Agenda

- ISO Smart Cities Strategic Advisory Group Mandate
- ISO Indicators Update
- Q & A
ISO – A Global System

- 165 national members
  - 98% of world GNI
  - 97% of world population

- 230 active TC’s
  - 3,511 technical bodies
  - 4,696 documents under development

- Over 741 organizations in liaison

- 138 FTE staff from 19 Countries

- Collection of 20,493 ISO Standards
- Over 741 organizations in liaison
- 1468 standards produced in 2014
- 230 active TC’s
- 3,511 technical bodies
- 4,696 documents under development
- Central Secretariat in Geneva
  - 138 FTE staff from 19 Countries

- Customer
- Vision & Strategy
- Learning Growth
- Internal Process

Financial
Recent & future activities

- Launch meeting in Geneva on 17 June 2014
- Second meeting in London on 1 September 2014
- Third meeting in Barcelona on 19 November 2014
- Fourth meeting in Tokyo on 29 and 30 January 2015
- Fifth meeting in San Francisco on 30 March and 1 April 2015
- Sixth meeting in Berlin on 19 and 20 May 2015
- Final meeting in Geneva on 23, 24, 25 June 2015

Final report to TMB - September 2015
ISO TMB Smart Cities
Strategic Advisory Group Mandate

1. Clear **working definition** of ‘smart cities’
2. Describe smart cities **landscape** & identify aspects most relevant to ISO
3. Review **existing initiatives** and activities in ISO
4. **Gap analysis** – areas for ISO work, and **collaboration** across standards bodies
5. Coordinate ISO input and nomination of experts to IEC/SEG 1

14 experts
4 liaison reps
8 observers

Launch June 2014
Report September 2015
Current key activities

Demand-side survey:

Countries (27):

- Australia, Brazil, Canada, China, Finland, France, Germany, India, Indonesia, Israel, Japan, Kenya, Korea (Republic of), Malaysia, Mexico, Morocco, Netherlands, Nigeria, Russian Federation, Singapore, South Africa, Spain, Sweden, Switzerland, UK, United Arab Emirates, USA

Associations and organizations (9):

- Bloomberg, C40, City Protocol Society, ICLEI, Smart Cities Council, UNEP, World Bank, Eurocities, OECD
Demand-Side Survey

Purpose

• To understand
  – how cities perceive standards & SDOs, and
  – cities needs in relation to guidance
• Engage the unengaged:
  – city leadership / senior officials
  – small & mid-sized cities
• Inform ISO plans, and how it operates with SDOs / influential bodies

Process

• Launch March
• Close end April
• First insights May/June

Content

1. Current Experience with standards
2. Relevance at senior levels
3. Leadership content
4. City domain content
5. Legitimacy of SDOs
6. Any other matters

Targets

• 5-10 Cities of different sizes and levels of development – selected via national bodies
Smart cities & some ISO committees

...noting the survey with committees is taking place

- TC 59/SC 17 Sustainability in buildings and civil engineering works
- TC 163 Thermal performance and energy use in the built environment
- TC 205 Building environment design
- TC 242 Energy management
- TC 268 Sustainable development in communities
- TC 268/SC 1 Smart community infrastructures
- JTC 1 Study Group on Smart Cities; etc.
TC 268 Sustainable development in communities &
TC 268/SC 1 Smart community infrastructures

Click here to see the committees work programme.
Standards developed by ISO/TC 268 & SC 1

- **ISO 37120** Sustainable development & resilience of communities - Indicators for city services & quality of life
- **ISO/TR 37150** Smart community infrastructures - Review of existing activities relevant to metrics
- **ISO 37101** Sustainable development of communities -- Management systems -- Requirements with guidance for resilience and smartness
- **ISO 37102** Sustainable development & resilience of communities – Vocabulary
- **ISO/TR 37121** Inventory & review of existing indicators on sustainable development & resilience in cities
- **ISO/TS 37151** Smart community infrastructures -- Principles and requirements for performance metrics
- **ISO/TR 37152** Smart community infrastructures -- Common framework for development & operation
Thank you for listening!

Introducing: Dave Welsh, ANSI appointed expert to the ISO/TMB Smart Cities SAG for the update on indicators.
Massive urban growth; India and China

Focal points for economic development

Refurbish under-invested infrastructure

Responding to environment sustainability

Massive urban growth; India and China

Future Smart Cities in the later 21st Century

WHY CITY STAKEHOLDERS NEED GLOBAL STANDARDIZED INDICATORS?

• TO DETERMINE ENTRY POINTS FOR INVESTMENT in city markets and make informed decisions through data analysis

• TO BENCHMARK INVESTMENTS and monitor progress

• TO EVALUATE the “impact” of infrastructure projects on the sustainability and efficiency of the city

• TO BUILD Smart and Sustainable Cities

• TO EVALUATE the investment in comparative perspective across cities nationally and globally

• TO STRENGTHEN the effectiveness of city governance
Building on the ISO Foundation for Sustainable Development

ISO INDICATORS

ISO INDIQUERATORS

DATA AND METRICS

Certification

ISO DIS 37101
ISO 18091

ISO 37120
ISO TR/AWI 37121
... more

ISO TR 37150
ISO TS 37151
... more

ISO 14000 Environmental management
ISO 50001 Energy management
ISO 27001 Information security management
ISO 22000 Food safety management
ISO 26000 Social responsibility
ISO 31000 Risk management

ISO/TC 204 - Intelligent transport systems
ISO/TC 22 - Road vehicles
ISO/TC 205 - Building environment design
ISO/TC 20 - Aircraft and space vehicles
ISO/TC 59 - Buildings and civil engineering works

... more

Plus ISO Liaison Relations
Example: Age Friendly Cities

ISO 37120 - City Services and Quality of Life (17 Themes)

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<th>Core Themes</th>
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ISO 37120 – 46 Core/56 Support Indicators

For Example **Health (core Indicators)**
- Average life expectancy
- Number of in-patient hospital beds per 100,000 population
- Number of physicians per 100,000 population
- Under age five mortality per 1,000 live births
ISO 37121 - Indicators for Sustainable Development and Resilience in Cities

Review and Development of New Indicators on Sustainability and Resilience

- Smart Cities
- Emergency Preparedness
- Changes in rainfall and storm surges
- Protection of biodiversity
- Alternative energy
- Risk assessment
- Resilience Infrastructure

- Smart Grid
- Economic resilience
- Political resilience
- Walkability & Accessibility
- Transit & Mobility
- Water & Waste Management
- Green buildings
WORKING DEFINITION: A “SMART CITY” should be described as one that:

- dramatically increases the pace at which it improves its sustainability and resilience,
- by fundamentally improving how it engages society, how it applies collaborative leadership methods, how it works across disciplines and city systems, and how it uses data and integrated technologies,
- in order to provide better services and quality of life to those in and involved with the city (residents, businesses, visitors).

Building on ISO Guide 82 on Sustainability and ISO Guide 73 on Resilience, a Smart City has …

... PURPOSE: accelerated improvement in sustainability and resilience

... COMMON MEANING: sustainability is the destination, smart is the accelerator

... CHARACTERISTICS: People-centric (citizens, businesses, workers, residents, visitors, etc.); well led and governed; inclusive and open (to all people and to new ideas); transparent in communications and operations; secure in respect of personal information; supported by integrated services and infrastructure; and pro-active in learning and developing
THANK YOU!