



Handbook for Implementing a Capacity Building Programme for Policy Makers on

AI

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PREFACE

AI has the potential to overcome barriers to unlocking human, social, and financial capital by creating opportunities for more inclusive economies and facilitating more effective systems of governance in accordance with the Sustainable Development Goals (SDGs). To do so effectively in the Global South, however, requires a concerted effort to democratise AI by:

1. Strengthening local knowledge of AI and its relevance and potential to country-specific contexts;
2. Removing barriers to accessing data and information on AI by facilitating access to training tools and open-source platforms in a manner that is equitable and accessible; and
3. Developing policy frameworks for ethical use of AI to avoid exacerbating levels of risk for various forms of discrimination and exclusion, and for responsible institutionalisation of AI across multiple facets of governance.

In response, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) implemented the project FAIR Forward - Artificial Intelligence for All on behalf of the German Ministry for Economic Cooperation and Development (BMZ). FAIR Forward initiated a peer-learning programme during late 2021 to enhance the capacity of policy makers from Africa and Asia to respond to the benefits and challenges of AI. The programme was implemented by the Human Sciences Research Council (HSRC) from South Africa, working with researchers and policy experts from various countries. Most important, however, were the contributions made by policy makers who participated in the programme, from Ghana, Kenya, Rwanda, South Africa, Uganda and Telangana State in India. By sharing their own knowledge and experiences related to digital, data and AI policy development, they provided the rich insights and content that made the programme meaningful and practical.

This handbook was developed as a summary of the learning acquired during the delivery of this programme, with reflections on what made the programme successful and how challenges were managed. Readers of the handbook may benefit from reading the whole document, or by referring to specific sections, including: how to run a virtual peer-learning programme, slide decks and recordings from the curriculum, or the lists of references and tools.

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Feedback and contacts

If you have any comments or feedback on the handbook please contact the GIZ FAIR Forward programme via this [website](#) or on [Twitter](#), or the Policy Action Network project at the HSRC on its [website](#) or on [Twitter](#).

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USING THIS HANDBOOK

If you are looking to start a peer-learning programme on artificial intelligence (AI) for national government policy makers in developing countries then this handbook should be helpful. It may also be useful if you are looking for training content or delivery ideas for any kind of technology policy course in academia, government, civil society and even the private sector.

There are three parts to the handbook. This, the first part, walks through some of the background to why a capacity building programme on AI policy may be necessary, and the different approaches that could be - and were - used in implementing this type of initiative.

The second part of the handbook is a consolidated package of all the core presentation content and activity material used to deliver the first capacity building programme in 2021, which can be copied, customised or extracted from to serve your needs.

The third part of the handbook is a list of the articles, reports and policies referred to in the core content, along with the material and templates used in the various peer-learning activities.

You are free to reuse this handbook and the content of the programme for non-commercial purposes, in any way you like as long as you acknowledge the source. See a suggested citation format [here](#).

There is also a self-paced e-learning version of the course available on the learning platform [Atingi](#).

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Artificial intelligence for policy makers

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Welcome to the online version of our artificial intelligence (AI) for policy makers course.

AI is a relatively new policy area. This is especially so in Global South contexts, which this course is designed for, and where **AI solutions and capabilities are starting to become more commonplace** across a broad range of sectors. By **introducing AI to policy makers** - as key decision makers in advancing the responsible use and development of AI - we hope to **support sustainable and locally appropriate policy measures**.

This online course is based on content and edited recordings from a 2021 peer-learning programme on AI for policy makers in six regions: Ghana, Kenya, Rwanda, South Africa, Uganda and Telangana State in India. The programme was funded by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and implemented by the Human Sciences Research Council (HSRC) in South Africa, working with policy experts from a number of countries.

If you are a university, college or training provider interested in setting up a **facilitated version of this course**, see our [Handbook for Implementing a Capacity Building Programme for Policy Makers on AI](#).

Course by [GIZ FAIR Forward](#) and [HSRC](#).

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RUNNING AN EFFECTIVE CAPACITY BUILDING PROGRAMME

Why run a capacity building programme on AI for policy makers?

AI is a relatively new policy area. This is especially so in Global South contexts, which this handbook is designed for, and where AI solutions and capabilities are starting to become more commonplace across a broader range of sectors. A capacity building programme can support skills development and understanding in this new area, which can also be shared and passed on to other colleagues. Depending on how the capacity building programme is designed, and whether it includes engagement with co-learners, such a programme can also facilitate knowledge exchange and peer-to-peer learning in this emergent policy area. Sharing experiences in this regard - which may include sector specific policy approaches, challenges to public sector uptake of AI, or use cases - is particularly useful for similarly resourced countries, and to build trust between potential future partners and collaborators.

In the long term, building capacity amongst policy-makers - as key decision makers in advancing the responsible use and development of AI - can support sustainable and locally appropriate policy measures.

Target competencies and expectations

Before embarking on a capacity building programme, it is important to assess the baseline understanding of participants and to specify what participants are expected to contribute to the programme. This can include:

- Specifying the level of seniority of participants. Are they senior enough to have the authority to implement new ideas and approaches in their area of work, or to influence more senior officials?
- Specifying the time commitment required to complete the course. Do they have time to commit to the course?
- Specifying the sustainability vision for the programme. Are participants expected to act as multipliers following their learning, by educating their colleagues and championing responsible AI within their departments?
- Specifying the extent of participation within the course. Are participants expected to undertake regular assignments, individually or in groups? Are participants expected to contribute to discussions and offer short presentations?

Capacity building approaches

Capacity-building approaches should be grounded in an understanding of how adults learn best, particularly those who are at a professional level. Evidence suggests that using methodologies that centre adults as 'agents' in their learning experience produces the best learning outcomes, which is why the ADIDS methodology has been the preferred facilitation and learning methodology for this course.

The rationale for using the ADIDS methodology (described below) is that adults learn most effectively when they are presented with information in a series of stages and using a variety of different formats and methods, such as case studies, group activities, slide and audio-visual presentations, as well as hands-on practice and reflection. Peer-to-peer exchanges form an integral part of the learning experience, insofar as it recognises the diversity of experiences and range of expertise and invites participants to share their insights and perspectives on relevant topics to contribute to the shared learning amongst participants and facilitators.

ADIDS methodology and programme scheduling

ADIDS refers to the five main activities of a session including:

- **Activity and Discussion** - Usually an interactive activity, such as a poll or case study reading, followed by discussion. In some cases this could be run as a peer policy maker presentation/ demonstration and discussion.
- **Input** - Interactive expert lecture or presentation.
- **Deepening and Synthesis** - Hands-on activity applying Input, such as completing a template analysis, policy framework or guideline in small groups. This is followed by plenary feedback and wider discussion.

Example schedules for a full programme and an individual module can be found in [Annexure A](#).

In-person and virtual delivery

It is important for facilitators to engage participants in meaningful ways and to create opportunities to draw on the knowledge that exists 'in the room', regardless of whether the course is delivered in-person or virtually.

Accordingly, it is important for facilitators to create an environment where information is both given and received, and where participants are encouraged to think, reflect, and synthesise different sources of knowledge and consider the ways in which they can be integrated to address complex issues concerning responsible and ethical use of AI.

There are various ways to do this, but the key is to create opportunities for interaction and discussion amongst participants, and to facilitate opportunities for them to be active co-creators of, and contributors to, the learning experience of themselves and others. Using breakaway rooms (both in person and virtually) is one way to do this, and having different activities that provide opportunities to participants to apply what they've learned in a practical manner is key to translating the content of the course to speak to their core competencies.

Key roles

Whilst each module is anchored by one or two expert facilitators, there is a broader set of roles, usually covered by a separate person although they may be combined, that are critical for delivery and ensuring active participation discussed below. In the way we worked, the roles included:

- **Lead facilitator:** This person is responsible for driving delivery of all peer-learning sessions and ensuring active participation. In virtual training it is difficult for the content expert to drive and monitor engagement whilst also handling presentations and questions. This role is also useful to provide some consistency for the opening and closing of each session, and in linking activities and discussion flows together.
- **Communication and logistics:** This role is critical for managing the programme, setting up virtual spaces and reminding participants about the start of sessions. Also important is setting up break-out rooms in the virtual environments, recording presentations and discussions, and distributing material afterwards.
- **Content expert for the module or session:** In order to support the lead facilitator, content experts can be commissioned to lead particular modules or components of the course. For our programme, the content experts we engaged led the development of the 'Input' section of a particular module of the course, and co-facilitated that session with the lead facilitator. Particular expertise we drew on included:
 - AI and data expert
 - Legal expert
 - Technology policy and governance expert
 - Community engagement or social impact expert
- **Content and template integration:** As you may be involving multiple content experts in the facilitation of sessions, who are typically creating presentations, activities or templates using different tools and coming from different backgrounds, it is necessary for someone to provide hands-on guidance on how each section of content connects with other sessions, and how it aligns with the competencies that the programme aims to develop. In addition, there is a need to provide formatting support to ensure all the material flows visually, is achievable within the session timelines, and is available for facilitators and participants to download. This role may also lead the post-session or programme consolidation, editing and publishing of material and recordings for participants to use outside of sessions. This is especially important for virtual peer-learning because of the (likely) distracted nature of participation and the need to refer back to discussions, but also because it is now possible to share sessions with a wider audience.
- **Project lead/ manager:** It is usually necessary to designate a specific project lead or manager, that is not the lead facilitator, and who can steer the overall strategy, partnerships and objectives of your capacity building programme.

Active participation

One of the biggest challenges, especially with hybrid or virtual training, is helping participants separate themselves from their day-to-day work commitments and other distractions so that they can focus on the session content and contribute to the peer-learning process. From our experience with facilitating this and other similar programmes we suggest the following:

- **Initial interest and buy-in:** Participants should have some prior experience and interest in supporting responsible AI policies, and a willingness to share knowledge acquired through the capacity building programme with others.
- **Clear commitment and boundaries:** Make sure participants are clear about when the programme starts and ends, what the expected commitment is, and what the requirements for participation and certification (if applicable) are. Amongst others:
 - Participants may be asked to sign or provide email acknowledgement of a letter of commitment, especially if their involvement is fully-funded by an external source or their department.
 - There should also be demonstrated commitment and support from the managers of participants, such as by hosting a launch event discussed below.
- **Active and peer-learning:** Participants should be encouraged to actively participate in discussions, and share learning experiences with their peers.
- **Input presentations:** Powerpoint-like slide decks continue to be a useful way for communicating content. Our experience with slide decks is that you probably don't want to present on more than 15 slides during a 1-hour session, depending on the level of detail. Keeping the slide deck as short as possible ensures you don't overwhelm the audience with too much information, and that you allow sufficient time for interaction. At different points in the presentation you can also switch to a video or ask participants to visit a website or try out a tool.
- **Inviting comment and input:** When presenting, it is useful to pause at least every three or four slides to answer audience questions (or probe participants for feedback on what was shared).
- **Asking for and reflecting feedback:** Asking participants for feedback on course content and facilitation methodologies is essential to ensuring that training is responsive to their specific needs and tailored in a manner that invites deeper learning, application, and reflection. This should be done on an ongoing and continuous basis so the course curriculum can be adapted as necessary.

Identifying and inviting participants

As mentioned above, identifying and inviting participants for whom the content and programme structure is relevant is a key step for ensuring active involvement and benefit.

In selecting participants, it is important to provide them with as much information as possible about the content covered in the course, its objectives, and what would be required from them. It is also important to consider diversity and gender balance in course participants, and to encourage female participation in the course.

Our programme was targeted at mid to senior-level policy officials in the public sector from Africa and Asia. The majority of participants were identified and invited via a country contact who approached top management of various relevant agencies and departments to request participation from relevant officials. The invitation to participate included a clear indication of what the programme aimed to achieve, the amount of time that would be required and the profile of potential participants. Through internal agency and department processes, the officials were selected and confirmed as participants on the programme.

Promoting gender equality and inclusion

Gender equality and inclusion in the design, delivery and participation must be actively pursued at every stage of the course. This is especially critical given the gender imbalance across the AI industry, the digital gender divide, and the growing evidence that AI can negatively discriminate against females and gender minorities.

As mentioned above, it is especially important to encourage equal representation of female policy-makers in all phases of the capacity building programme to ensure some measure of gender balance is achieved. In addition, it is important to facilitate the course in a manner that welcomes and actively encourages female participants to raise points and lead discussions to the same degree as male participants, rather than overly relying on them to speak to the gendered implications of AI on particular issues.

Finally, it is important to explicitly include content related to the differential impact of AI on female and gender minorities of both AI technologies and policies at various points during the course.

Launching and closing

As mentioned above, a launch event with high-profile speakers and senior executives can highlight the importance of the programme and re-emphasise their endorsement of active involvement - with the implication that it would be beneficial for their careers, the organisation and society, even if additional (over)time is needed.

As an example, at the launch event for our capacity building programme, we included a multi-sectoral panel discussion on the broad theme of Governing AI in the Global South which followed a keynote presentation from the Director General of Smart Africa, Lacine Koné. At our closing event, participants were formally presented with certificates for participating in the course. The event also included a keynote address from Professor Emma Ruttkamp-Bloem on the newly adopted UNESCO Recommendation on the Ethics of AI, and a panel discussion with participants of the capacity building programme as the panellists. Ensuring a gender balance in speakers at both events was key.

Recognition and certification

Formal recognition and certification of your capacity building programme and participation therein is important for ensuring the right buy-in from policy-makers and their seniors. This can be done through the awarding of a certificate at the end of the course with details of the course title, dates, and hosting organisations. Note that this is separate to accreditation from a higher-degrees board or educational authority, or similar.

Organising material and making it available to participants

In order to promote self-learning and self-organisation of participants, it is important to consistently provide access to course material, such as 'Input' presentation decks and the materials required to complete course assignments. These materials may also be used by participants as reference material in future, or for participants who are unable to attend certain sessions to catch up afterwards. During our capacity building programme, the recordings of each session were shared with the course participants following each module, in addition to the presentation decks and course assignments. All materials were distributed centrally by the project co-ordinator and communications lead.

Communication

Communication and project coordination can be divided into two broad themes namely, internal and external. Internal communication involves setting up, preparing agenda items and minute taking for each internal meeting. Weekly action item lists are useful for ensuring the broader team is aware of responsibilities and necessary weekly outputs. If useful, project management apps can be used to administer this process, though, for ease of use and accessibility, collaborative tools such as Google Docs can also be used. Essential for internal communications is setting a dedicated time aside each week to assess completed and ongoing action items.

For external communications it is beneficial to create a dedicated spreadsheet document with all relevant participant details. Depending on how the course is run, it is beneficial to send out a reminder email of upcoming modules the week prior to the module, on the Monday morning during the week of the module, the morning of the module and (if considered necessary) a reminder email to participants at the start of the module. As per the section above, after the conclusion of each module, an email was sent to participants with course materials.

Generally, with communications the approach should be one where participants are not assumed to remember and diarise the module dates and times themselves. The project coordinator should also be aware of any differences in time zones and make note of times in formats where participants can easily ascertain when their presence is needed.

House rules

It is important to establish a set of 'house rules' at the outset of any capacity building programme, so participants should have a clear understanding of the protocols that need to be observed. This applies to both virtual and in-person engagements.

For example, when it comes to engaging online, people should be told to turn off their cameras and mute themselves when another person is speaking to avoid distractions and influence of background noise. Similarly, participants should also be informed of the manner in which they will be expected to participate (i.e. raising their hand to make a verbal input, using the chat function, etc.) to ensure directions are clear and people are given various options for making their contributions.

When it comes to in-person engagements, a set of 'house rules' should also be established. For example, requesting that people turn off their cell-phones and close their laptops during the training programme, or raising their hand when they would like to speak or make a contribution. Such rules ensure that the environment is respectful and conducive to peer-to-peer learning.

Quality assurance system

In implementing the programme it can be helpful to define a quality assurance mechanism by which you can plan interactions and reflect on whether you are adhering to your pedagogic foundations. In this programme we followed the seven didactic principles outlined in the GIZ-developed tool for Quality Assurance in Competence Building. Integrating the didactic principles into each phase was integral to our approach, but especially relevant in the design, implementation, and ongoing monitoring of the programme.

Specific measures were taken throughout the programme to assess how participants view their own capacities in relation to AI policymaking and whether they felt confident in their competence to assume sufficient ownership over AI-related processes insofar as thinking independently, assuming leadership over the development of policies and strategies, and taking remedial action when necessary. Although the lead facilitator assumed main responsibility for this action, all facilitators were responsible for ensuring their specific task(s) complied with the principles for improving learning results.

After the specific tasks were underway, the broader team needed to reflect on whether relevant areas of competence were being covered sufficiently by their specific activities, and if so, whether they were achieving the programme's broader objectives. The areas of competence included the following:

- **Se - Sectoral competence.** I.e. skills in understanding regulatory compliance and navigating department-specific requirements and protocols
- **M - Methodological competence.** I.e. skills in addressing the specific concern using evidence-based approaches
- **So - Social competence.** I.e. skills in facilitating cooperation and effective communication amongst relevant role-players
- **P - Personal competence** I.e. skills required to assume leadership and foster meaningful participation from others

[Annexure B](#) has an example of a checklist we developed for this programme, adapting the steps outlined in the quality assurance tools.

Monitoring, evaluation and adjustment

There are various ways in which you can define goals, assess outcomes and adapt the programme based on participant feedback. You could start by engaging policy makers to understand their specific needs or challenges related to capacity or competence building. For example, we used a rough problem tree and theory of change to map our actions to needs and outcomes as summarised in the example below.

Most important, though, is to be flexible in how you deliver the programme as you are typically meeting the participants for the first time. And as a peer-learning programme, the intention is for them to actively influence the direction of the capacity building towards their needs - as well as areas in which they can share experiences. You can use a mix of formal and informal actions to get feedback and adjust your activities:

- Do in-person interviews or run an online survey after an introductory meeting, asking participants to indicate what their needs are and on what topics they are willing to share experiences or knowledge.
- During sessions, listen to conversations between participants and with facilitators to identify topics that can be taken forward or expanded on in future sessions.
- Hold weekly or bi-weekly project meetings to consider what is working and what needs to be changed.
- Record attendance information and identify who may not be participating fully, and potentially engage them directly to understand if there are participation challenges (or if the content is not relevant to their needs).
- Run another survey mid-way through the programme to gather comments on the content and delivery approach, and to pick up general trends.
- Run a final survey to understand how the programme may be delivered in future.

In general, our surveys covered four broad areas:

1. Relevance of content and experts to needs
2. Effectiveness of peer-learning and the interactive approach
3. Possible challenges affecting participation e.g. timing of sessions, virtual tools
4. Gender or other personal indicators: to allow for some disaggregation of issues that may be affecting participation of certain groups of individuals

[Annexure C](#) includes examples of surveys that we used in our programme.

Delivery tools and software

Depending on whether the course is run in-person, virtually or hybrid you may use a variety of different tools. In our case, we ran a completely virtual course and explored and/or used a number of applications to support online interaction and engagement.

EXAMPLE: OUTCOMES DEFINITION

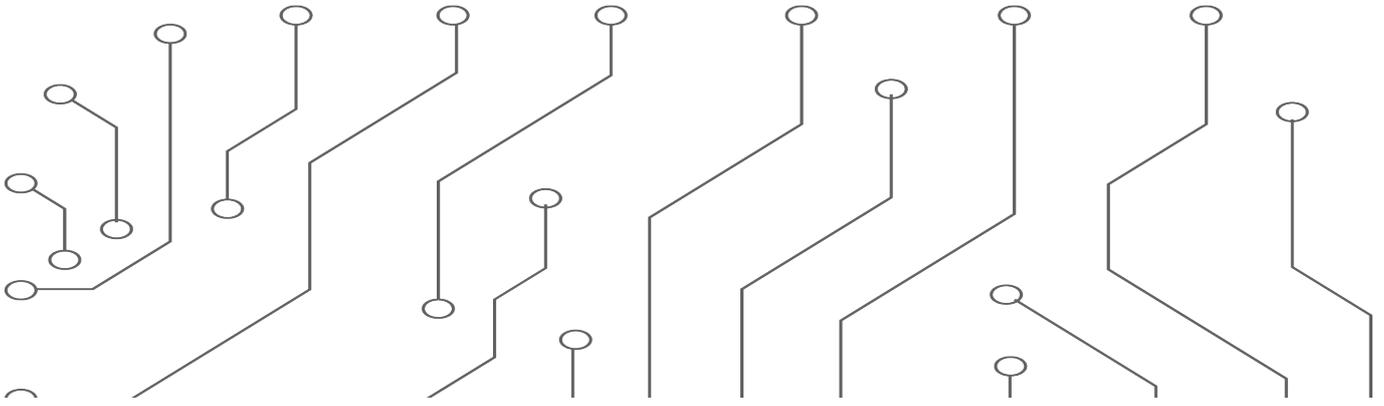
Main purpose/ outcome: Policy makers from Asia and Africa have enhanced capacity to respond to the challenges and benefits of AI for strengthening systems of governance and sustainable development by institutionalising policies that promote use of AI in ways that are inclusive, responsible, and sustainable.

Sub-outcomes:

1. **High-level policy actors are aware of** the opportunities and risks related to the use of AI, and why investing time and resources into AI is relevant for governments to prepare for the fourth industrial revolution.
2. **Mid-level policy makers can identify AI policy opportunities and risks** relevant to their personal, organisational, country and Global South context.
3. **Country 'multipliers' are equipped with policy development methods, tools and proactive management capacity** to enrol social partners and institutionalise a localised AI policy response

EXAMPLE: COURSE FACILITATION TOOLS

Live Q&A and polling:	<u>Mentimeter</u> <u>Kahoot</u> <u>Slido</u> <u>Poll Everywhere</u>
Live collaboration tools:	<u>Mural</u> <u>Miro</u>



AI for policy makers curriculum

At the core of the capacity building programme are two largely equally weighted components: (1) expert-sourced content and facilitation and (2) policy maker sharing on their knowledge and experiences. The programme sought to achieve a range of learning outcomes, and was delivered using the [ADIDS methodology](#) over 5 modules:

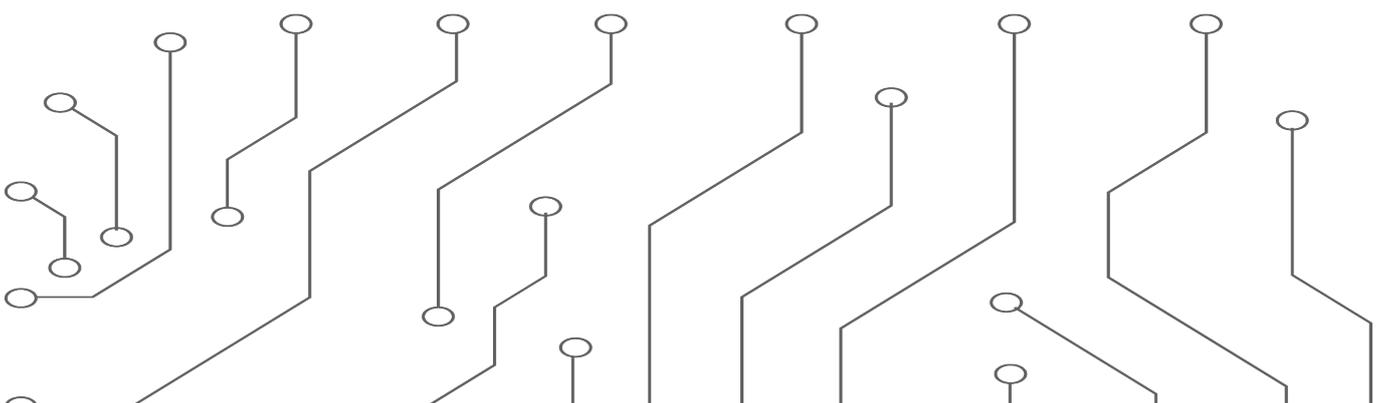
[Module 1](#): Introduction to AI

[Module 2](#): Introduction to tech policy with a focus on AI

[Module 3](#): Governance as an enabler

[Module 4](#): Institutional readiness

Note: If you would like to do an online version of the course, it is available on [Atingi](#).



MODULE 1

Introduction to AI

The first module aims to introduce participants to AI in an accessible way, remembering that most policy makers do not have a technology background. This includes (1) Building a conceptual understanding of AI, including key terms and processes, (2) Connecting its potential and relevance to the SDGs global development agenda, (3) Exploring implications of AI on the Global South, with particular focus on Africa and Asia.



GENERAL NOTES FOR THE MODULE

What to look out for

The first part of this module covers quite technical content and participants will be new to the programme. In virtual meetings it is hard to tell whether participants are following the content or getting confused, and they may be embarrassed to ask questions. So, it could be useful to ask something like: “Should I explain this another way?”

Methods, materials or tools to use for virtual facilitation

To kick off the first Activity and Discussion you could run a live online input using a tool like [Mentimeter](#). For the Input component, you can use slide decks but consider including a video, demonstration or activity during the presentation - such as [Teachable Machine](#). Once participants are more familiar with each other, and if connectivity is good enough, then you could ask participants to do their Deepening exercise as small groups on a shared Google slide deck or document, or look to use a tool like [Mural](#).

EXAMPLE: LEARNING OUTCOMES FOR MODULE 1

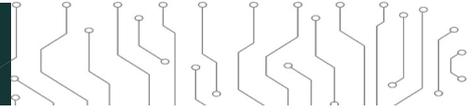
Our first run of Module 1 was based on the following learning outcomes:

- Se – Participants are able to demonstrate a technical understanding of AI, its relevance to achievement of national development goals and progress towards the SDGs
- M – Participants are able to consider different policy approaches related to AI in the Global South as compared to the Global North and reflect upon the approaches that may be most suitable for their countries
- So – Participants are able to identify key role-players in AI, ranging from political actors to community stakeholders, taking into account the both global and regional contexts
- P – Participants are able to identify and articulate broad opportunities and risks around using AI-driven technologies to achieve national development agendas and progress towards the SDGs

See above for an explanation of the learning outcome acronyms.

MODULE 1

Day 1: What is AI? Key terms and processes



Welcome, introductions and overview of the programme

As this is the first module of the programme it is important to start off by getting to know each other. There are many types of icebreakers that can be used virtually or person as a way for participants to share more on who they are and what they are working on.

Before doing participant introductions, you will probably want the project lead and/or sponsors to do a formal welcome and provide an overview of the programme, including:

- Objectives and learning outcomes
- Schedule of activities and key dates
- Expectations of live sessions and independent learning
- Requirements for certification
- What tools are going to be used and what resources may be required, especially where there is a virtual component

Module learning outcomes

On Day 1 of each new module it is worthwhile to review the anticipated learning outcomes. See example learning outcomes above.

Activity and Discussion

As a kickoff activity for Module 1, Day 1 consider running something lightweight and interactive, such as a Mentimeter session to gauge the participants' awareness of AI technology, and to stimulate initial questions on topics that will be explored during the Input presentation. In this session we asked two main questions:

- When you think about artificial intelligence (AI), what three words come to mind?
- How do you think we 'teach' machines?

Sample responses to the questions from our session are shown below to give you a sense what the input from participants may look like. As participants submit inputs on the Mentimeter form it is important to read and reflect what is being shown. You may also want to invite whoever submitted a specific input (e.g. 'representative data' on the second question) to comment on what this means to them (in this case, with respect to teaching machines).

Input

The input presentation for Day 1 of Module 1 will need to build on (or refer) back to the questions and conversation started in the earlier Activity and Discussion. That is, it should cover content related to what AI is, and how machines learn or are taught. More specifically, the facilitator is helping participants:

- Understand the broader domain of AI and algorithmic decision making (ADM), including both rule-based programmes and the more recent, rapid growth of data-driven machine and deep learning
- Build a strong foundation of understanding of how, especially, a machine learning algorithm is trained on historical (and new) data, with implications for data governance
- Identify terminology related to AI and some of the specific machine and deep learning approaches
- Evaluate whether AI may be needed and, importantly, when it is not necessary

For this module you can include a demonstration of how a machine learning algorithm is trained and works on Teachable Machine. Alternatively you may want to already start engaging participants more directly on some of the ethical dilemmas associated with AI by demonstrating or asking everyone to use one of the online facial recognition or moral option applications.

See the [References, resources and tools section](#) for a list of examples.

Deepening and Synthesis

The Deepening and Synthesis for the first day can encourage a deeper discussion on one or more topics depending on how technical or policy-oriented the Input presentation was. Participants can be broken into small groups and asked to discuss a question for 20 or 30 min, then a representative from each group shares key points in the plenary for another 30 min.

- In what use cases could AI be useful, and in what cases not?
- What do you see as some of the potential risks from using AI, and how may policy safeguard against these?
- What resources would be critical for AI to be used effectively in your country?

As an important note: Participants who do not have a technology background or who are not familiar with existing data practice may assume that AI (and machine/ deep learning specifically) is necessary for addressing any data-oriented question. So it would be good for the facilitator team to help participants reflect on other forms of statistical or data analysis they have seen in planning or operational environments, and to consider whether AI can add value.

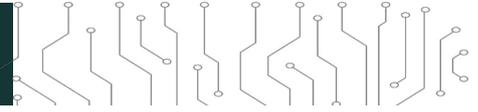
EXAMPLE: INPUT PRESENTATION ON WHAT IS AI?

Slide deck: [GIZ CBP Module 1.1 - What is AI](#)

Edited recording: [GIZ CBP Module 1.1 - What is AI - edited](#) (416MB, 56min)

MODULE 1

Day 2: AI in the Global South / AI for development



On the second day of (or as a second part to) Module 1, you can help participants reflect on why AI - and this programme - could be important from a national or regional policy perspective. Whilst the first day introduced some use cases for AI in explaining how it works, the second day can explore the potential benefits and risks associated with AI more broadly.

Activity and Discussion

A key question that can be reiterated throughout the programme is: What is unique about AI in my context? This question aims to stimulate discussion on specific needs that could be addressed using AI, as well as resources that could be leveraged. Again, you can look at using an online polling tool to get initial thoughts on unique applications, challenges or policy questions and then ask participants to comment on their submissions and what others have said.

Input

The Input presentation for Day 2 of Module 1 can then draw on what was discussed earlier, whilst exploring content that considers the potential benefits and risks of AI, especially in developing countries and with regard to sustainable development and the SDGs. However, as mentioned above it would be important to emphasise the importance of 'localising' questions about AI by considering its relationship to national or regional development goals and constitutional or other rights-based principles.

Deepening, Synthesis and Independent Learning

The Deepening on Day 2 of Module 1 introduces participants to the questions and template they will use for the Independent Learning that they will work on - individually or as groups - during the coming week(s). In this session, you will want participants to come back to some of the possible AI use cases they identified on Day 1 and during the Input from Day 2, and to do a more in-depth analysis on a few points:

- What challenge is your department or country facing for which you think decision-support or automation may be needed?
- What are the currently technological or data analysis options, where are they lacking, and in what way could AI be of benefit?
- What are the expected benefits and risks to different stakeholders?
- What are the important inputs or enablers for implementing an AI-based solution?

EXAMPLE: PARTICIPANT COMMENTS ON ACTIVITY QUESTIONS

What is unique about AI in your country?

data shortage

we are finalising with AI policy

AI is a strategic technology that can help in achieving SDGs

not yet embraced fully in public service

improving access to financial services

part of overall national 4IR strategy

government is in process of developing AI policy and we see more AI in the agriculture sector

it is not only about defining regulations on AI. Africa should see AI as a whole (capacity building, infrastructure, regulations, etc)

AI if well utilised could provide tools that can generate farming forecasts

part of national AI policy was AI ethical guidelines for AI developers and implementers

EXAMPLE: INPUT PRESENTATION ON AI IN THE GLOBAL SOUTH

Slide deck: [GIZ CBP Module 1.2 - AI in Global South](#)

Edited recording: [GIZ CBP Module 1.2 - AI in the Global South - edited](#) (205MB, 37min)

EXAMPLE: DEEPENING AND INDEPENDENT LEARNING

In our first run of the programme we separated participants into country groups of about 5 people, and then gave them 40 minutes to explore possible use cases for AI by completing the template below. Once the breakout rooms had completed deliberating, a representative from each group presented on their template content to the plenary, with discussion and feedback from other groups.

We then asked participants to expand on the template as part of their Independent Learning by adding one or two more use cases. At the following week's Independent Learning Debrief participants presented on their completed templates in an informal 2-hour session.

Deepening & Independent Learning template: [Template - AI Solution Identification](#)

MODULE 2

Introduction to tech policy with a focus on AI

The second module aims to position AI policy making within the broader national and global technology governance space. Specifically, this module helps participants (1) Embed AI in the tech policy environment and broader policy architecture, (2) Identify governance models and sectoral approaches for responsible use of AI, and (3) Consider enabling laws and regulations for AI, with a focus on transparency and human rights.



GENERAL NOTES FOR THE MODULE

What to look out for

In some countries there is a dedicated focus on AI and the development of distinct AI policies and governance institutions. In others, AI is being addressed as part of broader ICT, 4IR or science and technology programming. When running this module, participants should be given space to share how they are managing the various technology (and other) policy making processes, and to connect the discussion to these activities and experiences.

Methods, materials or tools to use for virtual facilitation

In this module the aim is to explore some of the policy conundrums associated with AI, including in specific sectors such as healthcare and agriculture. Being virtual, this is an opportunity to relatively easily involve guest speakers or presenters who have hands-on experience working with data and data policy making in a relevant sector, from the region or from another continent. You can also continue using tools like [Mentimeter](#) and [Mural](#) to facilitate online interaction.

EXAMPLE: LEARNING OUTCOMES FOR MODULE 2

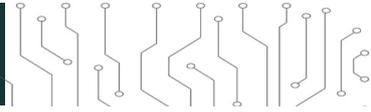
Our first run of Module 2 was based on the following learning outcomes:

- Se - Understanding of cross-cutting and sector-specific considerations and governance models for enabling responsible AI development and use
- M - Recognition of AI benefits and harms from emerging research
- So - Awareness of specific regional and local stakeholders in broader AI-relevant technology, user and policy landscape
- P - Initial reflection on personal interest and relationship to AI policy and possible gaps in knowledge

See above for an explanation of the learning outcome acronyms.

MODULE 2

Day 1: AI and tech policy



Module learning outcomes

On Day 1 of each new module it is worthwhile to review the anticipated learning outcomes. See example learning outcomes above.

Activity and Discussion

Now that participants are (hopefully) reasonably familiar with AI and each other, you can start the second module with something more complex, such as the role play described below.

Input

The Input section of this module can now engage more directly with the issues that have been raised during the Activity and, in this way, start outlining a framework that can help policy makers to develop an AI policy.

Deepening and Synthesis

The Deepening part of this day should encourage participants to reflect on the policy trade-offs involved in adopting AI-based technologies, and to consider possible policy instruments that can mitigate issues.

EXAMPLE: AI AND TECH POLICY ROLE PLAY

In our first run of this module the session lead facilitated a role playing session, in which participants were randomly separated into a team of about 5 people representing one of the following stakeholder groups:

- Government
- Domestic industry
- Labour unions and civil society
- Big tech companies

Each team was then tasked to identify its key policy priorities and challenges, from the perspective of the assigned stakeholder group, after which they returned to the plenary session and presented their views. The aim of the discussion was then to capture points of convergence, divergence, and trade-offs.

Role play template: [Activity - AI in Tech Policy](#)

EXAMPLE: PRESENTATION ON AI AND TECH POLICY

In our Day 1 Input of Module 2, the expert presentation was structured around three broad domains (and various sub-topics):

Foundations

- Access to high quality, curated data sets
- Reliable infrastructure and compute capacity
- Education, skills and R&D investments

Enablers

- Market policies to support competitive domestic ecosystem
- Labour market policies
- Safe and rights-based adoption in the public sector

Safeguards

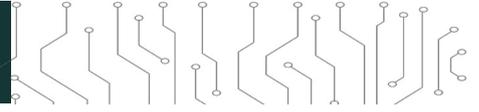
- Regulatory interventions
- Soft governance
- Civil society capacity and public education

Slide deck: [GIZ CBP Module 2.1 - AI and Tech Policy](#)

Edited recording: [GIZ CBP Module 2.1 - AI and Tech Policy - edited](#) (202MB, 48min)

MODULE 2

Day 2: AI sectoral approaches



Activity and Discussion

Whilst the first day of this module provided a broad framework for AI policymaking, this session explores more sector-specific issues related to the adoption of AI. As with some of the earlier sessions, you may want to start with an interactive question and answer, in this case on where participants see likely impact from AI.

Input

The Input presentation is a good opportunity for an invited speaker to talk through their experiences implementing or regulating data-enabled or automated decision-making in a specific sector. For example, this could be a representative from a data protection authority who may have adapted generic privacy regulations for the health sector or clinical research. Alternatively, or in addition to an invited speaker, it is often useful to present AI-related approaches to policy making for different sectors and highlight specific differences or similarities - and discuss why.

Deepening, Synthesis and Independent Learning

The final Deepening of this module should come back to themes discussed in Day 2 *and* Day 1, and even link back to use cases explored in Module 1. As mentioned in the Module learning outcomes, the aim is for participants to understand cross-cutting and sector-specific issues and possible policy responses for enabling responsible AI development and use, which includes an awareness of potential benefits and harms, key stakeholders and their views, and policy actions that could be taken.

Importantly, for this Deepening, the participants should be starting an exercise that they can work on independently until the following week's Independent Learning Debrief session, where they can share on the content they developed.

EXAMPLE: PARTICIPANT COMMENTS ON ACTIVITY QUESTIONS

Which sector holds the most potential for AI to foster inclusive development in your country?

health sector is one of the areas where universal health could be a reality by the use of AI

health & education

health, agriculture and education

transport management

health

security

land reform / spatial planning

Finance: Mobile Money. Mobile Money users had tremendously increased during COVID-19 time and this had been followed by many frauds in the transactions of any kind. ML can be used to detect and

with good policies access to finance can also be more inclusive but with the current polices (financial service providers) AI can add even more prejudice and inequity

EXAMPLE: PRESENTATION ON SECTORAL APPROACHES TO AI

In our Day 2 Input of Module 2, the expert presentation was designed to be presented by three different people (although only two presented on the day). The sectors we covered included:

- Overview of multiple sectors and where global consulting firms believe the highest impact of AI will be
- Identity and biometrics
- Safety and justice
- Health
- Fintech
- Elections, democracy and media

Slide deck: [GIZ CBP Module 2.2 - AI Sectoral Approaches](#)

Edited recording: [GIZ CBP Module 2.2 - AI Sectoral Approaches - edited](#) (330MB, 116min)

MODULE 3

Governance as an enabler

Module 3 focuses on two core aspects of AI policy making: data and ethics or human rights. This includes, (1) Protocols governing the sharing of data amongst different stakeholders, (2) Frameworks for data governance, data protection and cybersecurity, (3) General ethics around AI, including measures to avoid discrimination and other forms of harm, and (4) Ethical guidelines for governments who plan to use AI solutions.



GENERAL NOTES FOR THE MODULE

What to look out for

In exploring governance approaches to AI, this module emphasises two key points: First, is to encourage a broader view on the policy issues that need to be considered beyond just, for example, individual privacy violation or discrimination, to also consider the structural and collective harms that may arise. Second, is to facilitate a perspective on policy making that is grounded in context-specific principles and frameworks, be it a country constitution or public service charter.

Methods, materials or tools to use for virtual facilitation

This module starts to engage with some of the deeper issues related to critical areas of AI policy making. As a result, you may want to give participants more time to read through background material or case studies on their own by creating a pause in the plenary before moving them to breakout rooms for discussion (or ask them to read before coming to the module). As with the previous module, you may want to identify and invite a speaker or participant to talk on their data or ethics governance experience, as there are now many regions working on these issues. Finally, in this module you can come back to Teachable Machine introduced earlier to demonstrate how training data influences AI outputs and the potential for harm; or explore and discuss one of the other AI demonstrators such as Kairos or PimEyes (facial recognition), Moral Machine (moral decisions), Spot the Deepfake or DetectFakes (deep fakes).

See the [References, resources and tools section](#) for a list of examples.

EXAMPLE: LEARNING OUTCOMES FOR MODULE 3

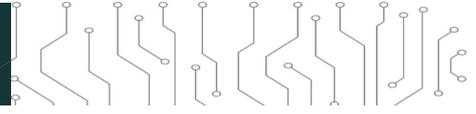
Our first run of Module 3 was based on the following learning outcomes:

- Se - Knowledge of key data governance considerations
- M - Ability to draft framework and/ or guideline on ethical use of data gathered by or for AI applications
- So - Understanding of the main motivations, as well as information and resource needs of data and AI governance stakeholders
- P - Recognition of potential harms that certain groups may experience from expanded data collection and AI use

See above for an explanation of the learning outcome acronyms.

MODULE 3

Day 1: Data governance and data sharing



Data governance is a relatively established field and, although national institutional arrangements in many developing countries are quite immature, there is a large amount of experience and activity that can be drawn on as part of this module's peer learning.

Module learning outcomes

On Day 1 of each new module it is worthwhile to review the anticipated learning outcomes. See example learning outcomes above.

Activity and Discussion

To engage participants on this topic, a number of possible methods can be used. Ultimately, as a facilitator, you would like participants to think about what data is being used in online services and software, and how that data is being governed. If there are representatives of data protection authorities (DPA) in the participant group, then you can ask one or two of them to do a short presentation on what they are doing related to data protection, but also in relation to algorithmic regulation - a space which many DPAs are addressing or looking to address.

As an alternative, you may want to go back to the Teachable Machine example introduced earlier and work through some more detailed questions about how AI uses data and how it may be governed.

Input

For the Input component of Module 3, depending on the audience, the content can cover higher level concepts related to national and sector data policies - and referring to examples of these - but could also address lower-level issues around how data pipelines are developed and managed.

Deepening and Synthesis

Depending on how this session is being delivered, it may be necessary or useful to run a lightweight online quiz or similar activity for the close of the day, as a way for participants to review their own understanding of key terms and keep some energy for the next session.

EXAMPLE: DATA IDENTIFICATION ACTIVITY

Ask participants to consider three common app feature examples (e.g. Facebook 'Suggested for you', Gmail report and filter spam, open bank account with a selfie) and answer the following questions:

- For the example you selected, what is the algorithm predicting?
- What data is the algorithm using:
 - For training and testing?
 - For prediction?
- What do the terms of use say about how data is collected, used or shared?
- Who is managing the collection and use of the data? (And who are they accountable to?)

EXAMPLE: PRESENTATION ON DATA GOVERNANCE AND SHARING

In our Day 1 Input of Module 3, the expert presentation addressed the following:

Core concepts of:

- Data governance principles and frameworks
- Data sovereignty
- Cross-border data transfers
- Data sharing models (e.g. data trusts)
- Data protection rights and security
- Data localisation

Data protection principles

- Transparency and openness (so individuals know how to claim their rights)
- Data minimality - what does this mean for AI?
- Accountability - who do people hold to account for wrongs?
- Consent and high risk information (e.g. geolocation data)
- De-identification
- Security, accuracy and integrity of data

Differing approaches to data protection

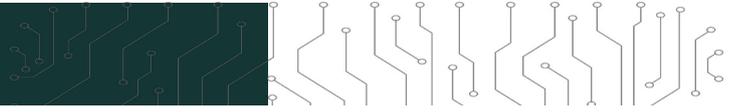
- Group privacy, ubuntuism
- Children and consent
- Ethics of data from social media

Slide deck: [GIZ CBP Module 3.1 - Data governance and data sharing](#)

Edited recording: [GIZ CBP Module 3.1 - Data Governance - edited](#) (100MB, 42min)

MODULE 3

Day 2: AI ethics and human rights



The facilitator of this session will need to help participants develop a meaningful understanding of the key ethical and human rights challenges raised (and possibly addressed) by AI adoption. Participants who don't have a background in law or ethics may undervalue the importance of a rights-based approach to AI, so it is important to give them opportunities and time to work through and debate practical case studies.

Activity and Discussion

As mentioned in the introduction to this Module, there are numerous web-based AI demonstrators and tools that participants in the programme can explore, and which can be used to trigger discussions. Alternatively you can show a video, such as from [Gender Shades](#), and ask participants to comment on what was most interesting.

Input

The presentation can then link back to the Activity discussion by reflecting some of the harms that were identified by participants, but also by highlighting issues that were not discussed.

Deepening, Synthesis and Independent Learning

As a Deepening activity, the facilitator can provide the participants with write-ups of hypothetical or actual (e.g. from news articles) examples in which the use of AI leads to questions about ethics and human rights, and governance responses. This work can be continued during the Independent Learning and reviewed at the Debrief on the following Friday, or a separate Independent Learning exercise can be developed for teams or individuals to work on between the facilitated sessions.

EXAMPLE: PRESENTATION ON AI ETHICS AND HUMAN RIGHTS

In our Day 2 Input of Module 3, the expert presentation addressed the following:

- Understand the different types of harms posed by AI systems
- Identify the human rights implications in the production and deployment of AI and how these issues are shaped by local histories, cultures, and political contexts
- Understand the ethical conundrums and challenges for developing countries
- Identify the range of solutions and pathways through which these challenges and harms can be addressed.

Slide deck: [GIZ CBP Module 3.2 - AI ethics and human rights](#)

Edited recording: [GIZ CBP Module 3.2 - AI Ethics and Rights - edited](#) (120MB, 45min)

EXAMPLE: DEEPENING EXERCISE ON AI ETHICS AND HUMAN RIGHTS

In our Deepening exercise for the end of Module 3, participants were separated into break-out rooms and each room was assigned a case study from the document below. The document includes questions that the groups needed to answer once they had read through the case study description. We adapted three of the case studies from the Princeton Dialogues on AI and Ethics:

1. Public analytics (related to crime prevention)
2. Automated healthcare app
3. Optimising schools

Case studies document: [Deepening - AI ethics case studies](#)

EXAMPLE: INDEPENDENT LEARNING ON AI ETHICS AND HUMAN RIGHTS

As an Independent Learning exercise participants were asked to download the template below and complete the relevant columns for their country or region, with the aim of connecting (existing or future) AI governance actions and ethical guidelines back to broader societal principles that are specific to their context. The template requires content on three areas:

1. Guiding principles from your context (e.g. from country's Constitution, National or State development plan or public service charter)
2. Why are how are these principles relevant to the use of data and AI?
3. Have the principles been used or useful so far?

Independent Learning template: [Template - Ethical Guidelines Data AI - Region](#)

MODULE 4

Getting practical

In this Module, there is a shift towards the development and use of tools, methods and processes that can support AI-related policy making, focusing on design approaches and social impact assessment. More specifically, the module looks to address some of the following: (1) User-centred and participatory design methods, (2) Potential use cases for achieving developmental goals, (3) Understanding the value and importance of conducting social impact assessments (SIAs), and (4) Balancing the social and commercial impacts in AI project lifecycles.



GENERAL NOTES FOR THE MODULE

What to look out for

Building on what was covered earlier, this module continues to find ways for building a shared understanding and language around how AI development and use can be directed towards responsible outcomes. So, the earlier parts of this module aim to connect design and project management practice with principles introduced in earlier modules. The later part of the module discusses social impact assessment (SIA) as an example approach that can be used as part of the AI project lifecycle.

Methods, materials or tools to use for virtual facilitation

In 'getting practical', this module should look to explore approaches that can expose participants to real-life questions about AI deployment or policy making. For example, many governments are currently uncertain about how to develop specifications or evaluate AI-based tools (such as by incorporating an ex-ante SIA) during a procurement process. It is therefore helpful to invite guest speakers who can explain an actual process or challenge. Or, consider doing a role play with different project stakeholders as a project-level variation on the role play example from Module 2 (e.g. with a supply chain official, IT official, user department, service provider, end/ affected user). As with previous modules there are various online tools that can support interactive engagement.

EXAMPLE: LEARNING OUTCOMES FOR MODULE 4

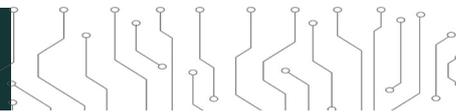
Our first run of Module 4 was based on the following learning outcomes:

- Se - Practical understanding of the way AI may be used (or not) with respect to local-regional development challenges
- M - Ability to develop an SIA or planning canvas for an AI solution
- So - Identified potential local-regional pathways for designing and implementing an AI solution and/ or SIA
- P - Participants can identify specific role(s) (e.g. leadership, coordination, technical) they may play in supporting the institutionalisation of responsible AI governance and what additional skills they may need to develop

See above for an explanation of the learning outcome acronyms.

MODULE 4

Day 1: Use of AI for advancing SDGs



This session can take a few different directions depending on participant interests and how the Activity plays out. For example, it could be more focused on exploring specific data and AI-related use cases so that participants can understand how data is currently being used (in a 'non-AI' way), and how AI is being introduced into specific environments. Another direction may be to explore design and project implementation approaches in a more generic way, and to discuss how these incorporate rights-based AI principles from previous modules - which is roughly how the example below was done.

Module learning outcomes

On Day 1 of each new module it is worthwhile to review the anticipated learning outcomes. See example learning outcomes above.

Input

The Input presentation for this module is an opportunity to cover some core content, from which new discussions are likely to emerge.

Activity and Discussion

As with other modules this could involve engagement with demonstration of technology or a presentation from someone who is actually implementing an AI project or introducing an AI policy or guideline. Or it could be more lightweight, using an online poll or questions as done in other modules.

Deepening and Synthesis

The Deepening for Day 1 of this module can be quite lightweight as a lead-in to Day 2, such as by asking one or two participants to present briefly on data or AI use cases that their region has been working on.

EXAMPLE: PRESENTATION ON USE OF AI FOR ADVANCING SDGS

In our Day 1 Input of Module 4, the expert presentation addressed the following:

- Transparency by design
- Participation and co-design involving affected stakeholders
- Algorithmic accountability including laws and audit/ review tools
- Guidelines and safeguards for project teams and developers
- Implementation stages and lifecycle for AI projects
- Example tools for data contracting and algorithmic impact assessment (which leads into the next session)

Slide deck: [GIZ CBP Module 4.1 - Use of AI for Advancing SDGs](#)

Edited recording: [GIZ CBP Module 4.1 - Use of AI for Advancing SDGs - edited](#) (113MB, 40min)

MODULE 4

Day 2: Social impact assessments

This session could also take on a few different routes, by exploring a specific tool or approach related to AI implementation in more detail. In this case, the focus is on social impact assessment (SIA) as a mainly ex-ante process for mitigating the risk of harm and maximising the potential benefits of AI in a specific scenario and community.

Activity and Discussion

As lead in to the Input presentation it can be good to reflect on the likely need for an SIA by asking participants to comment on the types of harms (and benefits) that may result from AI, where this harm may originate (e.g. in the data, the algorithm design, deployment and operation), and practical ways in which the harm may be mitigated.

Input

Whilst the Input presentation can cover a variety of tools, we suggest focusing on one - such as an SIA. At this stage in the programme participants should have been introduced to a number of methods and tools at a high level, and are now looking for a deeper dive into a specific tool that they can adapt (or draw lessons from).

Deepening, Synthesis and Independent Learning

The Deepening and Independent Learning links directly from the Input presentation by asking participants to form country break-out groups to work on an SIA template. They are then able to present back to the plenary team and go further with the template during the Independent Learning, either individually or - ideally - as the same country teams. Again, this can be followed by an Independent Learning Debrief session in which participants share on their complete or expanded SIAs.

EXAMPLE: PARTICIPANT COMMENTS ON ACTIVITY QUESTIONS

Name three types of harm that may arise from AI-driven technologies in your country.



What are some practical ways policy makers can mitigate the risk of harm and amplify the potential benefits of AI in your country?

Public sensitization on various AI solutions

Regulatory and compliance interventions. Creation of a central database of AI so you have an inventory

Independent algorithmic audits

Broad literacy on data algorithms

Thorough testing of each solution to ensure accuracy

Availing set of assessment tools for AI models before they are deployed. The assessment tools should be based on AI ethics

Risk Classification System with risk mitigation measures

EXAMPLE: DEEPENING AND INDEPENDENT LEARNING ON SIA

The Deepening exercise can draw on the template available below which invites participants to complete columns for individual, collective and societal harms (and benefits). For each, it is necessary to consider what is the nature of the harm or benefit, how it comes about, how it is measured (for monitoring purposes), and how it can be mitigated or amplified, respectively.

Deepening and Independent Learning template: [Template - Social Impact Assessments - Region](#)

MODULE 5

Institutional readiness

As the final module, we now look at how the various principles and practices introduced in earlier modules can be taken forward. In particular, this will cover: (1) Assessing government requirements, resources and capacities to implement AI solutions, (2) Identifying the conditions required for institutionalising AI solutions across government, and (3) Building ecosystems for multi-stakeholder and interdisciplinary approaches towards ethical AI practice.



GENERAL NOTES FOR THE MODULE

What to look out for

Any policy making or institutionalising of AI governance will be context-specific. Therefore, when presenting or discussing 'readiness' and other elements of AI policy development and implementation, it is important to acknowledge that participants and countries may have different priorities and pathways for realising responsible AI outcomes. For example, some regions may prioritise trustworthy and transparent AI adoption, whilst others may focus on technology development and export, or some combination of these.

Methods, materials or tools to use for virtual facilitation

At this stage of the course (if not earlier) there is likely to be some fatigue around virtual meetings, breakout rooms and online polling/ Q&A tools. To manage participant attention levels, you may want to shorten the sessions, or even ask participants to take a reading or template offline for an hour and then return to share their thoughts. If you haven't exhausted all of the online tools already, you may want to consider introducing something new, such as a Padlet board or Kahoot quiz, which can be more engaging.

EXAMPLE: LEARNING OUTCOMES FOR MODULE 5

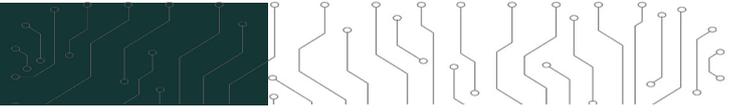
Our first run of Module 5 was based on the following learning outcomes:

- Se - Understanding of relevant department and sector-specific capacities and processes that are needed to implement an AI solution or policy response
- M - Ability to assess government (and partner) capacity for implementing an AI solution or policy response
- So - Developed a plan to engage and equip/ upskill a diversity of local stakeholders based on their capacities, priorities and needs
- P - Actions for further personal skills development related to AI governance

See above for an explanation of the learning outcome acronyms.

MODULE 5

Day 1: AI readiness



When considering AI readiness, the discussion may be more focused on intra-governmental readiness, that is processes and resources available within the public sector to develop and use AI for planning or service delivery purposes; or it may be more focused on external forms of readiness, such as for research and development, or broad societal adoption of AI.

Module learning outcomes

On Day 1 of each new module it is worthwhile to review the anticipated learning outcomes. See example learning outcomes above.

Activity and Discussion

As an interactive but lightweight introduction to Module 5 a Kahoot quiz may be appropriate. Quizzes should be used with caution as they are competitive and the questions (and answers), especially in relation to softer issues, can be ambiguous - all of which can antagonise some participants.

Input

The Input presentation should distinguish the different forms and elements of readiness as mentioned above. A good starting point is to discuss the various global AI and data indices which governments often use to benchmark their policy direction and progress, and to interrogate whether these are appropriate for the participants given what has been explored in previous modules - especially in relation to the types of benefits and harms (individual, collective and societal) and to what extent the readiness elements speak to the context-specific founding principles in which AI policy making is being grounded.

Deepening and Synthesis

The Deepening exercise for Module 5 can incorporate the elements of readiness presented and discussed in the Activity and Input. As there is likely to be some fatigue around breakout rooms, you may want to run this session as a Padlet or similar exercise in the plenary session.

EXAMPLE: QUIZ INTERFACE

Strong data protection and data privacy laws is good indicator of an AI-ready government

10

Kahoot!

0 Answers

◆ True

▲ False

EXAMPLE: PRESENTATION ON AI READINESS

In our Day 1 Input of Module 5, the expert presentation addressed the following:

- Defining and measuring government AI readiness
- Capabilities for executing an AI strategy
- Maturity models for digital services
- Public sector procurement of AI as a case study of government AI capabilities

Slide deck: [GIZ CBP Module 5.1 - AI Readiness](#)

Edited recording: [GIZ CBP Module 5.1 - AI Readiness - edited](#) (92MB, 31min)

EXAMPLE: DEEPENING RESPONSES ON AI READINESS

Institutional readiness for AI

I want you to reflect / discuss how ready your government is with implementing AI in the delivery of public services to their citizens? => You CAN use the digital services maturity framework for these discussions

Political environment
(e.g. supporting legal frameworks, political capital etc)

The government is putting up an expert team to develop legal framework

☆ Rate

There are fragmented legal framework relating to laying the foundational elements to deliver AI for public benefit. There is currently no resolute AI policy

☆ Rate

Anomalies with policy adoption and implementation

☆ Rate

Institutional capacity
(e.g. budgets, ease and availability of quality data etc)

Diminished institutional capacity (lack of skills, policies, infrastructure, budget, affordable data) to implement AI

☆ Rate

Protection commission is helping with institutional capacity building, currently what we have is not up to standard

☆ Rate

Delivery capability (e.g. access to tools, the governments' e-capability etc)

E-government framework not implemented as yet. There is a policy. Fragmented state and infrastructure. No central coordinating body for E-government

☆ Rate

Active advocacy programme is required to promote AI

☆ Rate

Skills and hiring (e.g. a robust talent pool)

Pushing for a science-based policy on education and capacity building

☆ Rate

There is a strong focus on sciences and STEM skilling now. Not sure how this science-based policy on education and capacity building will affect the AI landscape in the coming years!

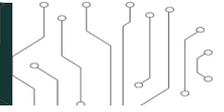
☆ Rate

Positioning itself as a tech hub

☆ Rate

MODULE 5

Day 2: Building responsible AI ecosystems and interdisciplinary approaches



This session goes into the various roles that different AI stakeholders play, their interactions, and how an active, inclusive ecosystem may be facilitated.

Activity and Discussion

A key theme in ecosystem analysis and development is trust. So, to kick off Day 2, you could ask participants about who they trust and what instruments are important for supporting responsible AI governance.

Input

The Input presentation can transition directly into content related to trust, and in this way start inviting programme participants to consider who potential stakeholders are in an AI ecosystem. In some policy making environments, the technology or AI ecosystem is more narrowly defined as those involved in developing and commercialising new technologies. In other contexts, it could be broader.

Deepening, Synthesis and Independent Learning

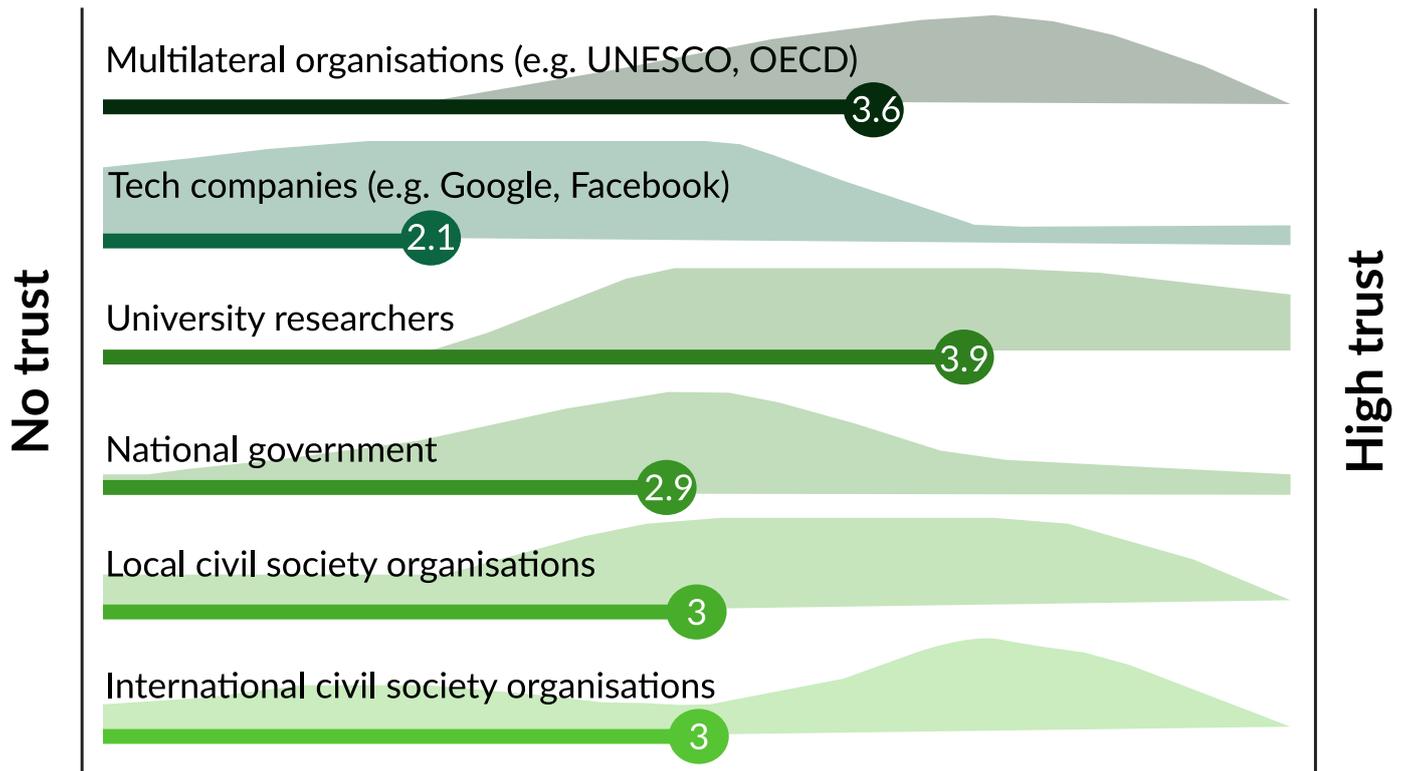
As a Deepening activity, participants can form country groups once more and work on their roadmap or implementation plan for taking forward the principles that have been covered in this and previous modules. As a relatively accessible entry point to this exercise, we suggest running this as a stakeholder analysis - according to policy actions identified in Module 2. See the example below.

Following the Deepening, the country groups can expand on the content during Independent Learning and present at the final Independent Learning Debrief session.

As an additional step, participants can also be asked to consolidate all of their template exercises from previous modules and/or synthesise this exercise content into a draft manual or framework which they can share on at a final workshop or similar event.

EXAMPLE: PARTICIPANT RESPONSES ON ACTIVITY QUESTIONS

How much do you trust these institutions / organisations on AI governance?



How important is each of these elements for ensuring we benefit from AI?



EXAMPLE: PRESENTATION ON BUILDING RESPONSIBLE AI ECOSYSTEMS AND INTERDISCIPLINARY APPROACHES

In our Day 2 Input of Module 5, the expert presentation addressed the following:

- Trust in institutions
- What is an AI ecosystem?
- Stakeholder mapping
- Roles
- Institutional arrangements
- Process and strategies [additional slides]
- Contextualising your approach [additional slides]
- Measurement and evidence [additional slides]

Slide deck: [GIZ CBP Module 5.2 - Building Responsible AI Ecosystem](#)

Edited recording: [GIZ CBP Module 5.2 - Building Responsible AI Ecosystem - edited](#) (192MB, 64min)

EXAMPLE: DEEPENING AND INDEPENDENT LEARNING ON IMPLEMENTATION/ READINESS FRAMEWORK

This example template asks participants to identify key stakeholders and comment on their 'readiness' or position related to AI policy elements explored in Module 2.

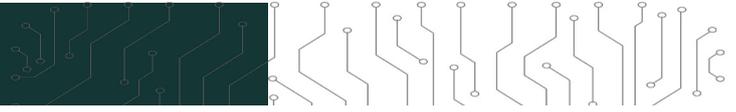
Deepening and Independent Learning template: [Template - Implementation Framework - Region](#)

References, resources and tools



MODULE 1

Introduction to AI



What is AI? Key terms and processes

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- Kairos <https://www.kairos.com/demos>
- PimEyes <https://pimeyes.com/en>

Translate and compare text

- Masakhane <http://translate.masakhane.io/>
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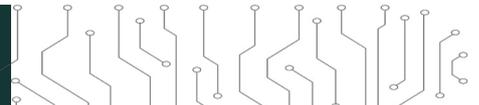
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MODULE 2

Introduction to tech policy with a focus on AI



AI and tech policy

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MODULE 3

Governance as an enabler

Data governance and data sharing

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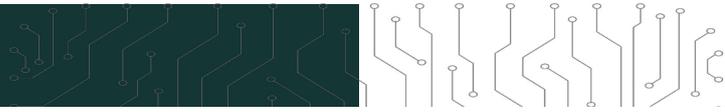
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MODULE 4

Getting practical



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MODULE 5

Institutional readiness

AI Readiness

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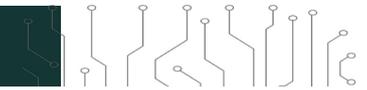
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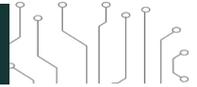
ANNEXURE A: SCHEDULING EXAMPLES



	Mon	Tue	Wed	Thu	Fri
Week 1		Launch			
Week 2		Module 1, Day 1	Module 1, Day 2	Independent learning 1 cont.	
Week 3	Independent learning 1 cont.			Independent learning 1 debrief	
Week 4		Module 2, Day 1	Module 2, Day 2	Independent learning 2	
Week 5	First survey	Independent learning 2 cont.			Independent learning 2 debrief
Week 6		Module 3, Day 1	Module 3, Day 2	Independent learning 3	
Week 7	Independent learning 3 cont.			Independent learning 3 debrief	
Week 8		Module 4, Day 1	Module 4, Day 2	Independent learning 4	
Week 9	Independent learning 4 cont.			Independent learning 4 debrief	
Week 10				Independent learning 5	
Week 11	Independent learning 5 cont.			Independent learning 5 debrief	
Week 12		Closing ceremony			
Week 13	Second survey				

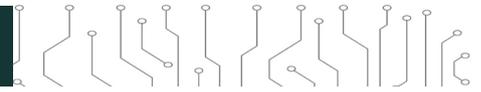
Module 1: Introduction to AI		
Date / Time	Activity / Event	Duration
Tues, 28 Sep 2021 10.30 - 14.30 (4hrs) What is AI? Key terms and processes	Kickoff of Module 1, Day 1: Welcome and overview	30 min
	Activity and Discussion: Mentimeter	60 min
	Input presentation: What is AI? Key terms and processes	60 min
	Lunch break	30 min
	Deepening and Synthesis	60 min
Wed, 29 Sep 2021 10.30 - 14.30 (4hrs) AI in the Global South / AI for Development	Kickoff of Module 1, Day 2: Welcome and overview	15 min
	Activity and Discussion: Mentimeter	60 min
	Presentation: AI in the Global South / AI for Development	60 min
	Lunch break	30 min
	Deepening and Synthesis	60 min
Thur, 30 Sep - Thur 7 Oct 2021 Independent learning	Independent individual or group work on assignment	N/A
	Independent learning overview and next steps	15 min
Fri, 8 Oct 2021 10.00 - 12.00 (2hrs) Module 1 Independent Learning Debrief	Kickoff of Module 1 Debrief	10 min
	Additional group work on independent learning assignments	60 min
	Group presentations and discussion	50 min

ANNEXURE B: QUALITY ASSURANCE EXAMPLES



Question	Y/N
When designing module(s) ask yourself if they address:	
Ownership and self-organisation. E.g. Is the activity designed to enable self-steering and to foster self-organisation and ownership?	
Learning support/advice. E.g. Is systematic support and advice in place that allows learners to reflect on their own competence profile?	
Multiple perspectives and switching of perspectives. E.g. Are multiple perspectives guaranteed? Are the learners able to switch perspectives?	
Attitudes. E.g. Is an attitude of mutual regard and respectful comparison fostered?	
Spaces of experience. E.g. Are learning spaces designed to enable experimentation and reflection?	
Reflection. E.g. Is the effectiveness of each learner's own actions and of joint actions viewed in a critical light?	
Co-construction of learning. E.g. Are relationships, dialogue, communication and cooperation designed so that learners can develop innovative solutions together?	
Once module(s) have started, ask yourself if they support development of:	
Sectoral competence. I.e. skills in understanding regulatory compliance and navigating department-specific requirements and protocols	
Methodological competence. I.e. skills in addressing the specific concern using evidence-based approaches	
Social competence. I.e. skills in facilitating cooperation and effective communication amongst relevant role-players	
Personal competence I.e. skills required to assume leadership and foster meaningful participation from others	
And are modules developing competence for instituting change at national & international levels?	
Is the learning process designed to achieve results beyond the individual level?	
What influence will the learners have on other important groups of actors?	
Are the learners institutionally integrated to a sufficient degree?	
Have multipliers received suitable training and capacity building?	
Finally, to optimise learning results, ask yourself and other actors involved:	
Do the identified needs reflect the priorities of the learners?	
Is the learning content used in this context relevant and context-oriented?	
Have suitable participants been identified?	
Does the learning content match the participants' current level of knowledge and their working day?	

ANNEXURE C: SURVEY EXAMPLES



The Technology Readiness Questionnaire was sent to participants prior to the commencement of the course and was used to assess participant familiarity with different technologies, as well as areas of the course that participants would find most useful.

Technology Readiness Questionnaire	
Question	Response
Please provide your full name and the name of your organisation	
Please provide an email address we can contact you on?	
Are you willing to be contacted via WhatsApp?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If your answer to the previous question was 'Yes', please provide your phone number below (including country code)	
Are you working on a laptop or a desktop computer? (Please note that you will not be able to participate in training sessions on your phone)?	<input type="checkbox"/> Laptop <input type="checkbox"/> Desktop
Do you have a set of headphones and a webcam (if using a desktop computer)? [tick the appropriate boxes]	<input type="checkbox"/> I have headphones <input type="checkbox"/> I do not have headphones <input type="checkbox"/> I use a desktop and have a webcam <input type="checkbox"/> I use a desktop and do not have a webcam <input type="checkbox"/> I use a laptop and it has a camera <input type="checkbox"/> Not sure
Are you comfortable with using MS Teams for live training events	<input type="checkbox"/> Yes <input type="checkbox"/> Not <input type="checkbox"/> Not sure
If the answer to the previous question was 'no' or 'not sure', will you need training in using MS Teams?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable
Do you have a Google or Gmail account?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
Are you able to work on shared Google docs with other course participants?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
Is your power supply and internet connection reliable enough to participate consistently in live 4 hour training sessions?	<input type="checkbox"/> Always <input type="checkbox"/> Mostly <input type="checkbox"/> Sometimes <input type="checkbox"/> Not at all
What data, technology or AI project(s) are you working on (currently and in the future)?	
Would you be willing to do a short presentation on all or part of this work in one of the sessions?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
What is your preferred method of learning? (i.e. lectures, seminars or small group discussions, interactive exercises)	
For out of class assignments, do you prefer to work in groups or independently?	<input type="checkbox"/> Group <input type="checkbox"/> Independent <input type="checkbox"/> Either
What do you hope to get out of the programme (AI strategy, business case for an innovation hub, prototype/AI solution etc)?	
What sectors/applications are you most interested in?	<input type="checkbox"/> Health <input type="checkbox"/> Safety and justice <input type="checkbox"/> Identity and biometrics <input type="checkbox"/> Fintech <input type="checkbox"/> Elections, democracy and media <input type="checkbox"/> Agriculture and food security

What are the three key developmental priorities for your country or region?	
At this stage, what would you most like to get more information or skills on related to AI policy making? [tick the appropriate boxes]	<input type="checkbox"/> Technical understanding of how AI works <input type="checkbox"/> Relevance of AI to my national development priorities or SDGs <input type="checkbox"/> How Ai policy relates to broader technology and innovation policy <input type="checkbox"/> Sector-specific use cases and project design (e.g. health, safety, agriculture) <input type="checkbox"/> Sector-specific policy considerations for AI <input type="checkbox"/> Data governance and protection <input type="checkbox"/> AI ethics and social impact assessment <input type="checkbox"/> Government use of AI and internal process or capacity building (e.g. procurement) <input type="checkbox"/> Enabling the wider national AI innovation, investment and use ecosystem

The Participant Survey was sent to participants following the conclusion of Module 2 to assess, amongst other things, whether the course was meeting participant expectations, what they preferred and whether it was progressing as expected. This survey was conducted anonymously.

GIZ Participant Survey	
Question	Response
Sex	<input type="checkbox"/> Female <input type="checkbox"/> Male <input type="checkbox"/> Prefer not to say
Gender: how do you identify?	<input type="checkbox"/> Female <input type="checkbox"/> Male <input type="checkbox"/> Non-binary <input type="checkbox"/> Prefer not to say
Overall, how satisfied are you with the course content so far?	<input type="checkbox"/> Very dissatisfied <input type="checkbox"/> Dissatisfied <input type="checkbox"/> Neutral <input type="checkbox"/> Satisfied <input type="checkbox"/> Very satisfied
On a scale of 1 to 5, 5 being the highest, how relevant have the modules been to your needs?	
Do you think the modules are equipping you to develop AI-related policy?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Maybe
On a scale of 1 to 5, 5 being the highest, how would you rate the quality of the facilitators for the modules?	
On a scale of 1 to 5, 5 being the highest, how satisfied are you with the participatory approach to learning?	
Have you had any technical issues around attending modules or completing assignments?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Sometimes
If Yes / Sometimes, please provide more details on the issue or what could be changed	
The Module 1 (Introduction to AI) facilitators were knowledgeable about the topics that were taught?	<input type="checkbox"/> Strongly disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Strongly agree
The Module 2 (Introduction to Tech Policy with a Focus on AI) facilitators were knowledgeable about the topic that was taught	<input type="checkbox"/> Strongly disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Strongly agree

Did you find these activities beneficial? 0. Menti discussions a. Lectures / presentations by experts b. Breakout rooms c. Template exercises d. Debrief session e. Sharing / presentation by other participants	[Options for each] <input type="checkbox"/> Not at all <input type="checkbox"/> Not really <input type="checkbox"/> Somewhat <input type="checkbox"/> Very much <input type="checkbox"/> Extremely <input type="checkbox"/> Not applicable
Which activities would you like to have more of?	<input type="checkbox"/> Menti discussions <input type="checkbox"/> Lectures / presentations by experts <input type="checkbox"/> Breakout rooms <input type="checkbox"/> Template exercises <input type="checkbox"/> Debrief sessions <input type="checkbox"/> Sharing / presentation by other participants
Do you think that the modules have been well organised?	<input type="checkbox"/> Strongly disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Strongly agree
How has the programme communication been?	<input type="checkbox"/> Perfect <input type="checkbox"/> Too much <input type="checkbox"/> Not enough
If there are any issues interfering with your ability to benefit from the course, please let us know by checking the most relevant option below:	<input type="checkbox"/> Technical issues with my connection / device <input type="checkbox"/> Relevance of content to my needs <input type="checkbox"/> Delivery approach <input type="checkbox"/> Length of sessions <input type="checkbox"/> Other work commitments <input type="checkbox"/> I am not experiencing any issues
Do you have any other comments or suggestions for improving the course?	
And finally, what (if anything) can we do to encourage you to participate more actively in each session?	

The Course Evaluation Survey was sent to participants following conclusion of the course to assess overall satisfaction with the course as well as determining ways in which courses of a similar nature can be better run / facilitated in future. This survey was also completed anonymously.

GIZ Participant Survey	
Question	Response
Overall, how satisfied were you with the course?	<input type="checkbox"/> Very satisfied <input type="checkbox"/> Satisfied <input type="checkbox"/> Neutral <input type="checkbox"/> Dissatisfied <input type="checkbox"/> Very dissatisfied
Do you think the modules succeeded in equipping you to develop AI-related policy?	<input type="checkbox"/> Not at all <input type="checkbox"/> Partially <input type="checkbox"/> Mostly <input type="checkbox"/> Very much
Which modules were most useful to you?	<input type="checkbox"/> Module 1 (Introduction to AI) <input type="checkbox"/> Module 2 (Introduction to Tech Policy with a Focus on AI) <input type="checkbox"/> Module 3 (Governance as an Enabler) <input type="checkbox"/> Module 4 (Getting Practical) <input type="checkbox"/> Module 5 (Institutional Readiness)
On a scale of 1 to 5, 5 being the highest, how would you rate the quality of the facilitators for the modules?	

The Module 1 (Introduction to AI) facilitators were knowledgeable about the topics that were taught	<input type="checkbox"/> Strongly disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Strongly agree
The Module 2 (Introduction to Tech Policy with a Focus on AI) facilitators were knowledgeable about the topics that were taught	<input type="checkbox"/> Strongly disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Strongly agree
The Module 3 (Governance as an Enabler) facilitators were knowledgeable about the topics that were taught	<input type="checkbox"/> Strongly disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Strongly agree
The Module 4 (Getting Practical) facilitators were knowledgeable about the topics that were taught	<input type="checkbox"/> Strongly disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Strongly agree
The Module 5 (Institutional Readiness) facilitators were knowledgeable about the topics that were taught	<input type="checkbox"/> Strongly disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Strongly agree
Did you find these activities beneficial? Did you find these activities beneficial? 0. Menti discussions a. Lectures / presentations by experts b. Breakout rooms c. Template exercises d. Debrief session e. Sharing / presentation by other participants f. Kahoot quiz (Module 5.1) g. Padlet exercise (Module 5.1)	<input type="checkbox"/> Not at all <input type="checkbox"/> Not really <input type="checkbox"/> Somewhat <input type="checkbox"/> Very much <input type="checkbox"/> Extremely <input type="checkbox"/> Not applicable
On a scale of 1 to 5, 5 being the highest, how satisfied were you with the participatory approach to learning?	
How much of the training and independent learning were you able to participate in?	<input type="checkbox"/> None of it <input type="checkbox"/> Some of it <input type="checkbox"/> Most of it <input type="checkbox"/> All of it
Did any issues interfere with your ability to benefit from the course?	<input type="checkbox"/> Technical issues with my connection / device <input type="checkbox"/> Relevance of content to my needs <input type="checkbox"/> Delivery approach <input type="checkbox"/> Length of sessions <input type="checkbox"/> Other work commitments
Do you think that the modules were well organised?	<input type="checkbox"/> Strongly disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Strongly agree
Overall, how was the programme communication?	<input type="checkbox"/> Perfect <input type="checkbox"/> Too much <input type="checkbox"/> Not enough
Did you appreciate that the course offered a certificate?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Maybe
Did the course certificate influence your decision to participate?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Maybe

Would you like GIZ/ HSRC to keep in contact with you about future AI-related activities and content?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are you interested in staying connected to other participants as part of an Africa-Asia AI policymakers network?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Maybe
If yes/ maybe, do you have any suggestions on how this network can be organised?	<input type="checkbox"/> Additional training or expert presentations <input type="checkbox"/> Additional peer-learning exchanges with other policy-makers <input type="checkbox"/> Examples of policies or guidelines from other countries <input type="checkbox"/> Reports or research articles on AI governance and impact <input type="checkbox"/> Meeting people from industry, academia or civil society that could partner with us <input type="checkbox"/> Direct support with policy or project implementation
What is your preferred method of communication for the network?	<input type="checkbox"/> WhatsApp group <input type="checkbox"/> LinkedIn / Facebook group <input type="checkbox"/> Email mailing list
What would be most helpful to you going forward?	
Sex	<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Non-binary <input type="checkbox"/> Prefer not to say
Do you have any other comments or suggestions for improving the course or facilitating learning on AI policy issues?	



AI

