"A Digital Planet for Environmental Sustainability": Check-in with the CODES community

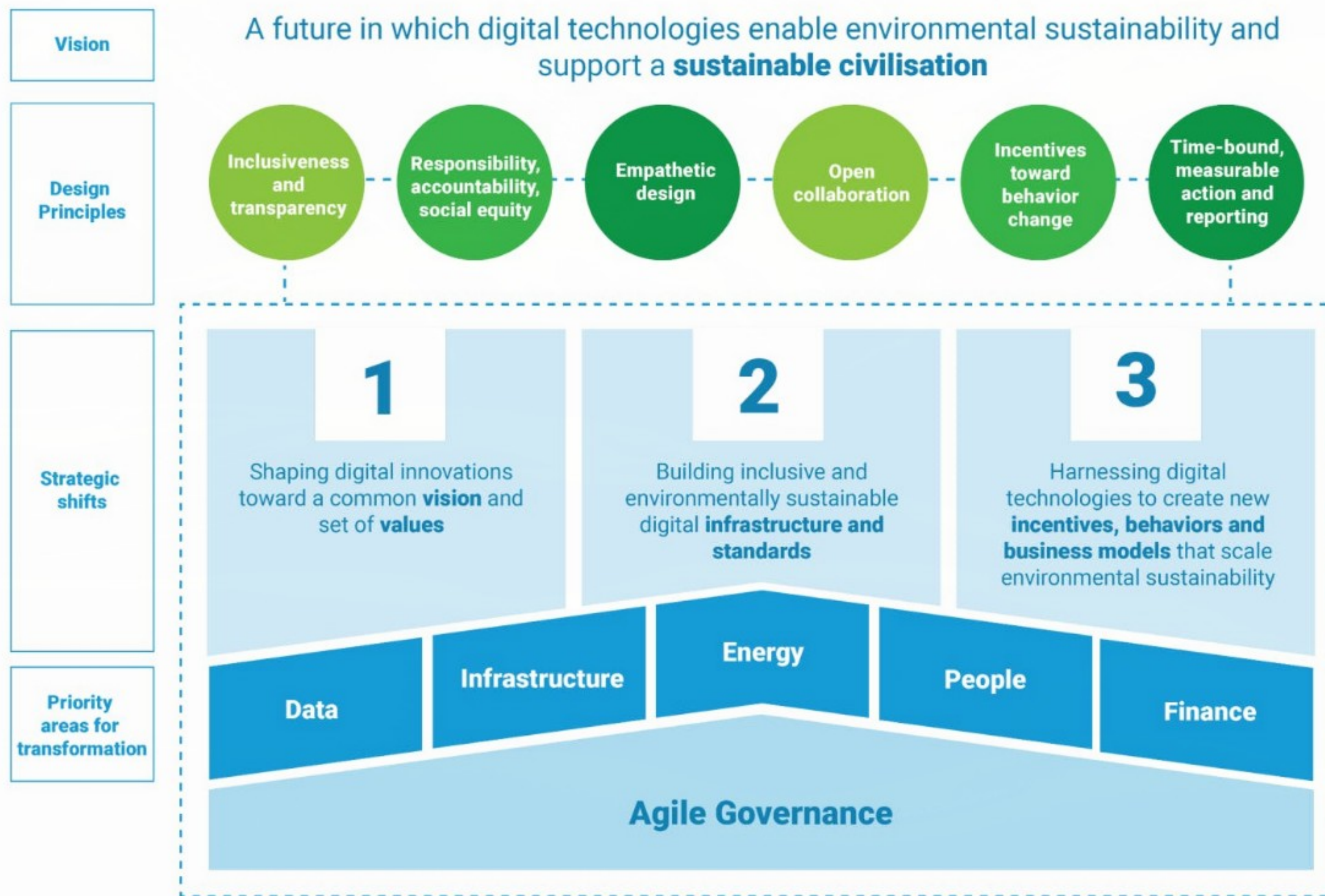# Which country are you based ?

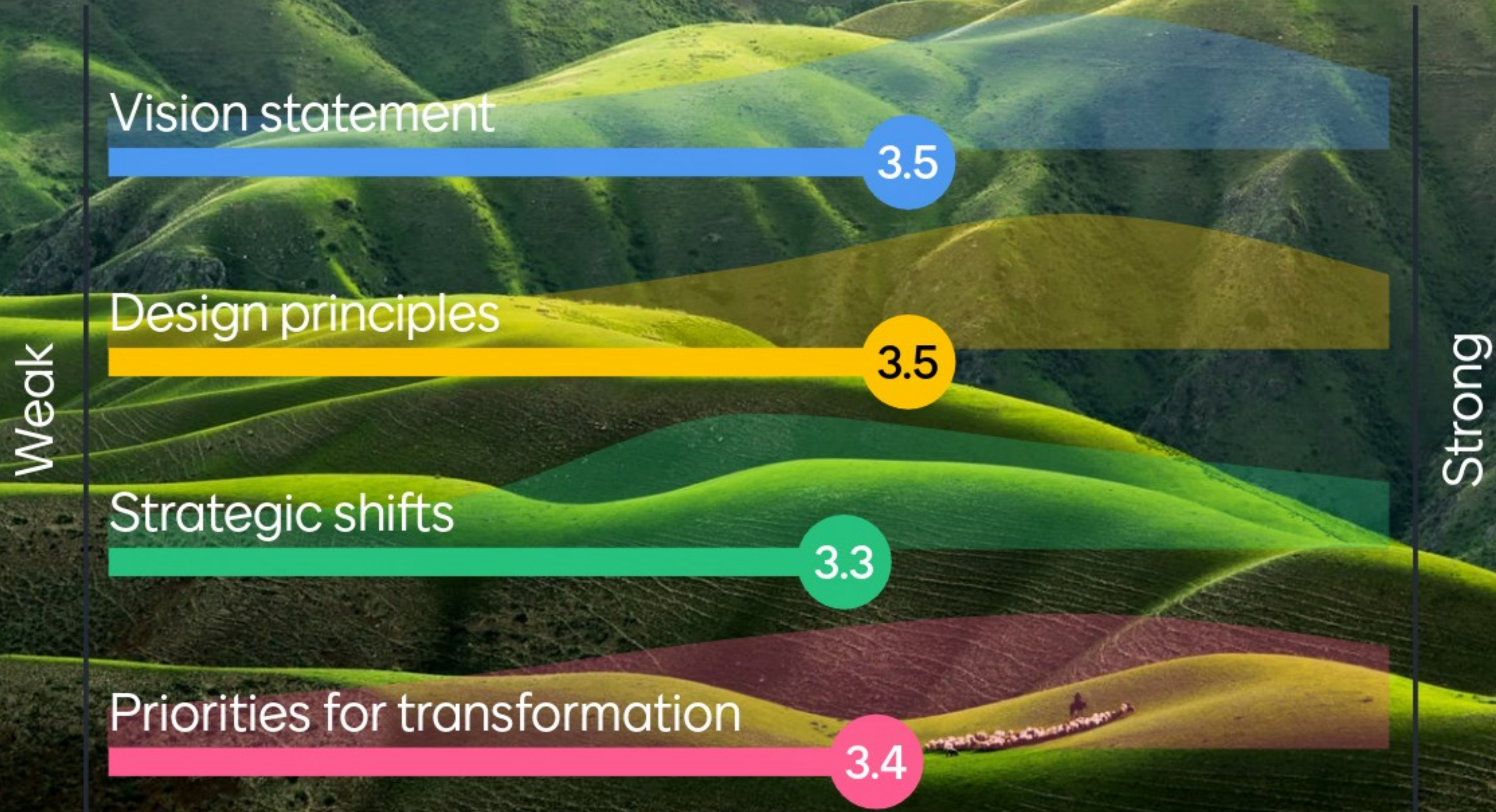CODES Strategic Framework

Vision

A future in which digital technologies enable environmental sustainability and support a **sustainable civilisation**

Design Principles

- Inclusiveness and transparency
- Responsibility, accountability, social equity
- Empathetic design
- Open collaboration
- Incentives toward behavior change
- Time-bound, measurable action and reporting

Strategic shifts

1 Shaping digital innovations toward a common **vision** and set of **values**

2 Building inclusive and environmentally sustainable digital **infrastructure and standards**

3 Harnessing digital technologies to create new **incentives, behaviors and business models** that scale environmental sustainability

Priority areas for transformation

- Data
- Infrastructure
- Energy
- People
- Finance

Agile Governance

Feedback on the draft report: Strategic Framework

Score the elements of the CODES Strategic Framework

Weak ← → Strong

- Vision statement — **3.5**
- Design principles — **3.5**
- Strategic shifts — **3.3**
- Priorities for transformation — **3.4**

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How can the strategic framework be improved ?

Nothing on the Chief Executives Board

Nothing on the Multilateral Env. Agreements

Focus on nature and climate, so it doesn't try to solve everything

More emphasis on actual solutions.

Inclusion of academic research on Computational Sustainability which is much broader and richer than acknowledged in the report

improve the human-centered approach to the transformation

Tangible measurement agreed of Initiatives, certified actions vs nice words

Make it as tangible as possible

P. 12, very negative on digital currency. GLARING GAP. Central Banks and stable digital currency does not mean bitcoin.

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How can the strategic framework be improved ?

Biodiversity

How to accelerate route to solution.

Clarify context and specific goals. Clear structure. Justify the specific ingredients better. Talk about power and politics more

Identify key stakeholders and decision makers for each priority

We would like to better understand the remit of the report and CODES. We think it is too broad in scope.

enhance the sustainble finance framework

Innovation and change management being directly addressed

Include clear areas of interventions- maybe 5 lighthouse sectors like cities, water transport, meat production etc.

Including Joshuas and Amy's concepts on „planetary intelligence" huge game changer

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How can the strategic framework be improved ?

Only 17 Goals, not the Agenda 2030? And the Technology Facilitation Mechanism??

Focus on internet access for more communities

Connect Vision, Design with key benchmarks

More consultation with and survey into various stakeholders

develop much more collaboratively with communities that are on the front lines of environmental destruction and injustice.

Performing a needs assessment as to where different countries are in terms of preparedness

Role of UN Global Marketplace about supply chains.

Excellent format for inclusion, David!!

Focus

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How can the strategic framework be improved ?

Align incentives.

Address the whole ecosystemDigital services Accountability Fair distribution of responsibility

Tangible goals and measurements

it's too global north focused

Connect CODES digital solution to practical solution for corporates to be able to act tomorrow

Inclusion of young researchers and citizens. Getting feedback from the citizens

Actionable

More emphasis on environment, less overlap with other Roadmap groups. Opportunity to focus more on environment.

What the action plan entails

166

How can the strategic framework be improved?

Many are not thinking Anthropocene, we need the Ecozoic human earth community also.

Maybe address pillars on uptake, skills, partnership, communication. & engagement

Practical guidance

What's the moonshot

Explicit recognition and alignment to other similar initiatives - how do we ensure broad awareness beyond the groups emerging

Dirk said 2 years of work, Stephanie said 3 years. Which is it?

Governance of responsibility

How does this apply across all industries amd sectors?

Connect in the startup ecosystem and its funding regime to harness the engine that shapes technology.

166

How can the strategic framework be improved?

Open approaches. We need ideas & approaches that we can rapidly scale without proprietary barriers. Open standards, open source & open data are ket.

Applied applications - how to be implement digital solutions for the environment.

Focus on delivering messages to majority of people

Aligning on concrete collaboration tools and incentives to bridge across initiatives.

Systemic change should be emphasized more. Is our current economic system fit for purpose?

ensure that strategic framework clearly demonstrates respect for sovereignty of Indigenous and traditional communities.

Avoid overstepping the Roadmap's remit

Pathways to practical changes

Feb. 11 is the Intl. Day for Women and Girls in Science. Where do we highlight women and girls in science?? Also equal ay for equal work in science.

166

How can the strategic framework be improved ?

!#*&!$

The strategic shifts are overly specific on some items and unspecific on others that are very relevant.

C-level legal accountability

Bottlenecks and solutions

Government transparency on procurement. Need to be able to share & compare.

We have lacked the diversity from significant stakeholder groups at each step of this process so we need to recognise the report doesn't reflect a 360 perspective and ensure we mitigate that

Create CODES Digital Pilot Village of solutions.

SMEs plug in at George Washington U. with the Intl. Council for Small Business.

Happy to connect you to NVIDIA Inception for startups/SME.

166

How can the strategic framework be improved ?

Measurable goals!

Perhaps getting more tactical about How to build the digital infrastructure needed. What does it look like? How will it work?

We would like further clarity on who will be ratifying these commitments

Reallign how we integrate and enable SME and Startups - shift incentivization, procurement, scaling rather than competition etc. - no longer emulating silicon valley approach to innovation

Too many people are using Moonshot, maybe Mars-shot??

Nature should also be a priority

Need at least some global south friendly timezones for events to attract global south engagement

Open source is very good for SME & local developers. Need to shift government procurement to build.

Skills

166

How can the strategic framework be improved ?

Task Forces within the 7 areas?

Ability to have minority views??

We need to link to Decade of Ecosystem Restoration

Culture is missing

Do not forget the MDGs are still active

Fixing root problem with tech. Cant settle with little adjustments.

Developpement durable means resiient development. Missing.

Multistrategic stakeholders, not just multisectoral

Openness should be a key goal. So important for citizen trust.

166

How can the strategic framework be improved ?

Identify what needs to be developed together for the digital infrastructure needed...get tactical.

UNEP Financial Services initiative at Cambridge needs to share ideas

We cannot read the comments on David's screen. Will the comments be made larger later on?

Ecooic Era

What is the status of Fabrizio and the current OIC?

Older persons left out

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166

How can the strategic framework be improved ?

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Designing a robust feedback mechanism from stakeholders towards a collective engagement

166

How can the strategic framework be improved ?

While UNEP is focused on the environment, indicating 'environmental sustainability' as opposed to sustainability broadly inclusive of social and economic is not realistic. Change civilization to society. Include policy as part of transformation.

The strategic framework can be modelled after a pattern and design thinking approach that covers digital innovation and innovation sustainability techniques in top priority for the digitally underserved

be much more specific. there are 100s of 'well-meaning but vague' initiatives out there

With a more holistic and interdisciplinary view

While the framework acknowledges the global digital divide, it stops short of recognising that developed nations are once again reaping the benefits of digital tech early and closing the doors behind them.

solve specific problems not general ones

In my view, the framework should be framed based on regional experiences and levels of development. Each region experience different levels of ICT usage and management of the environment.

Investment in sustainable digitalisation is difficult in countries where the priority is simply to bring populations online. Investment support from developed countries should not simply be tech transfers, but investment in capacity and innovation.

Priority areas need to include transport/mobility: active travel being a key element for reducing carbon emission and improving wellbeing. There is no mention of:We need innovation that is mission-drivenwe need to do this collaboratively

166

How can the strategic framework be improved ?

Collaborative and cross sector innovation

Mission-driven innovation

Dig deeper and go beyond everything that is happening already. Ensure you are solving the problems created by silos. Rather than adding more of the same.

A very compelling and inspiring start. I believe building a sustainable digital infrastructure includes developing cloud infrastructure. OpenAI's GPT-3 is owned by Microsoft, and can be integrated into their overall climate goals.

Make it easy memorizable - like the word CODES

With education and multidisciplinary teams.

provide metrics for measuring actionability

More shifts needed I think

There is a need to get involved more stakeholders , engage them to understand what is need from them to get the back ground running

166

How can the strategic framework be improved ?

We need to planned. The vision and mission are in place, review time frame and objectives when project is implemented.

Regular consultations with stakeholders

great paper, very clear purpose. Could be completed with a "how" to get there. Does adding the parts get the result we need? Who needs to do what?

xxxx

Not sure yet, still under investigate

1

sustainable human capital to transform

civilisation = human capital

For there to be a change in values, in business models, then, it is necessary to involve people from the beginning in the collection and organization of data, as a global collaboration. Perhaps people are the first priority (1), and also between (2)

166

How can the strategic framework be improved ?

Vision: A future in which digital technologies enable environmental sustainability and the long-term health of people and the planet

Change from "sustainable civilisation" to another term with fewer colonial implications, such as e.g. "sustainable global community".

Strategic shifts should also consider sourcing of materials to develop digital technologies and resource use, such as child labour in mineral extraction and waste production.

Add some keywords to explain what is meant by agile governance in this context.

Reconsider focus on increasing productivity, unless it is clearly established that we live on a finite planet, and that infinite productivity growth is not possible.

A global conference – "A Digital Planet for Sustainability" – to be held from 30 June to 1 July 2021. -- Presumably 2022, if this report is to be endorsed there.

Sustainable digital infrastructure should consider climate resilience as well as climate impact. Having to produce even the most sustainable infrastructure again and again will lead to environmental costs.

The section on the human food system has a strong developed-country bias, and places too much responsibility on the consumer. Except for where food is scarce, meat production is primarily driven by capitalist incentives, not consumer demand.

The section on the human food system has a strong developed-country bias, and places too much responsibility on the consumer. Monoculture and industrial agriculture and livestock keeping are caused by profit motives.

166

How can the strategic framework be improved ?

Modern agriculture has very large fundamental problems that must be addressed independently. Without a reassessment of what agriculture is supposed to do and how it is meant to interact with the environment, we will end up with "tech-washing"

The section on agriculture should emphasize more the connection between the environment and agriculture. Currently, the two are often seen as separate, but agriculture has devastating impacts on watercourses.

One potential solution to be added re agriculture is monitoring of environmental damage caused by agriculture. With environmental agencies being scaled back in developed countries, monitoring and assessing damage has become increasingly difficult.

Electrical infrastructure could mention potential frontier technologies like wireless transmission of electricity.

A focus on lack of diversity, instead of just "men", without mentioning their age/race would improve this sentence: "As digital tools are designed primarily by men, race, gender, age, and other biases ..."

The section on gender equity lacks an understanding of intersectionality and how these biases come into tech. In particular, taking data from biased or incomplete systems to build tech is very dangerous.

The section on data should consider the dangers of using existing data where the data has been collected in biased systems. Particularly dangerous re the use of AI!

The use of the term "digital public good" in relation to internet connectivity may cause some confusion as it does not meet the definition of a DPG now used in the UNSG's Roadmap on Digital Cooperation and elsewhere.

The section on the "core incentives" is very vague on how digital tech can help. Part of the weakness I believe stems from it not addressing capitalism as a model explicitly.

166

How can the strategic framework be improved ?

"Infinite growth paradigm" stems from capitalism, and cannot truly be addresses through tweaks like "more nature-positive" economic activities. The economic system would have to fundamentally change.

The section on business incentives should address greenwashing and ensuring that tech companies efforts are not merely shifting the focus and effort onto the consumer.

The section on business incentives should also discuss the need to move away from seeing environmental systems as interchangeable. For example, no amount of tree planting can replace an old growth forest.

Moving away from simplistic economic metrics and environmental models should also be part of what digitalization can do for the environment. Actual value and importance for the environment should be embedded into cost-benefit analyses.

The use of the term "digital public good" is inconsistent in the various parts of the document. It should be defined, then used consistently.

I recommend a strong pointing forward through digital finance. How to raise $3trillion as mentioned in the opening of the conference? I can send that in to CODES, but I thought the drafting team had not yer been appointed?

I do have that material, just send to the CODES site??

We have a global team on digital finance, would suggest a working group in the way forward. World Harmony Foundation is ready to help take a lead.

The scope is very broad and action meaningful, it's difficult to reconcile the different / conflicting ambitions - a clearer framework for action would be helpful.

166

How can the strategic framework be improved ?

As per my last comment, a plan to agree and provide a clear framework of action would be helpful

It would be better to refer to international standards and not only standards.

Detail more about the meaning of agile governance. I think it's really important to improve the framework and make it more attractive to implement.

Environmental sustainability/footprint aspects as well as opportunities of induced effects missing among design principles

The strategic shifts needs to acknowledge the existence of standards (a closer cooperation with ITU-T recommended

Strategic shift 2 could be expanded to a wider range of social aspects beyond "inclusive" - a reference to SDGs would be an option

Priortiy areas for transformation a bit hard to understand since not orthogonal. E.g. energy is either digital technologies helping the energy transformation - or energy usage of digital solution (or both) - also overlapping with other categories

People as priority area of tranformation - is the idea to change people or their action?

You call out procurement in the section on "Finance" but we'd recommend an action on procurement, e.g., looking at the role of digital in procuring green tech. We would also further center the border digital agenda under the "Governance" section.

166

How can the strategic framework be improved ?

I think that "education" should be included in the areas of transformation, we need a cultural shift and education should be a main focus
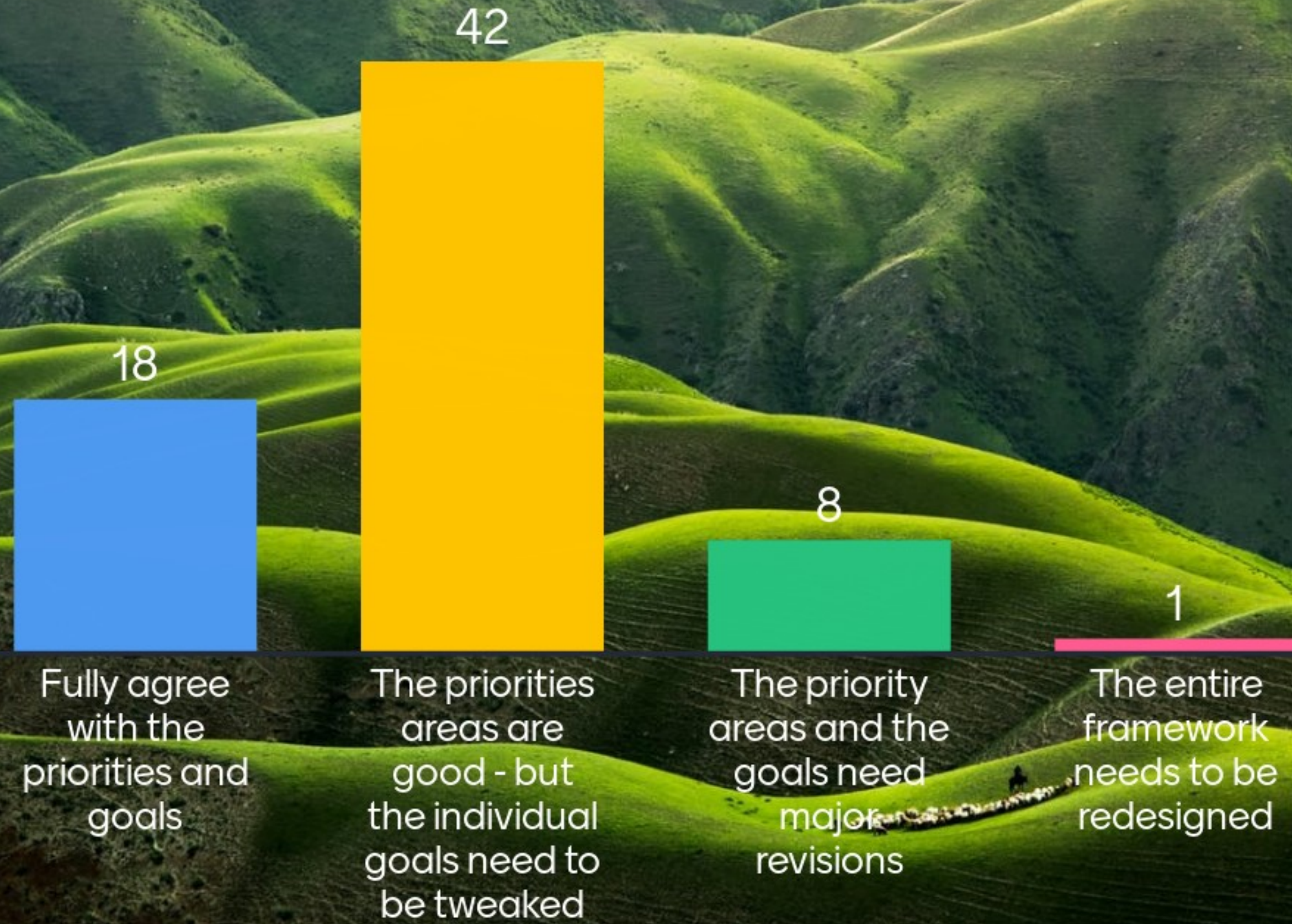
"Design Thinking" philosophy approachMove beyond "sustainability" to Circular, Carbon Zero, RegenerativeFocus on how DX shifts value, prosperity, wealth from carbon to dataCover all 3 Carbon/GHG emissions "Scopes"Alignment with UNSDGs

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good

166

Feedback on the draft report: priorities and goals

18 — Fully agree with the priorities and goals

42 — The priorities areas are good - but the individual goals need to be tweaked

8 — The priority areas and the goals need major revisions

1 — The entire framework needs to be redesigned

69

What specific goals are missing ?

address the root causes of unsustainability injustice

Growth, engagement and SIGN UP to achievement of the broad aims of the report

The priority "Nature" is missing, if we have people we should have nature

The goals may be different for different regions around thre world

Rural electrification by renewables - get folks online!

Fast track universal, comprehensive planetary intelligence

How to ensure truly multi-stakeholder cooperation

Concrete tools for collaboration.

Roadmap re:Adoption of emergent tech to amplify outcomes

78

What specific goals are missing ?

Strategic collaboration, coordinate effort but also political commitment

Global Ecodesign Benchmarks & Zero net Carbon targets

Put as much effort towards End-user engagement as the technology itself

Recognizing the right to privacy. Knowing where transparency is not desirable.

Localize universal goals and standards

Digitally smart and just cities should be highlighted as one of the goals

Share digital supported solutions for its global implementation. Open Science & Open Education.

Reach out to the public, engage them, motivate them, using digital solutions

Officially define sustainable terms like "carbon neutral", "enviromental neutral", etc.

What specific goals are missing ?

Address policy blockers in regions

Incorporation of traditional and other forms of knowledge as core data.

Degree of raising global awareness

Priority of Investment to LDC

The "data" goals may be missing big hurdles related to possible conflicts of interest from data providers, IP and privacy issues

Political change. Digital is only a tool, not the solution

Considerations into culture and perception, and in the end, happiness of people

Focus on knowledge exchange and empowerment

Under people, supporting knowledge and technology transfer to developing countries.

What specific goals are missing ?

Building a digital platform for all

Defining accountability for different stakeholders along with transparency

Human nature; not until it happens to us do we truly understand.

Addressing digital divide for access to tools and resources

Goals can be more sector/actor specific - beyond cross cutting

Non-human intelligence should be recognized. Planetary intelligence is not only human.

Problem holders (local and across the value chain) in problem definition and solution and incorporation of knowledge in concrete way.

Return control of Indigenous lands so digital sustainability does not continue colonial resource exploitation...

same vocabulary and taxonomy level of understanding from the community

What specific goals are missing ?

How do we Match speed and scale of digital transformation of business as usual?

Define a common language

None

Inspiring innovative context to be engaged with digital environmental sustainability

You can't manage what you can't measure. monitoring environment is key and earth observation is now part of digitalisation.

test

test

Integration of underserved communities especially in the area of information technology to be able to fit into the framework

Equitable participation in climate negotiations. Not everyone can access a summit and they do not feel represented.

78

What specific goals are missing ?

in many developing countries, not all have access to digital services

Technical feasibility and planning for carrying out Technology needs assessment of priority areas

Protections against uneven application of standards and an exploration of incentive/disincentive systems that may be created (eg. a digital equivalent of emissions dumping).

don't "build a database". The web is the way.

KPIs

I believe the priorities and goals are good. But not convinced we will get there without deepening the approach.

Under 1. Data/ Goal III: I have a specific solution for this called the World Integration Loop, in which environmental data is integrated with games in the cloud.

I don't miss a specific goal

What happen with people don´t have access to technology tools?

What specific goals are missing ?

Stakeholders

Not clear what Codes?

1

more focus on human capital

Change in education. It's impossible to think about digital transformation when millions of girls still don't have the right to study, to attend school. Education, too, has to be the basis for transformation throughout the system. The need for global

Data: Environmental data would also require data on the behaviour of people in relation to the environment. It would be important to consider the implications of this for individual and community rights and freedoms.

Digital finance. World Harmony Foundation is already having weekly meetings of a global team working on this, including from Australia and the West Coast USA, so getting people, including academics, across time zones is challenging.

The sections on development of laws and policies should consider that many developing countries have small govts with little capacity to develop or enforce these laws.

I think the scope is already broad and ambitious, it needs focus on key priorities

What specific goals are missing ?

The section on promoting sustainable consumption at the individual level should also include text to note that in many countries, it is not just about what products we buy, but about buying LESS. Reduce must be a core principle.

The section on people needs major reworking. Currently too little focus on bridging the digital divide, and too much on influencing sustainable lifestyles. Strong developed-country bias present.

Bridging the digital divide should include connectivity, access to services, e-health, etc.

Sections should consider the high debt burden and limited fiscal space of low- and middle-income countries, especially SIDS, in its formulation of solutions.

The section on governance should consider the many harms that can be caused by increased government and private-sector surveillance of individuals and groups in the name of "data collection"

The goals under governance have limited mention of tech/digital tools, and it should be clarified what the role is for tech or what the benefits for tech would be.

The "science" section lacks information about traditional knowledge and observations and how those can be used as well.

Western science tends to overcompartmentalize systems and to isolate individual components of the environment. Traditional knowledge can help.

Traditional knowledge can supplement science where scientific observation has not been possible. It can also provide deep understandings of the environment and how it functions as a whole.

What specific goals are missing ?

The International Telecommunication Union has and is working on several standards related to the goals for example on data, interoperability, digital product passport. The report could reference ITU as lead in the standard development.

The creation of a digital twin for the Earth must consider traditional and indigenous knowledge systems, or struggle with the same issues that Western colonial science has all along.

It was hard to understand from the input which were the goals and priorities but not possible to proceed without selecting one option. I would be interested in looking at both goals and strategies

See previous comments.

Resiliency, Repair, Regenerate

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How can the CODES vision, values and priorities be operationalized?

Open Ended Comments

test

CODE should engage more Civil Society Organizations and established private institutions to participate

New forms of inclusion of people who do not have technology for the new sustainable world

Consultancy of all the actors of the international community on different topics

The evaluation of the problem and objective of the document is accurate and very well done. However, if executed at face value, it will become another financial drain and add to the identified problems without changing a thing.

Use of different Social Media Platforms to help in promoting environmental issues

Many Pacific Island countries are experiencing a lack of waste management system especially on imported products such as plastics and batteries which CODES should also focus on how this could be resolved at the regional or national level

I'm developing a platform that directly supports this report's values and vision. Details at machinesanddreamland.com/WIL

1

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Open Ended Comments

Excellent work

An adaptable framework of tiers, guidelines, standards, commitments, action plans could be adapted to the various organisations and issues to be addressed

One of the organisations to involve would be ITU - especially ITU-T when standards are concerned as standardization of env assessments has been ongoing for about a decade

Do not forget the girls, women in this process of transformation. They have the strength to change the world.

The document is very heavily biased towards developed country realities and priorities. Reworking is needed to ensure developing country perspectives and realities are considered from the start.

We loved the framework and would love to see even more call outs to national digital transformation and how governments can embed digital sustainability in all layers of decision-making and governance throughout the document.

World Harmony Foundation is ready to submit a short contribution for the next version 3.0?? of the paper. Instructions on how to do that would be appreciated. We also are having the version 3.0 translated into Mandarin, free of charge.

Thanks for sharing the document! It is important to work in CODES, even more so in this context of Climate Change.

I think that social and economical sustainability are as important as the environmental one. Technologies can be used to achieve a global sustainability. Cooperation and collaboration is the key to reach this goal.

Open Ended Comments

Needs to be made clear that there are two profoundly different functions of DX. Lowest hanging fruit is DX for at-scale-and-velocity mitigation and abatement. But it's not the biggest payoff.