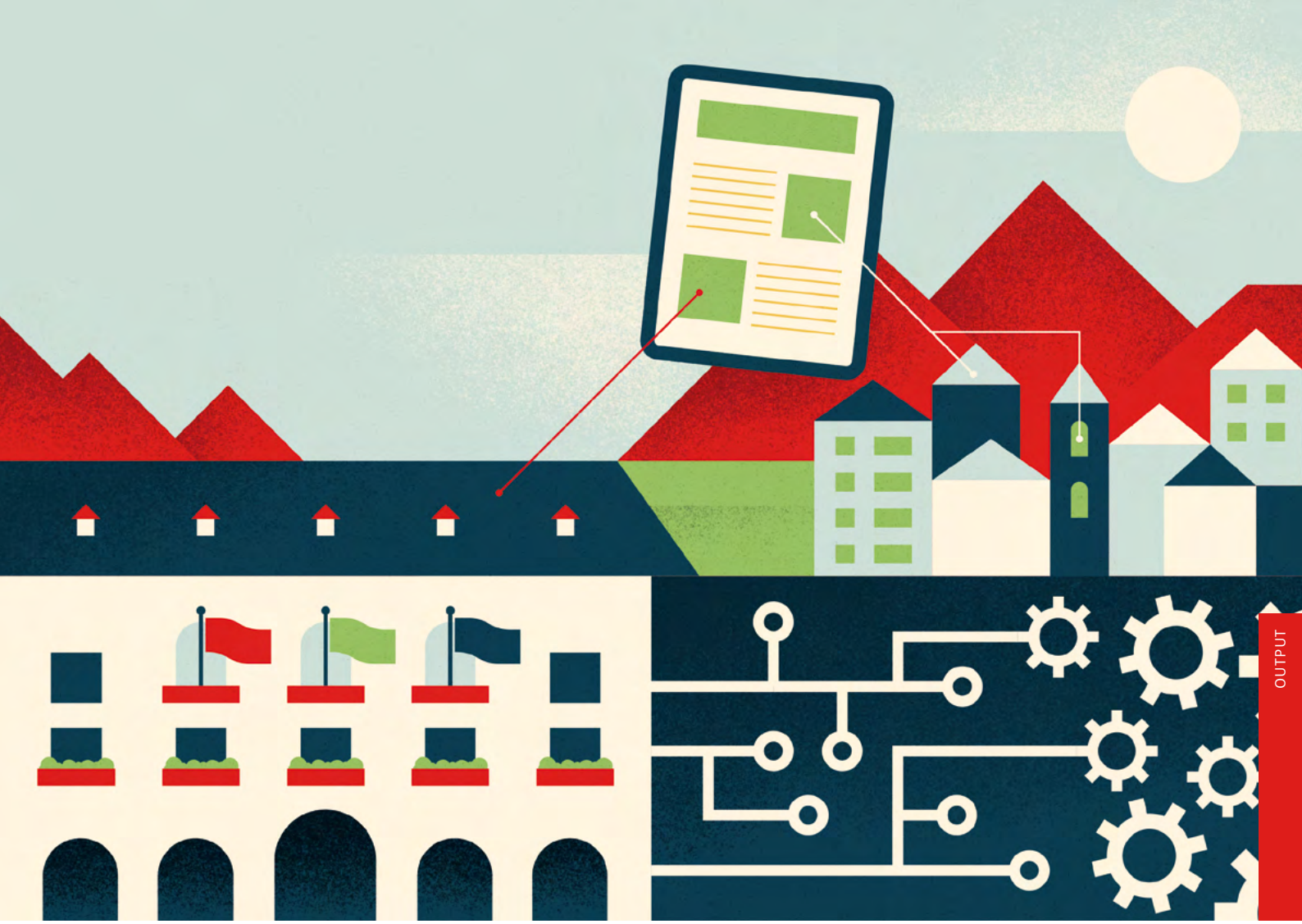

OUTPUT

DiGreen compass for DIGITAL cities and municipalities

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eurac research

UNIVERSITY OF APPLIED SCIENCES UPPER AUSTRIA

Institute for World Economy

DiGreen

Recommended Citation:
Cecon F., Decarli P., Dumitrescu G.C. & Ručinská S., 2023.
DiGreen compass for DIGITAL cities and municipalities.
Bolzano, Italy: Eurac Research, 2023

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ISBN 978-88-98857-94-4

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Graphics: Eurac Research
Illustrations: Oscar Diodoro

This is the English short version of *Cecon F., Decarli P., Dumitrescu G.C. & Ručinská S., 2023. DiGreen Handbook of DIGITAL good Practice. Solutions for cities and municipalities. Bolzano, Italy: Eurac Research, 2023*.

Co-funded by the European Union

The project Digital Government for Green Municipalities and Cities (No. 2021-1-SK01-KA220-HED-000023505) is Co-funded by the Erasmus+ Programme of the European Union.
Any communication or publication that relates to the project Digital Government for Green Municipalities and Cities (No. 2021-1-SK01-KA220-HED-000023505) reflects only the author's view and the European Commission is not responsible for any use that may be made of the information it contains.

Contents

About this handbook

This is the short version of the English **DiGreen Handbook of DIGITAL good Practice**, a result of the project *Digital Government for Green Municipalities and Cities - DiGreen*. The project is co-funded by the Erasmus+ Programme of the European Union.[1]

The handbook of DIGITAL good practice presents good examples of providing public services using digital means and ICT tools. Municipalities and cities either produce these tools "in-house" or use private sector products. The handbook was produced in hard copy and electronic format, both in English. The online form is available through the official DiGreen project website. This short version summarizes the key findings and translates the good practice examples in English. There are also Slovak, Italian, German and Romanian versions available.

The text is written in a clear, non-technical language, accessible to the general public, in order to be user-friendly and easy to understand and apply for practitioners. The digitally provided public services present ways to rationalise the provision of competencies that the municipalities and cities have, to engage inhabitants in governance, to enhance the provision of public services qualitatively, to base public policymaking on evidence and to take transparency and openness into consideration when providing public services.

The importance of targeting municipalities and cities is relevant in terms of their involvement in higher education. Higher education students of public administration, public management, public policy and other similar study programmes also fulfil their practical part of the study at the municipality and city public bodies.

The authors would like to thank all the involved municipalities and cities whose contribution and cooperation in formulating digital good practice examples were valuable. Municipalities and cities from which good practice examples are presented in this handbook:

- **Austria:** Kremsmünster, Linz
- **Italy:** Lana, Naturno, Luson
- **Romania:** Bucharest, Gura Humorului, Bacău, Giurgiu
- **Slovakia:** Kežmarok, Košice

ABOUT THE PROJECT | PROJECT RESULTS | PROJECT TEAM

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Why is the digital issue important?

"As Europeans, we want to be the global leader of a digital transformation that puts people at its heart".[2] This excerpt from Commission's President Ursula von der Leyen's speech during her address to the 2021 Digital Assembly in Portugal underlines the importance and the priority role that digitalisation covers for the European Union and its Member States in the short and medium term. At the same time, they also highlight the importance of people within such transformative processes.

The public sector is highly relevant in enabling and facilitating the digitalisation of society and the economy. Still, it is also challenged by its digital transition. "Few developments have had broader consequences for the public sector than the introduction of the Internet and digital technology".[3] Digitalisation is no longer an option for the public sector; this was already clear before the recent developments related to Covid-19 further stressed the necessity of such transformation. "New technology is altering governmental performance, the political process, and democracy itself by improving government responsiveness and increasing information available to citizens".[3]

The public sector needs modernization to keep up with the times and to realize benefits for both the administrations and the businesses. Moreover, modernization is "necessary in order to ensure future wellness for the citizens".[4]

A better, more digitalised public administration can offer better services and consume fewer taxpayers' resources. This is particularly relevant now, where economic relief necessitates full support from the public sector, which cannot be provided with a slow bureaucracy that massively relies on paperwork.

Municipalities do have a unique role in pursuing a successful digital transition. Due to their large number as well as similar competencies and challenges, digital solutions apply to many municipalities, maximizing the potential for synergies. At the same time, municipalities are the closest administration to citizens. They are, therefore, crucial in bridging the digitalisation of the public sector to the general public.

This handbook of digital good practices aims to enhance and favour synergies across municipalities by gathering best practices in providing public services using digital means and ICT tools. The solutions are in-house services and successful examples of collaborations with private actors. Moreover, the handbook stresses the relevance of a European perspective in the digitalisation process. It analyses examples from municipalities across different European Countries and brings them together to provide valuable support and a source of inspiration for other local institutions willing to implement innovative digital projects. The best practices provided also describe the path that led to success, which often proved challenging and where mistakes were made. This further strengthens the value of this handbook, which is not just a source of inspiring suggestions, but also yields the very concrete potential of achieving time and cost savings in the implementation of digital projects, greater citizens' participation and involvement, as well as greater efficiency and efficacy in the delivery of public services. The digitally provided public services will present ways how to rationalize the provision of competencies that the municipalities and cities have, how to engage inhabitants in

[2] von der Leyen, 2021. President von der Leyen's speech at the high-level opening session of the 2021 Digital Assembly, "Leading the Digital Decade". SPEECH/21/2804. 1 June 2021. Brussels.

[3] West, D. M., 2011. Digital government: Technology and public sector performance. In Digital Government: Technology and Public Sector Performance (Vol. 9781400835). Princeton University Press.

[4] Vaidya, K., & Campbell, J., 2016. Multidisciplinary approach to defining public e-procurement and evaluating its impact on procurement efficiency. Information Systems Frontiers, 18(2), 333–348.

governance, how to enhance the provision of public services qualitatively, how to base public policymaking on evidence and even how to take transparency and openness into consideration when providing public services.

Methodology

Given the importance of digital transformation in the public sector – especially on the local level and in direct contact with the population – this project identified and documented municipal good practice examples.

A unified approach based on a common methodology was chosen among the project partners to ensure that the examples would be comparable and structured in a way that is easily understandable by practitioners in the field. Political and administrative representatives should be able to use this handbook as a source of practicable, real-world ideas to help solve digital issues and get an idea of the involved costs and necessary resources for their implementation.

To achieve this goal, the project partners established a multi-step approach consisting of initial desk research and preliminary interviews to identify possible good practice cases. This was followed by in-depth interviews to explore the cases in detail.

Good practices

This compass presents short versions of the DIGITAL Good Practice examples in English. All examples identified during the DiGreen project are reported in the full handbook in English. All cases are structured similarly to allow for easy comparison. Furthermore, the structure is intended to help practitioners easily identify examples that could interest their municipality and the critical success factors, costs, and challenges that might arise when implementing them. The Good Practice examples span a wide variety of topics. While no case concerns just one aspect, the examples can nonetheless be grouped according to their main topics and goals:

IoT and Smart Solutions

The Internet of Things (IoT) consists of interconnected computing devices that can transmit data and communicate over the Internet without the need for human interaction. This enables the creation of Smart Solutions that offer new services or improve the quality and reliability of existing ones.

- ➔ IoT waste management in the City of **Kežmarok (Slovakia)**
- ➔ Smart heating for the entire village in **Luson (Italy)**

Asset Management

Municipalities manage many assets – from buildings to infrastructure like pipelines, fibre optic cables, roads, sidewalks, parks and many more. Modern, IT-based asset management systems allow for efficient public goods administration and provide the information necessary to

formulate public policies and communicate with the public about interventions and investments.

- ➔ Tracking the municipality's energy consumption with the Energy Report Online in **Lana (Italy)**
- ➔ Mapping the city: **Kežmarok**'s GEO Information System **(Slovakia)**
- ➔ Digital line management of the Municipality of **Naturno (Italy)**
- ➔ Adopt a Sidewalk in the City of **Košice (Slovakia)**

Citizen Contact

IT systems allow for new ways of communication between the public administration and its citizens. They allow for new forms of community outreach and the inclusion of citizens in the decision-making process.

- ➔ Project Alexa – a voice input and output system for the citizens of **Kremsmünster (Austria)**
- ➔ A town hall closer to people at a click away_ **Bucharest_ Romania**
- ➔ **Kremsmünster**'s electronic official board **(Austria)**

Security & Safety

Digitalisation can help increase safety and prevent crime through systems such as video monitoring apps that allow citizens to quickly contact and require assistance when needed.

- ➔ **Gura Humorului**: implementing a video monitoring system to increase safety and prevent crime **(Romania)**
- ➔ City Police MSP SOS security app in the City of **Kežmarok (Slovakia)**

Administrative Efficiency

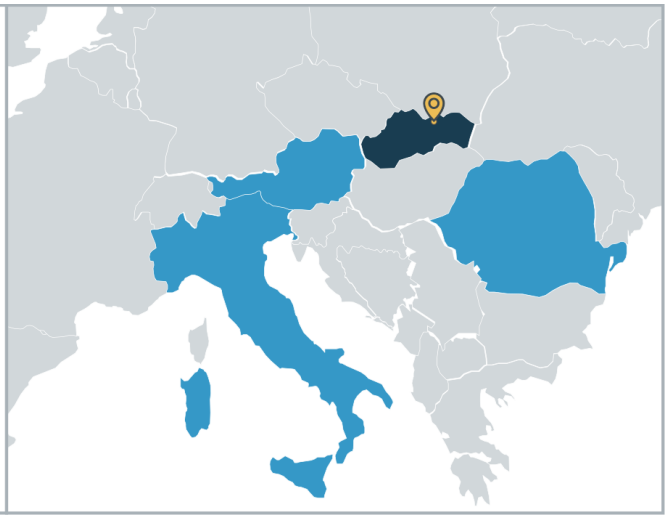
Last but not least, digitalisation plays a fundamental role in improving the efficiency and effectiveness of municipalities' internal processes, reducing bureaucracy, and providing administrative simplification for the citizens.

- ➔ A platform for administrative simplification and better services in **Bacău (Romania)**
- ➔ Process management in **Linz (Austria)**
- ➔ Modern administrative mechanisms and procedures in **Giurgiu** City Hall (MEPAM) **(Romania)**

IoT waste management in the City of Kežmarok

KEŽMAROK
MODERNÝ • DYNAMICKÝ • HISTORICKÝ

Municipality: Kežmarok
Country: Slovakia
Population: 16,268
www.kezmarok.sk
Google Maps



The City of Kežmarok carried out a pilot project to implement an Internet of Things in the waste management system. Based on the results, the city expanded its goals by formulating a more extensive and specific strategy for integrating the Internet of Things into public services and infrastructure. The city's overall goal is to improve its residents' quality of life and services.

Goals of the project

The project's goal was the international exchange of experiences, new modern trends and challenges in the field of digitalisation in cities based on the Internet of Things (IoT). The city's participation was aimed at implementing a small-scale action in waste management using IoT technology.

Project results

After the small-scale action, the city gained valuable experience and data, from which it was able to formulate several key findings:

- The city didn't have the necessary IoT network coverage, so GSM sensors were chosen. This put a strain on the battery life of the sensors, and some of the sensor functions could not be fully explored.
- High entry cost for IoT implementation across the city.
- Long-term return on investment.
- Some sensors malfunctioned, and the vendor/manufacturer wasn't able to resolve the issues.
- Real-time data transmission and display on the management platform.
- Effective waste collection and route planning based on real-time data on bin levels.
- Possible loss or damage of sensors.

What can be learned?

- The benefits of international cooperation between cities and the experiences exchange when introducing highly innovative and modern solutions.
- The initial smaller project gained valuable data, based on which the city could formulate its next steps.
- Formulating future strategies, converted into specific actions with timescale, measurables, responsibilities, budgets, and funding sources, is necessary for tracking and making desirable progress.

FULL VERSION IN ENGLISH

Smart heating for the entire village in Luson

Municipality: Luson
Country: Italy
Population: 1,608
www.gemeinde.luesen.bz.it
Google Maps

In 2007, The Municipality of Luson realized a state-of-the-art district heating plant that supplies the village with cost-effective heating and hot water and employs sensors to detect and locate damage in the pipes. Furthermore, the smart system allows for decentralized adjustments at the customer's request.

Goals of the project

The Municipality of Luson faced the challenge of renewing the heating systems of several public buildings. A central solution was envisaged, but this would not have been profitable only for the public buildings. So the idea was born to connect private households and companies and realize a district heating plant for the whole village.

The goal was a technically modern, digitally controlled system that was the optimal size for the catchment area. For Luson, the district heating plant needed to be self-supporting through the fees collected and not burden the municipal budget. Households not connected to the district heating network should not have to pay for it indirectly through taxes.

Project results

Today, the district heating network is very well accepted in the community of Luson, and most households in the catchment area are connected. The system's digital control, which enables fully automatic operation and automatic reporting of faults or malfunctions, contributes significantly to this as well.

What can be learned?

- A comprehensive business plan that takes into account all the costs is fundamental for every project.
- A district heating plant can generate savings as the municipality no longer has to maintain and renew the heating systems of the public buildings individually.

Tracking the municipality's energy consumption with the Energy Report Online in Lana

Municipality: Lana
Country: Italy
Population: 12,617
www.gemeinde.lana.bz.it
Google Maps

The Municipality of Lana uses the Energy Report Online software. This tool records all public buildings and facilities' annual water and energy consumption. The ERO is an essential tool for decision-makers that can help reduce consumption and costs.

Goals of the project

The ERO was introduced in Lana together with the "*KlimaGemeinde*" program. The aim was to make the energy consumption of the public facilities of the Municipality of Lana transparent. Specifically, the objective was to create a permanent possibility for review and controlling. The data collected this way served as a basis for well-founded decisions. At the same time, the data was also to be used for external communication in order to show the citizens where there is a need to catch up and where there is a need for improvement.

Project results

The first energy report from the ERO was created in 2017, the year of implementation. The system was further maintained and expanded, and the annual consumptions continued to be recorded.

The ERO has increased awareness among the municipality's political representatives and employees about sustainability and energy saving. The energy report was also presented to the citizens to raise their awareness.

The improved information situation has also served as a basis for decision-making. For example, the most prominent "energy guzzlers" could be identified, and the community's modernization and refurbishment projects were prioritized accordingly.

What can be learned?

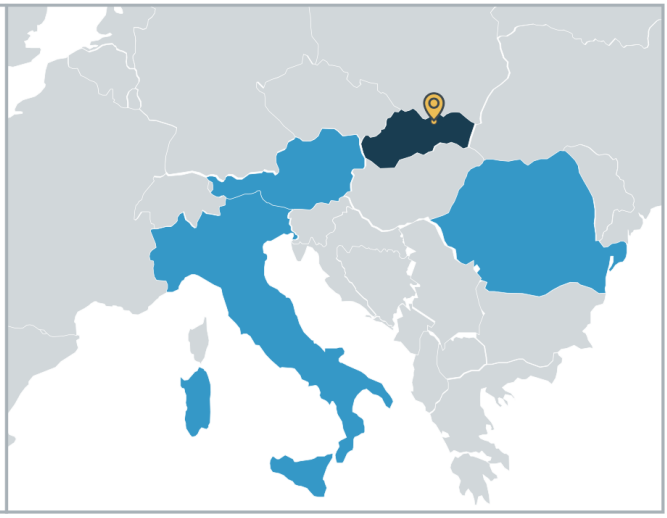
- Better monitoring of energy consumption creates awareness and supports the decision-making processes.
- A standardized monitoring system that allows for inter-municipal comparison is advisable.

FULL VERSION IN ENGLISH

Mapping the city: Kežmarok's GEO Information System

KEŽMAROK
MODERNÝ • DYNAMICKÝ • HISTORICKÝ

Municipality: Kežmarok
Country: Slovakia
Population: 16,268
www.kezmarok.sk
Google Maps



The City of Kežmarok has created a 2D and 3D geoinformation system that maps the entire above- ground and underground infrastructure. The information system includes GPS coordinates of all underground pipelines, fibre optic cables, buildings, roads, sidewalks, parks, individual trees, and other greenery. The availability and easy accessibility of the collected data allows the city to better plan its development activities, formulate public policies and communicate with the public about any interventions.

Goals of the project

The *GEO Information System* aimed to create a 2D and 3D map of the entire city, including its surface and underground infrastructure. The intention is to make the system available to the public and, in more detail, to various professions. The city office is regularly inundated with requests from the public or companies for the location of underground networks. A fully mapped and updated information system with exact GPS coordinates makes this information easily available. Based on the authorisation of a particular profession of the requesting person, the data can be accessed directly without the need to visit the city office. This saves office hours, time and personal expenses.

Project results

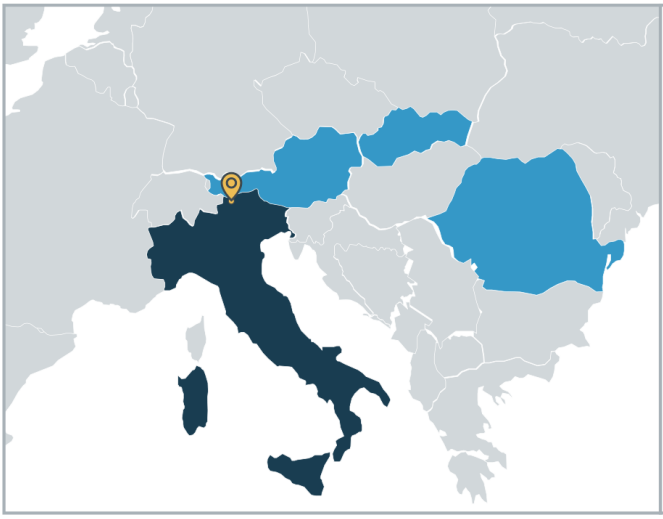
The *GEO Information System* is a full 2D and 3D city map with concrete locations and GPS coordinates. The mapped infrastructure includes buildings, roads, sidewalks, underground networks, fibre optic internet cables, trees, greenery, parks, and city surveillance cameras, but also the territorial plan of the city with parcels, land type, area in square metres, land use and property list. The mapped infrastructure and collected data are being actively used.

What can be learned?

- Ease and convenience of data accessibility leads to effective self-government management.
- Information systems with automated data availability for authorized persons optimize city administrative activities and save office hours, personal and financial resources.
- Available and open data are used for better communicating public policies to the stakeholders and inhabitants.
- Collecting, managing, and using city infrastructure data help formulate local public policies as evidence-based policymaking.

FULL VERSION IN ENGLISH

Digital line management of the Municipality of Naturno



Municipality: Naturno
Country: Italy
Population: 6,096
www.gemeinde.naturns.bz.it
Google Maps

Naturno developed a digital pipeline register to manage the municipality's water and wastewater pipeline network, the street lighting network, and the district heating and fibre optic networks.

Goals of the project

Naturno has set itself the goal of surveying the entire pipeline network in the municipality and presenting it as a digital pipeline register. The municipality hopes this will provide optimized support for maintenance work, rapid detection of faults and damage, early identification of structural problems, and constantly updated data for all stakeholders. Digitization should not only relieve the burden on the municipality's building yard and reduce costs incurred by third parties but also significantly reduce administrative expenses.

Project results

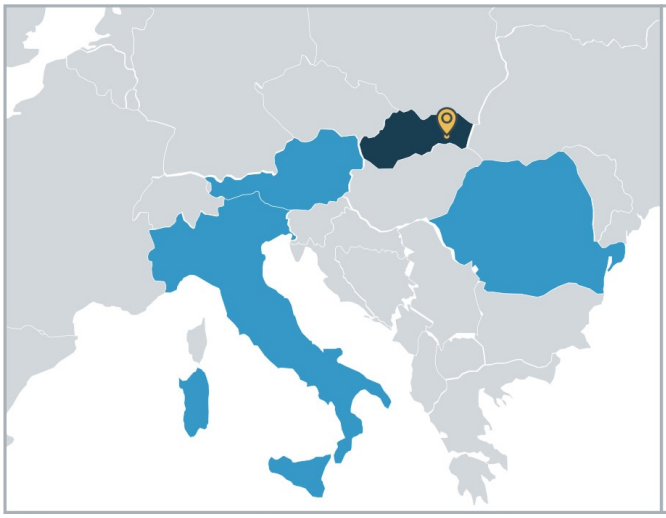
The project is in full swing. The first data is promising and underlines the need for documentation and digital line management. The practical possibility of seeing where the lines are without having to send the foreman every time is a great added value.

The software solution for the municipality's digital processing of the pipeline register and user-friendly access via app for all stakeholders (administration, citizens, technicians, etc.) will follow after the detailed data collection.

What can be learned?

- A digital pipeline register to support the management of the municipality's infrastructure is beneficial.
- Knowledge should be externalized and documented, reducing the reliance on individual employees.
- EU funding is critical for (small) municipalities in the financing of such projects.

Adopt a Sidewalk in the City of Košice



Municipality: Košice
Country: Slovakia
Population: 229,040
www.kosice.sk
Google Maps

The City of Košice has directly involved its residents in the winter maintenance of sidewalks, using the Adopt a Sidewalk principle. Each person involved is responsible for a specific section of sidewalk, maintains it during winter, and is financially rewarded for doing so. The city developed a smartphone app to manage the community of participating residents. It allows for sending notifications about the need for winter cleaning, sending images of the condition before and after cleaning, and providing an overview of the work done and the rewards awarded.

Goals of the project

The City of Košice aimed to cope with an increase in winter maintenance. During the winter season, the city involves its residents in the maintenance of sidewalks. The city focused on those parts of the city where sidewalks couldn't be accessed by winter maintenance vehicles and equipment and had to be shovelled and cleared of snow and ice by hand. The involvement of residents in the cleaning of sidewalks and the adoption principle were chosen to increase the residents' responsibility for "their" sidewalk. The community acts as a supervisor of the work carried out on site. The aim was to improve the overall quality of winter maintenance and the speed of intervention when necessary.

Project results

In the 2021/2022 winter season, a total of 710 sidewalk sections were made available through the app, of which 707 were successfully adopted for winter maintenance. The number of adopted sidewalks increased by 30% compared to the previous winter season.

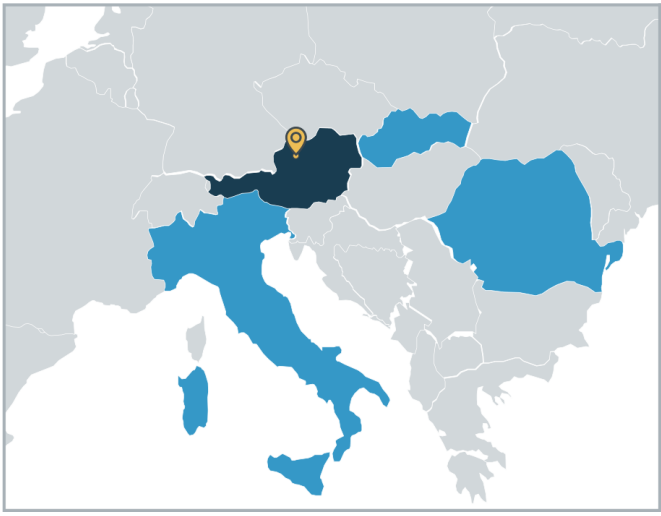
The 2022/2023 winter season confirmed the interest of residents in the project. A total of 1,400 residents registered via the app to adopt one of the 832 pre-defined available sidewalk sections. In total, 759 sidewalks were adopted, and the city managed the rest.

What can be learned?

- Direct involvement of residents can lead to better public services.
- Direct involvement of residents can lead to more effective use of public financial resources.
- Residents involved in the city's public services are rewarded financially and feel more responsible for the area and environment in which they live.
- Using app-based technologies for smartphones helps to manage cooperation and communication between the city and the residents involved.

FULL VERSION IN ENGLISH

Project Alexa – a voice input and output system for the citizens of Kremsmünster



Municipality: Kremsmünster
Country: Austria
Population: 6,710
www.kremsmuenster.at
Google Maps

The Municipality of Kremsmünster developed a voice input and output system for the citizens of Kremsmünster to provide a service in addition to the citizen service in the town hall. This system was developed as a skill for Alexa and made available to the public for download.

Goals of the project

The idea was initially to develop a voice input and output system that would answer citizens' questions in front of the city hall. It should serve as a supplement service outside the opening hours of the personal citizen service in the city hall and as an additional service to the existing website and social media.

However, this idea could not be fully implemented, as individual findings contradicted it during project implementation. The project team, therefore, set itself the goal of programming an Alexa skill and making it available to the public.

Project results

There are no figures on the use of the skill after its publication. It is estimated that it was/is used by at least 100 citizens of the municipality. In addition, the skill was also downloaded by interested people from all over Austria. The Alexa itself was set up in the secretary's office of the town hall. No further development has taken place since the project was completed in 2017.

What can be learned?

- In the future, speech input/output systems can supplement and expand communication with information for citizens in public administration.
- It is crucial to use open systems that are available for use by all citizens.
- It would be helpful if several municipalities and/or cities cooperate for the development and work together on a new speech input/output solution.

FULL VERSION IN ENGLISH

A town hall closer to people at a click away, Bucharest, Romania

Municipality: Bucharest
Country: Romania
Population: 241,585
https://sector5.ro
Google Maps

The project “A town hall closer to people at a click away” improves the decision-making process, strategic planning and budget execution, as well as the quality and performance of the management of the Sector 5 Bucharest municipal government.

Goals of the project

The project's general objective is to improve the decision-making process, strategic planning, and budget execution. The project also aims to ensure the quality and performance of the management of the Sector 5 municipal government and simplification measures for citizens.

Project results

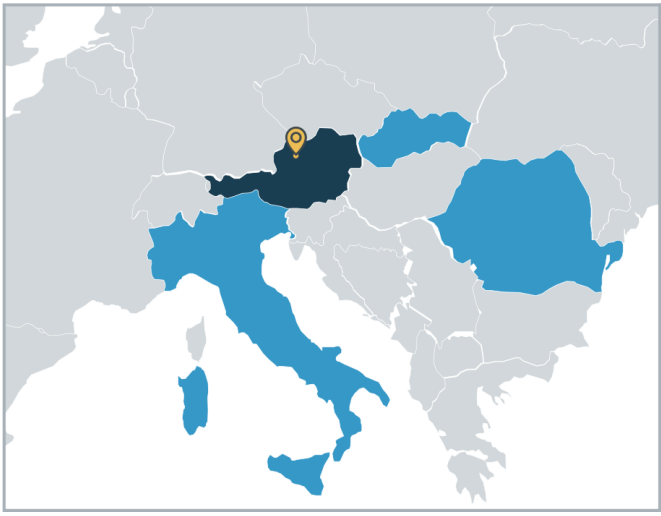
1. Impact assessments for all regulatory administrative acts issued in 2019.
2. Public policies that require financial resources from the institution's budgets for 2020-2021 have been elaborated.
3. The ex-post analysis of the public policies/strategies/local council decisions developed/approved since 2016.
4. A set of criteria for prioritising investments in education, health, social welfare, and infrastructure (environment and transport) has been developed.
5. An institutional strategic plan has been developed.
6. ISO9001:2015 Quality and Performance Management System implemented.
7. “Innovation and civic imagination” Centre established and operationalised.
8. The CAF Quality and Performance Management System was implemented.
9. An IT system for process optimisation was developed and implemented at PS 5 level.
10. Ten training sessions were held with 150 people trained in standard mechanisms and procedures.
11. SCIM application developed and implemented.

What can be learned?

- Creating an online platform and developing an IT system for interaction with citizens should be a priority Sometimes, an unexpected external crisis (like the occurrence of the COVID-19 pandemic in the case of this project) may significantly impact achieving all the project results on time. Hence for a better implementation, a more extended time frame may be adequate for projects of similar complexity.

FULL VERSION IN ENGLISH

Kremsmünster’s electronic official board



Municipality: Kremsmünster
Country: Austria
Population: 6,710
www.kremsmuenster.at
Google Maps

The electronic official board makes it possible to provide citizens with information about the municipality and ordinances in digital form. It is a touchscreen monitor installed near or inside the municipal office, replacing the display box. The unique feature of this official notice board is its legal conformity, which means it is no longer necessary to post ordinances in paper form.

Goals of the project

The project of the electronic official board aimed at making municipal information and ordinances visible on one screen. A decisive factor was the integration and linking with the already existing website and app system. All channels (website, app and electronic official board) were to be served and provided with information simultaneously through a single system. Another key objective was achieving legal compliance in the publication of ordinances.

The legally compliant electronic official board should reduce the time required to maintain the display cases and the process of announcing the ordinances. The citizens should also have access to current and more information 24 hours a day, 7 days a week, in front of the city hall.

Project results

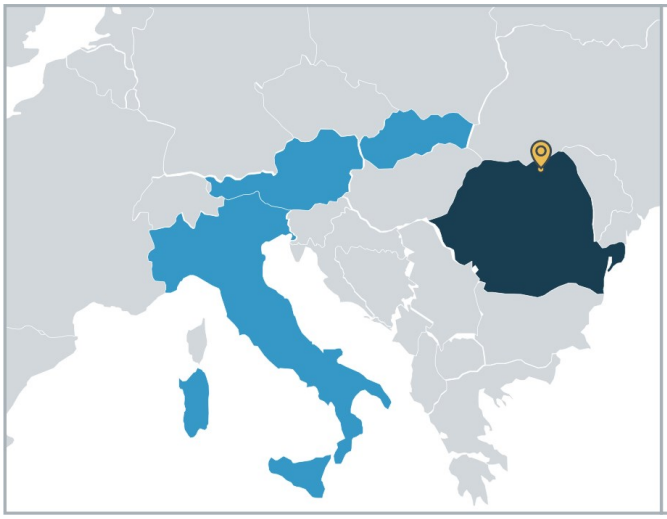
The legally compliant electronic office board was put into operation on December 2, 2019. According to the head of the administration, the electronic official board is used more frequently by citizens than the display. Now, much more content is accessible. For example, users can view photos of recent events or read the municipal newspaper.

What can be learned?

- The electronic official board is a valuable tool for municipalities that offers citizens additional information and a user-friendly application through a touchscreen monitor.
- For municipal employees, the legally compliant digital posting of ordinances with the digital time stamp saves time in their daily work.
- The electronic notice board developed by Kremsmünster is available for sale from the companies involved. It is already being used by many other municipalities in Austria.
- It must be integrated into already existing software and systems.

FULL VERSION IN ENGLISH

Gura Humorului: implementing a video monitoring system to increase safety and prevent crime



Municipality: Gura Humorului
Country: Romania
Population: 11,402
www.gurahumorului.info
Google Maps

The Municipality of Gura Humorului provided an optimal tool for video-supervising the key areas in town. It improved public safety and solved the issue of environmental preservation and traffic flow through a better monitoring system.

Goals of the project

The two main objectives of the project are permanent video surveillance of the main areas of the city and to create of a digital monitoring platform to reduce car accidents and criminal activities as well as increase environmental protection (to identify and punish persons or economic agents who pollute the environment through unauthorised disposal of household/industrial waste).

Project results

1. The dispatcher, which monitors and manages video devices, is a timely intervention tool - its primary utility is prevention and rapid, real-time, on-site intervention.
2. There has been an improvement in the work of all the structures responsible for protecting citizens and public property (Police and Gendarmerie).
3. The time taken to investigate a crime and the cost of investigating and resolving cases is significantly reduced. This has positively impacted public safety in a tourist destination of national interest that has grown in popularity in recent years.
4. The corruption among traffic police officers has been reduced.
5. There has been a massive reduction in crime and vandalism. There has also been a steady decrease in the number of cases of environmental pollution.

What can be learned?

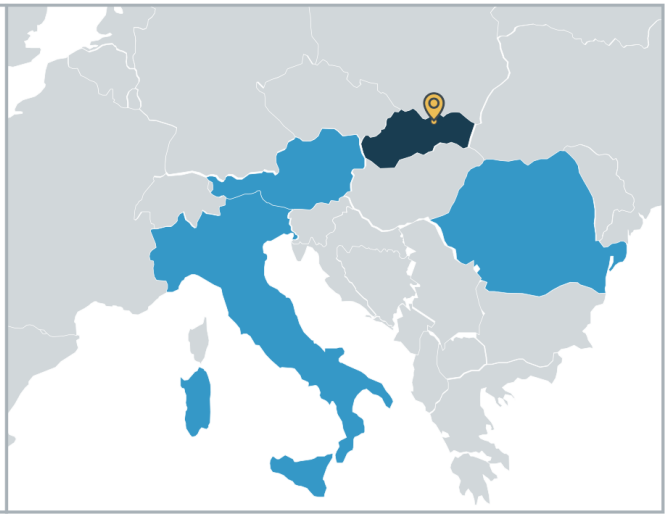
- Good knowledge of the project environment is crucial for planning correctly. Always consider the changes that might occur during the project implementation (political, economic, legislative etc., inside and outside the country.
- Good video monitoring leads to a decrease in crime and vandalism and the costs of combating them.
- A good project can generate ideas for other projects that can be applied in other municipalities, as is the case of the video monitoring system.

FULL VERSION IN ENGLISH

City Police MSP SOS security app in the City of Kežmarok

KEŽMAROK
MODERNÝ • DYNAMICKÝ • HISTORICKÝ

Municipality: Kežmarok
Country: Slovakia
Population: 16,268
www.kezmarok.sk
Google Maps



The City of Kežmarok, in close cooperation with a private company, has developed the MSP SOS mobile phone security application to increase the safety of its residents. The MSP SOS is connected to the camera surveillance infrastructure of the City Police. It combines modern information and communication technologies with City Police interventions.

Goals of the project

The main goal of developing and operating the MSP SOS App was to create an environment in the city where residents could feel safe and comfortable. The City of Kežmarok was the first city in the Slovak Republic to provide its citizens with such a security service application. This means the application was developed as a unique project for the City of Kežmarok.

Project results

The MSP SOS App provides its services free of charge and based on an initial registration by the user. The user enters their first name, last name, and telephone number during the initial registration process. After registration, the user receives a verification code to validate the registration process. The application is supported across different mobile operating systems and requires mobile data or Wi-Fi Internet access. The purpose of registration is to restrict use to the intended area and users. The service provider can also block the user in case of potential misuse.

After successful registration, the App offers three main services: *SOS alert*, *Feeling distressed* and *Create a report*.

What can be learned?

- Integration of city police and camera surveillance infrastructure with modern AI-based applications.
- Cooperation of the city with private sector developers to create a unique solution for the city.
- Complementing autonomous ICT-based and human-operated systems.
- Developing a complex city security system.

A platform for administrative simplification and better services in Bacău

Municipality: Bacău
Country: Romania
Population: 196,886
https://municipiulbacau.ro
Google Maps

The Municipality of Bacău has launched a project to implement innovative digital systems to simplify the delivery of services to citizens and to digitise the municipal archive.

Goals of the project

The project's goal was to improve the administrative efficiency of Bacău by implementing innovative digital systems to simplify the delivery of services to citizens and businesses. It also aimed to include the digitalisation of the municipal archive and meet the specific objectives of the *Administrative Capacity Operational Program (ACOP)*.

Project results

Following the implementation of SIPOCA 571, a complete electronic communication channel between citizens and public officials has been completed, increasing the efficiency of this relationship through the expected results of the project, namely:

1. The front-office digital platform (portal type) to ensure online access to the services managed and provided by the municipality, including the geospatial map.
2. The back-office digital platform is configured, implemented and integrated with the front-office platform.
3. Electronic services are available in the municipality's portal, accessible to the beneficiaries of public services.
4. Staff trained in the use and management of the implemented digital systems.

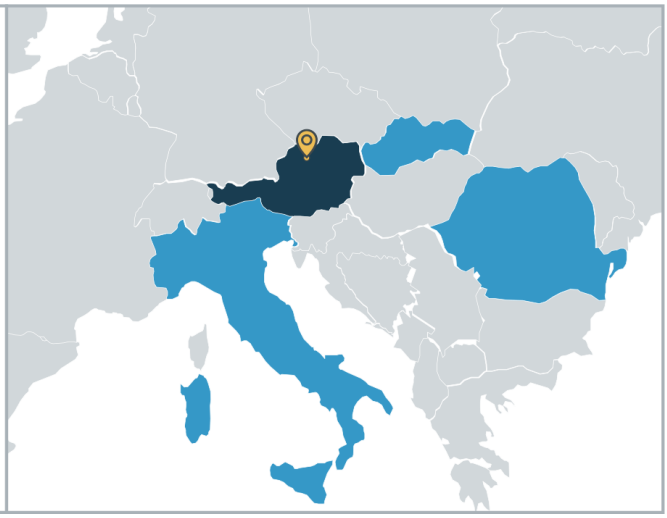
What can be learned?

- Improving administrative efficiency requires extensive involvement of stakeholders (public, private and the community).
- Applying to specialists is more cost-effective in the long run and prevents the adverse effects of the overconfidence bias, especially within teams lacking experience in similar projects.
- Communication between stakeholders is crucial for the completion of a project.
- When planning, always consider the unexpected, and cover the risks accordingly.

FULL VERSION IN ENGLISH

Process management in Linz

Municipality: Linz
Country: Austria
Population: 208,000
https://www.linz.at/
Google Maps



Process management should help the local administration to focus on its client's needs and demands. It should significantly improve the administration's efficiency and support and drive forward digitalisation. Repetitive processes should be standardized, leading to a higher and more consistent quality of results. Process management depends heavily on digitization and fosters digitalisation at the same time. Process management should lead to an integrated approach involving all actors of a particular process.

Goals of the project

The idea behind process management is to plan and carry out repetitive, standardized activities in an integral way. Most activities consist of many different tasks carried out by different people, departments, organizational branches or even numerous institutions. In process management, these activities are no longer seen as a sequence of isolated tasks but as one integral process.

The main objective is to make the local administration more efficient and modern. Processes should be standardized, and this standardization should lead to a higher and more consistent quality of results.

Project results

While process management will be fully implemented at some point, it is still a "never-ending" project. Processes must be continuously monitored, updated, adapted to new expectations and demands, and, if possible, further improved. An essential part of process management is the process map. This map illustrates the clusters processes can be categorized in. When selecting a cluster, the map "zooms in" and reveals the processes that are part of this cluster.

What can be learned?

- Process management can help to increase a local administration’s efficiency and to ensure a high and consistent quality of work.
- Convincing all actors involved in or affected by the project is crucial.
- It is crucial to choose an appropriate and capable software solution.
- The local administration’s mindset must be adapted to process management.
- Process management is a necessary basis and milestone in digitalisation.

Modern administrative mechanisms and procedures in Giurgiu City Hall (MEPAM)

Municipality: Giurgiu
Country: Romania
Population: 65,147
www.primariagiurgiu.ro
Google Maps

The Municipality of Giurgiu uses the project to increase institutional capacities regarding fundamental decisions and strategic planning in the long term and to implement innovative digital systems to simplify service delivery to the citizens.

Goals of the project

The main objective was to modernise the mechanisms and administrative procedures at the level of Giurgiu Municipality. The project focused on increasing the institutional capacities regarding fundamental decisions and strategic planning in the long term and reducing bureaucracy by implementing and supporting the simplification measures for services provided to the community.

Project results

1. The Sustainable Development Strategy (SDD) of Giurgiu Municipality.
2. Functional participatory budgeting mechanism.
3. IT system of the one-stop-shop type online and physically functional.
4. Internal online office.
5. Mobile application for citizens.
6. Automatic transmission of messages.
7. Citizens can make online appointments for public services.
8. Automatization of revenue/taxes management activity.

What can be learned?

- Involving external stakeholders proved beneficial for the planning stage and managing the project activities afterwards.
- The local community could participate actively in achieving the municipality project portfolio.
- Increasing transparency improves citizens' satisfaction regarding their interaction with public authorities.

FULL VERSION IN ENGLISH

Conclusion

Digitalisation has become an integral part of our daily lives. We are always connected and expect access to information and services from everywhere. There is great potential in providing public services using digital means and ICT tools. The digitally delivered public services present ways to rationalise the provision of competencies that the municipalities and cities have, to engage inhabitants in governance, to enhance the provision of public services qualitatively, to base public policymaking on evidence and to take transparency and openness into consideration when providing public services.

Despite the advantages, the public sector – especially smaller public entities such as municipalities – can face challenges when digitalising public services and administrative processes. This handbook aims to support municipalities of all sizes on their way to digital administration by providing concrete and practical examples of projects and services successfully implemented by its peers.

Some of the good practice examples in this are specific projects with a narrow focus, while others are more strategic in nature. However, the showcased examples are well integrated in the municipality's public administration in both cases. Therefore, a general takeaway of this handbook is the importance of a strategic plan in the municipal administration to deal with digitalisation.

Even though digitalisation might be a struggle for municipalities all over Europe, not innovating and remaining stuck in the past is not an option. Hopefully, this handbook will help practitioners focus their digitalisation efforts on areas where other municipalities have already succeeded and learn from their experiences.

BIBLIOGRAPHY

ABOUT THE AUTORS