DOOMSDAY:
IS THE WORLD DOOMED BECAUSE WE CANNOT EXPRESS OUR SUSTAINABILITY AND AI GOALS CLEARLY?

By

TOM GILB

tom@Gilb.com
www.Gilb.com
+47 92066705

Copyright Tom Gilb 2019-2020

March 4 2020 Oslo (from 17:00)

Hosts:

‘Digital Innovators Oslo’ meetup

Led by

Calvo, Arturo" <arturo.calvo@accenture.com>
Rødsrud, Camilla <camilla.rodsrud@accenture.com>

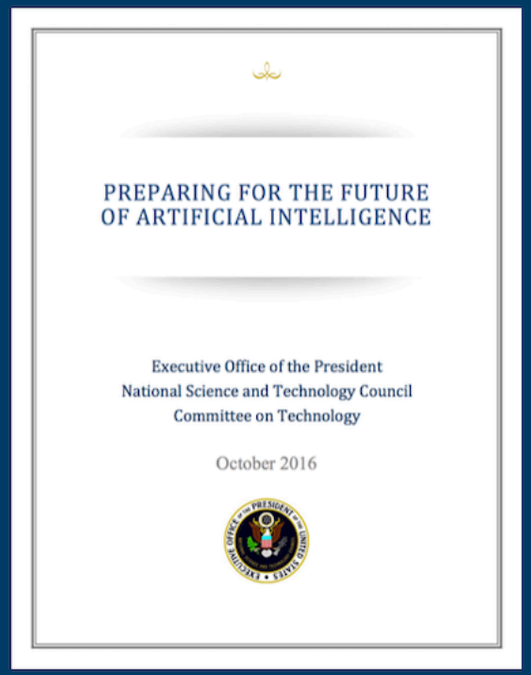
These slides are placed here:
http://concepts.gilb.com/dl964

About 20 minutes of exercises

How clear are AI Principles?

Oct. 2016 : “Preparing for the future of AI” from USA

IBM



PREPARING FOR THE FUTURE
OF ARTIFICIAL INTELLIGENCE

Executive Office of the President
National Science and Technology Council
Committee on Technology

October 2016

Distributed material

Proposal of Discussion toward Formulation of AI R&D Guideline

Referring OECD guidelines governing privacy, security, and so on, **it is necessary to begin discussions and considerations toward formulating an international guideline consisting of principles governing R&D of AI to be networked** (“**AI R&D Guideline**”) as framework taken into account of in R&D of AI to be networked.

Proposed Principles in “AI R&D Guideline”

1. **Principle of Transparency**
   Ensuring the abilities to explain and verify the behaviors of the AI network system
2. **Principle of User Assistance**
   Giving consideration so that the AI network system can assist users and appropriately provide users with opportunities to make choices
3. **Principle of Controllability**
   Ensuring controllability of the AI network system by humans
4. **Principle of Security**
   Ensuring the robustness and dependability of the AI network system
5. **Principle of Safety**
   Giving consideration so that the AI network system will not cause danger to the lives/bodies of users and third parties
6. **Principle of Privacy**
   Giving consideration so that the AI network system will not infringe the privacy of users and third parties
7. **Principle of Ethics**
   Respecting human dignity and individuals’ autonomy in conducting research and development of AI to be networked
8. **Principle of Accountability**
   Accomplishing accountability to related stakeholders such as users by researchers/developers of AI to be networked

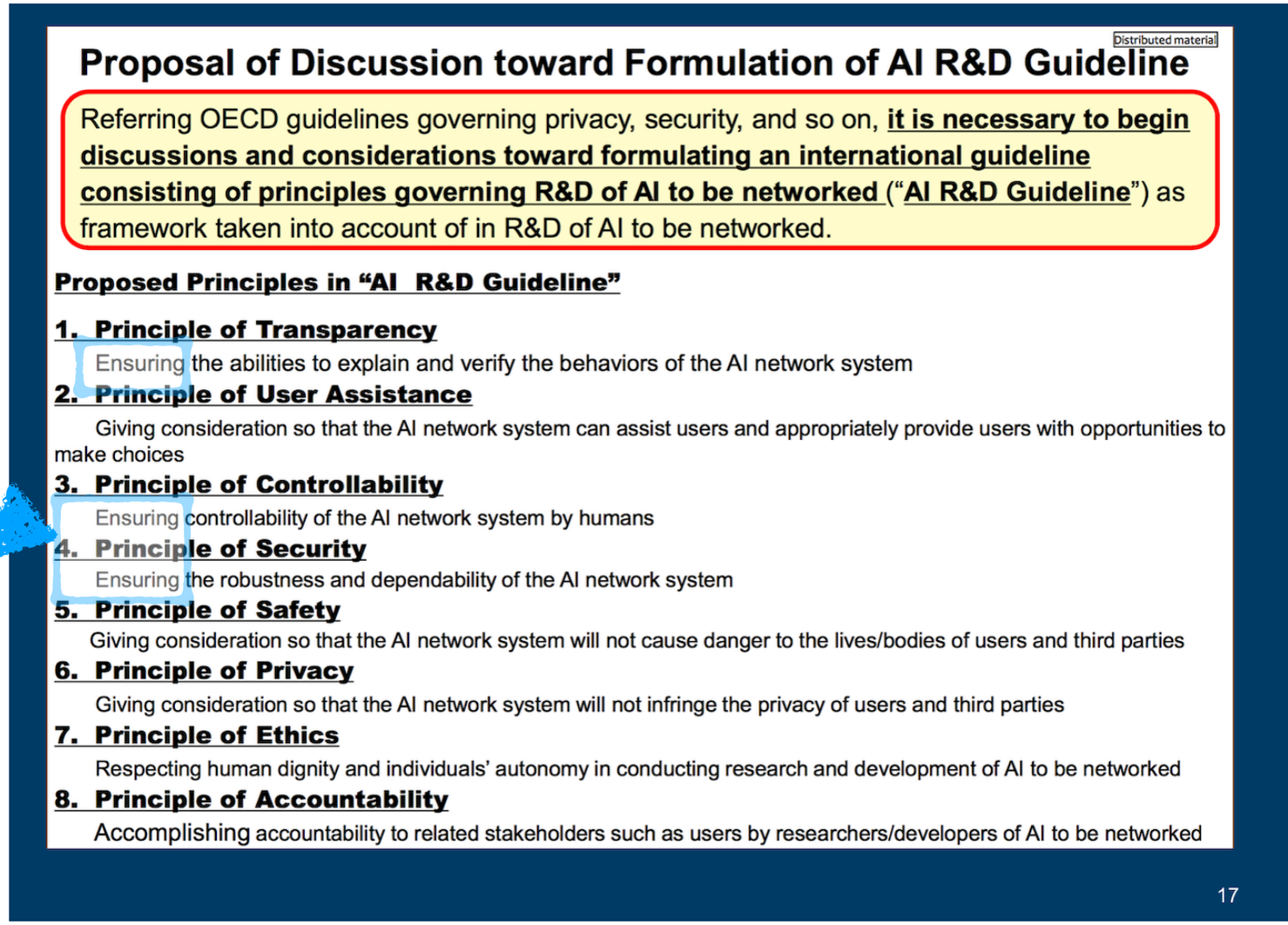
© 2017 International Business Machines Corporation

Exercise 10 minutes, 2 person teams

1. **Count** undefined but ambiguous words in 1. Transparency, like '*Ensuring*'

2. **Define**: 'Ensuring' so that it cannot be misunderstood. 100% Unambiguous.

3. **Quantify** 'Ensuring' so that 100% is 'perfect' ensuring, and 0% is none at all. You need some definition here.



Distributed material

Proposal of Discussion toward Formulation of AI R&D Guideline

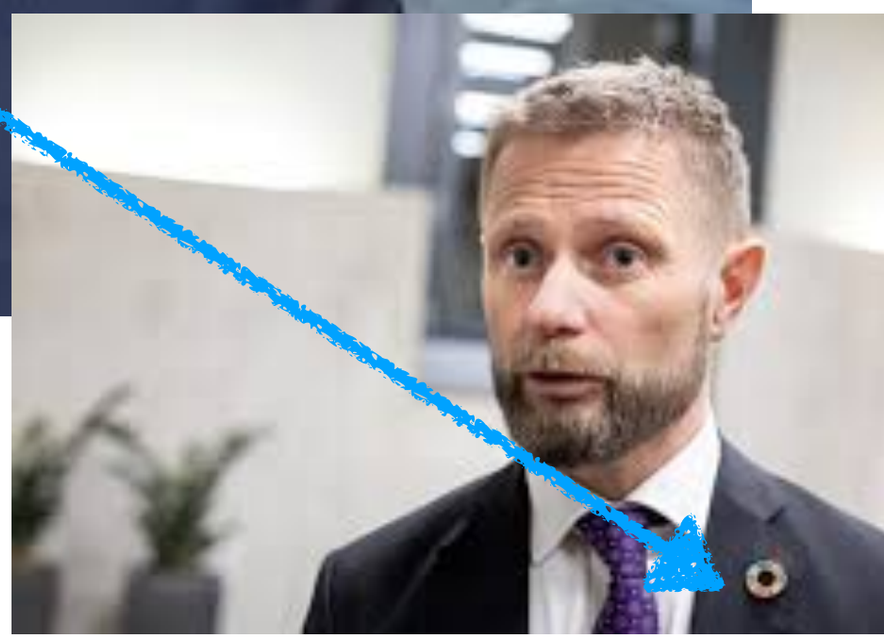
Referring OECD guidelines governing privacy, security, and so on, **it is necessary to begin discussions and considerations toward formulating an international guideline consisting of principles governing R&D of AI to be networked** ("**AI R&D Guideline**") as framework taken into account of in R&D of AI to be networked.

Proposed Principles in "AI R&D Guideline"

1. **Principle of Transparency**
   Ensuring the abilities to explain and verify the behaviors of the AI network system
2. **Principle of User Assistance**
   Giving consideration so that the AI network system can assist users and appropriately provide users with opportunities to make choices
3. **Principle of Controllability**
   Ensuring controllability of the AI network system by humans
4. **Principle of Security**
   Ensuring the robustness and dependability of the AI network system
5. **Principle of Safety**
   Giving consideration so that the AI network system will not cause danger to the lives/bodies of users and third parties
6. **Principle of Privacy**
   Giving consideration so that the AI network system will not infringe the privacy of users and third parties
7. **Principle of Ethics**
   Respecting human dignity and individuals' autonomy in conducting research and development of AI to be networked
8. **Principle of Accountability**
   Accomplishing accountability to related stakeholders such as users by researchers/developers of AI to be networked

17

Norwegian Government
And UN Sustainability Development Goals



Exercise 2: UN Poverty Goal. 10 mins.

Nice but not specific or measurable

Goal 1. End poverty in all its forms everywhere

Nice but not specific or measurable

Target 1.5: By 2030, **build** the resilience of the poor and those in vulnerable situations *and* **reduce** their exposure *and* vulnerability to climate-related extreme events *and* other economic, social *and* environmental shocks *and* disasters

- **2 Person exercise.**

1. **Count all ambiguous words in Target 1.5**

- **(did you miss 'by 2030' ? :)**

2. **How would we express the idea of 'resilience' so we know when we have got 100% resilience of the poor (write a suggested scale of measure)**

3. **How many distinctly different objectives are contained in 1.5 ?**

Discuss in your 2 person group

- **What is a possible practical consequence of an ambiguous word in a critical objective ?**
- **Do you think the UN has clarified and quantified all 17 critical development goals?**
- **If not, what are the consequences of unclear objectives in prctice?**

End of Exercises.

Now I will share some examples of making Important objectives Much clearer Using ‘Planguage’

Artificial Intelligence Goals: UX for AI and our Future

Elon Musk:

“Mark my words — A.I. is far more dangerous than nukes”

https://www.cnbc.com/2018/03/13/elon-musk-at-sxsw-a-i-is-more-dangerous-than-nuclear-weapons.html

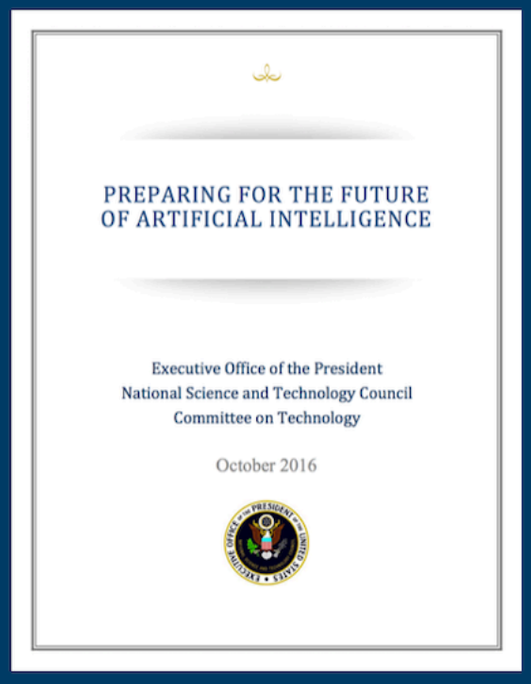
"there needs to be
a regulatory body
overseeing the development
of super intelligence, "

‘Principles’ = —> ….. ‘Qualities’ ! *

With the *usual lack of quantified definition*

Oct. 2016 : “Preparing for the future of AI” from USA

IBM


PREPARING FOR THE FUTURE
OF ARTIFICIAL INTELLIGENCE

Executive Office of the President
National Science and Technology Council
Committee on Technology

October 2016

Distributed material

Proposal of Discussion toward Formulation of AI R&D Guideline

Referring OECD guidelines governing privacy, security, and so on, **it is necessary to begin discussions and considerations toward formulating an international guideline consisting of principles governing R&D of AI to be networked** (“**AI R&D Guideline**”) as framework taken into account of in R&D of AI to be networked.

Proposed Principles in “AI R&D Guideline”

1. **Principle of Transparency**
   Ensuring the abilities to explain and verify the behaviors of the AI network system
2. **Principle of User Assistance**
   Giving consideration so that the AI network system can assist users and appropriately provide users with opportunities to make choices
3. **Principle of Controllability**
   Ensuring controllability of the AI network system by humans
4. **Principle of Security**
   Ensuring the robustness and dependability of the AI network system
5. **Principle of Safety**
   Giving consideration so that the AI network system will not cause danger to the lives/bodies of users and third parties
6. **Principle of Privacy**
   Giving consideration so that the AI network system will not infringe the privacy of users and third parties
7. **Principle of Ethics**
   Respecting human dignity and individuals’ autonomy in conducting research and development of AI to be networked
8. **Principle of Accountability**
   Accomplishing accountability to related stakeholders such as users by researchers/developers of AI to be networked

© 2017 International Business Machines Corporation

17

*** this is a sign of conceptual ignorance.**

AI Accountability Defined
Fuzziness -> Quantified. Structured, Enriched

I did this for all XAI Qualities

needs&means from RSBA technology | AI Qualities... | Project | Canvas | Tables | Diagram | More... | Create | tomgilb

AI Qualities Demo 2019 / Canvas | List | Diagram / AI Accountability

Name Tag

Show Sidebar

AI Accountability

Level: Stakeholder, Type: Value, Labels: - Edit

Is Part Of: CRITICAL AI QUALITIES

Simple Graphic of the Required Improvement

Status 1 — Wish 90

Long Term Overall AI Objective.Wish [Scenarios = **All**, AI Suppliers = **All**, Accountability Strength = **All**, AI Consumers = **All**] @ 09 Jan 2040 : **90** ±8% <- *tsg*

The *'well-intended'* statement

Ambition Level: "Accomplishing accountability to related stakeholders such as users by researchers/developers of AI to be networked"

Stakeholders: ACADEMIC INSTITUTIONS, AI Users. there are more stakeholders and more-detailed types, but I just wanted to mention the ones in t

Defining qualities quantitatively

Scale: % of [Scenarios] where [AI Suppliers] have a [Accountability Strength] for an Accountability Type] with relation to [AI Consumers]

Wild Guess At Present Overall AI Status Level.Status: Level: **1** extremely high, little data and experience [Scenarios = **All**, AI Suppliers = **All**, Accountability Strength = **All**, AI Consumers = ...

Long Term Overall AI Objective.Wish: Level: **90** ±8% [Scenarios = **All**, AI Suppliers = **All**, Accountability Strength = **All**, AI Consumers = **All**] When 09 Jan 2040

Goal level

AI 'Accountability' scale
Detailed [Scale Parameters]
Why is this Useful?

I did this for all XAI Qualities

AI Accountability Defined.Scale:

1 Add

% of [AI Scenarios] where [AI Suppliers] have a [Accountability Strength] for an [Accountability Type] with relation to [AI Consumers].

Templates

⌘+e to add qualifiers / terms / specs , formatting

AI Consumers: defined as:

Citizens, Medical, Transport, Government, Telecoms, Finance, Industry, Commerce, Distribution, Academic, Entertainment, Autonomous Vehicles, IOT Consumers, Military, Police, Senior Homes, Private Homes, Apartments, Offices...

AI Scenarios: defined as:

Freeware, Paid Services, **[Life Critical Decisions]**, Health Decisions, Large Scale Decisions, Long Term Decisions, Entity Survival Decisions, Political Choices, Games...

AI Suppliers: defined as:

App Developers, Data suppliers, Academic Research, Startups, Consultants, IOT suppliers, Teaching Institutions, ...

Accountability Strength: defined as:

Legally Compliant, Contractually Compliant, Standards Compliant, International Guidelines Compliant, ...

Accountability Type: defined as:

Board Responsibility, Legal Responsibility, Ethical Responsibility, Financial Responsibility, Risk Responsibility , ...

Quantitative Evaluation of AI Technology Qualities using ‘Impact Estimation Tables’

EVALUATE AN AI TECHNOLOGY'S QUALITIES

From Level: Stakeholder **To Level:** Product

Settings... | + Add | Sort | Duplicate... | Undo... | =: ABSOLUTE | Help me!

Requirements	Ideal XAI Technol...	Notional Technique	UC Berkeley Deep ...	UCLA Pattern Theory+	Charles
AI Accountability =: Status: **1** → Wish: **90** % of [AI S... Δ%:	100%	56%	????	????	????
AI Controllability =: Status: **50** → Wish: **98** % of [AI S... Δ%:	100%	88%	????	????	????
AI Ethicality =: Status: **5** → Wish: **90** % #Respect... Δ%:	100%	-4%			
AI Privacy =: Status: **1** → Tolerable: **0.5** % of [Priv... Δ%:	100%	80%			
AI Robustness =: Status: **70** → Wish: **99.9** % #Intende... Δ%:	100%	33%			
AI Safety =: Status: **100** → Wish: **10** Number of... Δ%:	100%	47%	????	????	????
AI Transparency =: Status: **10** → Wish: **99.998** % of selec... Δ%:	100%	47%	????	????	????
AI Usability =: Status: **1** → Wish: **0.1** Speed in M... Δ%:	100%	33%	????	????	????
AI Learning Performance =: Status: **0** → Wish: **50** % [Learnin... Δ%:	100%	84%	????	????	????

Show Sideba

This is a quick mockup without real data: to show the potential for evaluating AI Techniques and their effects on AI Values (or ‘Qualities’)

AI ‘Technique Evaluation’
with objective evidence, sources uncertainty

EVALUATE AN AI TECHNOLOGY'S QUALITIES

From Level: Stakeholder **To Level:** Product

Settings... | + Add | Sort | Duplicate... | Undo... | =: ABSOLUTE | Help me!

Requirements		Ideal XAI Technol...	Notional Technique	UC Berkeley
AI Accountability Status: **1** → Wish: **90** % of [AI S... % of [AI Scenarios] where [AI Supplie...	=: Δ%:	100%	56%	????
AI Controllability Status: **50** → Wish: **98** % of [AI S... % of [AI Situations] and [AI Accident...	=: Δ%:	100%	88%	????
AI Ethicality Status: **5** → Wish: **90** % #Respect... % Respect Violations of a [Respect Vi...	=: Δ%:	100%	-4%	????
AI Privacy Status: **1** → Tolerable: **0.5** % of [Priv... % of [Privacy Breach Types] annually ...	=: Δ%:	100%	80%	????
AI Robustness Status: **70** → Wish: **99.9** % #Intende... % Intended Uptime for [AI Consumers] ...	=: Δ%:	100%	33%	????
AI Safety Status: **100** → Wish: **10** Number of ... Number of annual AI Damage occurrenc...	=: Δ%:	100%	47%	????
AI Transparency Status: **10** → Wish: **99.998** % of selec... % of selected [AI Cases] where we can...	=: Δ%:	100%	47%	????
AI Usability Status: **1** → Wish: **0.1** Speed in M... Speed in Minutes for an [AI User Type...	=: Δ%:	100%	33%	????
AI Learning Performance Status: **0** → Wish: **50** % [Learnin... % [Learning Performance] improvement ...	=: Δ%:	100%	84%	????
Sum Of Values:	Σ%:	**900** %	**464** %	**0**
Operational Cost Budget: **0** → Status: **100** % of a def... % of a defined Budget	=: Δ%:	99%	99%	
Sum Of Development Resources:	Σ%:	**99** %	**99** %	**0**
Value To Cost:		9.10	4.70	

Hide Sidebar

+ Specification

− Impact Cell

Value: AI Accountability
Solution: Notional Technique
Scale: % of [AI Scenarios] where [AI Suppliers] have a [Accountability Strength] for an [Accountability Type] with relation to [AI Consumers].

Tag.Value Impact:

Estimate:
Δ 50 ± 10

Actual:
Δ scale value ± 0

Credibility:

Evidence:
MEASURED IN PHD STUDY, 3 SITES

Source: by **tomgilb** - Jan 10th 2019, 04:16
UCLA URL

Templates

+ Rules & Processes

Main point =
When AI qualities are quantified
And the Wished level is specified
Then we can evaluate various AI technologies
And find the most cost-effective overall

= Scale of measure for all the other AI Values

My (TSG) Observations and Conclusions

- The most fundamental obstacle to AI Standards progress is WE NEED TO **QUANTIFY** AND STRUCTURE-**RICHLY** all **CRITICAL** STAKEHOLDER **VALUES (ALL > 8)**

- Next: we need much-deeper, more-comprehensive identification, and consensus, and detailed knowledge (their values and constraints) about AI/ AI STANDARDS **STAKEHOLDERS**

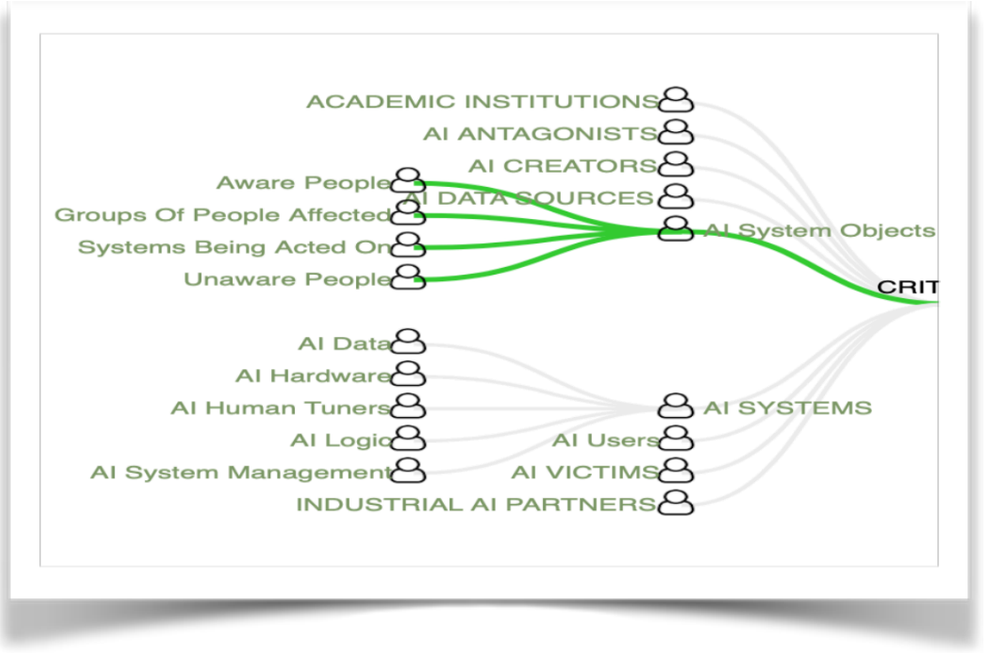
Distributed material

Proposal of Discussion toward Formulation of AI R&D Guideline

Referring OECD guidelines governing privacy, security, and so on, **it is necessary to begin discussions and considerations toward formulating an international guideline consisting of principles governing R&D of AI to be networked** ("**AI R&D Guideline**") as framework taken into account of in R&D of AI to be networked.

Proposed Principles in "AI R&D Guideline"

1. **Principle of Transparency**
   Ensuring the abilities to explain and verify the behaviors of the AI network system
2. **Principle of User Assistance**
   Giving consideration so that the AI network system can assist users and appropriately provide users with opportunities to make choices
3. **Principle of Controllability**
   Ensuring controllability of the AI network system by humans
4. **Principle of Security**
   Ensuring the robustness and dependability of the AI network system
5. **Principle of Safety**
   Giving consideration so that the AI network system will not cause danger to the lives/bodies of users and third parties
6. **Principle of Privacy**
   Giving consideration so that the AI network system will not infringe the privacy of users and third parties
7. **Principle of Ethics**
   Respecting human dignity and individuals' autonomy in conducting research and development of AI to be networked
8. **Principle of Accountability**
   Accomplishing accountability to related stakeholders such as users by researchers/developers of AI to be networked



Details of Quantifying all the XAI Objectives

XAI Explaining AI
Lecture Slides
http://concepts.gilb.com/dl958

A Serious ‘Multi-dimensional Metrics Attack’ on
Poor AI ‘Academic and Standards’ Thinking & Planning.

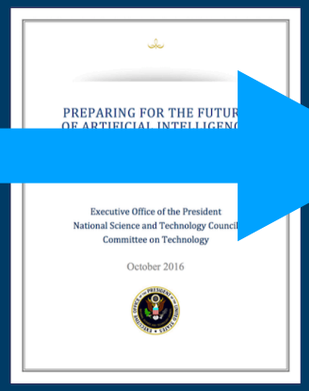
An analysis of published Principles for Managing and Standardizing AI,

where about 10 AI Qualities like ‘Safety’ and ‘Transparency’ are shown to be quantifiable.
This is prelude to rational thinking about the entire subject.

GilbFest Talk June 25 2019
Presented to the IBM AI Standards Committee Members
(who said they were suitably impressed)

Oct. 2016 : “Preparing for the future of AI” from USA

IBM



Distributed materials

Proposal of Discussion toward Formulation of AI R&D Guideline

Referring OECD guidelines governing privacy, security, and so on, **it is necessary to begin discussions and considerations toward formulating an international guideline consisting of principles governing R&D of AI to be networked** (“**AI R&D Guideline**”) as framework taken into account of in R&D of AI to be networked.

Proposed Principles in “AI R&D Guideline”

1. **Principle of Transparency**
   Ensuring the abilities to explain and verify the behaviors of the AI network system
2. **Principle of User Assistance**
   Giving consideration so that the AI network system can assist users and appropriately provide users with opportunities to make choices
3. **Principle of Controllability**
   Ensuring controllability of the AI network system by humans
4. **Principle of Security**
   Ensuring the robustness and dependability of the AI network system
5. **Principle of Safety**
   Giving consideration so that the AI network system will not cause danger to the lives/bodies of users and third parties
6. **Principle of Privacy**
   Giving consideration so that the AI network system will not infringe the privacy of users and third parties
7. **Principle of Ethics**
   Respecting human dignity and individuals’ autonomy in conducting research and development of AI to be networked
8. **Principle of Accountability**
   Accomplishing accountability to related stakeholders such as users by researchers/developers of AI to be networked

© 2017 International Business Machines Corporation

17

Do politicians like BS?

If you bullst an AI system, could you fool it into to making bad decisions?**

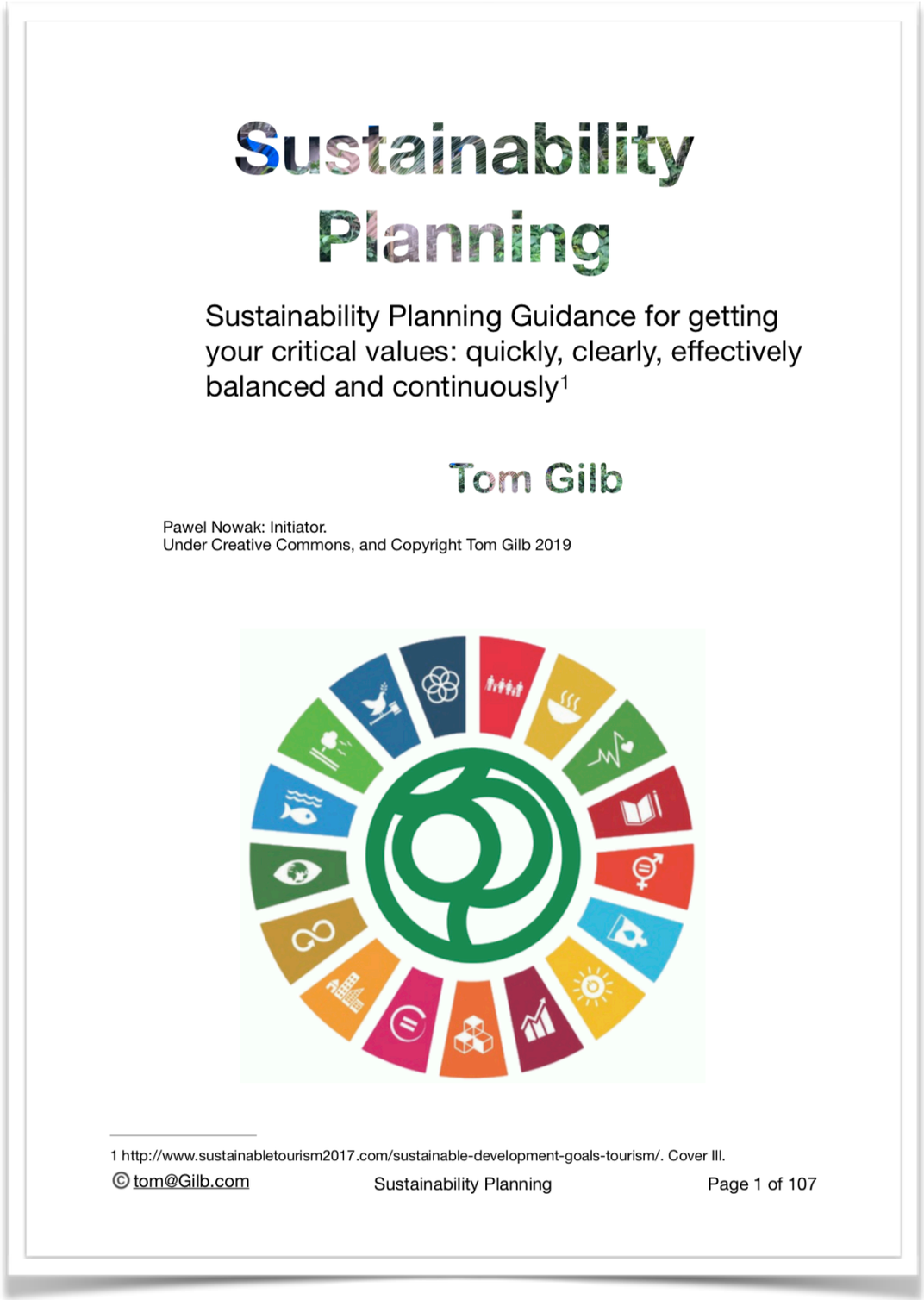
- **The 18 United Nations Sustainable Development Goals**

UX for the Planet

- **“Sustainability Planning”**

- https://tinyurl.com/ **UNGoalsGilb**

- **Free book, with details of how to analyze, clarify.**


Sustainability Planning

Sustainability Planning Guidance for getting your critical values: quickly, clearly, effectively balanced and continuously[1]

Tom Gilb

Pawel Nowak: Initiator.
Under Creative Commons, and Copyright Tom Gilb 2019

1 http://www.sustainabletourism2017.com/sustainable-development-goals-tourism/. Cover Ill.

Transparency

We are acutely aware of the privileged position we occupy as a monopoly provider of an essential service. We are a top performing UK DNO group and accept that this high performance brings with it increased scrutiny from our customers, other stakeholders and the industry at large. We are committed to being open about our operations and, through documents such as this Annual Review and our RIIO-ED1 commitments report, we seek to make it easy for all our stakeholders to understand how we are performing and, most importantly, how w… our customers.

On this page you will see how we have performed against the following Sustainable Development Goals:

My clients are using these UN Goals as a framework.
But, do all stakeholders have an identical clear understanding of the goals?

We believe that it makes business sense for our em… ness vision. The main way employees are incentivised is … heme). In line with our vision, our employees are rewarded f… lity, customer service and cost saving.

Since its inception in 2010 the key focus of UK Power Networks … at our customers want at the lowest possible cost. We have delivered significant improvem… the reliability of our

90%
of UK Power Networks employees are covered by the Trade Union Collective Agreements

End poverty in all its forms everywhere.

Nice but not specific or measurable

Goal 1. End poverty in all its forms everywhere

Nice but not specific or measurable

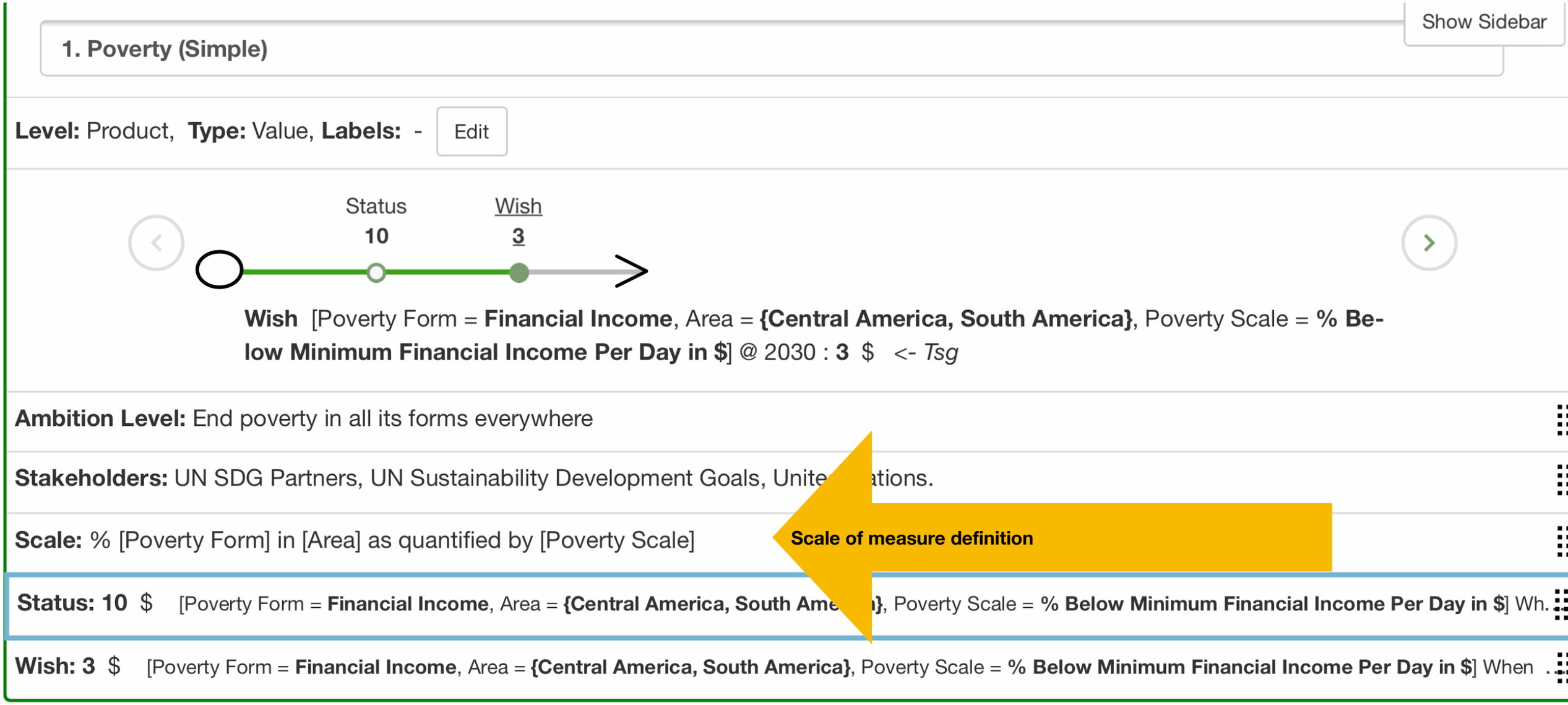
Target 1.5: By 2030, **build** the resilience of the poor and those in vulnerable situations *and* **reduce** their exposure *and* vulnerability to climate-related extreme events *and* other economic, social *and* environmental shocks *and* disasters

Attempt to find something measurable
But
IS THIS REALLY THE CORE OF POVERTY CONCERNS? (No !)

- **Indicator 1.5.1:** Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population
  - See Metadata :
- **Indicator 1.5.2:** Direct economic loss attributed to disasters in relation to global gross domestic product (GDP)
  - See Metadata :
- **Indicator 1.5.3:** Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030
  - See Metadata :
- **Indicator 1.5.4:** Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies
  - See Metadata :

No specific targets set

Simple Goal 1(Poverty) Draft



- Problem. This spec is too simple; it cannot serve the purposes of modelling critical aspects of complex systems.

1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day

1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable

1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance

1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters

See next slides, for analysis of this

1.A Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions

1.B Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions

Values and Resources
1. Poverty (Decomposed)
1.1 Financial Poverty
1.2 Poverty In All Dimensions
1.3 Social Poverty
1.4 Resources. Poverty
1.5 Disaster Protection P…
1.A National Poverty Reduct…
1.B Investment Frameworks…

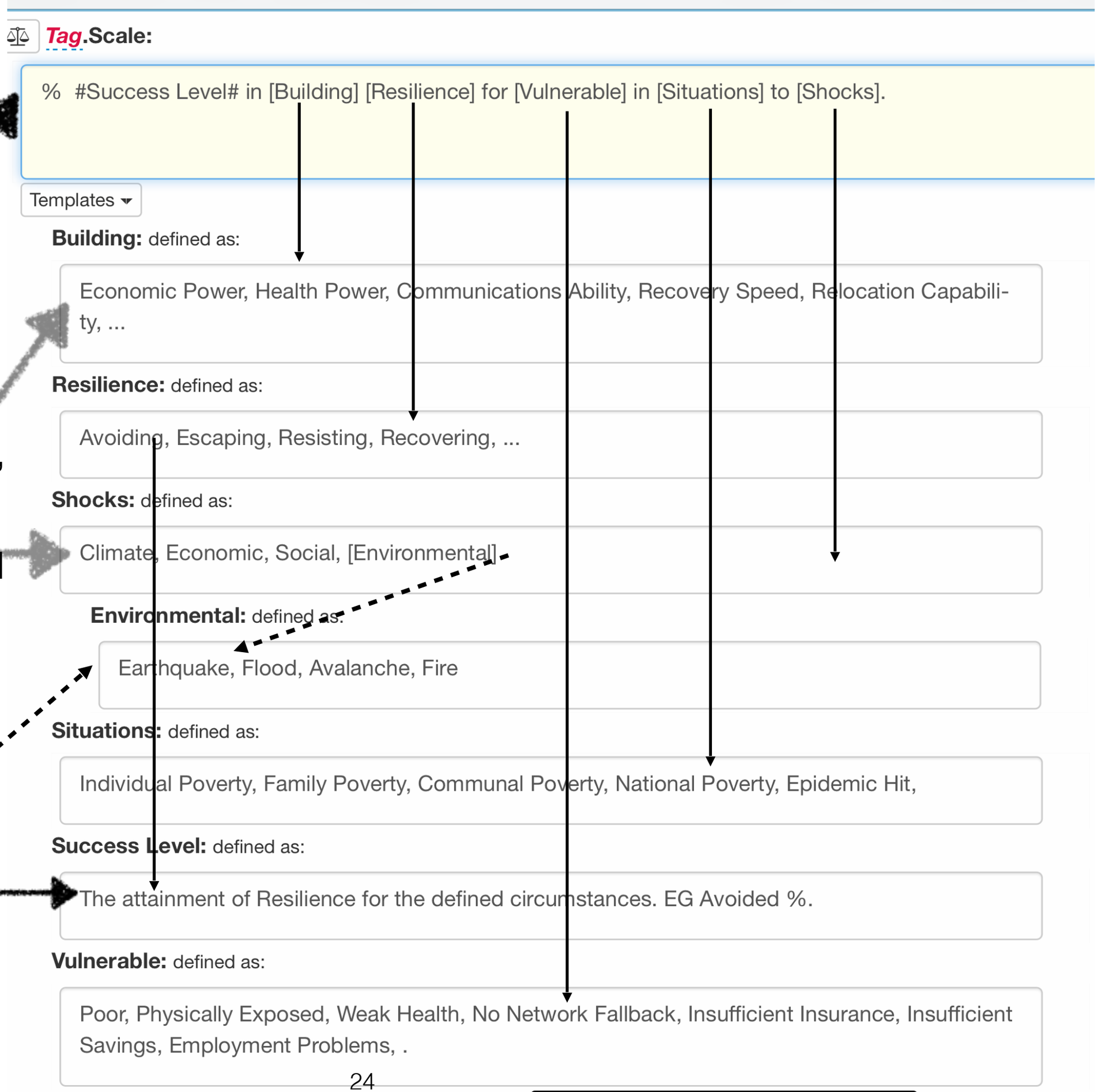
Ok Let's take Poverty Target 1.5 as an example

"By 2030, **build** the **resilience** of the **poor** and those in **vulnerable situations** and reduce their **exposure and vulnerability** to **climate-related** *extreme events and other economic, social and environmental* **shocks and disasters**"

<- see next slides for analysis and re-organization of this

Defining a structured scale of measure

- The Scale is defined as a set of ‘Scale Parameters’
- Each SP is defined as a set of conditions
- Each condition can be defined
- Terms can be defined as needed



Defining a structured scale of measure

% #Success Level# in

[Building] [Resilience] or [Vulnerable] in [Situations] to [Shocks]

1. The scale is defined as a set of 'Scale Parameters'
2. Terms can be defined as needed

Success Level - The attainment of Resilience for the defined circumstances. EG Avoided %.

Graphic by anna.maria.karlowska@gmail.com, 2019

Defining a structured scale of measure

% #Success Level# in

[Building]	[Resilience]	or	[Vulnerable]	in	[Situations]	to	[Shocks]
Economic Power	Avoiding		Poor		Individual Poverty		Climate
Health Power	Escaping		Physically Exposed		Family Poverty		Economic
Communications Ability	Resisting		Weak Health		Communal Poverty		Social
Recovery Speed	Recovering		No Network Fallback		National Poverty		[Environmental]
Relocation Capability	...		Insufficient Insurance		Epidemic Hit		
...			Insufficient Savings		...		
			...				...

- Earthquake
- Flood
- Avalanche
- Fire

Each condition can be defined

Each Scale Parameters is defined as a set of conditions

The Scale Parameter Structure

Graphic by anna.maria.karlowska@gmail.com, 2019

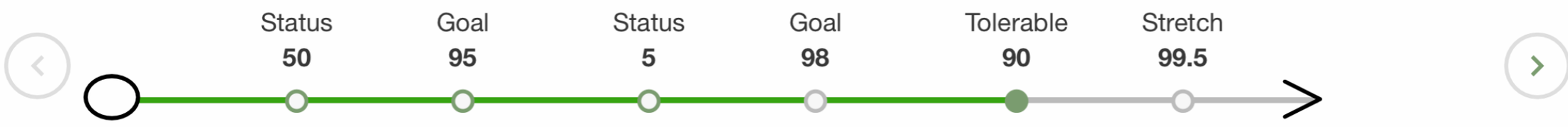
- **Now we can apply the scale and some selected Parameters to define the status quo, and the Goal level**

1.5 Disaster Protection Poverty

Show Sidebar

Level: Product, **Type:** Value, **Labels:** - Edit

Is Part Of: 1. Poverty (Decomposed)



Overall Long Term.Tolerable [Building = **All**, Resilience = **All**, Vulnerable = **All**, Situations = **All**, Shocks = **All**]
@ 2030 : **90** %. ±5%

Ambition Level: "By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-.

Scale: % Success Level in [Building] [Resilience] for [Vulnerable] in [Situations] to [Shocks].

Stakeholders: UN Children's Fund, UN Global Compact, UN International Strategy For Disaster Reduction.

Health .Status: 50 % Escaped [Building = **Health Power**, Resilience = **Escaping**, Vulnerable = **Weak Health**, Situations = **Family Poverty**, Shocks = **{Climate, Env.**

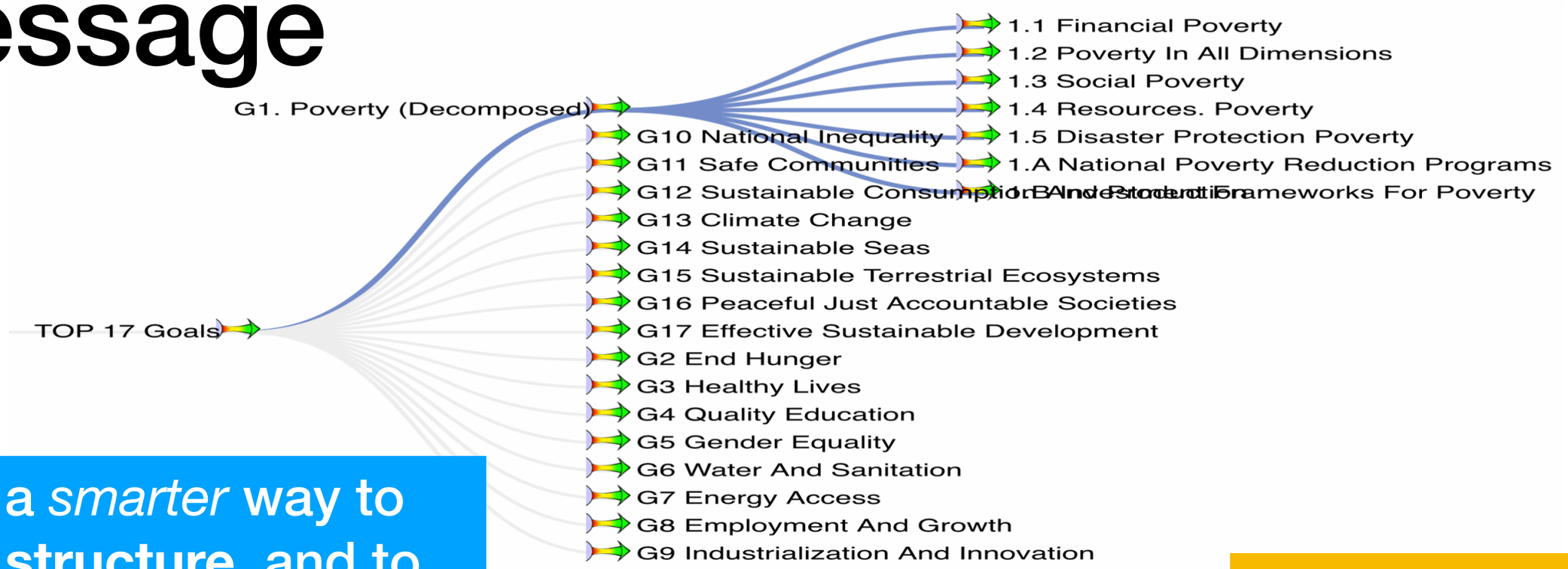
Health .Goal: 95 [Building = **Health Power**, Resilience = **Escaping**, Vulnerable = **Weak Health**, Situations = **Family Poverty**, Shocks = **{Climate, Environmental}**] Wh.

Overall Long Term.Status: 5 % [Building = **All**, Resilience = **All**, Vulnerable = **All**, Situations = **All**, Shocks = **All**] When 2019

Overall Long Term.Goal: 98 % ± 1% [Building = **All**, Resilience = **All**, Vulnerable = **All**, Situations = **All**, Shocks = **All**] When 2030

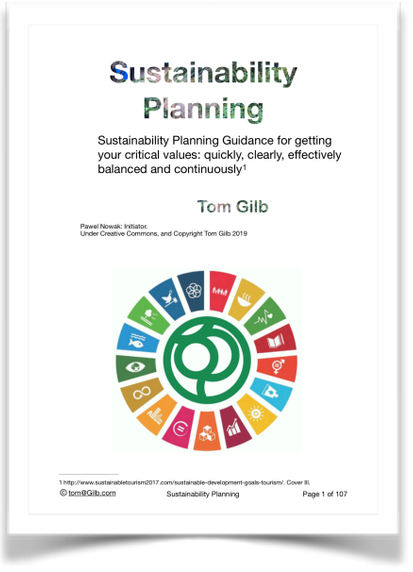
Setting long and short term Goals, re-using the Scale of measure
Using a variety of scale *levels* (Wish, Goal, Stretch, Tolerable, Past, Status), and [Scale parameters].
To articulate: *How much* 'poverty' where, when, for whom, which type, under which conditions.

I am done with my main message



"There is a *smarter* way to **clarify**, to **structure**, and to **quantify** all critical value objectives

If you do *not* clarify, you will for sure *waste your time* trying to get the results you dream of"


Sustainability Planning

Sustainability Planning Guidance for getting your critical values: quickly, clearly, effectively balanced and continuously[1]

Tom Gilb

Pawel Nowak; Initiator.
Under Creative Commons, and Copyright Tom Gilb 2019

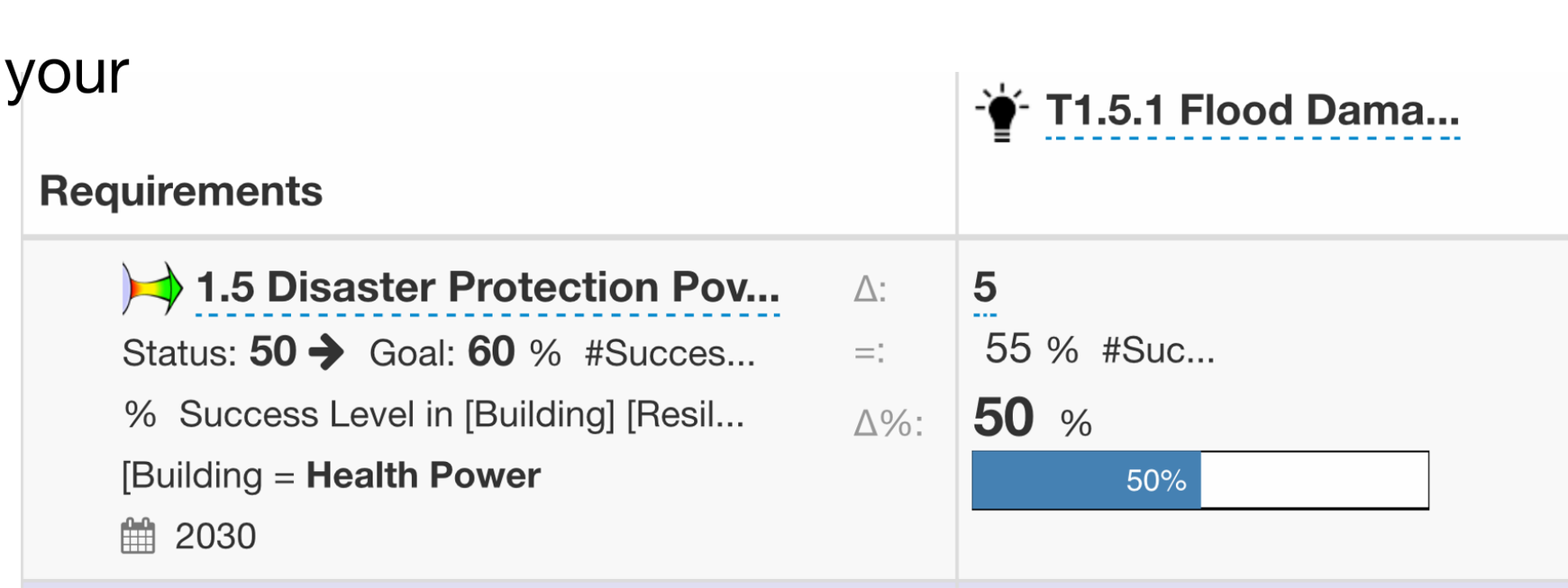
1 http://www.sustainabletourism2017.com/sustainable-development-goals-tourism/. Cover III.

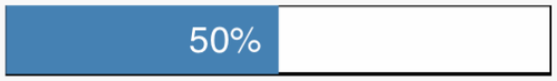
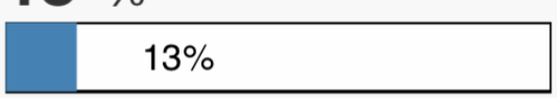
© tom@Gilb.com Sustainability Planning Page 1 of 107

More detail?
"Sustainability Planning"
Digital Book 2019
https://tinyurl.com/UNGoalsGilb
Later see Gilb.com

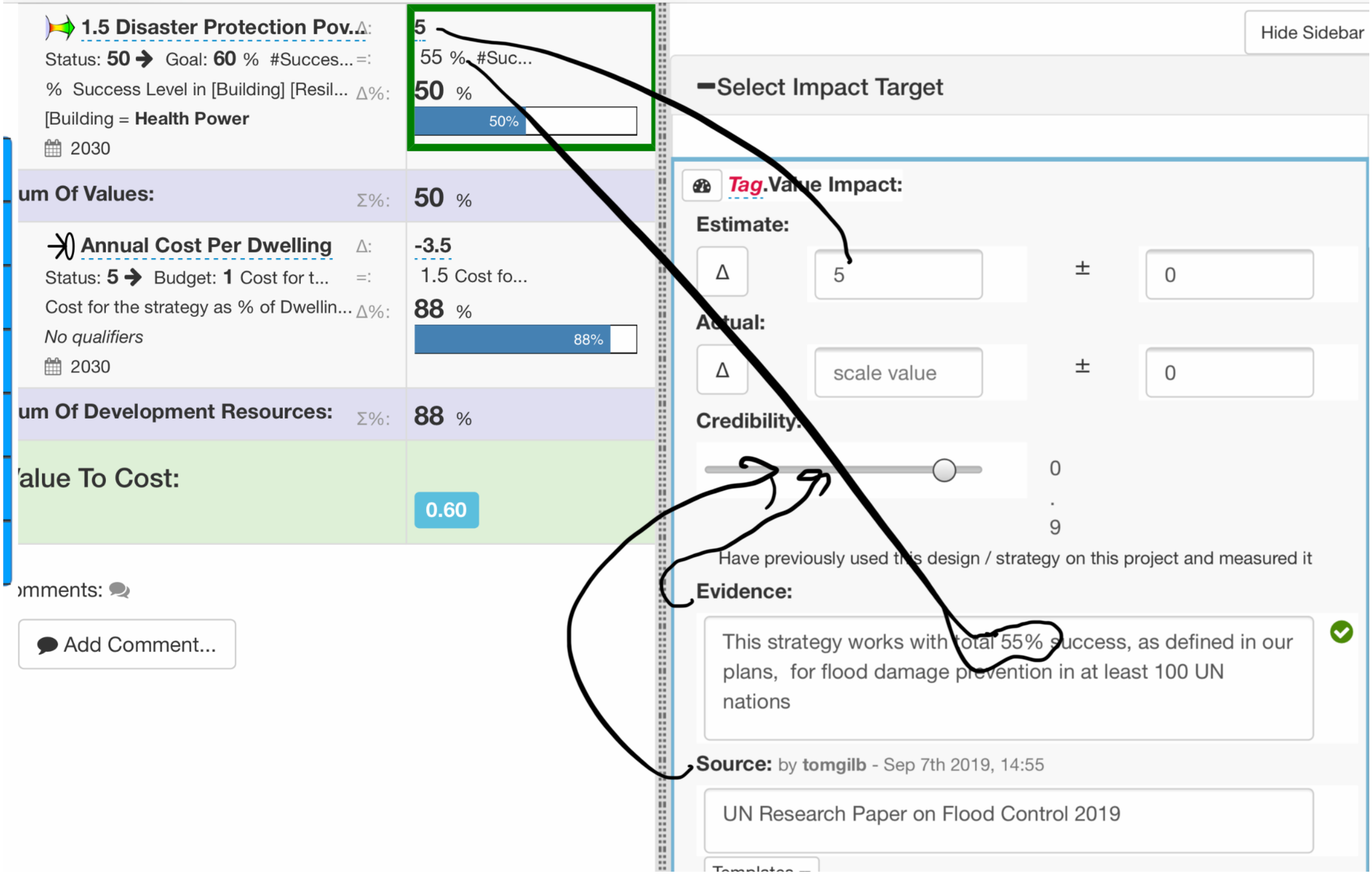
Now if I have time I'd like to give you one insight into some advantages of this kind of goal quantification and structuring

- Main idea
- You can now evaluate your ***strategies***
- Quantitatively
- In many dimensions
- With regard to risks
- And costs



Requirements		T1.5.1 Flood Dama...	T1.5.2 Flood Temp...
1.5 Disaster Protection Pov... Status: **50** → Goal: **60** % #Succes... % Success Level in [Building] [Resil... [Building = **Health Power** 2030	Δ: =: Δ%:	**5** 55 % #Suc... **50** % 	**5** 55 % #Suc... **50** % 
Sum Of Values:	Σ%:	**50** %	**50** %
Annual Cost Per Dwelling Status: **5** → Budget: **1** Cost for t... Cost for the strategy as % of Dwellin... *No qualifiers* 2030	Δ: =: Δ%:	**-3.5** 1.5 Cost fo... **88** % 	**-0.5** 4.5 Cost fo... **13** % 
Sum Of Development Resources:	Σ%:	**88** %	**13** %
Value To Cost:		**0.60**	**3.80**

We can now estimate how cost-effective our strategy options will probably be.



And if there is time for one more slide.
This is how we estimate the credibility of our cost-effectiveness estimates , so we know what to trust, and what to prioritise for good results.

The Concrete Steps for You are

1. **NO BLA BLA BLA**: Decide that important ideas need great clarity
2. **CLARIFY THE CRITICAL**: Always clarify and quantify the critical values
3. **IDEAS MUST DELIVER VALUES**: Evaluate all designs and strategies for how well they satisfy your critical values

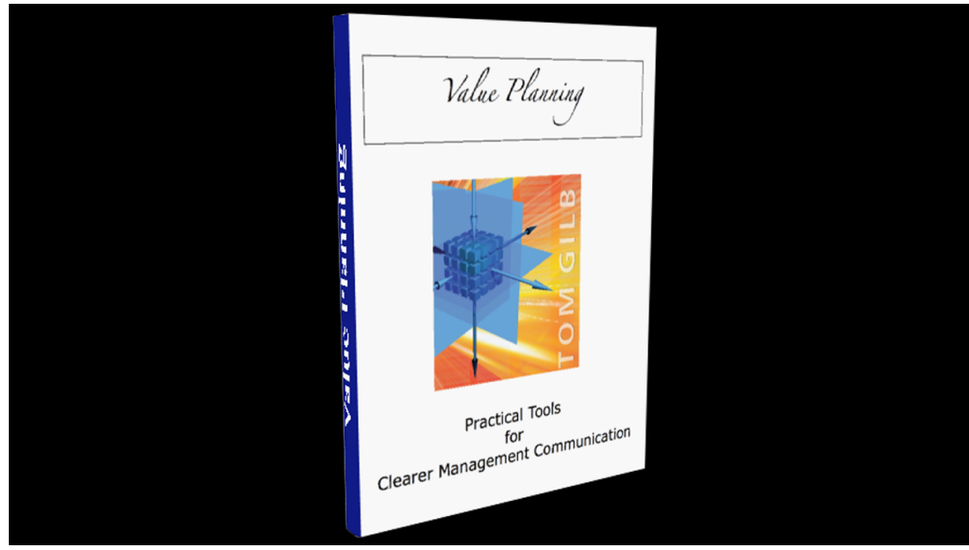
More detail?

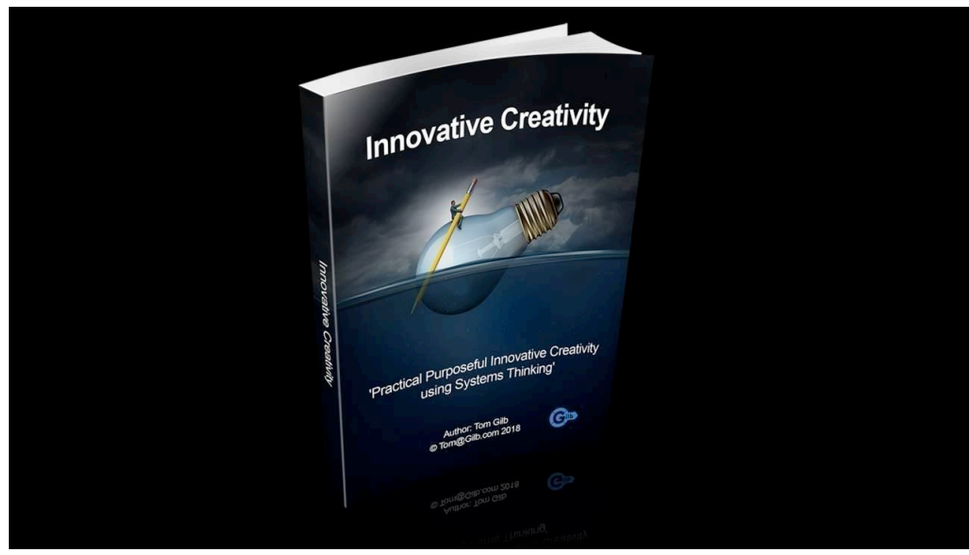
More detail?
“Sustainability Management”
Digital Book 2019
https://tinyurl.com/UNGoalsGilb
Later see
gilb.com

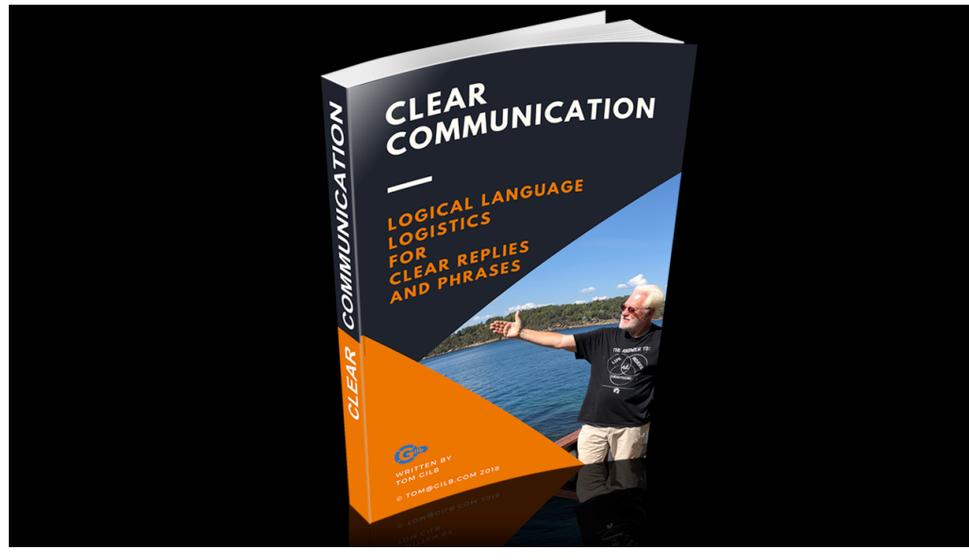
XAI Explaining AI
Lecture Slides
http://concepts.gilb.com/dl958

Training ?
www.Gilb.com

OSWA
https://www.meetup.com/Oslo-Software-Architecture/
(free Oslo course March 5-6 2020)
In English







https://www.gilb.com/about

Now maybe you do not care about saving the human race (yet)

The good news is that these exact same methods (Gilb, Planguage) can be used for your **Usability Planning !**

This is a child who knows nothing about science and shouldn't be given a platform
The other is Greta Thunberg