



British Embassy  
Ankara



# Open Data in Turkey

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## UK-TURKEY Open Data and Smart Cities Project

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# INTRODUCTION

Smart cities are “technologically instrumented and networked cities, where vast amounts of big urban data are being generated by sensors to manage and control urban life in real-time”. Public/local administrators invest in smart city and big data technologies to run and manage the cities they govern.

Open Data is essential for developing and improving smart cities. More and more infrastructures allow data to be collected, which can be of great value for the city and its citizens. With EU data economy expected to grow up to €739 billion by 2020, potential is underlined. According to ITIF, UK leads the Open Data Charter among G8 countries.

## Background

This report has been prepared as part of the ‘UK-Turkey Open Data and Smart Cities Project’ which is supported by UK Prosperity Fund Future Cities Program and facilitated by Novusens Big Data Institute (Novusens). The Project aims to enable an environment for all interested parties to share know-how and experience on use of open data in smart cities and encourages collaborations them.

The Project consisted of several phases, starting with the delivery of “Open Data in a Day” training by Open Data Institute (ODI). Novusens Big Data Institute organized an ideation workshop to identify challenges and proposed remedies regarding the use of open data in Turkey, in order to accelerate the transition to an open data economy with the participation interested open data stakeholders in Turkey. A survey has been designed by Novusens to provide insights into use of open data in Turkey and preliminary results of the workshop and survey have been shared at UK Tech Conference on February 17, 2020 during a panel on open data.

## Open Data

According to Open Data Institute (ODI), ‘Data that anyone can access, use and share’ is defined as Open Data, while UK government defines it as ‘Open data is data that is published in an open format, is machine readable and is published under a license that allows for free reuse’.

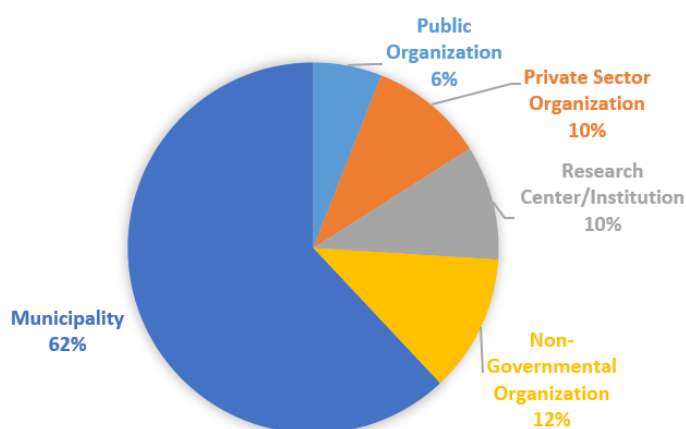
***ODI Open Data Definition:  
“Data that anyone can access, use and share”***

# MAIN FINDINGS

This section provides information regarding the main findings of the open data workshop and survey that has been designed as part of the UK-Turkey Open Data and Smart Cities Project to provide insights to the challenges faced by cities and ways to address them. The findings are presented in parallel to the specially designed survey complemented by the results of the workshop as appropriate.

## Participating Organizations by Type

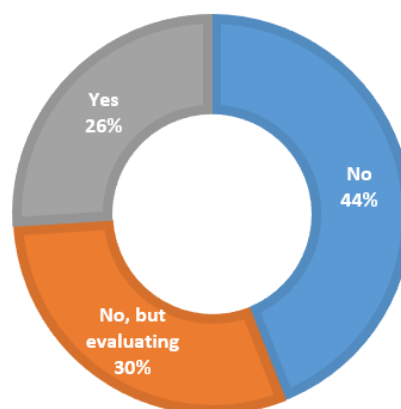
The survey has been implemented largely among municipality participants, consisting of roughly two thirds of the 50 respondents. Research centers/institutions, non-governmental organizations and private sector organizations constitute about %10 of the respondents followed by public organizations.



## Open Data Providers

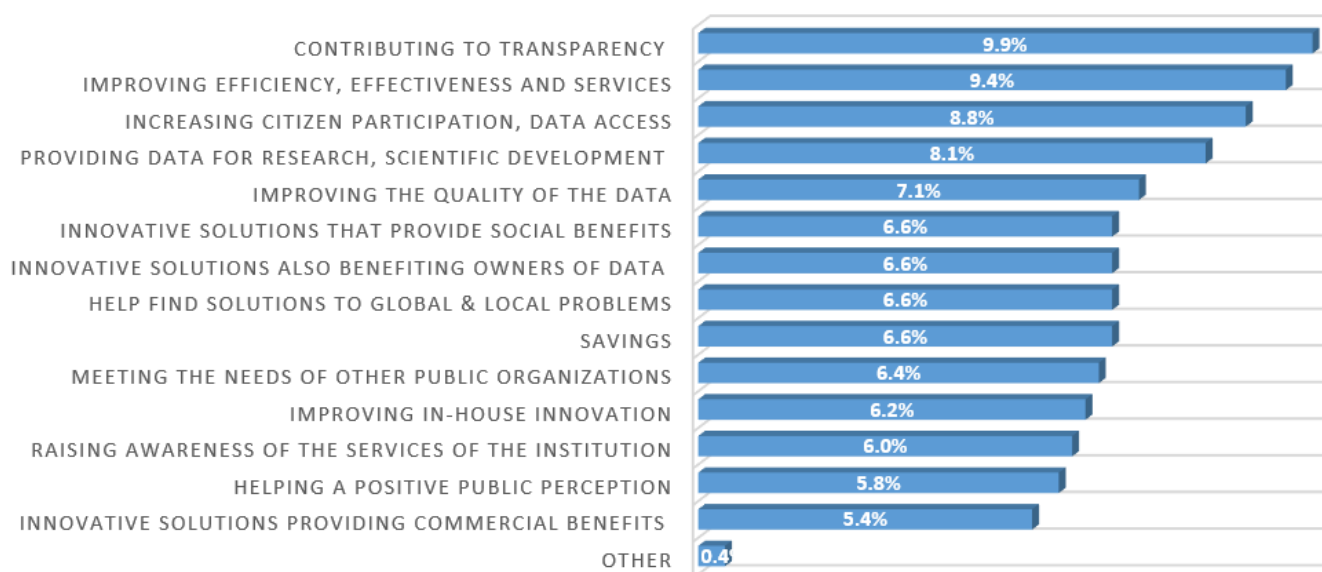
A quarter of participants indicated they are an open data provider already while about one third of them stated that they considering to open-up their data. Forty four percent of respondents have indicated that they have not opened up their data for public use.

*“Quarter of respondent are open data providers.”*



## Benefits of Open Data Applications

When participants are asked to list benefits of open data applications, transparency has been listed as the top benefit, followed by improvement of efficiency, effectiveness of services and increasing citizen participation and data access.

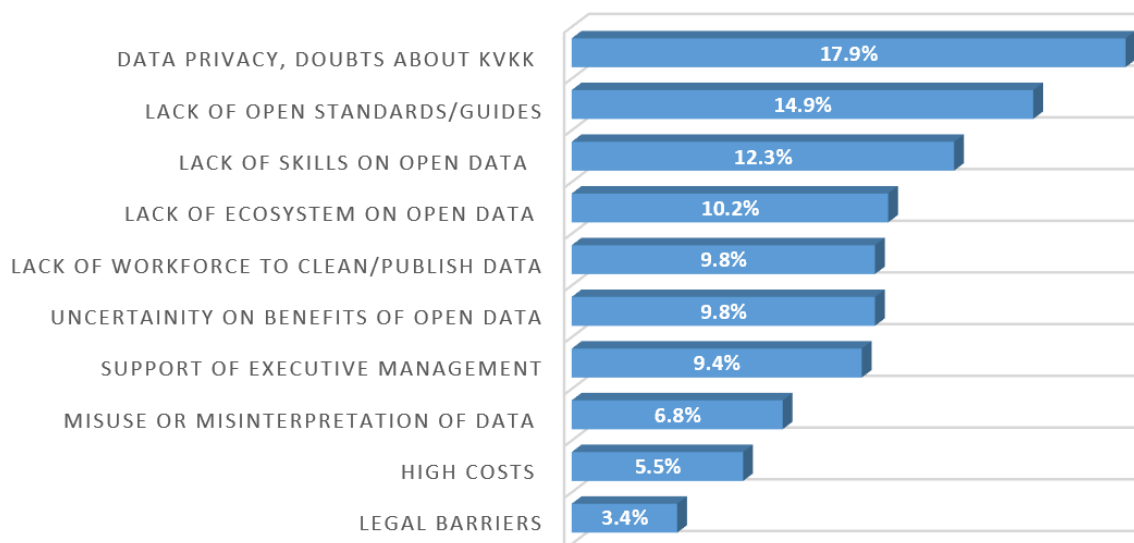


Top benefits relating to data owning organization are improving efficiency/effectiveness of organization's services and improvement of quality of data, while organization's public perception and raising awareness of its services are ranked at the lower end. Improving in-house innovation was not listed as an important benefit as one might of expected.

***“Contributing to transparency is cited as the top benefit of open data applications”***

## Challenges of Open Data Applications

Regarding challenges of open data applications, data privacy and doubts about KVKK (Personal Data Protection Law in Turkey) is clearly perceived as the most critical obstacle by the respondents of the research. Lack of open data standards, skills and an open data ecosystem are also cited among the top challenges. Interestingly costs associated with open data applications was not a major concern for the participants. Legal barriers are seen as the least important challenge for open data applications.

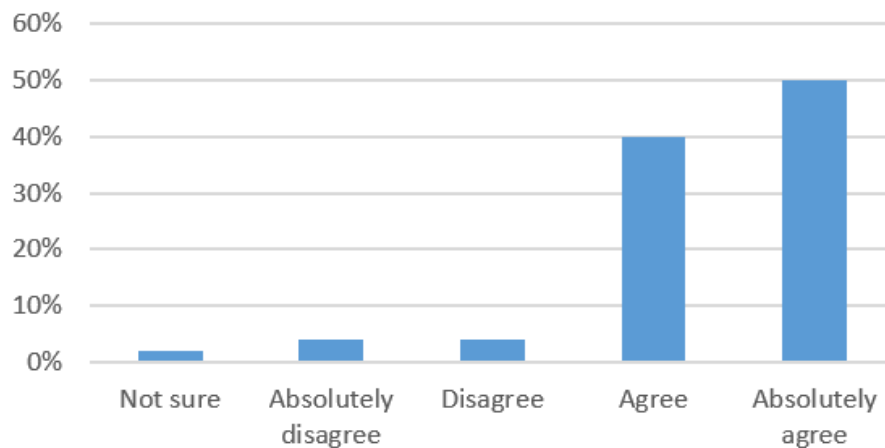


Additionally, the Open Data Workshop conducted in Istanbul on 29 January 2020, pointed out the lack of open data culture in Turkey as another challenge, while lack of standards & regulations concerning open data was emphasized as an important challenge by the workshop participants.

***“Top open data challenges: data privacy, concerns about KVKK and lack of standards - regulations”***

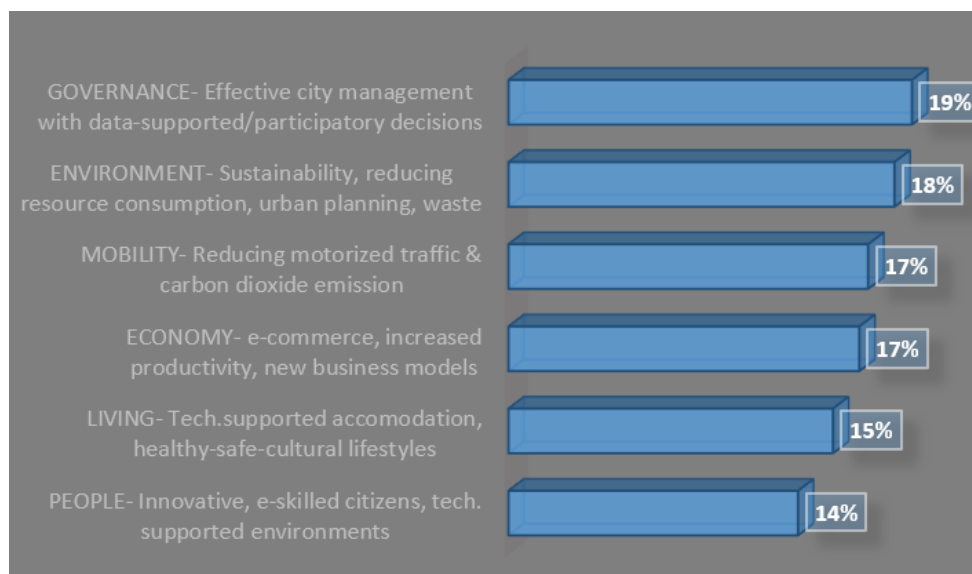
## Open Innovation Practices

With respect to open innovation practices, %90 of the participants stated that they agree or absolutely agree with such practices.



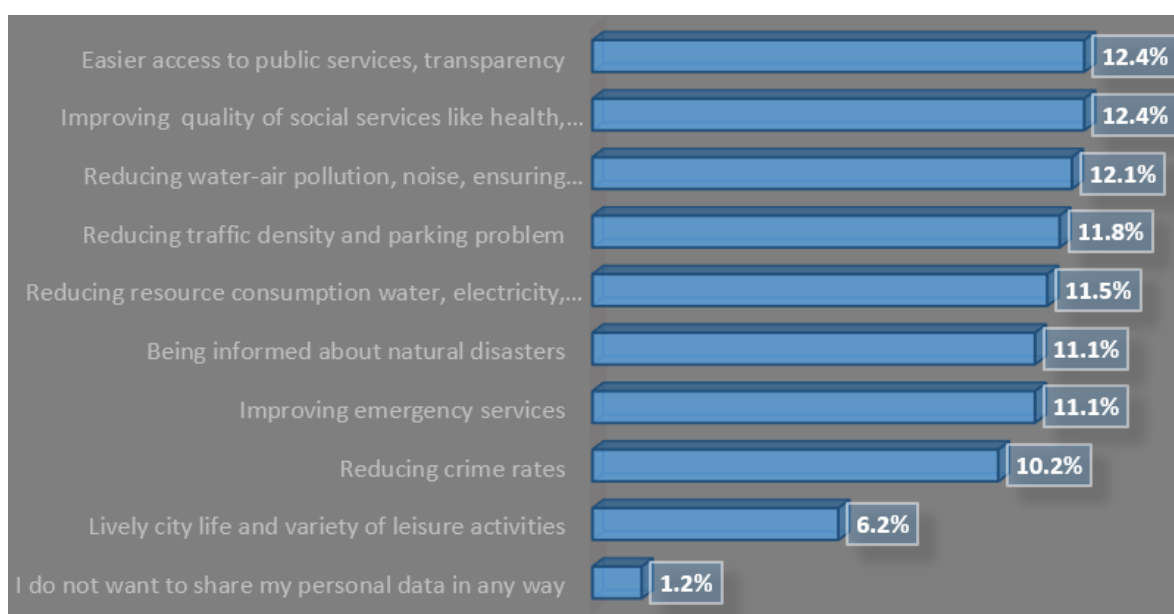
## Possible Uses of Open Data Applications

Regarding potential uses of open data in smart cities, Governance is cited as the top smart city component, followed with Environment, Mobility and Economy.



## Willingness to Share Personal Data

Survey respondents cited possible objectives for which they would be willing to consider sharing their personal data provided that KVKK is well respected with appropriate anonymization techniques. Easier access to public services / transparency and Improving quality of social services (like health, education) stand out as most important open data objectives. Environmental and mobility related uses follow as other important reasons for releasing personal data.

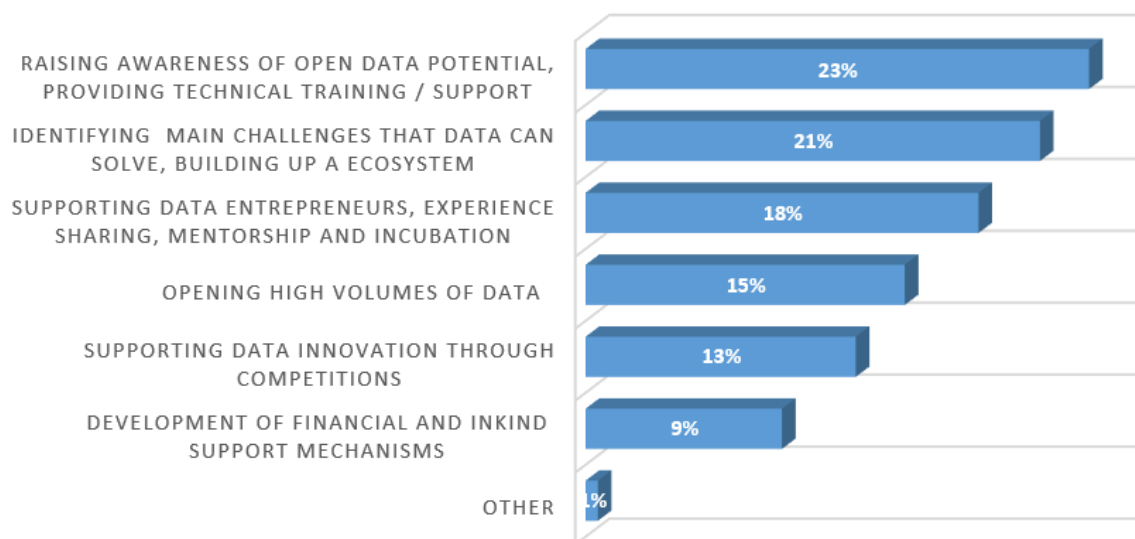


## Factors to Consider when Realizing Open Data Projects

Participants of the study have also expressed their views on important factors to consider while realizing open data projects. Raising awareness of open data potential and providing technical support/ training is seen as the top factor to consider during such projects. Identifying main challenges which open data can help solve and forming eco-systems around these challenges to generate solutions is noted as another important factor in realization of such projects. Both factors indicate the need to show benefits and quick wins of open data projects to ensure success of open data projects.



The Open Data Workshop also provided some insight on how to facilitate the realization of open data projects. Systematic monitoring of the benefits of open data projects through use of KPIs (categorized according to smart city components) will potentially make benefits measurable and visible for the general public. Regarding open data standards and regulations, British Standards Institution's (BSI) work has been cited as a possible source for localization of regulations and standards to Turkey. Preparation of a digital handbook on open data has also been suggested to address lack of open data skills and standards.



*“Showing benefits and potential of open data projects is an important factor to consider for success of such projects”*

# CONCLUSION

The study revealed that a quarter of the research participants are already open data providers and that nearly a third of them are evaluating whether to open up their data. This is an indication that there are more organizations that one might expect which have opened up or are considering to open up their data in Turkey and there is ground for an open data eco-system to be formed.

## Challenges

The results of the studies done within the scope of UK-Turkey Open Data and Smart Cities Project indicate that the main concerns for realizing open data projects is reported as 'data privacy and doubts about KVKK', while other legal issues are not seen as an issue.

According to Blockchain Turkey's Open Data Report, while there are no specific barriers to open data, regulations can be made especially concerning licensing and evaluation of KVKK from an open data perspective. Regarding KVKK, the report further states that due to anonymization of data shared under open data applications, such data does not necessarily fall within the scope of personal data and hence can be exempt from related KVKK implications. This indicates that there is room for improvement on the concerns regarding 'data privacy and KVKK' challenge and studies / workshops specific to this issue can accelerate open data transition among municipalities and public institutions.

Other top challenges for open data applications has been cited as lack of open data standards and skills and an open data ecosystem. The Project has addressed the skills training challenge with ODI's 'Open Data in a Day' training and local capacity has been built to scale such trainings. Also, an attempt has been made to establish an open data ecosystem in Turkey, through a LinkedIn group called 'Open Data Community TR'.

## Benefits

'Contributing to transparency' has been cited as the top benefit of open data applications. Improving efficiency of services and increasing citizen participation also topped the list of potential benefits. Smart city components Governance, Environment, Mobility and Economy are perceived as the domains that will benefit the most from open data applications.

Finally, the participants stated that a focused and challenge-based approach is necessary to show the actual quick benefits of open data applications to gain and sustain support for such projects.