

FinEst Centre
for Smart Cities

SMART CITY CHALLENGE 2025

City Challenge

Max 3 pages

send to smartcity@taltech.ee by Sept 30, 2025

Challenge Title – (max 5 words, no acronyms)

Digital Citizen 360°

City/county and country

Bağcılar, Istanbul, Turkey

Main contact from your city/county – name, organization, job title, e-mail, phone

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1. What is the future urban challenge that would need a solution to?

- **Please describe the challenge of your city / county neighboring a city?**

The fundamental challenge of modern city governance is the "one-size-fits-all" approach. Our municipality offers hundreds of different services, from social assistance to cultural events, and from sports to tax services. However, these services and opportunities often fail to reach the right citizen at the right time. On one hand, an elderly citizen at risk of social isolation may be unaware of the free workshops offered by the municipality; on the other, a young person looking for a new hobby may not know about our sports facilities. Our challenge is the inability to understand the unique needs, interests, and living conditions of each citizen to provide them with a personalized, proactive, and holistic city experience.

- Which category your challenge is primarily in: safe city, happy city, and climate resilient city?

This challenge is at the core of the **Happy City** category. Its purpose is to help citizens realize their personal potential, strengthen their social ties, and increase their overall life satisfaction by maximizing their access to opportunities within the city.

- Why is it important for your city to solve it? How big priority it is for you and why?

Solving this challenge is a **top priority** because it will revolutionize our understanding of municipal governance. It represents a shift from a reactive service delivery model to a proactive citizen empowerment model. We want to not only meet the basic needs of our citizens but also actively contribute to their social, cultural, and personal development. This will ensure a much more efficient use of municipal resources and build a deeper, more meaningful bond with our citizens.

- Is this a unique challenge/problem of your city, why or is this by your knowledge a challenge/problem that many cities have – which kind of other cities?

This is a common problem for all smart cities in our digitalizing world. Many cities collect data, but they keep it in silos and fail to return it to citizens as a holistic benefit. The integrated data infrastructure we possess through our "Bağkart" project provides an opportunity to develop a pioneering solution to this global problem.

2. Innovation.



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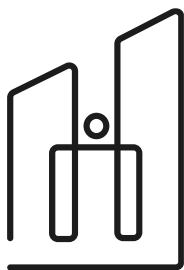


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- How have you solved that issue so far? Why aren't the present solutions good enough? Are there legal obstacles, which ones?

So far, we have reached out to our citizens through general announcements on our website, mobile application, SMS notifications, and social media. However, these methods are not personalized and often create "information pollution," failing to capture the citizen's interest. Current solutions cannot analyze a citizen's past behavior or current situation to predict their future potential needs. The biggest legal and ethical challenge is to ensure the privacy and data security of our citizens at the highest level while processing such a rich dataset, in compliance with the Turkish Personal Data Protection Law (KVKK).

- What should be the main features, characteristics of the future solution to be potentially best for that challenge or problem?

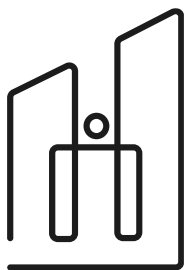
The future solution should be an **AI-Powered Personal Development Platform**:

1. It must merge all data from the "Bağkart" system (social, economic, cultural, administrative) into a single, dynamic, and anonymized profile.
2. Using machine learning algorithms, it should predict not only the citizen's current interests but also their potential needs. (e.g., "A citizen receiving social aid who has not attended any cultural events in the last 6 months may be at risk of social isolation. Let's recommend a free theatre event at the nearest cultural center.")
3. Instead of just providing information, it must offer concrete opportunities. (e.g., "You can easily pay your tax debt via the mobile app.", "We see you're interested in our Pilates classes; a new session has opened in your neighborhood, would you like to register?")
4. It must provide a transparent interface where citizens can view their own digital profile, grant consent for how their data is used, and customize the recommendation system according to their preferences. This is critical for building trust.

3. Expected impact of your pilot solution.

- What is the expected impact to your city environment you expect to see if the challenge gets solved?
The utilization rates of municipal facilities (sports halls, cultural centers, social facilities) will increase, and resources will be used more efficiently. Citizens can be encouraged to use public transport to attend events, which could indirectly have a positive impact on traffic and the environment.
- What is the expected impact to your citizens you expect to see if the challenge gets solved?
Citizens will see the municipality not just as a service provider, but as a **"companion"** that cares for their personal development and quality of life. Social isolation will decrease, access to new hobbies and social circles will become easier, the rate of benefiting from municipal services will increase, and overall life satisfaction in the city will rise.
- What is the expected impact to your city governance you expect to see if the challenge gets solved?
City management will take a leap forward in **data-driven policy-making**. Critical information, such as which neighborhood needs which service more, or which social group cannot access certain services, will become clearly visible. This will enable much more accurate future budget and investment decisions.





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4. Piloting

- Why would you be interested to become a piloting partner of a proposed solution to the challenge you are describing here? Describe shortly your capability to participate.

As Bağcılar Municipality, we are in a unique position to be the piloting partner for this solution. This is because we already possess the most critical element for this project: a **holistic and integrated data infrastructure**. While other cities would be starting from scratch to collect and integrate data, we can begin directly with building the artificial intelligence and personalization layer. Our capacity to participate includes:

1. The rich and diverse dataset accumulated over years provides an excellent foundation for training machine learning models.
2. Our IT Department has the technical knowledge, experience, and infrastructure to bring this vision to life.
3. Hundreds of thousands of citizens registered in our Management Information System provide a ready user base for rapid testing and feedback for the pilot application to be developed.

