

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

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# Sofia: Intelligent City Transformation Overview

ICC Final Deliverable





## Executive summary

Sofia is developing before the eyes of all of us with unprecedented dynamics. This brings with it responsibility in the face of the municipality to adapt in a timely manner, developing and implementing solutions that in most cases are even ahead of today's possibilities so that we can be full governing body tomorrow.

Our vision for the future of Sofia is the public sector, business and citizens working together. There is a number of urban challenges we face as a city and through cooperation, co-creation and co-design we can tackle those challenges in an innovative and efficient manner. By solving the challenges of today, we'll create the smart city of tomorrow and digitalization is one of the means to that. We've identified three ways of how to utilize digitalization and achieve the overarching visions of becoming a smart city - digital tools, open data and direct communication.

These 3 concepts are the ambition statements by which we stand, the "How" of our journey in smart city development. The "What" is 4 major solutions put forth - a eGov platform, an Open Data policy and technological and live solutions for involving citizens. In our belief, by implementing projects and supporting initiatives under those 4 solution categories, we are improving the digital tools, processes and most importantly communication.

In the future we shall improve on existing concepts, seek out new opportunities and build with the people of Sofia.

# Mayor Foreword

Two years ago I assumed the role of Deputy Mayor for Digitalization, Innovation & Economic development of Sofia Municipality. The city council had recently voted in the Strategy for Digital Transformation of Sofia and there was a newly formed unit responsible for digital and innovative projects and initiatives. For the first time Sofia had a vision for a smart future and a team dedicated to make that vision happen.

Looking back we have accomplished a great deal for Sofia's smart city development in terms of e-governance, sustainability, international cooperation and active involvement and support of our local ecosystem. Our core ideals are co-creation, co-design and co-operation, because it is only together that we can truly make changes on a grand scale. Digitalization is an ongoing process and we are blessed to have amazing partners in the local ecosystem.

The last few years were years of not only successes, but of challenges as well. The perseverance we collectively demonstrate is the testament to the spirit of the city, which remains steadfast. Now priorities are shifting towards carbon neutrality, climate change, energy efficiency & sustainable development, which marks a new era, a green era of digital transformation. My hope is that we lay the groundwork for systematic change, the work we accomplish today compounds in the long run and Sofia would be at the forefront of the Europe's green revolution.

*Dep. Mayor Gencho Kerezov*



## Section

# 1

# Sofia : Preparation and assessment

ICC transformation

September 2020 to January  
2021



# 1 Introduction

Sofia is the capital of Bulgaria with population close to 2 mln. people. It has a vibrant start-up and tech ecosystem, a growing number of VC funds, R&D centres and an active community. Sofia has a strong potential to achieve change and introduce new methods and tools to facilitate e-governance and citizen participation, including the participation of citizens and businesses in solving urban challenges.

Sofia was one of the participants in the Digital Cities Challenge Initiative. The most significant outcomes from DCC were the creation of the **Strategy for Digital Transformation of Sofia** (unanimously approved by the City Council in 2020) and the establishment of the **Digitalization, Innovation & Investment Unit** within Sofia municipality, responsible for digitalization, innovation and economic development and headed by a deputy-mayor. The main focus areas of the new unit include e-government, incl. services to the citizens and business, smart city and open data. A digital board was formed by stakeholders from the local tech ecosystem to support and consult the new department.

With our participation in ICC, we are focusing on e-government and citizen participation. During the project implementation Sofia city worked to improve the way citizens are interacting with the public administration through innovative methods and digital tools.


Another area of interest which we are still developing is data and open data, looking into formulation of data policy and standards and in projects connected with data, incl. infrastructure.


Sofia is also very interested in partnering with other cities, knowledge sharing and joint project development.


## 2 City needs: State of the city overview

### Growing activity but lack of digital tools and awareness

Significance 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 change 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 Sofia today

Sofia has actively worked towards civic participation, as the current activities need to be continued, expanded and optimized, as well as to broaden the use of digital tools in these activities. The municipality has started a gradual transformation aimed at more active involvement of citizens in the planning and decision-making process in order to improve the first steps and continue in a coordinated and well-structured manner.

There has been a need for more active communication from the administration, which should include not only pressing current issues, but also good practices and projects, in which residents and businesses in the city could participate, state a position or could commit to. The information should be accessible, understandable, transparent and comprehensive.

The city has a functioning network of active organizations and there should be established a process incl. a registry of the businesses and organizations from different sectors for improved involvement when developing policies or projects for the city. The Bulgarian diaspora also holds big potential to support activities locally. There is a need to develop more technology-based, engaging participatory initiatives.

Data is prerequisite for informed decision making, development of innovative solutions and transparent government. A data and open data policy has to be developed and integrated in Municipal operations.

It is important to work towards changing the attitudes / thinking of the administration regarding the bilateral communication with the citizens, which is crucial. In order to motivate citizens to be active, they must be informed about the whole process and the results of their participation. It is important to establish mechanisms through which citizens can monitor the benefits and results of their civic participation and build a clear and unified understanding of why civic participation is needed.

Good examples and achieved results in interaction with citizens and civil society organizations should be promoted both publicly and among the administration and the municipality.

#### Key insights from city performance analysis

##### Higher performance observed

Active stakeholders' community, willing to support the city initiatives

Strong innovative and technological sector; R&D centres; concentration of universities and educational initiatives

Active NGO sector with growing participation

Existing regulatory base for citizen consultations and increasing number of initiatives for involving citizens from the municipality

Established governance on city level for e-government and digital activities; existing strategic documents

##### Lower performance observed

General distrust in the public institutions; negative media environment

The dialogue between the city and the citizens is not always constructive; Public discussions and consultations often lack information on how citizens could be involved after a procedure has been completed

Lack of traditions and working models for involving citizens through digital tools

Lack of awareness and connection between various initiatives

No data and open data policies on city level

### Interpreting the content of the deliverable from the Stakeholder workshop

- Sofia has a strong potential to achieve change and introduce new methods and tools to facilitate e-governance and citizen participation, including the participation of citizens and the businesses in solving urban challenges.
- The local ecosystem is rapidly developing, with a strong ICT and innovation sector, numerous associations, industry organisations and clusters, as well as rich and diverse expertise and knowledge.
- The existence of Innovative Sofia, a dedicated unit of the Sofia Municipality, engaged in activities for digitalization, innovation and economic development, gives a clear statement that the city has the continuing dynamic development, the implementation of solutions for sustainable urban environment and the involvement in management of the urban environment of citizens and businesses as its priority.
- Associations, clusters and non-governmental organizations can be an extremely important driver in this direction by actively working with the city and engaging their ecosystems in solving urban challenges.
- Since the inception of the municipal unit, Innovative Sofia has fostered healthy working relations with stakeholders of different faces from the local ecosystem. They were actively involved and contributed to the ICC project during webinars, workshops and have expressed interest to continue working together on joint initiatives.

## 3

## City Ecosystem (2)

Insights from the 1:1 interviews; insights from the local enablers analysis; reflections from the stakeholders in the workshop; reflections on working norms with the ecosystem

### Interpreting the content of the deliverable from the Stakeholder workshop

- The local ecosystem has expressed its interest and readiness to collaborate with the city and share its expertise and know-how, incl. in topics related to *e-government and citizen participation*
- Representatives of various stakeholder groups: municipal structures and organizations; local associations and clusters; NGOs; the local business and startup ecosystem; the academia and R&D/tech centres/parks; funds and the wider public united around a common vision and needs related to the topic of *e-government and citizen participation* in Sofia and speak to common underlying challenges (further described in this presentation)
- The different stakeholders managed to look at the problem both, from the perspective of a representative of their particular stakeholder group, and as citizens, and to consider different aspects, such as city legacy (solutions, approaches, and current situation of the local ecosystem); values, cultures and behaviours



### 3 ICC strategy: Vision and ambition statements

#### Overarching ICC city vision

The citizens and the business play active role in defining the future of Sofia and contribute to solving the urban challenges in a creative and innovative ways. Citizen participation is streamlined, efficient and easily assessed through the use of digital technologies.

#### Ambition statement 1

The public administration has established efficient processes and digital tools for citizen participation. There are improved channels and mechanisms for interaction with the citizens and the business.

#### Ambition statement 2

Data is used for evidence-based policy making, putting the businesses and the citizens in the centre and the processes of collection, sharing, storing and opening of data is well defined.

#### Ambition statement 3

Public administration is talking with and not to the citizens. There is an active and efficient two-way communication

## 2 City needs City vision - justification

**Overarching ICC city vision:** The citizens and the business play an active role in defining the future of Sofia and contribute to solving the urban challenges in creative and innovative ways. Citizen participation is streamlined, efficient and easily assessed through the use of digital technologies.



Harnessing the potential of the increasingly active Sofia ecosystem would contribute to addressing the city challenges, bringing innovation within the public institutions and involving stakeholders to participate in improving the quality of life and the business environment. Communication, information and data are crucial assets. Introduction of digital tools can provide streamlined and efficient communication processes between the municipality and the citizens and the business.

## 2 City needs

### Ambition statements justification

**Overarching ICC city vision:** The citizens and the business play active role in defining the future of Sofia and contribute to solving the urban challenges in creative and innovative ways. Citizen participation is streamlined, efficient and easily assessed through the use of digital technologies.

*The establishment of efficient processes and digital tools for citizen participation would stimulate and facilitate the citizens and the business to play more active role in defining key aspects of the city development and solving the urban challenges. Improved channels and mechanisms for interaction through digitalization would streamline participation and contribute for more efficient assessment.*

*Data is an asset, a tool for innovation, an indispensable prerequisite for informed policy making and the basis for open government. Introduction and management of digital tools, either involving citizen or public administration data, should have a solid policy basis.*

*Efficient two- way communication is crucial. The city should built on good practices already in place and improve the way administration interacts with the citizens and the business.*



# Section 2

## Sofia : Ambition and roadmap

ICC Transformation

February 2021 to May 2021



# Sofia Municipality ICC Solutions Overview

Solution	Description
1 Unified ePlatform for citizen participation & communication	Integrated approach and creation of a unified platform for citizen participation and communication with citizens, which includes digital tools and also enables data processing of information from citizens and/or businesses
2 Data Policy. Data Access & Open Data	As set in PSDTS: Preparation and implementation of a comprehensive data policy - guidelines for standardization, processing, sharing, data security in the Municipality and municipal companies, including definition of the processes for generation, exchange, storage, so that they are in the appropriate scope and format for full use. Processes for opening appropriate datasets and providing access for citizens and businesses to them.
3 Tech solutions for informing and involving citizens	Implementation of new and upgrading of already existing digital tools in order to: inform citizens about latest developments in the city; collect feedback from citizens - for example, via surveys in Viber; to collect and analyse information of interest to citizens (collection of data to support the city, for example through a chatbot search); well-planned inclusion of new digital tools for interaction with citizens making optimal use of and upgrading already existing ones (e.g. chatbots; Sofia Municipality's Viber Community, etc.)
4 “Living” solutions for informing and involving citizens	Developing ‘living solutions’ (not digital solutions per se) with the aim to 1) promote civic participation and offer solutions to different challenges, developed by the business, academia and citizens; 2) promote innovation and the transformation of the city into a testing ground for innovation; 3) encourage innovative and entrepreneurial thinking and activities.

## Rationale to road map (1)

The rationale to the map was breaking down the solution into initiatives as separate project managements steps. The roadmap starts at project conception & ideation and ends at implementation with follow-up activities, development and communication.

Along the way multiple stakeholders have to involved, the most critical one of which being the Approval from Sofia Municipality and by extension from Sofia City Council. Another critical limitation would be allocating budget to a given solution.

The timeline was constructed as a step-by-step process at an operating level. All projects start at ideation and conceptualization, a thorough examination of available resources or what would additionally be required, formulating a working concept/draft, which would eventually get a city council approval for its implementation.

It was planned out according to operational level reasoning in mind - what is the idea, what resources are at disposable and what is required for the idea to be taken from an abstract level to tangible results.



## Rationale to road map (2)

**Solution 01** represents development of unified and easily accessible platform which various tools - informational, participatory, educational, etc., which functions as a unified tool, to meet the needs and goals of the city in the “e-government and citizen participation” area, without limiting citizen involvement outside the digital environment. On one hand, it meets the need for a unified platform for civic participation and communication with citizens, on the other – stimulates the development of Sofia as a market creator for local companies.

It is in synergy with the local system expectations and its representatives expressed its interest and readiness to support its development. It was planned the platform to be developed by different modules that can be seen as part of the platform and during the ICC project implementation was envisaged to be developed 1-2 platform modules.

As critical paths were identified availability of Municipal budget for elaborating the platform and dependence on many units and administrations within Sofia Municipality which have to give approval or be involved in the platform development.

## Rationale to road map (3)

**Solution 02** is developing a data policy, which itself was set as a priority and an action on the Action Plan for the implementation of the Strategy for Digital Transformation of Sofia, one of the direct outcomes of the DCC initiative.

Open Data is a priority for both Innovative Sofia and Sofia Municipality and this would necessitate multiple stakeholders, both internal from the Municipality but also external experts from the local ecosystem in order to cover a wide range of perspective and ensure a comprehensive guideline for standardization, processing, data security and all other data related matters.

Furthermore, the Data Policy would have to go through extensive coordination and agreement as well as multiple drafts in order to produce a final proposal in front of Sofia City council for them vote and approve a new core strategic document that has wide impact and potential impact and benefit for the development of the city.

## Rationale to road map (4)












**Solution 03 & 04** are the technological and 'live' solutions for informing and engaging with citizens, which is a broad category for tech-based projects, i.e. developing current or new municipal communication channels (Social media, chatbot, etc.) and live events (hackathons, webinars, etc. ).

The major difference between the first half and the second half of ICC solutions is the scale and scope of the project. The ePlatform and Open Data policy are inherently massive endeavors which would necessitate a great deal of planning, coordination and so on. Stakeholder engagement is more direct and depending on the size and aim of the investment may or may not need to extend to coordination and approval from another municipal unit, department, entity and lastly Sofia City Council.





For instance, an example for a tech solution project is upscaling the current Covid-19 chatbot, so that it may cover more topics and other functionalities and the team involved is the chatbot developer and the Innovative Sofia dept. For live solutions with regards to planning, one major deciding factor of this roadmap is whether Sofia Municipality is project owner, i.e. Sofia Municipality could be an institutional partner, ergo takes on less responsibilities as opposed to being both project coordinator, owner and so on.













# 1 Initiative charter - ePlatform for citizen participation & involvement

Strategy		Stakeholders involved	Inputs, outputs, outcomes and impacts	
<b>Description</b>  <p><b>What:</b> Digital transformation of municipal e-services -New ePlatform for “Address Change” e-service</p> <p><b>Why:</b> Digital transformation is needed in the - Legacy e-service not fully digital - Little use of services - Limited trust in municipal e-governance</p>		<b>Solution lead:</b> Innovative Sofia Sofia Municipality 	<b>Source of funding and estimated cost</b> 	<b>Funding source:</b> Sandbox for Innovative Solutions  <b>Estimated cost</b> - 30k for pilot / 45k total
<b>Link to vision</b>  <p>The citizens and the business play an <u>active role (co-creators/users)</u> in defining the future of Sofia and contribute to solving the urban challenges in creative and innovative ways. <u>(ePlatform features/modules)</u></p>		<b>Solution working team:</b> Innovative Sofia Sofia Green Evrotrust (Trust Service Provider) 24 Municipal Districts - Onboarding operators 	<b>Solution maturity outputs</b> 	<ul style="list-style-type: none"> <li>• ≤2 number of e-services</li> <li>• Registered users</li> <li>• Daily users</li> <li>• User submitted info</li> <li>• Number of interactions</li> </ul>
<b>Link to ambition statement</b>  <p><b>Ambition Statement 1:</b> <i>The public administration has established efficient processes and digital tools for citizen participation. There are improved channels and mechanisms for interaction with the citizens and the business, which are being regularly upgraded for facilitated, accelerated and extended inclusion of the citizens.</i></p>		<b>Contributors:</b> Citizens (research & test users) Sofia City Council (city support) Ministry of eGov (payment module) 		
<b>Expected impact and timing</b> 	<p><b>Expected impact:</b> Increased use of e-services, improved trust in Municipality, increased QES/e-ID awareness</p> <p><b>Timing:</b></p> <ul style="list-style-type: none"> <li>• Initial pilot launch - September, 2021</li> <li>• Full pilot launch - December, 2021</li> <li>• City wide launch - May, 2022</li> <li>• eGov Ministry integration - July, 2022</li> </ul>	<b>Risks and mitigation</b>  <p><b>Risk:</b></p> <ul style="list-style-type: none"> <li>• Resistance to change from district admin</li> <li>• Limitation from legal framework</li> </ul> <p><b>Mitigation:</b></p> <ul style="list-style-type: none"> <li>• Thorough onboarding and onsite training</li> <li>• Compliance to legal framework:             <ul style="list-style-type: none"> <li>○ Cutting edge trust service cloud tech</li> <li>○ Compliance to legal &amp; EU law</li> </ul> </li> </ul>	<b>City performance outcomes and impacts</b> 	<ul style="list-style-type: none"> <li>• Number of Aware, Informed &amp; Engaged citizens</li> <li>• Increased awareness of QES &amp; eID</li> <li>• Benefits for citizens             <ul style="list-style-type: none"> <li>○ Convenience</li> <li>○ Hours</li> <li>○ Admin tax (during pilot project)</li> </ul> </li> </ul>

## 2 Initiative charter - Data Policy. Data Access & Open Data












Strategy	Stakeholders involved	Inputs, outputs, outcomes and impacts
<p><b>Description</b>  What: Open Data as a priority for Sofia Municipality</p> <p>Why: Lack of an open data policy</p> <ul style="list-style-type: none"> <li>- Would help optimize the dissemination of info</li> <li>- Positive effect on economic growth</li> </ul>	<p><b>Solution lead:</b>  Innovative Sofia Sofia Municipality</p> <p><b>Solution working team:</b>  Innovative Sofia Other parties (TBD)</p> <p><b>Contributors:</b>  <b>TBD:</b> Other relevant municipal bodies Ecosystem partners</p> <p><b>Risks and mitigation</b> </p> <p><b>Risk:</b></p> <ul style="list-style-type: none"> <li>• Shifting priorities,</li> </ul> <p><b>Mitigation:</b></p> <ul style="list-style-type: none"> <li>• Postponing the policy to a later period</li> </ul>	<p><b>Source of funding and estimated cost</b> </p> <p><b>Funding source:</b></p> <ul style="list-style-type: none"> <li>• Sofia municipality budget</li> <li>• European programs and funding tools</li> <li>• Other funding programs</li> </ul> <p><b>Estimated cost</b> - TBD</p> <ul style="list-style-type: none"> <li>• More data sets available</li> <li>• Number of stakeholders/organisations that can make use of the data sets</li> <li>• Collaboration with other municipal and local organisations to make more data sets available</li> <li>• ≤100 articles about the new policy during its creation and 3 months after its approval</li> <li>• 10 000+ people reading the document**</li> </ul> <p><b>Solution maturity outputs</b> </p> <p><b>City performance outcomes and impacts</b> </p> <ul style="list-style-type: none"> <li>• Open data awareness</li> <li>• More/New business because of open source availability*</li> <li>• Municipal projects based on open source solutions</li> <li>• Citizen project proposals based on open source (academia, business etc.)</li> <li>• Increased public access to information</li> </ul>
<p><b>Link to vision</b> </p> <p>The citizens and the business play an active role (users) in defining the future of Sofia and contribute to solving the <u>urban challenges</u> in creative and innovative ways. <u>(open source solutions)</u> Citizen participation is streamlined, efficient and easily assessed through the use of <u>digital technologies</u>.</p>		
<p><b>Link to ambition statement</b> </p> <p><b>Ambition Statement 2:</b></p> <p><i>Data is used for evidence-based policy making, putting the needs of the businesses and the citizens in the centre. The processes of collection, sharing, storing and opening of data are well defined.</i></p> <p><b>Expected impact and timing</b> </p> <p><b>Expected impact:</b> TBD</p> <p><b>Timing:</b> TBD / June-August 2023</p> <p>Once an Open Data policy has been accepted, approved and passed; it would help improve municipal internal processes as well as lay the foundation for better e-governance, most importantly help harness open source solutions</p>		

### 3 Initiative charter - Tech solutions for informing & involving citizens

Strategy		Stakeholders involved	Inputs, outputs, outcomes and impacts	
<b>Description</b> 	<p><b>What:</b> Municipal programme for implementation of citizen projects to improve the urban environment</p> <p><b>Why:</b> Need for tech and online communion with citizens</p> <ul style="list-style-type: none"> <li>- To encourage direct citizen participations from citizen groups, NPOs &amp; other organisations</li> </ul>	<p><b>Solution lead:</b> Innovative Sofia IT Department</p> 	<p><b>Source of funding and estimated cost</b></p> 	<p><b>Funding source:</b> Sofia municipality budget</p> <p><b>Estimated cost -</b></p> <ul style="list-style-type: none"> <li>• 1.5 mln BGN - Sofia Chooses, 2021</li> <li>• 1.0 mln BGN - Sofia Chooses, 2022</li> </ul>
<b>Link to vision</b> 	<p>This solution seeks to <u>actively include citizens (project proposals)</u> in solving the urban challenges in a creative and innovative ways. <u>Citizen participation</u> is streamlined, efficient and easily assessed through the use of <u>digital technologies</u>. (online voting)</p>	<p><b>Solution working team:</b> Innovative Sofia Sofia Development Association Project owner/proposal team Sofia Municipality</p>  <ul style="list-style-type: none"> <li>- Relevant Districts</li> <li>- Relevant Departments</li> </ul>	<p><b>Solution maturity outputs</b></p> 	<ul style="list-style-type: none"> <li>• Number of functioning solutions</li> <li>• Dashboard for social media stats <ul style="list-style-type: none"> <li>○ Amount of users</li> <li>○ Amount of ePlatform impressions</li> <li>○ Amount of user base</li> <li>○ Amount of surveys</li> </ul> </li> </ul>
<b>Link to ambition statement</b> 	<p><b>Ambition #1 &amp; #3:</b></p> <ul style="list-style-type: none"> <li>- Digital tools for citizen participation</li> <li>- Effective two-way communication</li> </ul>	<p><b>Risks and mitigation</b> </p>	<p><b>City performance outcomes and impacts</b></p> 	<ul style="list-style-type: none"> <li>• Proxies for citizen engagement <ul style="list-style-type: none"> <li>○ e.g., municipal websites portal views, voter turnout</li> </ul> </li> <li>• More representatives of the local ecosystem collaborating with the City for the development of new solutions to tackle urban challenges</li> </ul>
<b>Expected impact and timing</b> 	<p><b>Expected impact:</b> Higher degree of informedness, more people reached</p> <p><b>Timing:</b></p> <p>Sofia Choose THE KIDS - March, 2021</p> <p>Sofia Chooses GREEN - March, 2022</p>	<p><b>Risk:</b></p> <ul style="list-style-type: none"> <li>• Cybersecurity concerns / manipulated voting</li> <li>• Backlash to voting results</li> </ul> <p><b>Mitigation:</b></p> <ul style="list-style-type: none"> <li>• Improved cybersecurity measures <ul style="list-style-type: none"> <li>○ Additional measures</li> <li>○ Cooperation from law enforcement</li> <li>○ Transparency</li> </ul> </li> <li>• Share funding among top proposals <ul style="list-style-type: none"> <li>○ In 2021 only one proposal was funded</li> <li>○ In 2022 4 proposals received funding</li> </ul> </li> </ul>		



## 4 Initiative charter - Live solutions for informing & involving citizens

Strategy		Stakeholders involved		Inputs, outputs, outcomes and impacts	
<b>Description</b> 	What: Live events and initiatives that involve citizens  Why: Need for more events with citizen contribution - Hackathons on innovative solutions - Living/test lab with citizen made solutions	<b>Solution lead:</b>  Innovative Sofia / Sofia Municipality Communications Regulation Commission		<b>Source of funding and estimated cost</b> 	<b>Funding source:</b> Sofia municipality budget CRC budget  <b>Estimated cost</b> - 50,000+ BGN
	<b>Link to vision</b>  This solution seeks to actively include <u>citizens (participants)</u> in <u>solving the urban challenges</u> in a creative and innovative ways. <u>(live events)</u> Citizen participation is streamlined, efficient and easily assessed through the use of digital technologies.	<b>Solution working team:</b>  Innovative Sofia Invest Sofia Sofia Municipality Communications Regulation Commission		<b>Solution maturity outputs</b> 	<ul style="list-style-type: none"> <li>• Amount of attendees</li> <li>• Amount of stakeholders involved</li> <li>• Amount of panelists</li> </ul>
<b>Link to ambition statement</b> 	<b>Ambition Statement 3:</b> Public administration is talking with and not to the citizens. There is an active and efficient two-way communication.	<b>Contributors:</b>  4 institutional partners 12 corporate partners 12 media partners 4 F&B partners			
<b>Expected impact and timing</b> 	<b>Expected impact:</b> There are already multiple events & collaborations with the ecosystem, with talks over follow-up initiative currently taking place  <b>Timing:</b> April, 2022	<b>Risks and mitigation</b>  <b>Risk:</b> <ul style="list-style-type: none"> <li>• Low attendance due to Covid-19</li> <li>• Little time to advertise/market</li> </ul> <b>Mitigation:</b> <ul style="list-style-type: none"> <li>• Green passport requirement waived by government</li> <li>• Press tour before and after</li> </ul>		<b>City performance outcomes and impacts</b> 	<ul style="list-style-type: none"> <li>• Amount of citizens reached</li> <li>• Amount of follow-up initiatives</li> <li>• Amount publications</li> </ul>

# Rationale to KPI approach

- The rationale behind the KPI approach was to provide a substantial list of KPIs for each initiatives in order for there to be accountability and transparency for every step of the way.
- The decision-making process for choosing the KPIs consisted of two parts: the Roadmap workshop in May, 2021 & follow up internal discussions when preparing the previous deliverable. Further rationale for their choices are experience from stakeholders, previous projects etc.
- Once it came to specific project from a solution implementation, the KPIs were adjusted to reflect:
  - the nature of the project, i.e. live event,
  - the timeline, i.e. organising an event,
  - the outcome of event, i.e. follow-up initiatives

# ePlatform KPIs Shortlist

Activities – Inputs and actions	Solution Maturity / Output	City Performance
<ul style="list-style-type: none"><li>● Number of stakeholders involved</li><li>● Number of modules to be developed</li><li>● Number of proposed solutions</li><li>● Number of interactions on the platform</li><li>● Number of registered users / there may be tools that require registration</li><li>● Number of new users per day/week/month/year/etc.</li></ul>	<ul style="list-style-type: none"><li>● ≤2 number of e-services</li><li>● Registered users</li><li>● Daily users</li><li>● User submitted info</li><li>● Number of interactions</li></ul>	<ul style="list-style-type: none"><li>● Number of Aware, Informed &amp; Engaged citizens</li><li>● Increased awareness of QES &amp; eID</li><li>● Benefits for citizens (convenience, hours, taxes)</li></ul>

# Open Data KPIs Shortlist

Activities – Inputs and actions	Solution Maturity	City Performance
<ul style="list-style-type: none"> <li>● Number of data sets available</li> <li>● Number of strategic documents &amp; other scientific sources used</li> <li>● Number of good practices</li> <li>● Number of interlinked data sets</li> <li>● Number of data sets with good contextual metadata</li> <li>● Number of qualitative data sets (i.e., clean, no noise, no duplicates, no errors, etc)</li> </ul>	<ul style="list-style-type: none"> <li>● More data sets available</li> <li>● Number of stakeholders/organisations that can make use of the data sets</li> <li>● Collaboration with other municipal and local organisations to make more data sets available</li> <li>● ≤100 articles about the new policy during its creation and 3 months after its approval</li> <li>● 10 000+ people reading the document**</li> </ul>	<ul style="list-style-type: none"> <li>● Open data awareness</li> <li>● More/New business because of open source availability*</li> <li>● Municipal projects based on open source solutions</li> <li>● Citizen project proposals based on open source (academia, business etc.)</li> <li>● Increased public access to information</li> </ul>



# Tech Solutions KPIs Shortlist

Activities – Inputs and actions	Solution Maturity	City Performance
<ul style="list-style-type: none"><li>● Number of implemented solutions</li><li>● Number of stakeholders</li><li>● Number of priority citizen areas tackled</li></ul>	<ul style="list-style-type: none"><li>● Number of functioning solutions</li><li>● Amount of proposals</li><li>● ePlatform impressions</li><li>● User base / Number of votes</li><li>● Funding secured</li></ul>	<ul style="list-style-type: none"><li>● Funding provided</li><li>● New stakeholder partners</li><li>● Reach of proposed projects</li></ul>

# Live Solutions KPIs Shortlist

Activities – Inputs and actions	Solution Maturity	City Performance
<ul style="list-style-type: none"><li>● Number of events/activities/initiatives organised</li><li>● Number of partners (organisational, institutional, operational, etc.) involved</li><li>● Number of activities completed on time</li></ul>	<ul style="list-style-type: none"><li>● Amount of attendees</li><li>● Amount of stakeholders involved</li><li>● Amount of panelists</li></ul>	<ul style="list-style-type: none"><li>● # of citizens reached</li><li>● # of follow-up initiatives</li><li>● Media publications</li></ul>

Section  
**3+4**

# Sofia: Impact

ICC Transformation

February 2021 to May 2021



# Impact executive summary

Sofia Municipality has put forward ambitious solutions under the ICC framework, which would make the city engage more with its citizens, encourage two-way communication with the purpose of fostering better relations and putting the foundations for future collaborative initiatives.

There was a number of external factors, i.e. Covid-19 pandemic, the war in Ukraine & geopolitical tension, domestic political instability, energy crisis and impeding economic recession, etc., have impacted greatly planning, priorities & focus and ICC project implementation. There was a major strategic realignment, which pivoted from smart city development to other thematic topics. One particular example of this issue is how open data as a priority got pushed back as opposed to more pressing matters such as cybersecurity, energy resilience etc. . Lastly, the lack of financial support has been a major hindrance that would ultimately halt certain developments, which is why Sofia Municipality has been actively looking for outside means, as it cannot fully depend on the local sources of funding.

Sofia has made significant progress in developing as a smart and sustainable city, which works closely with its people in the spirit of cooperation and co-creation. What we would like to share:

- **Address registration portal** - a new e-service platform, which started as pilot projected and will be developed as a future eGov hub
- **'Sofia Chooses GREEN'** - a contest where the citizens vote on project proposals put forth by citizens
- **Digital Sofia** - first ever city-focused conference on the topic of smart city development and how different sectors are tackling it



# Impact executive summary

[Address.sofia.bg](https://address.sofia.bg) is an excellent example of digital transformation in public administration. The **premise behind the project** was to take an administrative e-service, redesign it for a fully digital end-to-end experience and launch it as a pilot project with potential for scalability. The e-platform successfully increased use of the “Address registration” e-services over 20 times, increased awareness of QES and eID and most importantly it improved trust in municipality’s capacity for digitization, which is beneficial for future digital initiatives.

For “**Tech Solutions**”, the presentation focuses on “Sofia Chooses GREEN”, which is a newly annualized initiative, which seeks to directly involve the citizens with future city development projects by means of an online proposal submission & voting system. The programme encourages citizen groups, civil, non-governmental and professional organizations to put forth their own proposals for a project, the most popular of which will receive funding for their implementation. The 2022’s edition was called ‘Sofia Chooses GREEN’ in order to incorporate a thematic topic and better reflect the city’s priority of green transformation.

For “**Live solutions**”, what has worked well this year is working together on existing ideas, initiatives, proposals and adapting them to fit the current climate & priorities, so that we can take advantage of the momentum. Furthermore, Innovative Sofia and by extension Sofia Municipality managed to achieve.. victories that align with the thematic track of ‘Citizen participation and the digitalization of public administration’. Most notably, there is a new strategic document that focuses on communication in the digital environment as well as a memorandum for digital communication & join participation.

# There are four types of measurable concepts that come together to drive success in the ICC



# Assessment of city performance - progress against KPIs - ePlatform

	Where we started	Midway through the challenge	Final results
City performance - address.sofia.bg ePlatform			
1 KPI 1	Registered users at pilot launch	First month passed 2020 results	30x increase from 2020
2 KPI 2	Beta pilot users	N/A	Increased awareness of QES & eID
3 KPI 3	Citizens paid administrative taxes and had to go 2+ times to an office	N/A	Citizens saved more than 10,000 BGN in taxes and even more in hours

# Assessment of city performance - progress against KPIs - Tech solution

Where we started		Midway through the challenge	Final results
City performance - Sofia Chooses GREEN contest			
1 KPI 1	Fundings provided	N/A	1,000,000+ BGN
2 KPI 2	New stakeholder partners	N/A	4 (1 association & 3 citizen groups)
3 KPI 3	Reach of project proposals	N/A	200,000+ ≈ 10% of population

# Assessment of city performance - progress against KPIs - Live solution

	Where we started	Midway through the challenge	Final results
City performance - Digital Sofia conference			
1 KPI 1	Panelists	N/A	22+
2 KPI 2	Follow-up initiatives	N/A	Roadshow of 3-4 events
3 KPI 3	Media publications	N/A	60+



# Assessment of city performance - discussion

The **e-service platform** started as a pilot project, which would eventually go city-wide and with additional plans for further upscaling and expansion, so it may naturally become a new hub of e-governance.

The solution was successful in that it set a new standard for e-governance in Bulgaria. The ePlatform offered a fully digital end-to-end experience, ease of convenience and saved citizens thousands of hours. It made a clear distinction between 'making a service digital' and 'making a digital service'. By utilizing cloud-based resources and taking advantage of the digital space, the platform allowed for optimisation, automation and online identification. All the processes that pertain to a single e-service, e.g. online address registration, were examined carefully through the lens of digital transformation. The platform itself is a 'product', the true added value is in proving that digital transformation in the public sector was possible. It serves as a blueprint for similar services can be redesigned, thus the potential for scalability and further expansion.

One major important impact is it increased awareness of QES and eID solutions, which are essential for existing in the digital space and the essential key for future digitization initiatives. Another major impact was it improved both trust and the image of Sofia Municipality with regards to its capacity for modernization. Good practices are especially helpful with changing public perception, especially when the initiative evidently demonstrates critical thinking with regards to how a city approaches and communicates with its citizens.

In January 2022, the portal was also celebrated as one of the best tech solutions by Bulgaria's Institute of Public Administration for which Innovative Sofia was given as an award the opportunity to present the solution at multiple events, so it may inspire other municipalities to rethink their approach to engaging with their citizenry.

# Assessment of city performance - discussion

**'Sofia Chooses'** is a municipal programme which aims to improve the urban environment by means of funding & implementing project proposals from citizens. This initiative is an example of how citizens can be directly involved in the innovative and sustainable development of the urban environment through investment projects of their own or by supporting a project proposal of their choice.

The voting process utilizes two-factor verification in order to ensure cybersecurity and fairness. The first step is selecting which investment project to back on the voting module. The second step is confirm the vote by means of inputting a SMS code and geolocation, so that only votes from within Sofia Municipality get counted in the final tally.

In 2021 the programme was launched and the the initiative covered a wide range of proposals for a large scale (over 1,000,000 BGN) investment projects. The proposal which won that year was "Sofia Chooses the Children", an investment project to improve the lavatory facilities by installing modern appliances and architectural solutions in order to provide a safe and sanitary environment for children at a local elementary school.

In 2022, the second edition of the initiative took place and it had the thematic focus of sustainable development. The rationale behind the thematic choice was Sofia's recent success as a "European Green Capital" finalist for the year of 2023 and to encourage the city's green development projects. Each proposal has to tackle at the least one of the following topics:

- *Alternative source of energy; Climate change; y; Decreasing air pollution; Decrease sound population;*
- *Encouraging more trees, green areas, 'green roofs' & urban agriculture; Protecting biodiversity*
- *Sustainable mobility; Sustainable waste management; Technological solutions for improving the environment*

# Assessment of city performance - discussion

The biggest departure from the inaugural edition of “Sofia chooses” was the decision to fund multiple projects in lieu of one singular one. By allocating funds for multiple beneficiaries, the initiative therefore diversifies the areas of impact across multiple stakeholder groups.

The following 4 projects are the top proposals, scheduled to receive funding and be implemented within the year.

- **Pump Track in Mladost district**
  - Creating a network of bike lanes of various shapes, topography and difficulty, aimed at users of bicycles, scooters, skateboards, rollerblades & wheelchairs.
  - The park will be implemented in Mladost 4, one of the most rapidly expanding parts of Sofia Municipality
- **River Plaza festival**
  - Annualised initiative to promote ‘parallel parks’, water quality and protecting the environment
  - Turn one of Sofia’s many canals into a three day festival with live performances, open air cinemas, workshops, art bazaar, etc.
- **Park “Mokrensky Passage”**
  - Creating a green area in one of the rapidly expanding parts of city
  - Amenities for educational and recreational purposes
- **New children’s playground & communal space in “Fakulteta”**
  - Solution for the disenfranchised youth & Roma minority
  - A ‘green island’ in an otherwise overpopulated and underdeveloped part of the city

# Assessment of city performance - discussion

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- Climate change; Protecting biodiversity; Encouraging more green areas, "green roofs" & urban agriculture;
- Decreasing air pollution; Alternative source of energy; Sustainable mobility; Decrease sound pollution;
- Sustainable waste management; Technological solutions for improving the environment

# Assessment of solution maturity - progress against KPIs

Where we started		Midway through the challenge	Final results
Solution 1 - Address.sofia.bg			
1 KPI 1	Number of interactions	N/A	≈ 4000
2 KPI 2	Number of e-services	2 pilot	2 for 7 user types + Ministry of e-Governance integration
3 KPI 3	Daily users	N/A	≈ 50
4 KPI 4	User submitted info	N/A	≈ 4000
5 KPI 5	Total users		≈ 5000





# Assessment of solution maturity - progress against KPIs

Where we started		Midway through the challenge	Final results
Solution 3 - Sofia Chooses GREEN			
1 KPI 1	Functioning solutions (Funded solutions)	N/A	4
2 KPI 2	Amount of proposals	20	38
3 KPI 3	User base (#amount of Votes)	TBD	7000+
4 KPI 4	Funding secured	N/A	1,000,000+ BGN ≈ 500,000 €
5 KPI 5			
Solution 4			
1 KPI 1	Amount of attendees		400
2 KPI 2	Amount of stakeholders involved		36
3 KPI 3	Amount of panelists		22 + 1 key note speakers

# Assessment of solution maturity - discussion

Sofia has made significant progress in becoming a smarter and more sustainable city, as evidenced by the progress in the The address change e-service ePlatform had multiple pilot launches. In its first launch it was intended for one district and 2 uses cases and it managed to surpass the amount of total online registration for the year 2020. The next launches would go for more physical and digital width, i.e. it not only covered more districts, but also more complex use cases. At the end of the pilot project the platform was a fully digital city-wide solution, which would be integrated with the newly formed Ministry of eGovernance and its payment module.

The first pilot launch was in September for one district and it comprises the two most straightforward use cases. The subsequent launches aimed for more physical and digital width, i.e. more districts and more complex use cases. Complex use case in this context means a registration that would involve multiple stakeholders, e.g. landlord, parents with children under 18, etc. In December of 2021 Sofia City Council voted for continuation of the pilot project and also for it to go city-wide and include all 24 districts of Sofia Municipality. At this point, each month since would introduce 4 more districts before becoming city-wide in May. In July, there was an integration with the payment module of the Ministry of eGovernance, which opens the door for new synergies to take place between Sofia municipality and other institutes at a national level.

Each district had to be properly prepared before being added to the platform. This includes adding all necessary address information to the database, testing for bugs, setup operator an account for each future operator and finally onboard the district's 'Citizen registration & administrative support service' administration workers with on-site training. It needs to be stressed that being present and explaining 2FA mobile applications, cloud-based QES, how the platform works, and how it affects their daily responsibilities was a key factor in overcoming resistance and ensuring compliance and cooperation. Admin workers have embraced the new platform, it offered a new way of servicing the citizens with the possibility for direct communication, improved scheduling, less stress and so on. The benefit for the citizens was largely how convenient and user friendly the ePlatform was, which saved citizens thousands of hours in total, increased awareness of QES, eID & use of municipal e-services and most importantly, it improved trust in municipal e-services & as well as its capacity for e-governance.

# Assessment of solution maturity - discussion

The third solution.. the success of the first edition of 'Sofia Chooses', the much anticipated sequel was given a thematic topic of 'green sustainability' in order to reflect the city's development priorities, but also resonate with a very important value for the citizens of Sofia, which want to make it better and 'greener'. With respect to the previous year's output metrics, the contest brought in more project proposals, more votes, funding and in addition more cybersecurity measures in order to ensure the integrity of the democratic process. One of the winning proposals took place in early September and it was a resounding hit, drawing in crowds in the thousands. The other projects will take place in 2023, which will look to impact various districts of Sofia Municipality.



# Assessment of solution maturity - discussion

Digital Sofia was an event organised in less than 2 months during the “green passport” era of the Covid-19 pandemic, which is not optimal for multiple reasons: availability of speakers, advertising, preparation etc. Nevertheless, the event was successful and garnered interest from various groups on a local, national and international level. With the lessened concerns over pandemic measures, it is now possible to organise large scale events with a higher degree of confidence & willingness to invest into large events. With the prospect of Digital Sofia becoming an annual initiative, there would be a greater commitment when preparing for the next instalment in April, 2023.



# Assessment of city ecosystem and activities - discussion

One of the greatest strengths of Innovative Sofia is its connection to the local ecosystem. We have a powerful network of partners in start-up & SMEs, business, associations & NPOs and academia sector. This allows for direct conversations, involvement and most importantly joint initiatives. Furthermore, both internal (municipal) and external stakeholders have been present at previous ICC events, such as the City Labs open sessions,, local ICC webinars and workshops, LGD webinars and other miscellaneous events.

**ePlatform** - The address registration portal has been a joint initiative between Innovative Sofia, Sofia GREEN and a local trust service provider. The project/solution owner is Sofia Municipality, the project core team comprises Innovative Sofia and also members of 'Sofia Green', part of the municipal entity Sofia Development Association. The ePlatform uses cloud resources and technology of Bulgaria's leading trust service provider. The design of the ePlatform was made with co-creation and it incorporated feedback from citizens and city administration workers for the respectively the user & operator level interface.

**Open Data** - There is expressed interest from multiple stakeholder groups in participating in a working group, so that the future open data policy would be co-created & co-designed, similar to the Strategy of Digital Transformation, one of the major outcomes of the DCC project. This solution will be continued and put into effect later in Q3, 2023. All contributors to previous core documents & strategy conceptualizations and other ecosystem partners will be approached once again.



# Assessment of city ecosystem and activities - discussion

**Tech solutions** - The municipal chatbot skilly was launched in 2020 as a response to the Covid-19 pandemic. Its purpose was to serve as a technological tool for informing citizens of pandemic and the other relevant information. Recently in 2022, Innovative Sofia has resumed regular communication with the AI company behind the chatbot with the purpose of revisiting the information needs of citizens and how to expand the functionalities of the chatbot. The partnership between the developer and Innovative Sofia has grown as a result and we look forward to further develop the chatbot as the go-to solution to help citizens navigate through the municipal digital space for up-to-date news and information.

Furthermore, in 2022 Sofia Municipality put into motion a new strategic document on communication in digital environment, as well as it signed a memorandum for digital communication with an association of media experts (See slide #55 for more)

**Live Events** - Innovative Sofia & Sofia Municipality have been active in hybrid/live events, initiatives and others that focus on the development of the city. In 2021, Innovative Sofia has participated in 50+ events\*.

- Participants & institutional partnerships
- Organised/Co-organised by Innovative Sofia
- Participation
- Local events

*\*This includes conferences, event series, seminars/webinars, members of judging for panels for hackathons and more.*

## 5 key lessons

Lesson	Reflections
1	Joint initiatives, collaboration and co-creation/design is key
2	Projects proposed from the local ecosystem are more feasible to implement
3	‘Don’t reinvent the wheel’ - use or elaborate on existing concepts/solutions to develop them further
4	When priorities change, so should the approach and focus
5	Financial support is needed, especially with limited internal, local or national support

# Commitments

## Commitments to on-going resources

- Innovative Sofia will continue as a municipal department
- Commitment to our own strategic documents and the priorities set in them
  - Strategy for Digital Transformation of Sofia & Open Data Policy
- Current tech com channels
  - Increase Chatbot coverage
  - Grow Viber audience
- Host & participate in annualised initiatives that relate to tech & live solutions for engaging citizens

## Commitments to on-going collaboration

- Ecosystem partners
  - Associations & NPOs
  - Business
  - Startups & SMEs
  - Academia
- Increase joint initiatives
  - Local & International
- More City-2-City collaborations
  - Within ICC framework
  - Non-ICC
    - NetZeroCities
    - IURC
    - CC4DR
    - Others

## Commitments to on-going KPIs

- Grow e-service portal
  - Number of e-services
  - Number of users
- Grow Open Data awareness
- Grow current communication channels' reach
- Grow Digital Sofia conference:
  - Partners / Stakeholders
  - Participants & Audience
  - Reach

## 3 Year plan - ambitions

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

1. ePlatform
  - a. Multiple tool, Access to e-services, Open Data Access, Smart City Proposals
2. Open data
  - a. Develop open data policy, open data access, portal etc.
3. Grow Digital Sofia as an annual conference

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

1. Secure funding
2. Grow size of Innovative Sofia - experts, skills, budget
3. Revise the Action Plan to the Strategy of Digital Transformation, Q3 2023
4. Form official working groups in 2023, Q3

## 3 Year plan - targets

Solution	Category	What commitments will the city make to this end?
1 ePlatform	Output	Address.sofia.bg will become a multi-tool eService portal with additional functionalities & post-service service modules
2 Open Data	Output	Revisit Open Data as a priority of the Strategy for Digital Transformation of Sofia
3 Tech solution	Output	The team is already researching on topics would have the optimal added value for citizens
4 Live Event	Output	Innovative Sofia will look into potential 'sister city' for long-term partnerships, joint initiatives, i.e. an intercity hackathon.



# Success stories

## What has worked well during ICC?

- New e-services portal
  - Address registration e-service use increased over 2500% since 2020
  - Will be upgraded with new e-services, functionalities and white label e-ID solution
- Commitment for Data Policy
  - Ongoing partnerships with tech leaders - HP, Bulgarian corporations & associations
- The 'Sofia Chooses' Programme funded 5 big investment projects proposals from citizens
- Digital Sofia
  - First ever city focused conferences with 400+ attendees
  - Initiative followed by a series of conferences in other Bulgarian cities

## What other accomplishments can we share?

- New initiatives - NetZeroCities, CC4DR, IURC, #connectedinEurope, etc.
- Strategy for Communication in Digital Environment
  - New strategic document for Sofia Municipality & its city-wide endeavors
- Memorandum for Digital Communication
  - Involving media experts in ICC, CC4DR & other international projects
  - Local initiatives, i.e. events, trainings etc.