

The European Commission's  
**INTELLIGENT CITIES  
CHALLENGE**

This document was compiled by the City of Gdansk. The information and views set out in this report are those of the City and do not necessarily reflect the official opinion of EISMEA or of the European Commission. Neither EISMEA, nor the European Commission can guarantee the accuracy of the data included in this document. Neither EISMEA, nor the European Commission or any person acting on their behalf may be held responsible for the use which may be made of the information contained therein.

# Gdańsk: Intelligent City Transformation Overview

ICC Final Deliverable

## Executive summary

Gdańsk is seeking an integrated approach to eGov services, which currently are provided through different IT systems and web applications without a common customer experience. The upgrade of Open Data Project is needed, to provide more up-to-date and automated flow of data from the local government to residents. According to the above an internal data governance policy is needed to be developed.

Gdańsk needs to increase a share of green energy in electricity and heat consumption volume. This result could be achieved by the use of own prosumer installation. To stabilise the system, energy storage units are necessary.

Large number of old municipal and residential buildings require termorenovation and replace coal stoves by modern heat sources. Implementation of efficient energy management systems should reduce energy consumption and costs for residents.

# The city of Gdańsk pursued an EU-supported transformation over four main stages, and this document details that journey by these sections

Overview to the city's journey and structure of this document



## 1 Preparation & assessment

5 months:  
September 2020 – January 2021



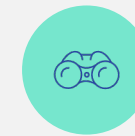
## 2 Ambition & roadmap

3 months:  
February 2021 – April 2021



## 3 Implementation

15 months  
May 2021 – July 2022



## 4 Review & way forward

2 months  
August 2022 – September 2022

*Reported as  
one section*

### Summary

Find out **where a city is, where it should go** and who in the ecosystem is going to **mobilise make things happen**

Develop a **concrete plan** to achieve **measured improvements**, collaborating with the community; push action with immediate benefits

Get “big moves” **done** and **see results**; take **action in partnership** with others

Measure success, and commit to **keep connections and improvements going**

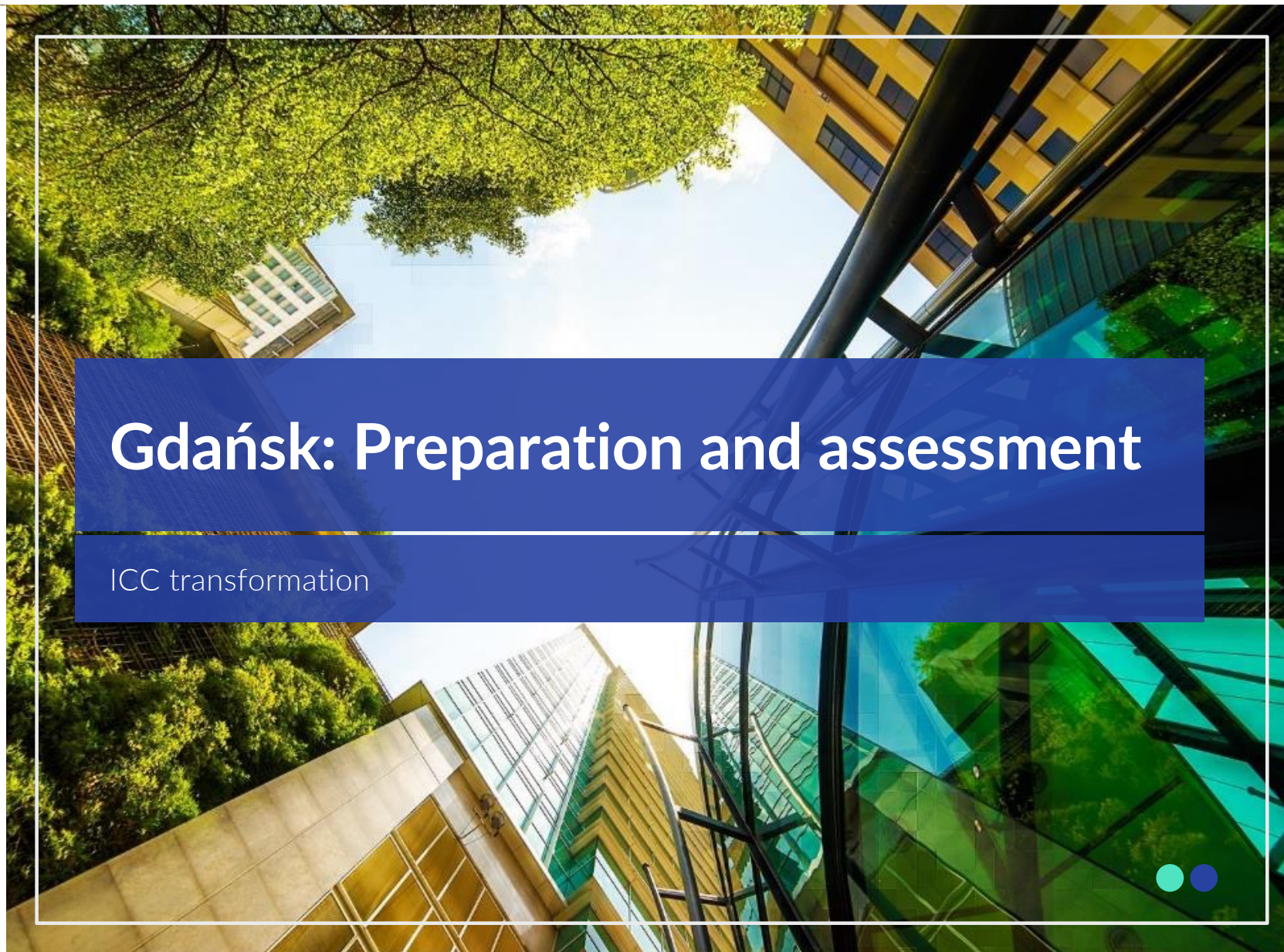
Section

1

# Gdańsk: Preparation and assessment

ICC transformation

September 2020 to January  
2021



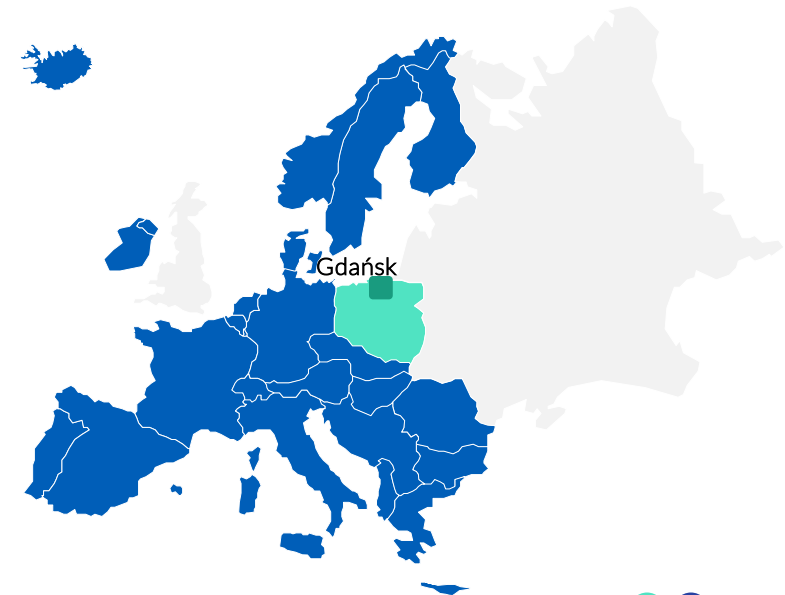
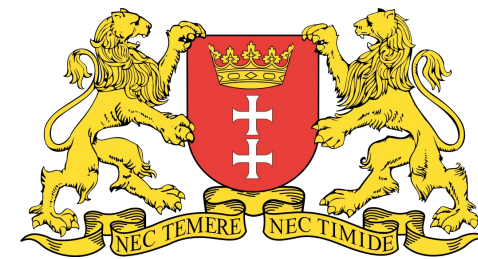
## Introduction

Gdansk, the capital of Pomeranian Voivodeship located on the coast of Baltic Sea, is a town during the transformation toward a smart city.

Gdańsk has been implementing projects and initiatives for many years, and, above all, is designing and implementing a consistent policy that falls within what is nowadays understood by “smart” or “wise city”. In recent years, the assumptions of Gdańsk policy have been clearly formulated in Gdańsk 2030+ Strategy, which was prepared as a result of the inclusive and participatory process of consultations and workshops held with the active involvement of a wide spectrum of stakeholders.


For Gdansk and the whole metropolis, the concept of smart cities is an **opportunity** to improve the functioning of the whole area by way of effective, economical and ecological management. This will be reflected in the efficiency of, among others, public services, mobility, energy and dialogue with the inhabitants. This assumption fits into the sustainable development policy of the European Union and is a chance to change the city’s face as one which is friendlier to its users.


According to the Gdansk 2030+ development strategy, efficient management of Gdansk’s public space and constant improvement of the comfort of its inhabitants’ life are not possible without comprehensive solutions based on modern technologies. Above mentioned goals from Gdansk’s strategy get even more important in the time of COVID-19 pandemic, since there is a growing need for leveraging advanced technologies in the city.




# State of the city overview: City of Gdańsk

Significant of insight to what we want to do on the ICC

 Of critical importance to ICC journey and we should be working to change

 Of importance to ICC journey, and we should act to changed this along the journey as opportunity presents

 Contextually relevant, but not major point of attention in ICC and unlikely to be impacted on the journey

## The state of our city today

- Heating system of the city includes coal fueled CHP (221 MWe, 692 MWt, annual production: 723 GWh and 7979 TJ), local heating network (more than 700 km of network, 60% of heat volume in the city), local gas network cover 20% of heat needs. Rest of the needs of heat energy is fulfilled from local coal red boilers. RES cover less than 2% of the volume.
- Electroenergy system is a part of national grid and it is owned and operated by local energy company ENERGA Operator. 17 % of energy provided by EOP comes from RES only.
- There is about 10.000 households heated by coal stoves, more than 6.500 of them is owned by municipality. 99% of public buildings are connected to local heating grid or to the gas pipe.
- Being partially dependent on technology provided by the central government, there is a need for more flexibility in building eGov and open data solutions for Gdańsk. Approximately only 15% of Gdańsk residents use trusted digital tools to contact local authorities, and there is a potential for growth.
- There is also little integration among IT systems of departments providing services for residents, for example in the fields of tax fees, or waste fees. One stop shop solutions, integrating all areas would be needed.
- There is a potential in Gdańsk Contact Center, open 24/7. In April 2020, 10,6K issues were solved with the help of GCC, compared to 5,7K in August 2019.
- Gdańsk developed its own Open Data project, however next steps are needed, including „internal” open data, allowing faster and smoother data exchange between local government units and easier process for providing data for the open data portal.

## Key insights from city performance analysis

### Higher performance observed

- 1 The growing number of residents contacting local administration through eGov channels
- 2 Advanced real time open data on public transport
- 3 Contact Center providing services 24/7 through channels like phone, mail, chat, social media
- 4 Integration of e-payments on the city web portal
- 5 High level of awareness of residents in RES area
- 6 Comprehensive local programmes and metropolitan cooperation
- 7 High innovative potential of the local ecosystem

### Lower performance observed

- 1 Readiness for a fast deployment of new e-services for residents
- 2 Integration of different sources of data for transport business intelligence in the Transport Authority
- 3 Open Data project to heavily depend on manual data upload
- 4 Low use of tool for data visualization
- 5 High share of coal in the energy economy
- 6 Large number of energy-intensive buildings
- 7 Low capacity of the local renovation companies

# City Ecosystem

## OVERVIEW

- Gdańsk has an ecosystem supporting smart city initiatives
- The leadership is aware that we need to upgrade our e-services and develop local RES
- Open data can build value for scientists and start-ups
- Close metropolitan cooperation facilitate large infrastructure projects.

## Vision of the city by all the stakeholders is common and moves in one direction.

There is a need for improvements in the areas of data flow with a proper quality and also the expansion of e-services in the city's world that consists of authorities, business, and residents. Moreover, the stakeholders notice the necessity of lowering CO2 emissions and investing in green energy.

## Working together in one ecosystem of the city.

The cooperation of local stakeholders is needed to achieve a goal and bring changes to the city. They bring the know-how, support and involvement to the table. City should support also citizens in pro-climate activities.

## Resources for transformation

The city is an experienced entity with trained staff and ability to perform the transformation towards the digital and green city.

# City vision

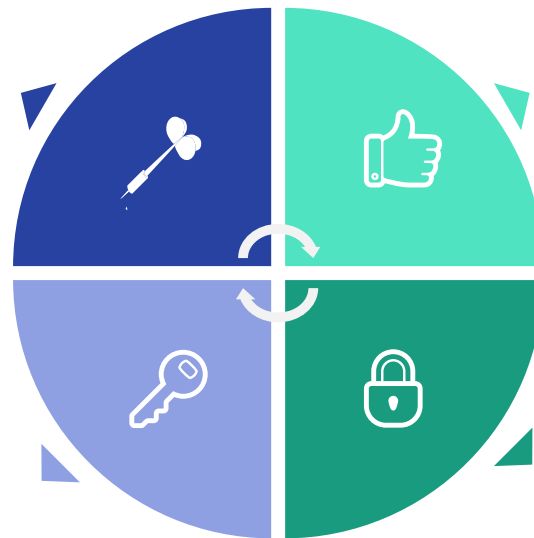
## Gdańsk

### Better e-services

Gdańsk has an ability for a fast deployment of new e-services with one, consistent customer experience

### Energy based on RES

Energy system in Gdańsk is to be based on local RES systems. Lower CO2 emissions, energy efficiency, residents engaged to work together against climate change



### Data quality and open data

Data governance policy is implemented, what helps the organization to increase its performance and focus on delivering a high quality data served also as open data sets

### Efficient building

Energy efficiency management systems applied to all municipal buildings in Gdańsk are a chance for the city to be seen as a green and energy efficient city



## City strategy: justification

The city should be digital by default, with all of its services available on the Internet. A unified customer journey experience is needed. A new approach to open data in Gdańsk, with well designed data governance policy and readiness to deploy new, and high-quality datasets in real time are necessary. Implementation of efficient energy management systems should reduce energy consumption and costs. The city should also be cooperating across all levels, with the authorities and residents to share a vision of a green, energy-efficient place to live.

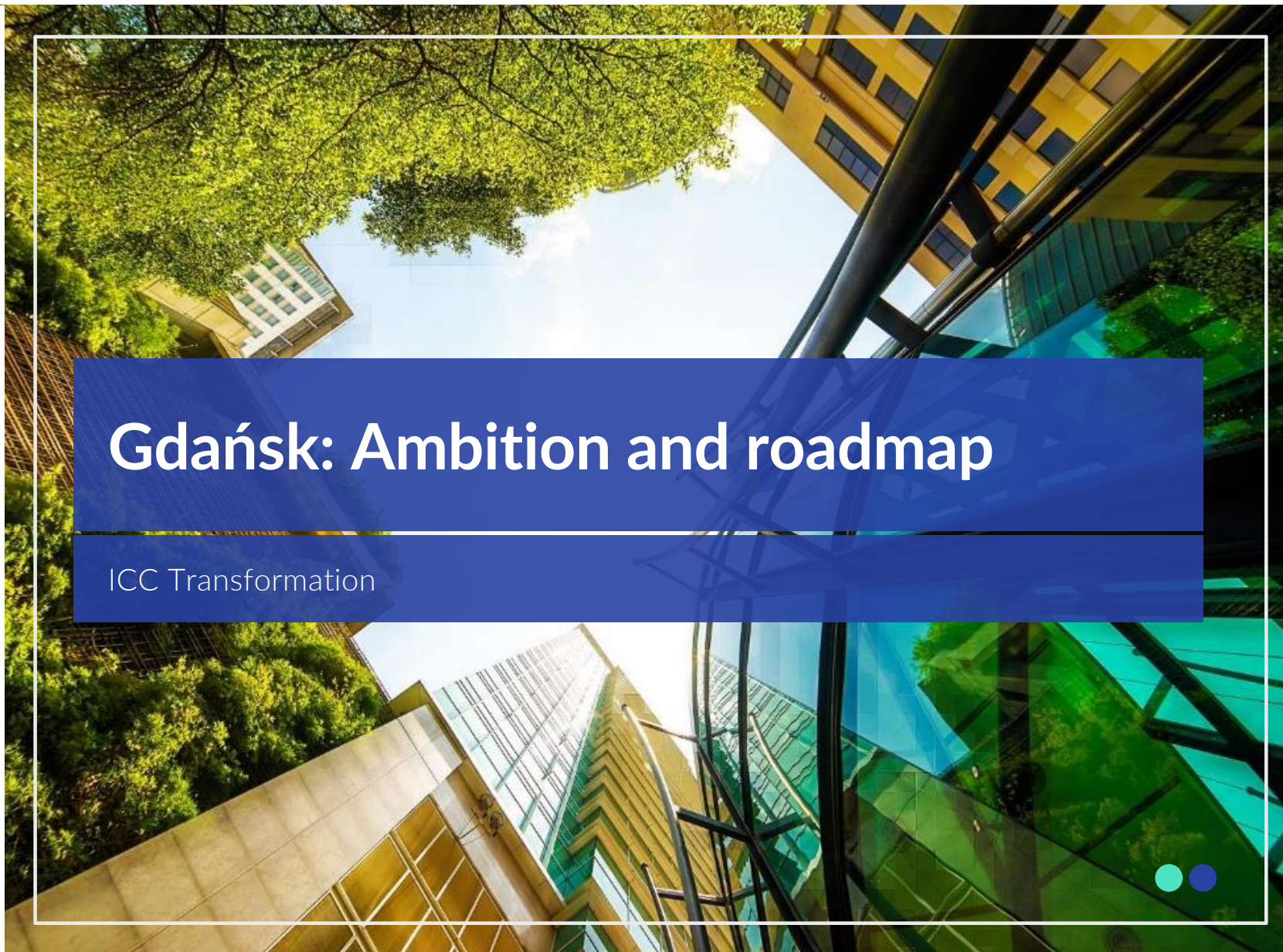
### STRATEGY HIGHLIGHTS:

- IT solutions to help improve the quality of life in Gdańsk based on e-services and open data solutions;
- Ability to deploy new, high-quality e-services on demand;
- Automated and up-to-date flow of open data within the organization;
- Energy system based on RES to work against the climate change;
- Gdańsk as a green and energy efficient city with efficient building for the improvement of the quality of life;

# Gdańsk: Ambition and roadmap

ICC Transformation

February 2021 to May 2021

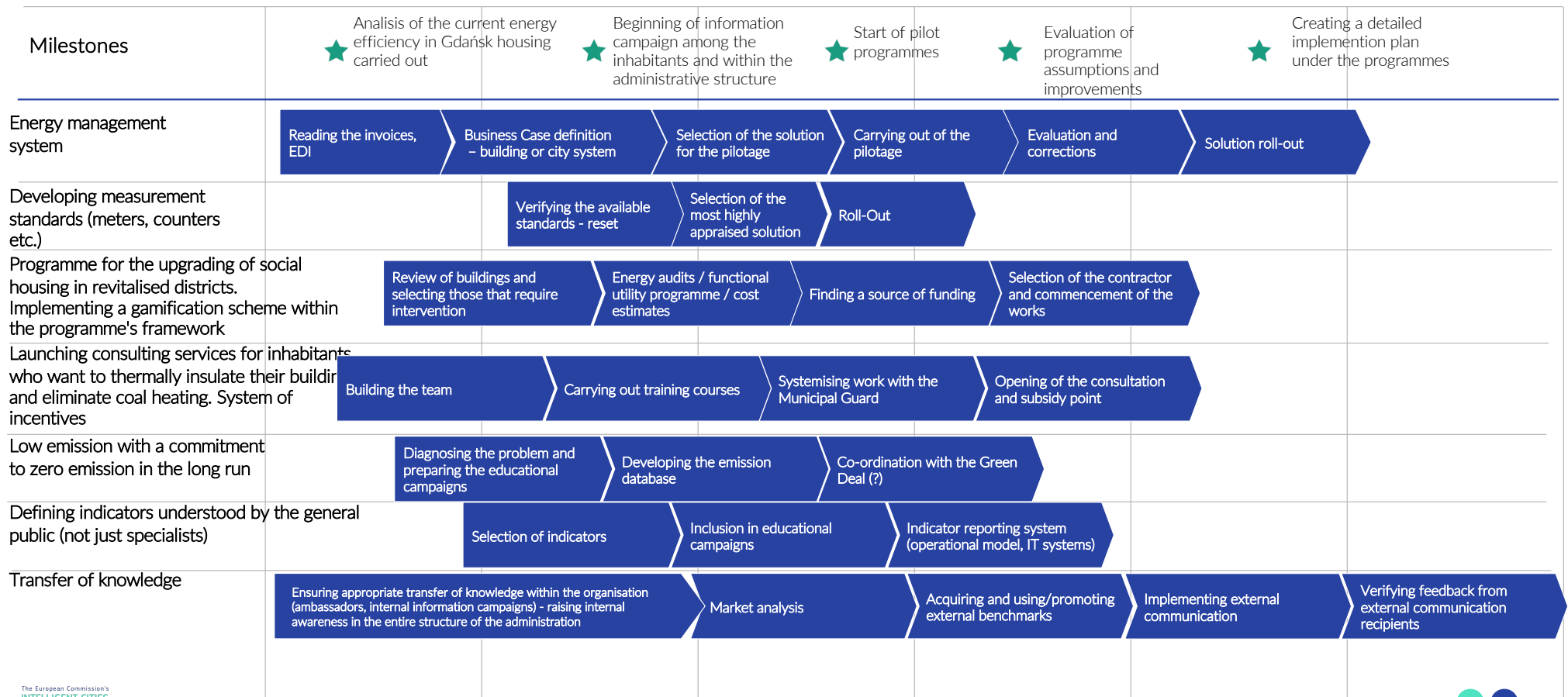


## Roadmap summary

- The city of Gdańsk is aiming to upgrade its capability to manage energy in the city in regard of lowering CO2 emissions and adapting the city to the climate change. The situation awareness will be raised thanks to the better understanding of data gathered by the city on the energy management. Real-time solutions for data analysis will be developed to help develop city's policies.
- An upgraded open data platform is planned to help the city manage its dataset, get better situation awareness and deliver significant data to residents.
- The new approach to delivering e-services to residents is also planned, the ultimate goal being delivering a new platform for all (or almost all) e-services of the city.

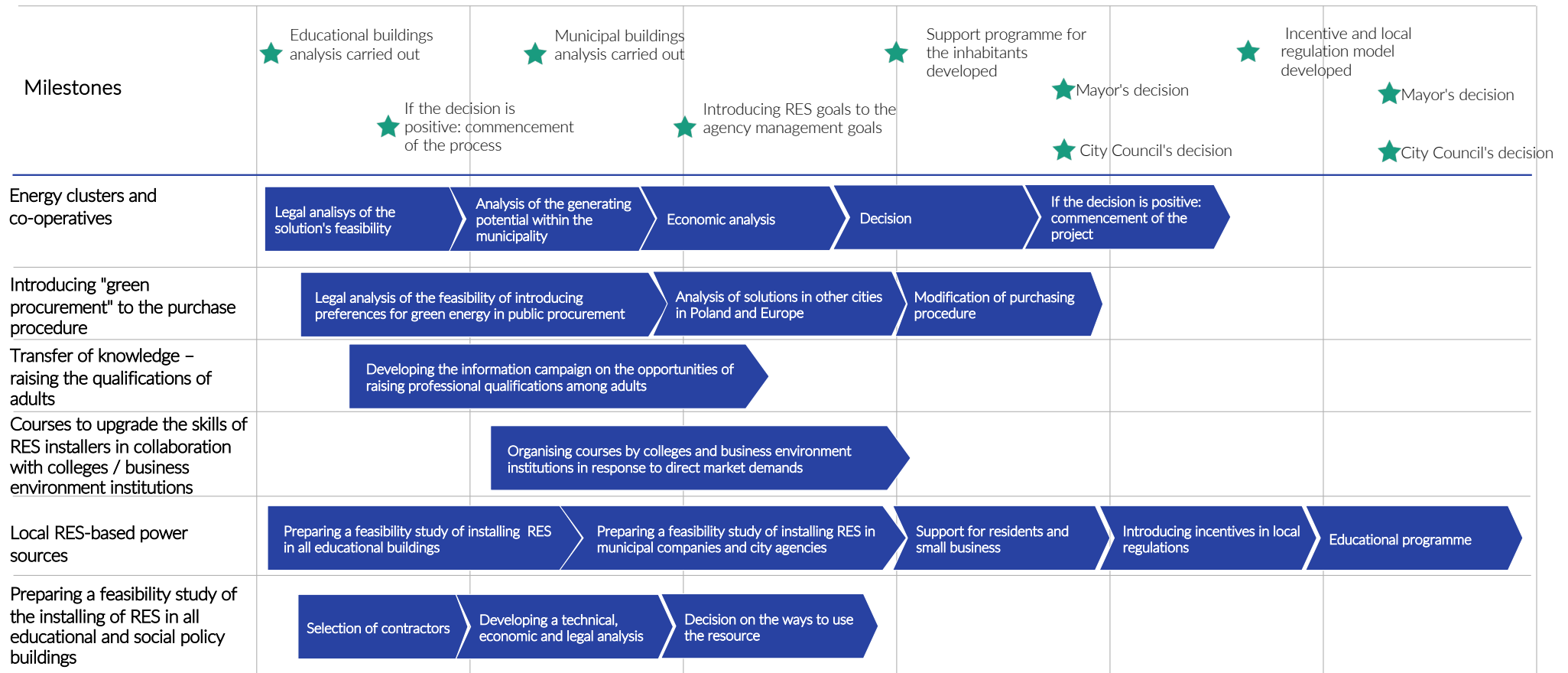
# Efficient housing

Activity  Milestone



# Local RES systems

Activity  Milestone



# e-Services 2.0

Activity

Milestone



## Milestones

★ Analysis of needs concerning the implementation of e-services completed      ★ Analysis of available solutions completed      ★ Commencement of the process of educating local government staff      ★ Commencement of the process of educating groups of inhabitants      ★ Detailed implementation plan developed

Gdańsk City Hall Electronic Customer Service



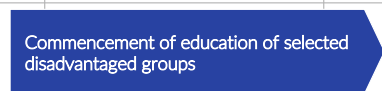
Open Data Platform integrating data from city agencies



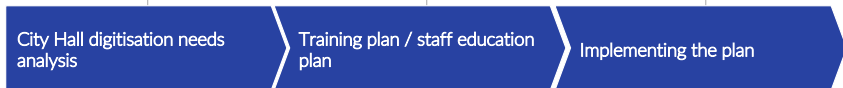
Creating and promoting a one-stop-shop for the Pomeranian startup ecosystem; also in terms of its internationalising



Educating the inhabitants to take advantage of modern tools / technologies



Permanent digital transformation – continuously updating / adapting e-services



Raising the digital competence of public office and local government agency staff



Primacy of digital versions / documentation over hard copy










# New open data solutions

Activity  Milestone














Milestones	★ Defining the city's needs in terms of data acquiring and processing	★ Analysis of the internal IT environment and the solutions used completed	★ Identifying areas to improve	★ Selection of the desired open data solutions	★ Creating a plan to implement the selected solutions	
Open data platform (real-time data – accumulating it and displaying it to the inhabitants)						
Series of courses on open data (under the Starter Incubator and Pomorskie Smart Specialisations)						
Data concerning energy and energy efficiency						
Integration with existing systems in selected areas (e.g. road and rail public transport, measuring CO2 levels, environmental pollution etc.)						

# Initiative charter Efficient building












Strategy	Stakeholders involved	Inputs, outputs, outcomes and impacts
<p><b>Description</b></p>  <p>Energy-efficient municipal housing and eliminating coal heating in residential buildings.</p> <p>Gdańsk needs to increase share of green energy in electricity and heat consumption volume. Result could be achieved by installation own prosumer installation. To stabilize system, Energy storage units are necessary.</p>	<p><b>Solution lead:</b> City Hall of Gdańsk</p>  <hr/> <p><b>Solution working team:</b> Joanna Tobolewicz</p> 	<p><b>Source of funding and estimated cost</b></p> <p>City budget and EU funding</p> 
<p><b>Link to vision</b></p>  <p>Gdańsk as a green and energy efficient city for the improvement of the quality of life.</p>	<p><b>Contributors:</b> Gdańsk Real Estate Management Unit</p> 	<p><b>Solution maturity outputs</b></p> <ul style="list-style-type: none"> <li>• Number of upgraded buildings</li> <li>• Decrease in CO2 emissions</li> </ul> 
<p><b>Link to ambition statement</b></p>  <p>Lower CO2 emissions, energy efficiency, residents engaged to work together against climate change.</p>	<p><b>Risks and mitigation</b></p>  <p>Scope of project in relations to available resources, low predictability of prices trends, stakeholders' engagement.</p>	<p><b>City performance outcomes and impacts</b></p> <p>City performance ought to be improved.</p> 
<p><b>Expected impact and timing</b></p>  <p>Lower emission of CO2 and pollution to air.</p> <p>Impact on the city as a whole.</p> <p>Timing 5+ years.</p>		














# Initiative charter RES local systems

Strategy	Stakeholders involved	Inputs, outputs, outcomes and impacts
<p><b>Description</b></p>  <p>Local RES-based energy systems with energy storage.</p> <p>Large number of old municipal and residential building requires term renovation and replace coal stoves by modern heat sources. Implementation of efficient energy management systems should reduce energy consumption and costs an 20% minimum.</p>	<p><b>Solution lead:</b> City Hall of Gdańsk</p>  <hr/> <p><b>Solution working team:</b> Joanna Tobolewicz</p>  <hr/> <p><b>Contributors:</b> Gdańsk Real Estate Management Unit</p> 	<p><b>Source of funding and estimated cost</b></p> <p>City budget and EU funding</p>  <hr/> <p><b>Solution maturity outputs</b></p> <ul style="list-style-type: none"> <li>• % of RES energy in the volume of energy consumed by the municipality</li> </ul> 
<p><b>Link to vision</b></p>  <p>Gdańsk as a green and energy efficient city for the improvement of the quality of life.</p>	<p><b>Risks and mitigation</b></p>  <p>Scope of project in relations to available resources, low predictability of prices trends, stakeholders' engagement.</p>	<p><b>City performance outcomes and impacts</b></p>  <p>City of Gdansk is on the stage of the selection of the technology for pilot project</p>
<p><b>Link to ambition statement</b></p>  <p>Lower CO2 emissions, energy efficiency, residents engaged to work together against climate change.</p>		
<p><b>Expected impact and timing</b></p>  <p>Lower emission of CO2 and pollution to air, lower costs of Energy.</p> <p>Impact on the city's energy efficiency.</p> <p>Timing 3-5 years.</p>		

# Initiative charter E-services 2.0

Strategy	Stakeholders involved	Inputs, outputs, outcomes and impacts
<p><b>Description</b></p>  <p>Harmonised customer journey through Gdańsk's e-services.</p> <p>The city needs a one stop shop solutions for delivering e-services, instead current 6 separate e-solutions. A unified customer journey experience is needed.</p>	<p><b>Solution lead:</b> City Hall of Gdańsk</p>  <hr/> <p><b>Solution working team:</b> Joanna Tobolewicz</p>	<p><b>Source of funding and estimated cost</b></p> <p>City budget and EU funding</p> 
<p><b>Link to vision</b></p>  <p>IT solutions help improve the quality of life in Gdańsk.</p>	<p><b>Contributors:</b> Gdańsk IT Center, city units providing citizens with services</p>  	<p><b>Solution maturity outputs</b></p> <ul style="list-style-type: none"> <li>• % of trained staff involved in the customer service process,</li> <li>• Percentage of cases dealt with through remote channels</li> </ul> 
<p><b>Link to ambition statement</b></p>  <p>The city can offer its residents more efficient e-services.</p>	<p><b>Risks and mitigation</b></p>  <p>Scope of project in relations to available resources, low predictability of prices trends, stakeholders' engagement.</p>	
<p><b>Expected impact and timing</b></p>  <p>Better performance, more satisfied residents.</p> <p>Impact for the city as a whole.</p> <p>Timing 2-3 years.</p>		<p><b>City performance outcomes and impacts</b></p>  <p>Digitization and automation of local tax proceeding in the city hall. RPA solutions were used. Conclusions from this project are planned to support automation and digitization of the process of registering voters and supporting election process</p>

# Initiative charter New open data solutions

Strategy	Stakeholders involved	Inputs, outputs, outcomes and impacts
<p><b>Description</b></p>  <p>Integrated automatised opendata flow, both within and outside the organization.</p> <p>Instead of manual datasets upload, data flows automatically from city systems. Role management and authorizations help us select data to be available inside or outside organization.</p>	<p><b>Solution lead:</b> City Hall of Gdańsk</p>  <hr/> <p><b>Solution working team:</b> Joanna Tobolewicz</p>	<p><b>Source of funding and estimated cost</b></p> <p>City budget and EU funding</p> 
<p><b>Link to vision</b></p>  <p>IT solutions help improve the quality of life in Gdańsk.</p>	<p><b>Contributors:</b> Gdańsk IT Center, city units, local innovation ecosystem</p>  	<p><b>Solution maturity outputs</b></p> <p>How well a city is using new technological solutions (e.g., increase in broadband coverage, establishment of open data platform and datasets, etc.)</p> 
<p><b>Link to ambition statement</b></p>  <p>Open data supports the development of knowledge-based economy.</p>	<p><b>Risks and mitigation</b></p>  <p>Scope of project in relations to available resources, low predictability of prices trends, stakeholders' engagement.</p>	
<p><b>Expected impact and timing</b></p>  <p>Better performance, more satisfied residents.</p> <p>Impact on data-related business and business, efficient city management.</p> <p>Timing 2 years.</p>		<p><b>City performance outcomes and impacts</b></p>  <p>Digitization and automation of processing open data started within CRUNCH project, in which energy efficiency is measured. Data will be automatically exchanged between the city hall and the partner – Technical University of Gdańsk, with the open data access on the project's site.</p>

# Key Performance indicators

Solution	Solution Maturity - outputs	City performance – outcomes and impacts
Efficient housing	Number of upgraded buildings Decrease in CO2 emissions	% of the buildings in the cities that meet the standards Level of awareness among the inhabitants prior to and after the information campaigns
Local RES systems	% of RES energy in the volume of energy consumed by the municipality	Number of RES systems belonging to the municipality
e-services 2.0	% of trained staff involved in the customer service process; % of internal processes fully digital (no paper);	% of digital services Potential of document digitization
New open data solutions	% of data sources opened automatically to all data sourced opened; Number of open data downloads per month; Number of external apps with open data use;	% of open data sets among all data

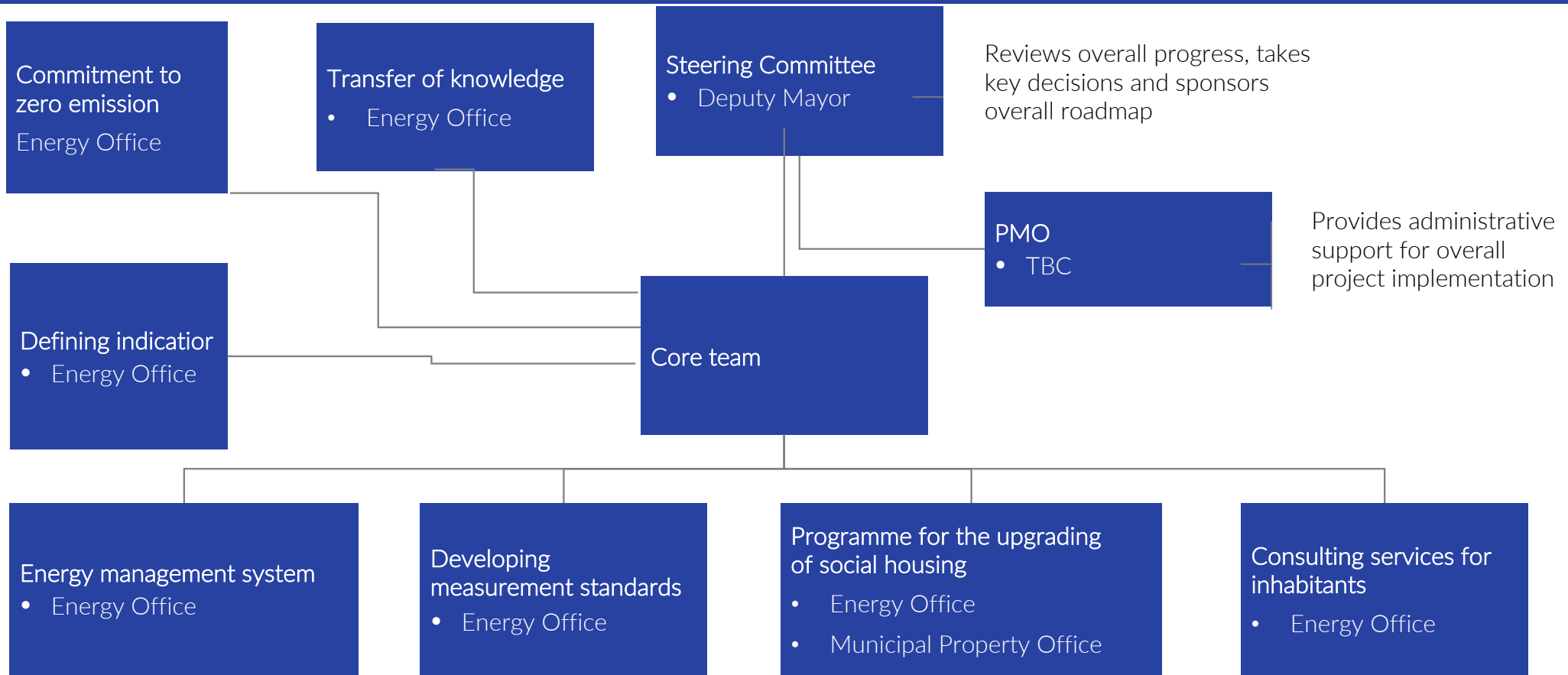
## Rationale to KPI approach

Defining adequate KPIs is essential in the process of assessing the transformation and improvement of the city.

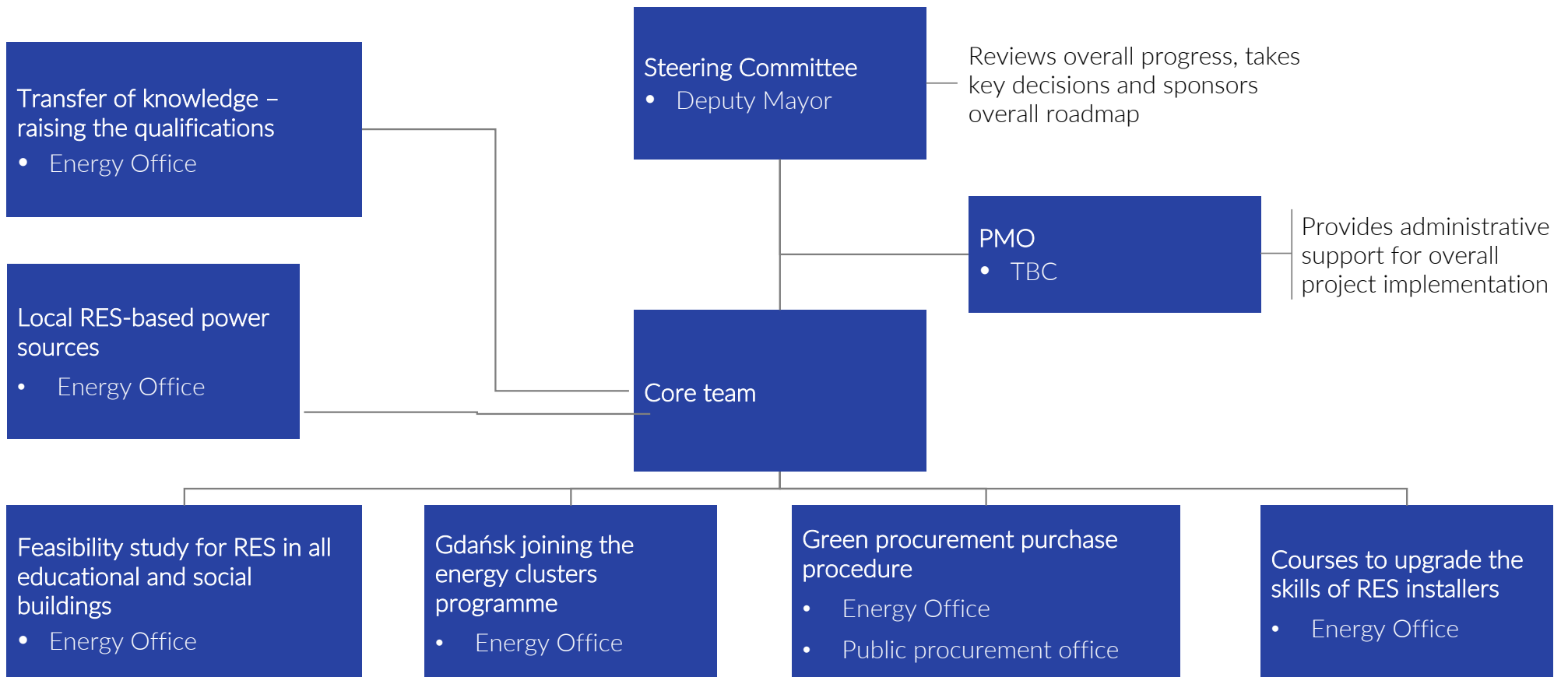
### ➤ Way of collecting the data for KPIs:

- Market analysis
- Stocktaking of open data and e-services available
- Plan for full digitization of the city
- Definition of city's needs
- Analysis of the current energy efficiency in Gdańsk housing
- Information campaign
- Analysis of educational and municipal buildings
- Defining Local RES goals
- Support programme for residents

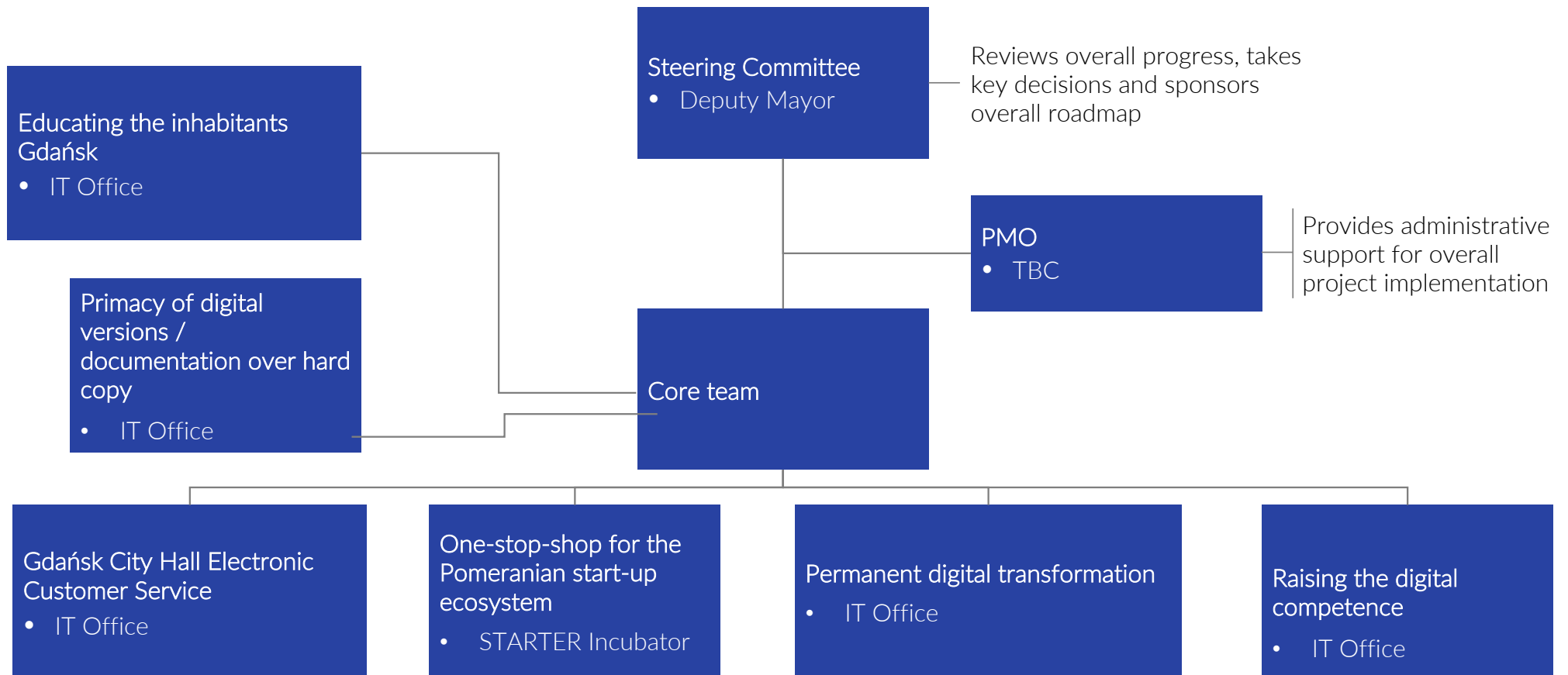
# Governance structure for roadmap implementation – Efficient housing



# Governance structure for roadmap implementation – Local RES systems

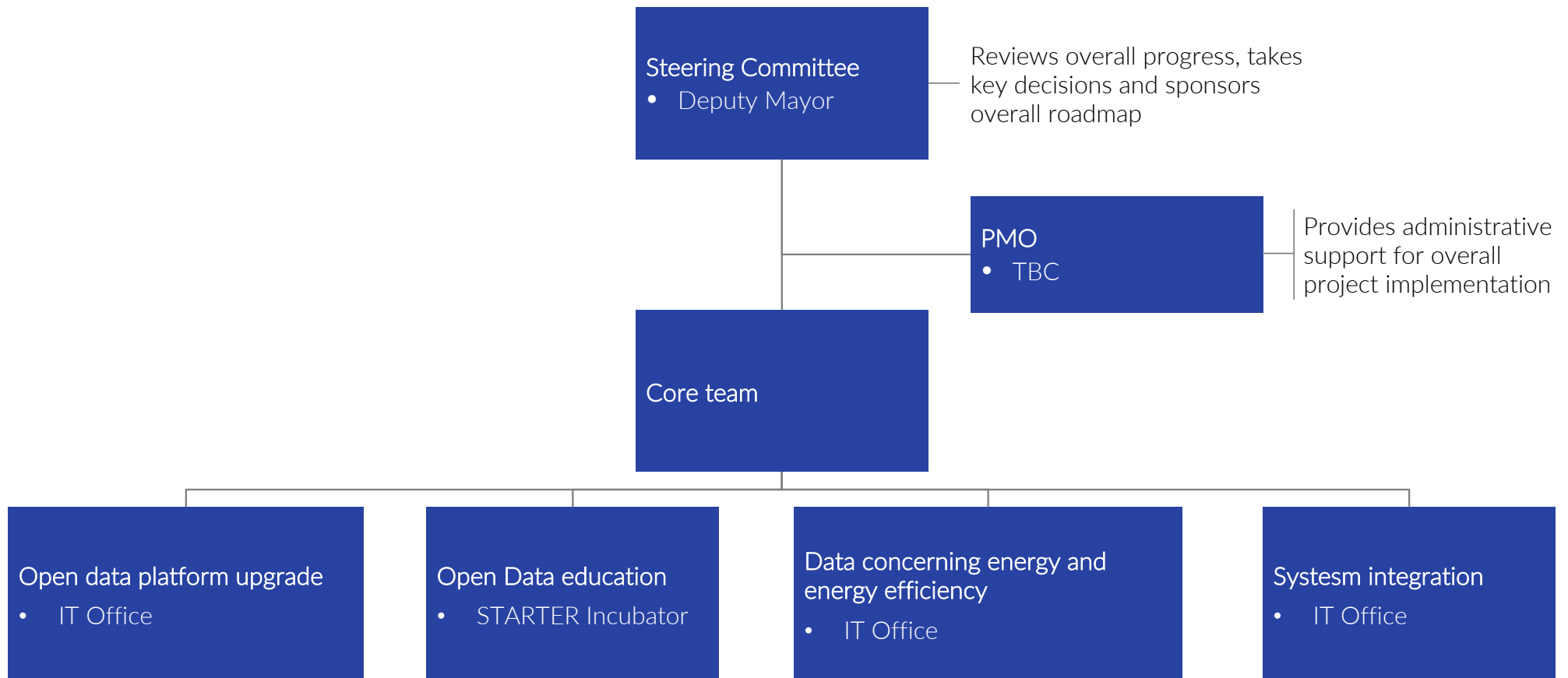


# Governance structure for roadmap implementation – e-services 2.0





# Governance structure for roadmap implementation – New open data solutions



The European Commission's  
**INTELLIGENT CITIES  
CHALLENGE**

Section

3+4

# Gdańsk: Impact

ICC Transformation

February 2021 to May 2021



## Impact executive summary

- City pursues its journey towards the idea of a digital and green city with an attempt to deliver the best products from the undertaken initiatives.
- The biggest success is expected to be achieved within the next few years (by 2030) according to the city's Strategy.
- The city will continue managing the ongoing initiatives regarding open data and e-services in order to achieve all the goals that were set at the beginning of the project. It requires a lot of time and engagement of more people and more authorities to cooperate for the city' success.
- Digitalization of a city's services is stated in the Strategy and the amount of e-services is at the range of 30% at the moment planning to be increased to 85% in 2030.
- Open data solutions consist of small activities leading to access as many data categories as possible.

# Assessment of city performance - progress against KPIs

City performance	Where we started	Final results
1 % of trained staff involved in the customer service process	1	2
2 % of internal processes fully digital (no paper)	1	2
3 % of data sources opened automatically to all data sourced opened	1	2
4 Number of open data downloads per month	1	2
5 Number of external apps with open data use	1	2

## Assessment of city performance - discussion

It is extremely difficult to assess whether the solutions made the difference we were hoping for, due to the fact that the undertaken initiatives are still an ongoing processes. However, the conclusions from this project have not changed and we still hope they will support automation and digitization of the processes in the City Hall.

# Assessment of solution maturity - progress against KPIs

	Where we started	Final results
<b>e-services 2.0</b>		
1 % of trained staff involved in the customer service process	1	2
2 % of internal processes fully digital (no paper)	1	2
<b>New open data solutions</b>		
1 % of data sources opened automatically to all data sourced opened	1	2
2 Number of open data downloads per month	1	2
3 Number of external apps with open data use	1	2

## Assessment of solution maturity - discussion

The scale for the KPIs was set 1-5. The chosen indicators serve as a proper measurement of the solutions. However, the initiatives are still ongoing and will be present in the city's activities, hence it is not possible to rate them as a closed projects.

The authorities are constantly working on improving the effects of ongoing actions regarding e-services and open data. We aim to develop city's potential as a smart city in the nearest future trying to reach a target indicated in KPIs within the next few years.

# Assessment of city ecosystem and activities - progress against KPIs

Activity		
1	% of digital services	2
2	% of open data sets among all data	1



## Assessment of city ecosystem and activities - discussion

The biggest advantage of the e-services and new open data solutions is a high innovative potential of the local ecosystem that supports smart city initiatives (as well described in the previous phase). The ecosystem collaborated easily and readily with the purposes of the ICC project. However, on some occasions it is necessary to adjust to the changing conditions of the local environment. Throughout the life of the project the authorities were aware of the need to upgrade existing solutions for the city to have value to use in the future.

## 5 key lessons

Lesson	Reflections
1	Main obstacles were to define the scope of the projects in relations to available resources, low predictability of prices trends and stakeholders' engagement.
2	Limited human resources in the IT department may serve as the project's risk, slowing the pace of its development.
3	Strong fundamentals are to build new coherent and holistic architecture for all ICT solutions to optimize the processes that are essential for our initiatives.

## Reflections on city collaborations

Collaboration between the cities is extremely important, especially when it comes to sharing the experience and best practise as well as discussing the obstacles and failures during the process.

Overall, the solutions design implemented throughtout the project and their further implementation benefited substantially from other cities inputs. We work closely with other cities on many levels and we also plan to maintain good relationships with partners in the ICC project.

# Commitments

## Commitments to on-going resources

Increasing human resources in the IT department, working closely with trained staff and using city's ability to perform the transformation in the future.

## Commitments to on-going collaboration

As it is important to keep close relationships with the cities with similar potential our goal is to maintain existing collaboration and look for some new prospective partnerships in the future.

## Commitments to on-going KPIs

Trying to reach better output regarding KPIs in the future.

## 3 Year plan - ambitions

Building on the ICC, what would will the city aim to achieve in 3 years time?

The city will develop the initiatives that has started at the beggining of the ICC project. They do not end along with the end of the project. We plan to achieve the rate of e-services at 85%. New open data solutions will be continuously extended into a solid database of open data in the city.

What steps will you take over the next 3 years to achieve these goals?

We will continue the work to achieve the goals.

## 3 Year plan - targets

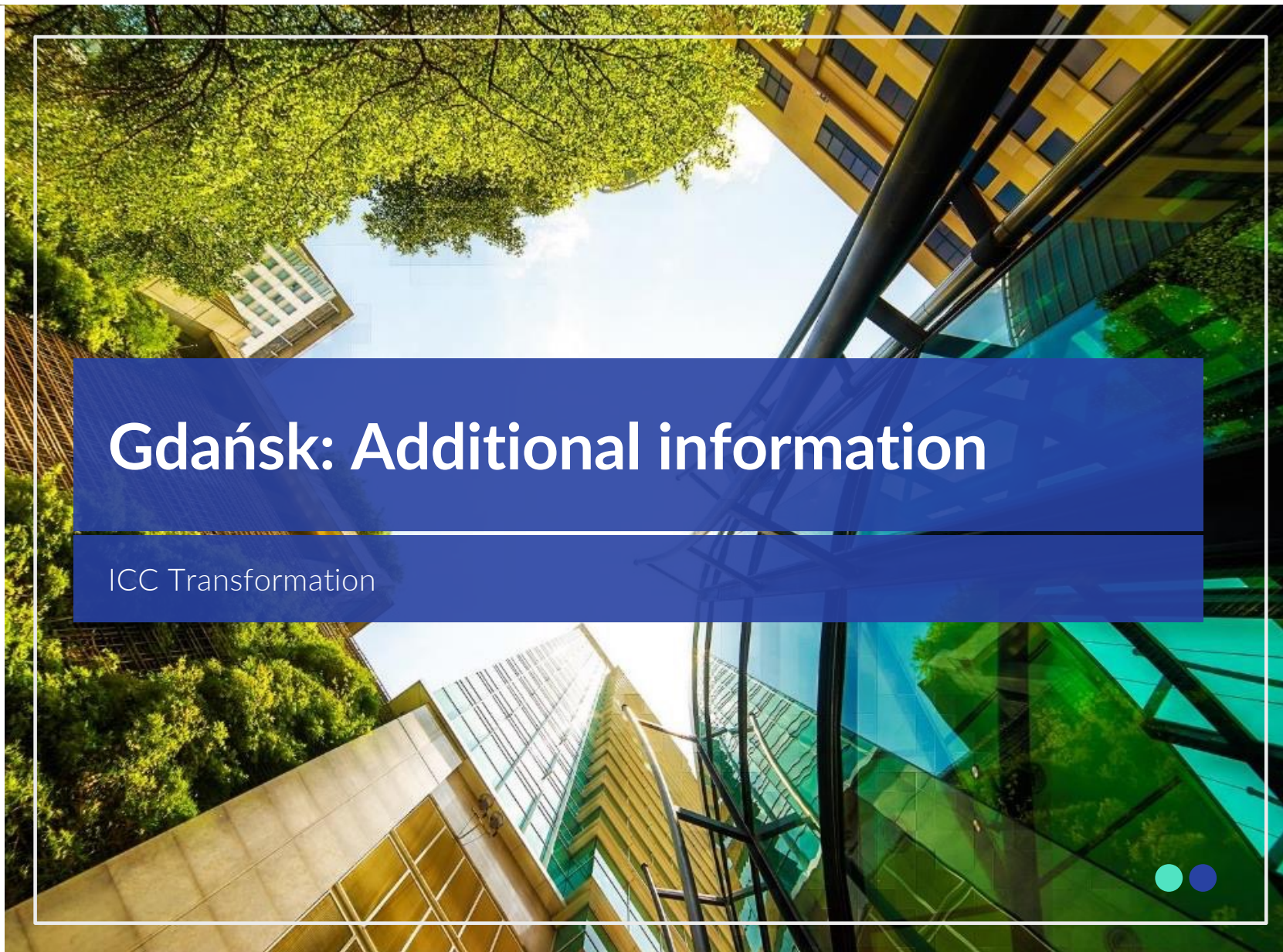
The commitments city will make are essential to pursue the initiatives that will help Gdańsk to become a smart city.

The city will continue with the KPIs that have been set in the city performance, solution maturity and activities and ecosystem categories. The team of experts and staff will develop the KPIs in order to receive the best result for the city to succeed.

# Gdańsk: Additional information

ICC Transformation

February 2021 to May 2021



## State of the city – detailed analysis

### Higher performance areas

#### Key insight

Advanced real time open data on public transport

Contact Center providing services 24/7 through channels like phone, mail, chat, social media

#### Data points

Up to 20M HTTP requests/monthly

1,5k – 3k contacts with CC daily, however 75% on the phone

#### Interpretation

There is a demand for meaningful open data, that can be used to build application

Residents need tools to contact the city 24/7, however there is too little interaction on the internet

#### So what?

There is a need to seek for city data that is meaningful for residents, web developers

There is a need for better e-services and higher engagement of residents in it



## State of the city – detailed analysis

### Lower performance areas

#### Key insight

Readiness for a fast deployment of new e-services for residents

Integration of different sources of data for transport business intelligence in the Transport Authority

#### Data points

75% of contacts with the Contact Center 24/7 is on the phone

Most of data has to be uploaded manually

#### Interpretation

It might be too little trust in the reliance of the e-services among residents

It takes too much time, and quality assurance is not sufficient

#### So what?

There is a need to improve and promote e-services of Gdańsk

There is a need for open data automation

# List of local strenghts of enablers

Key local enablers gained from stakeholders and assesd during workshops



### Leading open data city

Gdańsk is one of leading cities when in it comes to opening data in Poland



### Clever & Intellegence

Lorem ipsum dolor sit amet, consectetur adipiscing elit.



### Clever & Intellegence

Lorem ipsum dolor sit amet, consectetur adipiscing elit.



### Readiness to cooperate

Gdańsk is ready to listen and learn from the stakeholders



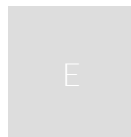
### Strong & Energic

Lorem ipsum dolor sit amet, consectetur adipiscing elit.



### Strong & Energic

Lorem ipsum dolor sit amet, consectetur adipiscing elit.



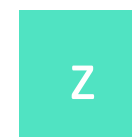
### Lessons learned from CC 24/7

Deployment of the contact center 24/7 gave us a lot of insights what residents expect from the city



### Leadership Code

Lorem ipsum dolor sit amet, consectetur adipiscing elit.



### Leadership Code

Lorem ipsum dolor sit amet, consectetur adipiscing elit.



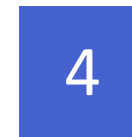
### Development Code

Lorem ipsum dolor sit amet, consectetur adipiscing elit.



### Development Code

Lorem ipsum dolor sit amet, consectetur adipiscing elit.



### Development Code

Lorem ipsum dolor sit amet, consectetur adipiscing elit.

## List of local weaknesses of enablers

Key local enablers gained from stakeholders and assessed during workshops



**Legacy IT**  
Integration of data from legacy IT systems is a challenge



**Clever & Intellegence**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit.



**Clever & Intellegence**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit.



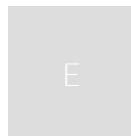
**No single data standard**  
Lack of unified data governance policy



**Strong & Energic**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit.



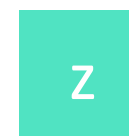
**Strong & Energic**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit.



**Missing resources**  
Limited human resources in the IT department



**Leadership Code**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit.



**Leadership Code**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit.



**Too much waterfall, too little agile**  
Waterfall is still a key methodology in city IT



**Development Code**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit.



**Development Code**  
Lorem ipsum dolor sit amet, consectetur adipiscing elit.