



PASCN-FSI Symposium

**“Circular Economy in the Philippines and APEC
Region: Perspectives, Experiences, and Pathways”**

Financing an inclusive circular economy

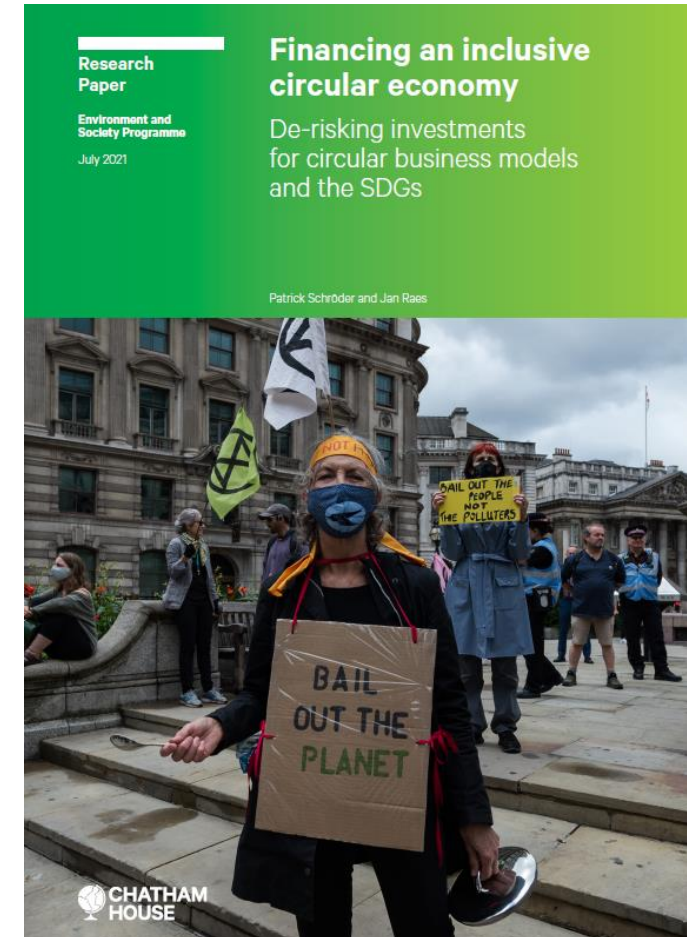
Dr. Patrick Schröder

17 May 2022

- **Key findings from Chatham House Research Paper “Financing an inclusive circular economy: De-risking investments for circular business models and the SDGs”**
- **Introduction to circular economy in the EU Sustainable Finance Taxonomy**

Key messages

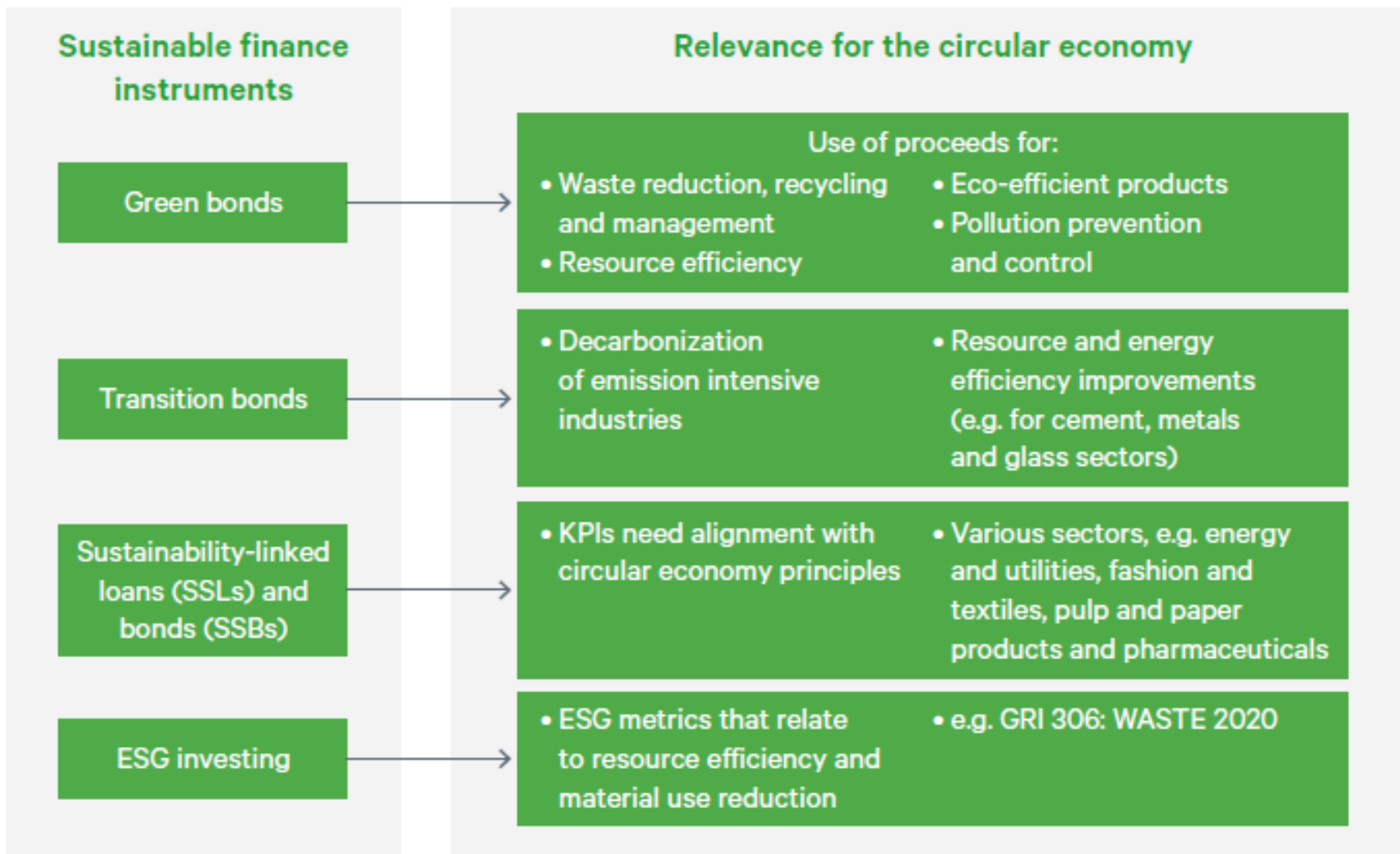
- Circular economy finance is becoming more sophisticated due to the growing demand for sustainable finance from investors and company shareholders
- Policy instruments are key to de-risking and incentivizing financial investments that target circular economic development.
- Investments in low- and middle-income countries in the transition from a linear to a circular economic model is crucial, particularly in the context of the COVID-19 recovery.
- For circular economy finance to become sustainable and socially inclusive, it will be necessary to adopt and internalize new ideas, such as the concept of a ‘just transition’.
- Initiatives such as the Green Taxonomy provide an opportunity to create binding and commonly adopted financial standards and guidelines for circular economy investments.



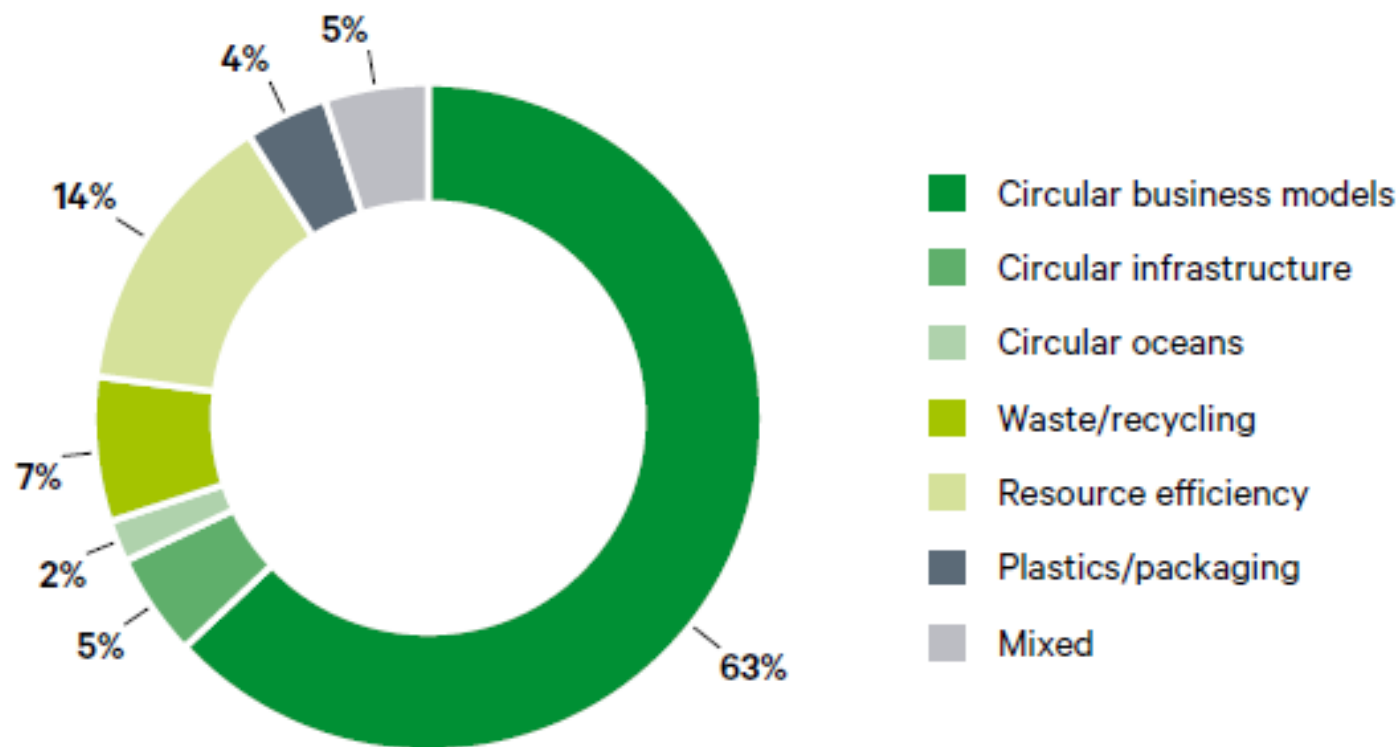
Summary of global spending by sector in 2019/20 (estimates)

Sector	Circular economy estimate (\$ billion)	
Government	636	About 4 percent of government spending
Government (less stimulus)	510	
Corporate	858	About 3 percent of corporate spending
Finance	46	Less than 1 percent of financial assets managed
Total	1,540	
Total (less stimulus)	1,414	

Source: Lawlor and Spratt (2021), *Circular investment*.



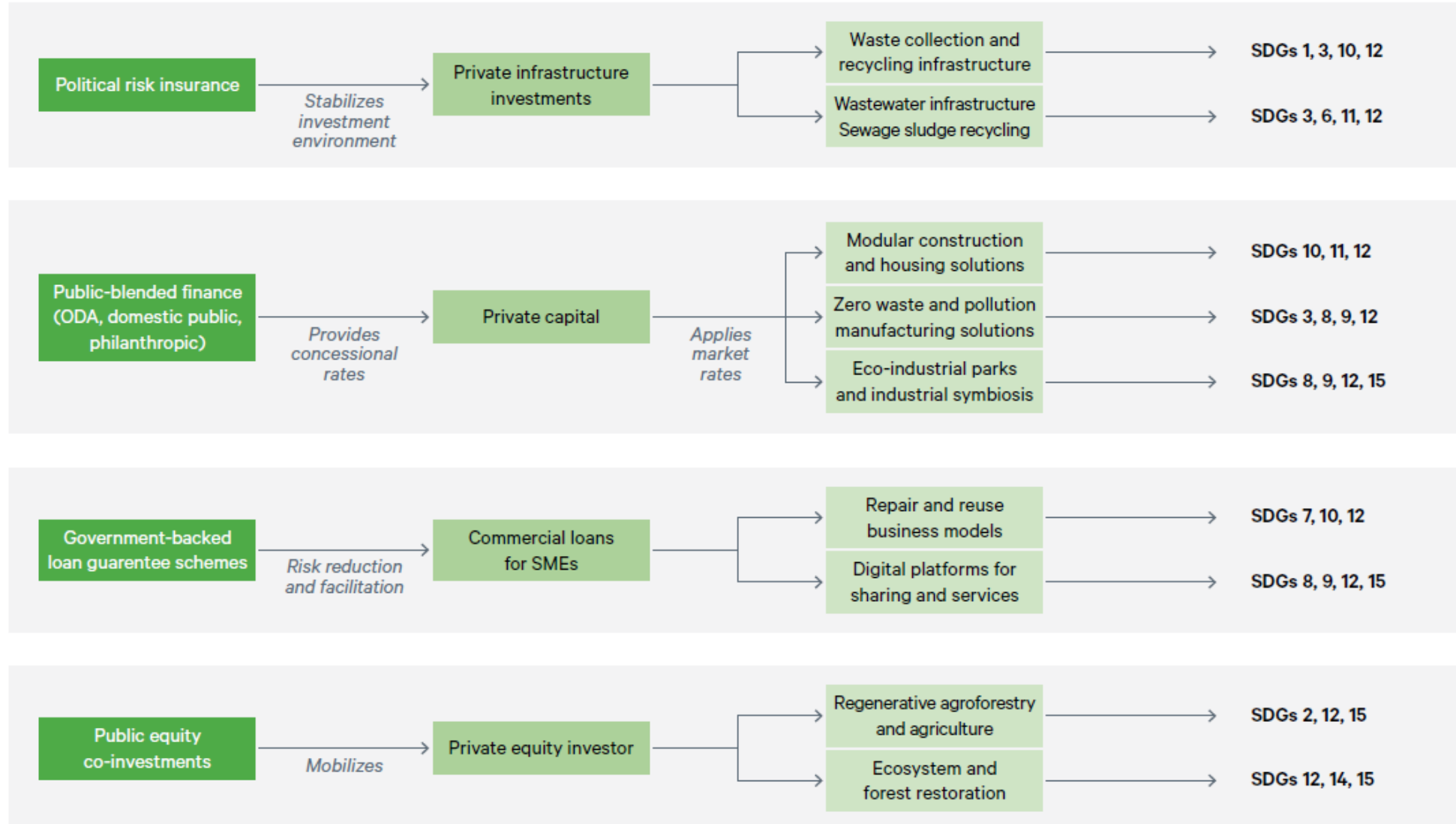
Circular economy investments: value share by sector



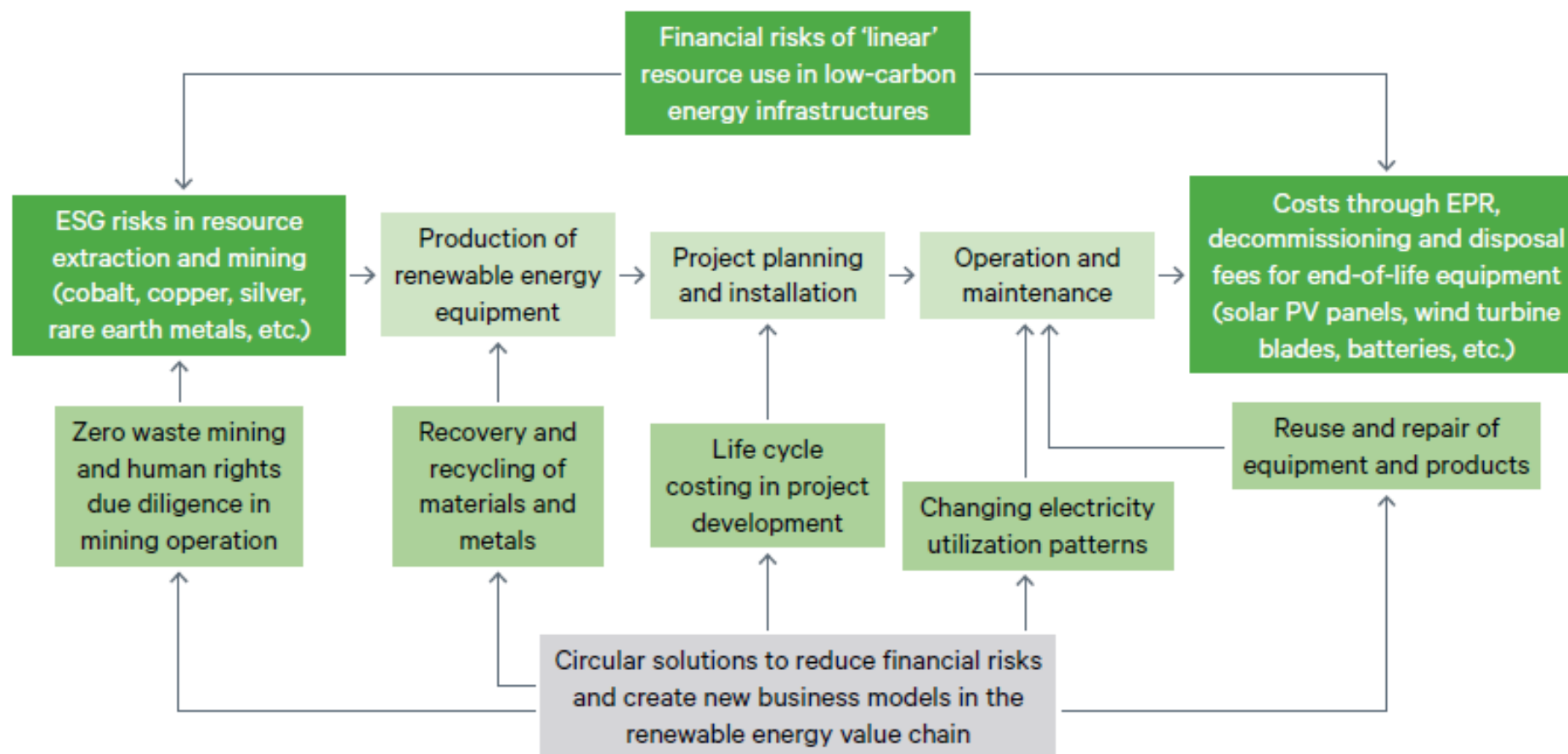
Source: Lawlor and Spratt (2021), *Circular investment*.

Circular business models: investments in companies that want to transition to more circular activities, or, more commonly, that want to create new circular technologies or products.

De-risking instruments for circular economy solutions for the SDGs



Circular economy solutions to reduce linear risks in renewable energy finance



What is the Taxonomy?

- The EU Taxonomy is a classification system for sustainable economic activities.
- Overall goal to create transparency and disclose the impact of investments. It is part of the EU Action Plan Financing Sustainable Growth (European Commission 2018a).
- Aims to enable the financial system to guide investment decisions into a more sustainable direction and thus accelerate the transition to a circular economy in Europe and beyond



- Taxonomy Regulation published 22 June 2020 & entered into force 12 July 2020
 - Draft delegated act for first two environmental objectives (climate change mitigation and adaptation) approved 21st April 2021
 - Delegated Act supplementing Article 8 of the Taxonomy Regulation adopted 6th July 2021 (specifies the content, methodology and presentation of information to be disclosed by financial and non-financial undertakings). Taxonomy compass launched
 - The draft delegated acts for the remaining four environmental objectives are expected to be published by the end of 2021.
 - The Taxonomy is expected to go into force for the first two environmental objectives by the end of 2021, and for the remaining four objectives by the end of 2022 (see Figure 2), the Taxonomy will be fully operational by 2023.
 - Disclosure requirements apply on 1 January 2022 in relation to the climate objectives, and on 1 January 2023 in relation to the other four environmental objectives.
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Who will it affect?

Companies

- that are already required to provide non-financial information (under the CSR-Directive) will have to disclose the share of their Taxonomy-aligned activities.
- Helps them measure the sustainability of a particular investment and gradually increase the share of a company's sustainable economic activities

Financial market participants

- offering sustainable finance products.
- help them to avoid investments in green- washing and support institutional investors (such as insurance companies or pension funds) to invest their long-term capital in sustainable economic activities

Public Sector

- used to define green financial products via the EU Ecolabel or EU green bond standards
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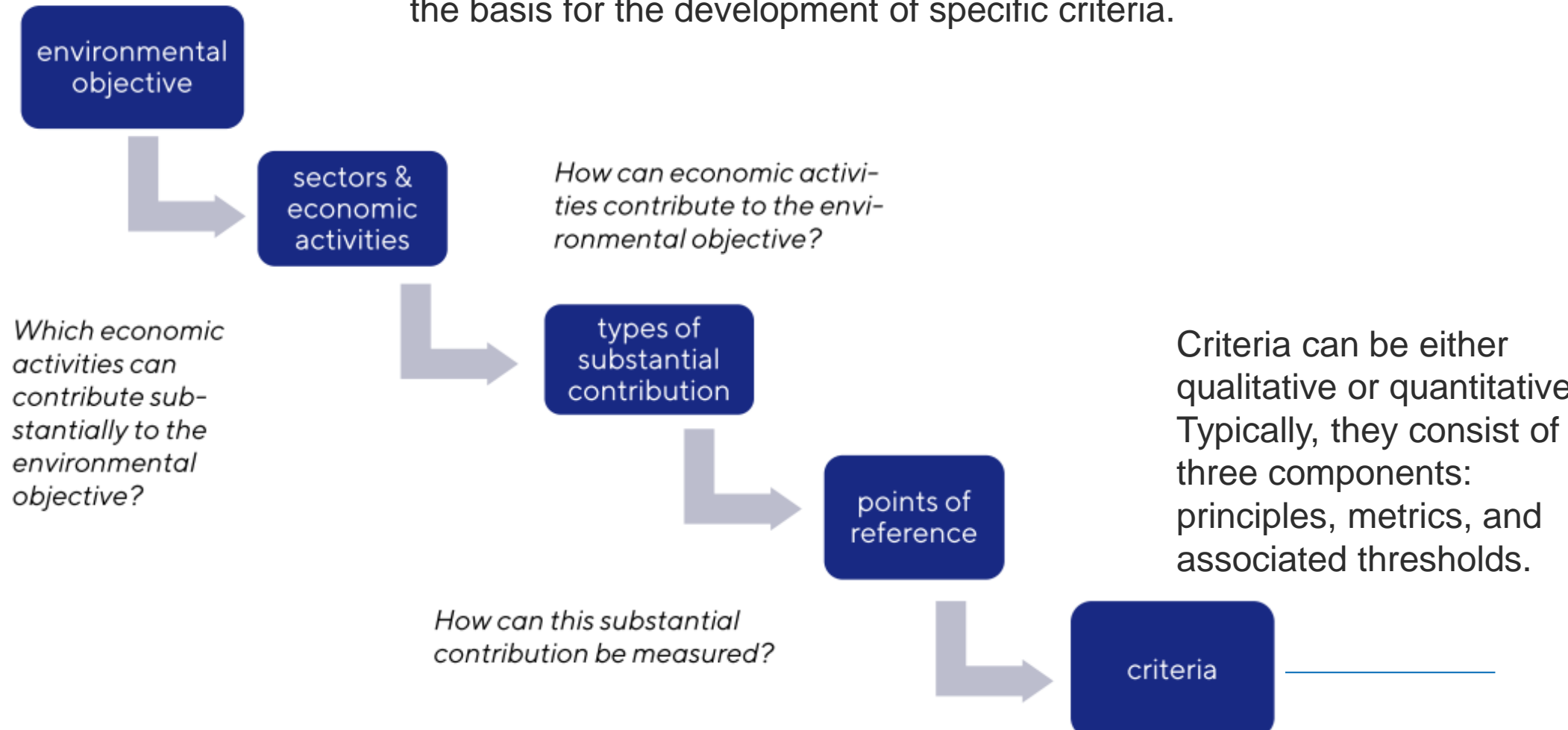
Environmental objectives

- Economic activity is considered taxonomy-compliant if it:
 - makes a substantial contribution to at least one of six environmental objectives (either own performance reducing impact on env/improving state of env or enabling others to do this)
 - does no significant harm (DNSH) to the other environmental objectives (where relevant),
 - meets minimum safeguards, e.g. with regard to social and human rights
- threshold for substantial contribution must ensure that economic activities significantly enhance the environmental objective in question, the DNSH threshold is set lower
- Criteria for each objective are necessary to assess whether it contributes to the above. Criteria drafting process slightly different for each objective depending on where it sits in DPSIR model



Environmental objectives are translated into overarching goals, such as the “net-zero CO₂ -emissions by 2050 and a 50-55% reduction by 2030” goals on EU-level for climate mitigation (cp. TEG 2020). These serve as the basis for the development of specific criteria.

Figure 4: Development of criteria



Goal of circular economy objective

As outlined in the Platform on sustainable finance: technical working group - Taxonomy pack for feedback August 2021 the suggest goal is:

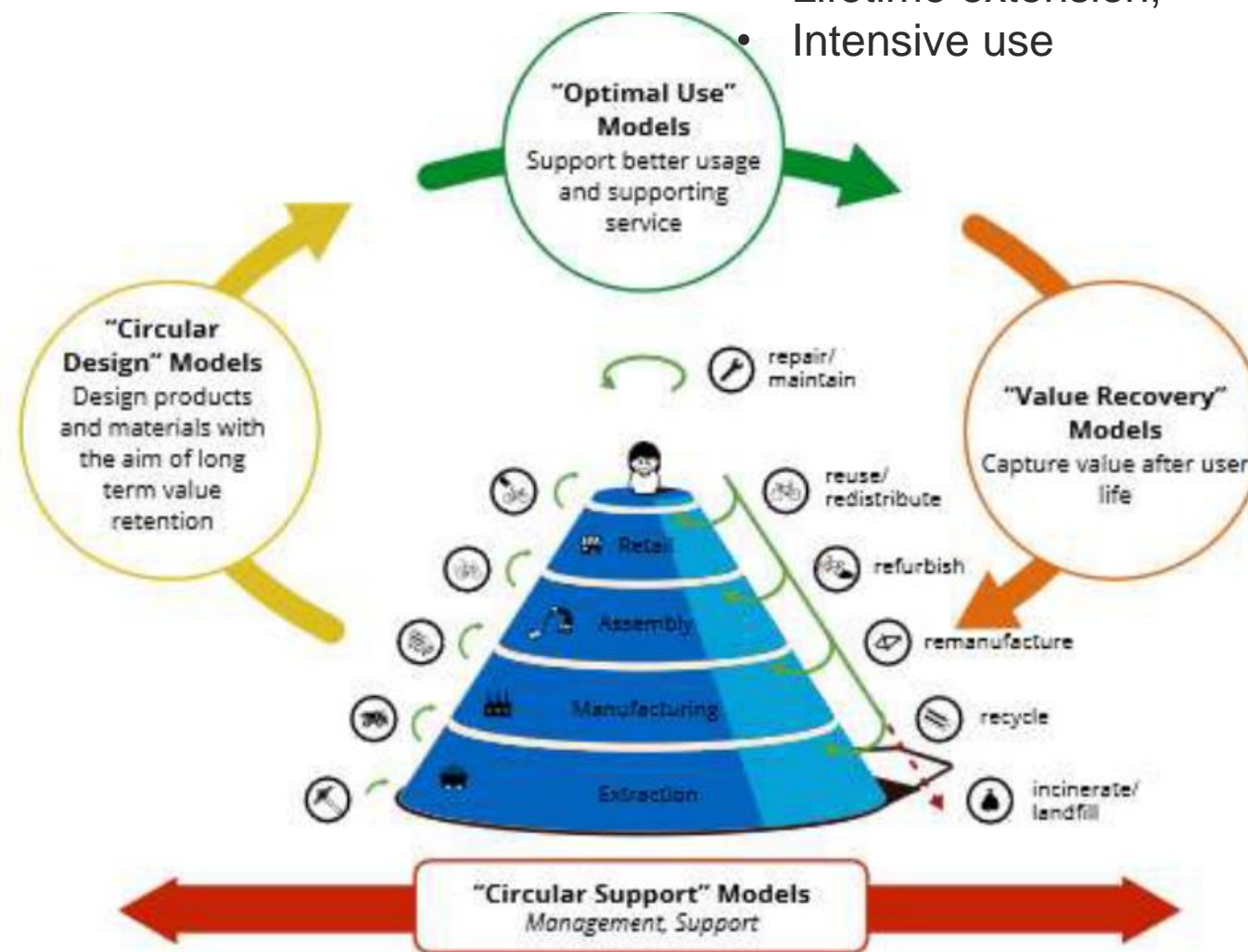
“By 2030 economic growth is decoupled from extraction of non-renewable resources and depletion of the stock of renewable resources is reversed, and by 2050 economic activity is largely decoupled from resource extraction, through environmental design for a circular economy to eliminate waste and pollution, keep materials and products in use at their highest value, and to regenerate ecosystems.

This ambition builds on a reduction of the EU27 material footprint (RME) by 50% by 2030 and by 75% by 2050 (compared to a 2015 baseline of 14t/capita) and raising the circular material use rate of all materials to increase the average to at least 25% by 2030, by increasing the durability, repairability, upgradability, reusability or recyclability of products, and by remanufacturing, preparing for reuse and recycling of used materials and products; and on cultivating 25% of total agricultural land and production forestry by 2030, and 100% by 2050, using regenerative production methods, such as agroecology and silvopasture.”

Types of substantial contribution

- Lifetime,
- Ability for repair,
- Materials,
- Processes

- Lifetime extension,
- Intensive use

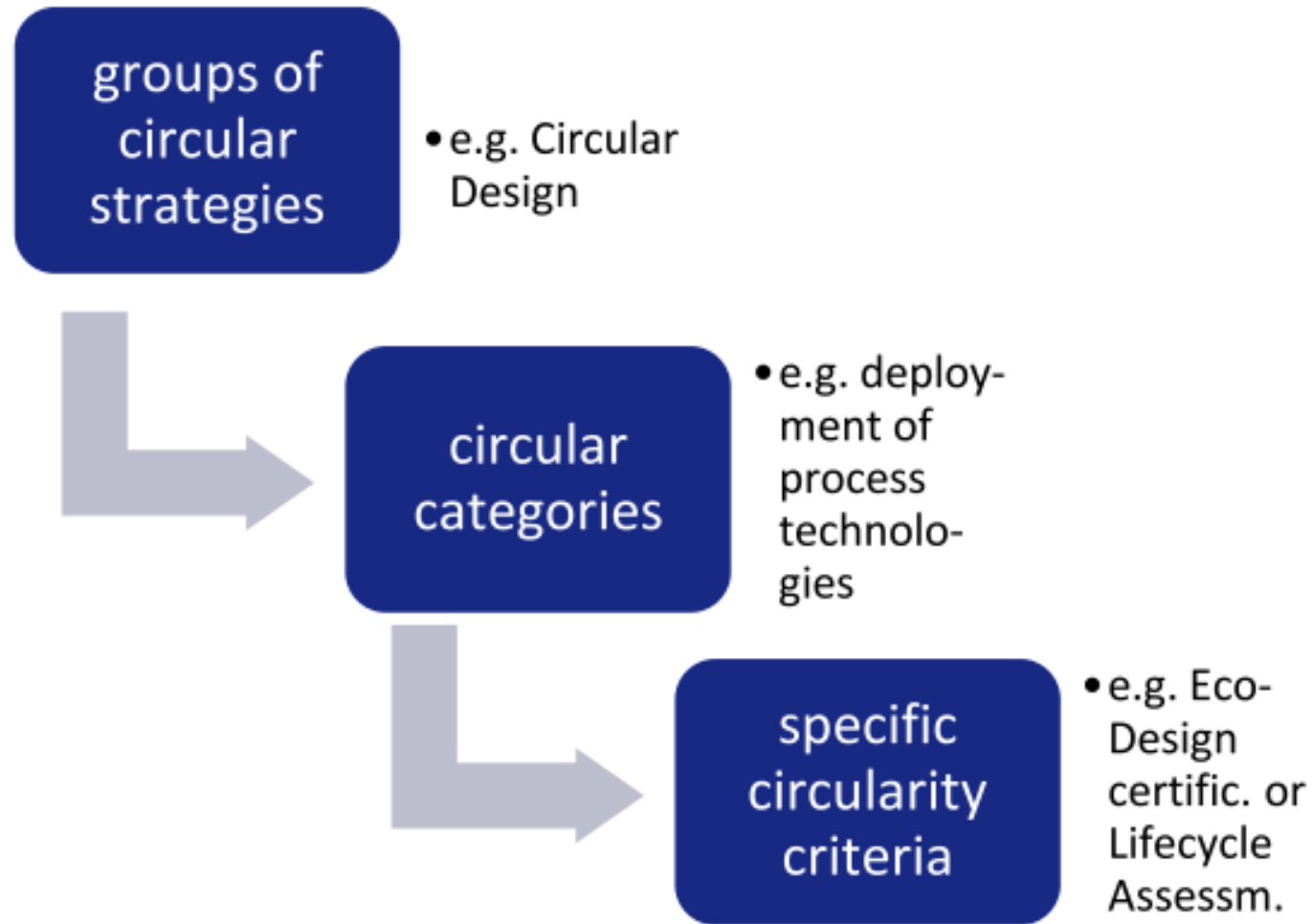


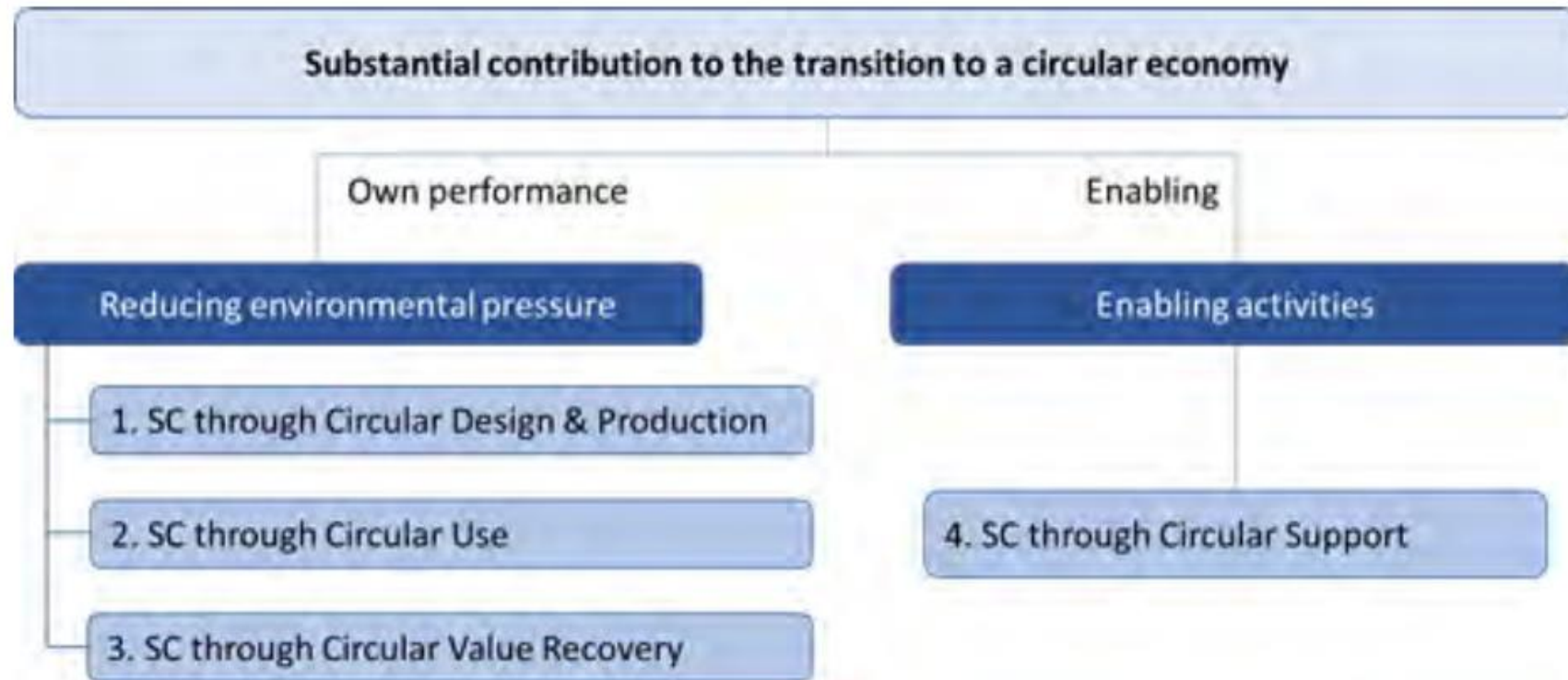
- Waste management,
- Waste valorisation

- Individual activities,
- Interface between activities

Figure 1: Business Model Categories mapped on the Value Hill

Structure of proposed categorization for CE objective





Substantial contribution to CE Objective goal counts

as:

1.uses natural resources, including sustainably sourced bio-based and other raw materials, in production more efficiently, including by:

- (i)reducing the use of primary raw materials or increasing the use of by-products and secondary raw materials; or
- (ii)resource and energy efficiency measures;

2.increases the durability, reparability, upgradability or reusability of products, in particular in designing and manufacturing activities;

3.increases the recyclability of products, including the recyclability of individual materials contained in those products, inter alia, by substitution or reduced use of products and materials that are not recyclable, in particular in designing and manufacturing activities;

4.substantially reduces the content of hazardous substances and substitutes substances of very high concern in materials and products throughout their life cycle, in line with the objectives set out in Union law, including by replacing such substances with safer alternatives and ensuring traceability;

5.prolongs the use of products, including through reuse, design for longevity, repurposing, disassembly, remanufacturing, upgrades and repair, and sharing products;

6.increases the use of secondary raw materials and their quality, including by high-quality recycling of waste;

Substantial contribution to CE Objective goal counts

as:

- 7.prevents or reduces waste generation, including the generation of waste from the extraction of minerals and waste from the construction and demolition of buildings;
- 8.increases preparing for the re-use and recycling of waste;
- 9.increases the development of the waste management infrastructure needed for prevention, for preparing for re-use and for recycling, while ensuring that the recovered materials are recycled as high-quality secondary raw material input in production, thereby avoiding downcycling;
- 10.minimises the incineration of waste and avoids the disposal of waste, including landfilling, in accordance with the principles of the waste hierarchy;
- 11.avoids and reduces litter; or
- 1.enables any of the activities listed in points (a) to (k) of this paragraph in accordance with Article 16.

Groups of CE Strategies	Circular Categories
Group 1 - Circular Design and Production Models:	1.a Design and production of products and assets that enable circular economy strategies, through e.g. (i) increased resource efficiency, durability, functionality, modularity, upgradability, easy disassembly and repair; (ii) use of materials that are recyclable or compostable
	1.b Development and deployment of process technologies that enable circular economy strategies
	1.c Development and sustainable production of new materials (including bio-based materials) that are reusable, recyclable or compostable
	1.d Substitution or substantial reduction of substances of concern in materials, products and assets to enable circular economy strategies
	1.e Substitution of virgin materials with secondary raw materials and by-products
Group 2 - Circular Use Models:	2.a Reuse, repair, refurbishing, repurposing and remanufacturing of end-of-life or redundant products, movable assets and their components that would otherwise be discarded
	2.b Refurbishment and repurposing of end-of-design life or redundant immovable assets (buildings/infrastructure/facilities)
	2.c Product-as-a-service, reuse and sharing models based on, inter alia, leasing, pay- per-use, subscription or deposit return schemes, that enable circular economy strategies
	2.d Rehabilitation of degraded land to return to useful state and remediation of abandoned or underutilised brownfield sites in preparation for redevelopment
Group 3 - Circular Value Recovery Models:	3.a Separate collection and reverse logistics of wastes as well as redundant products, parts and materials enabling circular value retention and recovery strategies
	3.b Recovery of materials from waste in preparation for circular value retention and recovery strategies (excluding feedstock covered under 3.c)
	3.c Recovery and valorisation of biomass waste and residues as food, feed, nutrients, fertilisers, bio-based materials or chemical feedstock
	3.d Reuse/recycling of wastewater
	Group 4 - Circular Support

- EU and China is most influential. But many others have been developed (Bangladesh, Mongolia, Singapore, and South Africa) or are under development (Australia, Canada, and Colombia). The Bangladesh taxonomy makes direct reference to the Circular Economy. China's has a category for saving and efficiently utilising resources. Malaysia has a focus on resource efficiency.
- ASEAN Taxonomy for Sustainable Finance (November 2021)
- The EU has convened an International Platform on Sustainable Finance (IPSF), which will encourage dialogue and, where appropriate, coordination on the development and harmonisation of taxonomies between its members.

Thank you for your attention!

pschroeder@chathamhouse.org

Circular Categories	Criteria
<p>1.a Design and production of products and assets that enable circular economy strategies, through e.g. (i) increased resource efficiency, durability, functionality, modularity, upgradability, easy disassembly and repair; (ii) use of materials that are recyclable or compostable</p>	<p>For activities under the circular categories 1.a, 1.b, 1 c and 1.d to substantially contribute to a circular economy, they must demonstrate that:</p> <ol style="list-style-type: none"> 1. the activity results in significant overall net resource savings and impact reductions as compared to a benchmark material/product/asset/process that meets the current EU or international industry standards 2. the activity supports or enables circular value retention or recovery strategies (R4 – R9) 3. the materials/products/assets produced have comparable or increased quality, properties, technical functionality and application areas as compared to a relevant benchmark that meets the current EU or international industry standards 4. bio-based materials used are demonstrably traceable to sustainable biomass production
<p>1.b Development and deployment of process technologies that enable circular economy strategies</p>	
<p>1.c Development and sustainable production of new materials (including bio-based materials) that are reusable, recyclable or compostable</p>	
<p>1.d Substitution or substantial reduction of substances of concern in materials, products and assets to enable circular economy strategies</p>	
<p>1.e Substitution of virgin materials with secondary raw materials and by-products</p>	

Circular Categories	Criteria
<p>2.a Reuse, repair, refurbishing, repurposing and remanufacturing of end-of-life or redundant products, movable assets and their components that would otherwise be discarded</p>	<ol style="list-style-type: none"> 1. the products/movable assets would otherwise be redundant and discarded 2. the activity achieves significant overall net resource savings and impact reductions, on a lifecycle basis, compared to a new, replacement product/movable asset that meets the current EU or international industry standards 3. the products/movable assets are put back to their original use possibly with extended properties, or in case they have outlived their original purpose, to an adaptive re-use (by repurposing) 4. efforts made to promote the life extension will not compromise the ability to recover or recycle the products/movable assets or their associated materials at the end of a new life-cycle <p>AND, specifically for refurbishment and remanufacturing: 5. refurbished/remanufactured products/movable assets meet a generally accepted specific EU or international, national industry specific standard (as new condition in the case of remanufactured products/assets) and accompanied by relevant warranties for the refurbished assets, as well as materials used, with warranty periods in accordance with legal requirements.</p>
<p>2.b Refurbishment and repurposing of end-of-design life or redundant immovable assets (buildings/infrastructure/facilities)</p>	<ol style="list-style-type: none"> 1. the activity is deliberately circular by design; meaning that it prioritises strategies that prioritise resource efficiency gains, while simultaneously promoting other objectives such as increasing energy efficiency and/or the quality/resilience of the immovable asset (see guidance section on the right) 2. the activity achieves significant overall net resource savings and impact reductions, on a lifecycle basis, compared to a replacement new immovable asset (building/infrastructure/facilities) that meets the current EU or international industry standards 3. the buildings/infrastructure/facilities are put back to their original use, possibly with extended functionalities, or in case they have outlived their original purpose, to an adaptive re-use (by repurposing) 4. a plan is put in place to enhance the reuse and recycling of materials and components removed during the intervention 5. efforts to promote the life extension will not compromise the ability to disassemble the immovable assets (buildings/infrastructure/facilities) and reuse/recycle their associated materials at the end of life, in line with category 3.b 6. warranties are provided for the refurbished assets as well as the materials and products used with warranty periods in accordance with legal requirements 7. the activity does not contradict current EU or international spatial/urban planning standards, whereby the use of the land for other developments takes precedence
<p>2.c Product-as-a-service, reuse and sharing models based on, inter alia, leasing, pay-per-use, subscription or deposit return schemes, that enable circular economy strategies</p>	<ol style="list-style-type: none"> 1. the contractual model shows that the entity carrying out the activity retains responsibility for the upkeep, maintenance and end-of-life management of the product 2. the business model enables circular economy strategies 3. the activity increases the overall resource efficiency of the product or asset, on a lifecycle basis, as compared to existing use practice

Circular Categories	Criteria
<p>3.a Separate collection and reverse logistics of wastes as well as redundant products, parts and materials enabling circular value retention and recovery strategies</p>	<p>1. wastes, redundant products, parts and materials are collected and transported separately and otherwise managed in a way to enable reuse, repair, refurbishment, remanufacture, high quality recycling and/or valorisation (circular categories 2.a, 3.b and 3.c) AND, in the case of activities involving the collection of wastes: 2. targeted communication and education programs to sensitise waste producers about the importance of waste prevention and segregation are an integral part of the activity</p>
<p>3.b Recovery of materials from waste in preparation for circular value retention and recovery strategies (excluding feedstock covered under 3.c)</p>	<p>1. the feedstock constitutes or originates from source segregated and separately collected waste fractions 2. the activity contributes to attaining material recovery rates that are aligned with targets established for relevant waste types in EU or national law as well as in local waste management plans; and collaborates with other actors in the value chain to increase the quality of recovered materials to the extent that is both technically feasible and economically viable 3. secondary raw materials as well as product parts recovered are suitable for reuse or recycling and meet relevant EU or international or national industry specific regulations, standards and/or user specifications AND 4. the management of residues from the recovery process shall follow the EU waste hierarchy principle</p>
<p>3.c Recovery and valorisation of biomass waste and residues as food, feed, nutrients, fertilisers, bio based materials</p>	<p>1. the feedstock constitutes or originates from non-hazardous source segregated and separately collected biomass waste and residues, i.e. these are not separated from mixed residual waste 2. the recovery process seeks to give the highest possible economic use to the</p>