ITUEGTI/EGH2023

Joint EGTI/EGH Session on the IDI Segment 1

- Process
- Overview of Version 3
- Conceptual framework

18 September | 11:00-11:20 (CET)

A brief history of the IDI

2009–2017

The IDI was introduced in 2009 and published until 2017

In 2017

An EGTI/EGH meeting adopted a revised set of indicators for the IDI.

The new index could not be computed due to challenges in data availability and quality, and methodology issues

2018 – 2020

Efforts to publish a new version of the IDI or an entirely new index were unsuccessful.

2021 – 2022

In 2021, ITU Council deferred any IDI-related decision to the Plenipotentiary Conference 2022, where Resolution 131 was revised and provided fresh guidance for the IDI

2023

Development of new IDI methodology

Release of IDI 2023?

Main implications of ITU Resolution 131 for the development and publication of the IDI

- ITU must publish a new IDI “urgently” (instructs to BDT Director 1)
- ITU should establish a valid structure and methodology for the IDI, working through EGTI/EGH, and through formal consultations (resolves 3)
- The BDT Director should facilitate the work of EGTI/EGH (instructs to BDT Director 8)
- A meeting of EGTI/EGH will be convened following a formal consultation of Member States with a view to resolving any contentious issues and seeking consensus (instructs to BDT Director 9)
- Methodology will be submitted to Member States for approval and adopted if 70 percent of respondents approve it (resolves 3)
- The new IDI is to be published without ranking (resolves 3)
- Integrity of all ITU's statistical work must be preserved, in strict adherence to UN principles on good statistics (instructs to BDT Director 12)
- If adopted:
  - Validity period: 4 editions (resolves 4)
  - In each edition, Member States can opt out, in which case they can re-join in subsequent editions (resolves 5)

Process overview

Completed in 2023

- February-March: 'Zero draft' prepared by Secretariat to facilitate process
- March-April: compilation of comments received, responses, and update of methodology → Version 1
- April-May: Version 1 sent to Member States for comments
- May-June: compilation of comments received, responses, and update of methodology → Version 2
- June: Special EGTI/EGH meeting convened to resolve contentious issue → Version 3
- July: Statistical audit of Version 3 by Joint Research Centre

Next steps

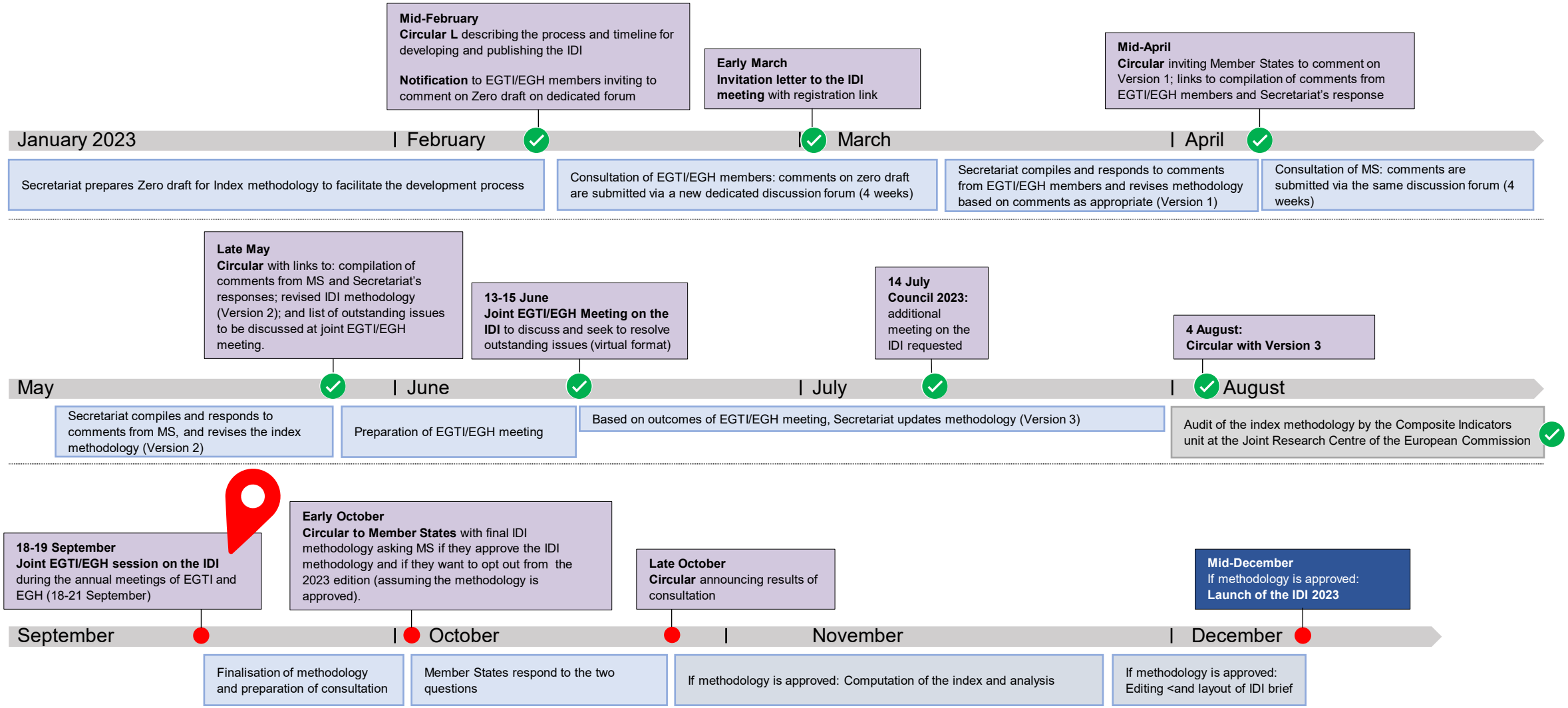
18-19 Sep: Additional meeting on the IDI, as per Council's decision

- Finalisation of the methodology
- Formal consultation of Member States who will be asked 2 questions:
  - 1) Do you approve the methodology?
  - 2) Do you want to opt out from the IDI?
- If > 70% of respondents approve methodology:
  - Methodology is approved
  - Data used in IDI sent to Member States for information
  - Index is released

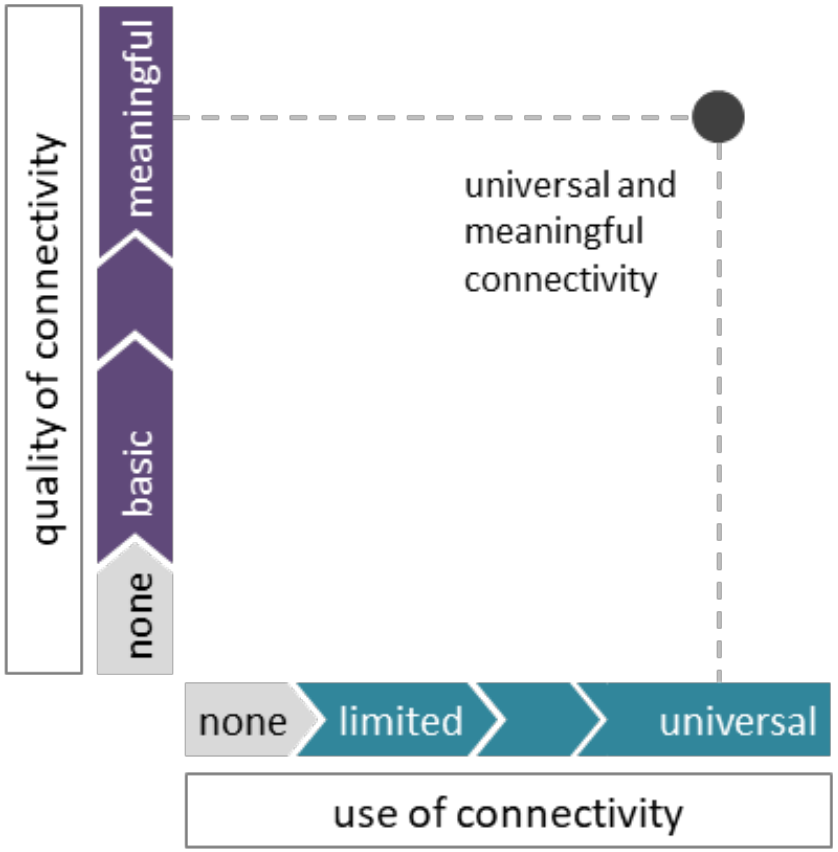
Development and launch of the ICT Development Index (IDI) 2023

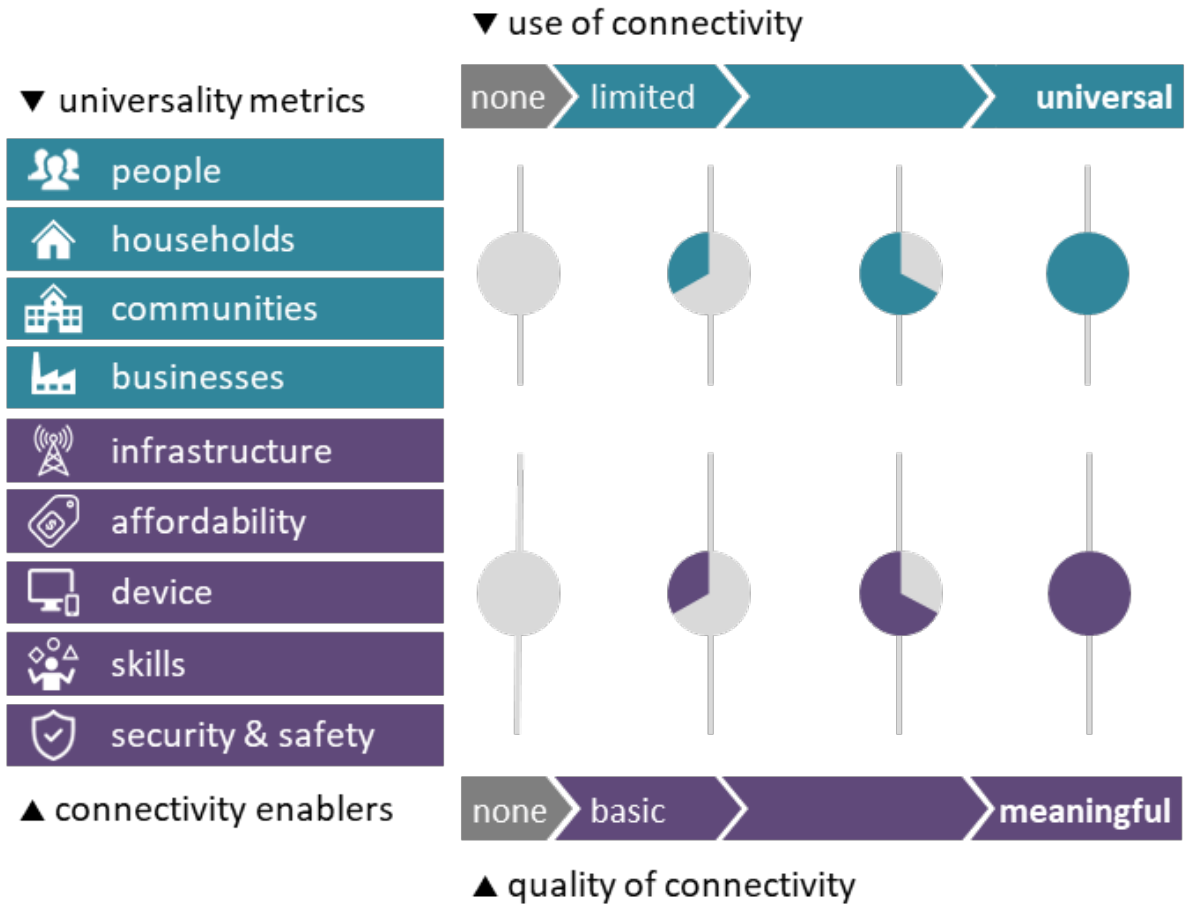
Tentative timeline

✓ Completed steps



Conceptual framework: Universal and Meaningful Connectivity





Index methodology in a nutshell: the framework

ITU ICT Development Index

Universal connectivity pillar

- Proportion of individuals who used the Internet (from any location) in the last 3 months
- Proportion of households with Internet access at home
- Active mobile-broadband subscriptions per 100 inhabitants

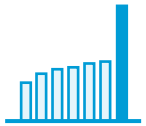
Meaningful connectivity pillar

- Mobile network coverage
  - Percentage of the population covered by at least a 3G mobile network
  - Percentage of the population covered by at least an LTE / WiMAX mobile network
- Mobile broadband Internet traffic per mobile broadband subscriptions (GB)
- Fixed broadband Internet traffic per fixed broadband subscriptions (GB)
- Mobile data and voice high-consumption basket price (% of GNI per capita)
- Fixed-broadband Internet basket price (as % of GNI per capita)
- Percentage of individuals who own a mobile phone

Statistical steps applied

Goal posts

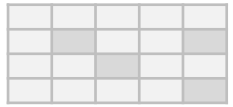
Thresholds & goal posts will be established at 100%, 95% or the 95th percentile, as reasonable.



Outlier treatment

Outliers make unrealistic targets, bias correlation analyses, affect normalization.

Apply necessary transformation (log-transform traffic)



Missing data

Missing values estimated using the most fitting model, where possible.
Estimates depend on quality of other available indicators.

Estimates sent to countries for information.

Normalization

Indicators measured at different scale should be rescaled to 0-100.

Where reasonable, the min-max approach is used (thresholds and goalposts, and outliers treated)

Indicative goal posts, thresholds and outlier treatment

Indicator	Indicative threshold	Indicative goalpost	Additional outlier treatment
Proportion of individuals who used the Internet	0%	95%	Not needed
Proportion of households with Internet access at home	0%	95%	Not needed
Active mobile-broadband subscriptions per 100 inhabitants	0%	95th percentile	Not needed
% of the population covered by at least a 3G mobile network	0%	100%	Not needed if the two coverage indicators are combined
% of the population covered by at least an LTE/WiMAX mobile network.	0%	100%	
Mobile broadband Internet traffic per mobile broadband subscriptions (GB)	Min. value	95th percentile, projected	apply log transformation
Fixed broadband Internet traffic per fixed broadband subscriptions (GB)	Min. value	95th percentile, projected	apply log transformation
Mobile data and voice high-consumption basket price (as % of GNI per capita)*	95th percentile	1%	Not needed
Fixed-broadband Internet basket price (as % of GNI per capita)*	95th percentile	1%	Not needed
Percentage of individuals owning a mobile phone	0%	95%	Not needed

* The direction of the affordability indicators is reversed, hence score of 100 will be assigned to values *below* the goal post.
Scores of 0 will be assigned to values *above* the threshold.
As per Table 7 of Version 3 Document

Statistical steps applied

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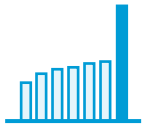

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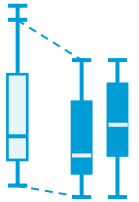

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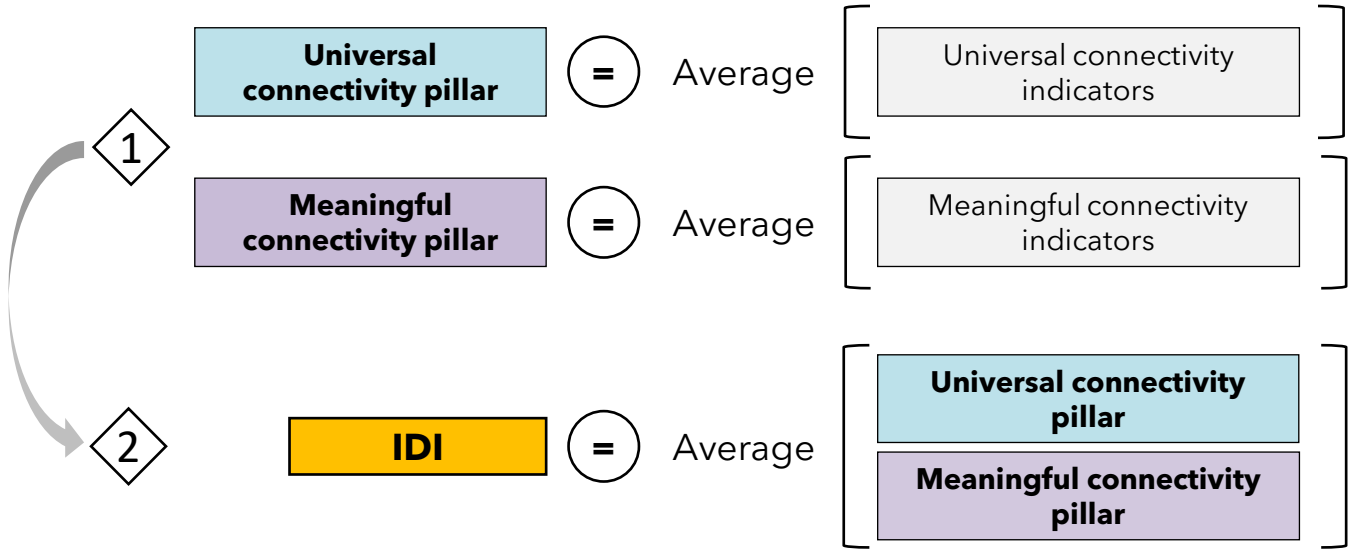
Weighting and aggregation

- Apply a 2-step approach
- In the absence of clear conceptual and statistical justifications, the neutral approach applying equal weights at each level of aggregation is preferred.
- Weighting scheme mirrors the two dimensions of the UMC concept.
- This allows the analysis of pillar scores



When can we compute the IDI score for a country?

If data is available for at least 50% of the 10 indicators for a reference year

- Reference year = the year with the majority of data points; considering validated data from the previous years' WTI & HH Long Questionnaires.
- To maximize data availability and reduce the number of estimates, data submitted by countries from the year preceding the reference year is also included in the assessment)

- Same approach will be used for assessing availability for the index in subsequent years:
  - Reference year for IDI 2023 will be 2021 (with some data from 2020)
  - Reference year for IDI 2024 will be 2022 (with some data from 2021), etc.

Assess data availability for the IDI 2023:

- Reference year = 2021,
- Main source: SQ+LQ 2022,

+ Also consider submitted data for 2020

165 **Economies potentially covered in IDI 2023**
have non-estimated data available for at least 50% of the 10 indicators for 2020-2021.

10 steps to developing a composite indicator

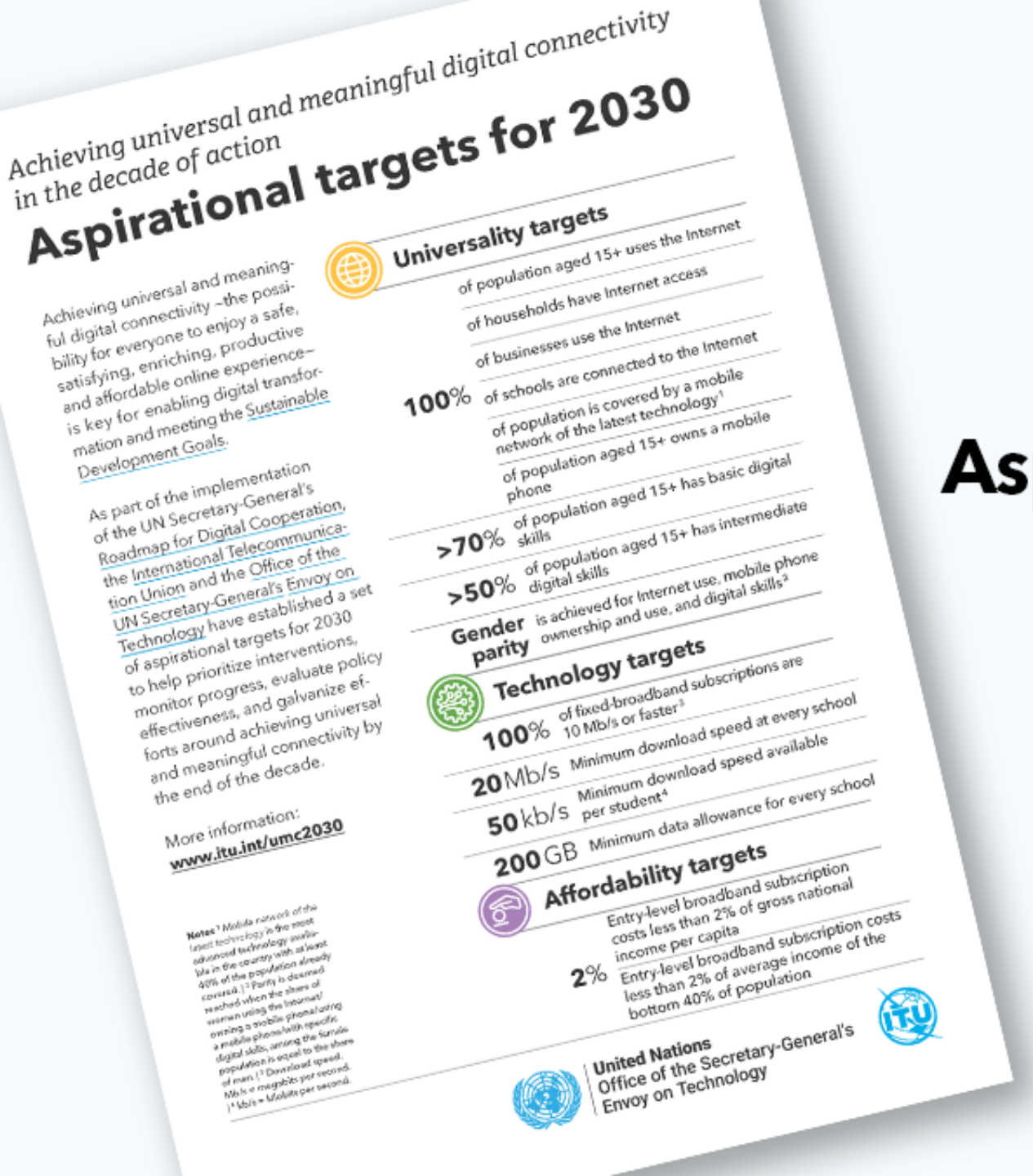
	Step
1	Develop the conceptual framework based on the stated objective
2	Identify potential indicators that capture those concepts
3	For each considered indicator, assess coverage, methodological soundness, quality of data
Based on this assessment, revisit the framework, concepts, and/or indicators (steps 1-3) if needed	
4	Identify and treat any outliers and missing data
5	Define the suitable normalization, weighting, and aggregation methods
6	Calculate the index
7	Assess the statistical and conceptual coherence of the index
8	Conduct sensitivity analyses and assess the impact of uncertainties on resulting scores
Based on the results of the sensitivity analysis, revisit steps 1-8 if needed	
9	Make sense of the data and validate the results
10	Communicate the results and underlying information

Source: adapted from the Handbook on Constructing composite Indicators, OECD/JRC

Universal and Meaningful Connectivity (UMC)

Concept formalised in 2021, in the context of the implementation of the UN Secretary-General's Roadmap for Digital Cooperation.

> The possibility for everyone to enjoy a safe, satisfying, enriching, productive, online experience at an affordable cost.



Aspirational targets for 2030

Achieving universal and meaningful digital connectivity in the decade of action

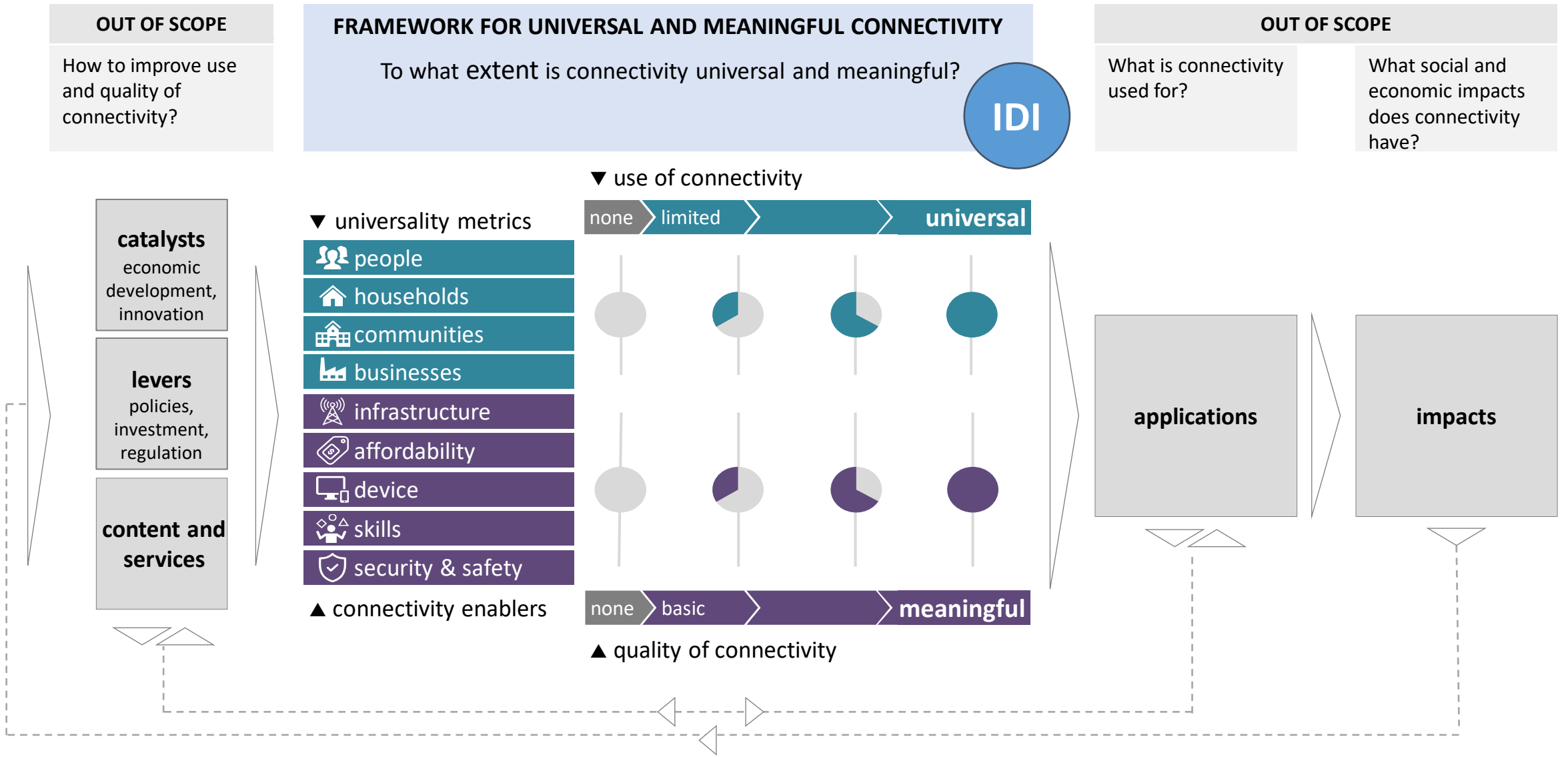
www.itu.int/umc2030

United Nations
Office of the Secretary-General's
Envoy on Technology

Universal and Meaningful Connectivity (UMC)

- In 2022, ITU and the Office of the UN Secretary-General's Envoy on Technology developed a baseline and aspirational targets for UMC.
- UMC featured prominently at WTDC 2022 and PP 2022:
  - Mentioned in Resolution 2 (Study Groups), Resolution 87 (schools connectivity), Resolution 88 (Partner2Connect), Regional initiatives...
  - captured in the first Strategic Goal of the Strategic Plan 2024-2027.
- €3 million project for promoting and measuring UMC funded by the European

UMC framework



The objective of the IDI

> “to assess the extent to which a country’s connectivity is universal and meaningful”

Thank You!