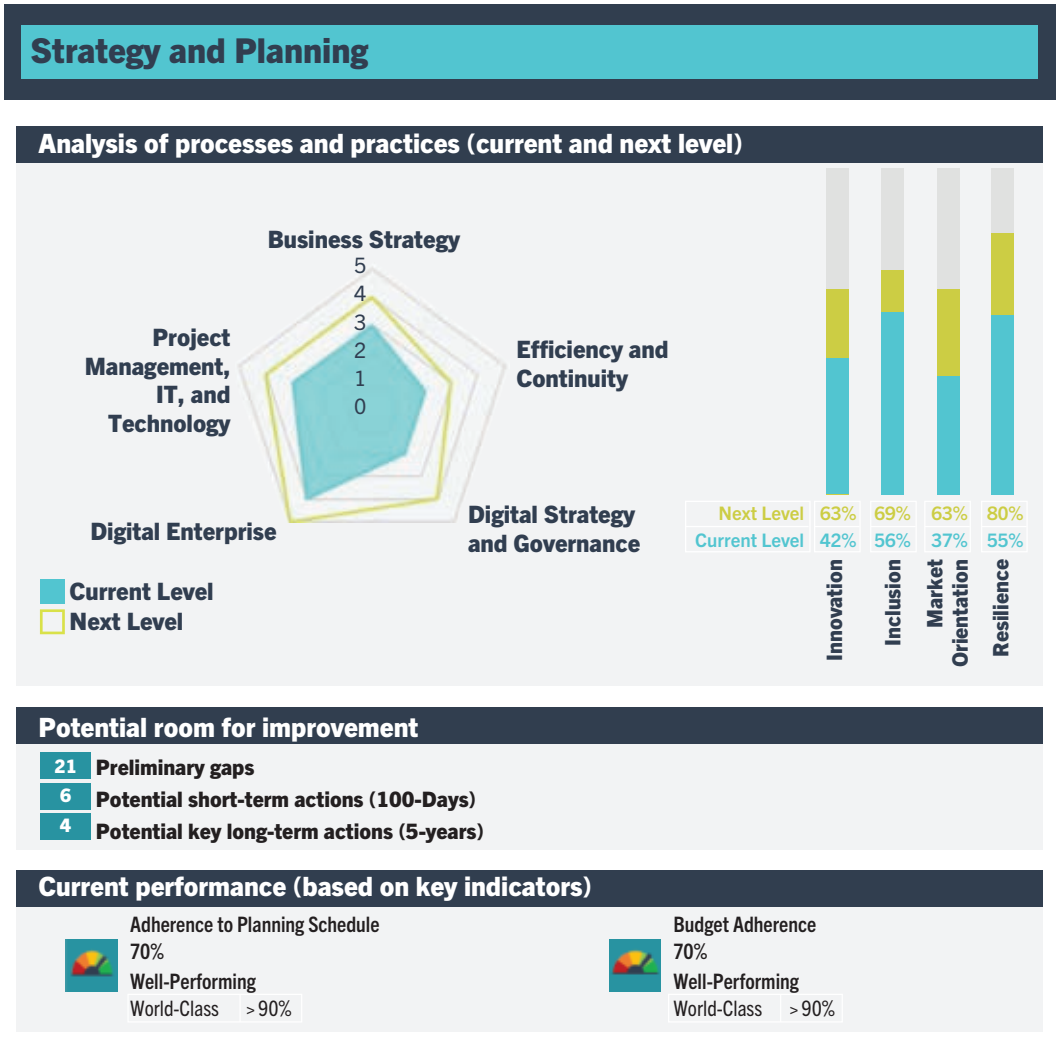
The UoF Toolkit supplements each component with more than 300 case studies, examples, and proven practices. These resources are meticulously curated to provide practical insights and real-world applications, thereby facilitating a deeper understanding and more effective implementation of the practices. All these valuable materials ensure that utility staff members have the necessary tools to continuously improve their skills and increase their knowledge.

Note: Utilities should adopt a transparent and honest approach when assessing their current maturity levels; equally important is setting goals that can be attained within a five-year timeframe. This approach is critical for conducting a thorough and accurate gap analysis, which in turn, forms the foundation for a precise and effective improvement plan. By being candid about their starting point and pragmatic about their future objectives, utilities can ensure that their strategies are both feasible and aligned with long-term goals.

Final Output | 360-degree Analysis Report

At the conclusion of Ignition Week, the UoF Toolkit generates a comprehensive executive report that provides a detailed overview of the utility's current state in terms of customer service, maturity, and performance. In addition, the report includes a preliminary analysis for each core element and selected zoom-in lenses, offering an overview of the current situation across all relevant areas and UoF dimensions (figure 4.9). This thorough evaluation not only highlights existing conditions but also identifies opportunities for growth and improvement. By outlining both the present status and potential future levels, the report serves as a valuable tool for strategic planning and continuous enhancement of utility operations.

FIGURE 4.9 Example: Output | 360-degree Analysis Report



Source: World Bank.

SPEED | Behavioral Change Insights | Shake Up the Status Quo

To initiate a change process, the management team must possess a firm conviction regarding the necessity of change. It must be willing to **move away from traditional practices, disrupt the utility's inertia, and challenge the status quo**. The decision to embrace change is the first critical step, and active involvement of the management team is a key success factor in any transformation process. Before progressing further in the transformation process, the utility should reflect on the underlying causes of its current performance and maturity levels and should realistically assess the potential for short-term and long-term improvements, considering its capabilities, resources, objectives, constraints, and risks. The leadership team should foster an environment of trust to facilitate clear, honest, and objective discussions. Conducting a thorough and candid evaluation is fundamental for designing an effective improvement plan that will benefit the utility. Table 4.5 lists key aspects of change management that need to be analyzed at both the beginning and end of phase 1 to verify achievement of anticipated outputs.

TABLE 4.5 Key Aspects of Change Management to Consider in Phase 1: Shake Up the Status Quo

Main objective	Engage senior leadership in disrupting the utility's inertia (business as usual) and take the utility out of its comfort zone.
Expected change in behavior	● Leadership team members are enthusiastic about becoming agents of change. ● They embrace innovative thinking, alternative approaches, and new solutions. ● They are dedicated to actively engaging the entire utility staff in the change process.
Key questions or self-reflections	● Is it the right moment to initiate a change process? (For example, would a change of local government affect or stop the process?) ● If the utility decides not to change now, what future problems (e.g., financial unsustainability, reputational risk, reduced coverage and quality of service) will it face? ● What are the utility's incentives (e.g., improve credit capacity, comply with regulatory requirements) for change? ● Who are the main partners (e.g., regulators, the private sector, suppliers), and how can the utility engage them? ● What are the first barriers to change that the utility will face (e.g., organizational culture, time, availability of staff), and how can the utility overcome them?

(*continues on next page*)

TABLE 4.5 Key Aspects of Change Management to Consider in Phase 1: Shake Up the Status Quo (*Continued*)

Key actions	● Obtain approval and commitment from the board of directors. ● Identify and involve the utility's natural leaders. ● Motivate staff to join the effort. ● Define a communication plan for the transformation process. ● Assess organizational readiness for change.
Expected outputs	● Top managers/leaders/supervisors become convinced of the need for change. ● The utility internalizes the decision to initiate a transformation process.

Source: World Bank.

2 Action | 100-Day Action Plan

During Ignition Week, the utility team, in collaboration with the UoF team, identifies potential actions for the 100-day action plan. These actions are selected on the basis of their ease of implementation, potential for high impact, and lack of need for external resources (figure 4.10). Some actions may serve as foundational steps for future improvements.

FIGURE 4.10 Selection of 100-Day Actions

Source: World Bank.

The 100-day action plan has two primary objectives:

1. **Improve performance, processes, or practices:** Achieve measurable enhancements within the utility's operations.
2. **Build momentum and engage the utility team:** Foster engagement and empower the utility team, thereby instilling a sense of ownership and commitment to the transformation process.

The 100-day action plan typically includes an average of 20 to 30 actions distributed across the UoF core elements, ensuring that each element is addressed with at least one specific action. These actions can range widely in scope and focus. For instance, they may involve developing a process to start recording historical maintenance activities, which would serve as a baseline for a maintenance work plan. Other actions might include creating task forces to analyze potential energy efficiencies within utility processes, developing service-level agreements among departments to optimize workflows, or establishing a gender balance and diversity committee. Additional actions could involve conducting a staff survey to gauge utility culture and employee satisfaction or initiating an internal activity to gather ideas from all utility staff for improving processes through innovative practices. The UoF Toolkit provides a set of example actions for the 100-day action plan.

By incorporating a diverse range of targeted actions, the plan aims to drive comprehensive improvements across the utility, leveraging the insights and expertise of the entire team to foster a culture of continuous innovation and engagement.

Key Success Factors for a 100-Day Action Plan

Some key success factors for a 100-day action plan:

- Clear and realistic goals: Specify achievable actions that align with the utility's overall transformation process.
- Strong leadership and commitment: Ensure that the management team is fully committed to the plan and actively involved in its execution.
- Effective communication: Maintain open and transparent communication channels to keep all utility team members informed and engaged.
- Resource allocation: Ensure that necessary resources, including time, personnel, and tools, are available and allocated efficiently.

- Quick wins: Identify and implement actions that can deliver immediate, visible results to build momentum and confidence.
- Engagement of utility staff: Involve utility staff at all levels to foster a sense of ownership and commitment to the plan's success.
- Continuous monitoring and feedback: Regularly track progress against the plan, usually every 2 weeks, adjusting as necessary based on feedback from the team and changing circumstances.
- Collaboration and teamwork: Promote a collaborative approach, leveraging the collective expertise and insights of the team.
- Flexibility: Adapt the plan as needed to address unforeseen challenges or opportunities.
- Celebrating successes: Acknowledge and celebrate milestones and successes to maintain motivation and morale.

By focusing on these success factors, the 100-day action plan can effectively drive near-term improvements and lay a strong foundation for continued progress.

Retrospective Analysis

The conclusion of the 100-day action plan implementation presents a critical opportunity to evaluate the overall experience and derive valuable insights. A workshop involving utility staff and key stakeholders will enable in-depth discussions about the 100-day action plan outcomes and will allow participants to share insights and best practices and strengthen collaboration. By addressing challenges, celebrating achievements, and planning future actions, this workshop will ensure that lessons are effectively integrated into ongoing and future efforts, fostering a culture of continuous improvement and strategic alignment. The retrospective analysis should cover the following elements:

- **Results and process improvements:** Assess the tangible outcomes and the specific processes that were improved. Evaluate how these changes have positively affected the utility's operations and performance.
- **Staff engagement and behavior change adoption:** Analyze the level of staff engagement throughout implementation of the 100-day action plan and the extent to which new behaviors and practices have been adopted.

- **Key elements of success:** Identify the critical factors that contributed to achievement of the 100-day action plan. Highlight strategies and actions that were particularly effective.
- **Top actions implemented as potential case studies:** Document the most successful actions implemented during this phase. Draft case studies to illustrate these successes, providing detailed examples and insights.
- **Lessons, obstacles, and strategies**: Reflect on the lessons learned during the implementation process. Identify any obstacles encountered and the strategies employed to overcome them, thereby providing a roadmap for future initiatives.
- **Actions removed from the plan or postponed**: Review any actions that were removed or postponed, analyzing the reasons for these decisions to better understand potential challenges and potential adjustments to future plans.
- **Recognition**: Celebrate high-performance teams and individuals demonstrating exceptional dedication and effectiveness during implementation of the 100-day action plan. Acknowledging their contributions not only boosts morale but also reinforces a culture of excellence and continuous improvement within the utility.

By conducting this analysis and capturing lessons learned, the utility can ensure sustained progress and refine its strategies for future transformation efforts. This reflective process is essential for maintaining momentum, fostering a culture of learning, and driving ongoing success.

SPEED | Behavioral Change Insights | Pursue the Change

In this phase, the emphasis transitions to actively involving the utility team in the change process. This task entails motivating and engaging utility staff to undertake actionable steps toward transformation. By building momentum and fostering a collective commitment to change, the utility begins to gain traction and align its efforts with the desired outcomes. This phase is crucial for successful change management. Its success depends, in part, on fostering a **sense of responsibility** for and commitment to achieving results and strengthening collaboration. Additionally, the leadership team plays a vital role in maintaining momentum and motivation over the 100-day period by supporting the team, providing solutions, and actively participating in the change process. Table 4.6 outlines relevant aspects of change management that should be analyzed at both the beginning and end of this phase to ensure the expected outcomes are achieved.

TABLE 4.6 Key Aspects of Change Management to Consider in Phase 2: Pursue the Change

Main objective	Develop a motivated and enthusiastic team that is ready both to implement the defined actions and to involve more staff in the transformation process.
Expected change in behavior	● Staff are empowered to drive change, even in small tasks. ● Hierarchical barriers are eliminated, ensuring that the entire utility team has a voice in the change process. ● A sense of pride in contributing to tangible change is created, thereby fostering a culture of continuous improvement that becomes ingrained in the team's DNA.
Key questions or self-reflections	● In what ways (e.g., weekly meetings, team recognition) can the leadership team maintain momentum, dynamism, and constant communication for 100 days? ● How can the team motivate/engage those who resist change within the utility? (Could they, for example, be assigned tasks to make them feel part of the process or invited to be part of a team working in a different area?) ● How does the leadership team engage more and more staff in the transformation process? (Could it, for example, conduct workshops that are open to all staff or create one suggestion box per theme that can be accessed by all staff?) ● How does the leadership team leverage the lessons learned during the process? (Could it create internal newsletters to communicate achievements and lessons?)
Key actions	● Keep the team motivated, engaged, and informed through weekly follow-up meetings. ● Communicate continuously with all internal and external stakeholders on the progress of the 100-day actions. ● Maintain dynamism in the process; move those actions that are slowing down the process to the long-term strategic plan.
Expected outputs	● The team is proud of the results it has achieved. ● It is motivated to take the utility to the next level. ● The leadership team identifies and recognizes new leaders and high-potential staff.

Source: World Bank.

3 Vision | Strategic Architecture

Defining the strategic architecture of a water and sanitation utility is crucial for establishing a robust framework that supports a long-term business model. A well-articulated, clear, and ambitious, yet realistic, vision guides the utility and its staff toward one direction.

Utilities' existing strategic framework, vision statement, mission statement, and strategic goals often are not effectively integrated with daily operations or planning processes. They are frequently not revisited or updated. The UoF program presents an ideal opportunity to redefine the utility's strategic architecture, to inspire the utility team, and to communicate to stakeholders that the utility is undergoing significant transformation and is becoming a Utility of the Future.

Developing the strategic architecture should leverage the momentum generated by the change process. Given that the utility and its staff are already engaged in transformation, formulation of the new strategic architecture during the 100-day action plan is recommended. If the utility has recently developed a strategic framework, UoF implementation provides a valuable opportunity to review and refine it. Engaging the entire utility team in this effort ensures alignment with UoF implementation and reinforces commitment to the revised strategic direction.

Strategic Vision

Definition: The strategic vision of a water and sanitation utility is a forward-looking statement of the organization's long-term aspirations and desired future state. It provides a clear picture of what the utility aims to achieve in the future and serves as a beacon for all strategic decisions and actions.

Characteristics:

- **Inspirational**: It should inspire and motivate utility staff, stakeholders, and the community by presenting an ambitious yet attainable future.
- **Long-term focused**: It typically looks at least 5 to 10 years into the future.
- **Overarching**: It outlines a broad picture of success without detailing specific actions.

Example: "To be the leading provider of sustainable and innovative water and sanitation service, ensuring a resilient and thriving community for generations to come."

Mission Statement

Definition: The mission statement defines the utility's core purpose and primary objectives. It explains why the utility exists, what it does, and whom it serves. This statement is focused on the present and on short-term activities.

Characteristics:

- **Purpose-driven**: It clearly communicates the utility's core function and its commitment to serving customers.
- **Action-oriented**: It often describes what the utility does on a day-to-day basis.
- **Customer-centric**: It should reflect the utility's commitment to providing value to its customers and stakeholders.

Example: "To deliver high-quality and reliable water and sanitation services while safeguarding public health and the environment through innovative practices and exceptional customer service."

Strategic Objectives

Definition: Strategic objectives are specific, measurable goals that the water utility aims to achieve to fulfill its mission and realize its vision. They provide clear targets and milestones that guide operational planning and performance evaluation.

Characteristics: Strategic objectives should be SMART.

- **Specific**: Clearly define what needs to be achieved.
- **Measurable**: Include criteria to track progress and measure success.
- **Achievable**: Be realistic and attainable, given resources and constraints.
- **Relevant**: Align with the utility's vision and mission, addressing key areas of focus.
- **Time-Bound**: Have defined timelines for achievement.

Examples:

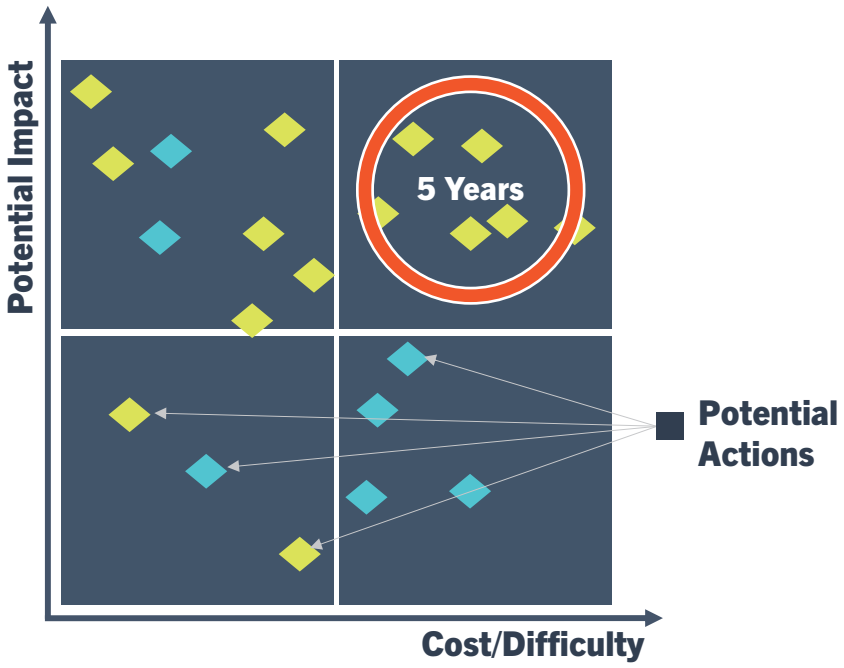
- **Operational Efficiency**: "Reduce water loss by 15 percent over the next five years through the implementation of advanced leak detection technologies and infrastructure upgrades."

- **Customer Service**: "Achieve a customer satisfaction rating of 90 percent or higher within the next three years by enhancing service delivery and response times."
- **Sustainability**: "Increase the proportion of renewable energy used in operations to 50 percent within the next decade to support environmental sustainability goals."
- **Financial Stability**: "Improve financial health by increasing revenue by 10 percent and reducing operational costs by 5 percent over the next five years through strategic investments and cost management practices."

Long-term Priorities

During Ignition Week and throughout the execution of the 100-day action plan, utilities identified specific actions to address the gaps between current performance levels and desired outcomes for each core element and UoF zoom-in lenses. They incorporated some low-cost, low-effort actions into the 100-day plan to begin closing these gaps and catalyzing the transformation process. Long-term priorities, in contrast, are those actions that require extended timeframes, additional resources, and substantial funding to implement (figure 4.11). These priorities are expected to have a significant impact on the utilities' customer service.

FIGURE 4.11 Selection of Long-term Priorities

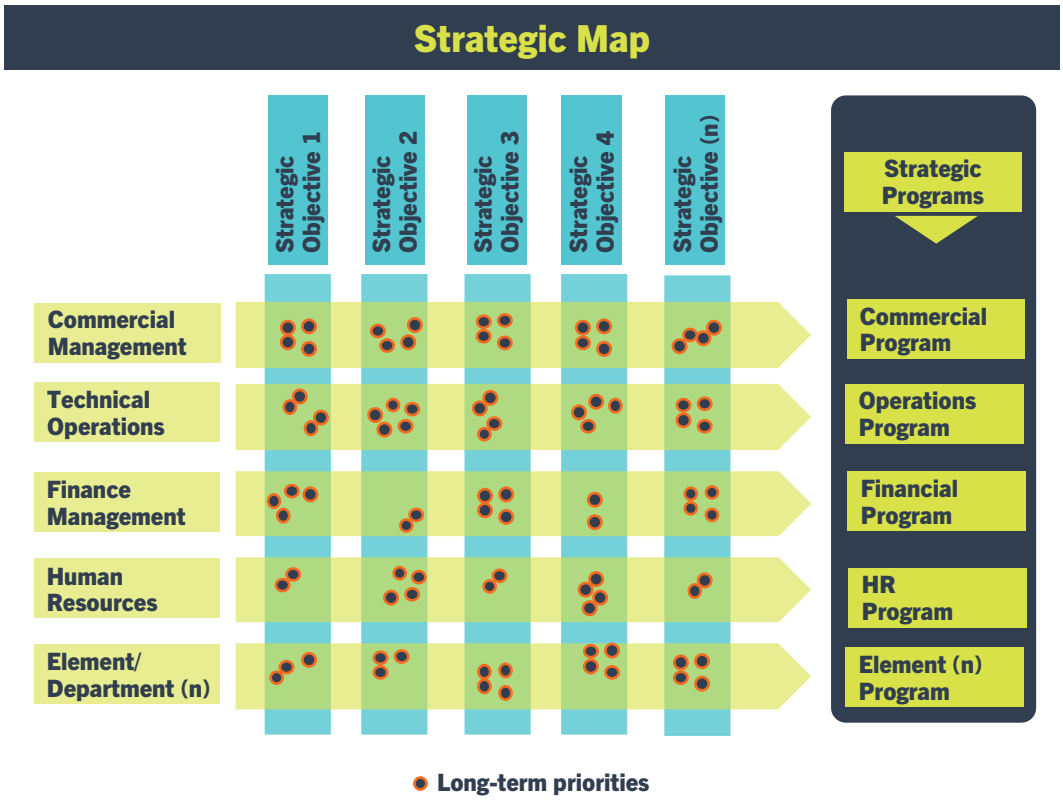


Source: World Bank.

Long-term priorities should be seamlessly integrated into the utility's strategic architecture. Each long-term priority should be thoroughly detailed and explicitly linked to at least one the strategic objectives previously defined. This process involves a comprehensive analysis to confirm that each priority aligns with and supports the established strategic goals. If a long-term priority does not directly contribute to or support any of the strategic objectives, it should be reassessed or removed.

Once the final long-term priorities are selected and described with more detail, the utility can create a comprehensive strategic map (figure 4.12). This map will integrate the defined strategic objectives with the established long-term priorities, serving as a foundational framework for high-level strategic programs. The strategic map provides a clear and structured overview of where to focus efforts and allocate resources over the next five years. It enables the utility to align its resources and actions with its long-term goals, thereby facilitating more effective planning and execution. This exercise is not a business plan in itself but rather serves as a foundational baseline for developing one. The strategic map outlines the key areas of focus and provides a strategic direction, which will then inform creation of a detailed business plan that includes specific operational and financial strategies.

FIGURE 4.12 Strategic Map



Source: World Bank.

BOX 4.1
Rebranding and Identity

As part of the utility's transformation process, the utility's logo, brand, and corporate image ideally would be updated or redesigned to align with the utility's new vision. This strategic action not only reinforces the internal change process but also effectively communicates the improvements and advancements to customers.

Updating the utility's identity can significantly enhance the perception of the utility, signaling a fresh start and a commitment to innovation and excellence. This new identity can be implemented efficiently and cost-effectively across various platforms, such as the utility's website, invoices, and promotional materials. Such a rebranding effort ensures that the utility's renewed focus and strategic direction are clearly conveyed to both internal stakeholders and the broader community.

SPEED | Behavioral Change Insights | Envision the Future

This phase focuses on sustaining the momentum of change and collaboratively developing a new strategic vision, incorporating lessons learned from the 100-day action plan regarding organizational culture, teamwork, and leadership. Staff should feel actively involved in shaping this new vision to foster their sense of ownership and engagement. Given the high turnover rates in top management positions within water utilities—typically with tenures averaging three to four years due to changes in local government—it is imperative to involve personnel from various hierarchical levels in this phase. This approach ensures the preservation of strategic knowledge within the utility and maintains continuity in the transformation process despite leadership changes.

Moreover, it is crucial to analyze key aspects of change management at both the beginning and end of this phase to verify that the expected outcomes are achieved. Table 4.7 outlines these aspects, providing a framework for evaluating progress and ensuring that the transformation efforts remain aligned with the utility's long-term goals.

TABLE 4.7 Key Aspects of Change Management to Consider in Phase 3: Envision the Future

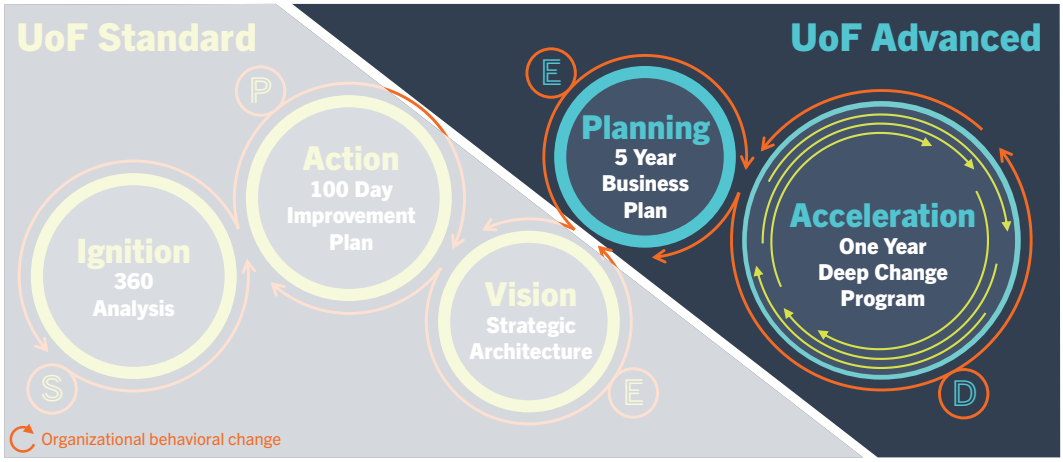
Main objective	Co-create the roadmap to becoming a Utility of the Future.
Expected change in behavior	● Utility staff adopt a long-term vision and a culture of future thinking. ● Enhanced teamwork and collaboration co-create the desired future for the utility. ● Utility staff are aligned with the new vision, mission, and strategic objectives.
Key questions or self-reflections	● How can the mindset of utility staff shift from a sole focus on day-to-day tasks to also engaging with long-term objectives? ● Does the utility have the right team in place to co-create the strategic vision? (Does it, for example, have low staff turnover, natural leaders, high-potential staff?) ● What internal human resource capabilities and knowledge (e.g., strategic planning, financial planning, foresight) need to be strengthened to achieve the new vision? ● How can the utility avoid returning to the state of inertia? (Could it, for example, identify a small set of key performance indicators that alert the utility team to a trend of inefficiency in a specific process?) ● How can the new vision be communicated accurately and clearly to reach all levels of the organization as well as external stakeholders? (Would an annual organizational culture and staff satisfaction survey with questions related to strategy work?)
Key actions	● Create the strategic framework in a participatory manner. ● Create task forces for the definition of each strategic program (commercial, technical operations, finance, human resources, organization, and strategy). ● Communicate the strategic framework (internally and externally). ● Link staff objectives to the utility's strategic objectives. ● Identify strategic partners for the fulfillment of the strategic vision.
Expected output	● The strategic vision is communicated and understood by the entire staff. ● The strategic framework is developed collaboratively. ● Continuous improvement becomes part of the organization's DNA and core values.

4.2 UoF Advanced

The UoF Advanced phase is an optional extension of the program that can be implemented after a comprehensive internal analysis of available resources and organizational capacity. This evaluation helps determine whether the phase will add value to the ongoing process and align

with the utility's long-term goals. The UoF Advanced phase encompasses the more flexible, ongoing efforts needed to fully realize the utility's transformation. The phase is adaptable to each context and can extend beyond one year, depending on its design and implementation specifics. It includes two stages: planning and acceleration (figure 4.13).

FIGURE 4.13 UoF Advanced



Source: World Bank.

4 Planning | Business and Investment Plan

Every water and sanitation utility should develop and regularly review and update a business and investment plan. This plan is instrumental in prioritizing actions, creating coherent annual plans, and aligning utility staff efforts to meet common goals. The UoF program provides guidance to assist utilities in this critical planning process. The business plan is invaluable for translating the utility's strategic vision into actionable steps. It ensures that all activities and investments are aligned with overall objectives, prioritizes essential actions, and helps allocate resources effectively. By doing so, the plan ensures that the most critical projects receive the necessary attention and funding, facilitating the creation of annual plans that add substantial value to the utility's operations.

Alongside the business plan, utility should develop internal capabilities to strengthen the planning process. This work involves establishing robust procedures and policies that provide

a clear framework for decision-making and implementation. Developing a skilled and trained team is fundamental to executing the plan effectively. Monitoring tools are also vital, enabling the utility to track progress, measure outcomes, and make necessary adjustments to stay on course. Ensuring that the utility has the resources to support a world-class planning process is essential. These resources include financial resources, technological infrastructure, and access to relevant data and information.

A comprehensive business and investment plan for a water and sanitation utility includes four main components: (1) a baseline analysis, (2) objectives, (3) a business plan document, and (4) a transformation roadmap and tracking process (figure 4.14). The baseline analysis involves evaluating the utility's current operations, infrastructure, financial health, and service delivery to establish a foundation for planning. Objectives are set by reviewing the utility's vision and mission and strategic goals as developed during the UoF Standard implementation and by identifying performance targets. A business plan translates these objectives into relevant information to disseminate internally to all utility staff and externally to key stakeholders. Finally, the transformation roadmap and tracking process outlines key milestones and timelines, establishes monitoring and evaluation frameworks, and incorporates continuous improvement practices to ensure that the utility remains on course and adapts to evolving needs and challenges.

FIGURE 4.14 Business and Investment Plan Cycle

Source: World Bank.

1. Baseline Analysis

Baseline analysis thoroughly assesses the utility's current state and establishes a foundation for strategic planning. It involves seven steps:

1. **Establish a project team:** Assemble a dedicated project team composed of UoF focal points and key stakeholders. This team will oversee the baseline analysis, coordinate

efforts, and ensure alignment with the UoF framework. The team should include representatives from various departments to provide a comprehensive perspective.

2. **Document past performance:** Review and document the utility's historical performance using insights and data from previous UoF initiatives. This step involves analyzing past performance metrics, project outcomes, and lessons to understand how previous efforts have influenced the current state of the utility.
3. **Review key strengths and weaknesses:** Assess the utility's strengths and weaknesses as identified through UoF evaluations. This step involves reviewing feedback, performance assessments, and reports to identify areas of excellence and areas needing improvement.
4. **Analyze outputs and lessons from the UoF 100-Day Action Plan:** Evaluate the outcomes and insights gained from the 100-day action plan implemented as part of the UoF program. This analysis indicates the immediate impacts of the action plan, including successes, challenges, and areas for further development.
5. **Analyze demographics:** Perform a detailed analysis of the utility's demographics, including the workforce, customer base, and service areas. This step includes examining factors such as population growth, migration, customer needs, and workforce composition to better understand the context in which the utility operates.
6. **Review the enabling environment:** Review existing policies, institutional frameworks, and regulatory requirements that impact the utility's operations. This step ensures that the utility operates within a supportive framework and identifies any necessary adjustments to facilitate effective transformation.
7. **Develop a SWOT analysis:** Conduct a comprehensive SWOT (strengths, weaknesses, opportunities, and threats) analysis of the utility. This step involves identifying internal strengths and weaknesses, as well as external opportunities and threats, to provide a clear understanding of the utility's strategic position and to inform future planning.

2. Strategic Objectives

Setting strategic objectives clearly defines and aligns the utility's long-term goals and performance metrics based on the preliminary exercise developed during implementation of the UoF Standard phase. It involves seven steps:

1. **Refine the mission, vision, and strategic objectives leveraging UoF implementation:** Revisit the utility's mission, vision, and strategic objectives based on insights and

outcomes from UoF implementation. This step ensures that the mission and vision reflect the utility's evolved goals and that the strategic objectives are aligned with the UoF framework.

2. **Define utility-wide key performance indicators (KPIs), adapting UoF KPIs:** Establish utility-wide KPIs that measure progress toward the strategic objectives. Adapt existing UoF KPIs to ensure they align with the utility's refined objectives, providing a clear and measurable way to track performance and success.
3. **Review key long-term priorities identified during UoF implementation:** Reassess the long-term priorities that were identified during UoF implementation. Evaluate their relevance and importance in light of the refined strategic objectives and ensure they remain integral to the utility's long-term vision.
4. **Sign-off on strategic objectives/KPIs:** Obtain formal approval and sign-off on the refined strategic objectives and KPIs from senior management and key stakeholders. This step ensures consensus on and commitment to the objectives and performance measures, facilitating alignment and accountability.
5. **Assign owners for each strategic objective:** Designate responsible individuals or teams for each strategic objective. This step ensures clear accountability structures are in place, with designated parties responsible for driving progress and achieving objectives.
6. **Align on programs/initiatives to achieve objectives, leveraging UoF best practices and long-term priorities:** Identify and align on specific initiatives and actions required to achieve strategic objectives. Leverage best practices and long-term actions detailed during UoF implementation to ensure that the initiatives are grounded in proven methods and align with the utility's overall strategy.

3. Business Plan Document

Developing the business plan document creates a comprehensive and actionable plan for the utility. It involves four steps:

1. **Develop project charters per program/initiative:** For each strategic program/initiative identified, create detailed project charters. Each charter should outline the initiative's objectives, scope, deliverables, timelines, and responsible parties. This step ensures that each initiative is clearly defined and has a structured approach for implementation, including specific goals and metrics for success.

2. **Create a profit and loss (P&L) statement and a capital investment plan:** Develop a comprehensive financial forecast, including a P&L statement and a capital investment plan. The P&L statement should project revenues, costs, and profits over a specified period, providing insight into the financial viability of the programs/initiatives. The capital investment plan should detail anticipated investments in infrastructure, technology, and other capital expenditures required to support strategic initiatives.
3. **Conduct a sensitivity analysis:** Perform a sensitivity analysis to assess how changes in key assumptions, tariff scenarios, and other variables might impact the financial forecast and overall business plan. This analysis helps identify potential risks and uncertainties, providing a range of possible outcomes and allowing the utility to prepare for multiple scenarios.
4. **Compile the Business Plan:** Gather all components into a cohesive business plan document. This integration should ensure that the project charters, financial forecasts, and sensitivity analyses are aligned and presented in a unified format. The final business plan should provide a clear, actionable roadmap that aligns with the strategic objectives and includes implementation, monitoring, and evaluation details.

4. Transformation Roadmap and Tracking Process

Developing the transformation roadmap and tracking process ensures that the utility effectively manages and monitors its progress toward achieving strategic objectives. It involves three steps:

1. **Develop a business plan tracking process and templates (dashboards):** Create a robust tracking process to monitor implementation of the business plan. This step includes developing and utilizing tracking templates and dashboards that provide real-time visibility into progress, performance metrics, and key milestones. These tools should be designed to capture relevant data, track the status of initiatives, and highlight any deviations from the plan. The dashboards should be user-friendly and tailored to the needs of different stakeholders, enabling efficient monitoring and management.
2. **Establish a stand-up tracking team and meeting cadence:** Establish a dedicated tracking team responsible for overseeing the implementation of the business plan and ensuring adherence to the transformation roadmap. This team should be composed of individuals with the expertise to manage and analyze performance data. Implement a regular meeting cadence to review progress, address any issues, and make necessary

adjustments. Meetings should be structured to facilitate effective communication, problem-solving, and decision-making.

3. **Disseminate and communicate the business plan:** Develop and execute a communication strategy for disseminating the business plan both internally and externally. Internally, ensure that all staff members are informed about the business plan, its objectives, and their roles in its implementation. Use various communication channels, such as internal newsletters, meetings, and training sessions, to keep utility staff engaged and informed. Externally, communicate the business plan to stakeholders such as customers, regulators, and partners to ensure transparency and build support for the utility's transformation efforts. Tailor the communication approach to different audiences to effectively convey the plan's relevance and impact.

SPEED | Behavioral Change Insights | Energize Change:

In this phase, the focus transitions to actively developing and implementing the business plan to motivating the entire utility team. This work **involves inspiring staff to contribute meaningfully to the planning process, setting clear and actionable steps, and fostering a collaborative environment aligned**. Key to success are ensuring that staff feel a sense of ownership and responsibility for the plan and enhancing teamwork through cross-departmental collaboration. The leadership team plays a crucial role in maintaining momentum and addressing challenges, supporting the team with resources and guidance. This comprehensive approach ensures that the business plan is effectively developed and supported, with all team members aligned in achieving the utility's strategic objectives.

TABLE 4.8 Key Aspects of Change Management to Consider in Phase 4: Energize Change

Main objective	Develop a comprehensive business plan that effectively translates the utility's strategic vision into actionable and financially viable initiatives, while fostering a collaborative environment and securing broad staff engagement in the planning process.
Expected change in behavior	● Shift the mindset from day-to-day tasks to long-term vision. ● A strong sense of discipline emerges, turning ideas into actionable steps. ● Staff recognize their role as integral to the larger organization.

(*continues on next page*)

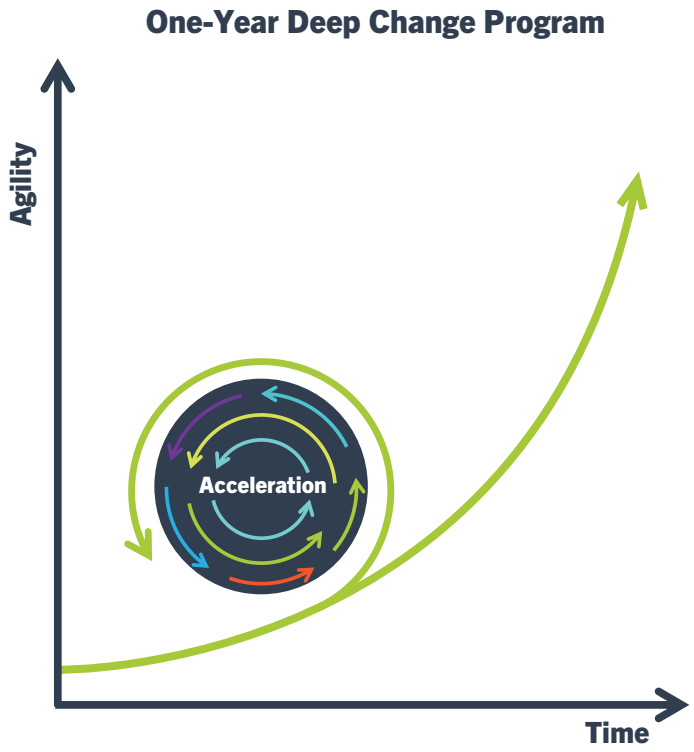
TABLE 4.8 Key Aspects of Change Management to Consider in Phase 4: Energize Change (*Continued*)

Key questions or self-reflections	● How can the leadership team ensure that staff are actively involved in the business plan development process? (For example, would cross-functional workshops, brainstorming sessions, and feedback loops work for this purpose?) ● What strategies can be employed to integrate diverse perspectives and expertise from across the organization into the business plan? (Would forming focus groups, conducting surveys, or organizing collaborative meetings work?) ● How will the leadership team communicate the importance of the business plan and its impact on the utility's future to all staff? (Would, for example, transparent updates, town hall meetings, and detailed briefings work?) ● How can the leadership team recognize and address resistance or concerns from staff regarding the business plan? (Could it provide additional support, address concerns in a timely manner, and involve resistant staff in solution development?)
Key actions	● Facilitate collaborative planning workshops: Organize workshops and meetings that bring together staff from various departments to contribute to the development of the business plan, ensuring diverse input and fostering a sense of collective ownership. ● Implement feedback mechanisms: Create channels, such as suggestion boxes, surveys, and review sessions, for staff to provide feedback on the business plan and to ensure that their input is considered and incorporated. ● Communicate progress and rationales: Maintain ongoing communication about the development process, progress, and rationales for key decisions. Use multiple channels such as internal newsletters, email updates, and interactive forums to keep everyone informed. ● Recognize and address concerns: Identify and address any resistance or concerns from staff by providing clear explanations, additional training, or support as needed. Involve resistant staff in resolving issues to build trust and engagement.
Expected outputs	● A collaborative and comprehensive business plan reflecting a broad range of perspectives and expertise and effectively addressing the utility's strategic goals is finalized. ● Staff members who are actively engaged in the planning process demonstrate a higher level of ownership and accountability for the business plan's success. ● Improved communication within the utility regarding the business plan leads to greater understanding and alignment across the organization. ● Recognition of staff who have shown exceptional engagement and leadership potential during the business plan development process contribute to the utility's future leadership pipeline.

5 Acceleration | One-Year Deep Change Program

The primary objective of the One-Year Deep Change Program is to **accelerate the transformation process** by enhancing internal capabilities, removing barriers to change, and prioritizing essential structural elements. By strengthening the utility's core competencies—including skills, knowledge, systems, and resources—the program prepares the utility to effectively navigate evolving sector conditions. It should enable the utility to respond more swiftly and effectively to emerging challenges and opportunities through optimized processes, strategic restructuring, talent development, technological advancements, and continuous monitoring (figure 4.15).

FIGURE 4.15 Deep Change Representation



Source: World Bank.

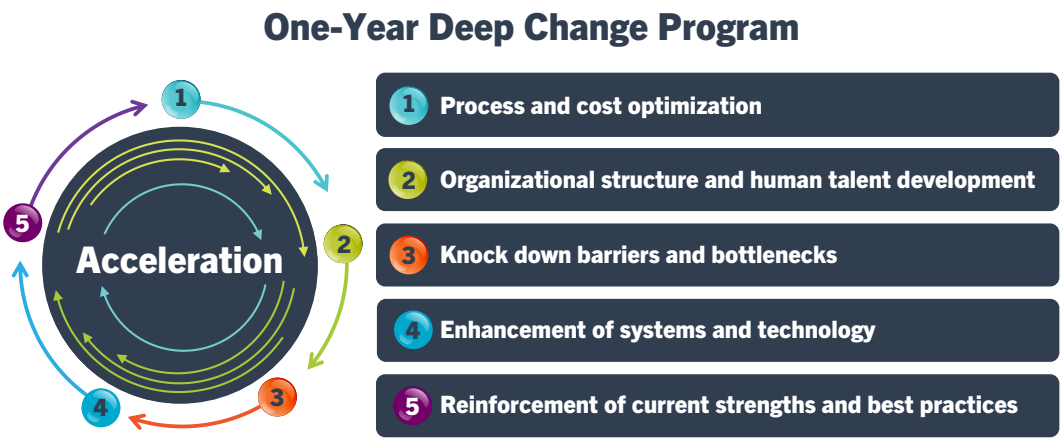
The **One-Year Deep Change Program is not a one-size-fits-all solution. It** should be tailored to meet the specific needs, priorities, and challenges of each utility. The program should consider factors such as the utility's current capacities, available staff, and internal and external resources. The program should be designed to achieve substantial change while maintaining

operational continuity and preserving daily business activities.

Although each One-Year Deep Change Program is customized to address specific needs, utilities may consider incorporating one or more of the following key elements (table 4.9):

1. **Process and cost optimization:** Streamlining operational processes and improving cost efficiency while establishing a disciplined organizational structure to enhance overall effectiveness.
2. **Organizational structure and human talent development:** Redesigning the organizational structure and investing in the development of human capital to build a robust team capable of driving and sustaining change.
3. **Dismantling of barriers and bottlenecks:** Identifying and addressing impedements to progress and creating a smoother workflow by eliminating operational bottlenecks.
4. **Enhancement of systems and technology:** Upgrading systems and technologies to achieve efficiency and effectiveness, thereby improving operational performance and agility.
5. **Reinforcement of current strengths and best practices:** Building on existing strengths and implementing best practices to ensure that successful elements are leveraged and sustained throughout the transformation process.

TABLE 4.9 Elements of the Deep Change Program



Source: World Bank.

To design the One-Year Deep Change Program, utilities should consider the following components:

- **Scope and outcomes:** Clearly define the program's objectives, deliverables, and boundaries to ensure a focused approach.
- **Timeline:** Establish a detailed schedule with milestones and deadlines for each phase of the program.
- **Stakeholders:** Identify and define the roles of key stakeholders, both internal and external, to ensure effective collaboration.
- **Risk assessment:** Conduct a comprehensive quick risk analysis to identify potential challenges and develop mitigation strategies.
- **Quality management**: Define quality standards and processes to ensure that deliverables meet established criteria.
- **Communication plan:** Develop a strategy for ongoing communication to keep all stakeholders informed and engaged throughout the program.
- **Follow-up and evaluation:** Implement mechanisms for tracking progress, evaluating outcomes, and making necessary adjustments.

Finally, the One-Year Deep Change Program should clearly define the resources necessary for its implementation:

- **Approximate budget**: Estimate the total required budget, including personnel costs, training expenses, and external support.
- **Internal capacities**: Assess available internal resources such as staff, technology, and existing processes.
- **Funding options**: Explore and secure potential funding sources to support the program.
- **Utility focal point**: Assign a dedicated individual within the utility to oversee program planning, coordination, and execution.
- **Utility team**: Designate a dedicated team with clear roles and responsibilities.
- **External support**: Engage external organizations or consultants for additional expertise and support.

The One-Year Deep Change Program represents a strategic opportunity to **focus on profound transformation rather than incremental adjustments**. It aims to integrate key activities that drive deep, systemic change within the utility, emphasizing the incorporation of continuous improvement, learning, and team building into the organization's core values and culture. The program encourages the utility to undertake initiatives that challenge existing norms and foster a culture of innovation and resilience. It targets improvements in process optimization,

cost efficiency, and comprehensive staff development and aims to embed these improvements into the utility's everyday practices. It seeks to create an environment that encourages continuous learning and fosters and collaboration to achieve strategic goals.

The One-Year Deep Change Program is designed not only to address immediate needs but also to cultivate a sustainable culture of excellence, ensuring that the utility is well-positioned for long-term success and capable of handling future challenges.

SPEED | Behavioral Change Insights | Dynamize Actions

In this phase, the focus transitions to implementing a customized one-year program aimed at driving utility transformation. The program is designed to remove barriers to change by **encouraging utility staff to engage in self-reflection, identifying their own obstacles to improvement and recognizing how they can actively contribute to the transformation process**. With this internal awareness, employees become key drivers of change rather than passive participants. Additionally, the program emphasizes the importance of identifying and leveraging synergies across all departments. This collaborative approach enhances cross-functional cooperation, enabling the utility to generate greater value and maximize the impact of transformation efforts. By breaking down silos and encouraging teamwork, the utility can create a more cohesive and aligned organization, ultimately leading to more sustainable outcomes.

TABLE 4.10 Key Aspects of Change Management to Consider in Phase 5: Dynamize Actions

Main objective	Cultivate a motivated and engaged team that actively participates in and drives the one-year transformation program, fostering widespread involvement and commitment to change.
Expected change in behavior	● The utility recognizes the critical importance of change management in driving successful transformation. ● The utility breaks down silos, encouraging collaboration and teamwork across all departments. ● A vision aligns staff efforts with the utility's long-term goals.
Key questions or self-reflections	● How can leadership sustain momentum and enthusiasm throughout the year? (Could it implement regular check-ins, recognition programs, and transparent communication?) ● What strategies can engage and motivate those resistant to change? (Could they be assigned in meaningful tasks or involved in cross-functional teams?) ● How can leadership effectively involve more staff in the transformation process? (Could they establish inclusive workshops, suggestion platforms, and feedback mechanisms?) ● In what ways (e.g., periodic updates, internal newsletters) will lessons be communicated and leveraged?
Key actions	● Hold frequent meetings to keep the team motivated and informed and recognize achievements. ● Keep all stakeholders updated on the program's progress and successes, ensuring transparency and engagement. ● Identify and address any obstacles or slowdowns by adjusting plans and reallocating resources as needed.
Expected outputs	● Teams take pride in their accomplishments and contributions to the transformation. ● They are committed to advancing the utility's goals, with leadership acknowledging their efforts. ● New leaders and high-potential staff are identified and recognized, contributing to the utility's future success.

5

Conclusions

The path to becoming a Utility of the Future is both challenging and rewarding. As the global water and sanitation sector continues to grapple with significant access and service delivery issues, the UoF program offers a viable framework for utilities to enhance their operations and service standards. By adhering to the UoF methodology, utilities can navigate the complexities of their environments, implement effective changes, and achieve sustainable improvements.

The UoF program's structured approach, encompassing the UoF Standard and UoF Advanced phases, provides utilities with the tools and processes necessary for a successful transformation. The program's methodology is both comprehensive and adaptable. Integration of the SPEED dimension further emphasizes the importance of engaging and empowering staff, which is crucial for the long-term success of transformation efforts.

The journey to becoming a Utility of the Future is not only about overcoming current challenges but also about seizing opportunities for innovation and excellence. The comprehensive nature of the UoF program ensures that utilities are equipped to meet the demands of today and tomorrow, contributing significantly to the overarching goal of ensuring sustainable water and sanitation management for all. By embracing the UoF methodology and continuously striving for improvement, utilities can play a pivotal role in advancing global water and sanitation goals, ultimately leading to increased health, environmental sustainability, and quality of life for communities worldwide.

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Appendices

Appendix A. Components of a World Class Water Sector

POLICY	
Legal and Policy Framework	The legal and policy framework for water management establishes comprehensive guidelines and regulations that ensure clarity, enforceability, and adaptability to local contexts. It integrates robust stakeholder engagement, ensuring broad participation from governmental bodies, communities, industries, and the private sector to foster inclusive decision-making. Transparent governance, public awareness campaigns, and alignment with international standards further enhance effectiveness, promoting long-term water security, ecosystem health, and equitable access to safe water for all.
Decision-Making Processes	Decision-making processes for the water sector prioritize transparency, accountability, and inclusivity. These processes rely on robust, evidence-based approaches, incorporating scientific data and stakeholder input to inform adaptive and flexible policies. Legal clarity ensures compliance with established regulations, while strategic planning integrates long-term goals for sustainability and resilience. Effective conflict resolution mechanisms and continuous monitoring and evaluation further enhance governance effectiveness, ensuring decisions are timely, informed, and aligned with societal and environmental needs.
SECTOR INSTITUTIONS	
Institutional Capacities	Institutions in the sector have robust internal capabilities and internal processes and adequate personnel. They continuously invest in training, resources, and technology to enhance effectiveness. They have the expertise and resources necessary to implement innovative solutions, address complex water issues, and meet emerging challenges.

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Clear Institutional Roles and Responsibilities	Clear institutional roles and responsibilities minimize overlap and ensure efficient coordination among agencies involved in water supply, sanitation, and resource management. They foster accountability, enhance decision-making processes, and promote effective implementation of policies and programs.
INTERGOVERNMENTAL RELATIONS	
Intergovernmental Coordination	Effective coordination of local, regional, and national governments allows for harmonizing policies, sharing resources, and addressing water challenges comprehensively. Collaboration facilitates cohesive policy implementation, optimizes infrastructure development, and enhances responses to water-related crises. It involves establishing cohesive policy frameworks, communication channels, and shared decision-making processes to optimize resource allocation, mitigate jurisdictional conflicts, and address water challenges across administrative boundaries.
Alignment of Long-Term Goals	Aligning long-term goals across governmental levels and stakeholders promotes consistency in water management strategies, investment priorities, and environmental stewardship. It ensures sustainable development, resilience to climate change impacts, and equitable access to water resources for future generations. Alignment ensures consistency in policy implementation, resource allocation, and investment priorities, promoting resilience, sustainability, and equitable access to water resources over time.
FINANCING	
Sustainable Financing Mechanisms	Financing mechanisms diversify funding sources, incorporate innovative financing models, and ensure transparency and accountability in financial management. They secure adequate resources for infrastructure development, maintenance, and service delivery while promoting long-term financial stability and resilience to economic fluctuations.
Effective Tariff Structures	Tariff structures strike a balance between affordability for users and revenue sufficiency for operational maintenance and infrastructure investments. These structures are based on accurate cost assessments, socioeconomic considerations, and transparent governance processes, ensuring fairness, public acceptance, and sustainable financial viability of water services. Transparent tariff-setting processes help generate revenue for operations, maintenance, and infrastructure upgrades while protecting vulnerable populations.
REGULATION	
Clear Regulatory Standards	Clear regulatory standards establish and enforce rigorous guidelines for water quality, service reliability, and environmental protection. These standards are supported by robust monitoring, compliance mechanisms, and swift enforcement actions to safeguard public health, ensure service consistency, and maintain ecological integrity.
Monitoring and Compliance Mechanisms	Monitoring and compliance mechanisms involve real-time data collection, regular assessments, and transparent reporting to track adherence to regulatory standards and operational performance in the water sector. These mechanisms enable proactive management, timely corrective actions, and public accountability, ensuring effective governance and continuous improvement in water service delivery.

Appendix B. Customer Service

Component	Description	1	2	3	4	5
RELIABLITY						
Continuity (hours per day on average)	Average number of hours per day that water or sanitation services are available. It reflects the consistency of service delivery and helps assess the reliability of the utility's infrastructure and operations. Higher values indicate a more consistent service supply.	<8	≥8–15	>15–20	>20–24	24
Continuity (customers with 24/7 supply) (%)	Percentage of customers who receive water or sanitation services continuously, 24 hours a day, seven days a week. It highlights the extent of uninterrupted service provision and can signal the reliability of the utility's infrastructure.	<5	≥5–25	>25–60	>60–<100	100
Availability (l/pc/day)	Average daily volume of water provided to each connection. It indicates how well the utility meets the demand for water and the adequacy of the supply to fulfill customer needs.	<30	≥30–50	>50–120	>120–240	>240

(*continues on next page*)

Component	Description	1	2	3	4	5
Availability of FSM emptying services (provided 24 hours after service requested) (%)	Percentage of requests for fecal sludge management emptying services that are fulfilled within 24 hours of request. It reflects the responsiveness and efficiency of sanitation services in meeting urgent customer needs.	<30	≥30–50	≥50–75	>75–90	>90–<100
SAFETY						
Water quality (samples meeting all WHO guidelines for drinking water quality) (%)	Percentage of water samples that comply with all World Health Organization guidelines for drinking water quality. It provides insight into the safety and health standards of the water supply.	<50	≥50–85	>85–95	>95–97	>97–<100
Wastewater and fecal sludge treatment (%)	Percentage of wastewater and fecal sludge that undergoes treatment before disposal or reuse. It is critical for ensuring environmental protection and public health by minimizing the impact of untreated waste.	<30	≥30–50	≥50–75	>75–90	>90–<100
INCLUSIVENESS						
Drinking water coverage (%)	Percentage of the population with access to improved and reliable drinking water sources. It highlights the extent to which the utility serves the community and meets basic water needs.	<50	≥50–75	>75–85	>85–95	>95–<100

(*continues on next page*)

Component	Description	1	2	3	4	5
Sanitation service coverage (%)	Percentage of the population with access to improved and reliable sanitation services. It reflects the utility's effectiveness in providing essential sanitation facilities and services to the community.	<10	≥10–20	≥20–50	>50–80	>80–<100
TRANSPARENCY*						
Key information disclosure (%)	Percentage of key information about utility operations, such as performance data and service standards, that is disclosed to the public. It measures the transparency of the utility and its commitment to keeping stakeholders informed.	<20	>20–40	>40–60	>60–80	>80
Application of practices to generate clear information (%)	Percentage of practices implemented by the utility to ensure that information provided to stakeholders is clear and understandable. It assesses the effectiveness of the utility in communicating information transparently.	<20	>20–40	>40–60	>60–80	>80
Application of practices for ensuring accurate information (%)	Percentage of practices adopted to ensure the accuracy of information provided by the utility. It reflects the utility's efforts to maintain high standards of data integrity and reliability.	<20	>20–40	>40–60	>60–80	>80

(*continues on next page*)

Component	Description	1	2	3	4	5
RESPONSIVENESS						
Customers satisfied with service (based on assessment in the past two years) (%)	Percentage of customers who express satisfaction with the utility's services, based on assessments or surveys conducted over the past two years. It reflects the utility's performance in meeting customer expectations.	<20	>20–40	≥40–55	>55–70	>70–90
Grievances satisfactorily resolved within seven days (%)	Percentage of customer grievances that are resolved satisfactorily within seven days. It highlights the efficiency and effectiveness of the utility's complaint resolution processes.	<20	<25	≥25–50	>50–70	>70–<100
Percentage of sewer blockage complaints addressed within 48 hours (%)	Percentage of sewer blockage complaints that are addressed within 48 hours. It indicates the responsiveness of the utility in managing and resolving sewer-related issues promptly.	<10	≥10–25	≥50–75	>75–90	>90–<100

Appendix C. Performance Level Assessment

Element	Description	1	2	3	4	5
COMMERCIAL OPERATIONS						
Collection rate (%)	Percentage of billed revenue that a utility successfully collects from its customers within a specified period.	<60	≥60–70	>70–90	>90–95	>95
Metering rate (customers metered) (%)	Percentage of customers whose water consumption is measured by meters. It reflects the extent to which a utility has installed meters to accurately monitor and bill water use.	<25	≥25–60	>60–85	>85–95	>95
Service complaints resolved	Percentage of customer service complaints that are resolved within a specific timeframe. It indicates the effectiveness of the utility in addressing and resolving issues reported by customers.	<60	≥60–80	>80–90	>90–95	>95
TECHNICAL OPERATIONS						
NRW (liters/ connection per hour when the system is pressurized)	Nonrevenue water (liters/connection per hour when the system is pressurized) NRW refers to the amount of water produced but not billed to customers due to leaks, theft, or other losses. This metric measures the volume of NRW per connection per hour when the system is under pressure.	>50	>25–50	>12–25	>6–12	≤3–6

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Element	Description	1	2	3	4	5
Nonrevenue water (%)	Nonrevenue water percentage represents the proportion of water produced by a utility that is not billed to customers due to losses or unauthorized use.	>40	>20–30	>10–20	>5–10	≤5
Sewer blockages (blockages/100km)	Frequency of sewer blockages per 100 kilometers of sewerage infrastructure. It reflects the efficiency of sewer system maintenance and management.	>30	>20–30	>10–20	>5–10	≤5
FINANCIAL MANAGEMENT						
EBITDA margin (%)	EBITDA margin represents the proportion of a utility's earnings before interest, taxes, depreciation, and amortization relative to its total revenue. It indicates the utility's operational profitability.	<0	>0–5%	≥5–19	>19–30	>30
Operation cost coverage (%)	Percentage of operational costs covered by the utility's revenue. It indicates the utility's ability to finance its operating expenses through its income.	<60	≥60–80	>80–90	>90–100	>100
HUMAN RESOURCE MANAGEMENT						
Staff per 1,000 connections	Number of utility staff per 1,000 customer connections. It provides insight into the staffing levels relative to the number of connections and can indicate operational efficiency.	>10	>6–10	>5–6	>3–5	≤3

(*continues on next page*)

Element	Description	1	2	3	4	5
Employee turnover rate	Employee turnover rate measures the rate at which employees leave the utility and are replaced over a specified period.	>10	>7–10	>5–7	>3–5	≤3
HR costs as % of total operating costs	Proportion of total operating costs that are attributed to human resources expenses. It provides insight into the cost of managing the workforce relative to overall operational expenditures.	<20	≥20–40	>40–60	>60–80	>80
ORGANIZATION AND STRATEGY						
Adherence to planning schedule	Extent to which the utility adheres to its planned schedules for project implementation and other operational activities. It indicates the utility's ability to meet deadlines and manage projects efficiently.	<30	>30–50	>50–70	>70–900	≥90
Adherence to budget	Extent to which the utility adheres to its allocated budget for various activities and projects. It reflects the accuracy of financial planning and control.	<30	>30–50	>50–70	>70–900	≥90

Appendix D. Useful Resources and Tools

The following resources and tools informed the World Bank Water Global Practice's development of the UoF program and UoF Toolkit.

Enabling Environment and Finance

1. High-Level Panel on Water Financing: Easing the Transition to Commercial Finance for Sustainable Water and Sanitation
2. Ministers of Finance Meeting Summarizing Recommendations: Financing Options for the 2030 Water Agenda
3. Official Development Assistance in Water: Aid Flows to the Water Sector
4. Financial Inclusion: Fintech for the Water Sector: Advancing Financial Inclusion for More Equitable Access to Water
5. Working Paper on Accessing Financial Resources for Climate Adaptation in Transboundary River Basins: Financing Climate Change Adaptation in Transboundary Basins: Preparing Bankable Projects
6. Working Paper on Capital Subsidies: Capital Subsidies Implicit in Concessional Finance
7. Urban Water Synthesis: Reform and Finance for the Urban Water Supply and Sanitation Sector
8. Blended Finance: Achieving Universal Access to Water and Sanitation by 2030: The Role of Blended Finance
9. Policies, Institutions, and Regulations: Aligning Institutions and Incentives for Sustainable Water Supply and Sanitation Services
10. Discussion Paper on Regulation: Regulation of Water Supply and Sanitation in Bank Client Countries: A Fresh Look
11. Utility Turnaround: Water Utility Turnaround Framework
12. Subsides: Doing More with Less: Smarter Subsidies for Water Supply and Sanitation
13. Capital Expenditure Efficiency: Better Use of Capital to Deliver Sustainable Water Supply and Sanitation Services: Practical Examples and Suggested Next Steps
14. Public-Private Partnerships in the Water Sector: Delivering Universal and Sustainable Water Services: Partnering with the Private Sector
15. Commercial Finance: Introducing Commercial Finance into the Water Sector in Developing Countries
16. Foundational Maximizing Finance for Development (MFD)(joint publication with IRC and Water.Org): Mobilizing Finance for WASH: Getting the Foundation Right

17. Blended Finance:
    a. Facilitating Access to Finance for Household Investment in Sanitation in Bangladesh
    b. Facilitated Access to Finance for Domestic Private Water Operators in Cambodia
    c. Institutional Blending via Second-Tier Lender FINDETER in Colombia
    d. Scaling Up Blended Financing for Water and Sanitation in Kenya
    e. Pooled Municipal Bond Issuance in Tamil Nadu (India)
    f. Blended Financing for the Expansion of the As-Samra Wastewater Treatment Plant in Jordan
    g. Municipal Bond Issue by the Municipality of Tlalnepantla de Baz (Mexico)
    h. Water Revolving Fund in the Philippines
    i. Municipal Project Finance in the Municipality of Rustenburg (South Africa)
10. Change Management Toolkit: Tips, Tools, and Techniques for Leading a Successful Change Initiative—University of California–Berkeley: https://hr.berkeley.edu/sites/default/files/change_management_toolkit.pdf.

Energy Efficiency

11. Energy Efficiency Guidance Note: Mainstreaming Energy Efficiency Investments in Urban Water and Wastewater Utilities
12. Energy Management for Water Utilities in Latin America and the Caribbean—Case Studies
13. Exploring Energy Efficiency and Energy Recovery Potential in Wastewater Treatment Plants
14. Primer on Energy Efficiency for Municipal Water and Wastewater Utilities

Resilience

15. Building Resilience of WSS Utilities to Climate Change and Other Threats: A Roadmap
16. Resilient Water Infrastructure Design Brief
17. Efficient and Effective Management of Water Resource Recovery Facilities
18. From Wastewater to Resource
19. Wastewater to Resource Initiative—Case Studies

Inclusion

20. Women in Water Utilities: Breaking Barriers.

For other relevant Water Global Practice publications, please visit Knowledge Highlights from the Water Global Practice and GWSP 2016–2023.

Appendix E. Glossary

Accounts receivable (days): The average number of days that a customer invoice is outstanding before it is collected. This is accounts receivable (net of provisions for doubtful accounts) divided by revenues and then multiplied by 365. This indicator allows an organization to evaluate the effectiveness of its credit and collection efforts.

Action planning process: A 15-step approach to translate the results of the Utilities of the Future diagnostic assessment into a prioritized and sequenced action plan.

Area: Used in the maturity assessment of the five elements of water utility management, an area is a broad category under which specific topics are covered. Examples include metering, billing, and collection (commercial operations); expansion and rehabilitation planning, asset management, and water treatment and quality (technical operations); budgeting, cash flow management, and accounting and financial reporting (financial management); human resource management and development, recruitment, and compensation (human resource management); and organizational direction, strategic and business planning, and monitoring and reporting (organization and strategy).

Collection rate: The percentage of the total amount billed that is actually collected. It is calculated as cash collected divided by revenues.

Commercial losses (or apparent losses): These losses include all types of inaccuracies associated with customer metering as well as data handling errors (meter reading and billing), plus unauthorized consumption (theft or illegal use).

Commercial operations: One of the key water utility management areas, it deals with cost recovery and customer engagement in the utility (including metering, billing, collections, and customer records).

Connections: The fixtures, joints, and pipes connecting the main to the measurement point or the customer curb stop, or where several registered customers share a physical hookup.

Continuity: A period of uninterrupted water distribution to customers divided by the maximum possible period (24 hours per day, 365 or 366 days per year).

Coverage: The population with access to water services (either with a direct service connection or within reach of a public water point) as a percentage of the total population under the utility's service responsibility.

Customer: An individual or organization that is an authorized recipient of water services from the utility.

Earnings before interest, tax, depreciation, and amortization (EBITDA): A measure of an organization's operating performance, evaluated without factoring in financing decisions, accounting decisions, or tax environments. EBITDA is calculated by adding back the noncash expenses of depreciation and amortization to an organization's operating income.

Economic level of nonrevenue water (NRW): The level of water losses that results from a policy under which the marginal cost of each individual activity for managing losses can be shown to be equal to the marginal value of water in the supply zone

Element: A pillar of sound management and performance for water supply and sanitation (WSS) utilities.

Enabling environment: Characterized by the legal and governance framework, the enabling environment affects what actions the utility can take and when. It is important to know the current state of a utility's enabling environment to better understand binding constraints preventing the utility from taking action. Indicators of the quality of the enabling environment are measured against the system for setting service standards, the system for setting tariffs, institutional setup, financing, and autonomy and accountability.

Financial management: The process of establishing procedures and mechanisms to ensure that the utility is financially sustainable. A financially sustainable utility covers its reasonable costs with a relatively predictable income stream, primarily derived from tariffs charged to its customers. It uses that income stream efficiently by controlling expenses and managing cash flow.

Greenhouse gas (GHG): A gas that absorbs and emits radiant energy within the thermal infrared range, causing the greenhouse effect.

Human resource management: The process of developing and managing human resources effectively. This process entails, for example, developing and implementing a staffing plan that

is consistent with the utility's multiyear strategy and that incorporates staff evaluations and training as they relate to performance management.

Inclusion: "The process of improving the ability, opportunity, and dignity of people, disadvantaged on the basis of their identity, to take part in society" (World Bank 2013); and "leveraging the utility's assets and operations to benefit the larger community, lessen negative impacts from utility activities, and provide service equitably across the service area, particularly for traditionally underserved neighborhoods" (AWWA 2019).

Innovation: "A change made in the nature or fashion of anything; something newly introduced; a novel practice, method, and so on" (OED Online n.d.).

Market and customer orientation: The utility operates like a firm in a competitive market, prioritizing efficiency and customers' wants and needs, and treating its customers as if they could change their service provider if unsatisfied.

Maturity: The state of a water utility ranging from 1 (elementary) to 5 (world class). Measured by qualitative indicators in each of the five elements of utility management (commercial operations, technical operations, financial management, human resource management, and organization and strategy).

Nonrevenue water (NRW): The difference between the volume of system input and billed authorized consumption. NRW includes not only real and apparent losses (that is, physical and commercial water losses), but also unbilled authorized consumption.

Organization and strategy: An overview that accurately diagnoses the utility's financial, operational, and commercial situation. A well-developed organization and strategy provide the most accurate picture possible for setting yearly targets and overall objectives for the utility. As the utility improves its performance, the information it has available will increase and become more precise. A utility should define a multiyear plan on the basis of the current situation and desired performance. The plan should clearly define multiyear targets, the actions required to meet those targets, and the resources needed to finance actions.

Performance: Measured by quantitative indicators in each of the five elements of utility management (commercial operations, technical operations, financial management, human resource management, and organization and strategy).

Physical losses (or real losses): Actual water losses from the system and the utility's storage tanks, up to the point of customer use. In metered systems, this point is the customer meter. In unmetered situations, it is the first point of use (tap) within the property.

Reliable: 24/7 continuous water supply.

Resilience: "The capacity of any entity—an individual, a community, an organization, or a natural system—to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience" (Rodin 2014).

Responsive: Dedicating personnel to customer engagement and prioritizing customer satisfaction.

Safe: Adhering to quality standards.

SDG 6: Sustainable Development Goal for water—"to ensure availability and sustainable management of water and sanitation for all" (United Nations n.d.[b]).

Service: Measured by reliability, safety, inclusivity, transparency, and responsiveness.

Smart water utility: A utility that adopts innovative approaches and technologies to (1) create a resilient water supply, (2) provide effective wastewater management, and (3) build a responsive utility. This concept includes the principles of resilience, financial and operational efficiency, energy and water efficiency, inclusion, circular economy, innovation, and good governance. Maturity depends on a list of qualitative practices (such as what type of accounting system is used to prepare financial statements and how assets are managed). The legal framework and governance, which represent the enabling environment, are at the bottom of the pyramid because they shape the utility's governing environment.

Subsidies: A subset of funding flows among governments, service providers, and customers. Subsidies occur when a user/customer pays less for a product or service than the service provider's cost, leaving a third party (for example, government, other users, future generations) responsible for covering the difference.

Tariff: The price or prices a water provider charges its customers for water services.

Technical operations: One of the five elements of water utility management, involving areas related to infrastructure and tangible components of the water supply process. These areas include expansion and rehabilitation planning, asset management, water treatment and quality, distribution and nonrevenue water, wastewater and fecal sludge management, energy efficiency, and circular economy.

Topic: One maturity matrix per element, which is divided into areas (such as billing) and topics (such as billing frequency). Each topic corresponds to one row in the matrix and includes one or more practices per level. The utility's maturity level for each topic is determined by the practice that best matches the utility's current state. Each topic also includes practices that are characteristic of a Utility of the Future. These practices are categorized on the basis of four dimensions: innovation, inclusion, market and customer orientation, and resilience. Not all dimensions apply to all topics.

Transparent: Auditing and publishing operational data.

Utility of the Future (UoF) framework: Provides a step-by-step approach to initiating and maintaining reform efforts that set a utility on a path to becoming a Utility of the Future.

Utility of the Future: A future-focused utility that provides reliable, safe, inclusive, transparent, and responsive WSS services through best-fit practices that allow it to operate in an efficient, resilient, and sustainable manner.

Utility Turnaround Framework (UTF): This framework offers guidance for turning around poorly performing WSS utilities and identifies five critical elements of sound management and performance: technical operations, commercial operations, human resource management, organization and strategy, and financial management.

Utility: A formal provider of water or sanitation services through a network.

Water balance: A top-down audit of physical (real) losses of the whole system, starting with the total system input. A well-established water balance requires estimates of water volumes to be made at each measurement point applicable to the system being evaluated. Where actual measurements are available, these data should be used. In the absence of meters, a best estimate based on other, related available data and sound judgment may be required. A water balance

is normally computed over a 12-month period and, thus, represents the annual average of all components.

Water losses: The difference between system input and authorized consumption. Water losses can refer to the total volume for the whole system, for partial systems (such as transmission or distribution schemes), or for individual zones. Water losses consist of physical and commercial losses.

Water services: Services involving the supply of water to people and organizations, the removal of wastewater from their premises, and the drainage of water from areas where it is not wanted.

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