# FIWARE GCTC Pilot Trials Challenge 2017

## About

In the digital, data-driven era, technology is disrupting faster than ever. However, why do communities have difficulties to solve challenges, even when they are replicated all over the world and the means seem to be at their disposal? Building upon the scope of NIST's Global City Teams Challenge (GCTC) to establish replicable, scalable and sustainable models with measurable benefits for the society, **FIWARE** is launching its **GCTC Pilot Trials Challenge 2017**. An ambitious competition to achieve **cross-border cooperation in the deployment of groundbreaking solutions based on FIWARE technology**.

The objective of the FIWARE GCTC Challenge 2017 is to encourage and make possible forward-looking partnerships between cities and communities in North America with organizations currently providing solutions in Europe. The expected outcome is to replicate the impact of successful 'Powered by FIWARE' applications, designed to be replicable and scalable, in Smart City pilot trials, which would eventually lead to a full deployment and replication in other communities.

**What is FIWARE?** FIWARE is a software platform based on open-source and standard technology to ease the development of Smart Applications in multiple sectors, with special relevance in the area of Smart Cities. The community behind assembles organizations from the public and private sectors, including industry, public administration, startups, academia and developers. FIWARE is an official partner in NIST-led initiatives GCTC and IES-City Framework.

More information on the challenge and on *Powered by FIWARE* solutions will be presented **at the GCTC Expo 2017** (August 28-29 2017, Washington D.C.). This will provide interested applicants with the opportunity to meet and start preparing proposals to the challenge. The **deadline** for submitting an application is set to **Monday, October 16, 2017**.

For more details on the FIWARE vision and activities, visit www.fiware.org.

## Who can participate?

The challenge is open to all GCTC action cluster participants as well as to cities, communities and organizations willing to initiate a new GCTC action cluster, including but not limited to participants in GCTC SuperClusters. The application shall include at least one North American[1] city/ community and one *Powered by FIWARE* solution[2].

If you want to participate and need **support to find a partner in Europe to fit the challenges of your community or city**, contact us at fiware-gctc-challenge@lists.fiware.org.

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[1] USA and Canada

[2] Among those listed at https://www.fiware.org/success_stories

If you want to participate as a solution developer but yours is still not a *Powered by FIWARE* solution, we highly encourage you to undergo the certification process. For more details on this process, or any other question regarding your potential involvement, please contact us at fiware-gctc-challenge@lists.fiware.org.

Although it is not mandatory, additional participation from a European city and/or from a North American organization would strengthen the value of the proposal. This would ensure the sustainability of the proposed solution to be deployed during the trial.

## What is expected?

Teams should include the partnership between a city, a local government, or metropolitan aggregation of cities, and one or several service providers. Together, they should meet the technical know-how, the administrative drive and the resources to design, implement, field test and deploy an application that fulfils the objectives of this challenge. Solutions must make use of FIWARE technology[3], leveraging existing resources from the *Powered by FIWARE* organizations, or as new developments resulting from the challenge.

Challenge proposals need to include an agreed development plan with the candidate city, local government, or metropolitan area. This plan shall include technical issues, as well as the potential regulatory and administrative resources to be committed by the involved parties.

The submitted applications should have no more than 10 pages, and it shall follow the following layout.

1. **Project concept**
   o Example of content: Brief description, Challenges and solutions, Hardware and network diagrams/schematics, Setup and configuration documentation, Technical feasibility, Related 'Powered by FIWARE' solutions identified.

2. **Project approach**
   o Example of content: Major requirements, Performance Targets/ Key Performance Indicators, Measurement methods, Standards/ Interoperability, Replicability/ Transferability, Scalability and Sustainability, Demonstration/ Deployment Phases, Test plans and results.

3. **Project impact**
   o Example of content: Impact analysis at socio-economic and societal level, Expected benefits/ Business potential, Status of Commitment, Status of Development, Differentiation/ Added Value, Affordability, Investment made by the applicant team in addition to the prize awarded by FIWARE, Risk analysis, Needs in terms of support regarding the project.

Applications should be submitted via the FIWARE GCTC FundingBox platform, at
http://fiware-gctc.fundingbox.com/

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[3] NOTE: The use of other platforms and proprietary technology is allowed provided that FIWARE components are integrated in a core feature of the solution

# Evaluation Criteria

Ideas and designs will be judged by a panel of experts from academic, nonprofit, and for-profit organizations working in the fields of research, technology and community engagement based on the judging criteria outlined below. The panel of judges will be selected and moderated by FIWARE. GCTC organizers will not be involved in the judging and selection process.

1. Effectiveness in the integration and use of FIWARE technologies and principles within the solution
2. Technical feasibility
    o Is the setup of the project clearly described? Are the test plans well designed to achieve relevant results? Is the timeline proposed realistic?
3. Differentiation
4. Affordability
5. Social impact / Business potential
    o Is the analysis thorough and complete (within reason)? Has the solution already been implemented anywhere else? How relevant is the issue addressed by the solution? Is the business model proposed solid?
6. Scalability / Replicability
    o How well documented is the solution in terms of technical requirements, implementation guidelines and additional constraints? How are the interoperability issues addressed in the project, which standards are used for the implementation?
7. Investment made by the applicant team in addition to the prize awarded by FIWARE
    o Does the proposal include actions outside the challenge timeframe, such as maintenance operations or upgrades? How well are these actions described?

# Timeline

Submissions will be open in July 2017. Entrants will have until October 16th to submit a proposal for consideration. The challenge winner will be announced at the 3rd FIWARE Summit in November 2017. The awarded team will have a 6-month period to develop and field test the ideas proposed in the corresponding cities, which may be presented at the GCTC Expo 2018.

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| • July 2017 | Competition launch |
| • **October 16, 2017** | **Proposal deadline** |
| • November 2017 | Winner announced (at the 3rd FIWARE Summit in Málaga, Spain) |
| • June 2018 | Working prototype implemented |
| • Summer 2018 | GCTC Expo 2018 demonstration |

# Awards and prizes

Up to two trials will be selected in evaluation process. The amount of the **prize to support each of the awarded solutions** shall be up to a maximum of **28,000 US Dollars** (25,000 Euros). Such amount is considered as an incentive and should not be considered as the total cost of the pilot trial. FIWARE will provide technical support free of charge in relation to FIWARE components or any other issues directly related to the platform.

- Up to 5,500 US Dollars (5,000 Euros) shall be used as a prize to the *Powered by FIWARE* companies, covering costs of the trips to North America for the pilot and for the GCTC Expo 2018.

- Up to 22,500 US Dollars (20,000 Euros) shall be used to support the pilot deployment of the solutions in the corresponding city/ community(ies). The applicants shall distribute this prize amongst themselves as they see fit, in order to cover partially or totally the cost of the pilot trial.

# Annex: Examples of possible pilot trials

| Integrated Smart Town | The pilot solution would aim at collecting information from different streams to identify the issues that affect the city in several areas e.g. urban renewal, garbage collection, public safety, transportation, social services and environmental problems. Through deployment of sensors, advanced analytics and promoting a participative environment for the citizens, a better quality of life can be achieved in the cities. |
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| Air Quality Monitoring | Monitoring, reporting and verifying emissions, as part of the environmental plan, is a key aspect of cities' policies. The pilot would combine satellites and ground sensors data, so that the city/ies can acquire a real-time map of their emissions at street and building level, and start building strategies to target key areas of interventions. |
| Smart Parking and Traffic Management | As an integrated solution for traffic and parking in urban areas, the pilot system would collect real-time data from traffic and parking areas. The management system would have an accurate picture of the traffic status and trends, so that notifications, traffic flow prediction and management are possible. When using Big Data analysis tools, the platform would help in urban space planning for decision makers. |
| City eGovernment Solution | Integration in a mobile application of all the cities services and information would provide the city administration with a single-stop information provider to the citizens, from public transport information, to alerts, news and municipal events, gas station prices, parking information, augmented reality, etc. The underlying open platform would collect, analyses, shows and maps all the information generated by the municipal citizen app in real time providing value information for all the stakeholders involved. |

| Smart Ticketing | Addressing one of the key aspects of the Smart City landscape, this pilot solution would provide an online platform, comprehensive solution for mobile ticketing for: citizens, who would get a single application for paying all mobility services; providers, who could use the statistics generated by the app for planning and accounting; and merchants, who could use the statistics generated to organized advertising campaigns. |