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PRO IFCT

Kosice 2.0

♥ Ko**š**ice, Slovakia

TOPIC

Culture and cultural heritage

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Journal 2 - The establishment of the innovation ecosystem





This is the second journal for Kosice 2.0 project that puts the second year of its implementation journey into the spotlight focusing on the key progress moments and success stories while examining its development trajectory through the lens of the 7 implementation challenges.

1. Project description

The Kosice 2.0 project is a holistic initiative that manifests the power of culture and the creative sector to drive innovation in cities today when operating beyond their traditional boundaries. It taps into the dynamism of the emerging cultural ecosystem of Kosice to advance public sector performance, support the modernization process currently happening in the economy of the city, and contribute to improving the quality of life and the well-being of the citizens. It promotes a new philosophy that disrupts the current state of affairs in the local public governance operations introducing a data-driven mindset to policy-making and a citizen-centric approach to urban development. To do this the Kosice 2.0 project capitalizes on the vigorous cultural sector of the city and the infrastructure legacies of the European Capital of Culture 2013 to develop an integrated innovation ecosystem of meticulously designed components that work together to harness urban innovation and to improve the capacity of its municipality to design data-driven, evidence-based, citizen-centric policies and services.

At the heart of this innovation ecosystem lies a new urban research unit, the Citizens Experience and Well-Being Institute (CXI) which serves as the project's main output. The CXI plays a vital role by gathering urban data, analyzing it, and disseminating the findings to the broader community through publications and thematic articles. Additionally, it actively supports the local startup ecosystem to increase their competitiveness while providing practical solutions for the city's pressing issues. Moreover, the CXI offers valuable recommendations to the municipality, enabling evidence-based policy design and enhancing the overall performance and services provided by the City. Surrounding the CXI, there exist various interconnected components that together form the new innovation ecosystem. These components complement the work of the Institute and serve as a foundation for the modernization of both the public sector and the city as a whole, aligning with the overarching vision of the project:

1. The **Urban Innovation Sphere initiative** that offers a range of innovation programs and activities to early-stage startups, NGOs, tech enthusiasts, various professionals, and active citizens.

- 2. The Bravo-Hub co-working facility that provides office spaces and supporting facilities to start-ups under the same roof.
- 3. The **open-data platform "Open Data Kosice"** that collects and aggregates city data online and makes them openly accessible to the public.
- 4. The **Mobile Urban Lab**, a fully equipped van that travels in the city and plugs into different urban areas collecting data and stimulating public debates on the future of the city.
- 5. **Public art interventions** and media art installations in public space that visualize urban data collected by the CXI unit making them part of the urban life
- 6. **Educational and capacity-building programs** offered to both municipal employees (Creative City), graduate students (Creative University), and engaged citizens (Cre-active Citizens)
- 7. **Design sprint workshops** that put key urban challenges and City priorities into the spotlight and co-create solutions by teaming-up service providers and end-users.

Through the development and the piloting of this new integrated ecosystem, Kosice 2.0 project aims to modernize public service provision, digitize and open up data and information hidden behind bureaucratic processes, increase citizens' participation in urban matters, nurture the city's collective intelligence around pragmatic urban challenges, support a new generation of entrepreneurs and start-ups of the IT sector and ultimately help Kosice to reach its next development stage in a knowledge-intensive era becoming a truly creative city.

The project is implemented by a consortium of **partners** that cover the whole spectrum of the quadruple helix supporting the creation of an integrated model through culture:

- Public Sector: City of Kosice, Creative Industry Kosice (City NPO), K13-Kosice Cultural Centers (City NPO)
- Private Sector: Civitta Slovakia, a.s., ANTIK Telecom, ASBIS
- Civil Society/NGOs: East Coast
- Research Institutes: Technical University Kosice, Faculty of Economics, and Faculty of Arts

2. Introduction

The 2nd Kosice 2.0 project journal puts the second year of its implementation journey into the spotlight focusing on the key progress moments and success stories while examining its development trajectory through the lens of the 7 implementation challenges. During this timeframe, the project succeeded in launching and testing almost all of its innovation elements formulating its integrated ecosystem and manifesting the project in its complete form. With its innovation system in place, Kosice 2.0 project started attracting public attention and introducing itself to the broader community and to the City administration with more self-confidence. The results of this blossoming period impacted positively the project's relationship with the municipality starting infiltrating public sector routines and becoming useful for the City leadership. At the same time Kosice 2.0 project strengthened its international position capitalizing mainly on the strong networks of its lead partner CIKE. This exciting process for the project and the team of partners created a fertile ground to envision the future of the initiative beyond the UIA funding period and the scalability or replication of its innovative elements.

The report is organized into 2 parts. The first one observes the project's progress mapping the key implementation moments while highlighting their importance to the overall journey. The second part examines the project development trajectory through the lens of the 7 implementation challenges defined by the Urban Innovative Actions experience. It is the result of 2 study visits and a series of online and physical meetings and exchanges with the project management team, project partners, and stakeholders throughout the year including a collective reflection and learning-through-exchange meeting held in Kosice during the second study visit.

3. Progress Update

At the beginning of the second year, the project encountered significant external challenges. The reintroduction of public measures to mitigate the spread of COVID-19 created pressure on the team when organizing public events early in the year. Simultaneously, the influx of Ukrainian refugees resulting from the Russian invasion in the neighboring country added up to the external challenges faced. Despite these difficulties, the project remained steadfast in its development trajectory, delivering critical outputs throughout the second year. This was made possible by the project's agile, swift, and robust project management team, led by the experienced partner CIKE. The team managed to adapt to the challenging context, leveraging digital tools and incorporating innovative approaches within its range of activities and services:

• Certain events and activities were successfully transitioned to virtual spaces, such as design sprints and the public presentation of the Open Data platform. In other cases, the project team seized the opportunity to provide training to beneficiaries on digital tools, as demonstrated in the educational program for municipality employees, Creative City.

- Additionally, activities of the Challenger Urban: Creative Acceleration Program boot camp were opened to the international community, hosting startups from across Europe in a digital format.
- One of the project's hackathons was specifically dedicated to developing solutions and digital products aimed at supporting the Ukrainian population.
- Certain areas within the project's central premises were repurposed as emergency units to provide assistance to transit Ukrainian population.
- Project partners organized the transformation of existing buildings into temporary shelters to accommodate refugees.

Despite the formidable challenges faced during the second year, the project exhibited resilience and adaptability, ensuring the continuation of its mission. The progress of Kosice 2.0 during the reporting period can be highlighted through the following key moments:

3.1 Putting in place the innovation elements of the ecosystem (delivering critical outputs)

During this second phase in the project's implementation journey, Kosice 2.0 expanded its activities developing the critical mass of elements for its innovation ecosystem and showcased through them its core values and objectives in a very bold way. Main outputs that could be highlighted within the timeframe have been the following:

- The **completion of the CXI unit** with all its experts onboard and the appointment of its new manager. The CXI acquired its complete form and structure consisting of 3 departments and 6 people as full-time staff: (1) The Data Department that collects, analyzes, and interprets public urban data associated with the quality of life (2) The Public Spaces Department responsible to map public spaces and generate recommendations on how to improve them, and (3) The Services Department responsible to design more efficient public services putting citizens at the center. The CXI team collected and processed a range of urban data and produced public surveys and articles on well-being, the climate crisis, public space, housing affordability, demographics, urban sprawl, etc.
- The development and piloting of the **brand-new open-data platform** that was delivered to the municipality and started operating within the municipal structure with the support of the CXI unit. The new platform entitled "Open Data Kosice" was launched at the beginning of 2022 and within one year it managed to publish 54 urban data sets including data maps, data visualizations, and a range of public surveys. The open data platform was presented and explained to municipal employees, university students, professionals, and the public through presentations and thematic workshops. More on the open-data platform can be found on its official website https://opendata.kosice.sk/ and in the dedicated article.
- The delivery and activation of the Mobile Urban Lab (MUL) unit with its equipment in place to support the organization of community events and the collection of urban data with its sensors. Although the team had already activated its community reach-out program before acquiring the car during the first year of operation, the new MUL unit became a lever and a reference point that boosted the community and research activities helping the CXI to map out unknown urban areas, create studies for the municipality and also engage more the public into discussions about the future of specific urban places. More on the community reach-out activities of the second year can be found in the dedicated article.
- The organization of a large volume of **innovation activities within the Urban Innovation Sphere** addressing early-stage start-ups, creative entrepreneurs, tech-enthusiasts, and local NGOs/NPOs. Within the reporting period the project witnessed the organization of 3 open call competitions for citizens' groups and local NGOs/NPOs (Innovate You! program) that supported 36 citizens' initiatives, the second cycle of the acceleration program with the participation of 12 early-stage start-ups, two hackathons with the participation of the tech community. The project also facilitated various networking activities (Networking Catalyst program "Eastside Heroes"), which, for the first time since the pandemic, took place as physical meetings, fostering renewed enthusiasm within the project's community.
- The design and piloting of the **educational program for municipal employees** entitled "Creative City" that runs for a period of 6 months engaging a group of 20 officers in a range of capacity-building activities supported by external experts. For the educational program, you can find detailed information in the dedicated zoom article.
- The organization of a series of **design sprint workshops** that brought together diverse stakeholders around City challenges and the need to co-design more efficient and citizen-centric municipal services and policies.



The completion of the Citizens Experience and Wellbeing Institute unit, with all of its experts onboard, was one of the major highlight moments during the reporting period.

3.2 Anchoring in the city and seeding the data-led culture

Delivering a large volume of public activities during the second year of implementation helped Kosice 2.0 project to gain greater attendance making its first ambitious steps to establish itself in the urban milieu and engage with a broader audience communicating its philosophy and agenda. On the one hand, within the Urban Innovation Sphere framework, the accelerator program, the hackathons, and the proof-of-concept open calls attracted a multiplicity of stakeholders and actors that the project had been targeting while the fact that the networking meetup sessions turned into physical meetings for the first time in the life of the project had been a game changer as the post-covid emotional interaction character that they acquired helped to bring together prospective future leaders in the start-up and the tech community. The project also capitalized on the large public events organized by its lead partner CIKE, such as the White Night Festival or the Art & Tech Days international conference attracting public attention and bringing the project closer to the broader community of Kosice through a series of art installations, lectures, workshops or other public opportunities. Later in the year, the Mobile Urban Lab infrastructure was launched and put together its first public actions engaging the community with co-design workshops and open debates in the public space.

In parallel to the public activities, Kosice 2.0 project started spreading the new data culture that had been nurturing and declaring through a range of actions. Highlight of those activities was the launch of its brand-new open data platform, Open Data Kosice, which was delivered at the beginning of the year and was publicly showcased with a series of presentations to the different target groups focusing especially on the academic community, the municipal officers and the technology start-ups community. With the open data platform as a powerful tool in its hands and the CXI unit in place, the project started communicating this new data culture that had been introducing empowering people to be more active around the use of data. At the same time, it supported its innovation programs to diversify the urban challenges addressed through its various activities attracting more and diverse stakeholders who piloted pragmatic solutions that could tackle complex urban issues such as housing affordability or urban mobility. In the same direction, the citizens' science program that was launched, engaged citizens in the collection of high-quality urban data through dedicated workshops and seminars and besides spreading the new data culture across the community, it contributed to other public initiatives such as the measuring of the weather quality or climate adaptation plans organized by the municipality.

This public anchoring strand which had been assembled meticulously within the season, peaked during the Mayoral elections period when the City administration incorporated part of the Kosice 2.0 project's success stories in its narratives when addressing the citizens. The narrative focused particularly on the increased capacity of the municipality to work with data to address complex urban challenges such as climate crisis, housing affordability, urban mobility, etc and be able to take data-informed decisions and design evidence-based policies. The culmination of communicating the project at the public level was celebrated during the Art&Tech Days conference, lead partner's CIKE flag parallel activity, at the end of the reporting period (November 2022), with the freshly re-elected City government and key public officers, attending the 3 days conference, its workshops and various engaging activities that were organized under the framework of the Kosice 2.0 project.



Hackathons have been a very successful way to nurture and spread across the community the new data-led culture of the project. Around 30 groups out of tech-enthusiasts participated in a 24-hour session to generate solutions for a range of urban challenges including mobility and housing affordability © Kosice 2.0 Project

3.3 Infiltrating the public administration routines and operations

The outcome of this blossoming period was not only that it brought the project closer to the local community showcasing its vision to increase civic engagement, support the modernization process happening in the economy of the city empowering the emerging start-up and IT sector and establishing an interface of public action between society and government, but also it helped Kosice 2.0 project in its aim to revolutionize the internal structure and operations of the municipality. With a strong emphasis on advancing and modernizing routines and mindsets, the project sought to instigate a paradigm shift at both the operational and strategic level. By introducing new tools, data-driven approaches, and evidence-based decision-making, Kosice 2.0 started challenging the traditional practices and encouraging a culture of agility, adaptability, and forward-thinking. This transformative effort aimed to break down silos, streamline processes, and foster collaboration across different departments and sectors. The capacity building program that it was designed and piloted for its municipal employees introduced new tools, practices of work, and concepts such as "design thinking", "value for money" and "participation" upgrading capacity and skills but most of all envisioning to establish this new mindset of innovation within City government. During the educational program, a team of 20 municipal officers, from diverse departments such as the strategic department and the architectural and planning department participated in a series of hands-on workshops and seminars run by external experts from the private sector (Deutsche Telecom), public sector (Metropolitan Institute of Bratislava, Kosice Self-Governing Region) and the Academy (Technical University of Kosice - Faculty of Economics). The elements of this new mindset were tested in practice in a series of design sprint workshops where City staff partnered up with other stakeholders piloting solutions that could upgrade the public services of the municipality putting the users (citizens) at the center of the process. Within this framework, the team organized a range of collaborative workshops dedicated to various public challenges such as how to improve the services offered by the municipal office of first contact, how to improve the nursing services of the City, or how to co-design solutions for an emerging urban challenge such as the urban heat island effect.

This shift in cultures and modernization process for the City of Kosice started becoming evident for the re-elected administration at the beginning of the new Mayoral term to a certain extent. In response to the demands of the evolving city context, the newly re-elected City administration of Kosice recognized the need for strategic appointments which generated a promising framework for the operations of the Kosice 2.0 project as well. Two key public officers were appointed to pivotal positions and started undertaking public missions while interacting closely with the initiatives of Kosice 2.0. The first appointment was that of the Chief Innovation Officer, who assumed the role of representing the municipality in attracting innovation from the community. The new CIO took on the responsibility of empowering entrepreneurship and transforming ideas and skills into tangible solutions. Recognizing the potential of the startup sector as a driver of innovation, the municipality sought to leverage its power through the CIO's leadership. The second officer appointed was the Chief Architect, entrusted with the task of guiding the urban development process for the City and undertaking new ambitious projects such as updating the city's masterplan. The new Chief Architect started working in close collaboration with Kosice 2.0 people and especially the CXI unit, ensuring that the innovative ideas and recommendations would be integrated into the city's urban development framework and the City's new planning aspirations could tap into the knowledge produced and the data collected by the Unit. Establishing direct communication channels between these officers and the Kosice 2.0 project, the City administration demonstrated a sense of commitment to

fostering a dynamic and progressive environment, where strategic positions align with the municipality's vision for a data-driven, citizen-centric future.

But apart from internal operations, the City of Kosice harnessed the diverse levels of the Kosice 2.0 project and its data-driven mindset as it expanded its engagement within the international community, particularly in the realm of climate adaptation initiatives. Drawing on the elements and principles of the Kosice 2.0 project, the municipality has actively integrated them into its participation in international networks and programs such as the EU Mission: Net Zero Cities program, where it participates together with the City of Bratislava. By leveraging the data-driven approach developed through the Kosice 2.0 project, the City of Kosice started enhancing its ability to analyze and respond to climate-related challenges, fostering sustainable urban development and resilience.



Through the design sprint workshops, Kosice 2.0 project brought together municipality officers (service providers) with citizens and stakeholders (end-users) to co-create solutions for more efficient public services. Introducing design thinking methods and collaborative processes, the team aimed to advance public sector routines and modernize service design routines.

3.4 Strengthening the project's international gravitas

The Kosice 2.0 project has significantly bolstered its international reputation through the exemplary work of its lead partner, CIKE (Creative Industry Kosice). CIKE's strategic partnerships, such as its collaboration with the renowned Ars Electronica festival on December 2022 where the outcome was the installation of the internationally acclaimed media artist Refik Anadol (https://kosice2.sk/en/novinky/kosice-2-0-x-ars-electronica-<u>x-art-tech-days/</u>), have been instrumental in strengthening the project's narrative that links art and creative industries with data-driven decision-making processes and urban development. This collaboration not only enhances the project's visibility but also contributes to its overarching strategic pillars. Additionally, Kosice 2.0 has capitalized on CIKE's extensive international network, particularly through its participation in the UNESCO Creative Cities Network (UCCN), where it represents the City of Kosice. The UCCN serves as a vital platform for reflecting on the role of creativity in sustainable development and fostering innovation, aligning with the implementation of the 2030 Agenda for Sustainable Development. Leveraging this network, Kosice 2.0 and CIKE, organized the highly successful Art & Tech Days festival in November 2022, a three-day event in Kosice that attracted international figures such as Martin Honzik, the director of Ars Electronica, Lisa Lang, the Director of Policy & EU Affairs Orchestrator, and internationally acclaimed artists. The conference featured lectures, workshops, masterclasses, and exhibitions, further establishing Kosice as a hub for the intersection of art, technology, and innovation. Furthermore, during the Art & Tech Days, representatives from 22 member cities of the Creative Cities Network and the Cities of Media Arts cluster visited Kosice, providing an opportunity for fruitful discussions and collaboration. By leveraging CIKE's international network and strategic partnerships, the Kosice 2.0 project has not only strengthened its international gravitas but also solidified its position in the field of creative industries, data-driven decision-making, and sustainable urban development.



Kosice 2.0 and CIKE, organized the highly successful Art & Tech Days festival in November 2022

3.5 Planting the first future seeds

During its second year of implementation, the Kosice 2.0 project embarked on planting the seeds for its long-term sustainability and replication opportunities, marked by four notable highlights. Firstly, the project's open data platform, positioned within the municipal structure, successfully secured inclusion in the public budget of the municipality. Despite the overall decrease in the public budget due to the energy crisis resulting from the neighboring conflict in Ukraine, the platform's integration highlighted the municipality's commitment to open data and its potential for fostering transparency and community engagement. Local communities and students were actively exposed to the platform, cultivating a culture of open data within the broader community.

Secondly, a strong and consistent partnership was established with the TUKE University (Technical University Kosice-Faculty of Economic) to develop the Master's program focused on data-driven policies. This program received accreditation and began attracting young talents that could later join the Kosice 2.0 team, the CIKE organization or the municipality's strategic department. The collaboration between academia and the project further strengthened the talent pool and knowledge base in the field of data-driven policy making, ensuring the sustainability of the project's initiatives.

Thirdly, the Citizens Experience and Well-Being Institute (CXI) unit, a key output of the Kosice 2.0 project, held significant potential for replication. Through the project's connections with the Vice President for Urban Planning at the Office for Spatial Planning of the Slovak Republic, there was an opportunity to share the CXI methodology on collecting, processing, and publishing urban data. This newly established office, which digitizes the process of acquiring building permits, could benefit from adopting elements of CXI's approach, enhancing efficiency and transparency in urban planning.

Lastly, Kosice achieved a major milestone by becoming one of the European Institute of Technology's (EIT) Culture and Creativity Knowledge and Innovation Community Centers (KICs). As part of the EIT Culture & Creativity, which fosters sustainable ecosystems for European Cultural and Creative Sectors and Industries (CCSI), Kosice 2.0's lead partner, CIKE, joined 49 other partners across Europe. CIKE's role as one of the 50 partners responsible for running one of the six Co-Location Centers established in the European Union positions it as a key player in the region. This success enables CIKE to secure resources to sustain and further develop the innovation elements established in Kosice 2.0, notably the Citizens Experience and Well Being Institute unit (CXI).

4. Implementation Challenges

Challenge

Observation

4.1. Leadership for implementation

Challenge level

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The project enjoys political support, but there are challenges when supporting the project's ambitious aspirations to modernize routines and mindsets in the public sector. City leadership personnel have not fully embraced this vision, indicating the need for sustained efforts to bring about meaningful change.

4.2. Public Procurement

Challenge level

The project has overcome many public procurement obstacles, but there have been delays in sensitive areas such as infrastructure upgrading and equipping the coworking facility. The energy crisis resulting from the war in Ukraine has further complicated the procurement process. However, the team is generating solutions to keep up the positive flow of energy in the project and not let procurement deadlocks become burdens for its broader vision.

4.3. Organizational arrangements within the urban authority/cross department working

Challenge level

Achieving cross-departmental collaboration and breaking down silos within the municipal structure is a challenge. Ownership of the project primarily rests with CIKE, creating a sense of distance between CIKE and other consortium partners, including the municipality.

4.4. Participative approach for coimplementation

Challenge level

The project has embraced a participative approach, fostering collaboration and cocreation among various partners and stakeholders. However, there is a discrepancy in the ownership of the project among the implementation partners, which poses a challenge to fully realizing the participative approach.

4.5. Monitoring and evaluation

Challenge level

The project includes a robust monitoring and evaluation process to capture its expected impact. However, external factors such as the COVID-19 pandemic and the war in Ukraine have posed challenges to evaluating the project's impact on people's life satisfaction. The team has conducted surveys, collected data during public events, and conducted interviews to gather insights into the project's impact.

4.6. Communication with target beneficiaries and users

Challenge level



The project faces inherent challenges in effectively communicating with its diverse target groups and conveying complex ideas. Various methods, such as public events, exhibitions, articles, and videos, have been employed to engage and involve stakeholders.

4.7. Upscaling and transferability

Challenge level

The project faces a two-fold challenge in upscaling. It needs to sustain and diffuse its existing innovation elements and culture, while also replicating or upscaling its components and ecosystem. Challenges include potential public spending cuts and attracting funding through international activities. Efforts have been made to showcase the project internationally and replicate its methodologies in other institutions and urban planning entities.

5. Implementation Challenges Explained

5.1. Leadership for implementation

Kosice 2.0 project still enjoys strong high-level political support by the leadership of the City government due to the prestigious character of the program as well as the acknowledged and reliable reputation of its public organization CIKE that is responsible for leading the project management and the initiative at large. One of the two Vice Mayors of Kosice City and the Chief of the Strategic Department maintain close proximity to the project, actively participating in its key activities and engaging in various committees and workshops organized by the Urban Innovation Sphere programs. The recently concluded city elections, where the government was re-elected, facilitated the project in maintaining its established connection points. Furthermore, the appointment of two key public officers, the Chief Innovation Officer and the Chief Architect, demonstrates the government's commitment to the areas where the project is investing its efforts – namely, harnessing innovation in the start-up sector and promoting a data-driven approach to urban development. The direct communication established between these officers and the project team further underscores the City's belief in the vision and value of Kosice 2.0.

At the same time, the City has embraced, to some extent, the data-driven narrative pursued by the Kosice 2.0 project. This narrative has been incorporated to the communication messages towards citizens during the election period and to international networks as the City actively participates within the climate adaptation community, highlighting the interconnectedness of culture, climate, and technology.

However, Kosice 2.0 has a very ambitious goal when it comes to advancing and modernizing routines and mindsets in the public sector and here it faced significant challenges. These challenges were evident during the organization of the educational program for municipal employees known as Creative City. The absence of City leadership personnel from attending the courses and the lack of connection with real-time urban challenges originating from top-level decision-makers indicate that there is still a long way to go in fulfilling the project's aspirations. The City leadership, despite its support, may not fully embrace the new narrative within such a short timeframe, highlighting the need for sustained efforts to bring about meaningful change in public sector practices and mindsets.

5.2. Public Procurement

During the second year of implementation, the project managed to overcome many of the public procurement obstacles and delays met during the first season. Major highlights in this process have been the launch of the open-data platform in the beginning of the year, the delivery of the Mobile Urban Lab van unit which hit the road during the summer period with most of the equipment in place (a number of complicated sensors were only missing) supporting the organization of a series of community reach-out events, the provision of funding to citizens' groups through 3 rounds of its Proof-of-Concept competitions (Innovate You! Program) and the Fab Lab facility at the Bravo Hub co-working center where most of the new machines such as 3D printers, CNC milling machine, wood-shop etc were delivered. The project also continued providing grants and funding support through its innovation programs within the UIS framework organizing its second acceleration program (Challenger Urban: Creative) and 2 more hackathons where it supported start-ups and other collectives. CIKE and K13 organizations (City's siblings NPOs) undertook most of the funding and management simplifying processes and avoiding delays.

However, major delays continued to occur in other sensitive areas putting some pressure on the project management team. The upgrading of the infrastructure at the Bravo Hub building (new HVAC system and electrical installation) did not move forward at all and the furnishing and equipping of the Urban Innovation Sphere's co-working facility was still frozen. On the one hand, the energy crisis that was the result of the Russian invasion in Ukraine drove up prices much higher than the project could manage so the whole procurement

process had to be reorganized from scratch in a much more challenging context. This situation though did not hinder the nurturing and the evolution of the ecosystem of start-ups within the Bravo Hub facility where a diverse group of (mostly) IT companies had been enjoying their co-habitation engaging and exchanging in one of the most enticing spaces in the city. The completion of space transformation has just been postponed for next season.

5.3. Organizational arrangements within the urban authority/cross department working

The project's ambitious vision to advance public sector innovation and performance, improve public services, and bring about a paradigm shift in the municipality requires a strong integrated working culture and cross-department coordination. The CIKE team, responsible for project management, recognizes that achieving the necessary cross-departmental collaboration and breaking down silos within the organizational structure of the municipality is not an easy task. Operating outside the City Hall, the CIKE team has made significant efforts to foster collaboration and interconnections at various levels of the project.

To facilitate cross-department coordination, the team has focused on two key areas. Firstly, they have capitalized on their firm connection with key political leaders such as the Vice Mayor and the Head of the Strategic Department who are fully embracing the initiative and are always close to the project offering their support whenever that is needed. Secondly, they have been investing in the elements of the innovation ecosystem that they introduce and that they carefully assemble through which they aspire to modernize the public sector and stimulate cross-departmental collaboration and especially with the Citizens Experience and Well Being Institute which has a strategic role supporting with data and expertise the different departments of the municipality and especially the Strategic Department.

Several highlights illustrate the progress made in this regard. First, the positioning of an open-data platform within the municipal structure encourages collaboration between the CXI researchers' unit of CIKE and the Strategic Department. Second, the educational program for municipal employees, "Creative City," has brought together staff from different departments, fostering cross-department collaboration through hands-on workshops and seminars. Third, Kosice 2.0 has supported the City of Kosice in its participation in international initiatives such as the Net Zero Cities European network, providing expertise and support from the CXI unit.

Additionally, the collaboration of project partners and the municipality within the Urban Innovation Sphere has created opportunities in driving cross-department collaboration. Partners have participated in expert juries, defined competition challenges, and leveraged innovations that have been incorporated into the City's operational agenda. Furthermore, close collaboration with the Chief Innovation Officer and the Chief Architect and their respective departments has supported and empowered the innovation community and facilitated new urban development missions.

Despite the progress made, there is still a distance to cover in this specific strand of the project. Ownership of the project is primarily attributed to CIKE, creating a sense of distance between CIKE and other consortium partners, including the municipality, which is the main client of the project. This distance is further emphasized by CIKE's operation outside the City Hall in its own dedicated innovation campus which is of course needed so to harness and nurture innovation. To drive meaningful change within the City Government and challenge traditional practices, there is a need for scaling up and coupling relevant initiatives to sustain these efforts over time. A culture of agility, adaptability, and forward-thinking must be underpinned by other ongoing initiatives such as the development of the new Biodiversity plan for the City or the new updated city masterplan that is underway.

5.4. Participative approach for co-implementation

The implementation of the Kosice 2.0 project has been characterized by a strong participative approach, which has fostered collaboration and co-creation among various partners, stakeholders, and participants. This participative culture is deeply embedded within the project, making it one of its strongest elements. However, there is a discrepancy in the ownership of the project among the implementation partners, creating a challenge to the full realization of the participative approach. Despite this, the second year of implementation has seen a wealth of activities that have successfully engaged a broad spectrum of people, enabling them to participate in decision-making, design processes, and development efforts. Noteworthy moments include the creation of the open data platform, which not only facilitated collaboration between CXI experts and the City's Strategic Department but also involved the broader community through open calls and surveys. Additionally, community activities supported by the Mobile Urban Lab brought together diverse actors in Kosice to discuss the city's future and develop cross-sectoral and co-creation approaches for specific urban areas. The Urban Innovation Sphere has played a crucial role in promoting a collaborative culture by organizing public programs that unite the City

Government and the community in piloting solutions to enhance quality of life and collective intelligence in the city. Furthermore, design sprint activities focused on improving public services have sparked collaborations between service providers, such as the City administration and staff, and end-users (citizens), enabling them to co-design more efficient and citizen-centric public services. Through these participatory initiatives, the Kosice 2.0 project has demonstrated its commitment to engaging diverse stakeholders and fostering a culture of collaboration and co-implementation.

5.5. Monitoring and evaluation

The implementation of the Kosice 2.0 project has included a robust monitoring and evaluation (M&E) process, which has followed a trajectory set in the first year. The M&E process encompasses four pillars that aim to capture the full spectrum of the project's expected impact, including cultural vibrancy, life satisfaction, local government, data, and the creative economy. The M&E process is supervised by a Technical University professor and managed by the experts of the CXI unit. However, the second year of implementation introduced external factors such as the COVID-19 pandemic and the war in Ukraine, which posed challenges to the evaluation and measurement of the project's impact on people's life satisfaction. Measuring life satisfaction itself is inherently complex. To address this, the M&E team organized a range of public surveys to gather public opinion and measure the project's impact on its target areas. These surveys covered topics such as interest in open data, perceptions of Kosice as a tourist destination, the effects of the pandemic on quality of life, and frequency of visits to cultural spaces. Additionally, the team collects data through questionnaires and forms during every public event organized by Kosice 2.0 and also by making people interact with art objects. Furthermore, the team conducts in-depth interviews with individuals who have strong connections to the project. Through these comprehensive monitoring and evaluation efforts, the Kosice 2.0 project aims to gain valuable insights into its impact and make informed decisions for further development and improvement.

5.6. Communication with target beneficiaries and users

The communication of the project to its target groups and to the wider community has been a quite challenging strand as Kosice 2.0 project is a complex initiative that addresses a broad and diverse group of people and stakeholders, from City Government leadership and municipality staff to tech enthusiasts, start-ups and artists, and needs to convey high content messages and perhaps complex ideas to those target group such as the value of data into public policy making or how do we define wellbeing in the city. To face this challenge, the Kosice 2.0 project has placed significant emphasis on effective communication with its target beneficiaries and users, employing a multitude of inspiring methods to communicate those messages, engage and involve them.

The project's communication strategy aligns with its participatory culture, fostering an open and engaging process. Building upon the successful communication efforts of the first year, the team has continued to invest in a diverse range of public activities and extensive media publications to connect with stakeholders. Open calls to action have encouraged community participation in urban challenges and the generation of ideas for improving services and products within the Urban Innovation Sphere context.

Large-scale public events and exhibitions, such as the Art&Tech Days and the White Night festival, have served as platforms to convey key messages to the wider community, highlighting the intersection of technology, art, data, and urban innovation. Complementing these activities, the project has produced thematic articles addressing urban challenges such as housing affordability, quality of life, and urban sprawl. These articles feature data visualizations created by the CXI team and are regularly uploaded to the project's dedicated website, providing ongoing insights into its progress.

In addition to articles, the team has created high-quality videos targeting a European audience. These videos feature renowned professionals and experts discussing various project themes, including the measurement of citizens' well-being and the utilization of data to inform better policies. Through these diverse communication channels, the Kosice 2.0 project has effectively engaged its target audience and fostered an inclusive dialogue around urban innovation and well-being.

5.7. Upscaling and ransferability

The upscaling opportunity for the Kosice 2.0 project is a two-fold challenge that involves sustaining and diffusing its existing innovation elements and culture while also replicating or upscaling its components or even its ecosystem. In terms of sustaining the project's seeds, the Citizens Experience and Wellbeing Institute (CXI) stands as a significant output securely positioned within CIKE's organizational structure. Establishing its first connections with key municipal offices and contributing to the City's work, the CXI is poised for a positive future, although the question remains whether it should be positioned within CIKE or the municipality's structure. Similarly, the Open Data platform has found its place within the municipal organizational structure and secured inclusion in the public

budget. Other empowering elements such as the Bravo Hub startup ecosystem and the strong partnership with the TUKE University contribute to the project's culture and sustainability. However, challenges arise from potential public spending cuts due to national policies on energy cost increases, impacting the project's sustainability plans. Despite this, CIKE's ability to attract funding through international activities remains crucial.

In terms of replication and upscaling, the project has focused on high-profile connections and international events to attract other institutions and the EU to Kosice, showcasing the project to the international community. Efforts have been made to pitch the CXI model to the Slovak Union of Cities and Towns, emphasizing on public services and public space approaches. Additionally, the project team has invested in connections with the Office for Spatial Planning of the Slovak Republic, sharing CXI methodologies on urban data collection, processing, and publishing data, which could benefit urban planning efficiency and transparency. Looking ahead, the vision of the Kosice 2.0 project and CIKE is to build upon the unifying element that elevated the city during its European Capital of Culture designation in 2013, incorporating new elements such as the data culture and bridging art with technology and urban innovation to drive positive impacts on urban development, public policy making, public sector performance, economy, and well-being.

6. Conclusion and Take-Away Points

The implementation of the Kosice 2.0 project has made significant progress in various areas, while also facing challenges that require further attention and action. The project has benefited from strong political support and leadership from the City government, with key officers actively engaging in project activities and endorsing the vision of Kosice 2.0. However, there is a need for sustained efforts to fully embrace the new narrative and bring about meaningful change in public sector practices and mindsets. Public procurement has experienced both successes and delays, with the need to address challenges in infrastructure upgrading and equipping the Urban Innovation Sphere facility. Cross-departmental coordination and collaboration within the urban authority have shown promise, but there is still a distance to cover in terms of ownership and scaling up initiatives. The participative approach to co-implementation has been a strong element, fostering collaboration and engagement among stakeholders, although the ownership among implementation partners requires further alignment. The monitoring and evaluation process has faced external challenges but has employed comprehensive methods to measure impact and inform decision-making. Effective communication strategies have been employed to engage target beneficiaries and users, ensuring that key complex messages are conveyed to target beneficiaries and that their voices are incorporated into the project's development. The upscaling opportunity for the project involves sustaining and diffusing existing innovation elements while replicating and upscaling its components. The project's next steps should focus on addressing the identified challenges, strengthening cross-departmental coordination, fostering a culture of innovation within the public sector, and further engaging stakeholders to ensure the long-term success and impact of the Kosice 2.0 project.

