**A.1 The 30 IDA-Principles**

Based on human rights and on the United Nations’ Sustainable Development Goals as well as in critical dialogue with already existing soft-law instruments and declarations, the following 30 principles could provide ethical guidance to IDA:

*1st principle: Data-based systems must respect, protect, implement, and serve the realization of human rights.*

*2nd principle: Data-based systems must serve the realization of the United Nations’ Sustainable Development Goals.*

*3rd principle: Data-based systems must be transparent.*

*4th principle: Data-based systems must be traceable.*

*5th principle: Data-based systems must be explainable.*

*6th principle: Data-based systems must be intelligible.*

*7th principle: Data-based systems must be auditable.*

*8th principle: Causes and effects or causality and correlation must be identifiable in data-based systems.*

*9th principle: Data-based systems must be predictable.*

*10th principle: Data-based systems must be decidable.*

*11th principle: Data-based systems must be non-manipulating and respect the autonomy of every human.*

*12th principle: Data-based systems must be able to adapt to humans.*

*13th principle: Data-based systems and their performance (efficiency and effectiveness) must be controlled, monitored, measured, and evaluated on a regular basis, and their assessment must be published each time such that it is accessible to the broader public.*

*14th principle: Data-based systems must include an “emergency button” (metaphorically) for humans and an “ethics-black-box” enabling an ethical analysis.*

*15th principle: Data-based systems must be approved by national regulatory authorities – similar to food and drug regulatory agencies protecting the public health, by ensuring the safety, efficacy, security, and sustainability of data-based systems, regulating the manufacturing, marketing, and distribution of data-based systems, helping to further innovations that make data-based systems more effective, safer, and more affordable, and empowering the public by providing the accurate, independent, and science-based information they need to accept and to use data-based systems.*

*16th principle: Research and development-projects in the area of data-based systems must be approved by national regulatory authorities.*

*17th principle: The conduct of research and development must respect these IDA-principles.*

*18th principle: Lethal automated weapons and lethal automated weapon systems are forbidden.*

*19th principle: Data-based systems for human rights-violating surveillance are forbidden.*

*20th principle: Data-based systems for social scoring of humans by the state or by non-state actors are halted and forbidden.*

*21st principle: Data-based systems manipulating and undermining democracy are forbidden.*

*22nd principle: Data-based systems supporting or reinforcing totalitarian systems and dictatorships are forbidden.*

*23rd principle: Data-based systems blazing the trail for “super-data-based systems”, or the “singularity” are forbidden.*

*24th principle: “Super-data-based systems” or the “singularity” are forbidden.*

*25th principle: These principles so far must be included in the parameter setting for the creation, design, programming, development, production, training, and use of data-based systems.*

*26th principle: Designers, software-engineers, manufacturers, producers, operators, providers, and users of data-based systems as well as infrastructure providers and data analytics companies and their employees must have adequate knowledge, skills, and competencies, including a basic applied-ethics-expertise.*

*27th principle: Designers, software-engineers, manufacturers, producers, operators, providers, and users of data-based systems as well as infrastructure providers and data analytics companies and their employees must be accountable. They must be able to take legal and ethical responsibility.*

*28th principle: The principle of indivisibility of all IDA-principles must be respected.*

*29th principle: Any supplement or modification to these principles must be undertaken only by humans.*

*30th principle: Any supplement or modification to these principles must undoubtedly serve the realization of human rights of all humans and the United Nations’ Sustainable Development Goals.*

**A.2 Legal Status of IDA**

IDA would be an entity having “international legal personality”. States should recognize IDA as an entity which has some rights and privileges normally associated with a sovereign State. One of the primary attributes of an international organization such as IDA is the capacity to conclude international agreements with other “persons” having international legal personality under international law.

Beyond that, the legal status of IDA would embrace also the relations of IDA with the UN including its reporting on a regular basis to the UN General Assembly as well as if necessary to the UN Security Council and its institutional cooperation within its own decision-marking processes.

**A.3 Membership**

State and nonstate actors become members of IDA by ratifying its Statute.

Offering nonstate actors the membership of IDA is necessary due to the growing political importance of multi-stakeholder-participation, the increasing economic power (and corresponding responsibility) of multinational technology-companies in the field of DS, as well as the global and multidisciplinary nature of DS.

**A.4 Rights and Responsibilities of IDA**

Vis-à-vis state and non-state actors (e.g., corporations), IDA would be authorized to establish and administer safeguards to foster the realization of the 30 IDA-principles, among others and primarily,

* To guarantee that data-based systems (DS) are developed, produced, and deployed in respect of human rights;
* To ensure that data-based systems (DS) are promoting peace;
* To secure that data-based systems (DS) are fostering the realization of the UN SDGs;
* To apply safeguards, at the request of the parties, to any bilateral or multilateral arrangement;
* To apply safeguards to any of the data-based systems-activities of a state or nonstate actors, at that state actor’s or nonstate actor’s request.

IDA would enjoy rights and responsibilities including, among others:

* The right to permit or prohibit as regulatory authority research and development-projects of data-based systems (DS) in order to protect all humans and the planet (in analogy with such legally defined approval processes in the pharmaceutical industry protecting humans and the planet);
* The right to examine as global supervisory and monitoring institution the design and research and development of DS;
* The right to decide as regulatory authority about the approval of access to market of a DS (in analogy with such legally defined approval processes in the pharmaceutical industry protecting humans and the planet);
* The right to examine the production of DS as global supervisory and monitoring institution;
* The right to examine the deployment of DS including requesting operating records to assist in ensuring accountability for and control of DS as global supervisory and monitoring institution;
* The right to require the submission of reports on design, production, and/or deployment of DS regarding human rights, peace, and sustainability global supervisory and monitoring institution;
* The right to send as global supervisory and monitoring institution into the state actor or to the nonstate actor members of the “enforcement committees” and/or inspectors, designated by IDA after consultation with the state actor or state actors respectively nonstate actor or nonstate actors concerned, who shall have access at all times to all places and data and to any person who by reason of his or her occupation deals with data-based systems (DS);
* In the event of non-compliance and failure by the state or nonstate actor concerned to take as global supervisory and monitoring institution requested corrective steps within a reasonable time, the right to curtail or suspend assistance and call for the disconnection and deactivation of a data-based system (DS) or data-based systems (DS) combined with the enforcement of corresponding fines (in percentages of the annual budget of state respectively the profit before tax of a nonstate actor) and with the execution of the suspension of the state or nonstate actor from the exercise of the privileges and rights of IDA-membership.
* The responsibility to serve as a platform for technical cooperation in the field of digital transformation and DS – of course collaborating and joining forces with already existing events and formats (e.g., the World Summit on the Information Society (WSIS), the International Governance Forum IGF, the AI for Good Global Summit …) – fostering human rights, safety, security, and peaceful uses of DS.

These rights and responsibilities of IDA serve the goal that IDA realizes concrete and sustainable ethically positive impact in the domain entrusted to IDA.

**A.5 Instruments, Enforcement-Mechanisms, and Enforcement-Measures of IDA**

Legally binding instruments as part of International Law should be developed under the auspices of IDA, by UN member-states fostering the enjoyment of ethical opportunities by all humans as well as mastering or avoiding of ethical risks.

The process of concluding a legally binding instrument can follow

* either the usual process of UN treaties and can be started by either a state actor, a civil society-actor or IDA
* or – in the case of urgency or emergency regarding the respect of human rights, peace, and sustainability – by IDA.

Every legally binding instrument will know an *Enforcement-Committee* consisting of independent experts examining the implementation by the state and nonstate actors based on annual reports by the state and nonstate actors. The work of the *Enforcement-Committee* is also informed by visits as well as inspectors equipped with *Enforcement-Measures* specifically

* addressing the concrete opportunities and risks as well the measure calling upon the state or nonstate actor to remedy non-compliance;
* reporting non-compliance to the UN Member States and to the UN Security Council and the UN General Assembly;
* defining counter-measures against the state or nonstate actor including fines (in percentages of the annual budget of a state respectively the profit before tax of a nonstate actor) and the suspension of the state or nonstate actor from the exercise of the privileges and rights of IDA-membership.

Non-binding instruments (e.g., IDA-recommendations; IDA-guidelines, IDA-code of conducts; …) should be developed under the auspices of IDA for the promotion of human rights, peace, and sustainability even beyond the letter of the law as well as addressing in a first phase new technology-based ethical opportunities and risks potentially inspiring new legally binding instruments. Every non-binding instrument will be accompanied by an *Advisory Group* consisting of independent experts consulting state and nonstate actors; receiving and reviewing the reports of state and nonstate actors in line with the conceptualization of IDA as a learning organization which is of utmost importance in the area of rapidly evolving technology-based innovation.

Already existing regional and national legally binding instruments should be promoted by IDA as good practices for other regions or states including *general comments* evaluating them based on the purpose of IDA and 30 IDA-Principles.

Already existing regional and national non-binding instruments should be promoted by IDA as good practices for other regions or states including general comments evaluating them before based on the purpose of IDA and 30 IDA-Principles.

These instruments, enforcement-mechanisms, and enforcement-measures of IDA serve the aim to create in an inclusive and participatory way the aspired concrete effects in the field of DS.

**A.6 Governance of IDA**

IDA governance would include

1. Director General (an individual endowed with executive powers), elected by the UN General Assembly
2. Secretariat, elected by the Director General and confirmed by the Board (implementing body)
3. Board (strategic body), elected by the UN General Assembly
4. Tripartite Council consisting of three representatives of states, of the private sector, and of civil society (advisory body to the Director General and the Board), confirmed by the UN General Assembly
5. UN Council consisting of the UN Secretariat General and all UN Agencies – especially UNESCO formulating the first global ethical standards for so-called “Artificial Intelligence” (collaborative body for the Director General and the Board)
6. Enforcement-Committees, elected by the UN General Assembly (executive bodies)
7. Advisory-Groups, elected by the UN General Assembly (consulting bodies for state and nonstate actors)
8. Inspectors-Team, appointed by the Director General and the relevant Enforcement-Committee (monitoring body).

This governance structure of IDA ensures its ability to decide, act, and to deliver concrete results and impact on the ground, its good governance, its embeddedness in the UN and the international community as well as its interconnectedness with other international institutions and organizations in this field, its multi-stakeholder-participation, its inclusive approach integrating and benefitting from all the work and efforts already pursued and continuing to be pursued in this field, its excellent expertise, knowhow, and experience, as well as its ability to implement and to enforce according to its mandate.

**A.7 HRBDS Supporting IDA in Fulfilling Its Responsibilities**

HRBDS as innovative technology-based solutions should support IDA in fulfilling its responsibilities as far as possible (ethical problems which could occur during the deployment of DS, e.g. contextual bias, should be foreseen as much as possible), e.g. by identifying human rights-violating DS such as racist or sexist apps. (In order to illustrate this point: if DS are able to master the complexity of identifying malign tumor cells on a screen, it must also be possible to use DS to identify available racist or sexist apps.) This means concretely, e.g., that a state or nonstate actor needs to submit digitally an application for its research- and development-project in the field of DS before starting it, and the assessment and evaluation before the 30 IDA-principles and the legal requirements of this project can be performed by DS informing a final decision by humans.

An international fund should be established by state and nonstate actors providing impact-investments in ventures striving to bring HRBDS on the market supporting IDA in fulfilling its responsibilities.