



IEC/TC OR SC: <b>SyC Smart Cities</b>	SECRETARIAT: <b>IEC Secretariat</b>	DATE: <b>2024-08</b>
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**A. STATE TITLE AND SCOPE OF TC**

Are there any new or emerging trends in technology that will impact the scope and work activities of the TC? Please describe briefly.

Do you need to update your scope to reflect new and emerging technologies? If yes, will these changes impact another TC’s scope or work activities?

If yes, describe how these will impact another TC(s) and list the TC(s) it would impact

**SyC Smart Cities -Electrotechnical aspects of Smart Cities**

**A.1 Introduction**

Cities around the world are making their systems (health, transportation, logistics, water provision etc.) smarter to deal with the growing problems of urbanization. The aim is to enable these systems to function more flexibly and respond rapidly to changing circumstances, and to better coordinate them to provide more efficient solutions to the problems cities face.

New technologies, including sensing networks, IoT devices, and advanced data/information processing Systems, allow all the city systems to increasingly adopt seamless, interoperable methods to provide city applications and services to its residents, workers and businesses. Electrotechnology is indispensable to power, control, automate and collect, transmit and analyse information in all these city systems

In the past, these systems evolved slowly and so it was comparatively easy to develop the standards needed. Now, with rapid technology developments and with increasing convergence between city systems, a new approach is needed. Also, while electrical and electronics standards are vitally important, they form only part of the solutions to smart city requirements.

In order to be sure that the IEC standards properly contribute to those requirements, the IEC has to acquire a deep understanding of the smart city as a whole and all the systems involved, as well as of the relevant standards already developed and being developed by other SDOs.

The IEC therefore established the SyC Smart Cities in 2016 to work with IEC TCs and other Standards Development Organisations, leveraging the systems approach to support the development of coherent packages of standards to support Smart Cities.

The role of the SyC Smart Cities is to identify the requirements of city systems, communicate those requirements to the IEC TCs in a way that will help them develop the electrotechnical standards needed to help with the integration, interoperability and effectiveness of city systems and provide them with the

required tools and resources. In addition, where necessary, the SyC Smart Cities can develop systems standards related to electrotechnology in cities.

The SyC Smart Cities also works with other SDOs to ensure that the IEC can play its part in providing the appropriate electrical and electronic standards to support the families of standards that cities need in order to become smarter and sustainable.

## **A.2 Scope**

To foster the development of standards in the field of electrotechnology to help with the integration, interoperability and effectiveness of city systems.

Note 1 :

This will be done:

- by promoting the collaboration and systems thinking between IEC/TCs, the SyC and other SDOs in relation to city system standards;
- by undertaking systems analysis to understand the needs for standards and assess new work item proposals (NWIPs) related to city systems;
- by developing systems standards where needed and by providing recommendations to existing SyCs, TCs/SCs and other SDOs.

Note 2 :

Overall common city goals include, for example, sustainable development, efficiency, resilience, safety and support for citizen's engagement and participation. However, an individual city will follow its own approach.

Note 3 :

"Cities" refers to any geographically located population.

## **A.3 The definition of "Smart City"<sup>1</sup>**

The SyC has agreed the following definition of the concept of "Smart City".

### **Smart City**

city where improvements in quality of life, services, sustainability and resilience are accelerated by the effective integration of physical, digital and social systems and the transformative use of data and technology

Note 1 to entry: This is a general definition of a smart city. The IEC looks at these aspects from an electrotechnical perspective.

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<sup>1</sup> The definition of Smart City is in the scope of the IEC 60050-831 which is under development.

## B. MANAGEMENT STRUCTURE OF THE TC

Describe the management structure of the TC (use of an organizational chart is acceptable) (should be integrated by CO automatically) and, if relevant (for example an unusual structure is used), provide the rationale as to why this structure is used.

Note: Check if the information on the IEC website is complete.

When was the last time the TC reviewed its management structure? Describe any changes made. When does the TC intend to review its current management structure? In the future, will the TC change the current structure, for example due to new and emerging technologies, product withdrawal, change in regulations etc. Please describe.

Make sure the overview includes:

- any joint working groups with other committees,
- any special groups like advisory groups, editing groups, etc.

### B.1 Structure of SyC Smart Cities

The structure of SyC Smart Cities is shown in Figure B.1.

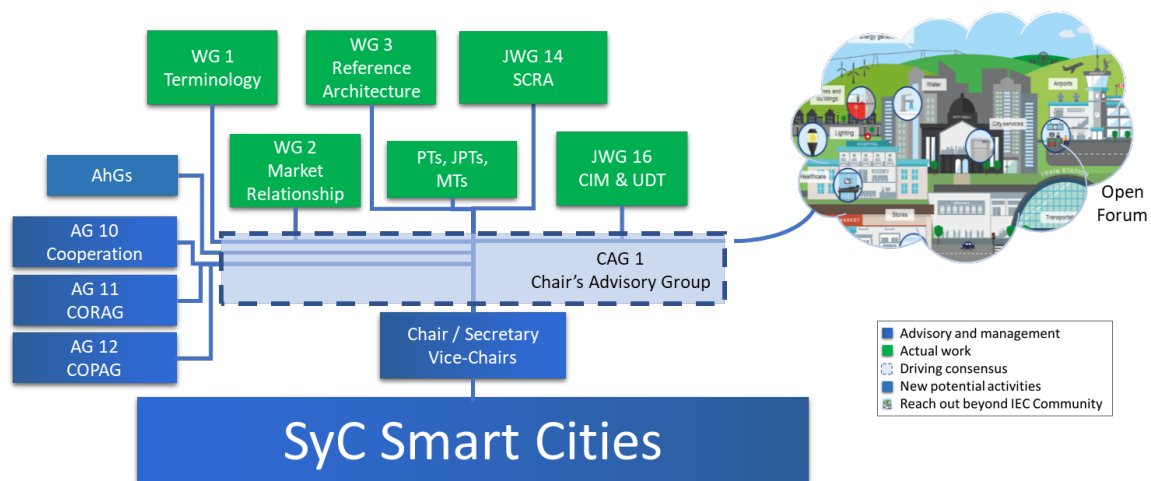


Figure B.1 - Structure of IEC/ SyC Smart Cities

### B.2 Terms of Reference for the Working Groups and other Groups

The following are the Terms of Reference for the current Working Groups and other groups:

#### Terms of Reference of CAG1: Chair's Advisory Group (CAG)

- Support the Chair and Secretary in the day-to-day business of the SyC Smart Cities
- Monitor the structure and working practices of SyC Smart Cities and propose any necessary changes
- Develop and maintain the Strategic Business Plan (SBP) and Roadmap
- Promote coordination with IEC TCs, SyCs and other SDOs

#### Terms of Reference of WG 1: Terminology

- Develop and maintain a common set of terminology for the SyC

#### Terms of Reference of WG 2: Market Relationship

- Identify the key aspects of a Smart City
- Collect and analyse use cases
- Electrotechnical aspect of smart cities simulation
- Road test standards in real cities

### **Terms of Reference of WG 3: Reference Architecture**

- Develop and maintain reference architectures for various aspects of Smart Cities, along with related deliverables. Where relevant, this will be done in partnership with other standards bodies.
- Develop and maintain the Smart Cities Reference Architecture (SCRA) Implementation Manual.
- Develop and maintain standards inventories and standards maps related to smart cities.

### **Terms of Reference of JWG 14: Smart Cities Reference Architecture linked to ISO/TC 268**

- To develop the IEC 63205 Smart City Reference Architecture

### **Terms of Reference of JWG 16: City Information Modelling and Urban Digital Twins linked to ISO/IEC JTC 1**

- To carry out a gap analysis on standards related to City Information Modelling and Urban Digital Twins;
- To use the gap analysis to develop requirements for the standards needed for the implementation of City Information Modelling and Urban Digital Twins;
- To develop those standards relating to City Information Modelling and Urban Digital Twins that are within its competence, including an integrated reference architecture for City Information Modelling and Urban Digital Twins.

### **Other groups and teams active in Smart Cities**

**MT 15** Maintenance of IEC63152 - City Service Continuity against disasters, the role of the electrical supply  
**JPT 3** IEV part on terminology relating to systems, smart and digital Managed by TC 1

**AG 10** Cooperation

**AG 11** Communications, Outreach, Promotion & Advocacy based Strategy Advisory Group (COPAG)

**AG 12** City Observatory & Research Advisory Group (CORAG)

**ahG 6** Developing good working practice in the Governance Framework

**ahG 7** Coordination Governance

**ahG 8** Strategy

**ahG 9** Sustainable Digital Transformation of the Urban Landscape

**ahG 17** Positive Energy Districts (PEDs)

**ahG 18** Smart Lamp Post

### **Open Forum**

In addition, the SyC Smart Cities has established an Open Forum with the aim of developing a broad-based membership beyond the bounds of the IEC Community. Membership of the Open Forum consists of SyC participants appointed by the NCs as well as self-nominated individuals. It is convened by the SyC Chair and will be used by the SyC leadership for consultation on topics of interest.

As a first step OF1 been established to focus on the open workshops and conferences organised as part of the SyC Smart Cities meetings. Anyone who wishes to participate in OF1 can do so on the IEC SyC Smart Cities webpage.

### **Terms of Reference of OF1**

- Platform to respond to the need to collect in a repository in CP all the presentations and information material which have been part of the workshops or conferences organised during or as side activities of the SyC Smart Cities meetings.

### C. BUSINESS ENVIRONMENT

Provide the rationale for the market relevance of the future standards being produced in the TC.

If readily available, provide an indication of global or regional sales of products or services related to the TC/SC work and state the source of the data.

Specify if standards will be significantly effective for assessing regulatory compliance.

Around the world, cities are the main drivers of national economic activity, growth and, in the current context, recovery, but this output depends on a comprehensive infrastructure to deliver physical and social resources – the fuel of a city’s ‘economic engine’. The economic performance of a City is inextricably linked to its physical and digital infrastructures, and the delivery of resources and services through these infrastructures.

A smart city is one that can effectively leverage technology, infrastructure, public policy and citizen engagement to create an urban environment that fosters economic growth, productivity, innovation, social mobility, inclusiveness, and sustainability. Disruptive Technologies such as the Internet of Things, Big Data, Artificial Intelligence, 5G and Virtual/ Augmented/ Mixed Reality have given rise to an entirely new aspect of the way human, machines and things are going to communicate with each other in the very near future

The development of more efficient and effective way of achieving city functions requires orchestrating the operations of multiple domains in an integrated and well-co-ordinated manner. Systems Standards are needed for the automation and digitalization of our systems and solutions. It is obvious that electro technologies, e.g. electricity, energy, control systems, automations, are essential to realize such an orchestrated operation and IEC should be responsible for and contribute to the standardization in these fields.

The extensive work done by various global SDOs has very comprehensively defined the frameworks & roadmap for future Electrotechnology and Information and Communications Technology (ICT) Infrastructures. But true convergence is still eluding the evolved citizens of today’s super industrial society because of lack of harmonized standards in the various city ecosystems.

The challenge is that the global standardization landscape of smart cities is very fragmented. Besides IEC, other SDOs such as ISO, ITU, IEEE along with many consortia, groups and companies are working in the Smart Cities domain, but none of them has the necessary range of skills and expertise to individually address the complete domain comprehensively. Therefore, there is a need for orchestrating close collaboration, co-ordination, and harmonization amongst the various on-going efforts.

Since the constitution of SyC Smart Cities in 2016, a multitude of Global Experts from diverse domains within Smart Cities paradigm have been collaborating and contributing through their respective National Committees to develop a comprehensive set of instruments to help Cities’ stakeholders to navigate through a complex spectrum of individual & collective challenges to work in an integrated, interoperable and homogeneous manner to improve the operational efficiency of the city systems individually & collectively; and simultaneously ensure Economic, Social & Environmental Sustainability of the Cities.

Most of the work of the SyC Smart Cities is focused on providing guidance and support to IEC TCs and other SDOs to help them develop standards that are relevant to smart cities through the development of Systems Reference Deliverables (SRDs). An SRD is a guidance document on the use and application of specific standards in the SyC domain. SRDs include but not limited to:

- Standards Mapping
- Roadmap(s)
- Databases
- Architectures
- Profiles
- Interfaces and transfer functions across domain
- Use Cases
- Domain Definition

The development of these SRDs will provide the foundational information to enable the SyC Smart Cities to suggest to the TCs potential new areas of standards work, additional requirements for their existing standardisation work, or the need to work together with one or more other TCs to develop cross domain standards. They will also provide tools to the TCs in carrying out that work.

In addition, where appropriate, the SyC Smart Cities can develop demand-side electrotechnical standards to help city stakeholders plan and implement strategies to fully exploit the role of electrotechnology to help their city become smarter.

#### D. MARKET DEMAND

PROVIDE A LIST OF LIKELY CUSTOMERS OF THE STANDARDS (SUPPLIERS, SPECIFIERS, TESTING BODIES, REGULATORS, INSTALLERS, OTHER TC/SC'S ETC.). DO NOT SPECIFY COMPANY NAMES, ONLY CATEGORIES OF CUSTOMERS.

##### D.1 Introduction

One of the first tasks of the SyC Smart Cities was to identify the stakeholders for any aspect of standardisation work relevant to Smart Cities and their concerns that need to be addressed.

Most of the work of the SyC Smart Cities is focused on providing guidance and support to IEC TCs and other SDOs to help them develop standards that are relevant to smart cities. Therefore, potentially any IEC TC could be a customer of our SRDs, as could any SDO that is developing smart city related standards. The value of these SRDs is that they should help those TCs and other SDOs to develop standards better focused on tackling the needs of smart cities and so should significantly increase the usage of those standards.

The SyC Smart Cities is also able to develop International Standards to support cities and Industry in tackling city-wide issues in a systematic way, and the customers for these would be Smart Cities Stakeholders.

In addition, even when developing SRDs aimed at helping TCs and other SDOs in their work, City Stakeholders are still key, as the aim of the SRDs is ultimately to help with the provision of standards that will help meet their needs.

This section therefore concentrates on listing the key Smart City Stakeholders and their requirements.

##### D.2 Smart Cities Stakeholders

In Smart Cities paradigm, stakeholders can be categorized into one or more of the following typologies based on their personal or organizational interest in the development of a smart city. As smart city stakeholders, one can have direct or indirect influence(s) in the decision-making process, which plays a significant role in the transformation of a city into smart city. A high-level mapping of Stakeholders of the smart Cities ecosystem & paradigm enumerates a comprehensive list including but not limited to the following:

- Citizens
- Local Business Owners
- Temporary Inhabitants of the City
- Municipal Authorities
- Urban/City Planners
- Utility & Public Services Providers
- Telecommunication Services Providers
- Industries
- Academic & Research Institutions
- Regional and National Agencies
- Financial Organizations
- Public Interest Groups
- Specialized Consulting Firms
- Local Professional Associations, or branches of National or International Associations.

##### D.3 Stakeholders' Concerns

Looking at the major groupings of stakeholders, their key concerns can be described as follows:

**Citizens** are the primary beneficiaries of a Smart City. However, they will profit from the “set of standards for city systems” indirectly. It will be for each city to collect the citizens’ concerns and treat them systematically in accordance with this “set of standards for city systems”, along with the related tools and guiding materials.

Citizens’ concerns include:

- Adequate Water Supply.
- Assured Electricity Supply.
- Sanitation, including Solid Waste Management.
- Efficient Urban Mobility and Public Transport.
- Affordable Housing, especially for the poor.
- Widespread and transformative use of Data and Technology.
- Good Governance and Citizen participation.
- Sustainable Environment.

- Safety and Security of Citizens, particularly women, children and the elderly. Affordable Healthcare for everyone.
- Modern Education for children and adults.
- Attractive for Business.

**Standards Development Groups and Industry Standards Development Groups** are responsible for formal definition of functional elements and their interfaces which are to be used as part of the sets of standards needed to deliver smart cities. They need guidance to help them address 'by-design' city system quality characteristics required by Municipal Authorities, Service Providers and Industry, such as:

- Interoperability
- Safety
- Security (including Confidentiality, Integrity and Availability)
- Privacy
- Resilience
- Simplicity
- Low cost of Operation
- Short time-to-value
- Combining diversity and uniformity
- Self-referential

and that cover the whole life cycle of city systems.

**Smart City architecture teams** are responsible for understanding smart cities and describing them in a common structure by adopting and tailoring a Smart City Reference Architecture to the unique needs of the particular city. **Investors** are responsible for taking informed decisions about their investments in city systems Infrastructure. Cities are missing out on significant investments coming from the growing popularity of sustainable investments which pushes many investment and pension funds to leave the fossil-fuel industry and to look for another investment-safe industry; on the one hand and the high risks of existing city bonds on the other.

Their concerns are therefore how to benchmark Smart Cities related initiatives and therefore provide evidence as to the potential of smart technologies to mitigate potential economic losses from disasters, their value in building a sustainable future and the commercial return on smart solutions to city needs.

They are also interested in ensuring that good business practices and world-class knowledge can be brought to Smart Cities programmes and projects.

### **Requirements**

A combined (and slightly aggregated) nomenclature of all requirements of all the stakeholders is the following:

- Full city system functionality.
- Set of standards for city systems that are easy to understand, use and implement and that are interoperable and consistent with each other.
- Easy-to-use supporting Tools.
- A "set of instruments" that will help stakeholders to estimate, plan, manage and execute Smart Cities programmes and projects.
- The ability to share experience, collaborate and coordinate among Smart Cities programmes and projects enabled by the "set of standards for city systems".
- Wide usage of this "set of standards for city systems".
- Standards that address by-design city system quality characteristics.
- Standards that cover the whole life cycle of city systems.
- Standards that promote the widespread and transformative use of data and technology.

## E. SUSTAINABILITY DEVELOPMENT GOALS

INDICATE THE SUSTAINABLE DEVELOPMENT GOALS (SDGs) THAT ARE ADDRESSED BY WORK WITHIN THE TC/SC. INDICATE EACH SDG INDICATOR AFFECTED (REFERENCE SPREADSHEET AVAILABLE AT [HTTPS://WWW.IEC.CH/SDG/](https://www.iec.ch/SDG/)), AND PROVIDE SPECIFIC INFORMATION ABOUT HOW THE TC/SC IS ADDRESSING THE SDG. CONSIDER BOTH DIRECT AND INDIRECT IMPACTS OF THE WORK OF THE TC/SC.

- |  |  |
|--|--|
| <input type="checkbox"/> <b>GOAL 1:</b> No Poverty                                       | <input type="checkbox"/> <b>GOAL 10:</b> Reduced Inequality                            |
| <input type="checkbox"/> <b>GOAL 2:</b> Zero Hunger                                      | <input checked="" type="checkbox"/> <b>GOAL 11:</b> Sustainable Cities and Communities |
| <input checked="" type="checkbox"/> <b>GOAL 3:</b> Good Health and Well-being            | <input type="checkbox"/> <b>GOAL 12:</b> Responsible Consumption & Production          |
| <input type="checkbox"/> <b>GOAL 4:</b> Quality Education                                | <input checked="" type="checkbox"/> <b>GOAL 13:</b> Climate Action                     |
| <input type="checkbox"/> <b>GOAL 5:</b> Gender Equality                                  | <input type="checkbox"/> <b>GOAL 14:</b> Life Below Water                              |
| <input checked="" type="checkbox"/> <b>GOAL 6:</b> Clean Water and Sanitation            | <input type="checkbox"/> <b>GOAL 15:</b> Life on Land                                  |
| <input checked="" type="checkbox"/> <b>GOAL 7:</b> Affordable and Clean Energy           | <input type="checkbox"/> <b>GOAL 16:</b> Peace & Justice Strong Institutions           |
| <input checked="" type="checkbox"/> <b>GOAL 8:</b> Decent Work & Economic Growth         | <input checked="" type="checkbox"/> <b>GOAL 17:</b> Partnerships to achieve the Goal   |
| <input checked="" type="checkbox"/> <b>GOAL 9:</b> Industry, Innovation & Infrastructure |  |

IEC, through its International Standards and Conformity Assessment Systems, contributes to the 17 UN Sustainable Development Goals (SDGs).

SyC “Smart Cities” has a unique position related to SDG 11 “Sustainable Cities and communities” because its work is aimed at providing a coherent set of tools to rebuild all the cities as smart (thus sustainable) cities. The work of IEC SyC Smart Cities is also relevant to SDGs 3, 6, 7, 8, 9, 13 and 17. SyC Smart Cities therefore through its standardization activities endeavours to contribute to the SDGs to the maximum extent possible.

## F. TRENDS IN TECHNOLOGY AND IN THE MARKET

If any, indicate the current or expected trends in the technology or in the market covered by the products of your TC/SC.

Cities are facing unprecedented challenges. The pace of urbanization is increasing exponentially. Every day, urban areas grow by almost 150 000 people, either due to migration or births. Between 2011 and 2050, the world’s urban population is projected to rise by 72 % (i.e. from 3.6 billion to 6.3 billion) and the population share in urban areas from 52 % in 2011 to 67 % in 2050.

In addition, due to climate change and other environmental pressures, cities are increasingly required to become “smart” and take substantial measures to meet stringent targets imposed by commitments and legal obligations. Furthermore, the increased mobility of our societies has created intense competition between cities to attract skilled residents, companies, and organizations. To promote a thriving culture, cities must achieve economic, social, and environmental sustainability. This will only be made possible by improving a city’s efficiency, and this requires the integration of infrastructure and services. While the availability of smart solutions for cities has risen rapidly, the transformations will require radical changes in the way cities are run today.

We can consider these transformations as forming three types:

- Improvement of infrastructure – to make it resilient & sustainable...
- Addition of the digital layer – which is the essence of the smart paradigm; and
- Business process transformation - necessary to capitalize on the investments in smart technology.

Technologies such as Big Data, Internet of Things, Data analytics, Artificial Intelligence, Digital Twinning, Cloud Computing, 5G, Virtual, Augmented & Mixed reality etc. are being used in cities to enable the development of smart policies, smart governance and smart citizenship. The technology platforms used by cities need to be designed to enable government efficiency and public access to useful data. This can include cloud computing services, sensor networks and data centres, and traffic management systems for both road congestion management as well as public transportation systems such as subways and light rail. Policies built on top of these platforms include e-government portals and e-government services that allow citizens access to data on shared Application Programming Interfaces, leveraging the information for community benefits.

Smart City technologies based on digital infrastructure and digital services offer a potential way of monitoring and managing physical and social resource in the city. Digital technologies can collect sufficiently large amounts of data to support very close matching of supply availability against demand requirements. The use of historic information to correlate with actual events can also inform immediate reaction where the data sets match those of a previous historic event. The new communications potential from sensors on buildings, roads and other elements of the City and the sharing of data between service delivery channels, if integrated, will enable the City to improve services, monitor and control resource usage and react to real-time information.

As the price of technology falls and data analytics become more widespread, what will increasingly differentiate cities is not how “smart” they are in terms of technology penetration, but the extent to which they leverage technology to bring about innovation, inclusiveness and sustainability.

It is also increasingly realised that the so-called smart infrastructure implementations today tend to be vertical centric Siloed infrastructures that are proprietary solutions, wherein a single vendor owns the vertical application, platform, services, and data (and in certain cases the communication infrastructure as well). This approach inhibits interoperability, data sharing, optimal use of resources and therefore is detrimental to the growth of the industry. The focus now is therefore increasingly on how all the different city systems need to be integrated and work together effectively for that city to become smart. This is not just integration at a technical level, but also about integration of business processes, management and strategic and regulatory integration.

All of these issues need to be taken on board in the work of the SyC Smart Cities.

**G. SYSTEMS APPROACH ASPECTS (REFERENCE - AC/33/2013)**

Does your TC/SC have a need for a systems approach?

If so:

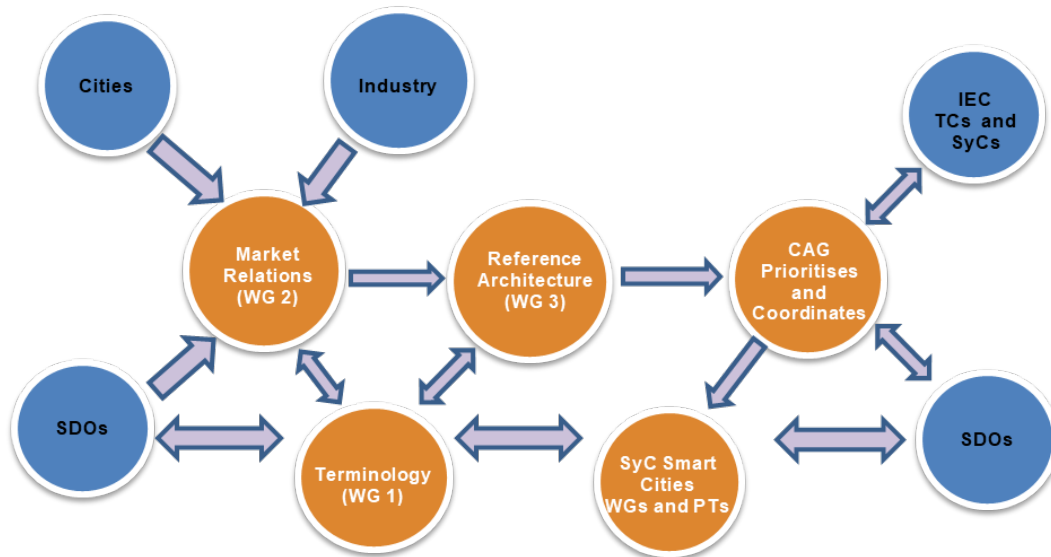
- Will the Systems work be in a single TC or in multiple TCs?
- Will a Systems Evaluation Group (SEG), Systems Committee (SyC), or Systems Resource Group be required?
- Is your TC/SC work of relevance to ISO?
- Is or are there fora or consortia working in parallel to IEC? Is there a chance to integrate this work in your TC/SC?

This should not only be restricted to the customer/supplier relationships with other TC/SCs indicating types of co-operation (e.g. liaisons, joint working groups) but be of a more generic nature.

If there is no need for a systems approach as outlined in AC/33/2013, is it intended a TC would not be requested to report on general systems approach considerations such as customer/supplier relationships, liaisons, joint WGs, etc. as referenced in the system approach matrix illustrated in slide 14 of the presentation attached to AC/37/2006?

SyC Smart Cities has followed the guidance of the SRG on Systems Approach in its work and it is structured to respond to systems approach processes.

There are three Working Groups in the SyC Smart Cities.



**Figure F.1 – Operation of the IEC/SyC Smart Cities**

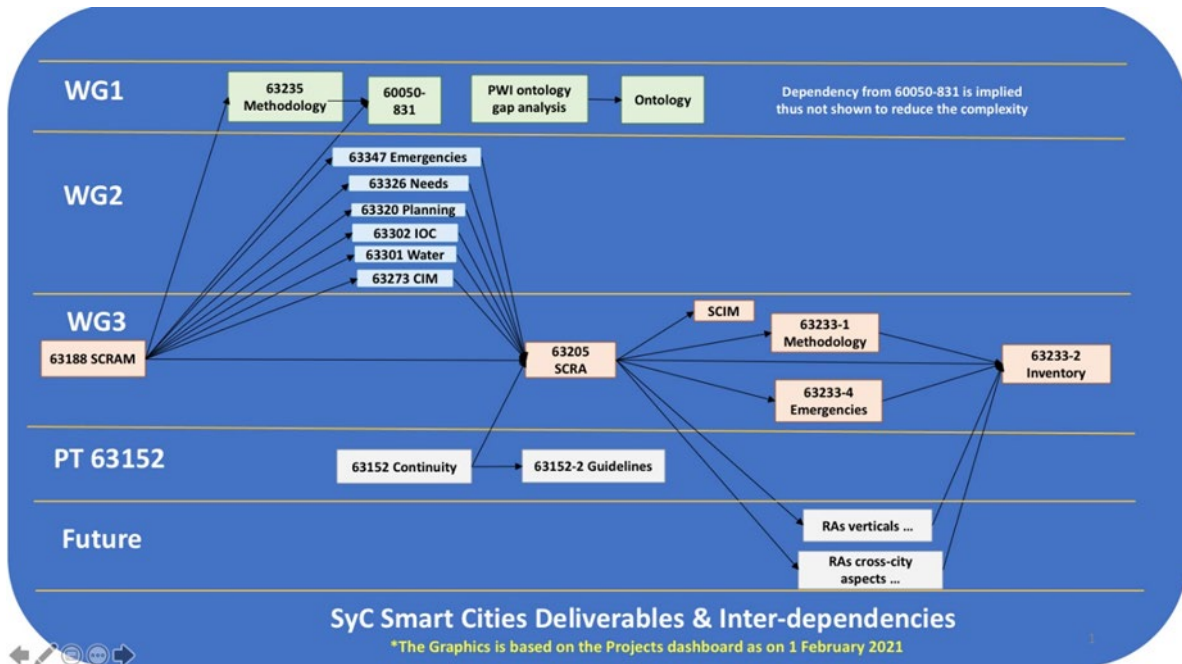
WG2 on Market relations engages with Cities, Industry and other SDOs to identify what are the systems requirements of smart cities. It does this through research and through the development of Use Case Collection and Analysis SRDs to analyse smart city systems and systems solutions and develop a database of use cases to develop detailed requirements for standards. It will also feed into the work of WG3 on developing the Smart City Reference Architecture.

WG3 on Reference Architectures and Standards Mapping will work with experts from TCs and other SDOs to develop a reference architecture that will detail the many different smart city domains and show how they link together. This will provide TCs, other SDOs and Cities with a useful framework to see how different standards and initiatives need to interface with other standards and initiatives. WG3 is also collecting and mapping smart city related standards from all reputable standards organisations as a key reference for TCs, other SDOs, and for cities and industry.

WG1 on terminology is developing definitions for key smart city related terms and a concept system to show how they all relate together in order to help TCs and other SDOs to describe their standards using consistent terms. It will build on these to develop an ontology to support the move to machine readable and actionable standards. SyC Smart Cities also can set up PTs such as PT63152 as and when necessary, to work on systems standards for Smart Cities with an electrotechnical focus.

Now that each Working Group and PT has reached a certain level of maturity, work is going on to understand the interdependencies between the deliverables of the different groups to ensure that they build on each other to deliver a holistic systems approach to Smart Cities

To do this, the SyC SC is developing a graphical representation of all the relationships inter-dependence between these documents. Given below is an illustration of how this might work.



**Figure F.2 – SyC deliverables inter-dependencies**

As a Systems Committee, SyC Smart Cities recognises that its main role is to serve the IEC TCs and other SDOs. The SyC Smart Cities has already established a liaison or will be seeking cooperation with the following committees in IEC:

SyC Smart Energy, SyC AAL, SyC LVDC, SyC COMM, TC1, TC8, TC 21, TC56, TC 57, TC 59, TC61, TC 65, TC 69, TC82, TC 88, TC 100, TC 105, TC 111, TC 120, JTC1/SC7, JTC1/SC25, JTC1/SC 27, JTC1/SC38, JTC1/SC39, JTC1/SC40, JTC1/ SC 41, JTC1/SC42, JTC1/WG 11, JTC1/WG 13, JTC1/AG 8, SEG 8, SEG 9, SEG 10, SEG 11, ACEA, ACEE, ACOS, ACSEC

With committees in ISO and ITU and other SDOs: ISO TC 1447, ISO TC 184, ISO TC 204, ISO TC 244, ISO TC 268/SC1, ISO TC 268, ITU-T/SG20, ITU-D/SG 2, ITU-T/SG 17, IEEE Smart Cities Initiative WG

The SyC Smart Cities is also part of the IEC-ISO-ITU, Joint Smart Cities Task Force

However, now that a good understanding has been reached about smart cities and the challenges and opportunities they face, plans are being developed to engage more closely with the TCs and other SDOs. For instance, a joint Ad-Hoc group is in the process of being set up in order to foster close working relationships with the IEC/ISO JTC1 WG11 on Smart Cities. Further plans will be featured in the next edition of the SBP

**G. CONFORMITY ASSESSMENT**

With reference to Clause 33 of Part 2 of the ISO/IEC directives, are all your publications in line with the requirements related to conformity assessment aspects?

Will the TC/SC publications be used for IEC Conformity Assessment Systems (IECEE, IECEx, IECQ, IECRE)?

Will any of your standards include test specifications, reproducible test requirements, and test methods?

Are there likely to be special conformity assessment requirements generated by any standards projects? If yes, list which projects.

The publications may be used for IEC Conformity Assessment Systems.

**H. 3-5 YEAR PROJECTED STRATEGIC OBJECTIVES, ACTIONS, TARGET DATES**

The SBP objectives have been reviewed to meet the following objective:

To accelerate the publication and use of electrotechnology city system standards that supports the integration, interoperability and effectiveness of city systems to support common city goals such as sustainable resource use, efficiency of operations, city infrastructure resilience, citizen needs and wants. (See Note 2 of the scope)

STRATEGIC OBJECTIVES 3-5 YEARS	ACTIONS TO SUPPORT THE STRATEGIC OBJECTIVES	TARGET DATE(S) TO COMPLETE THE ACTIONS
<p>Considering a city is a system of systems, define city functions within those systems to help SDOs and standards committees better address electrotechnical system interdependences.</p>	Complete SCRA via Joint Working Group 14	2026
	Develop detailed domain specific Reference Architectures	Ongoing
	Complete the City needs analysis framework	2025
	Complete the existing Use case collection and analysis SRDs and develop a roadmap for future projects	2025
<p>Classify the roles, responsibilities and concerns of critical city stakeholders, and value they create and map them to relevant standards that support their effectiveness in developing, operating and managing smart cities.</p>	Review the potential of an SRD to cover this topic	2025
<p>Collect and analyse information and facilitate discussions on critical and emerging technologies that support city system integration, interoperability and effectiveness to achieve common city goals on sustainability, resilience and meeting citizen needs.</p>	Develop, adopt and maintain the e-glossary repository	Ongoing (prototype, develop, and test by 2024)
	Publicise our work via COPAG	Ongoing
	Collect information via CORAG	Ongoing
	Develop the Open Forum through a programme of workshops and discussion topics	Ongoing
<p>Analyse and map relevant standards that support sustainable, smart and digital transformation of urban landscapes to  (a) consistently refer to across existing SyCs, TCs/SCs and other SDOs work and  (b) identify suitable standards that help cities develop effective transformation strategies</p>	Continuing the standards mapping	Ongoing
	Develop a gap analysis on City Information Modelling and Urban Digital Twins	2026
	Explore opportunities for standardisation of aspects of Positive Energy Districts and similar systems	Develop a roadmap by 2025
	Identify other such strategic Topics for future work	Ongoing

	Develop the Collaboration framework with IEC TC/SC and SyCs and other SDOs	2027
	Review the potential of a new SRD on Systemic Transformation Strategy (emphasizing the Systems Approach)	2025
Note: The progress on the actions should be reported in the RSMB.		