



**Access, Terminals, Transmission and Multiplexing (ATTM);  
Sustainable Digital Multiservice Communities;  
Key Performance Indicators for  
Sustainable Digital Multiservice Areas;  
Part 2: Global KPIs for  
Sustainable Digital MultiService Areas**

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# Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Access, Terminals, Transmission and Multiplexing (ATTM).

The present document is part 2 of a multi-part deliverable covering the Sustainable Digital Multiservice Communities as identified below:

Part 1: "Key Performance Indicators for Sustainable Digital Multiservice Areas";

**Part 2: "Global KPIs for Sustainable Digital Multiservice Areas".**

NOTE: Part 1 of this multi-part deliverable is a work in progress and the title may be subject to change in the future.

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# Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

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## Introduction

Many urban and rural areas wish to monitor and advertise improvements in parameters which indicate their level of sustainability, or progress towards their sustainability objectives.

The present document defines Global Key Performance Indicators (Global KPIs) to describe the social, environmental sustainability and economic attractiveness of Sustainable Digital Multiservice Areas - addressing urban (cities) and rural communities.

The Global KPIs are combinations of the Key Performance Indicators selected from those of ETSI TS 103 463-1 [i.1] which are either measurable or based on publicly available data and relevant to the Sustainable Digital Multiservice Area (SDMA) under consideration.

However, these individual Key Performance Indicators selected cannot be combined to produce a single Global KPI for "sustainability".

As a result, the presentation of three Global KPIs is defined:

- *Global KPI<sub>People</sub>* representing a group of thirteen parameters related to the social sustainability of the SDMA;
- *Global KPI<sub>Planet</sub>* representing a group of thirteen parameters related to the environmental sustainability of the SDMA;
- *Global KPI<sub>Prosperity</sub>* representing a group of thirteen parameters related to the economic sustainability and the economic attractiveness of the SDMA.

The present document also defines graphical representations of each Global KPI and defines reporting requirements.

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# 1 Scope

The present document defines Global Key Performance Indicators (Global KPIs) to describe the social, environmental sustainability and economic attractiveness of Sustainable Digital Multiservice Areas - addressing urban (cities) and rural communities.

The Global KPIs are combinations of the Key Performance Indicators selected from those of ETSI TS 103 463-1 [i.1] which are either measurable or based on publicly available data and relevant to the Sustainable Digital Multiservice Area (SDMA) under consideration.

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## 2 References

### 2.1 Normative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

Referenced documents which are not found to be publicly available in the expected location might be found at <https://docbox.etsi.org/Reference/>.

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The following referenced documents are necessary for the application of the present document.

Not applicable.

### 2.2 Informative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

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The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

[i.1] ETSI TS 103 463-1: "Access, Terminals, Transmission and Multiplexing (ATTM); Sustainable Digital Multiservice Communities; Part 1: Key Performance Indicators for Sustainable Digital Multiservice Areas".

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## 3 Definition of terms, symbols and abbreviations

### 3.1 Terms

Void.



## 3.2 Symbols

For the purposes of the present document, the following symbols apply:

$GlobalKPI_{People}$	Global KPI covering social parameters of an SDMA
$GlobalKPI_{Planet}$	Global KPI covering environmental parameters of an SDMA
$GlobalKPI_{Prosperity}$	Global KPI covering economic attractiveness parameters of an SDMA
$parameter_{base\_date}$	value of a given KPI parameter at the base date
$parameter_{current}$	value of a given KPI parameter at the date of assessment of the relevant Global KPI
$parameter_{previous\_year}$	value of a given KPI parameter at the date of previous annual assessment of the relevant Global KPI
$value_{annual}$	the percentage change in a KPI parameter compared to its value at the base date ( $parameter_{base\_date}$ )
$value_{overall}$	the percentage change in a KPI parameter compared to its value at the previous annual assessment date ( $parameter_{previous\_year}$ )

## 3.3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

KPI	Key Performance Indicator
SDMA	Sustainable Digital Multi-service Area

# 4 Application of Global KPIs for SDMAs

The present document considers the certain parameters of ETSI TS 103 463-1 [i.1] as being relevant to the presentation of Global KPIs covering People, Planet and Prosperity. These are shown in Table 1.

The selection made is based on the ready availability of the necessary data to produce an individual KPI.

**Table 1: Selected parameters contributing to Global KPIs**

	PEOPLE	PLANET	PROSPERITY
1	Access to basic health care services	Annual final energy consumption	Unemployment rate
2	Traffic accidents	Renewable energy generated within the city	Youth unemployment rate
3	Crime rate	CO <sub>2</sub> emissions	Affordability of housing
4	Access to public transport	Water consumption	Share of certified companies
5	Access to vehicle sharing solutions for city travel	Water losses	Share of Green Public Procurement
6	Length of bike route network	Population density	Gross Domestic Product
7	Access to public amenities	Brownfield use	Creative industry
8	Access to commercial amenities	Nitrogen dioxide emissions (NO <sub>2</sub> )	Innovation hubs in the city
9	Access to high speed internet	Fine particulate matter emissions (PM 2,5)	Research intensity
10	Access to public free WiFi	Air quality index	Congestion
11	Ground floor usage	Noise pollution	Public transport use
12	Public outdoor recreation space	Waste Recycling rate	Net migration
13	Green space	Municipal solid waste	Tourism intensity

It is not the purpose of the Global KPIs of the present document to compare areas - but to track trends within an area, showing improvement or worsening of sustainability performance in relation to "people", "planet" and "prosperity".

With reference to Table 1, the present document considers:

- the three columns to contain KPIs that are separate (i.e. People, Planet and Prosperity cannot be combined to produce a single Global KPI);