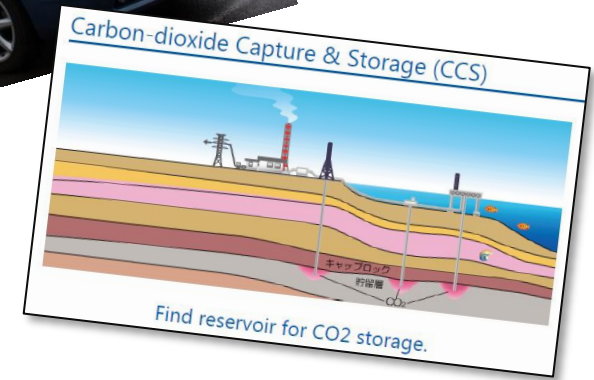# The study session for

Taxonomy of EU sustainable Finance

-- Is it an Environmental Initiative? Or an industrial policy? --

CG plus other issues Digital Reporting Workshop 13th
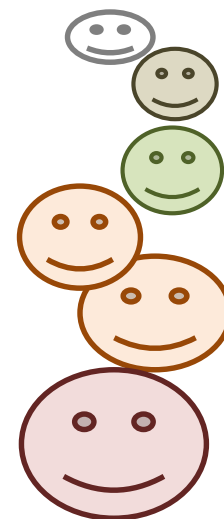
Date and time : 4th Feb 2019, 18:30-20:30

Our Understanding / the Taxonomy at EU sustainable Finance

The European Commission(EC) is gathering comments for the public-consultation of their Taxonomy at EU Sustainable Finance. It is the first step of 10 action plans issued in March 2018. We, stakeholders in Japan, including listed companies, auditors, investors and researchers, have looked into this initiative, which might have impact and would like to share our opinions.

At the beginning of 2018, EC issued a report named "Financing A Sustainable European economy". The beginning of the report says that "The EU is already leading this shift, with our pledge to reduce CO2 emissions by 40% in all sectors of our economy by 2030" and "But there is still a long way to go. We will need about 180 billion euro in additional yearly investments in sectors such as renovation and energy efficient buildings, renewable energy generation and transmission, and low-carbon transportation, etc. The scale of the investment challenge is well beyond the capacity of the public sector alone.". "To decisively address the funding shortfall, we are also looking into regulatory changes to mobilize the significant funding capacity of private capital". "That is why, at the end of 2016, the EC appointed the HLEG on Sustainable Finance ".

On March 2018, EU issued 10 action plans. The first step is to establish a taxonomy to define what is "sustainable", which would form a base of all the following discussions.

So we understand that the taxonomy discussion should be the most important to implement Sustainable Finance initiative smoothly and practically together with all the global stakeholders.

Discuss!

	workshop on 4th February	After workshop
Helped our study session from EU	2 members of TEG, 1 ESG analysts from Brussels	1 investor (Netherland),
Attendees or shared minute later (comments are included) *It was the busy season of the earning reports, made many difficult to join in person.	12 Investors, 1 Database analyst of investment Bank 5 Information providers/Media/Researchers, 3 Company side (included insurance), 1 Regulator/Accounting setter/Analyst organization	1 investor, 1 Regulator/Accounting setter/Analyst organization

How taxonomy was developed.

An EU taxonomy would fill these gaps, as it would inter alia:
• create a uniform and harmonised classification system, which determines the activities that can be regarded as environmentally sustainable for investment purposes across the EU;
• address and avoid further market fragmentation and barriers to cross-border capital flows as currently some Member States apply different taxonomies;
• provide all market participants and consumers with a common understanding and a common language of which economic activities can unambiguously be considered environmentally sustainable/green;
• provide appropriate signals and more certainty to economic actors by creating a common understanding and single system of classification while avoiding market fragmentation
• protect private investors by avoiding risks of green-washing (i.e. preventing that marketing is used to promote the perception that an organization's products, aims or policies are environmentally-friendly when they are in fact not);
• provide the basis for further policy action in the area of sustainable finance, including standards, labels, and any potential changes to prudential rules.

Article 3 of the Taxonomy regulation proposal sets out the criteria for determining the environmental sustainability of an economic activity, in line with six environmental objectives:

1. Climate Change Mitigation
2. Climate Change Adaptation
3. Sustainable use and protection of water and marine resources
4. transition to a circular economy, waste prevention and recycling
5. pollution prevention control, and
6. protection of healthy ecosystems.

https://ec.europa.eu/info/publications/sustainable-finance-taxonomy_en#feedback

Technical Expert Group on Sustainable Finance: Taxonomy feedback and workshop invitation

Technical Expert Group on Sustainable Finance

Taxonomy pack for feedback and workshops invitations
December 2019

Please note that this document is for your convenience to work offline.
Please provide your feedback through the online surveys only.

Disclaimer
This call for feedback is part of the DG FISMA, DG ENV, DG CLIMA and DG ENER ongoing work to develop the taxonomy, for which the Commission has set up the TEG. The Action Plan on Financing Sustainable Growth – Action 1 – requests the group to develop the taxonomy on the basis of broad consultation of all relevant stakeholders. This document is not an official Commission document nor an official Commission position. Nothing in this document commits the Commission nor does it preclude any policy outcomes.

1

Categories of the Taxonomy

Taxonomy has industrial categories as parents. But Child element seems to categorize products or services.

NACE Macro-sector code	CO2e (2016)[12]
A - Agriculture, forestry and fishing	534,586,391.92
B - Mining and quarrying	77,860,862.01
C – Manufacturing	840,971,066.30
D - Electricity, gas, steam and air conditioning supply	1,098,083,546.14
E - Water supply; sewerage, waste management and remediation activities	161,564,425.09
F – Construction	57,811,284.18
G - Wholesale and retail trade; repair of motor vehicles and motorcycles	77,391,486.34
H - Transportation and storage	503,630,311.73
I - Accommodation and food service activities	18,598,937.77
J - Information and communication	10,346,281.06
K - Financial and insurance activities	7,035,014.10
L - Real estate activities	5,830,066.52
M - Professional, scientific and technical activities	19,439,533.18
N - Administrative and support service activities	23,549,820.72
O - Public administration and defence; compulsory social security	29,552,649.98
P – Education	17,999,543.73
Q - Human health and social work activities	30,093,334.93
R - Arts, entertainment and recreation	7,145,887.39
S - Other service activities	9,893,256.85
T - Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use	356,091.23
U - Activities of extraterritorial organisations and bodies	79,082.70

* NACE macro sectors and enabling sectors

https://ec.europa.eu/info/publications/sustainable-finance-taxonomy_en#feedback

This is first round to discuss some important categories.
- Agriculture
- Manufacturing
- Electricity, gas, steam and air conditioning supply
- Transportation and storage
- Construction

"An economic activity shall be considered to contribute substantially to climate change mitigation where that activity substantially contributes to the stabilization of greenhouse gas concentrations in the atmosphere at a level which prevents dangerous anthropogenic interference with the climate system by avoiding or reducing greenhouse gas emissions or enhancing greenhouse gas removals through any of the following means, including through process or product innovation:

(a) generating, storing or using renewable energy or climate-neutral energy (including carbon-neutral energy), including through using innovative technology with a potential for significant future savings or through necessary reinforcement of the grid;
(b) improving energy efficiency;
(c) increasing clean or climate-neutral mobility;
(d) switching to use of renewable materials;
(e) increasing carbon capture and storage use;
(f) phasing out anthropogenic emissions of greenhouse gases, including from fossil fuels;
(g) establishing energy infrastructure required for enabling decarbonisation of energy systems;
(h) producing clean and efficient fuels from renewable or carbon-neutral sources."

The Principle of the Taxonomy

Principle 1: An economic activity that contributes to adaptation to climate change addresses material physical climate risks. Adaptation to climate change should be designed on the basis of an assessment of both current weather variability and expected future climate change, taking into account chronic and acute physical climate risks, and using an approach that incorporates decision-making under uncertainty. The underpinning analysis should use the best available climate projections and data, at the appropriate geographic (national, subnational, sectoral, local) and temporal scales for the economic activity (asset or system(s) in question, for example infrastructure, community, city, ecosystem, river basin or city).

Principle 2: The economic activity that contributes to adaptation should avoid maladaptation. Adaptation should not encourage unsustainable patterns of economic development, for example by encouraging continued development in high-risk locations, or shift impacts faced by others without compensatory measures, or for example through geographic shifting of flood risks downstream a river basin.

Principle 3: An economic activity that contributes to adaptation has a monitoring system in place aimed at measuring progress towards adaptation results.
The outcomes of adaptation activities should be monitored and measured against defined indicators for adaptation results. Updated assessments of climate risks and vulnerabilities should be undertaken at the appropriate frequency, e.g. every five or ten years depending on the risks, the context and the availability of new information, technologies or approaches or policies and regulations.

Principles 4: An economic activity that contributes to adaptation to climate change is part of a wider strategy.
Adaptation should be part of strategy at the appropriate level (e.g. national adaptation plan, sector strategy, national determined commitment)

https://ec.europa.eu/info/publications/sustainable-finance-taxonomy_en#feedback

Our discussion about the taxonomy

We chose 3 cases from actual Japanese companies which are believed to contribute to the environment. And We selected taxonomy elements which might be fit against those cases.

 1. Automobile Company
 2. Energy efficient building
 3. New technology for the public environment

Then we discussed how we could know whether those companies or products/services should be financed or not, by this taxonomy.

As well as what kind of information this taxonomy could tell us about those companies or products /services for sustainable finance.
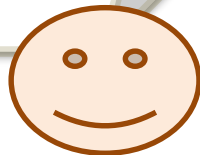
Questions for each category

1.Do you agree with the proposed principle for determining a substantial contribution to climate mitigation for this activity?
 [Yes/No]. If not, what alternatives do you propose and why?

2.Do you agree with the proposed metrics for assessing the extent of the mitigation contribution?
 [Yes/No]. If not, what alternatives do you propose and why?

3.Where thresholds have been considered, please indicate whether you agree with the proposed thresholds for the activity to qualify for inclusion in the Taxonomy.
[Yes/No]. Please explain your answer. If relevant, you may propose alternative thresholds that could be considered.

4.Do you agree with the 'do no significant harm' criteria identified for these activities?
[Yes/No]. If not, what alternative approach or requirements do you propose (e.g. referring to existing market initiatives and best practices) and why?

5.Is there any key area where significant harm needs to be avoided and which is not mentioned already?
[Yes/No]. Please explain why and what requirements could be used to avoid such harm.

6.Would the proposed criteria give rise to adverse consequences, e.g. risk of stranded assets or the risk of delivering inconsistent incentives? [Yes/No]. Please explain.

7.Can the proposed criteria be used for activities outside the EU? [Yes/No]. If not, please propose alternative wording that could be considered.

Case 1)
Auto industry: the definition of zero emission car

As case1, we took a look into Toyota. Recently, Toyota has been developing EV and Hydrogen automobiles aggressively; we discussed if Toyota would be categorized as "10.3 Manufacture of low carbon transport vehicles, equipment and infrastructure", or not.

Toyota is producing EV cars; however at the same time they also sell Hybrid cars, as well as gasoline vehicles. 10.3 definition seems that Manufacturers should be required to be "zero emission" and we wondered if Toyota would not be qualified as 10.3 company.

Several specific financing assets, such as green bonds, Private Equity or project financing loan, would be able to define the project/product area, in which investors/lenders' money to be used. However it should be difficult to divide Company's whole budget precisely between EV/Hydrogen cars and other vehicles, which produce carbons. Also, what will happen if the outcome from R&D would be shared between with Hybrid/Gasoline car and zero emission cars?

According to some researches, even in 2030, it should be difficult to achieve 100 % EV car penetration. Infrastructures and battery production capability would be not prepared enough

Attendees (a writer of the economy media)

10.3 Manufacture of low carbon transport vehicles, equipment and infrastructure

10.3 Manufacture of low carbon transport vehicles, equipment and infrastructure

Sector classification and activity	
Macro-Sector	Manufacturing
NACE Level	TBD
Code	TBD
Description	Manufacture of zero direct emissions road vehicles and rail transport.

Mitigation criteria	
Principle	The manufacture of low carbon technologies that result in substantial GHG emission reductions in other sectors of the economy and including private households is eligible.
Metric	Manufacture of products, key components, equipment and infrastructure that are essential for zero direct emission road vehicles and/or land transport (i.e. zero emissions LRT, metro, hydrogen bus etc) is eligible.
Threshold	No threshold applies

Do no significant harm assessment	
(2) Adaptation	To be determined.
(3) Water	To be determined.
(4) Circular Economy	To be determined.
(5) Pollution	Minimise emissions of pollutants to air, soil and water. For activities covered by BREF documents[27], limit emissions of pollutants to air, soil and water to value within the BATAEL[28] ranges given in the relevant BREF.
(6) Ecosystems	To be determined.

Rationale	
Additional notes on conclusions reached.	The TEG has proposed eligibility for the manufacture of those specific products, key components, equipment and machinery that are essential for the deployment of technologies that are needed to achieve the climate mitigation goals defined in the 2015 UNFCC Paris Climate Change Agreement. Eligibility is based on those technologies eligible in the section of the taxonomy on transport.

The manufacture of other types of transportation fleets and infrastructure will be considered at a later stage based on definition of eligibility in the transport section of the taxonomy.

The TEG is considering options to define boundaries that will address the manufacture of products, key components, equipment and machinery along the supply chain that are essential to the eligible transport vehicles, equipment and infrastructure but that exclude the manufacture of those components/materials that are used by both low carbon transport technology and non-low carbon transport technology.

Comments from attendees

Good for Auto industry?

- It is unrealistic if 10.3 only allows EV or Hydrogen cars. Even in 2030, some analysts say that EV and hydrogen cars penetration should be below 10%. As most of auto companies would fall out of this scope, it seems unrealistic.

- Is it an environmental initiative or an industrial policy? In case of "industrial policy", we are concerned that some arbitrary or political decisions could be made. As METI used to have similar policy in Japan a long time ago, sometimes those industrial policy could be necessary, which might not be always acceptable by investors though.

- The target of 40% reduction of CO_2 emissions should be too strict. When we try to reduce 40%, it should be difficult to achieve the target with hybrid cars, since it is considered that hybrid card would have only 20-30% CO_2 reduction effect. Even if all the vehicles are changed to hybrid, the maximum reduction effect is estimated at still around 30%. In the first place, even though we understand that this is based on Paris Agreement, do we think this target is realistic subject to taxonomy discussion? On the other hand, Taxonomy metrics seems easier for the construction industry, while too strict for technology and auto industries.

Investors view point

- Is the purpose of taxonomy purely classifying goods and services, which should promote environmental sustainability? Or shouldn't we invest in companies which are not categorized in this taxonomy as of today? If the taxonomy restricts investment decisions, large auto company such as Toyota which is providing EV car but also gasoline car wouldn't be possible to be invested. **In the result, it would shut down the necessary finance to support the company that is promoting EV development and would be the cause of the side effects delay EV development.**

- In order for companies to enhance corporate value towards sustainable goals, it is important to evaluate the process of achieving its goal from the current status. On the way to the goal, 40% reduction, which means 60% emission, the target could be achievable through 50% of hybrid vehicles with 70% emissions, 10% of EV with 0% emissions, and the rest 40% could adopt the gasoline car which has improved internal combustion engines with 90% emissions. If only EV is categorized in the taxonomy, it would prevent other technologies' contribution to goal-achievement. The taxonomy should allow gradual metrics, even though some technologies does not bring very strict "zero" emission, since **we could expect mix of several new and existing technology should be valuable to achieve our goal.**

- This taxonomy seems to focus on the final product only; however if we look into the supply chain, zero emission cars should produce CO_2 as well. When we think about total emission of the product, gasoline car may not be the worst. **We had better consider in the metrics that cover whole supply chains, waste, recycle. Then we can call it as "sustainable".**

Case 2)
Not construction company's green bond for their building to reduce emission

As case2, we selected the company (Consulting and IT services) which issued green bond for its new office building to reduce emission. Would this deal be categorized in "13.1 Construction of new buildings (residential and non-residential)", even though the issuer is not categorized as Construction industry?

In 2016, Nomura Research Institute issued the Green Bond (10 billion yen), one method of green finance, for the first time at a domestic operating company, utilize the funds, and transfer a portion of the new office building to the trust beneficiary right We acquired it in the form of. This is a high energy efficient building.

Although Nomura Research Institute has approximately 13,000 consolidated employees, CO_2 emissions are attributable to five data centers with approximately 70%, while offices are only approximately 30%. Therefore, the overall environmental effect of the green finance may not be large, but the strategy is to invest in the green building and contribute to the reduction of its own emissions, the intention of issuance.

Compared to the office before relocation, this new office has reduced per capita emissions by 60%. We also formulated and announced our environmental goal of reducing CO_2 emissions by 55% in fiscal 2013 (compared to fiscal 2013), and this environmental goal is certified by Science-Based Targets (SBT).

Or 13.1 assume is used only for the construction industry?
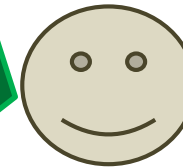
Attendee (an IR person of the company which issued a green bond)

10

13.1 Construction of new buildings (residential and non-residential)

13.1 Construction of new buildings (residential and non-residential)

Sector classification and activity

Sector	F – Construction. Note that construction of new buildings relevant to any economic activity should be aligned with these thresholds.
Level	2
Code	41; 43
Description	Construction of buildings (residential and non-residential); Specialised construction activities.

Mitigation criteria

Principle	Construction of highly efficient new buildings can make a substantial contribution to climate mitigation objectives by avoiding emissions. The top performing buildings in a country based on GHG emissions or energy efficiency, should be eligible for the Taxonomy. In-use monitoring of actual performance is required to demonstrate that the building performs as designed. This should be measured and adjusted according to the national calculation method or the ISO 52000 standard series (e.g. normalised occupancy patterns and normalised average climate conditions over a time-span of at least 2-3 years). Lock-in should be avoided[43]. The TEG has adopted a precautionary principle to exclude buildings dedicated to fossil fuel projects. According to the IEA's World Energy Outlook, no CO2-emitting energy infrastructure is to be developed in the coming years if the Paris Agreement target is to be met, as emissions from existing infrastructure will already cover 95% of the global carbon budget (ref. IEA World Energy Outlook 2018; see also here).
Metric	The TEG will investigate using in-use carbon performance (CO₂e/m²/yr) or in-use energy performance (kWh/m²/yr). Compliance with Member State definitions for Nearly-Zero Energy Buildings (NZEB) will be used where the above approach is not yet in place.
Threshold	The TEG will undertake additional work to investigate country specific thresholds for carbon and energy performance. Where the national methodology defining Nearly Zero Energy Buildings (NZEB) under the Energy Performance of Buildings Directive meets the relevant threshold, it will be considered to comply with the taxonomy. Where the threshold above is

exceeded by the local NZEB methodology, the NZEB methodology will be the taxonomy standard.

In the absence of additional thresholds, the NZEB standard will be the taxonomy standard.

Do no significant harm assessment

(2) Adaptation	• Thermal resilience of the interior environment of the building and exterior environment around the building. This can be achieved using e.g. green infrastructures of different types • Resilience to increased risk of extreme weather events. This could include floods, rain, wind and snowfall as well as temperature stress. • Minimisation of flood risks and improved property protection (including natural water retention and drainage areas)

(3) Water	• In water scarce areas (see EEA water scarcity mapping) water consumption during the use phase is minimised. Examples of measures include: low-flow taps and showers, appliances, toilets and urinals, rain-water harvesting and grey water recycling.
	• Minimise possible contamination to water during construction and with a focus on:
	  ○ prevention of emissions of harmful substances such as diesel and oil, paint, solvents, cleaners and other harmful chemicals;
	  ○ prevention of construction debris entering water courses.

(4) Circular economy	• Maximise opportunities to re-use materials and minimise waste during construction and demolition. • Increase life span of building, adopting design solution for making easy the adaptation of the building. • Maximise the future potential of building material reuse and recycling, adopting design solutions for ease of deconstruction[44].
(5) Pollution	• Select location of building taking into account the demand of transport, e.g. by siting the building close to public transport system. For commercial buildings, implement of staff travel plans and infrastructure to support electric vehicles and cycling. • Minimise emissions to air, water and soil from the construction site, e.g. address transport emissions during the construction phase. • Select fit-out and finishes to reduce indoor pollution (VOC, radon, etc.); • Design ventilation in order to ensure healthy air and minimise the intake of external air pollution.
(6) Ecosystems	Minimise the impacts on biodiversity by: • Ensuring that new buildings are not constructed on protected land.

• Avoid building on arable or greenfield land of recognised high biodiversity or agricultural value.
• Avoid urban sprawl by, e.g. preferring brownfield over greenfield sites.
• Where significant quantities of timber are used for construction purposes, this should be certified according to FSC/PECF standards or equivalent.

Rationale

Additional notes on conclusions reached	The mitigation principles reflect the fundamental Taxonomy aim of identifying economic activities which contribute substantially to climate change mitigation. The TEG is proposing thresholds which will encourage rapid transition of existing building stock while promoting high performance new buildings. Almost[45] all new buildings in the EU as of 1 January 2021 will need to be NZEB as defined in the Energy Performance of Buildings Directive and Member State implementation standards. There are considerable advantages to aligning with an established legislative standard which is flexible, comprehensive and dynamic, taking into account building category, typology, physical boundary, type and period of balance, included energy uses, renewable energy sources (RES), cost optimality, etc. Regional variation however is also a challenge as it may mean that some national NZEB definitions are not sufficiently ambitious to include in the Taxonomy. The TEG notes that setting additional thresholds could address this issue and proposes to investigate this further. The Energy Performance Certificates (EPCs) are widely used in Europe to certify the level of energy performance of a building. Like with NZEB, the national definitions and classifications used for EPCs vary across EU Member States. The TEG also proposes to undertake additional research on Energy Performance Certificates (EPCs) to consider their use as a proxy when evaluating taxonomy compliance. For very high efficiency new buildings, embodied carbon can be significant. For this reason, a lifecycle metric would be preferable. International standard methodologies do exist for lifecycle emissions measurement, but data is limited and agreed thresholds are not available. For this reason, the Sustainable Finance Platform should work towards lifecycle thresholds in future iterations of the Taxonomy. Building bill of materials (kg) was considered as a proxy, but it was felt that this does not strongly enough correlate with embodied carbon or reflect possible choices for less carbon-intensive building materials. In-use monitoring is required as the energy and carbon performance of buildings often varies substantially between design and use phase[46].

Comments from attendees

Green bond for energy efficient building.

• For energy-saving building construction, it seems to be relatively easy to achieve metrics.

• Currently the issuer needs to receive a second opinion in order to issue qualified green bond as enough energy-efficient building. However, once the construction of energy-saving building is categorized as 13.1 at the taxonomy, the issuer will not have to receive a third-party certification for green bond any more?   From the viewpoint of bank, the buildings have variety and it is difficult to judge, so now relying on the third party certification. (The taxonomy could make it easier?)

Taxonomy could encourage the companies to contribute more green?

• The construction industry builds buildings based on customer requests. Regarding 13-1, **is it applicable to the only construction industry in the first place? We would need a broader range of industries' effort to increase green buildings.** If 13.1 category is applied for non-Construction industries too, those companies should be motivated to have energy efficient "green" building, which should contribute to CO_2 reduction.

• Similar discussion applies to transportation/cargo industry; their fleet with zero emission needs to be categorized as green/sustainable equipment at the taxonomy, for their motivation to increase zero emission vehicles. In other words, even if taxonomy is mainly based on the manufacturing industries, **it should be their customers or users of products/ buildings to make the final decision whether they would spend their money for such sustainable products/buildings. We should keep such perspective of customers/users in mind to implement effective disclosure.**

• Some companies disclose the green products' sales contribution; however, the definition of "green" would be different depends on companies. For example, one IT infrastructure company wish to categorize its sales from server system of its sharing-use as "green", since the service is jointly used by its customers and cut power consumption at each customer. Would this case be categorized as "green" in the taxonomy?

Case 3)
Brand-new technology which is not categorized in the taxonomy

As case3, we consider the risk that the company has very new technology which should bring the big green impact in the long-term, but not yet categorized in any elements of this Taxonomy?

The company has leading technology of carbon capture, which would not reduce emission itself, but would reduce carbon dioxide directly. Does this technology meet the criteria of 10.5?
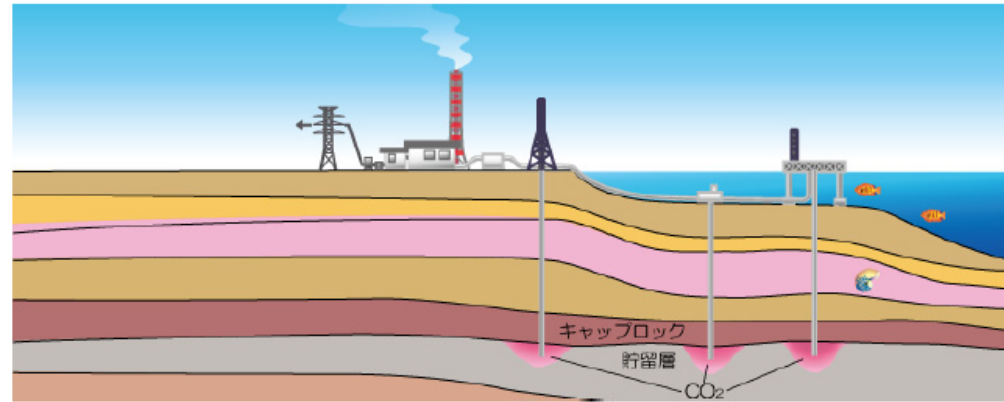
Furthermore, this new technology should depend on public policy decision and would not be used by individual company.

Would the taxonomy include such brand-new technologies and solutions enough, which could not be captured in current categorization?

Investor

Carbon-dioxide Capture & Storage (CCS)

キャップロック
貯留層
CO_2

Find reservoir for CO2 storage.

CCS is an acronym of "Carbon-dioxide Capture & Storage", a technology to capture carbon-dioxide emitted from large sources (ex. power stations, factories), and take it to a deep underground storage. It is expected as a final resort for global warming.

There are some CCS projects outside Japan, and some candidate sites to store CO2 into underground in Japan. We can regard a site as a candidate storage if it has a reservoir (deep salt water layer) in more than 800m depth, and a cap rock structure just upon it which act as a "lid". If a candidate storage site can be found near an emission resource, transportation costs can be reduced.

OYO provides following services as a geological consultant. That is, OYO can evaluate a possibility regarding (1) selection of a site, (2) storage amount, and (3) its long-term safety for CCS, using the technologies of geophysical exploration, laboratory tests, numerical simulation from a geological point of view.

OYO conducted CO2 monitoring to be stored underground for the first feasibility study in Nagaoka in 2003, and made a successful results.

10.5 Manufacture of other low carbon technologies

10.5 Manufacture of other low carbon technologies

Sector classification and activity	
Macro-Sector	Manufacturing
NACE Level	To be determined.
Code	To be determined.
Description	Manufacture of low carbon technologies that result in substantial GHG emission reductions in other sectors of the economy including private households and are not classified in other categories for manufacture of low carbon technologies

Mitigation criteria	
Principle	Manufacture of low carbon technologies that result in substantial GHG emission reductions in other sectors of the economy and including private households is eligible.
Metric	Demonstrate substantial GHG emission reductions through a life cycle carbon footprint.
Threshold	To be determined.

Do no significant harm assessment	
(2) Adaptation	To be determined.
(3) Water	To be determined.
(4) Circular Economy	To be determined.
(5) Pollution	To be determined.
(6) Ecosystems	To be determined.

Rationale	
Additional notes on conclusions reached	The inclusion of other low carbon technologies is intended to allow the Taxonomy to be dynamic over time and able to consider eligible other technologies than those explicitly listed. This could cover end-game technologies and, more broadly, all the technological development demonstrating substantial GHG reductions. Such dynamic criterion comes in addition to the explicit criteria for renewable energy equipment, low carbon transport equipment and energy efficiency in building technologies. The TEG will define a metric that builds on existing lifecycle carbon footprint standards. Standards currently being reviewed include: • **ISO 14067:2018 - Greenhouse gases -- Carbon footprint of products -- Requirements and guidelines for quantification** • GHG Protocol - Product Life Cycle Accounting and Reporting Standard
	• **PAS 2050:2011 - Specification for the assessment of the life cycle greenhouse gas emissions of goods and services**
	• **The Product Environmental Footprint (PEF) and Organisational Environmental Footprint (OEF) method, defined in 2013/179/EU:** Commission Recommendation of 9 April 2013 on the use of common methods to measure and communicate the life cycle environmental performance of products and organisations (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32013H0179).

Comments from attendees

Economic activities which can not be categorized any elements of taxonomy

- **When this taxonomy becomes authority, some environment-friendly product, which failed to be included in the taxonomy categorization, might have a difficulty to be financed smoothly?** There are companies that are making measuring instruments that are useful for improvement in certain environments, consulting technologies service for carbon technology, and there is a technology of carbon capture... but they are not able to be categorized current taxonomy, even though those technologies should be necessary for future environment.

- Definitions at the taxonomy should be effective to some extent; however, we are concerned with the risk that new important technologies will be not captured enough. Although such new technology requires funds/money from the investor, the taxonomy categorization could be a hurdle for investors to allocate their money into such new technology.

- However, tat the same time, if the taxonomy's definition is revised very frequently, the best practice disclosure could be changing frequently as well, which might cause confusion.

- **To achieve sustainable growth, the companies would be exposed to several risks, not only environmental related; however it is difficult to evaluate how they have managed those risks**

Way to use taxonomy

- From the perspective as public equity investor, the disclosure requirement should not be like All or Nothing judgement. But when the metric doesn't cover enough, the judgment might become various for making disclosure framework.. The step-by-step adoption of the taxonomy metrics would be preferred.

- This taxonomy **definition seems to be mixed. Some categories include existing technology, while other categories have very future products like "zero emission" cars.** We might get confused about how we would be able to utilize this taxonomy at investment decision making process.

15

Our Opinions for this Taxonomy

The way to use taxonomy should be key.

- Bonds and PE investors would find this taxonomy useful since they could invest in the specific project, which would meet their sustainable requirement. Also, the taxonomy could lower the issuance cost, since Bonds and PE investors would be able to make investment decision more smoothly with such transparent taxonomy. However, for listed equity investors, those categorizations would not always work practically. Especially in the case of large and conglomerate companies whose product and the business line-up is very diversified. **It usually happens that a company has a wide range of products, including both state-of-the-art technology/product, which should be critical to climate change, and traditional technology/product, which could not be categorized as "sustainable".** Toyota is one example. We are concerned with such contradictory case as following; if auto companies could not get financed enough because of the taxonomy categorization, they might not be able to allocate resources to EV cars development.

Concerns from public equity investors

- Public equity investors cover many companies with various business portfolios, which includes both sustainable and not-sustainable businesses. Equity investors would like to choose the companies, which could enhance corporate value consistently in the long-term. The taxonomy could be useful for green bonds or PE investors, since they might like the investee companies to use the money from investors only for green activity, which should appeal to such investors..

- The most important issue for public equity investors **is corporate value enhancement and strong corporate governance structure** than products that they are producing. Too strict taxonomy which defines product area as green or not, might not contribute to the consistent enhancement of corporate value and equity capital market. How to use taxonomy should be important. We are concerned with the situation, in which **a related index would be newly developed and a large amount of passive investment money inflow only into the taxonomy** categorized names; i.e. **listed companies would not be motivated properly to enhance corporate value.** Such a situation could prevent companies to achieve a sustainable goal.

Different taxonomy would be needed based on investment styles or asset class?

- Bonds and PE investors would prefer the taxonomy categorized companies to promote their environmental-friendly corporate activity; however, public equity investors would owe the companies' management the capital allocation strategy. So in case that investors are taking a different approach, different taxonomies may be useful.