



Business challenge

With limited resources, an aging population and a changing climate, how could the Municipality of Abrantes keep its citizens happy while effectively managing municipal budgets?

Transformation

More than two thirds of the global population will live in urban areas by 2050, so developing new ways to make cities work well for citizens is a top priority for local governments. The Municipality of Abrantes teamed up with IBM and Compta to create a smart city powered by cutting-edge technology—delivering cost savings and improving quality of life.

Results

Opens

the door to reducing the operational costs of waste management services

>30%

decrease in water consumption in public green spaces expected after go-live

Unlocks

the potential to improve energy efficiency by 18%

The Municipality of Abrantes

Keeping citizens happy with efficient, digitally-driven public services

The Municipality of Abrantes (Camara Municipal de Abrantes) is the local authority responsible for delivering key services to the citizens of Abrantes, Portugal. The municipality provides a wide range of services, including waste management, infrastructural development, ecological and social services.

“Thanks to Bee2Water and IBM solutions, we anticipate that we will be able to reduce the amount of water used in public green spaces by over 30 percent, without diminishing the quality of these environments.”

—Paula Grijó, Project Coordinator in the Intelligent Territory Management Team, The Municipality of Abrantes

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Envisioning a brighter future

Global populations are exploding, and more people are now living in urban areas than ever before. For local governments, this demographic change is placing additional pressure on limited resources—prompting local authorities to find new and innovative ways to deliver high-quality and cost-efficient public services.

Located in the heart of Portugal, the Municipality of Abrantes faces many of the same challenges encountered by local authorities around the globe.

Paula Grijó, Project Coordinator in the Intelligent Territory Management Team at the Municipality of Abrantes, explains: “The world is changing fast. In Abrantes, as elsewhere in Europe, our population is aging. As a result, more and more of our citizens will need access to specialized social care, healthcare and transportation facilities. At the same time, we face several ecological and environmental challenges, such as the need to reduce our carbon footprint, improve energy efficiency and increase waste recycling. Finding effective solutions for these issues requires a smart, strategic approach.”

Having digitized almost all its paper-based processes in recent years, the Municipality of Abrantes is no stranger to innovation. Inspired by the success of this project, the local authority started exploring ways to harness new technologies to

transform the management of key public services.

“If we could establish an integrated system to manage all public services, we knew we would be able to deliver even better services at a lower cost, while also going some way to addressing the challenges facing our community,” says Paula Grijó.

“We wanted to transform the way we deliver services—from waste management, energy consumption, and public transport facilities to addressing citizens’ concerns and promoting local produce. We wanted to become a smart city: a local authority that collects, analyzes and applies data to improve the quality of life of its citizens.”

Building a smart city

To make its vision of intelligent, data-driven public services a reality, the Municipality of Abrantes engaged IBM and IBM Business Partner Compta—enlisting them to help the region deploy a suite of integrated IT solutions to power all aspects of local governance.

Compta is developing a variety of public service management applications using IBM® Intelligent Operations Center, laying the technical foundations for the new smart city. On top of the IBM solution, Compta is building a verticals aggregation layer that connects to several of its own public service

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management tools, including Bee2Energy and Bee2Water to manage utilities consumption, Bee2Fleet to support fleet management, Bee2Waste to manage waste collections, Bee2Irrigation for assistance with maintaining green spaces, as well as video surveillance capabilities.

In addition, Compta is deploying Bee2Citizen—a mobile application that gives citizens easy access to all public services at the touch of a button, as well as a direct line to their local government. To nurture local businesses and celebrate local produce, Compta is also working with the Municipality of Abrantes to develop Prodfamer, an e-commerce application that will facilitate trade between consumers, businesses and local farmers.

“We believe that IBM Intelligent Operations Center will provide an

excellent foundation for our smart city services,” continues Paula Grijó. “It is a very flexible solution, making it easy to work with Compta to develop and integrate new features into the platform—even technically complex capabilities that involve a network of sensors and telemetry devices.”

Each of the public service management verticals are in the process of going live and the municipality has installed over 2000 sensors in vehicles, irrigation systems, lights and waste infrastructure across the region to collect data for these systems. In the coming months, the Municipality of Abrantes will enhance its public service management solutions based on feedback from internal users and citizens, ensuring that it uses each solution to its maximum potential.

“Working with IBM and Compta on this project has been a really positive experience,” explains Paula Grijó. “Without the technical expertise of Compta and industry-leading technology from IBM, we probably wouldn’t have been able to get our smart city project off the ground. We look forward to continuing the relationship with both IBM and Compta in the future as we continue to develop and refine our public service management solutions.”

To extract insights from the vast amounts of data generated by its smart city solutions, the Municipality of Abrantes also implemented IBM Cognos® Analytics on premises.

“We needed a robust analytics platform to process all the data gathered by our public service management applications, so that we would be able to maximize the impact of our smart city initiative,” says Paula Grijó. “IBM Cognos Analytics is the perfect solution for this, equipping analysts with a host of powerful analytics, dashboarding and visualization tools. This enables us to identify trends in our datasets, so we can adjust our development strategies based on actual usage.”

Improving quality of life

While the Municipality of Abrantes is still in the early stages of rolling out its public service management applications, it has already achieved impressive cost and energy savings, and expects to see further improvements in the years ahead.

Paula Grijó explains: “Using Bee2Waste powered by IBM Intelligent Operations Center, we will be able to optimize waste collection routes, and make huge savings on the operational cost of our waste management activities. Any saving

that we make we will reinvest in the development of other regional infrastructure and services.

“Thanks to Bee2Water and IBM solutions, we anticipate that we will be able to reduce the amount of water used in public green spaces by over 30 percent, without diminishing the quality of these environments. Bee2Energy and IBM Intelligent Operations Center will also enable us to save on the cost of heating and lighting public buildings. Together, these expected energy and water savings will help to make Abrantes a greener, more sustainable place to live.”

Bee2Citizen, the mobile app that enables citizens to access services in just a few clicks, has helped to build a stronger connection between citizens and the local authorities, helping officials listen to and respond to people’s needs more effectively.

Paula Grijó concludes: “Our IBM and Compta solutions are helping us to improve daily life in our region. It’s now easier than ever for citizens to access services, while local authorities are better equipped to maintain and improve key

infrastructure. With IBM technology and the support of Compta, we are in the process of achieving our goal of becoming a smart city. More importantly, these solutions are helping us to make Abrantes a happy city.”

Solution components

- IBM® Cognos® Analytics
- IBM Intelligent Operations Center

Take the next step

To learn more about the IBM solutions featured in this story, please contact your IBM representative or IBM Business Partner.

Compta is one of Portugal’s leading IT services providers. The company is constantly looking for new ways to harness the latest technologies to help its clients meet their unique business requirements.

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