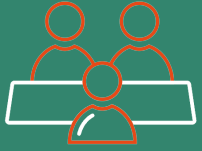# ASToN

DIGITAL TRANSITION FOR SUSTAINABLE AND INCLUSIVE CITIES

CASE STUDY
CITIZEN PARTICIPATION

How can African cities put citizen participation at the heart of their digital transition?

CASE
STUDY

This case study is one of four thematic case studies demonstrating how digital solutions and technology can create sustainable transformation in African cities. These themes illustrate the different areas of urban digital transformation addressed by each city - citizen participation, mobility, e-taxation, and land management.

Acknowledgments

Inspiration from ASToN projects in Benguerir (Morocco), Bizerte (Tunisia) and Kigali (Rwanda)

Providing access to social welfare and justice for city residents in the context of fast-paced urban growth is a key challenge for local governments across Africa. Many are turning to digital solutions. But how can a rapidly growing city manage this digital transition to give all citizens the chance to get involved in decision-making, and ensure no one is left behind?

Bizerte in Tunisia, Benguerir in Morocco, and Kigali in Rwanda are three examples of cities exploring – and testing – digital solutions that improve citizen participation, launching initiatives in the fields of healthcare, waste management, and digital literacy. These are just three of the 11 African cities to start building inclusive, sustainable digital transition strategies as partners in the ASToN network.

> " *The ASToN project is our first experience of this kind, and in the meantime we started other digitalisation projects that fit into the same context and framework: optimise the process and the service, listen to the citizens while being as close as possible to them.*" *Wiem Amri, local leader, Bizerte*

ASToN represents a network of 11 cities in 11 African countries, all focusing on advancing their digital transition to become more inclusive and resilient. Convinced that digital tools can be a means to change, the cities embarked on a three-year learning journey to build sustainable solutions for their citizens.

Running from 2019 to 2022, the ASToN pilot programme gave local authorities in each of the 11 cities a framework to test and build a roadmap for digital transformation. This included an experimentation phase where each local team tried possible solutions, collecting data and insights to identify successful – and unsuccessful – approaches, and gain a better understanding of how to scale up their ideas and improve their work. In this way, ASToN acted as a catalyst for lasting change, providing a foundation for cities to continue learning and improving their own digital solutions.

Benguerir, Bizerte, and Kigali are now sharing their experiences to inspire other African cities to use digital tools for better urban planning and development. Three key elements run through this work:

1. Make the digital project part of a larger vision.
2. Build a culture supporting the relationship between citizens and local authorities.
3. Back up decisions with data.

Training session at the pilot ICT centre in the Nduba neighbourhood, Kigali

What is citizen engagement within the African context and why does it matter?

Citizen engagement in the framework of ASToN covers "the connection between citizens and the local authority to inform decision-making, and ensure that no-one is left behind."

Women, youth, civil society, and local organisations are now actively contributing to policymaking and development objectives at various levels of governance in many African nations. The African Union has officially recognised that citizen engagement is an effective strategy that can drive an integrated approach to a prosperous Africa, announcing in 2022 that "*without the participation of African citizens, efforts to create and sustain positive changes in governance, peace and security processes are futile*" (*source*). The African Union also recognises digitalisation and innovation as key enablers for this participatory approach. Linking policymakers to Africa's digital ecosystem, harnessing data through digital methods, and encouraging meaningful citizen involvement in Africa's digital transformation have the potential to drive social and economic progress.

Digitalisation projects get a lot of attention within our municipality because there is a good conviction that the digital tool can be a means of change, [...] but we always keep in mind that our goal is a city oriented towards its citizens," says Wiem

__ City-led digital initiatives for better local services – and stronger democracy

ASToN projects run by the municipalities of Benguerir, Bizerte and Kigali in 2019-2022 brought relevant representatives together to focus on digitalisation in fields as varied as health, waste management, and

digital literacy. Interestingly, whatever the sector, these initiatives all aim to leverage digital tools for informed decision-making processes, while ensuring that no-one is left behind.

The following stories show how, as a result, local groups in these cities are developing digital solutions that not only bring services closer to citizens but also transform them into a tool for better democracy.
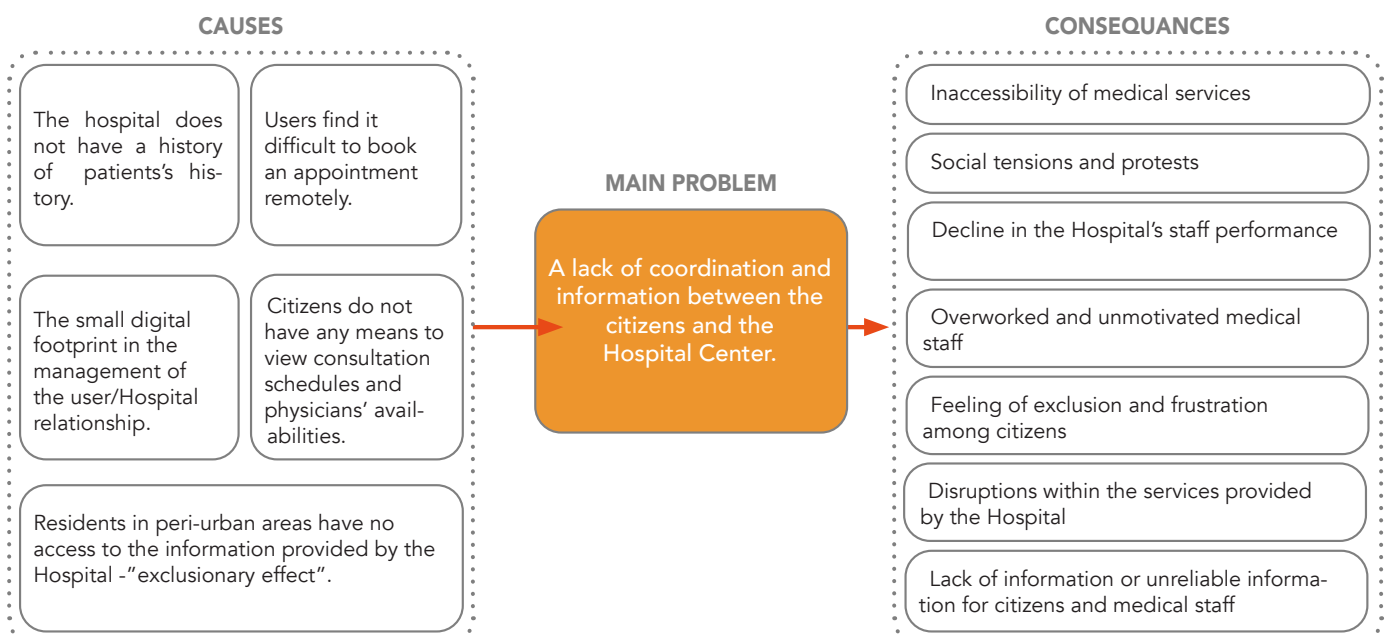
___ Benguerir: Developing a digital application to simplify healthcare provision

One challenge faced by the municipality of Benguerir, a city just North of Marrakesh, is a lack of coordination and communication between citizens and the Local Hospital, or Centre Hospitalier. Their solution? During their ASToN project they chose to start developing a new, improved digital tool, enabling citizens to book their own medical appointments online. By creating a digital database of all medical records, the tool will also help medical staff follow up regularly with their patients.

In parallel, to tackle digital exclusion, the municipality of Benguerir also looked at how to run a successful 'social agent' system – particularly valuable in peri-urban areas where digital literacy is relatively low. The role of a social agent, likely to be a younger citizen living locally, is to help residents use the application to book or cancel appointments, and follow their medical status.

___ Bizerte: Building a digital platform to improve waste management and engage with citizens

When a redefinition of Bizerte's administrative boundaries expanded the city's geographical area, the population jumped by nearly 150% to 167 759. This put increasing pressure on the municipality's local Waste Management Department, which was struggling to keep public spaces clean and offer waste collection services to all citizens. ASToN supported the city's work to launch a digital platform that would track the resources deployed for waste collection. Citizens would also be able to use the new service to signal any areas requiring particular attention from the waste collection team.

CAUSES

- The hospital does not have a history of patients's history.
- Users find it difficult to book an appointment remotely.
- The small digital footprint in the management of the user/Hospital relationship.
- Citizens do not have any means to view consultation schedules and physicians' availabilities.
- Residents in peri-urban areas have no access to the information provided by the Hospital -"exclusionary effect".

MAIN PROBLEM

A lack of coordination and information between the citizens and the Hospital Center.

CONSEQUANCES

- Inaccessibility of medical services
- Social tensions and protests
- Decline in the Hospital's staff performance
- Overworked and unmotivated medical staff
- Feeling of exclusion and frustration among citizens
- Disruptions within the services provided by the Hospital
- Lack of information or unreliable information for citizens and medical staff
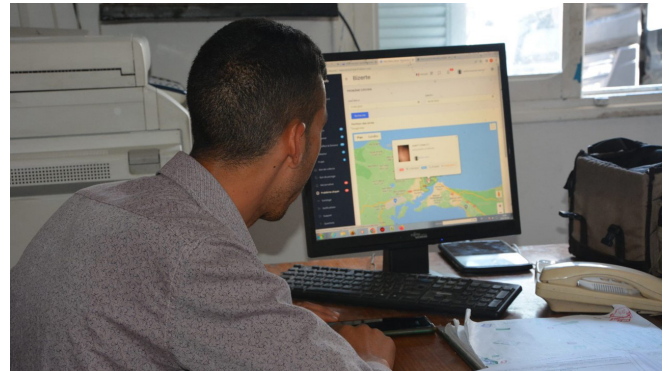
Benguerir problem analysis for ASToN

"*The Waste Management Department works 24 hours a day and it is not visible. 30-35% of the local budget is spent on waste management activities. With this application, we will be able to keep track of all the work and interventions that are done 24 hours a day,*" says Mohammed Hattab, core team member, Bizerte

Bizerte's core team member working on the waste management platform

___Kigali: Providing a new ICT centre to boost digital literacy and bridge the digital divide

In recent years, Rwanda has made fast technological advancements, reaching a 4G coverage of 95% today. But a lack of digital skills in certain areas means that not all the population can benefit from this high internet coverage. With this in mind, the core ASToN team in Kigali chose to focus on developing digital literacy and bridging the digital divide, particularly among 18-35 year olds. They set up a pilot ICT centre in the Nduba neighbourhood, one of the more rural, peripheral sectors of Kigali. This trial ICT centre launched its first digital skills training in October 2022 with an intake of 50 young people. Since then, it has continued to provide training, and public access to digital equipment, as well as offering advice on digital issues to people living in the surrounding area.

Since completing the training, certain young business leaders have gone on to use their newly acquired digital skills in marketing their products and services, and improving productivity and quality.

The building hosting the ICT Centre in Kigali, Nduba sector

"*This ICT centre has become a public place where people can access computers, the internet and other technologies, and that helps people to gather information and communicate with others at the same time as they develop digital skills through basic ICT trainings,*" says Pulicano Ayebazibwe, local leader, Kigali

How did the ASToN cities set up a local framework for successful participation?

Who is best placed in a city to help build a successful digital transition strategy and roadmap? For Benguerir, Bizerte and Kigali, the answer has been a diverse network of relevant partners from the public, private and civil society sectors, including national and local policymakers. With the support of the ASToN secretariat, once the three municipalities had defined the focus of their projects, they quickly developed strong relationships with final users and citizens.

Building this local framework – with the right team and the right conditions for constructive discussions – has proved vital for ASToN cities' urban development ideas to evolve into inclusive and sustainable projects.

"

Sometimes it's better to have a good project director even if he/she doesn't know anything about the topic but will use his management skills to move the project forward. Once a topic is identified - I would try to understand who among my partners is the most concerned about that topic - so they won't see it as an extra job - but something that will facilitate their regular work." Bernard Binagwaho,

ASToN citizen engagement expert

As highlighted in the examples below, the three cities identified their strategic partners in line with each local initiative, whether the topic was healthcare, waste management or digital inclusion, and brought them into close collaboration with the core project managing team.

Strong local connections

ASToN projects were managed in each partner city by a core team, usually made up of three to five people from relevant municipal services. Each of these teams started with a preliminary research phase to gain a clear understanding of the topic. They identified diverse relevant stakeholders who they invited to form local ASToN groups – thanks to discussions, surveys and other data collection, brainstorming sessions, political gatherings, and tools proposed by ASToN such as the 'problem tree analysis'. In this way, local politicians, start-ups, incubators, NGOs, universities, well-established companies and other groups became directly involved in building their city's local action plans for digital transition.

For more on ASToN tools and methods for forming local groups: ASToN Blueprint and ASToN City Handbook.

Benguerir local ASToN group meeting the Governor of Rehamna Province

Benguerir: Involving future app users in development decisions

Benguerir's local ASToN project partner is the Rhamna Province. The Local Hospital is their key partner, along with other public authorities, technical experts, and civil society organisations. With ASToN's support, this local group of stakeholders worked together on identifying the medical staff's needs, and explored how to build a digital solution that addresses all requirements.

" *Our digital tool is appreciated by the hospital staff because it covers all medical activities, such as patient records, and this will save them time. This application also allows them to know all the patients who are in the waiting room or when appointments have been cancelled."*

Lhoussine Hadouchane, core team member, Benguerir

Bizerte: A charismatic leader and thematic working groups

Bizerte municipality's key partner and stakeholder in the ASToN-supported digital initiative is its own Waste Management Department. However, partners from the public and private sectors, and civil society are also involved in the project's activities. Bizerte's core team, including a start-up, 2BK INNOVATION, and the ATI Tunisian Internet Agency, is managed by the municipality's charismatic head of IT, Wiem Amri. Meanwhile, the extended local ASToN group was organised into three sub-groups: a technical committee; a steering group; and a monitoring committee.

" *The start-up is very involved and we collaborate very well with them. Almost every day there is a small meeting to improve each feature of the application. For them this project is a chance of success at the national level,"* says

Wiem Amri, local leader, Bizerte

Bizerte local group meeting

ASToN city leaders exchanging during a transnational encounter: Wiem, local leader in Bizerte (left) and Alani, local leader in Lagos

CASE STUDY

___Kigali: Learning from experienced leaders

Kigali's ASToN project supports national and local strategies promoting the ICT sector and developing digital literacy. It follows a top-down governance structure with the project partner being the Executive Committee of the City of Kigali. This committee supervises the actions of the local ASToN group, which provides coordination, liaises with local contractors and follows the project's implementation. At neighbourhood level, the project is advanced by the ICT centre together with local project administrators, who help identify project resources – financial, technical and educational – and manage the ICT centre.

Governance framework for Kigali's ASToN project

" *One of the biggest challenges was linked to the involvement of the implementers [from the city's core ASToN team], sometimes they are all so busy and working on numerous projects at the same time,"* confessed Pulicano

For Kigali, a key partner was the managing partner of an existing ICT centre in Kigali. He brought in valuable knowledge and experience of setting up an ICT centre: *"it's important to find the right people: […] in Kigali the person who is making this move forward is already in charge of an ICT centre within the city, so it is something that goes in the line of his work, he knows about the process, has the expertise, is excited about the project and it's part of his work"* says Bernard

While the core ASToN team always showed desire and commitment, the members were also managing other assignments. This increased their workload and sometimes delayed the advancement of the project. This is also an issue for Bizerte, and many

Kigali team during working session on the Action Plan

Kigali local group meeting

other cities. To reduce such pressures, ASToN Citizen engagement expert Bernard Binagwaho advises involving a range of people "dedicated to the task who don't end up working alone on the project".

One solution that Kigali's team found was to organise a three-day retreat to focus on drafting the city's Local Action Plan, with the backing of the City of Kigali Executive Committee.

How can cities try out new digital solutions for citizen involvement?

A six-month experimentation phase enabled the local group in each ASToN city to test solutions in real life situations, bringing their projects face-to-face with citizens and local partners.

As revealed in the descriptions below, rather than starting from scratch, local ASToN groups drew on existing resources, data or knowledge to trial new digital solutions. Saving time and resources, Benguerir built on an existing appointments app to start

a conversation with future users. Bizerte employed existing data to help analyse new waste collection methods. And Kigali's new ICT centre was inspired by the process and functioning model of a similar centre already up and running in central Kigali. Above all, this approach allows cities to start small projects, and ensure results can be delivered. This shows citizens that digital solutions can work, which in turn encourages people to continue using them.

___Benguerir: Discovering a need for more citizen support alongside the new app

Experimentation helped Benguerir's team to understand the scale of the challenge of involving citizens from peri-urban areas who were unable to use a digital app to book medical appointments. The core team came up with the solution of employing social agents to help local people schedule their consultations. However, resources were necessary to finance these newly created roles. In response, the Rhamna Province agreed to cover running costs for the following two years.

ASToN cities meeting in Kigali before starting the experimentation phase

"*The problem we had was the payment of the agents, because nobody wanted to take charge of it. So with the help of our experts, we found an authority for that. The first 16 agents are all medically trained, so that helped us a lot and we were able to shorten their training period. The challenge has been to figure out how to finance this part of the project - paying these agents - but this is also our greatest pride because we have found a solution.*" *shared Lhoussine*

Expectations vs reality: lessons from experimentation in Benguerir

Expectations
- Citizens are using the old version of the existing app to book appointments
- The new app answers medical staff's needs
- Citizens will ask local agents to help them use the app

Lessons learnt
- Citizens continue to go to the hospital to book appointments
- The Local Hospital has recommended several improvements for the new platform
- Certain citizens will only ask certain local agents for help, such as women, or younger people they already know

Lhoussine presenting Benguerir's project during ASToN all-partner meeting in Kigali, 2021

Benguerir's team surveying citizens from peri-urban area

CASE STUDY

___Bizerte: Waste Management Department tests the new app and tracking dashboard

The core ASToN team in Bizerte tested out their digital app by installing it on tablets for ten drivers and three supervisors. The tracking dashboard was set in place for the president and the director of the Waste Management Department. For this experimentation phase the group focused on tools employed by their local waste management service, allowing them to compare newly collected data with analysis of previous approaches. One of the biggest concerns for the local team was that the waste collection drivers might reject this new digital solution for various reasons such as their digital knowledge, age or level of education. For this reason, they chose to start experimenting with one driver, Ezzedine Elhammami, who is curious by nature and has a good reputation among his colleagues. His input and recommendations were priceless for improving the app.

> *That was one of the things I am most proud of. It's always the human being at the centre of everything and it's because of the truck drivers that we've made it this far. I really hope they will be with us when we scale up,"* mentioned Wiem, local leader, Bizerte

Based on exchanges with the other users and by testing their solution in real life situations, the local team continued to add new functionalities and improve their platform.

Bizerte Waste Management and ICT teams testing the app with the waste collection drivers

CASE STUDY

"

There is always a difference between what is planned and what is on the ground. It is this added value that helped us to rectify the application. There were specifications with fairly clear requests and the product was in line with what we had asked for, but we rectified our requests according to our real needs for the application," adds Wiem

Expectations vs reality: lessons from experimentation in Bizerte

Expectations
- There will be a team in charge of managing and upgrading the digital platform
- Waste collectors are willing to use the app to input data into the digital platform
- Citizens will use the app to inform the municipalities about the waste collection process

Lessons learnt
- It is important to work in collaboration with the procurement services in order to launch an open call for selecting the right operationalisation team
- It is important to keep everyone within the local municipal services informed about our project
- Communicating about the project to citizens is key

Testing the app on the ground - Bizerte's local team and waste collection drivers

___ Kigali: creating an ICT centre to test out new digital training

For Kigali, the experimentation phase was a very rich learning experience. By converting an empty room in their local offices into an experimental ICT centre, the core team put digital training courses to the test in the new location. In doing so they discovered: which resources would be required to set up a new ICT centre; which partners could contribute; better ways to manage the centre; participants' expectations; specific technical issues to resolve; and much more.

> *We started the course with 50 people and trained them on how to use the new digital tools for their work or their business, like how to make a document, or a table. Some of them already have computers but don't know how to use them,"* remembers
>
> *Pulicano Ayebazibwe, local leader, Kigali*

Expectations vs reality: lessons from experimentation in Kigali

Expectations
- It is possible to employ existing public premises for setting up the ICT centre
- The training offer can attract rural young people
- The finance model employed for the ICT centre is sustainable in the long term

Lessons learnt
- Using existing spaces helps to fast track the implementation of the ICT centre and increases accountability at the sectoral level
- Demand from participants outweighs the resources available, such as internet bandwidth, or training staff
- It is important to track participants' learning process in order to assess the outcomes of their training

Setting up the ICT centre in the Nduba neighbourhood

How can African cities and systems boost citizens engagement with local governance as part of their digital transition?

The experiences of Benguerir, Bizerte and Kigali as partners in the ASToN network provide valuable insights for any city launching initiatives to support citizen participation in the digital transition. Here are three key lessons:

1. Make your project part of a bigger vision

It is important that each city's project is aligned with bigger priorities and strategies, from city to national level. This helps secure necessary resources, new partners and support for pilot initiatives, as well as further scaling up of solutions.

" In Kigali there is a big priority with regards to the digital divide and it's been pushed by government… ICT centres are already known by everyone," mentions Bernard Binagwaho, ASToN citizen participation expert

Kigali's key priority to bridge the digital gap is in line with the national strategy. This vision was reflected in the goals of the ASToN project, facilitating access to longer term support and funding. As Pulicano mentioned *"we are looking for donors to support the project, but if this won't work, the Executive Committee will support us with the financial resources, as this project is part of the city's strategy. So the activities of our action plan will be included within the local budget."*

" We are targeting to upscale the implementation project to the other nine rural sectors of Kigali. Most of the executive secretaries of the rural sectors, after hearing the testimonies of the trainees from Nduba ICT centre, are now asking us to do the same project within their sector," says Pulicano

Nduba ICT centre first training, October 2022

Teenagers taking part in the training sessions at ICT centre

> *The commitment of every actor made it easier for us to obtain the necessary budget. With the help of the Province and the health direction of Benguerir we already have support for the next two years,"* declares Lhoussine

Benguerir's ASToN project obtained two years of funding from the Province of Rhamna, as the initiative is supporting the national health strategy and advancing health policies: *"with this digitisation process the hospital will have a very rich database of all the diseases - which will serve as a mapping of what is treated by the hospital. We will be able to make a health policy concerning these diseases on the medium and long term. With a complete database we will have all this information to establish a health strategy for the population"*, mentiones Lhoussine.

2. Build a culture supporting the relationship between citizens and local authorities

When a culture supporting links between citizens and local authorities is in place, it becomes a driver among municipal teams to push forward their projects. From the beginning, the notion of citizen participation needs to be established and accepted by everyone. By understanding that citizen engagement is key for the success of their project, municipalities will put in extra effort to advance the projects: *"This was the case for the three cities; for Kigali this aspect has always been key and they don't want to go backwards; for Bizerte and Benguerir they started from a point where these projects were launched from the dissatisfaction of citizens - the fact that citizens were not happy with the current situation."* says Bernard.

Wiem shares: *"At the time of the testing phase we*

made some assumptions that maybe it won't work because it's a digital tool and it might not be appropriate for the frontline users: supervisors and drivers. But fortunately they were willing to collaborate, test and even give instructions. It helped us a lot to find people who are not afraid to test regardless of their age, role or function, or their educational level."

Make it a two-way dialogue: ask and deliver - build a dialogue between citizens and municipalities. Citizens engage when they clearly understand what a project will bring them. People engage when they know they will get something out of it but also when the city delivers. For this purpose, it is essential to start small and make sure results can be delivered.

> *When the app will be given to the citizens, municipalities need to make sure they are very reactive and that they can respond to citizens' demands (...) they will keep using it if they see it's working,"*
> *adds Bernard*

Workshop session with medical staff in Benguerir

Lhoussine adds: "What is important for the project is its participatory approach. This problem was discussed with all the stakeholders and especially the local associations. They defined their real problem and then they were involved in the search for solutions. We agreed with our partners on this digital solution."

3. Support your decision with data, and document your steps

Real life data and insights have helped these three ASToN cities to back their decision-making process, and get the support of other partners. Data collected from the experimentation phase gave the local teams a better understanding of the needs and preferences of the community. Data can also help identify and prioritise key issues, challenges, and opportunities facing a community, and track progress over time.

> "*We made an analysis of the project: challenges and opportunities. During the experimentation phase, we tried to see what steps were needed to scale up. Our findings will help us obtain the support of the municipality.*"
>
> *declared Pulicano*

Overall, the use of more reliable data in decision-making processes ensures that resources are used efficiently, that projects are designed and implemented in a way that is responsive to the needs of the community, and that the long-term outcomes of these projects are positive.

Mohamed Sfaxi, Elected Representative of the El-medina District, where the platform was tested, mentions: "*We will be able to truly account for the*

service we provide to citizens, and management will have visibility of the work that is done and what it means in terms of expenditures [...] The budget allocated to cleanliness is about 30-35%, and despite this the impact is not visible enough, and the citizens complain that we are not doing our job. In addition, we do not have the traceability of the effort that is made. The Waste Management Department works 24 hours a day and it is not visible. With this application we will have a traceability of all the work done, of the interventions that are done 24/24h."

Pulicano sharing learnings from their experimentation phase, during ASToN all-partner meeting in Kumasi, 202

Mohamed Sfaxi explaining Bizerte's project during the ASToN all-partner meeting in Kumasi, 2022

What's next?

ASToN has been a catalyst for these three fast-growing African cities to find better ways to involve citizens in their digital transition, and draw up digital roadmaps using tried and tested solutions. City teams have learnt from experts, and from each other, and adopted new approaches – diagnosing, exploring, planning, and experimenting solutions. As the core team in Benguerir reports, *"The ASToN method has allowed us to strengthen our project management capacities. This acquired expertise will be used in other projects of the commune."*

In Kigali, having found the experimentation phase *"superbly beneficial"*, the municipality wants to encourage managers of its various departments to use ASToN's method in project design implementation, monitoring and evaluation. They say running small pilot schemes helps them check they are on track, and if necessary test alternatives from their action plan.

Bizerte's municipality have also changed their approach to project management. They now communicate from the early idea stages, and involve citizens throughout project implementation. In terms of experimentation, for example, building on a small-scale trial to reduce the electricity consumption and maintenance of public lighting, Bizerte went on to secure funding from the National Agency for Energy Management, and are now rolling out their solution.

In Benguerir, the new medical appointment platform is ready for public launch in 2023, once the National Commission for the Protection of Personal Data has approved the data gathering plan. Hospital staff have been trained to use the app, as well as some 50 community agents who will help the rural population to use it. The local municipality has agreed to support the solution for an initial two-year period, including hosting and maintenance costs, with the province financing the salaries of the community relays.
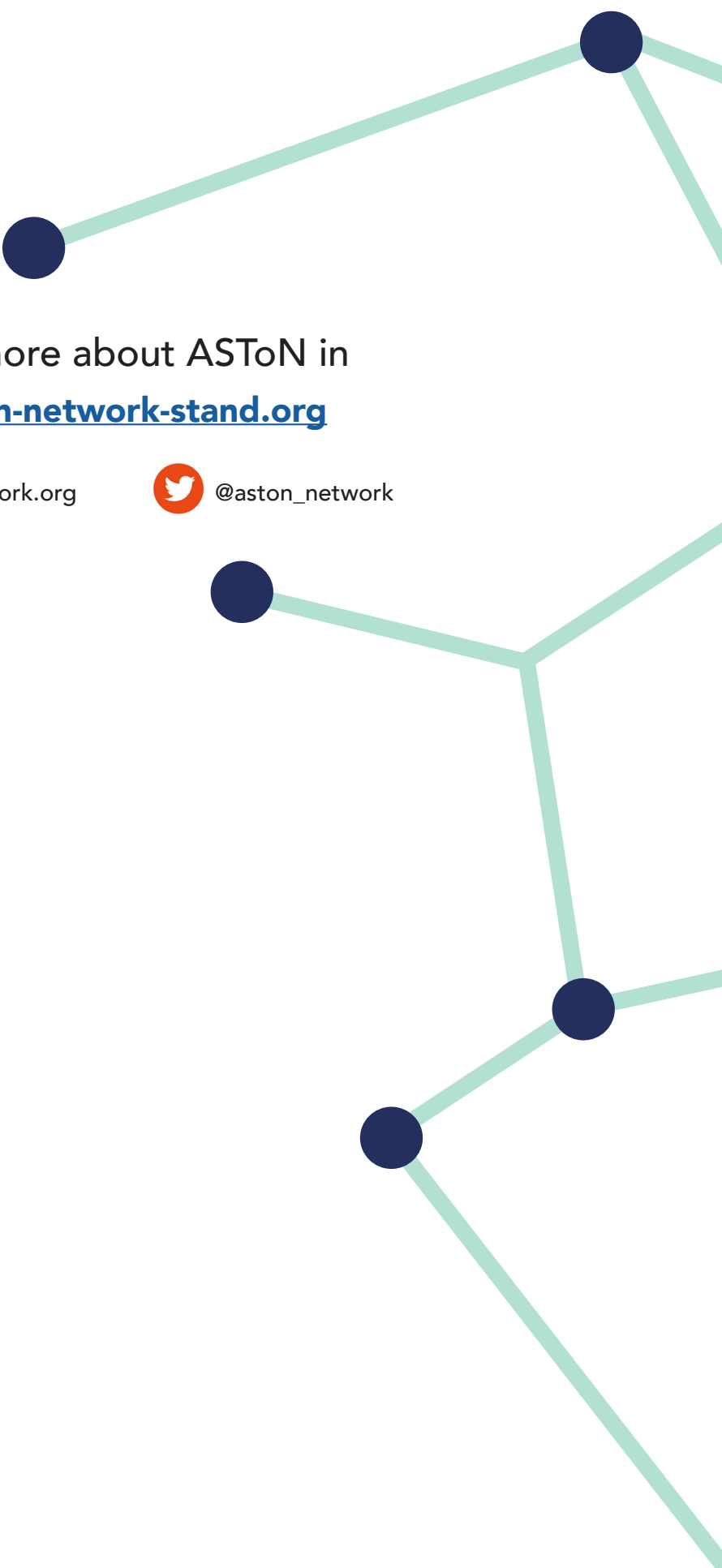

ASToN all-partner meeting in Bizerte, 2022

Meanwhile, Kigali's new Nduba ICT centre looks set to stay – and the City of Kigali Executive committee has agreed to hire a Centre Manager though the municipality budget. Leaders from other neighbourhoods of Kigali are now requesting similar ICT centres. This roll-out was included in a Local Action Plan which has been approved by the Executive committee and signed by Lord Mayor – a move that puts the development of further Centres on the municipality agenda. The next step for the Kigali team? To find a business model that allows the ICT centres to become self-sufficient.

ASToN partner cities are continuing to see the benefits of involving citizens in decision-making, and promoting citizen engagement as a positive aspect in future city management projects.

Local coordinators meeting with ASToN technical experts in Benguerir, 2022

Discover more about ASToN in

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