

2015年度 第7回国際標準化ワークショップ  
日本規格協会 IEC活動推進会議

# 「SyC on Electrotechnical Aspects of Smart Cities」の最新動向

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# 他の国際標準機関での活動

- ISO/TMB/SAG Cities  
"Strategic Advisory Group on smart cities"
- ISO/TC268 "Sustainable development in communities"
- ISO/TC268/SC1 "Smart community infrastructures"
- ISO/IEC JTC 001/SG 01 "Smart Cities"
- ITU-T SG 5 FG SSC

# IEC White Paper “Orchestrating infrastructure for sustainable Smart Cities”

This white paper explains what it needs to move cities to greater smartness; the what, who and how of smart city development. It calls for a wide collaboration between many stakeholders, including other international standardization bodies to ultimately lead to integrated, cost-efficient, and sustainable solutions.





# The 78th IEC GM Open Session Tokyo Statement 2014 Integration Toward a Smarter World - Co-existence and Sustainability

- i. Integration:** Different perspectives and ideas of a wide range of stakeholders including industries, citizens, governments and international organizations should be integrated in a harmonized way into the process of conception, design, development, continued improvement and growth for a Smarter World. The IEC may provide a platform for international collaboration of all stakeholders, encouraging the sharing of best practices and ensuring interoperability of all elements of these complex systems.
- ii. Diversity and Co-existence:** Each city or region may require different solutions in recognizing the diversity resulting from geographical, historical and cultural differences, economical situation and the nature of the stakeholders of each region. International Standards should allow people to choose most appropriate technological solutions for them by applying a modular approach and by securing interoperability.
- iii. Sustainability:** A Smarter World needs to be viable and sustainable based not only on the sound technologies but also on a durable economic basis as well as a stable societal system. This means that a city should be scalable for its continuous growth and improvements at all times embracing attractive business models. International Standards also need to be supportive of these aspects.

# 「よりスマートな世界」の実現に向けた3つの鍵

- インテグレーション
  - 幅広いステークホルダーの視点やアイデアを、構想・設計・開発・継続的改善・成長の過程で調和された形で統合
  - すべてのステークホルダーの国際協力のため、ベストプラクティスの共有を推進し、複雑なシステムの相互接続性を確保するためのプラットフォームを提供
- 多様性のなかでの共生
  - 地理、歴史、文化、経済などの状況が異なる都市や地域には、それぞれ異なった解決方法が必要
  - 国際標準により、モジュール単位での相互接続性が確保された 最適な技術的解決方法を選択可能
- 持続性
  - 技術発展だけでなく、安定した経済的基盤と社会システムの中で実現、持続していく必要
  - 持続的な発展・改善により規模を拡張していくことが可能であるためには、国際標準による支援が必要

Needs of cities differ strongly but...  
the main three pillars of development  
remain the same

# Economic sustainability

# Social sustainability

# Environmental sustainability

# Stakeholders are key drivers to smart city solutions

The stakeholders are:

Political leaders, managers and operators of the local government.

The service operators – public or private: water, electricity, gas, communication, transport, waste, education, etc.

End users and prosumers: inhabitants and local business representatives.

Investors: private banks, venture capitalists, pension funds, international banks.

Solution providers: technology providers, financiers and investors.



# IEC's possible contribution in the field of Smart Cities

- Sharing the best practice under limited economical and human resources
  - for planning, operation, & maintenance –
- Fair competition and collaboration
  - City needs industry & business -> income & job –
- How to get resources: city side & investor side
  - project feasibility & efficiency assessment index -

# IEC/SEG 1 Smart Citiesの活動概要

Smart Cities分野において、IECの領域(電気・電子)で今後どのような国際標準化が必要か(求められるか)を検討する組織。  
検討結果にもとづき、SyCが発足し、以後実際のIEC国際標準策定となる。

2015年10月にSEG 1答申を出す。

標題	•Smart Cities
設立承認	•2013年6月
国際主査	•Fumio UENO(日本)
共同主査	•Ms. Yuanchao CHEN (ドイツ) •Ms. Wei SUN(中国)
国際幹事	•Mr. Peter LANCTOT (IEC中央事務局)
メンバー	•エキスパート(15カ国167名) ※As of 2015.2.12
作業グループ等	•8つのWGが発足

# IEC/SEG 1のWGs

MDR活動成果にもとづく日本提案

<b>WG 1</b>	<b>City Service Continuity</b>	<b>Dr. Aki(日本)</b>
<b>WG 2</b>	<b>Urban planning and simulation system</b>	<b>Dr. Wan(中国)</b>
<b>WG 3</b>	<b>City Facility Management (CFM)</b>	<b>Dr. Wan(中国)</b>
<b>WG 4</b>	<b>Use Case Smart Home</b>	<b>Mr. Zhang(中国)</b>
<b>WG 5</b>	<b>Use Case Smart Education</b>	<b>Mr. Zhang(中国)</b>
<b>WG 6</b>	<b>Smart Cities Assessment</b>	<b>Ms. Yuan(中国)</b>
<b>WG 7</b>	<b>Standards development for smart cities using the City of Johannesburg – in a rapidly emerging country – as a piloting benchmark for smart cities implementation</b>	<b>Mr. Xulu (南アフリカ)</b>
<b>WG 8</b>	<b>Mobility &amp; Logistics</b>	<b>Mr. Lonien(独)</b>

## 9. Project Assessment

- 2015/8 SEG on SCの最終報告書をSMBに提出
- 2015/10 報告書がSMBで承認され、SEGは解散
- 2015/12/25締切でNC投票と議長の募集
- 2016/2のSMBでSyC設立と議長承認
- 2016/7シンガポールでSmart City Forumに併せ、最初のplenaryを計画

## IEC/SEG 1 WG1 City Service Continuity(都市機能の継続性)

都市機能の維持の基本は電気にあることを踏まえ、災害時等の電力の途絶(停電)においても、都市機能の維持に向けて電気・電子分野の国際標準で何が必要か(求められるのか)を検討する。

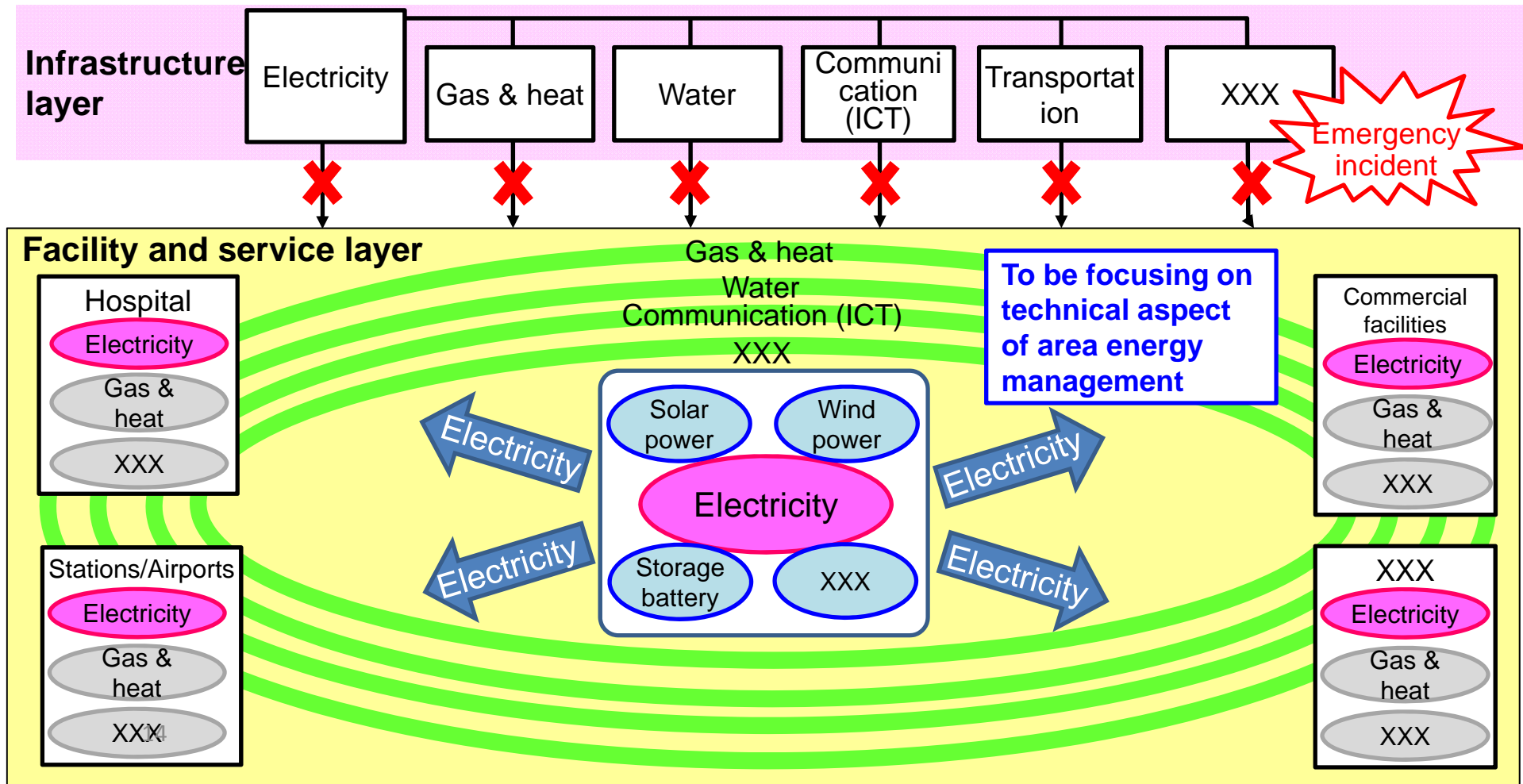
ECP: Electricity Continuity Plan

ECS: Electricity Continuity System

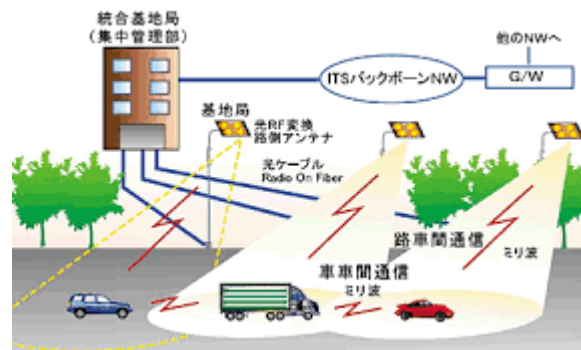
電気機器やシステムのClassificationや機能相互接続標準等



# Image of international standardization of City Service Continuity (CSC)



# Total optimization of city logistics and mobility



- ITS VICS
- BRT: Bus Rapid Transit
- LRT: Light Rail Transit
- Driverless car
- EV, PHEV, FCV, , ,

**How to reduce traffic jam  
with minimum investment  
to increase social  
productivity and  
not to lose  
business chance**



今回の経験から、  
今後のIEC標準化活動において、WP  
提案とSEG議長職獲得が国際標準化  
活動における鍵になると思います



**ご清聴ありがとうございました**