NEW WORK ITEM PROPOSAL	
Date of presentation	Reference number (to be given by the Secretariat)
Proposer	**ISO/TC / SC** N **No existing committee fits**
Secretariat **JISC**	

A proposal for a new work item within the scope of an existing committee shall be submitted to the secretariat of that committee with a copy to the Central Secretariat and, in the case of a subcommittee, a copy to the secretariat of the parent technical committee. Proposals not within the scope of an existing committee shall be submitted to the secretariat of the ISO Technical Management Board.

The proposer of a new work item may be a member body of ISO, the secretariat itself, another technical committee or subcommittee, or organization in liaison, the Technical Management Board or one of the advisory groups, or the Secretary-General.

The proposal will be circulated to the P-members of the technical committee or subcommittee for voting, and to the O-members for information.

See overleaf for guidance on when to use this form.

IMPORTANT NOTE: Proposals without adequate justification risk rejection or referral to originator.
Guidelines for proposing and justifying a new work item are given overleaf.

Proposal (to be completed by the proposer)

Title of proposal (in the case of an amendment, revision or a new part of an existing document, show the reference number and current title)

English title Smart Urban Infrastructure Metrics

French title
(if available)

Scope of proposed project

The proposed new work item is to develop harmonised metrics that evaluate the smartness of the fundamental infrastructures of a city, not the city itself. More specifically, the following scope will apply to the work in the proposed project.

(1) The metrics are focused on fundamental urban infrastructure such as energy, water, transportation, waste management and ICT.

(2) The metrics addressed in this project is to be quantitatively evaluated by a practical way (including a survey by questionnaire).

(3) The metrics are relevant to technologically implementable solutions. Political, societal or cultural solutions are not directly related to the metrics.

The intended deliverable is a product measurement standard on metrics for urban infrastructure as an integrated large-scale product and not a management standard. Accordingly, the project does not intend to define a target or develop a grading system.

Intended further development:

Since the remedy for city-indicator proliferation is in urgent need, the proposed project aims at developing a Technical Specification on the harmonised metrics in relatively a short period. However, it is also needed to elevate the Technical Specification after published (e.g. by road testing), which will lead to conversion into an International Standard as well as the development of a series of related ISO documents.

Concerns known patented items (see ISO/IEC Directives Part 1 for important guidance)

☐ Yes ☒ No If "Yes", provide full information as annex

Envisaged publication type (indicate one of the following, if possible) Either of the two below

☐ International Standard ☒ Technical Specification ☐ Publicly Available Specification ☐ Technical Report

Purpose and justification (attach a separate page as annex, if necessary)

1) The specific aims and reason for the standardization activity, with particular emphasis on the respects of standardization to be covered, the problems it is expected to solve or the difficulties it is intended to overcome.

The purpose of the proposed activity is to improve the international trade environment of urban infrastructure by harmonising the rapid proliferation of city-indicators. . Recently, a number of plans and projects of building smart cities are under way and the cross-border trade of infrastructures has become more common than before. On the other hand, a wide range of different evaluation metrics for urban infrastructure are used. This complexity and redundancy make it difficult for city planners or governors to evaluate multiple proposals or plans consistently in order to construct or renew their urban infrastructure, and thereby increase the burden of decision making. The same issue applies to investors when they choose a plan to invest in. In addition, the infrastructure vendors are facing difficulty in developing new technology without an appropriate standard. Thus, it is important to introduce an appropriate and harmonised metrics to evaluate urban infrastructure.

For more detailed justification, please see ANNEX3.

2) The main interests that might benefit from or be affected by the activity, such as industry, consumers, trade, governments, distributors.

The direct beneficiaries of the proposed deliverable are;

- City planners such as developers
- Urban infrastructure operators such as electricity industry, railway industry or water treatment industry.
- Urban infrastructure vendors such as constructors, engineering firms, system integrators or component manufacturers.

The indirect beneficiaries of the proposed deliverable are;

- City residents,
- Local & national governments,
- Almost entire human beings may benefit from the sustainable and comfortable living.

3) Feasibility of the activity: Are there factors that could hinder the successful establishment or global application of the standard?

No significant factors to hinder the commencement of the proposed new work item have been observed.

4) Urgency of the activity, considering the needs of other fields or organizations. Indicate target date and, when a series of standards is proposed, suggest priorities.

It is imminent to establish such globally harmonised metrics since a rapidly growing number of plans and projects for building smart cities are now under way and decisions made now will affect the situation in the far future.

5) The benefits to be gained by the implementation of the proposed standard; alternatively, the loss or disadvantage(s) if no standard is established within a reasonable time. Data such as product volume or value of trade should be included and quantified.

Since the harmonised metrics clarify the technologies that are needed to make urban infrastructure smarter, R&D investment and innovation in the related technological fields would be promoted.

Since the harmonised metrics can ease the burden to compare multiple plans or proposals, the procurement cost of urban infrastructure would be reduced. Also, the metrics support investors to decide which plan or project to invest in. This also means that the city planners and governors will obtain an objective and convincing advertisement tool to attract investors to their development plans. The benefits described above will increase business opportunities and create more jobs.

This benefit will be maximised in the international public procurement, where there is a growing trend to procure products by utilizing international standards. Therefore, the proposed product standard will promote international trade between nations. The harmonised metrics can enable investors to evaluate mid-long term investment more precisely by considering the life cycle of the cities. Utilising the harmonised metrics, it will become possible to select effective and efficient solutions to cope with urban issues (such as air pollution, traffic congestion and water shortage) that occur as a result of rapid urbanisation and population concentration. It will become also possible to choose a more effective and efficient solutions to improve the living environment of the city.

The harmonised metrics provide a tool to mitigate negative impacts on future generations, such as climate change, by materialising ongoing and future urban development in a more sustainable way.

6) Additional information
The proposed date for the first meeting of the proposed project is 24th of May, 2012 (to be adjusted later).
JISC is willing and prepared to provide the leadership and resources to conduct the proposed work items.

Target date for availability (date by which publication is considered to be necessary)

Proposed development track ☒ 1 (24 months) ☐ 2 (36 months - default) ☐ 3 (48 months)

Relevant documents to be considered

The technical committees listed in Annex1 have potential relevance to the proposed project and should be considered, or to be liaised when appropriate. However, none of those fit in the scope of this proposal.

Relationship of project to activities of other international bodies

Liaison organizations	**Need for coordination with:** ☒ IEC ☐ CEN ☐ Other (please specify)

Preparatory work (at a minimum an outline should be included with the proposal)

☐ A draft is attached ☒ An outline is attached. It is possible to supply a draft by

The proposer or the proposer's organization is prepared to undertake the preparatory work required ☒ Yes ☐ No

Proposed Project Leader (name and address)	**Name and signature of the Proposer** (include contact information)

Comments of the TC or SC Secretariat

Supplementary information relating to the proposal

☒ This proposal relates to a new ISO document;

☐ This proposal relates to the amendment/revision of an existing ISO document;

☐ This proposal relates to the adoption as an active project of an item currently registered as a Preliminary Work Item;

☐ This proposal relates to the re-establishment of a cancelled project as an active project.

Other:

Voting information

The ballot associated with this proposal comprises a vote on:

☒ Adoption of the proposal as a new project

☐ Adoption of the associated draft as a committee draft (CD)

☐ Adoption of the associated draft for submission for the enquiry vote (DIS or equivalent)

Other:

Annex(es) are included with this proposal (give details)

Annex 1 List of possible relevant committees to this proposal

☒ **Annex 2 Outline of the proposed document**

Annex 3 Detailed justification and additional information

Date of circulation	Closing date for voting	Signature of the TC or SC Secretary

Use this form to propose:

a) a new ISO document (including a new part to an existing document), or the amendment/revision of an existing ISO document;

b) the establishment as an active project of a preliminary work item, or the re-establishment of a cancelled project;

c) the change in the type of an existing document, e.g. conversion of a Technical Specification into an International Standard.

This form is not intended for use to propose an action following a systematic review - use ISO Form 21 for that purpose.

Proposals for correction (i.e. proposals for a Technical Corrigendum) should be submitted in writing directly to the secretariat concerned.

Guidelines on the completion of a proposal for a new work item

(see also the ISO/IEC Directives Part 1)

a) Title: Indicate the subject of the proposed new work item.

b) Scope: Give a clear indication of the coverage of the proposed new work item. Indicate, for example, if this is a proposal for a new document, or a proposed change (amendment/revision). It is often helpful to indicate what is not covered (exclusions).

c) Envisaged publication type: Details of the types of ISO deliverable available are given in the ISO/IEC Directives, Part 1 and/or the associated ISO Supplement.

d) Purpose and justification: Give details based on a critical study of the following elements wherever practicable. *Wherever possible reference should be made to information contained in the related TC Business Plan*.

1) The specific aims and reason for the standardization activity, with particular emphasis on the aspects of standardization to be covered, the problems it is expected to solve or the difficulties it is intended to overcome.

2) The main interests that might benefit from or be affected by the activity, such as industry, consumers, trade, governments, distributors.

3) Feasibility of the activity: Are there factors that could hinder the successful establishment or global application of the standard?

4) Timeliness of the standard to be produced: Is the technology reasonably stabilized? If not, how much time is likely to be available before advances in technology may render the proposed standard outdated? Is the proposed standard required as a basis for the future development of the technology in question?

5) Urgency of the activity, considering the needs of other fields or organizations. Indicate target date and, when a series of standards is proposed, suggest priorities.

6) The benefits to be gained by the implementation of the proposed standard; alternatively, the loss or disadvantage(s) if no standard is established within a reasonable time. Data such as product volume or value of trade should be included and quantified.

7) If the standardization activity is, or is likely to be, the subject of regulations or to require the harmonization of existing regulations, this should be indicated.

If a series of new work items is proposed having a common purpose and justification, a common proposal may be drafted including all elements to be clarified and enumerating the titles and scopes of each individual item.

e) Relevant documents and their effects on global relevancy: List any known relevant documents (such as standards and regulations), regardless of their source. When the proposer considers that an existing well-established document may be acceptable as a standard (with or without amendment), indicate this with appropriate justification and attach a copy to the proposal.

f) Cooperation and liaison: List relevant organizations or bodies with which cooperation and liaison should exist.

ANNEX1：

List of possible relevant committees to this proposal

Note：The necessity of the actual establishment of the liaisons with each of the listed committees will be discussed and determined after the ballot in consideration of the comments provided therein.

Relevant committees

JTC2 “Joint Project Committee - Energy efficiency and renewable energy sources - Common terminology”

ISO TC22 ”Road Vehicles”
ISO TC59/SC 17 “Sustainability in buildings and civil engineering works"
ISO TC70 “Internal Combustion Engines”
ISO TC85 “Nuclear energy, nuclear technologies, and radiological protection”
ISO TC86 “Refrigeration and air-conditioning”
ISO TC146 “Air Quality”
ISO TC147 “Water Quality”
ISO TC163 “ Thermal performance and energy use in the built environment”
ISO TC178 “Lifts, escalators and moving walks”
ISO TC180 “Solar Energy”
ISO TC184 “Automation systems and integration”
ISO TC192 “Gas turbines”
ISO TC195 “Building construction machinery and equipment”
ISO TC199 “Safety of machinery”
ISO TC203 “Technical energy systems”
ISO TC204 “Intelligent transport systems”
ISO TC205 “Building Environment Design”
ISO TC207 “Environmental management”
ISO TC215 “Health informatics”
ISO TC223 “Societal security”
ISO TC224 “Service activities relating to drinking water supply systems and wastewater systems - Quality criteria of the service and performance indicators”
ISO TC241 “Project Committee: Road-Traffic Safety Management System”
ISO TC242 “Energy Management”
ISO TC248 “Project committee: Sustainability criteria for bioenergy”
ISO TC257 “General technical rules for determination of energy savings in renovation projects, industrial enterprises and regions”

ISO TC262 “Project committee: Risk management”

IEC TC5 “Steam turbines”
IEC TC8 “Systems aspects for electrical energy supply”
IEC TC9 “Electrical equipment and systems for railways”
IEC TC21 “Secondary cells and batteries”
IEC TC22 “Power electronic systems and equipment”
IEC TC34 “Lamps and related equipment”
IEC TC35 “Primary cells and batteries”
IEC TC57 “Power systems management and associated information exchange”
IEC TC69 “Electric road vehicles and electric industrial trucks”
IEC TC77 “Electromagnetic compatibility”
IEC TC82 “Solar photovoltaic energy systems”
IEC TC88 “Wind turbines”
IEC TC99 “System engineering and erection of electrical power installations in systems with nominal voltages above 1 kV a.c. and 1,5 kV d.c., particularly concerning safety aspects”
IEC TC104 “Environmental conditions, classification and methods of test”
IEC TC106 “Methods for the assessment of electric, magnetic and electromagnetic”
IEC TC111 “Environmental standardization for electrical and electronic products and systems”
IEC TC114 “Marine energy - Wave, tidal and other water current converters”
IEC TC115 “High Voltage Direct Current (HVDC) transmission for DC voltages above 100 kV”
IEC TC117 “Solar thermal electric plants”

<u>Related management standards and documents</u>
ISO 14001 (TC 207)
ISO 27001 (ISO/IEC/JTC1/SC27)
ISO 50001 (TC 242)

ANNEX2 :

Outline of the proposed document
(Subject to change according to the discussion in the working group)

Title : The metrics for smart urban infrastructure

Foreword & Introduction

1 Scope

This document provides globally harmonised metrics for the smartness of urban infrastructure in the following scope;

(1)The metrics are focused on fundamental urban infrastructure such as energy, water, transportation, waste management and ICT.

(2)The metrics addressed in this document is to be quantitatively evaluated by a practical way (including a survey by questionnaire).

(3)The metrics are relevant to technologically implementable solutions. Political, societal or cultural solutions are not directly related to the metrics.

2 Normative references

No normative references are cited. Informative references are noted in the bibliography.

3 Terms and definitions

4 General

<Typical application areas and how to use the metrics are generally described>

5 Urban infrastructures to be evaluated

5.1 Three layer model of urban systems (services, facilities and urban infrastructures).

5.2 Categories of urban infrastructures. (Energy, Water, Transportation, Waste-management, Communication network, etc)

5.2.1 Energy (electricity, city gas, etc)

5.2.2 Water (city water, sewage, etc)

5.2.3 Xxxxxx (xxxx, xxxx, etc)

5.3 Geographical boundary of urban infrastructure

(Urban infrastructures / Wider-area infrastructures)

6 Principle

6.1 Three Perspectives

(1) Environmental impacts (2) Quality and functionality (3) Continuity and scalability

6.2 Smartness

6.3 Smartness of urban infrastructure

- Advanced or integrated implementation

- Consideration of the synergies and trade-offs between infrastructures

7 Smart Urban Infrastructure metrics

7.1 Criteria of metrics for each type of infrastructures

1.1.1 Energy (Comfort, Convenience, Safety, Efficient operation, global warming, etc)

1.1.2 Water (Comfort, Convenience, Safety, Efficient operation, global warming, etc)

1.1.3 xxxx (Comfort, Convenience, Safety, Efficient operation, global warming, etc)

7.2 Integral/Total metrics

7.3 Summary table of the metrics

8 Overview and analysis of the existing relevant works

< Existing relevant works are reviewed and their relationships with the metrics are discussed >

9 Possible Further Development

9.1 Measurement, reporting and verification

9.2 Target value setting, grading and certification

9.3 Application to diverse types of cities (office city, industrial city, resort city, etc.)

Annex A. Table of the metrics (Detailed version / Matrix Model)

ANNEX 3 :

Detailed Justification and additional information

Detailed Justification

1. The Issue

A simple and concise statement describing the business, technological or environmental issue that the proposal seeks to address.

<Background>

It has long been argued that the activity of human being is surpassing the capacity of the Earth. The demand for resources such as energy is skyrocketing due to the ever increasing population and their desire for a better living standard. This situation indicates an urgent need to develop a more effective and efficient solution to share the resources among all the people of present and the future.

It is expected that most people of the world will live in cities in the future. The UN “World Urbanization Prospects” estimates that about 70 % of world population will live in cities in 2050. Thus, amongst diverse possible solutions, building, reconstructing and operating cities in a more sustainable way would be arguably the most effective solution to cope with the above issue. Consequently, the concept of "smart city" attracts worldwide attention.

<Smart urban infrastructure>

In these days, diverse definitions of “smart city” are being presented. Also, a wide range of approaches to cope with the above issue are being proposed. Some of them are societal or political approaches such as changing people's lifestyle or introducing governmental regulations whereas some of them are technological approaches such as improving energy efficiency of equipment. These approaches may need to be combined and the best solution for the cities would be different from city to city, reflecting their diverse characteristics.

However, by focusing on the urban infrastructure that provides fundamental utilities (public services), such as energy, water, transportation, waste management and ICT, the solutions to improve a city’s sustainability or smartness would be relatively technology-oriented and less diverse compared to the societal or political characteristics of cities. This indicates a good prospect for harmonisation and standardisation.

Therefore, it would be worth discussing the sustainability or smartness of urban infrastructure from technological aspects.

<Issue>

Recently, a number of different evaluation indicators for urban infrastructure are used. This complexity and redundancy make it difficult for city planners or governors to evaluate multiple proposals or plans consistently in order to construct or renew their urban infrastructure, and thereby increase the burden of decision making. The same issue applies to investors when they choose a plan to invest in. In addition, the infrastructure vendors are facing difficulty in developing new technology without an appropriate standard. Thus, it is important to introduce an appropriate and harmonised metrics to evaluate urban infrastructure.

Also, there is a need for holistic metrics that evaluate urban infrastructure as a total. For instance, a combination of individually best electricity, water and waste-management according to their own indicators may not be the best urban infrastructure from a holistic viewpoint.

It is imminent to establish such globally harmonised metrics since a rapidly growing number of plans and projects for building smart cities are now under way and decisions made now will affect the situation in the far future.

2.The scope of the issue

Relevant global metrics that demonstrate the extent or magnitude of the economic, technological, societal or environmental issue, or the new market. This may include an estimate of the potential sales of the resulting standard(s) as an indicator of potential usage and global relevance.

In order to cope with the globally relevant issue described above, the proposed project provides globally harmonised metrics to measure the smartness of urban infrastructure as an integrated large scale product.

The harmonised metrics will provide city planners, governors and investors with a useful tool for evaluating more than one plans or proposals with consistent criteria. As a result, it will promote the international trade of smart infrastructure from vendors worldwide, thereby an international market of urban infrastructure will be expanded. This will contribute to develop more sustainable world through nurturing the competitive edges of vendors and

promoting technology development in related fields. Also, city planners and governors will obtain a tool to measure the cost efficiency for improving the smartness of their urban infrastructure which contributes to better investment plan as well.

The project will consider the following aspects in the development of the metrics.

(1)the smartness of urban infrastructure as a whole including the synergies and trade-offs between different types of infrastructures, as well as the smartness of each infrastructure being consistent with the holistic viewpoint.
(2)the use of the metrics in some different phases of the life cycle of a city.
(3)the diversity of the types of cities such as industrial cities, resort cities and residential cities.

3. Technological Benefit(s)
A simple and concise statement decribing the technological impact of the proposal to support coherence in systems and emerging technologies, convergence of merging technologies, interoperability, resolution of competing technologies, future innovation, etc

Since the harmonised metrics clarify the technologies that are needed to make urban infrastructure smarter, R&D investment and innovation in the related technological fields would be promoted.

Also, these metrics can disseminate advanced technologies through facilitating their implementation in similar types of multiple cities worldwide.

In addition, the harmonised metrics may provide a tool to evaluate a synergetic effect between different types of urban infrastructure technologies.

4. Economic Benefit(s)
A simple and concise statement describing the potential of the proposal to remove barriers to trade, improve international market access, support public procurement, improve business efficiency, result in a flexible, cost effective means of complying with international and regional rules/conventions, etc.

Since the harmonised metrics can ease the burden to compare multiple plans or proposals, the procurement cost of urban infrastructure would be reduced. Also, the metrics support investors to decide which plan or project to invest in. This also means that the city planners and governors will obtain an objective and convincing advertisement tool to attract investors to their development plans. The benefits described above will increase business opportunities and create more jobs.

5. Societal Benefit(s)
A simple and concise statement describing any societal benefits expected from the proposal

The harmonised metrics can enable investors to evaluate mid-long term investment more precisely by considering the life cycle of the cities.

Utilising the harmonised metrics, it will become possible to select effective and efficient solutions to cope with urban issues (such as air pollution, traffic congestion and water shortage) that occur as a result of rapid urbanisation and population concentration.

It will also become possible to choose a more effective and efficient solutions to improve the living environment of the city.
In addition, the harmonised metrics may provide a more adaptability against demographic changes when appropriate forecast and relevant technologies are available.

Furthermore, the harmonised metrics may enable city planners and governors to design the distribution of urban functions in wider area based on the diversity of cities.

6. Environmental Benefit(s)
A simple and concise statement describing any environmental or wider sustainability benefits expected from the proposal

The harmonised metrics provide a tool to mitigate negative impacts on future generations, such as climate change, by materialising ongoing and future urban development in a more sustainable way.

The harmonised metrics also provide a tool to design the sustainability of a city in a more sophisticated way by considering the lifecycle of the city.

7. Intent of the work

A simple and concise statement clearly describing the intended use(s) of the proposed deliverable(s), for example, whether the deliverable is intended as requirements to support confrmity assessment or only as guidance or recommended best practices; whether the deliverable is a management system standard; whether the deliverrable is intended for use or reference in technical regulation; whether the deliverable is intended to be used to support legal cases in relation to international treaties and agreements.

The work of the proposed project is to develop a metrics to measure the smartness of urban infrastructure. The project does not intend to define a target. Accordingly, the intended deliverable is a Technical Specification for urban infrastructure as an integrated large-scale product and not a management standard.

The proposed project applies following limits to the scope of the development of the metrics so that the metrics contribute to facilitate the international trade of urban infrastructure.

(1)The metrics will focus on evaluating urban infrastructure that provides fundamental utilities such as energy, water, transportation, waste management and ICT.
(2)The metrics must be quantitatively measurable by a practical way (including a survey by questionnaire).
(3)The metrics will focus on technologically implementable solutions. Political, societal or cultural solutions are not the objective of the metrics.

The metrics evaluate the infrastructure of a city, not the city itself.

The project also investigates existing relevant indicators.

8. Metrics

A simple and concise statement of metrics for the committee to track in order to assess the impact of the published standard over time to achieve the benefits detailed under the four bullet points immediately above.

The impact of the proposed deliverable can be measured by a continuous research on the living environments and the impacts on the environment in cities or nations in the world. The research may adopt the statistics that UN or World Bank provides.

In a long period, the impact of the deliverable may be measured by comparing the ROI of a project which applied this harmonised smart urban infrastructure metrics and that of a project which does not apply.

A metric which directly represents the impact of the deliverable of the proposed project would be the number of city plans that implemented the urban infrastructure metrics.
Another direct metric would be the number of citations in policy recommendations published by international organisations such as UN, EU or OECD.

An indirect metric would be the sales of ISO document as the deliverable of the proposed project. For the above mentioned purposes, city planners, government officials, investors and vendors need to refer the ISO document and the sales of the document represents the magnitude of the impact of the proposed project.

9. Beneficiaries

A simple and concise statement identifying and describing affected stakeholders and how they will each benefit from the proposal.

The direct beneficiaries of the proposed deliverable are;
- City planners such as developers
- Urban infrastructure operators such as electricity industry, railway industry or water treatment industry.
- Urban infrastructure vendors such as constructors, engineering firms, system integrators or component manufacturers.

The indirect beneficiaries of the proposed deliverable are;
- City residents,
- Local & national governments,
- Almost entire human beings may benefit from the sustainable and comfortable living.

Additional Proposal Information

A. The proposer's assessment on the prospect of the resulting deliverable(s) being compliant with the ISO or IEC Global Relevance Policies and the ISO Sustainability Policy where relevant.

<Market needs are recognised>
As already stated above, a number of plans and projects of building smart cities are now under way and the cross-border trade of infrastructures has become more common than before. Consequently, city planners, governors, investors and vendors around the world are waiting for globally harmonised metrics of urban infrastructure to efficiently find the most appropriate solutions and reduce the burden of evaluating or providing multiple proposals.

<No potential impediments to the development of a globally relevant standard>
Although each city has its unique characteristics, the solutions to improve the sustainability or smartness of urban infrastructure are relatively technology-oriented and less diverse compared to the city itself. Focusing on the technological aspects of urban infrastructure, the proposed project will provide globally relevant harmonised metrics.

<Sustainability policy>
Materialising ongoing and future urban development in a more sustainable way, the proposed harmonised metrics provide a tool to mitigate negative impacts on future generations, such as climate change.

B. The proposer's assessment on compliance with the ISO/IEC Policy Principles on the Relationship of ISO and IEC Standards to Public Policy and the possible relation of the resulting deliverable(s) to public policy, including a statement regarding the potential for easier market access due to conformity with appropriate legislation.

The proposed deliverable is intended for voluntary uses in a trade or procurement of urban infrastructure to reduce the related entities' burden of evaluating multiple plans and proposals. The deliverable however may provide credible technical tools that can support the implementation of regulation and public policy initiatives for promoting environmentally sustainable development.

C. The proposer's assessment on how the proposal may be related to, or may appear to be similar to, existing work in other international or regional organizations (including other ISO and IEC committees). The proposer should explain how the work differs from identified apparently similar work, or explain how duplication will be minimized.

As listed in Annex1, there are a number of organisations and projects in and outside of ISO/IEC that are developing standards or documents on the performances of each component of urban infrastructure (such as electricity, water, etc.), buildings and facilities. However, the unique approach of the proposed metrics that measure the smartness and sustainability of urban infrastructure as a large scale product will complement the above mentioned "component-wise" standards and documents and will enable city planners and governors to evaluate their plans from holistic viewpoints.

D. A simple cost/benefit analysis relating the cost of producing the deliverable(s) to the expected economic benefit to businesses worldwide.

Compared to the magnitude of the above described technological, economical, societal and environmental benefits at present and in the future, the expected cost of developing the proposed harmonised metrics is not significant.

E. Title of the proposed new committee (in the case of a proposal for a new field) or title of the proposed deliverable (in the case of a NWIP within a committee).

Smart Urban Infrastructure

F. Scope statement of the proposed new committee (in the case of a proposal for a new field).

N/A

G. The preferred type or types of ISO deliverables to be produced under the proposal.
Technical Specification

H. Proposed initial program of work (in the case of a proposal for a new field).

N/A

I. A listing of relevant existing documents at the international, regional and national levels.

A list of relevant standards and documents is provided in Annex1.

J. A listing of relevant countries to be actively engaged as the subject of the proposal is important to their national commercial interests.

Almost all member countries of ISO would be potentially interested as the proposed project provides harmonised metrics that ease the burden of international trade of urban infrastructure.

In particular, it is likely that members of ISO/TC 207 are interested in the proposed project.

K. A listing of relevant external international organizations or internal parties (other ISO and/or IEC committees) to be engaged as liaisons in the development of the deliverable(s).

It is expected to establish liaisons with organisations that have developed or are developing the following:
- Standards or documents on the measurement of the performance of each components of urban infrastructure, such as electricity, water, etc...
- Standards or documents on the management system or processes of planning and building smart cities.
- The standards and documents listed in Annex1.

L. Preferably an existing document to serve as an initial basis for the ISO or IEC deliverable or a proposed outline or table of contents.

The draft table of contents of the deliverable is attached as Annex2, which will serve as the initial basis.

M. An expression of commitment from the proposer to provide leadership if the proposal succeeds.

JISC is willing to provide leadership of the proposed project and prepared to provide the necessary resources..