SynchroniCity opens up a global IoT market where cities and businesses develop share digital services to improve the lives of citizen and grow local economies.
Outline

• ESSENTIAL GUIDELINES
• TECHNICAL FRAMEWORK
• EVALUATION AND APPLICATION PROCESS
• WHAT’S NEXT
Essential Guidelines
Objectives

• Validate the SynchroniCity vision and technical framework as a model for large-scale standards-based innovation and procurement of IoT-enabled services for cities and communities.

• Demonstrate that the Synchronicity framework enables the interoperability, replicability, reusability and scalability of human-centered IoT solutions across cities, proving sustainable business models and thus reducing the risk for investment on this solutions at large scale.

• Attract new players of the city ecosystem to become part of the SynchroniCity digital single market ensuring its expansion and sustainability.

• Inform and influence European and global standard developing organisations to shape and adopt new smart city standards.
Who is it for?

**SMEs**
- **Lead SME**: IoT applications or full-stack solutions
- **Not Lead SME**: complementary to Lead SME, either IoT enabled or expert knowledge on the application
- Solutions that have already been demonstrated in a relevant environment (TRL≥6)

**New cities** wanting to become part of Synchronicity

**Large Businesses** wanting to become part of Synchronicity

**Pilot Groups**
- Lead SME + SME and/or City and/or Large Business
Main characteristics?

- €3 M Open Call
- Selection of 10-25 city solutions
- Piloting in at least 2 cities simultaneously (but preferably more)
- Up to 6 month demonstration period
ELIGIBILITY CRITERIA

- Application submitted on time (Deadline: 30 Sep 2018, 17:00 CEST)
- Application led by an SME
- The status of SME applicants must be conformant with the EU definition of Small and Medium Enterprises.
- The SME proposal is providing an IoT enabled application or a full stack solution (infrastructure + middleware + application)
- Completeness of the proposals (i.e. fields as well as page limit)
- The language of the applications (i.e. English)
- Letter of support of new cities to the respective Pilot Group
- The solution proposed must be piloted in at least 2 cities (preferably more)
- Non-affiliation with SynchroniCity consortium partners that may lead to a conflict of interest (i.e. Declaration of honour to be signed only if selected)
- Compliance with SynchroniCity Ethics & Privacy guidelines
- Within the scope of the call
- The inclusion of eligible activities for funding
Scope

THemes

Sustainable Mobility
- Enabling and improving mobility as a service
- Encouraging more non-motorised transport

Environment & Wellbeing
- Climate Change mitigation
- Reducing noise and air pollution

Citizen Engagement
- Increasing citizen engagement in decision making
- Increasing a greater level of diversity in political engagement

Open Theme
- Open challenge
## Scope by cities

### Core Pilot Cities

<table>
<thead>
<tr>
<th>Theme</th>
<th>Challenge</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SUSTAINABLE MOBILITY</strong></td>
<td></td>
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<tr>
<td>Enabling and improving MaaS</td>
<td><img src="black" alt="Antwerp" /> <img src="black" alt="Carouge" /> <img src="black" alt="Eindhoven" /> <img src="black" alt="Helsinki" /> <img src="black" alt="Manchester" /> <img src="black" alt="Milan" /> <img src="black" alt="Porto" /> <img src="black" alt="Santander" /></td>
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<tr>
<td>Encouraging more non-motorised transport</td>
<td><img src="white" alt="Antwerp" /> <img src="white" alt="Carouge" /> <img src="white" alt="Eindhoven" /> <img src="white" alt="Helsinki" /> <img src="white" alt="Manchester" /> <img src="white" alt="Milan" /> <img src="white" alt="Porto" /> <img src="white" alt="Santander" /></td>
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<tr>
<td><strong>CITIZEN ENGAGEMENT</strong></td>
<td></td>
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<tr>
<td>Increasing citizen engagement in decision making</td>
<td><img src="gray" alt="Antwerp" /> <img src="gray" alt="Carouge" /> <img src="gray" alt="Eindhoven" /> <img src="gray" alt="Helsinki" /> <img src="gray" alt="Manchester" /> <img src="gray" alt="Milan" /> <img src="gray" alt="Porto" /> <img src="gray" alt="Santander" /></td>
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<td>Increasing a greater level of diversity in political engagement</td>
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</tr>
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<td><strong>ENVIRONMENT &amp; WELLBEING</strong></td>
<td></td>
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<tr>
<td>Climate change mitigation</td>
<td><img src="red" alt="Antwerp" /> <img src="red" alt="Carouge" /> <img src="red" alt="Eindhoven" /> <img src="red" alt="Helsinki" /> <img src="red" alt="Manchester" /> <img src="red" alt="Milan" /> <img src="red" alt="Porto" /> <img src="red" alt="Santander" /></td>
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</tr>
<tr>
<td><strong>OPEN THEME</strong></td>
<td><strong>Open Challenge</strong></td>
</tr>
</tbody>
</table>
Funding

Each application can be funded with:

- up to €100,000 if an SME applies alone
- up to €200,000 for a Pilot Group of 2 organisations
- up to €300,000 for a Pilot Group of 3 organisations or more

SMEs, cities and large businesses that are not from EU or H2020 associated countries are welcome to participate in the open call but are not eligible for funding.

- Co-fund 80% of the total individual budget. The remaining 20% must be provided by the applicants either as in-kind support or by bringing in funding to the project.
- Cities and large businesses eligible for funding can claim a maximum of €60,000 of the total allocated budget for fundable activities.
Technical Framework
Common Technical Ground

1. Neutral branding (OASC – based on standards and consensus specifications)
2. Minimal Interoperability Mechanisms (MIMs)
   • Open APIs
   • Common data models
   • Objective: interoperability, replicability, reuse
3. Reference implementation (standards-based)
4. Hosted cloud option
The Cities & the Technical Framework

Interoperability Points represent the main interfaces that allow a city and IoT solutions to interact with SynchroniCity platform.

Cities are currently adopting the minimum interoperability points and mechanisms of the SynchroniCity framework.

You will need to regularly check the website for live updates:

https://synchronicity-iot.eu/open-call/pilot-cities
<table>
<thead>
<tr>
<th>Interoperability Point</th>
<th>Description</th>
<th>Specification document</th>
<th>Related Standards [and Baselines]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Context Management API</strong></td>
<td>This API allow to access to real-time context information from the different cities.</td>
<td>Reference Architecture for IoT Enabled Smart Cities (D2.10)</td>
<td>ETSI NGSI-LD prelim API, OMA NGSI, ITU-T SG20*/FG-DPM*</td>
</tr>
<tr>
<td><strong>Shared data models</strong></td>
<td>Guidelines and catalogue of common data models in different verticals to enable interoperability for applications and systems among different cities</td>
<td>Guidelines for the definition of OASC Shared Data Models (D2.2) Catalogue of OASC Shared Data Models for Smart City domains (D2.3)</td>
<td>[SynchroniCity Cities + partner data models]</td>
</tr>
<tr>
<td><strong>Marketplace API</strong></td>
<td>It exposes functionalities such as catalog management, ordering management, revenue management, SLA, license management etc.</td>
<td>Basic Data Marketplace Enablers (D2.4) Guidelines for the integration of IoT devices in OASC compliant platforms (D2.6)</td>
<td>[TM Forum API]</td>
</tr>
<tr>
<td><strong>Security API</strong></td>
<td>API to register and authenticate user and applications in order to access to the SynchroniCity-enabled services.</td>
<td>Reference Architecture for IoT Enabled Smart Cities (D2.10)</td>
<td>OAUTH2</td>
</tr>
<tr>
<td><strong>Data Storage API</strong></td>
<td>This API allows to access to historical data and open data of the reference zones.</td>
<td>Reference Architecture for IoT Enabled Smart Cities (D2.10)</td>
<td>ETSI NGSI-LD, DCAT-AP [CKAN]</td>
</tr>
</tbody>
</table>
Who keeps the IPR?

IP will remain yours or of your Pilot Group

Synchronicity will not retain any equity

However, Synchronicity consortium will be licensed the right to use (internally) any IPR you produce as part of the project, for three years after the project finishes.

Additionally, Synchronicity or the European Commission may ask you to present your work as part of our public relations and networking events, in order to showcase the benefits of the Synchronicity project.

Who own the data produced?

The type of data that you may make use of could be open data and close data, with either open access or restricted access. Each city has its own data policy and preferences on how data should be treated in their region.

It will be the responsibility of the applicants to ensure they understand the conditions on data in each city they plan to pilot, as well as associated licences and costs, in order to provide a sound proposal that takes this diversity into account.

The data produced during the pilot phase will be shared according to the contractual Sharing Agreements between the SME or Pilot Group and the relevant open call pilot cities.
Evaluation and Application Process
How am I going to be evaluated?

**Excellence (0-5 points)**
- What is the vision, ambition and value proposition of your solution? Is your project proposition clear in meeting the objectives of the call?

**Impact (0-5 points)**
- Does your project address a challenge recognised or prioritised by the cities? KPIs? Who will benefit from the implementation of your solution or service and how? How will your solution impact the life of citizens and communities?

**Feasibility (0-5 points) !** (Technical, Team, Budget & Workplan)
- Can you demonstrate that the project is feasible within the budget? If it is not, can you demonstrate that you have the additional necessary resources to make it feasible? Is the budget clearly described?

**Sustainability (0-5 points) !**
- How credible is your methodology in proving the scalability of product/service? How can you demonstrate the interoperability, replicability and reusability of your solution? What’s your exploitation/commercialisation plan for this solution? How clear is your revenue model and monetisation strategy? Will your solution support the goal of creating more jobs across Europe?
30 Sept 2018

OPEN CALL APPLICATIONS

TECHNICAL REVIEWERS

CITY REVIEWERS + COMMERCIAl REVIEWERS

• Anonymisation
• Eligibility check (GO/NO GO)

OCEC DISCUSSION

Finalist List

List Projects from Highest Score to Lowest

SCORE ≥ 14/20 (GO/NO GO)

COLLECTION OF AVERAGE SCORE + FEEDBACK BY OCEC

Considerations:
- Geographical balance
- Themes & Challenges
- Pilot Cities views
- If equal score: feasibility and sustainability prevails

WINNING PROJECTS LIST

ETHICS & PRIVACY CHECKS BY EPB

ETHICS & PRIVACY CHECKS 2 (GO/NO GO)

OUTCOME COMMUNICATION

1st week of Nov 2018

End Nov 2018

OCEC = Open Call Evaluation Committee
EPB = Ethics and Privacy Board

Amendment Period

Impact (0-5)
Excellence (0-5)
Feasibility (0-5)
Sustainability (0-5)
How to apply?
How to apply?

7. Make sure that the city will adopt the necessary requirements to become a pilot city.

8. Complete the online application form.

9. Provide budget, workplan, resource plan, Ethical statement and GDPR readiness questionnaire. Templates are available here.

10. Submit your application and wait for the results.
What’s next?
What next?

• Download the **Open Call Toolkit for Applicants** package
  • For SME and Large Business Applicants
  • For New City Applicants

1-pager on how to read the document? → Open Call at a Glance →

- Open Call Guidelines
- SynchroniCity Framework
- Templates and Visuals

Only read if you want to apply for the open call

1st June 4 pm UK time
Support during application

OPEN FORUM
Ask questions or review answers to previous questions. This repository will be the quickest way to find answers.

HELPDESK
helpdesk@synchonicity-iot.eu
For private questions.

CLINICS
Launch Event and Clinic where applicants will receive support in person during the open call application period.

WEBINARS
There will be two webinars for those applicants that cannot physically attend some of the Launch Events and Clinics.

CONNECT
Section on the website to facilitate the encounter of other SMEs and partners which want to participate in the open call. It is though the responsibility of each applicant to find the right partner if they wish to form a Pilot Group.
Where can I learn more?

Introducing SynchroniCity Open Call: Webinar for Applicants

Date and time
• Tuesday 12th of June 2018
• 10:00 – 12:00 CEST (Brussels time)

Speakers from the SynchroniCity project
• Francesca Spagnoli - European Network of Living Labs
• Martin Brynskov - Aarhus University
• Martino Maggio - Engineering Ingegneria Informatica SpA
• Gemma Guilera - Future Cities Catapult

Find the agenda and register here
Partners
Visit our website
synchronicity-iot.eu

Follow us on Twitter
@SyncCityIoT

Follow us on Facebook
@SynchroniCityIot

Or send us an email
info@synchronicity-iot.eu

Thanks!
SYNCHRONICITY

Synchronicity opens up a global IoT market where cities and businesses develop shared digital services to improve the lives of citizens and grow local economies.

OPEN CALL
1st JUNE 2018

TARGET
- SMEs & Large Businesses
- New Cities
- Pilot Groups
- IoT Solutions

FUND
3M€

CITIES
- Helsinki
- Manchester
- Eindhoven
- Carouge
- Milan
- Santander
- Porto

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@SynchronicityIoT
CASE 1 – SME applies individually

Principle:

i. Fund is 80% of the total cost of the project, with an overall cap of €100,000.

ii. SMEs will need to report and justify their whole costs on the project, regardless the grant that they will receive.

Examples:

1. Total cost of the project: €50,000
   Total grant: €40,000 ( = 50,000 * 0.8)

2. Total cost of the project: €100,000
   Total grant: €80,000 ( = 100,000 * 0.8)

3. Total cost of the project: €150,000
   Total grant: €100,000. The 80% principle cannot be applied, as it would be higher than the €100,000 overall cap, i.e. 150,000 * 0.8 = €120,000 > €100,000

CASE 2 – SME + LB or Ci apply as a Pilot Group of 2

Principles:

i. For LB and Ci fund is 80% of its total individual cost of the project, with an individual cap of €60,000.

ii. For SME fund is 80% of its total individual cost of the project, no cap.

iii. There is an overall cap on the total grant of €200,000.

iv. SMEs, LBs and Cities will need to report and justify their whole individual costs on the project, regardless the grant that they will receive.

Example:

Total cost for the LB/Ci for the project: €100,000.
Total cost for the SME for the project: €150,000.
Total cost of the project €250,000.

• Grant for the LB/Ci: €60,000, individual cap applies (100,000 * 0.8 = 80,000 > 60,000). Please note that the difference between €60k and €80k will need to be provided as an in-kind or cash by the LB/Ci.

• Grant for the SME: €120,000 (= 150,000 * 0.8). Please note that here no cap applies, as in CASE 1, where an SME applies for fund individually.

• Total grant: €180,000
Technology Readiness Level

**TRL 1** – basic principles observed

**TRL 2** – technology concept formulated

**TRL 3** – experimental proof of concept

**TRL 4** – technology validated in lab

**TRL 5** – technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies)

**TRL 6** – technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies)

**TRL 7** – system prototype demonstration in operational environment

**TRL 8** – system complete and qualified

**TRL 9** – actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space)
**SynchroniCity Framework**

- **IoT Management**: to interact with the devices that use different standards or protocols making them compatible and available to the SynchroniCity platform.

- **Context Data Management**: to manage the context information coming from IoT devices and other public and private data sources.

- **Data Storage Management**: to provide functionalities related to the data storage and data quality interacting with heterogeneous sources.

- **Marketplace**: to implement a hub to enable digital data exchange for urban data and IoT capabilities providing features in order to manage asset catalogues, orders, revenue management.

- **Security**: to provide crucial security properties such as confidentiality, authentication, authorization, integrity, non-repudiation, access control, etc.

- **Monitoring and Platform management**: to provide functionalities to manage platform configuration and to monitor activities of the platform services.

Baseline: SynchroniCity Cities/Reference Zones, OASC, FIWARE, EIP-SCC, NIST IES-CF.


Spec. doc.: Reference Architecture for IoT Enabled Smart Cities (D2.10)

[http://synchronicity-iot/about](http://synchronicity-iot/about)
Interoperability Points

- **Interoperability Points** represent the main interfaces that allow a city (or any Reference Zone, RZ) and applications to interact with SynchroniCity.

- Interoperability points are independent from the specific software components that realize them and can be implemented by cities in different steps to reach different levels of compliance.

- **Interoperability Mechanisms** are the actual specifications of the interfaces at the Interoperability points: they are standard API and guidelines that have to be implemented by a city in order to be compliant with the SynchroniCity framework.
Become a New Open Call Applicant City