



services



case study

#2 – Aguas de Santiago

(ISO 24510, Activities relating to drinking water and wastewater services)

ISO Strategy
for Services
Case study
2





Introduction

The ISO strategy for service standardization

Trade in services is expanding at a faster rate than trade in goods. Based on this observation, ISO anticipates that market demand for service standards will steadily increase and we want to make sure that the organization and its members will have the necessary tools and knowledge to respond to this demand, and to the challenges and opportunities it brings. This is why ISO adopted, in February 2016, the *ISO strategy for service standardization*. Our mission? Raising ISO's profile as a provider of service standards while continuing to respond to market expectations and helping our members to do the same.

For those not familiar with ISO, we are a membership-based network of national standards bodies that come together to develop International Standards ensuring products, processes and services are fit for purpose. ISO standards provide practical tools for tackling many of today's global challenges, bringing tangible benefits to business, society and the environment. ISO has already published more than 700 standards related to services in various sectors, including finance, business, brand valuation, customer contact centres, outsourcing, assessment services, IT services, marketing, network billing and many more.

ISO defines a “service” as the “result of at least one activity, necessarily performed at the interface between the supplier and customer, that is generally intangible”¹⁾. However, the concepts of “services” and “service standards” are broad, and many different definitions and classifications exist. Some standards purely support the provision of a service. Others may support the infrastructure (e.g. IT or financial) necessary for the provision of a service. And then we have horizontal standards such as management system standards that can be applied to the provision of a service, but also much more broadly.

Rather than concentrate on questions of definition or classification, ISO has chosen to develop case studies to illustrate the use of these different kinds of service standards and to give real-life examples of how standards are being implemented in different industries, citing tangible results in terms of service delivery and consumer satisfaction. By looking at success stories of how standards are opening up new areas of business and improving quality and consumer trust, this case study will try to understand where standards are being implemented, how they work, and why the benefits more than outweigh the investment.

Note: This case study is part of a series, which includes ISO/TS 13131, *Telehealth services*, ISO 24510, *Activities relating to drinking water and wastewater services*, ISO 17680, *Thalassotherapy*, ISO 20121, *Event sustainability management systems*, and ISO 20022, *Universal financial industry message scheme*.

More information on ISO’s strategy for service standardization and ongoing work can be found at www.iso.org.

1) Definition from ISO/IEC Guide 76:2008, *Development of service standards – Recommendations for addressing consumer issues*.



Analysis

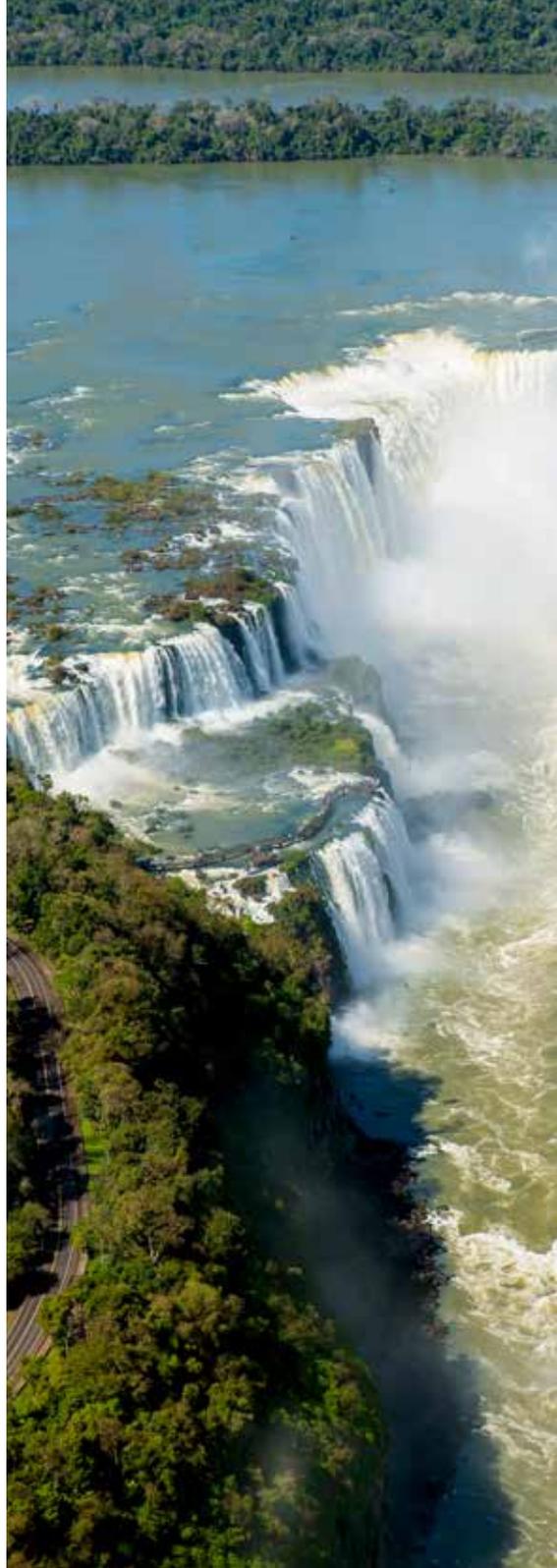
Presenting ISO 24510 for water management

In 2000, the United Nations Millennium Development Goals recognized access to water services as a basic human right and set a target to meet humanity's needs for safe drinking water and basic sanitation. It was within this framework that the provision of adequate water services became a priority. Fifteen years on, to expand on these efforts, the UN adopted the Sustainable Development Goals (SDGs) as part of the 2030 Agenda for Sustainable Development, a plan of action for people, planet and prosperity. The SDGs include a dedicated goal on water and sanitation (SDG 6) that sets out to “ensure availability and sustainable management of water and sanitation for all”, which broadens the focus on drinking water and sanitation to cover the entire water cycle, including the management of water, wastewater and ecosystem resources.

In 2001, in response to the Millennium Development Goals, an ISO technical committee (ISO/TC 224) was set up to develop tools at an international level for improving the governance, quality and efficiency of water services. It immediately started to work on developing standards for service activities related to drinking water supply systems and wastewater sewerage systems. This led to a trio of standards being born in 2007 – ISO 24510, ISO 24511 and ISO 24512 – devoted to activities relating to drinking water and wastewater services.

While the former tends to be service-oriented, the latter two are more adequately defined as management guidelines. What they have in common is a unified methodology that facilitates the dialogue among relevant stakeholders by providing basic principles for assessing and improving services to users as well as guidance for the management of water facilities.

Following the Plan-Do-Check-Act approach for continual improvement, ISO 24511 and ISO 24512 propose a step-by-step process, from identifying the components and defining the objectives of the utility to establishing performance indicators, with a loop back to the objectives and management after having assessed performance. Conversely, ISO 24510 addresses user expectations and is written from their perspective.





We should add that the performance indicators contained in the standards are included to check compliance with the requirements and assessment, although no specific indicators are imposed. In the same vein, neither minimum value nor performance range are specified, giving organizations the necessary leeway to adapt to their local context in order to facilitate local implementation.

The guidelines also offer various recommendations as to transparency, infrastructure, sanitary rules and tariffs, among other useful information. Moreover, they stipulate that resource efficiency and access to affordable basic services must both be attained at the same time. Relationships with a diverse range of stakeholders, which differ from country to country according to the national distribution of competences, must also be taken into consideration. Water is a social good that can be provided by private companies, public administrations or a mix of both. Hence the standards do not prescribe the respective roles of each actor nor do they interfere with the freedom of countries to organize themselves internally as they please.

These standards remain comprehensive in their scope, reflecting the crucial role of water in sustaining all organic life. For its implications are not only social, but also economic and environmental, which bear obvious consequences for sustainable development.

Case study:

Aguas de Santiago

When in 1997 Aguas de Santiago began supplying water and wastewater services to 11 towns in the Argentinian province of Santiago del Estero, it wrote a new chapter in the history of public services in the region. At first, customers were opposed to a private, licensed organization providing water services instead of a governmental agency. This gave rise to demonstrations of protest and the situation only got worse during the Argentinian financial crisis of 2001 when the devaluation of the local peso left the water concession in economic and financial difficulties.

But the new regional government, elected in 2005, was quick to tackle these critical issues by adapting the tariffs to the currency devaluation. One of its priorities was to steer the company's activities back to the social aspect of its services, while maintaining its efficiency and quality. In 2007, in a bid to re-establish public confidence and with the support of IRAM, Argentina's national standards body and ISO member for the country, Aguas de Santiago decided to implement ISO 24510, *Activities related to drinking water and wastewater services*, along with its sister standards ISO 24511 and ISO 24512.



Photo : Aguas de Santiago

This decision had its roots in the leadership's commitment to improve the company's relationship with its users as well as the quality of its services.

What's more, it found ISO 24510 to be an excellent management tool, unique in its flexibility and widely useful for improving the quality of the services delivered. Indeed, the standard can also be a "binding tool", giving

regulatory bodies and water utilities a common vocabulary, predefined management indicators and uniform benchmarking.

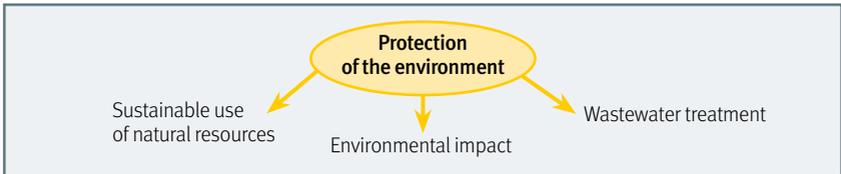
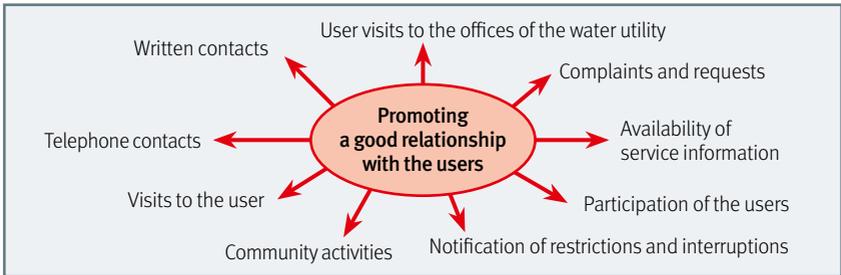
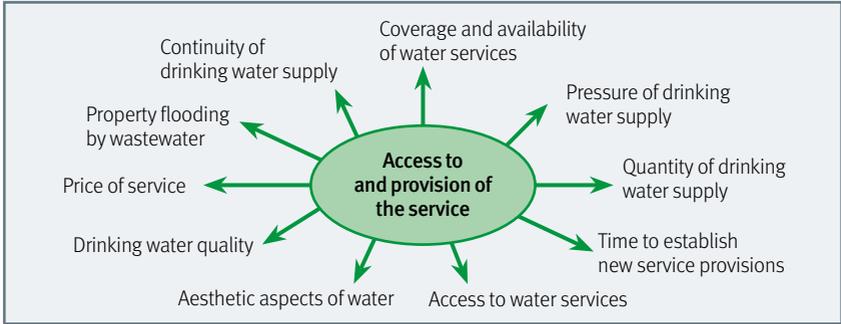
With such a comprehensive scope, the family of standards was exactly what Aguas de Santiago needed, not just to improve its own performance but, more importantly, to set an example of standards implementation for the water sector.



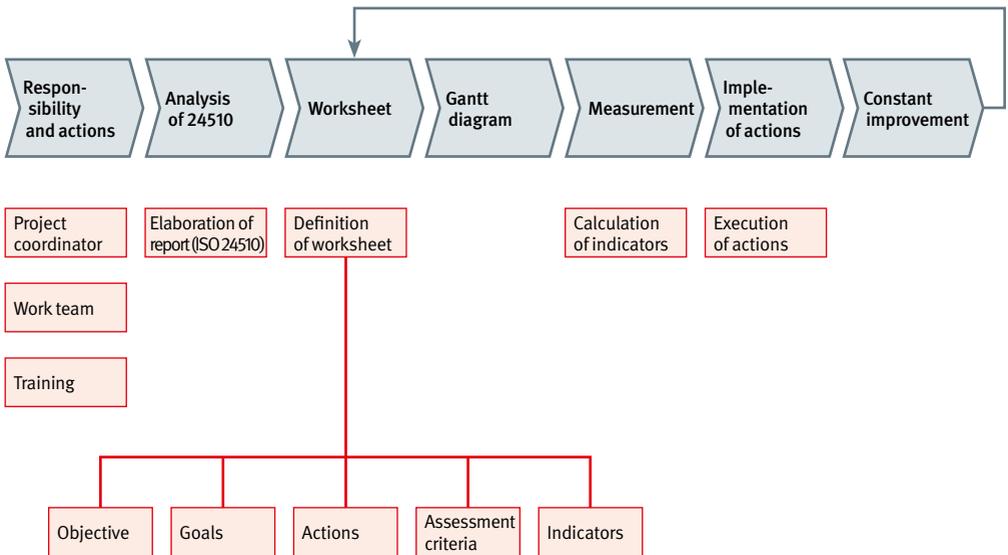
Serving our users

To fulfil its ambition, the water utility ploughed substantial resources into the venture in an attempt to understand the needs of its users and reduce the gap between customer expectations and its own strategic guidelines. Performance indicators were accordingly identified in order to measure the level of satisfaction customers derived from the service, identify areas of improvement and demonstrate the organization's responsiveness to users' needs. Moreover, the standard helped determine five areas of "service to users", along with a breakdown of the key needs and expectations, on which to concentrate efforts. These included:

- ▶ Access to and provision of the service
(for ex. continuity of the drinking water supply)
- ▶ Contract management and billing
(for ex. clarity of billing)
- ▶ Promoting a good relationship with the users
(for ex. availability of service information)
- ▶ Protection of the environment
(for ex. assessment of environmental impacts)
- ▶ Safety and emergency management
(for ex. service restored in a reasonable time after a crisis)



Management took timely steps to fulfil these objectives. To begin with, a multidisciplinary team was created that comprised technical staff, administrators, management representatives as well as the general manager. Then a project coordinator was designated and a training course conducted for all relevant staff members on the ISO 24510 family of standards. A Gantt diagram was developed, illustrating the project schedule from start to finish and setting the sequences of execution of its different operational elements. First, efforts focused on establishing goals to support each “service to user”, then actions were assigned to each goal along with a responsible person to implement these actions. Finally, assessments were made using performance indicators that were directly linked to specific actions, as outlined in ISO 24510.



Gantt diagram – Definition of the content of each worksheet

Maintenance marathon

A concrete example of a project in action can be seen in the roll-out of a programme for the maintenance and marking of valves. One of the water utility's objectives is a "repair of break-ages or other technical malfunctions in a reasonable amount of time", which in practice focuses on prevention rather than repair, with the least inconvenience for the users. Scheduled to be implemented over five years, the programme involved the constitution of a specialist brigade, made up of technicians selected for their ability to provide repair and maintenance services before the arrival of the technical team within a specific time frame – in this case, less than 12 hours after a complaint had been registered.

Measurements reported since the implementation of the brigade indicate a steady decline in cases falling outside the 12-hour requirement. While in 2011, 42% of instances resulted in waiting times in excess of 12 hours, this number went down to 36% in 2015, a reduction of 6% in four years. Further progress is needed, however, as the results were originally expected to be even better. A number of external factors

can be cited for the limited outputs, including extreme climatic conditions between 2014 and 2015, which caused many disruptions, and issues with the information systems recording the data. In spite of this, more than 10% of all disruptions were actually resolved in 12 h to 15 h within the scope established by the user regulation specifying 24 h. In consideration of the foregoing, the result identified of 6% in four years is quite impressive. It also showcases the high requirements of the standards and the difficulty in fulfilling them – a testament to the quality work done in ISO.

Creating synergies

Management decided to take supplementary measures to improve these results by reforming its information system, hiring a remedial action engineer and improving its call centre to ensure maximum coverage for its users, while maintaining the ambitious 12-hour requirement to drive the performance of its services. In addition to establishing a benchmark for the sector, the standards also served to motivate the different actors in their efforts to increase the quality of the service delivered.



Furthermore, projects such as this one may also have unintended positive consequences. By increasing the number of maintenance visits, the team was in close contact with the users and in a position to collect useful insights on the state of the network, which helped to prevent potential malfunctions in the future. The project was also particularly effective in reestablishing user confidence and reinforcing their perception of the company image.

A telephone survey indicated that 50% of users were entirely satisfied with the repairs services they received, while 40% could not be reached, 6% did not provide an accurate phone number and only 4% said the issue continued after the repair. Aguas de Santiago took special measures to address the persistent problems. This is a prime example of how the synergies created can help meet several objectives at once, cut costs and boost efficiency, with the added bonus of enhancing the company's image.

The bottom line

Alongside these efforts to increase service performance, a regular review mechanism was established to help chart the progress made and accurately measure the impacts and outputs of each action accomplished. This review is carried out at every step of the process, it analyses each action involved and, where necessary, redefines the procedures associated with each element of the standard. For instance, meetings involving top management and senior staff were scheduled every three months to analyse the results of the indicators relative to the defined goals. Yet what emerges above all from the study is the unwavering commitment of leadership as a prerequisite for the successful implementation of a standard.

As this case study reveals, the implementation of ISO 24510, ISO 24511 and ISO 24512 brought substantial changes in Aguas de Santiago. Measured improvements were made not only in internal processes, but to the whole structure of the organization, with impressive results: shorter timelines, higher financial returns and generally improved services. In fact, the positive spin-off of these standards transcended the boundaries of the water utility, reaching right down to the users, whose perspective lies at the very heart of the requirements. Every effort was made to address the consumers' needs and align the company's activities with them. This user-oriented approach has paid off, restoring customer confidence and setting Aguas de Santiago up as a model for water facilities around the world. Proof, if proof were needed, that the first benefit of ISO standards is to the company itself.

Our sincere thanks for their support:

- ▶ **Sebastian Paz Zavalia**, *General Director, Aguas de Santiago SA*
- ▶ **Marcela Paz**, *Engineer, Head of Operations and Quality Management, Aguas de Santiago*
- ▶ **María Aurora Agulló**, *Senior Coordinator, IRAM*



ISO standards used everywhere





Conclusion

ISO service standards and the 2016-2020 strategy

As this case study demonstrates, service standards not only set a much needed framework for the supply of services, they also provide an opportunity to drastically improve the quality of the services offered, contributing a growing share to the added value of a product. The more diverse and competitive a market, the more guidance consumers need to be sure they are purchasing the service they want at the best price. International Standards will help to maintain a healthy competition in the marketplace by ensuring that those companies which have already invested considerable amounts of money in order to offer better quality at affordable prices are rewarded accordingly.

As mentioned in the introduction, these case studies are part of ISO's strategy on services, which was adopted in 2016 with the aim of further developing the field of service standardization. They belong to the first pillar of this strategy on "communication and outreach" that looks at ways ISO can help its members engage with their stakeholders in the services sector and in particular with small businesses. The objective is to make a clear business case for service standardization and to position it as a natural extension of product standardization.

This will help identify the market interests of the business community, which, in turn, will help determine where (in which sectors) services are being traded, and which sectors and stakeholders could benefit most from the development of International Standards. Moreover, while preparing these case studies, we were able to consult the various committees that developed the standards, to learn from their experiences with different economic actors and to get their market feedback.

Of course, the *ISO strategy for service standardization* does not stand alone and it is worth recalling the bigger picture surrounding ISO's efforts in this area. ISO recently adopted its *ISO Strategy 2016-2020*, which will guide the organization's decisions over the next five years. Among its strategic directions is a communication pillar that aims to build recognition among the public and private sector of the value and impact of International Standards. This will help us to achieve our ultimate objective of "ISO standards used everywhere". For although you may not yet see it, ISO is already working hard to make your life easier and the world a better place.





About ISO

ISO (International Organization for Standardization) is an independent, non-governmental international organization with a membership of 161* national standards bodies. Through its members, it brings together experts to share knowledge and develop voluntary, consensus-based, market-relevant International Standards that support innovation and provide solutions to global challenges.

ISO has published more than 21 000* International Standards and related documents covering almost every industry, from technology to food safety, to agriculture and healthcare.

For more information, please visit www.iso.org.

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