UNESCO

Readiness Assessment Methodology

A Tool of the Recommendation
on the Ethics of Artificial Intelligence

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Table of Contents

Foreword

We have officially entered the Age of Artificial Intelligence. The world is now set to change at a pace not seen in decades, even centuries. AI-based tools and applications make our lives easier, smoother, and richer. They help us move efficiently, get informed, get credit, get a job, and get our taxes done.

But in its current form, AI reproduces and amplifies many of the social challenges we face.

We need to decide what lies beyond. This is not a technological discussion. It is a societal one, about the world we want to live in. To shape the technological development of AI, we need effective governance frameworks underpinned by the ethical and moral values we all hold dear.

That is why UNESCO developed the *Recommendation on the Ethics of Artificial Intelligence*, which 193 countries have adopted to make sure AI delivers fair, sustainable, and inclusive outcomes. The Recommendation sets out the values and principles based on protecting human rights and dignity and translates them into specific policy areas and recommendations for governments, premised on the belief that self-regulation, which has until now remained the norm, is insufficient. We need capable governments that protect the rule of law online. We need public and private developers that are accountable for putting people — not profits or geopolitical considerations — first.

UNESCO's policy approach recognizes that countries are at different stages of AI development, so we are delivering targeted policy support for different countries. Despite strong regulatory action in some regions, the institutional shape and capacities of governments diverge significantly.

This is why Member States asked UNESCO to develop a Readiness Assessment Methodology to *assist them in "identifying their status at specific moments of their readiness trajectory along a continuum of dimensions"*. The Readiness Assessment Methodology (RAM), and the complementary *Ethical Impact Assessment* tool, were officially launched on 13 December 2022, during the inaugural Global Forum on the Ethics of AI in Prague, under the Czech Presidency of the European Union. We are now working with several countries in Latin America, Africa, Asia, and Europe to implement this methodology.

The RAM encompasses five dimensions: Legal and Regulatory, Social and Cultural, Economic, Scientific and Educational, and Technological and Infrastructural. Each dimension is broken down into sub-categories containing qualitative and quantitative indicators and sub-indicators for a cohesive assessment. In addition to providing rich information about the status of individual countries, the RAM will also provide comparative information for countries to learn from each other.

UNESCO's Secretariat designed this tool with the strong support of a regionally balanced and transdisciplinary High-Level Expert Group, ensuring it was informed by a range of diverse perspectives.

Conducting the Readiness Assessment will lead to a country report and a specific roadmap built in partnership with the concerned countries and UNESCO's experts to suggest the best paths forward and guide the country, particularly the government, in building their capacities. This includes strengthening human capital and national institutions and implementing and upgrading policies and regulatory frameworks to address AI challenges.

When the Recommendation was adopted in November 2021, we collectively dreamed up a vision — one where AI is utilized, developed, and applied ethically, for the benefit of humanity and our planet. In this, regulation and governance play an essential role. By leveraging tools such as the RAM, UNESCO hopes to work closely with Member States, supporting them in strengthening capacities for instituting robust AI regulation. Through the RAM, I believe we can move one step closer to fulfilling this ethical vision for us all.

Gabriela Ramos
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I. Background

In November 2021, the 193 Member States of UNESCO signed the Recommendation on the Ethics of Artificial Intelligence, the first global normative instrument in its domain. The Recommendation serves as a comprehensive and actionable framework for the ethical development and use of AI, encompassing the full spectrum of human rights. It does so by maintaining focus on all stages of the AI system lifecycle. Beyond elaborating the values and principles that should guide the ethical design, development and use of AI, the Recommendation lays out the actions required from Member States to ensure the upholding of such values and principles, through advocating for effective regulation and providing recommendations in various essential policy areas, such as gender, the environment, and communication and information.

With these values, principles, and policy areas in mind, the UNESCO Secretariat elaborated a programme for the implementation of the Recommendation, with the core aim of building national capacities to discharge the actions set out in the Recommendation and bolster regulatory frameworks.

The Recommendation mandated the development of two key tools, the Readiness Assessment Methodology (RAM) and the Ethical Impact Assessment (EIA), which form the core pillars of the implementation. These tools both aim to assess and promote the resilience of existing laws, policies and institutions to AI implementation in the country, as well as the alignment of AI systems with the values and principles set out in the Recommendation.

The goal of this document is to provide more information on the Readiness Assessment Methodology, lay out its various dimensions, and detail the work plan for the implementing countries, including the type of entities that need to be involved, responsibilities of each entity, and the split of work between UNESCO and the implementing country.

Instrument: The Recommendation, in paragraph 49, states: "UNESCO recognizes that Member States will be at different stages of readiness to implement this Recommendation, in terms of scientific, technological, economic, educational, legal, regulatory, infrastructural, societal, cultural and other dimensions. It is noted that 'readiness' here is a dynamic status. In order to facilitate the effective implementation of this Recommendation, UNESCO will therefore: (1) develop a readiness assessment methodology to assist interested Member States in identifying their status at specific moments of their readiness trajectory along a continuum of dimensions;".

As such, the RAM is a macro level instrument that will help countries understand where they stand on the scale of preparedness to implement AI ethically and responsibly for all their citizens, in so doing highlighting what institutional and regulatory changes are needed. The outputs of the RAM will help UNESCO tailor the capacity building efforts to the needs of specific countries. Capacity here refers to the ability to assess AI systems in line with the Recommendation, the presence of requisite and appropriate human capital, and infrastructure, policies, and regulations to address the challenges brought about by AI technologies and ensure that people and their interests are always at the center of AI development.

The Readiness Assessment Methodology was developed by the UNESCO Secretariat with the guidance of the High-Level Expert Group (HLEG) on the Implementation of the UNESCO Recommendation on the Ethics of AI. The HLEG is composed of more than 20 renowned experts, acting in their individual capacity. The Secretariat conducted initial desk research in order to unpack the different dimensions listed in the Recommendation into more concrete indicators.

The Readiness Methodology is composed of five dimensions: **Legal / Regulatory**, **Social / Cultural**, **Economic**, **Scientific / Educational**, and **Technological / Infrastructural**. To develop the RAM, the Secretariat produced a zero-draft methodology along those dimensions, with each dimension containing various indicators. The expert group was divided into five sub-groups, with each discussing an assigned dimension in detail. The draft was then further refined following feedback from the experts.

Within each dimension of the RAM, questions are grouped under different categories. These categories are then unpacked further into specific indicators and sub-indicators. These indicators include both qualitative and quantitative indices, setting the RAM apart from other existing readiness assessment tools. Some quantitative indices are already being measured by and for other databases, resources or indexes, but the goal of the UNESCO RAM is to combine them with other resources in order to deduce related conclusions. Countries will always be able to update the information on existing indices as needed, or report if they are collecting the needed information in another way.

The final output of the assessment will entail a country report that provides a comprehensive overview of the status of the readiness in the country, summarizing where the country stands on each dimension, detailing ongoing initiatives, and summing up the state of the art. This report will help identify what institutional changes are required to elaborate or bolster a National AI Strategy, allowing UNESCO to tailor capacity-building efforts to the specific needs of different countries to ensure the ethical design, development and use of AI.

One of the goals of the RAM is also to provide Member States with incentives to boost their AI policy in the form of evidence, prompting them to invest in concrete areas which require further development and encouraging them to collect data when it is lacking, and in this regard, cross country comparison for specific topics and for the purpose of mutual learning, might be envisaged.

The findings of the RAM will also be shared on UNESCO's Global Observatory, which will enable the sharing of best practices and dialogue between countries. Amid this, it is important highlight that the aim of this exercise is not to rank countries against each other, but rather to enable positive exchanges, encourage dialogue on best practices and data to be collected.

The implementation of the RAM will be adapted to the unique circumstances and characteristics of the country, as well as in accordance to the budget available for the project. In each beneficiary country, the readiness assessment will be conducted by an independent consultant/ research organization, supported by a National Stakeholder Team comprising a variety of stakeholders, such as personnel from the UNESCO Secretariat and UNESCO National Commission, as well as representatives from the country's government, the academic community, civil society and the private sector, among others.

For more details on the implementation process, please refer to the Annex.

II. Guidance for filling out the RAM

The goal of the RAM is to identify strengths and gaps of beneficiary countries with regards to the capacity to facilitate the ethical design, development and use of AI, and how to address these. For example, challenges could come from lack of resources, capacity, or specific political challenges, each of which may require different institutional responses. These findings will help UNESCO in developing a useful and unique roadmap for the country. The team should keep this in mind when filling out the RAM and should aim to provide responses that support these aims.

To evaluate the laws, policies or strategies of the beneficiary country, the RAM typically includes sub-questions under indicators so as to facilitate a more nuanced assessment of their effectiveness (beyond their existence or non-existence). While these provide a useful set of criteria, the team should not feel constrained by them and are encouraged to also furnish their responses with other details that have not been explicitly requested, should they feel that this would provide useful insight into specific strengths, or challenges that need addressing.

For instance, the RAM requests a particularly large amount of detailed information regarding the National AI Strategy (if it exists) – for example: whether it includes provisions for monitoring and evaluation or whether budgets have been allocated to address recommendations. The team is highly encouraged to think about whether these questions are relevant for other questions across all dimensions of the UNESCO Recommendation, even if they are not explicitly asked.

Equally, while the RAM asks what the most important challenges to developing AI regulations and policies in the country are broadly, it does not reproduce this question across the specific dimensions. The team should, however, make a conscious effort to systematically highlight the specific challenges to the development or implementation of effective policies and regulations where relevant, as this is a particularly important element in helping UNESCO develop the country roadmap.

While the team filling out the RAM should make an effort to provide answers to all questions, UNESCO acknowledges that due to the comprehensiveness of the tool, it might not always be possible to answer each and every question. Nevertheless, it would be important to provide sufficient information in order to be able to cover all of the categories under each dimension.

Finally, throughout the assessment, there are many quantitative questions which may be pre-filled by referring to (usually publicly available) data sets where the relevant data can be found. The corresponding dataset or resource that will be utilized is referenced for each respective indicator. Should a country not be covered by a particular data set, the team can consider whether alternative, local data may be used, even if not fully comparable, if this can provide relevant insights.

III. Questions

1. GENERAL QUESTIONS

This section contains general questions regarding the country's AI governance structure and the overall challenges it faces in its development.

1.1 Does your government currently have plans to implement the UNESCO Recommendation on the Ethics of AI,[1] through establishing a national AI Ethics Commission or through other measures?

1.2 Has your government done any prioritization regarding the specific sectors that would benefit from government intervention (such as regulation, strategies or guidelines, etc) regarding AI?

1.3 Does your government inform the public when they are subjected to the use of AI systems that profile or make decisions about them in the provision of public services?

1.4 In which sectors do AI companies mainly operate? If this data is not available, please provide a proxy measure such as whichs sectors are hiring people with AI skills.

1.5 Which ministry/ies are responsible for AI governance? Please elaborate on the composition of the teams.

1.6 Overall, what are the most important challenges to developing AI regulations and policies in the country?

2. THE LEGAL DIMENSION

2.1 Background

The legal/regulatory dimension (including the capacity to implement and enforce the regulatory frameworks), is a key dimension addressing the institutional and human capacity of Member States to implement the Recommendation and, more generally, to face the major societal transformations caused by the increased adoption of AI in all sectors of the economy. The regulatory framework should include aspects of effective protection, enforcement, redress, and monitoring of potential harms related to the deployment and use of AI systems. This includes assessing whether Member States have adopted appropriate regulatory frameworks to ensure the ethical development and deployment of AI, as well as monitoring and evaluation mechanisms for its implementation and enforcement. This dimension should help monitor the existence and effectiveness of laws and concrete provisions implementing the Recommendation. In the case of privacy, this may include, for example, ensuring current data privacy and data protection is not compromised with the deployment of AI systems, assessing regulations to ensure gender equality, or preventing abuse of dominant market positions.

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1   https://unesdoc.unesco.org/ark:/48223/pf0000381137

2.2 Indicators for the legal dimension

2.2.1 AI policy and regulation

QUALITATIVE	**2.2.1.1**	Does your country have a national AI strategy? If not, do you have any legislation or strategy which has an indirect impact on AI regulation (for example, data privacy or anti-discrimination laws, or a digital strategy)? Please elaborate and provide the name and link to any relevant document(s).
	Evaluation:	
	2.2.1.1.1	Has the efficacy of the national AI strategy been assessed? Please elaborate and provide the link to any relevant document(s).
	2.2.1.1.2	Does the national AI strategy or equivalent include an ethical component?
	2.2.1.1.3	Was the national AI strategy or equivalent created by a diverse team (including men and women, minorities, etc.)?
	2.2.1.1.4	Was the national AI strategy or equivalent created with consultation from different stakeholders (academics, business executives, civil society, etc.)?
	2.2.1.1.5	Does the national AI strategy or equivalent include references to AI impacts on human rights?
	2.2.1.1.6	Does the AI strategy or equivalent include a detailed implementation plan?
	2.2.1.1.7	Is there a dedicated body/working group leading the implementation of the AI strategy or equivalent?
	2.2.1.1.8	Does the AI strategy or equivalent include budgetary allocations for the measures it recommends?
	2.2.1.1.9	Does the AI strategy or equivalent require that AI impact assessment be conducted before deployment in certain domains?
	2.2.1.1.10	Does the AI strategy or equivalent include provisions for monitoring and evaluation?
	2.2.1.2	Has your country enacted any binding AI regulation or soft law (for example procurement guidelines)? If your country has not enacted any AI regulation, is it in the process of enacting such regulation? Please elaborate and provide the name and link to any relevant document(s), or state the reasons why such regulation has not yet been enacted.[2]
	Evaluation:	
	2.2.1.2.1	Has the efficacy of this binding AI regulation been assessed? Please elaborate and provide the link to any relevant document(s).

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2   Several policies and regulations may be found on the OECD AI Observatory, a live repository of over 800 AI policy initiatives from 69 countries, territories and the EU (https://oecd.ai/en/dashboards/overview). The OECD AI Observatory will generally be useful to answer policy-related questions. The GovTech Dataset from the WorldBank (199 countries) may also be useful: https://datacatalog.worldbank.org/search/dataset/0037889/GovTech-Dataset (see indicators I-17.1 to I-17.7.1).

2.2.2 Data protection and privacy laws

QUANTITATIVE	2.2.2.1	Score of the country on the Cybersecurity Index[3]

QUALITATIVE	2.2.2.2	Does your country have a data protection law?[4] If not, is your country in the process of enacting such regulation? Please elaborate and provide the name and link to any relevant document(s).

Evaluation:

	2.2.2.2.1	Has the efficacy of the data protection law been assessed? Please elaborate and provide the link to any relevant document(s).
	2.2.2.2.2	Does the data protection law give users control over their data and allow them to delete it?
	2.2.2.2.3	Does the data protection law mention a notice and consent framework?
	2.2.2.2.4	Does the data protection law include transparency requirements on data usage?
	2.2.2.2.5	Does the data protection law include requirements on data minimization?
	2.2.2.2.6	Does the data protection law highlight cases in which data protection or privacy impact assessment is required?
	2.2.2.2.7	Does the data protection law include specific rules for sensitive information (e.g., health data)?
	2.2.2.2.8	Does the data protection law include enforcement mechanisms and compensation schemes in case of violation?
	2.2.2.2.9	Are there different standards of data protection applied for data collected by public vs. private entities?
	2.2.2.2.10	Is privacy and/or respect for private and family life protected under the data protection law or another law? Please provide the link to any relevant document(s).
	2.2.2.2.11	Do you have a data protection entity or data protection officer in your country? If yes, what is their mandate?

2.2.3 Data sharing and accessibility

QUANTITATIVE	2.2.3.1	Score of the country on the Open Data Inventory[5]

QUALITATIVE	2.2.3.2	Did your country sign the international Open Data Charter?[6]
	2.2.3.3	Do you have a national data sharing framework?[7] If not, is your country in the process of creating one? Please elaborate and provide the name and link to any relevant document(s).

Evaluation:

	2.2.3.3.1	Has the efficacy of the national data sharing framework been assessed? Please elaborate and provide the link to any relevant document(s).
	2.2.3.3.2	How does the data sharing framework approach data sharing between the public and private sector, different geographies, etc.?

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3   https://www.comparitech.com/blog/vpn-privacy/cybersecurity-by-country/
4   https://unctad.org/page/data-protection-and-privacy-legislation-worldwide
5   https://odin.opendatawatch.com/
6   https://opendatacharter.net/government-adopters/
7   See Governance (G): Data Sharing Frameworks: https://globaldatabarometer.org/module/governance/

QUALITATIVE	2.2.3.4	Does your country have open government data policies?[8] If not, is your country in the process of adopting one? Please elaborate and provide the name and link to any relevant document(s).
	Evaluation:	
	2.2.3.4.1	Has the efficacy of open government data policies been assessed? Please elaborate and provide the link to any relevant document(s).
	2.2.3.4.2	Does the open government data policy mention making datasets available and accessible for research?
	2.2.3.4.3	Are data trusts or similar constructs (e.g. data commons or data stewards) being used in your country? If so, provide further details.

2.2.4 Procurement laws and policies

QUALITATIVE	2.2.4.1	Does your country have laws or policies regarding procurement of AI systems or products/services that include AI components?[9] If not, are such laws or policies in the process of being adopted? Please elaborate and provide the name and link to any relevant document(s).
	Evaluation:	
	2.2.4.1.1	Has the efficacy of these laws or policies been assessed? Please elaborate and provide the link to the relevant document(s).
	2.2.4.1.2	Is there a special approval process before purchasing AI systems?
	2.2.4.1.3	Is there a list of certified vendors with AI-related provisions?
	If so:	
	2.2.4.1.4	Does your certification entail only technical dimensions, or both technical and ethical dimensions?
	2.2.4.1.5	Does your certification include AI systems only, or both AI systems and agents through which AI technology comes into public systems?
	2.2.4.1.6	Is certification voluntary or mandatory?

2.2.5 Freedom of information acts/access to knowledge acts

QUALITATIVE	2.2.5.1	Is there a freedom of information act in your country?[10] If not, is such an act in the process of being adopted, if not, why not? Please elaborate and provide the name and link to any relevant document(s).
	Evaluation:	
	2.2.5.1.1	Has the efficacy of this act been assessed? Please elaborate and provide the link to the relevant document(s).
	2.2.5.1.2	Can individuals request information about the way AI systems are used in the public sector under this act?
	2.2.5.1.3	Are there obligations for parties using and/or sharing data to inform those whose data they are using and/or sharing?

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8   See Capability (C): Open data initiative: https://globaldatabarometer.org/module/governance/

9   We suggest you first consult the Global Public Procurement Database (GPPD), developed by the World Bank: https://www.globalpublicprocurementdata.org/gppd/

10   https://www.rti-rating.org/. No need to report the precise rating, only the existence (or non-existence) of a freedom of information act in the country.

2.2.6 Due process and accountability

QUALITATIVE	**2.2.6.1**	Is there a main law protecting due rights in your country? If not, is such a law or policy in the process of being adopted? Please elaborate and provide the name and link to any relevant document(s).
	Evaluation:	
	2.2.6.1.1	Has the efficacy of this law been assessed? Please elaborate and provide the link to the relevant document.
	2.2.6.1.2	Are there situations in which individuals must be informed that they are interacting with AI systems?
	2.2.6.2	Is there a law or policy highlighting monitoring, redress, and remedy mechanisms against harms caused by AI systems? If so, which mechanisms? If not, is such a law or policy in the process of being adopted? Please elaborate and provide the name and link to any relevant document(s).
	Evaluation:	
	2.2.6.2.1	Has the efficacy of this law been assessed? Please elaborate and provide the link to the relevant document.
	2.2.6.2.2	Can regulators or courts request information about AI systems and their inner workings under this law/policy?
	2.2.6.2.3	Does a liability regime for AI harms currently exist? If so, please provide further details.

2.2.7 Online safety and integrity of speech

QUALITATIVE	**2.2.7.1**	Is there a framework for notice and take down policies for violating content, such as online hate speech, misinformation and disinformation? If not, is such a framework in the process of being adopted? Please elaborate and provide the name and link to any relevant document(s).
	Evaluation:	
	2.2.7.1.1	Has there been any assessment of the efficacy of this law or policy? Please provide the link to any relevant document(s).
	2.2.7.1.2	In which cases is this framework applied?
	2.2.7.1.3	Is the responsibility of online intermediaries defined under this law?
	2.2.7.1.4	What is the responsibility of online intermediaries under this law?
	2.2.7.2	Has your country enacted any law or policy regarding the impact of AI on social media, including about transparency, misinformation, disinformation and hate speech? If not, is such a framework in the process of being adopted? Please elaborate and provide the name and link to any relevant document(s).
	Evaluation:	
	2.2.7.2.1	Has there been any assessment of the efficacy of this law or policy? Please provide the link to any relevant document(s).

2.2.8 Public sector capacity

QUALITATIVE	**2.2.8.1**	Is there a government strategy/programme to improve digital skills in the public sector?[11]
	Evaluation:	
	2.2.8.1.1	Is there a Digital Skills programme?
	2.2.8.1.2	If so, is the Digital Skills programme mandatory for new public employees?

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11 Source: World Bank GovTech Maturity Index (https://datacatalog.worldbank.org/search/dataset/0037889/GovTech-Dataset)

3.   THE SOCIAL/CULTURAL DIMENSION

3.1 Background

This dimension will consider the factors relevant for ethical development and deployment of AI systems including inclusiveness and social and cultural diversity, public awareness and values relevant to scaling up of ethical AI solutions. The idea is that if the teams developing and deploying AI systems are very homogeneous it may lead to AI systems not sufficiently reflecting the complexity and diversity that society is composed of, which means the outcomes generated by AI systems may contribute to amplification of structural bias. Second, it will address attitudes towards AI technologies, including their public acceptance. It should also help reveal societal values and preferences in Member States, which lead to certain attitudes towards technologies and directly impact related societal choices. Some of the issues it aims to address are as follows: First, it will address the issues of respect for inclusiveness and social and cultural diversity, including the level of gender representation in all stages of the AI life cycle, as well as the involvement of different communities and minorities that are impacted by the technology. This aspect aims to address the current gap and underrepresentation of women and minorities in the AI field, including lack of female developers, researchers, professors etc. This dimension will also ask crucial questions about sustainability and the environment, including on provisions to address the environmental impacts of AI systems.

3.2 Indicators for the Social/Cultural dimension

3.2.1 Diversity, inclusion and equality

QUANTITATIVE	3.2.1.1	Gender gap in internet use[12]
	3.2.1.2	Rural/urban gap in internet use (individuals)[13]
	3.2.1.3	Percentage of male/female tertiary education graduates in STEM programmes[14]
	3.2.1.4	Ratio top girls/boys in science or mathematics who expect to work as STEM professionals when they are 30[15]
	3.2.1.5	Science performance difference (boys vs. girls)[16]

QUALITATIVE	3.2.1.6	Has your country enacted any law or policy to reduce the digital gender gap[17]? If not, is such a law or policy in the process of being adopted? Please elaborate and provide the name and link to any relevant document(s).
	Evaluation:	
	3.2.1.6.1	Has there been any evaluation of the efficacy of this law or policy? Please provide the link to any relevant document(s).

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12 The digital gender gap refers to the differences in access and use of digital technologies and the internet between genders. Please visit https://www.digitalgendergaps.org/monthly and please provide the ITU Internet Gender Gap if available. Otherwise, please provide the Online Internet Gender Gap (which is based on the Facebook Gender Gap Index, see here for more details: https://www.digitalgendergaps.org/indicators#internet).

13 https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx

14 https://www3.weforum.org/docs/WEF_GGGR_2021.pdf

15 https://www.oecd.org/pisa/Combined_Executive_Summaries_PISA_2018.pdf

16 https://www.oecd.org/pisa/Combined_Executive_Summaries_PISA_2018.pdf. Science performance specifically measures the scientific literacy of a 15 year-old in the use of scientific knowledge to identify questions, acquire new knowledge, explain scientific phenomena, and draw evidence-based conclusions about science-related issues.

17 See National female e-inclusion policies, in the EIU Inclusive Internet Index: https://impact.economist.com/projects/inclusive-internet-index/2022

QUALITATIVE	3.2.1.7	Has your country enacted any law or policy to reduce the digital socioeconomic or rural/urban gap[18]? If not, is such a law or policy in the process of being adopted? Please elaborate and provide the name and link to any relevant document(s).
	Evaluation:	
	3.2.1.7.1	Has there been any evaluation of the efficacy of this law or policy? Please provide the link to any relevant document(s).
	3.2.1.8	Has your country enacted any law or policy related to enhancing diversity in the AI workforce? If not, is such a law or policy in the process of being adopted? Please elaborate and provide the name and link to any relevant document(s).
	Evaluation:	
	3.2.1.8.1	Has there been any evaluation of the efficacy of this law or policy? Please elaborate and provide the link to any relevant document(s).
	3.2.1.8.2	Are tech companies required to publish diversity statistics?
	3.2.1.8.3	Are affirmative action standards applied to improve diversity throughout the AI life cycle?
	3.2.1.8.4	Are there outreach programmes to enhance diversity in STEM?
	3.2.1.8.5	Are universities/PRO faculties required to publish diversity statistics?
	3.2.1.8.6	Are government contractors required to adhere to diversity standards?
	3.2.1.9	Is there online content and data available to train AI systems in all your country's official languages[19]?
	3.2.1.10	Is there online content and data available to train AI systems in your country's indigenous languages[20]?

3.2.2 Public engagement and trust

QUANTITATIVE	3.2.2.1	Score of the country on the Online Services Index[21]
	3.2.2.2	Score of the country on the E-Participation Index[22]
	3.2.2.3	Trust in government websites and apps[23]
	3.2.2.4	Trust in AI/trust in technology[24]

18 See Government e-inclusion strategy, in the EIU Inclusive Internet Index: https://impact.economist.com/projects/inclusive-internet-index/2022
19 See Governance (G): Language Coverage and Data: https://globaldatabarometer.org/module/governance/
20 See Governance (G): Language Coverage and Data: https://globaldatabarometer.org/module/governance/
21 https://publicadministration.un.org/egovkb/en-us/About/Overview/-E-Government-Development-Index
22 https://publicadministration.un.org/egovkb/en-us/About/Overview/-E-Government-Development-Index
23 See Trust in Government Websites and Apps: https://impact.economist.com/projects/inclusive-internet-index/2022
24 For instance, see https://www.ipsos.com/sites/default/files/ct/news/documents/2022-01/Global-opinions-and-expectations-about-AI-2022.pdf, https://www.pewresearch.org/science/2020/09/29/science-and-scientists-held-in-high-esteem-across-global-publics/ps_2020-09-29_global-science_00-06/, https://www.edelman.com/sites/g/files/aatuss191/files/2022-10/2022%20Trust%20Barometer%20Special%20Report_Trust%20in%20Technology%20Final_10-19.pdf

3.2.3 Environmental and sustainability policies

QUALITATIVE	3.2.3.1	Do you have in place any policy for addressing the impact of AI on the environment and on sustainability? If not, is such a policy in the process of being adopted? Please elaborate and provide the name and link to any relevant document(s).
	Evaluation:	
	3.2.3.1.1	Has the efficacy of this policy been assessed? Please elaborate and provide the link to any relevant document(s).
	3.2.3.1.2	Is there an explicit mention of SDGs and/or ESGs?[25]
	3.2.3.1.3	Is there a specific consideration for the impact of AI on land and water use?
	3.2.3.1.4	Is environmental impact assessment mandatory before using AI in certain cases? Does this assessment include a social component?
	3.2.3.1.5	Is there a specific consideration for the environmental impact of AI demands on energy and its associated carbon footprint?
	3.2.3.1.6	Is there a specific consideration of the environmental impacts of the use cases that AI technology is facilitating? (e.g. the effect of autonomous personal vehicles on transportation-related greenhouse gas emissions, or using AI to increase fossil fuel exploration)[26]

3.2.4 Health and social well-being

QUALITATIVE	3.2.4.1	Has your country adopted a digital health policy? Please elaborate and provide the name and/or link to the relevant document. If not, is such a policy in the process of being adopted? Please elaborate and provide the name and link to any relevant document(s).
	Evaluation:	
	3.2.4.1.1	Has the efficacy of the digital health policy (or equivalent) been assessed? Please elaborate and provide the link to any relevant document(s).
	3.2.4.1.2	Does your digital health policy (or equivalent) mention AI technologies?
	3.2.4.1.3	Does your digital health policy (or equivalent) encompass physical and mental health?
	3.2.4.1.4	Does your digital health policy (or equivalent) consider the impact of AI on children?

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25 For definitions, see http://asdun.org/?page_id=2528&ckattempt=1&lang=en

26 For more on aligning AI with climate change mitigation, see https://www.nature.com/articles/s41558-022-01377-7.epdf?sharing_token=VNkvWalL1KVrxYte7VHfTtRgN0jAjWel9jnR3ZoTv0PFrrDwT9y68ah6oNg1ZvjBfcIb3Kbp_v5VihLBWDydbfc5jhcVPwJLve592DM4ofdyb9-AdB37nZsc6NVbVb-fttOlElGgXuHDhQRUp82Rwc9buEoGydxnCgU609qUgUY%3D

3.2.5 Culture

3.2.5.1 Has your country implemented any policy regarding the use of AI for the preservation of cultural heritage? If not, is there a policy on the preservation of cultural heritage that mentions the impact of AI and digital technologies? Please elaborate and provide the name and link to any relevant document(s).

Evaluation:

3.2.5.1.1 Has the efficacy of this policy been assessed? Please elaborate and provide the link to any relevant document(s).

3.2.5.1.2 Does this policy allow community members to participate in the development or regulation of AI for the preservation of cultural heritage?

3.2.5.2 Has your country implemented any policy regarding the use of AI for the preservation of minority and indigenous languages? If not, is there a policy on the preservation of minority and indigenous languages that mentions the impact of AI and digital technologies? Please elaborate and provide the name and link to any relevant document(s).

Evaluation:

3.2.5.2.1 Has the efficacy of this policy been assessed? Please elaborate and provide the link to any relevant document(s).

3.2.5.2.1 Does this policy allow community members to participate in the development or regulation of AI for the preservation of minority and indigenous languages?

4.   THE SCIENTIFIC/EDUCATIONAL DIMENSION

4.1 Background

This dimension aims to assess the level of research and development related to AI in a country, including the number of AI-related publications and patents, and the number of AI researchers and engineers involved in R&D. It will also look into AI ethics research, e.g., reflecting the number of publications focusing on the ethics of AI. The educational dimension could include the availability of education opportunities for students such as AI-related degree programmes, life-long education programmes for AI developers and education opportunities for the general public. This aspect will examine, for example, whether there are dedicated programmes that familiarize the general public and provide them with technology-related skills that could be useful for keeping up to date with new job requirements. Apart from the education opportunities the dimension will examine the numbers of students (graduates), professionals and the general public in AI- or ICT-related disciplines. It could also include the number of graduates in STEM, as an important precondition for AI development and deployment. Potentially, the dimension could address the level of AI and e-skills in the population. Finally, the dimension will include the availability of AI ethics education for students of both AI-related and non-AI-related degrees as well as AI ethics courses for professionals including managers, developers or product designers.

4.2 Indicators for the scientific/educational dimension

4.2.1 Research and innovation

4.2.1.1   R&D expenditure

QUANTITATIVE	Evaluation:	
	4.2.1.1.1	Gross expenditure on Research and Development (GERD) as a share of Gross Domestic Product (GDP)[27] in USD
	4.2.1.1.2	Gross expenditure on Research and Development (GERD) on natural sciences and engineering as a share of Gross Domestic Product (GDP)[28] in USD
	4.2.1.1.3	Government Budget Allocations for R&D (GBARD)[29] in USD
	4.2.1.1.4	Does your government have an estimate of government funding for Research and Development in AI (USD)? If so, please specify how much and how it is broken down.

4.2.1.2   Research output

QUANTITATIVE	Evaluation:	
	4.2.1.2.1	Number of AI and AI-related publications per capita[30]
	4.2.1.2.2	Number of citations for AI and AI-related publications per capita
	4.2.1.2.3	Number of FAccT publications per capita[31]

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27   GERD is total intramural expenditure on R&D performed in the national territory (source: OECD Frascati Manual, https://www.oecd.org/sti/inno/Frascati-2015-Glossary.pdf)

28   If the data is not directly available as a share of GDP, the GERD figure can be divided by GDP (both available through the OECD website)

29   GBARD encompass all spending allocations met from sources of government revenue foreseen within the budget, such as taxation (full definition and source: OECD Frascati Manual, https://www.oecd.org/sti/inno/Frascati-2015-Glossary.pdf)

30   https://oecd.ai/en/data?selectedArea=ai-research

31   The Association for Computing Machinery Fairness, Accountability, and Transparency (ACM FAccT) is the computer science conference with a cross-disciplinary focus that brings together researchers and practitioners interested in fairness, accountability, and transparency in socio-technical systems. The publications presented at the conference are published as conference proceedings. See https://facctconference.org/

4.2.1.3 Ethical AI research

QUANTITATIVE	Evaluation:
4.2.1.3.1	Number of publications on AI ethics per capita
4.2.1.3.2	Number of AI ethics conferences organized in the country per year per capita
4.2.1.3.3	Number of research centres and/or departments dedicated to AI ethics per capita
4.2.1.3.4	Number of AI research centres and/or departments that also cover AI ethics per capita

4.2.1.4 AI talent

QUANTITATIVE	Evaluation:
4.2.1.4.1	Number of AI researchers (computer scientists, data scientists, roboticists, AI ethics researchers) in universities/PRO per capita
4.2.1.4.2	Number of Kaggle grandmasters per capita[32]

4.2.1.5 Innovation output

QUANTITATIVE	Evaluation:
4.2.1.5.1	Number of AI patents granted per capita[33]
4.2.1.5.2	Number of commits to AI repositories on GitHub per capita[34]

4.2.2 Education

4.2.2.1 Education strategy

QUALITATIVE	4.2.2.1.1	Does your country have any laws or policies to integrate AI or other digital tools into the education system? If not, is such a law or policy in the process of being adopted? Please elaborate and provide the name and link to any relevant document(s).
	Evaluation:	
	4.2.2.1.1.1	Has there been any evaluation of the efficacy of this law or policy? Please elaborate and provide the link to any relevant document(s).
	4.2.2.1.2	Does your country have any laws or policies on how educators/professors should be trained to teach about AI/technology ethics? If not, is such a law or policy in the process of being adopted? Please elaborate and provide the name and link to any relevant document(s).
	Evaluation:	
	4.2.2.1.2.1	Has there been any evaluation of the efficacy of this law or policy? Please elaborate and provide the link to any relevant document(s).

32 https://www.kaggle.com/code/sahidvelji/meet-the-grandmasters
33 https://oecd.ai/en/data?selectedArea=ai-research&selectedVisualization=ai-publication-time-series-by-country
34 https://oecd.ai/en/data?selectedArea=ai-software-development

4.2.2.2 Education infrastructure

QUANTITATIVE	4.2.2.2.1	Proportions of primary, lower secondary and secondary schools with access to internet for pedagogical purposes[35]
	4.2.2.2.2	Proportions of primary, lower secondary and secondary schools with access to computers for pedagogical purposes[36]

4.2.2.3 Curriculum content

QUANTITATIVE	4.2.2.3.1	Number of tertiary education programmes dedicated to AI, machine learning or data science per capita
	4.2.2.3.2	Number of tertiary education programmes dedicated to digital anthropology, philosophy of technology, ethics of AI or related/similar disciplines per capita

QUALITATIVE	4.2.2.3.3	Are there any educational programmes in your country that include both technical and ethical aspects of AI (technical aspects might include coding, machine learning, statistics, data science etc.; ethical aspects might include information ethics, philosophy of science and technology, privacy concerns, social implication of technology, etc.)?
	Evaluation:	
	4.2.2.3.3.1	In primary education? Here you may include courses to familiarize students with programming or digital resilience (e.g., online safety, screen time, digital literacy).
	4.2.2.3.3.2	In secondary education?
	4.2.2.3.3.3	In tertiary education programs?

4.2.2.4 Educational attainment

QUANTITATIVE	4.2.2.4.1	Percentage of STEM graduates in tertiary education[37]
	4.2.2.4.2	Percentage of ICT graduates in tertiary education[38]
	4.2.2.4.3	Number of graduates in data science, machine learning or robotics courses per capita
	4.2.2.4.4	Number of AI-related PhDs per capita
	4.2.2.4.5	Number of AI-related post-doctoral students per capita
	4.2.2.4.6	Coursera Global Skills Report data science ranking[39]

4.2.2.5 Public access to AI education

QUALITATIVE	4.2.2.5.1	Are there technical AI courses aimed at the general population?
	Evaluation:	
	4.2.2.5.1.1	If yes, are they free and available in multiple languages?
	4.2.2.5.2	Are there courses or modules on AI ethics aimed at the general population?
	Evaluation:	
	4.2.2.5.2.1	If yes, are they free and available in multiple languages?

35 http://sdg4-data.uis.unesco.org (specifically, in the "long format" section, under 4.a and 4.a.1)

36 http://sdg4-data.uis.unesco.org (specifically, in the "long format" section, under 4.a and 4.a.1)

37 STEM stands for Science, Technology, Engineering, and Mathematics. For your country's data, please visit http://data.uis.unesco.org/

38 ICT stands for Information and Communication Technology(ies). For your country's data, please visit http://data.uis.unesco.org/

39 https://www.coursera.org/skills-reports/global/

5. THE ECONOMIC DIMENSION

5.1 Background

This dimension aims to address the size and strength of the supply side of the AI ecosystem in the country which is important for the ability to develop AI solutions reflecting the particular needs and conditions of the given country and its population. It will look at the size of the technology sector, including the number of companies which develop or deploy AI systems and their employees. It will also address the amount of public and private investment in the field of AI. It will help track the growth of the AI sector. Enhancing capacity in this regard would be related to the ability to support development of the AI ecosystem in the country, including the attractiveness for investment in AI technology as well as in human talent.

5.2 Indicators for the economic dimension

5.2.0 General questions

QUANTITATIVE	5.2.0.1	What is the estimated contribution of AI to the economy (as a share of GDP and/or in USD)?
	5.2.0.2	What is the number of AI companies per capita, or percentage of AI companies relative to the total number of companies, in your country?
	5.2.0.3	What is the number of AI startups, or the percentage of AI startups relative to the total number of companies, in your country?
	5.2.0.4	What is the level of usage of AI in the private sector and public sector?
	5.2.0.5	What is the amount of research and development spending on AI in both public and private sectors?
	5.2.0.6	How much does your government spend on incentivizing AI (including grants, loans and tax incentives)? (specify timeframe)
	5.2.0.7	What is the amount of private investment in AI in your country?

5.2.1 Labour markets

QUANTITATIVE	5.2.1.1	Share of job vacancies posted requiring AI-related skills (online job vacancies ideally)[40]
	5.2.1.2	Share of current employees working as data scientists
	5.2.1.3	Relative AI skill penetration[41]
	5.2.1.4	Relative AI Skill Penetration (per capita metric). Please input this as a fraction, not a percentage.
	5.2.1.5	AI talent concentration[42]
	5.2.1.6	AI Talent Concentration (per capita metric)

QUALITATIVE	5.2.1.7	Does your country have a strategy to respond to AI impact on the labour market? This includes issues such as re-skilling of workers affected by automation, upskilling of workers to take advantage of opportunities presented by AI, and considering the soft skills advantages and complementarity of human skills relative to AI systems. If not, is such a strategy in the process of being adopted? Please elaborate and provide the name and link to any relevant document(s).
	Evaluation:	
	5.2.1.7.1	Has the efficacy of this strategy been assessed? Please provide the link to any relevant document(s).

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40 https://aiindex.stanford.edu/report/#individual-chapters
41 Defined as the prevalence of AI-related skills across occupations in the country, see: https://aiindex.stanford.edu/vibrancy/
42 Defined as the number of individuals with AI-related skills/in AI-related occupations on LinkedIn in the country, vis-a-vis the total number LinkedIn members in the country: https://aiindex.stanford.edu/vibrancy/

5.2.2 Intermediate consumption

QUANTITATIVE	5.2.2.1	How much do companies spend on AI services (including software as a service) as a share of intermediate consumption (intermediate consumption of SIC 62[43])?
	Evaluation:	
	5.2.2.1.1	Do these AI services tend to be domestically produced or imported?

5.2.3 Investments and output

QUANTITATIVE	5.2.3.1	Business Enterprise expenditure on R&D in the Computer programming, consultancy and related activity sector per capita[44] (USD)
	5.2.3.2	GDP for SIC code 62.0 (Computer programming, consultancy and related activities) per capita (USD)
	5.2.3.3	High-tech exports as a share of trade[45] (%)

6. THE TECHNICAL AND INFRASTRUCTURAL DIMENSION

6.1 Background

The technical and infrastructural dimension reflects the idea that without the relevant infrastructure, AI development and the implementation of AI-based solutions cannot be scaled up throughout the country. Therefore, this dimension aims to assess the level of ICT and related technical infrastructure in place. Among other things, the dimension will assess internet connectivity and access, availability of data centres, cloud computing capabilities, and supercomputers. Given the critical importance of data for AI technologies, another aspect within this dimension relates to the availability of high-quality data and practices for ensuring data is representative. It should be noted that many indicators under this dimension are already measured by different indices, in the Readiness Methodology we will pre-fill the answers and give countries the opportunity to update them if needed.

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43 Intermediate consumption consists of goods and services transformed or used up by the production process. Standard Industrial Classification (SIC) 62 refers to Security and Commodity Brokers, Dealers, Exchanges, and Services.

44 Total intramural R&D expenditure performed by the Business Enterprise sector (source: Frascati manual)

45 https://www.globalinnovationindex.org/gii-2022-report

6.2 Indicators for the technical dimension

6.2.0 Infrastructure and connectivity

QUANTITATIVE	6.2.0.1	Share of the population with a mobile telephone subscription[46] (%)
	6.2.0.2	Share of the population with a fixed broadband telephone subscription[47] (%)
	6.2.0.3	Share of the population with active mobile broadband subscription[48] (%)
	6.2.0.4	Average international bandwidth[49] (Mbit/s)
	6.2.0.5	Average fixed broadband download speed[50] (Mbps)
	6.2.0.6	Share of the population using the internet[51] (%)
	6.2.0.7	Share of population covered by at least a 3G mobile network[52] (%)
	6.2.0.8	Share of population with access to electricity[53] (%)
	6.2.0.9	Gender gap in internet access[54] (% difference)
	6.2.0.10	Gender gap in mobile access[55] (% difference)
	6.2.0.11	Rural/urban gap in internet access (households)[56] (% difference)

6.2.1 Applied standards

QUALITATIVE	6.2.1.1	Is your country involved in standardization (both technical and ethical) of AI and digital technologies? (ISO/IEC, IEEE7000)[57]?
	6.2.1.1.1	If not, have you applied to be part of this process?

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46 https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx
47 https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx
48 https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx
49 International bandwidth refers to the total used capacity of international bandwidth; in megabits per second (Mbit/s). It is measured as the sum of used capacity of all Internet exchanges (locations where Internet traffic is exchanged) offering international bandwidth. If capacity is asymmetric (i.e. more incoming (downlink) than outgoing (uplink) capacity); then the incoming (downlink) capacity should be provided. See: https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx
50 https://www.speedtest.net/global-index
51 https://www.itu.int/en/ITU-D/Statistics/Pages/SDGs-ITU-ICT-indicators.aspx
52 https://www.itu.int/en/ITU-D/Statistics/Pages/SDGs-ITU-ICT-indicators.aspx
53 https://data.worldbank.org/indicator/EG.ELC.ACCS.ZS
54 https://impact.economist.com/projects/inclusive-internet-index/2022
55 https://impact.economist.com/projects/inclusive-internet-index/2022
56 https://stats.oecd.org/Index.aspx?DataSetCode=ICT_HH2
57 The International Organization for Standardization (ISO) and the International Electronic Commission (IEC) Joint Technical Committee (JTC 1) for information technology, is a consensus-based, voluntary international standards group. Over 2000 experts from 163 countries develop mutually beneficial guidelines that enhance global trade while protecting intellectual property. Here is a list of relevant subcommittees and working groups handling both technical and ethical standardization in AI: Subcommittee (SC) 40 on Governance and Service Management, SC 41 on Internet of Things and Digital Twin, SC 42 on Artificial Intelligence, Big Data Programme, SC 42 on Artificial Intelligence, Subgroup (SG) 2 Trustworthiness Study Group.
The Institute of Electrical and Electronics Engineers (IEEE) is the world's largest technical professional organization dedicated to advancing technology for humanity. Several Standards Working Groups are currently active under the P7000 standards series on socio-technical issues related to AI: IEEE P7003: Algorithmic Bias Considerations, IEEE P7004: Standard on Child and Student Data Governance, IEEE P7004.1: Recommended Practices for Virtual and Classroom Security, Privacy and Data Governance, IEEE P7008: Standards for Ethically Driven Nudging for Robotic, Intelligent and Autonomous Systems, IEEE P7009: Standard for Fail-safe Design of Autonomous and Semi-Autonomous Systems, IEEE P7010.1: Recommended Practice for Environmental Social Governance (ESG) and Social Development Goal (SDG) Action Implementation and Advancing Corporate Social Responsibility, IEEE P7011: Standard for the Process of Identifying and Rating the Trustworthiness of News Sources, IEEE P7012: Standard for Machine Readable Personal Privacy Terms, IEEE P7014: Standards for Ethical Consideration in Emulated Empathy in Autonomous and Intelligent Systems, IEEE P7015: Standard for Data and AI Literacy, Skills, and Readiness. For more information, see https://jtc1info.org/technology/subcommittees/ and https://ethicsinaction.ieee.org/p7000/.

6.2.2 Computing capabilities

QUANTITATIVE	6.2.2.1	Number of data centres in the country per capita[58]
	6.2.2.2	Is there a data center in your country? If not, where is the closest data center?
	6.2.2.3	Colocation data centres[59] per million population

QUALITATIVE	6.2.2.4	Does your country have a policy for AI-driven cloud computing? If not, is such a policy in the process of being adopted? Please elaborate and provide the name and link to any relevant document(s).
	Evaluation:	
	6.2.3.4.1	Has the efficacy of such policy been assessed before? Please provide the link to any relevant document(s).

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58 A data centre is a facility that centralizes an organization's shared IT operations and equipment for the purposes of storing, processing, and disseminating data and applications. Most modern data centre infrastructures are not only physical: virtualized infrastructure supports applications and workloads across multi-cloud environments (source: https://www.paloaltonetworks.com/cyberpedia/what-is-a-data-centre). Please note that you may consider Public Research Institutions and Universities here, as they sometimes host data centres that are also computing centres (for instance, the Centre Informatique National de l'Enseignement Supérieur in Montpellier, France). See https://datacenterlocations.com.

59 Type of data centre (see note 52 for definition) where equipment, space, and bandwidth are available for rental to retail customers. See: https://docs.google.com/spreadsheets/d/1DjUfsihHolE806qLFYqCu-FAHrPWNYX1NYYjs73FXp8/edit#gid=288419984

6.2.4 Statistical performance

QUANTITATIVE	6.2.3.1	Statistical performance indicators[60] (SPI Overall Score)
	6.2.3.1.1	Score on data products[61]
	6.2.3.1.2	Score on data sources[62]
	6.2.3.1.3	Score on data infrastructure[63]

QUALITATIVE	6.2.3.2	Are there any laws or policies providing a comprehensive framework for consistent data management and publication?[64]
	Evaluation:	
	6.2.3.2.1	Has the efficacy of such policy been assessed before? Please provide the link to any relevant document(s).
	6.2.3.2.2	Are there clearly documented quality control processes for government data?[65]

Summary

Please list at least 5-10 bullet points summarizing the key findings/ highlights from the RAM exercise (including consultations) in your country. Please note that at least one of the points should be a key opportunity, one key challenge, and few key recommendations. Please bear in mind that this question should be answered at the end of the RAM exercise, even after drafting the country report, as it should encompass all the lessons learned, and should read as a condensed executive summary.

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60 https://www.worldbank.org/en/programs/statistical-performance-indicators
61 Defined as the availability of data for the 17 SDGs (social, economic, environmental and institutional statistics coming from the UN SDG database). The products signal whether countries are able to produce indicators related to the 17 Sustainable Development Goals.
62 Defined as the availability of recent censuses and surveys covering broad areas (population & Housing census, Agriculture census, etc.), the availability of Civil Registration and Vital Statistics (CRVS), and the availability of geospatial data.
63 A mature statistical system has well-developed data infrastructure, evidenced by legislation and governance (Legislation Indicator based on PARIS21 indicators on SDG 17.18.2), as well as standards and methods of data compilation (system of national accounts in use, National Accounts base year, Classification of national industry, CPI base year, Classification of household consumption, Classification of status of employment, Central government accounting status, Compilation of government finance statistics, Compilation of monetary and financial statistics, Business process)
64 See Governance (G): Data Management: https://globaldatabarometer.org/module/governance/
65 See Governance (G): Data Management: https://globaldatabarometer.org/module/governance/

Annex

Annex

Country level implementation outline

As mentioned above, the basic workplan for conducting the Readiness Assessment is built on key elements and offers flexibility to be adapted to the unique circumstances in each Member State, based on the consultation with the relevant field offices and the national stakeholders. Thus, the plan outlined below meant to serve as example only, and to illustrate the different stages that will be part of the project. Please note that the intended readers of this annex are UNESCO field offices that will be tasked with the delivery of the project in each country, in collaboration with other stakeholders.

1. Beneficiary countries identified based on the consultation with the field offices, HQ and/ or the requests received from the Member States.

2. In each country, UNESCO will pursue work on two parallel tracks:

Securing and maintaining high-level political support for conducting the assessment, to allow for an unimpeded engagement of the team working on the ground with the relevant government agencies.

Launching a **National Stakeholder Team** to lead on the Readiness Assessment. Ideally, the team would include:

- SHS Programme Specialist from a regional UNESCO Field Office,
- Representative from the National Commission
- Focal point from the ministry with AI/Digital governance portfolio
- Representatives of other ministries (such as the ministry of education science and technology, the ICT ministry, and the ministry of research),
- Representatives of the academic community (if possible, scholars working on AI/ digital transformation from the faculty of law, public policy, economy, and computer science),
- Representatives of civil society
- Representative of the private sector

3. A local consultant/ implementing partner could be hired to coordinate the team and consolidate the output of different members. Depending on the regional and national context, and the available funding, this could be one person responsible for several countries, or one consultant in each of the beneficiary countries. The team will be supported by a member of the UNESCO Secretariat at HQ, and as needed also by an independent international expert in AI ethics, who will assist the team. HQ is currently setting up the AI Ethics without Borders network, which will also be deployed to assist with conducting readiness assessment or specific aspects of it.

4. **A national launch event** will be organized in each country (alternatively, based on the preferences of a field office and budget availability, one regional event could be organized with the teams from the beneficiary countries participating). This event will feature:

High level political segment demonstrating government's buy in and support for the project.

The launch of the national stakeholder team.

Training delivered for the country team by UNESCO on the implementation of the Recommendation on the ethics of AI, focusing on the Readiness Assessment methodology.

Discussion and agreement on the concrete action plan with milestones and deliverables for each country.

5. **Mid-term workshop** could be held for the National Stakeholder Team to take stock of the process, discuss the missing elements and brainstorm solutions for how to address them. At this stage, contact with the high-level officials supporting the process might be needed in order to facilitate access to types of data that was not easy to gather.

6. **Concluding workshop** will be held towards the end of the assessment, to present a draft country report and to receive feedback from a broader set of stakeholders on the way forward. The Ethical Impact Assessment tool will also be presented

during the concluding workshop, based on the results of the readiness assessment, for the National Stakeholder Team to discuss its adoption in the specific context.

7.   Upon the finalization of the readiness report, it will be disseminated widely at the national level among the main stakeholders and made public on the UNESCO observatory on the Ethics of AI.

As part of the final report, a roadmap will be designed in consultation with the beneficiary countries, highlighting the conclusions and suggesting a path forward that reflects the priorities of the country in terms of the specific institutions that need to be built or enhanced to implement the Recommendation.

This process is intended to be cyclical in nature—Member States will have the possibility to contact UNESCO to re-evaluate their readiness to implement AI ethically and to track their progress on the roadmap over time. UNESCO will keep a record of all documents produced during the initial readiness assessment and build on these documents.