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“The pillar we need to facilitate the digital transformation involves change management”

Idrica has become a catalyst of the digital transformation thanks to a holistic approach born of its experience and a technology based on an architecture that optimises operational efficiency while committing to economic, social and environmental sustainability.

Jorge Helmbrecht, Business Development Manager at Idrica, addresses the keys to the digital transformation, outlining the main issues, advantages and steps to carry it out with guarantees of success. A change where people and processes are fundamental because it is not only about technological change, it is also about changes in the culture of the company, in the way we communicate, in the agility of organisations and even in the different strategies to implement.

What is the path to a company's digital transformation?

The digital transformation path of a company comprises three key aspects that must be considered together to achieve success: the processes to be transformed, the people involved and the technology to be used. It is not just a matter of digitising and integrating isolated data and systems, but of transforming and streamlining work processes, bringing about a

real evolution in the organisation that requires a holistic and cross-cutting vision. This global approach must necessarily involve personnel at all levels of decision making, in order to overcome resistance to change and make the most of the new technologies, thus allowing the digital transformation to focus on obtaining better outcomes in a sustainable manner.

We can therefore say that a pillar we need to facilitate the digital transformation involves “change management”, helping people and companies to redefine their activities, processes and structures, to face the new challenges that will come and get the maximum benefit from digitalisation. However, we should not forget that the primary objective will continue to be data and information management, and using them to generate more knowledge and improve decision making.

Data, as well as the information they provide, have long since ceased to be

fungible material and have become a tangible asset within companies and must be treated as such, using tools that guarantee their correct extraction, processing, secure storage, dissemination and use. On the other hand, the technologies to be implemented must necessarily be modular and scalable, to adapt easily to changes and the company's growth, as well as cybersecure and agnostic in terms of the relationship with other hardware and/or software with which they must connect.

What are, therefore, the benefits of correct change management?

The benefits of change management, and therefore of a digital transformation correctly carried out, are many: improved productivity, increased efficiency and cost reduction, greater resilience and rapid response to change, risk reduction and generation of new opportunities, encouraging teamwork as well as internal and external communication, and many others, as we have seen over the last 20 years of digital transformation of the Global Omnium group of companies. The success of this digitalisation journey is the basis for Idrica to offer its experience and technological solutions for the water cycle to the rest of the world.

How is digitalisation approached in the water sector?

The water sector cannot afford to remain oblivious to current digital transformation processes and the concrete benefits they entail: from greater efficiency in water and energy management at all levels

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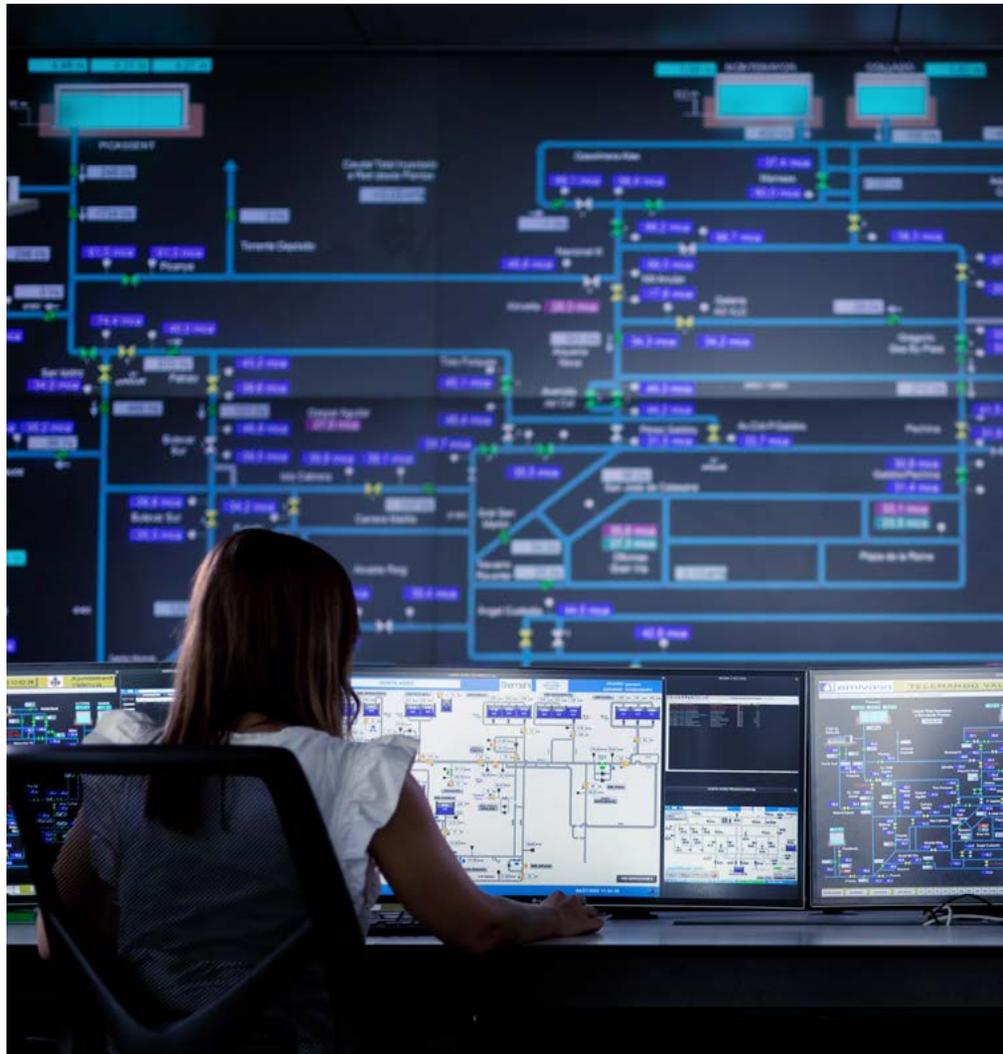
(both in drinking water and sanitation systems and concerning a basin's water resources with their multiple uses), to improved service quality and consumer satisfaction, the reduction of the carbon footprint, and the sustainability of processes, to name just a few. To these specific benefits in the field of management, operation and maintenance, we must add the benefits linked to the structural and functional change that affects the entire organisation.

Therefore, and from my point of view, there are two approaches to address this digital transformation process: top-down and bottom-up. The first one, the top-down approach, would be to start in a global and planned way in all areas of the company and following long-term objectives and goals. Along the way, digitalisation and process transformation will take place with the implementation of technology. This vision has the advantage

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of being guided and endorsed by management and having the participation of all areas, but it is more complex and requires more effort and time to complete the execution of a comprehensive transformation plan.

The other approach, bottom-up, occurs when digitalisation arises from the need to solve a specific problem or improve results in a particular area of work, such as minimising network losses, facilitating asset management, controlling subcontractors' field work, detecting anomalies automatically or making the operation and maintenance of a treatment plant more efficient, among many



other possible challenges to be solved. This bottom-up methodology has the great advantage of being much more agile in its implementation and of being oriented toward clear objectives, achieving tangible results quickly. However, it can happen that the goals are not aligned with those of other departments or that there are interoperability problems that cause the survival of isolated silos of information (even if they are digitised).

What role does Idrica play in this process?

At Idrica we can provide a comprehensive approach by combining the best of

both methodologies to optimally digitalise a company with our technology based on a flexible architecture: we solve specific challenges in each area of the water cycle (supply, sanitation, water resources, agriculture and irrigation) with dedicated modules that can operate independently; and we also integrate and normalise all the cross-cutting information from different data sources (sensors, dataloggers, GIS, SCADA, CMMS, etc.) in a single layer called Smart Water Engine to which all the said modules or other proprietary applications can be connected, ensuring global interoperability. Finally, an upper business intelligence layer allows to strategically visualise the indicators and dashboards of the whole company, thus completing the merging of both top-down and bottom-up approaches.

I believe that the success of the process lies in the company being able to overcome its specific challenges in an agile way with short-term results – this encourages staff commitment and involvement – but always maintaining cross-cutting connections of data and systems and, above all, the global approach towards a common objective in the medium and long term.

How is the digital transformation you are talking about taking place in countries with different level of digital maturity?

The digital transformation path can start from different points and states of technological maturity, but in all cases there must be a correct assessment or audit of the initial state and a final picture of the goal to be achieved, in order to follow the appropriate roadmap.

The first step is usually to integrate information from existing infrastructure and assets and the data they generate, whether it is static or time series data, and for this it is essential to propose a master data model that allows interoperability with multiple systems. In this sense, and

regardless of the number of existing sensors and instrumentation, or the degree of digitalisation of a water company, the important thing will be how to structure and implement a flexible architecture focused on data and agnostic as to its origin, which can grow gradually and adapt to its technological evolution.

The digitalisation strategy in countries with different technological maturity must ask what is the smartest way to leverage existing resources and data in their current state, but above all, ensuring that the decisions taken follow the roadmap towards the set goal, even if it is a long term goal.

The approach that many water utilities have taken in the past has been to focus on measuring and increasing the number of sensors, in order to increase the amount of data available for more objective decision making. This has often not been done in coordination with the potential end users of the data, but rather as an initiative of the department that generates it. This way, silos of isolated information - and their corresponding IT systems - have been created in various repositories without a prior planning strategy. This flawed process must be prevented from happening again in companies that are beginning their transformation journey, taking advantage of the experience and lessons learned. I believe that this is one of the most differentiating added values that Idrica brings to the sector: the experience and knowledge of someone who has already walked the entire digitalisation path.

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