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SEG1/20/RM

2015-04-03

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### SMB Systems Evaluation Group – Smart Cities

#### Draft minutes of the 4th IEC SEG 1 Smart Cities plenary meeting held in London, England, UK on 10/11 March 2015

Convenor: Dr. Fumio Ueno (JP)  
Co-Convenor: Ms. SUN Wei (CN)  
Co-Convenor: Ms. CHEN Yuanchao (DE)  
Secretary: Mr. Peter Lanctot (IEC)

The list of attendees is provided in Annex A

#### 1. Opening of the meeting

Dr. Fumio Ueno thanked the British Standards Institute and the United Kingdom National Committee as the host of the 4th plenary meeting of the SMB Systems Evaluation Group (SEG) 1 Smart Cities (SEG1). He then welcomed the meeting participants. The meeting was attended by 42 members.

Mr. Daniel Palmer from BSI then welcomed the attendees and noted that the venue of the meeting, named *The Crystal*, is the world's largest exhibition on the future of cities and one of the most sustainable buildings in the world. It is part of the Green Enterprise District policy that covers much of East London, and thus a very appropriate location for the IEC SEG1 Smart Cities plenary.

#### 2. Approval of the Agenda

The Agenda was introduced by Dr. Ueno and was approved by the participants without change or comment.

#### 3. Secretary's report and update since the last plenary meeting

Mr. Lanctot provided an update of SEG1 activities since the last plenary meeting held in Atlanta (September 2014). He noted that SEG1 circulated 5 documents since the last meeting, as well as the SEG1 Report that was submitted to the SMB, SMB/5441/R.

Dr. Ueno then confirmed that the minutes of the meeting from Atlanta (SEG1/17/RM) and SMB report (SMB/5441/R) were already uploaded to the IEC collaboration tools site, and that no comments on these reports were received from the members.

#### SMB Meeting 152, Decision 152/4 (SMB/5492/DL)

Mr. Lanctot then noted the SMB decision 152/4, taken by the SMB following its last meeting in February 2015.

*The SMB noted that SEG1 would submit its final report in time for SMB meeting 154 in October 2015 and that it would be disbanded at that time.*

Mr. Lanctot noted that the October (due date: August) gives SEG1 an extension of time to submit its report. He then asked Mr. Jim Matthews, who was observing as IEC Vice President and SMB Chairman to explain the reasoning of the SMB decision.

Mr. Matthews informed the meeting that the SMB recognizes the unique challenges for SDOs involved in the complex issues associated with smart cities; therefore, an IEC SMB management level decision was made giving SEG1 more time to complete its review and report. He further added that SEG1 should take this “gift of time” to ensure that the recommendations resulting from its report will allow for a thorough plan / outline to support the proposed SyC Smart Cities and a clear understanding of the IEC role in this area.

#### 4. MSB White Paper “Orchestrating Infrastructures for Smart Sustainable Cities”

Mr. Lanctot, who is also the Secretary of the IEC Market Strategy Board, reported the publication of the White Paper ([www.iec.ch/whitepaper](http://www.iec.ch/whitepaper)) in November and briefly updated the members on the list of recommendations related to the IEC and SEG1. The paper is also available on the SEG1 collaboration tools site.

The members briefly offered their positive impressions on the white paper, most notably the 3-pillars of sustainability (Social, Economic and Environmental) outlined in the paper. It was suggested that the 3-pillars be considered in the SEG1 report. This comment let another recommendation see where SEG1 aligns with or against the white paper. The secretary volunteered to closely review the SEG1 report whether it is consistent to the MSB white paper.

#### DECISION 1: SEG 1 requests its secretary to secure the consistency with the MSB white paper: Orchestrating infrastructure for smart cities

#### 5. Convenor’s remarks

Next, Dr. Ueno revisited and introduced the draft-final-report. He briefly presented each section of the report and noted that it aligned with Administrative Circular (AC/33/2013), which provides an outline of questions that SEG1 needed to answer in its report.

Dr. Ueno then re-examined the SMB decision to postpone the deadline of the SEG1 report to October, and introduced the following timeline seen in the figure below:

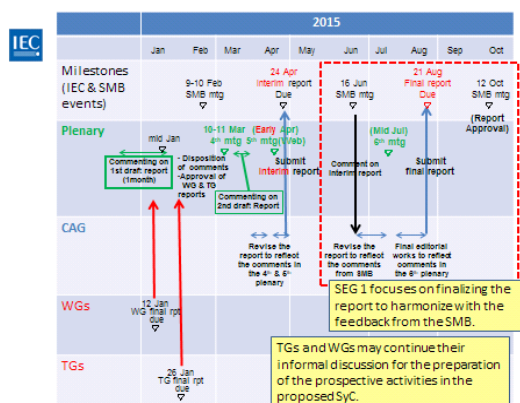


Figure 1

After explaining the need for SEG1 to use the extra time to its advantage, it was agreed that SEG1 should focus on close communication with the SMB during the closing stages of its work.

It was also confirmed that TGs and WGs may continue their informal discussion for the preparation of the prospective activities in the proposed SyC.

Referring to the timeline, Dr. Ueno proposed that SEG1 complete and submit a 'draft report' to the SMB on April 25<sup>th</sup>, which is the cut-off date for documents to be considered at the June 2015 SMB meeting. The report will be circulated as a Document for Comment (DC), which will allow SEG1 to receive preliminary comments from the SMB. The comments will then be considered in preparing the final SEG1 report, due by 21 August 2015, (cut-off date for October SMB meeting).

**DECISION 2: SEG 1 agreed to complete and submit its draft report to the SMB on 25th April (the deadline for the June SMB meeting).**

**DECISION 3: It was confirmed that SEG 1 focuses on communicating closely with the SMB and finalizing the report to harmonize with the feedback from the SMB after the submission of the draft report sent to SMB for the June meeting.**

**DECISION 4: SEG 1 requests its secretary to circulate the second version of the draft report to all SEG 1 members by 2015-04-03.**

**DECISION 5: SEG 1 members are requested to submit comment on the draft report by 2015-04-17.**

Dr. Ueno next summarized the actions from the SEG1 CAG meeting held in Geneva on 20/21 November 2014. The CAG met following the Atlanta meeting in order to coordinate the layout and responsibilities for each Working Group and Task Team in the drafting of the SEG1 final report.

The report was circulated for comments to the entire SEG1 membership on 07 December 2014. The commenting period on the report closed on 16 January 2015 and a list of all the comments were circulated to the members in February.

The Convenor reported that 40 comments were received from ISO/TC268, ISO/TC268/SC1, JISC, SAC and BSI. Thirty-nine comments were resolved as editorial or noted and circulated to all the members.

To resolve the final comment on the naming of the proposed systems committee, a discussion of adopting the terms **between Communities, Cities and Communities or Cities**, (*this was mentioned numerous times by the respondents*) has occurred; then a simple majority vote was taken by the meeting attendees. **Smart Cities received 23 votes, while Smart Communities got 17 votes.** As a result, SEG1 agreed to use Smart Cities in its report and that the name of the proposed SyC would be SyC Electrotechnical aspect of Smart Cities. A second vote on whether to include the words "Smart and Sustainable" in the title was taken. The committee decided 38-votes to 2-votes to keep the title as "Smart Cities".

**DECISION 6: SEG 1 agreed to use "smart cities" in its report by voting instead of "smart communities".**

## 6. Group Discussion

A group discussion then followed the Convenor's report and the dialogue revolved around the following topics:

- a) The recommendation to provide an Executive Summary in the beginning of the report;
- b) To provide a counter balance (pro's and con's) description of establishing a systems committee, to demonstrate that the SEG has considered and research both sides;
- c) The scope of the systems committee;
- d) To list the core functions of the proposed systems committee and provide a structure;
- e) The need for SEG1 to map the relationships with other SDOs in the Smart City arena.

In considering the first 2 points of the discussion (a, b), it was agreed that an Executive Summary and balanced description which reflects the real need for a systems committee be the starting point for the report.

### 6.1 Scope of the proposed SyC

SEG1 discussed the scope of the proposed SyC. A group of volunteers were asked to meet after Day 1 to provide a straw man text for the scope, and to recommend their findings to the SEG at the beginning of Day 2.

On Day 2 of the meeting, after a short debate amongst the members, SEG1 agreed to the following scope of the proposed SyC:

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

**Note:**

*This will be done:*

*-by undertaking systems analysis to understand the needs for standards and assess NWIPs related to city systems;*

*- by developing systems standards where needed and by providing recommendations to existing SyCs, TCs/SCs and other SDOs;*

*- by promoting the collaboration and system thinking between IEC/TCs, the SyC and other SDO in relation to city system standards.*

**DECISION 7: SEG1 agreed to the above mentioned scope of the proposed SyC.**

### 6.2 Functions of the proposed SyC

SEG1 held a brainstorming session to help define a working list of functions to be considered in the organizational structure of the SyC.

SEG1 agreed to the following functions:

## Functions of proposed SyC

	Functions (What?)	Who?
a)	Develops Systems standards	WGs
b)	Recommend TC/SCs to develop standards (through SMB or TC officers as SyC members)	CAG (Chairperson's advisory group)
c)	Maintain relationship and information exchange with external organizations to the SyC (IEC/TCs, others SDOs, initiatives).	Group of TC officers & Liaison officers
d)	Maintain relationship and information exchange with users of the standards (city stakeholders, ).	CAG
e)	Road test standards in real cities	WGs
f)	Develop and maintain the Strategic Business Plan of the SyC.	CAG
g)	Develop and maintain Reference Architecture Model for smart cities	Start as AhG
h)	Collect and analyze usecases	Start as AhG (umbrella) WGs (specific area)
i)	analyze gaps and overlaps of efforts and standards	A WG
j)	Develop and maintain a common set of terminology for the SyC (as same as the common ways in IEC/TCs)	a WG

**Table 1**

**DECISION8: SEG1 agreed to the functions listed in the table above, which will be positioned and referenced in the organizational structure of the proposed SyC.**

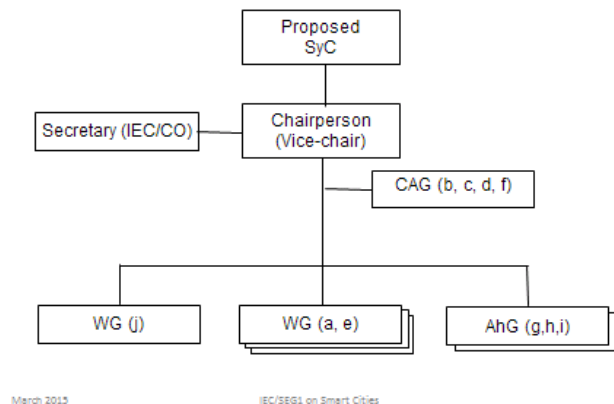
### 6.3 Organizational structure of proposed SyC

Dr. Ueno then led the discussion on the organizational structure for the SyC, taking into account the list of 9 functions and where they fit in the SyC.

Questions were asked of “where in the organizational structure city planners would fit?” Dr. Ueno said that the Chairman of the SyC would have the authority to invite city leaders as well as relevant, non-traditional guests to the CAG if the topics discussed in the CAG required their input. Besides the WG convenors, the CAG is open to these invited guests.

The organization structure figure is seen below.

## Organizational structure of proposed SyC



**Figure 2**

**DECISION 9: SEG1 agreed to the organizational structure of the proposed SyC.**

For reference, the lower-case letters inside the ( ), directly relate to the functions in Table 1.

## 7. Effective collaboration between SDOs

Dr. Ueno led the discussion on the drafting of a matrix which could visually represent the boundaries and interface for collaboration between IEC, ISO, ITU-T, as well as ISO/IEC JTC1.

A group discussion followed on how to precisely map the matrix and also how to ensure that each SDO was going to map the matrix without overreaching the intent of this mapping. It was decided that the Secretary contact the SEG1 liaison officers from ISO, ITU-T and JTC1 and ask them to map and position themselves in the matrix by referring only to the activities relevant to smart cities within each organization. The IEC portion of the matrix will be provided by the SEG1 Working Groups. The Secretary agreed to provide the blank matrix drawing to each liaison and WG.

**IEC** Draft "Simple map" for effective collaboration

Definitions will be introduced from the MSB whitepaper		City objectives		
		Environmental sustainability	Social sustainability	Economic sustainability
Categories of standards	Governance & Management			
	Operations & service delivery			
	Technologies (including technical platforms/tools for governance, management and operations)			

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**Figure 3**

To plot the matrix, in Figure 3 it was agreed to categorize the standards, (Governance & Management; Operations & service delivery; and Technologies {including technical platforms/tools for governance, management and operations}) versus the City Objectives (Environmental sustainability, Social sustainability, and Economic sustainability).

A suggestion from the meeting was that perhaps a 3-dimensional matrix needed to be designed, which includes the city stakeholders. It was agreed that a 3<sup>rd</sup> dimension for the matrix may be necessary, but after the SyC is established.

**DECISION 10:** The liaison members from ITU-T, ISO and ISO/IEC JTC1 in SEG 1 are requested to map the existing work items relevant smart cities using the SEG 1 "simple map" and submit it to the SEG 1 secretary by 2015-03-31.

**DECISION 11:** The WG leaders are requested to map their proposed work items to the "simple map" and submit it to the SEG 1 secretary by 2015-03-31.

## 8. Assessment of work items identified by SEG1 WGs

Dr. Ueno asked each WG leader to re-evaluate their final reports to ensure that the following list of questions is addressed:

- a) City relevance
  - Is a city need identified?
  - IEC relevance
  - Is it in a core area of IEC? Is it an item which IEC should take the lead of the standardization?
- b) Systems approach relevance
  - Does the item need systems approach?
- c) Possible allocation to existing IEC/TCs (or other SDOs)
  - Can the item be handled by existing IEC/TCs?
  - Consistency with existing International Standards

## 9. Final report - Detailed Timeline for SEG1

SEG1 agreed to the following timeline for the final report:

Action items	by
Circulation of the second version of draft SEG 1 report to SEG 1 members	2015-03-31
Comments on the second version due	2015-04-17
Deadline of the draft report to SMB (for June meeting)	2015-04-25
SMB meeting	2015-06
CAG editorial meeting (USA) (Participation via Web conference will be available.)	2015-07-07/08
Circulation of the next version of draft SEG 1 report to SEG 1 members	2015-07
Comments on the draft	2015-08
Plenary telephone conference (if necessary)	
Deadline of the final report to SMB (for October meeting)	2015-08-21

**Table 2**

## 10. Approval of Decisions

- o SEG 1 requests its secretary to secure the consistency with the MSB white paper: Orchestrating infrastructure for smart cities.
- o SEG 1 agreed to complete and submit its draft report to the SMB on 25th April (the deadline for the June SMB meeting).
- o It was confirmed that SEG 1 focuses on communicating closely with the SMB and finalizing the report to harmonize with the feedback from the SMB after the submission of the draft report sent to SMB for the June meeting.
- o SEG 1 requests its secretary to circulate the second version of the draft report to all SEG 1 members by 2015-04-03.
- o SEG 1 members are requested to submit comment on the draft report by 2015-04-17.

- SEG 1 agreed to use “smart cities” in this report by voting. “Smart cities” won by 23 votes against “smart cities and communities” which obtained 17 votes.
- SEG 1 agreed on the scope of the proposed SyC.
- SEG 1 agreed on 9 functions that the proposed SyC should have.
- SEG 1 agreed on the draft organizational chart of the proposed SyC.
- The liaison members from ITU-T, ISO and ISO/IEC JTC1 in SEG 1 are requested to map the existing work items relevant smart cities using the SEG 1 “simple map” and submit it to the SEG 1 secretary by 2015-03-31.
- The WG leaders are requested to map their proposed work items to the “simple map” and submit it to the SEG 1 secretary by 2015-03-31.

#### **11. Any other business**

Dr. Ueno thanked the participants for their contributions to the plenary. He then gave special thanks to BSI and the UK NC for the excellent hosting of the meeting.



## ANNEX A MEETING PARTICIPANTS

Last Name	First Name	NC	Representing
Alexander	Julie	GB	BSI
Alfino	Saviour	GB	BSI
Angermaier	Bernhard	DE	Audi, Germany
Anmin	Dong	CN	Baidu
Back	Anna-Karin	SE	SEK
Biyu	Wan	CN	Morhood China
Chen	Yuanchao	DE	DKE Germany
Chen	Ji	CN	China Electronics Standization Institution
de Heaver	Martin	GB	BSI, Ethos VO Ltd.
De Juan Verger	Julia	GB	BSI
Devaney	John	GB	BSI
Endou	Isao	JP	Mizuho Information & Research Institute
Franks	Ryan	US	NEMA
Fulger	Daniel	DE	Altran, Germany
Gibson	Trevor	GB	Opportunity Peterborough and BSI
Han	Han	CN	China CA ICT
Heng	Qian	CN	Lecong Intelligent town Development Center
Hirakawa	Shuji	JP	Toshiba
Hunger	Karsten	DE	DKE, Germany
Ichikawa	Yoshiaki	JP	Hitachi
Iga	Hiroyuki	JP	JSA
Kiabayashi	Reiko	JP	Mizuho Information Research Institute
Kihara	Takahiro	JP	Hitachi
Lanctot	Peter	IEC	IEC
Li	Weiwei	CN	Baidu
Lingerfelder	Janna	DE	IBM
Lonien	Joachim	DE	DIN, Germany
Marcondes	Jefferson	BR	COBEI / ABNT
Martani	Claudio	UK	University of Cambridge
Matthews	James	US	IEC SMB Chairman (Observer)
Min	Jinghua	CN	China CECGW
Mulquin	Michael	GB	IS Communications Ltd.
Neurieter	Christian	AT	JRZ Salzburg, Austria
Palmer	Daniel	GB	BSI
Park	Ho-Jin	KR	ETRI (Electronics and Telecommunications Research Institute)
Sebellin	Pierre	IEC	IEC
Suzuki	Kenji	JP	Toshiba Corporation
Taylor	Jacqui	GB	BSI
Ueno	Fumio	JP	Toshiba Corporation
Utkin	Nikita	RU	Russian Ventrue Company
Van Dam	Koen	GB	Imperial College London, / BSI
Viengkham	Manyphay	US	General Electric
Wilhelm	Dieter	DE	Siemens
Yamamoto	Masazumi	JP	Mitsubishi Electric Corporation
Yoo	Sangkeun	KR	ETRI (Electronics and Telecommunications Research Institute)
Zhang	Dapeng	CN	Standardization Administration of China
Yu	Tao	CN	Fudan Yibong Smart City Research Center
Yukai	Wei	CN	China SIA
Wei	Sun	CN	Standardization Administration of China