An MVP approach to standards development?

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International Electrotechnical Commission
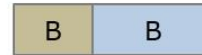
The diversity and complexity of cities!
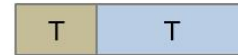
How standards can help

Citizens
Society
Business
Government

A	A

Citizens
Society
Business
Government

B	B

Citizens
Society
Business
Government

T	T

Common parts

Unique parts

Let us
1) Build common understanding
2) Isolate common parts
3) Find how to integrate unique and common parts
4) Develop common parts once and with high quality as a platform
5) Have a version of the common platform at each Smart City
6) Cooperate, complement and copy among Smart Cities

Providing smart cities with significant gains in quality, time and money

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Smart city standards

Many Standards organisations and technical committees are developing standards for smart cities

- How much are they being used?
- How appropriate are they for city needs?

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The challenge

How can we be sure that the standards we develop are those that cities and industry need and will use at scale?

At the moment we tend to rely on the prestige of our Standards Organisation to promote widespread uptake
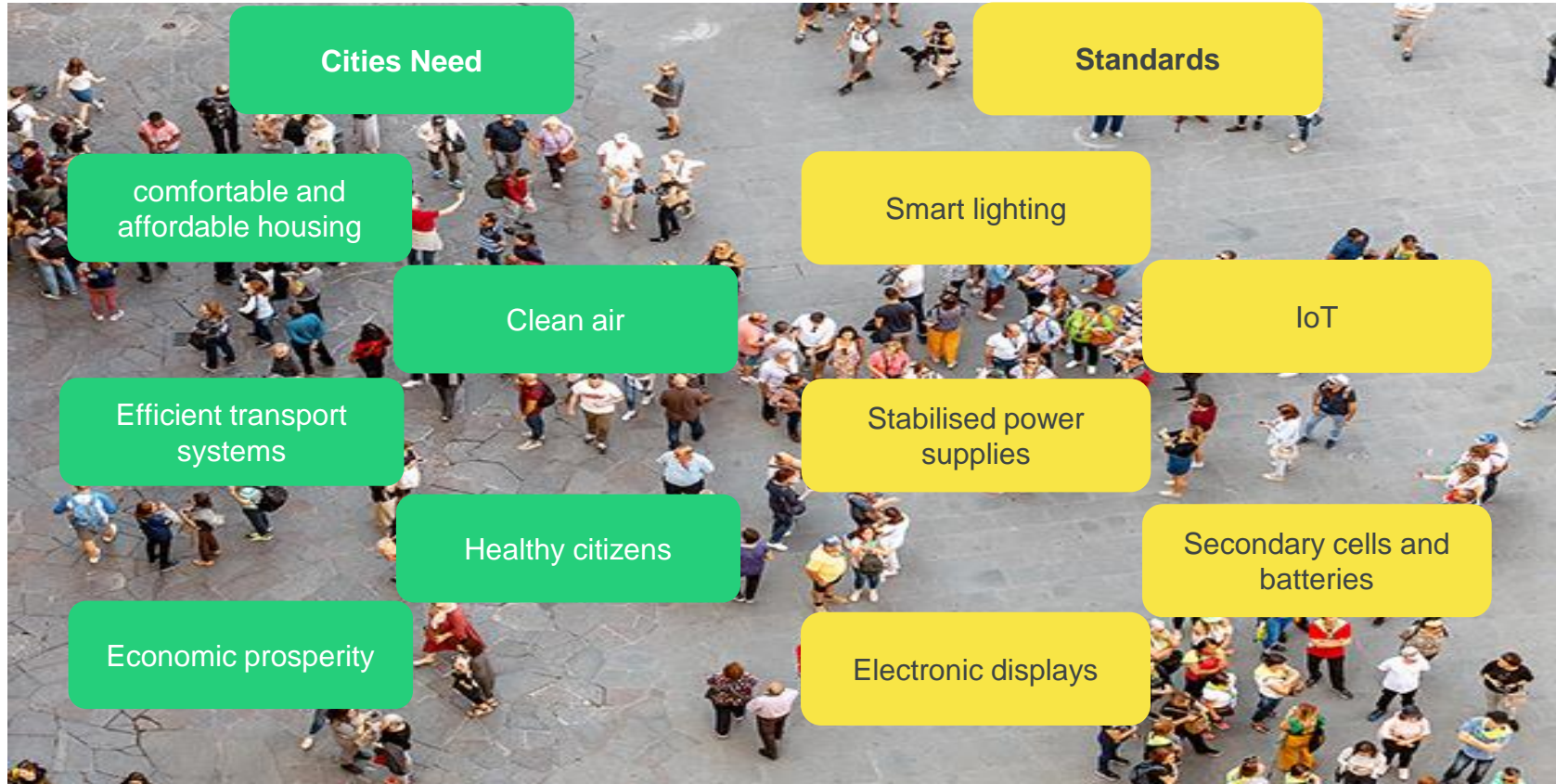
We may be happy if 100 cities use our standard – but there are nearly 4,500 cities globally with over 150,000 population

Even if a standard gains widespread support, we don't know if that is because every part of it is useful, or simply because some parts of it are useful and cities disregard the rest

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Problem 1: mismatch of city needs and scope of TCs

Cities Need

comfortable and affordable housing

Clean air

Efficient transport systems

Healthy citizens

Economic prosperity

Standards

Smart lighting

IoT

Stabilised power supplies

Secondary cells and batteries

Electronic displays

The result

Smart city standards are often developed in silos

Experts in one specific technology try to guess how their technology might be useful in cities

Problem 2: The speed challenge

From lagging to leading

In the past, standardisation took place only after the successful introduction of a new product by a market leader and adoption of the product idea by other vendors

Now, in a world of fast-moving change, sometimes standards are needed to provide the certainty to enable the market to develop

Where standardisation takes place before product implementation, standardisation has to start by analysing the demand and requirements for new solutions

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Problem 3: We need to get it right

The aim of standards is to provide an authoritative and unambiguous set of guidance that will be constant over several years.

Only in this way can suppliers have the confidence to develop, buyers the confidence to purchase, and users the confidence to invest time and energy to implement, new products and services
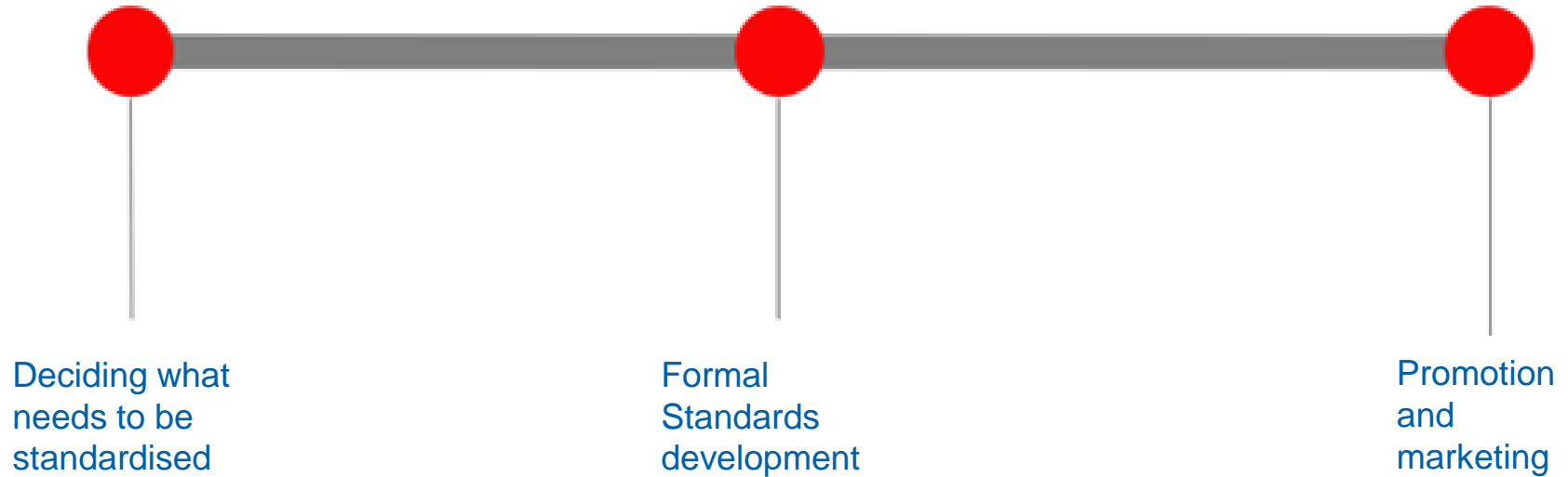

The challenge in Digital Transformation is that this is a fast-moving environment, and it is difficult to be sure about the requirements of users sufficiently clearly to enable us to provide detailed standards that will remain current for a number of years.

We already often road test our standards for Smart and Sustainable Cities with pilots. However, these tend to be at an advanced stage of standard development when it is too late to change things substantially. Also the pilots often involve only a few cities, that may not be representative of the whole market

Traditional standards development path

Deciding what needs to be standardised

Formal Standards development
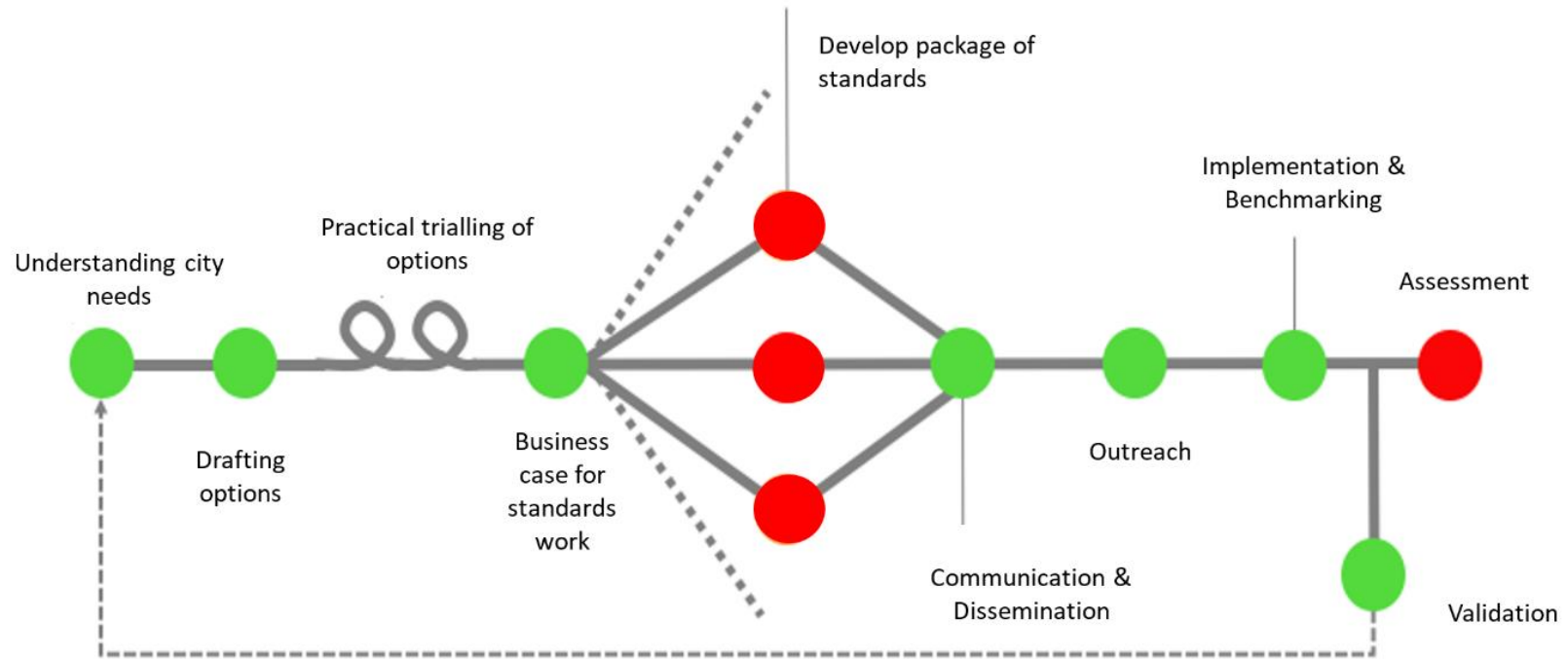
Promotion and marketing

Minimum Viable Product

Is there anything we can learn from the Minimum Viable Product approach in Industry, where versions with just enough features to be usable are offered to early customers?

This gives an objective measure of how useful a product is

Early customers can provide feedback for the development of additional content

An MVP standards development path

Implications

Start with market analysis – what do cities need?

Identify standards options to address the different aspects of each city need and trial them at an early stage with cities and industry (Not just technologies, but management processes and business models)

Keep trialling until it becomes clear what cities and industry need

Identify packages of standards to meet city needs

Develop the standards – using initial trial participants to continue to provide feedback

When standards are developed – market them in partnership with trial participants

Get information from initial users of the standards as to benefits – validation

Use feedback to improve knowledge of what cities need and add further content – initially web-based guidance documents and wikis

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What do you think?

If you are interested, let's set up a follow up call to develop these ideas further

Maybe something for the IEC ISO ITU Joint Smart City Task Force …..

Or U4SSC… ?

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