ESRS

VALUE CHAIN MAPPING

A Practical Guide to Dissecting Company Anatomy for Double Materiality Assessment



ESRS Reporter.

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Working strategically with sustainability is much like the way a doctor approaches patient care. There are three major stages to the process: diagnosing the problem, setting the target for what a healthy outcome looks like, and devising a treatment plan to reach that goal.

1

Diagnose Your Sustainability Impact

This guide covers Value Chain Mapping as the first step in the diagnosis stage. According to EFRAG, value chain mapping divides operations into stages, or "links," for assessing impacts, risks and opportunities.

The goal is to simplify mapping by using visual icon-cards, enabling sustainability practitioners to better understand operations and make informed impact assessments.



Diagnosis
Impact assessment

Value Chain Mapping
This is the step preceeding the Double Materiality Assessment. It involves mapping the key activities and resources used in each part of the company's value chain to give a clear picture of operations.

Double Materiality Assessment
In this assessment, you'll look for impacts, risks, and opportunities related to the activities and resources used in the value chain. This can include things like environmental harm or social inequities.



Direction
Target setting

After the diagnosis, the next step is to set clear sustainability targets. Your team should define what "healthy" means for your organization's environmental and social outcomes. These targets should be SMART: specific, measurable, achievable, relevant, and time-bound. Using the SMART framework helps you create clear and motivating targets, leading to better planning and results in your sustainability efforts.



Treatment
Action planning

After setting your sustainability goals, the next step is to create a plan to reach them. Identify specific actions your team can take, focusing on what will have the biggest impact and what is possible. Use your resources wisely to keep momentum and avoid spreading them too thin across too many actions. A clear plan that makes actions simple and assigns someone responsible will help ensure your sustainability efforts are effective and match your organization's goals.

2

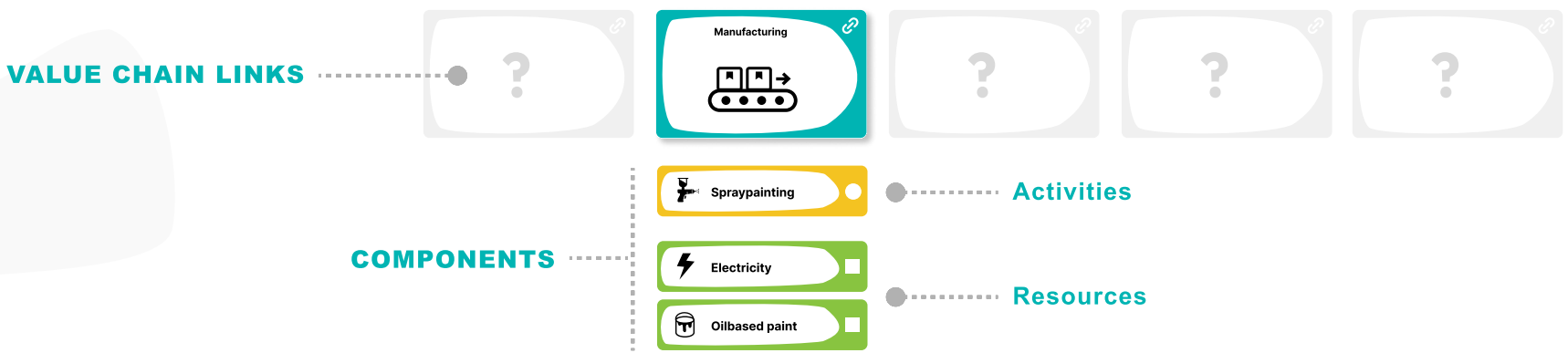
Purpose of Value Chain Mapping

The purpose of Value Chain Mapping is to uncover how each link in the value chain contributes to your company's environmental and social impacts, both positive and negative.

Shared Understanding
Mapping and illustrating the value chain helps everyone see how your company operates, including the activities and resources involved in creating your product. By visualizing the value chain, your team builds a shared understanding of the company and can systematically work to identify sustainability impacts.

Prioritization
Not all activities and resource uses can be addressed right away, especially those involving outside stakeholders. When deciding what to focus on, think about where your team can make the biggest impact. Other parts of the value chain can be tackled in coming years, allowing for a step-by-step and manageable approach to sustainability.

Transparency
Visualizing and prioritizing the value chain makes things clearer for everyone. It shows stakeholders, including readers and auditors, the basis for the Double Materiality Assessment (DMA). This clarity helps explain which parts of the value chain will be tackled first and which will come later, building trust and accountability in your sustainability efforts.



VALUE CHAIN LINKS

Value chain links are the key building blocks that show how your company creates value for its customers.

COMPONENTS

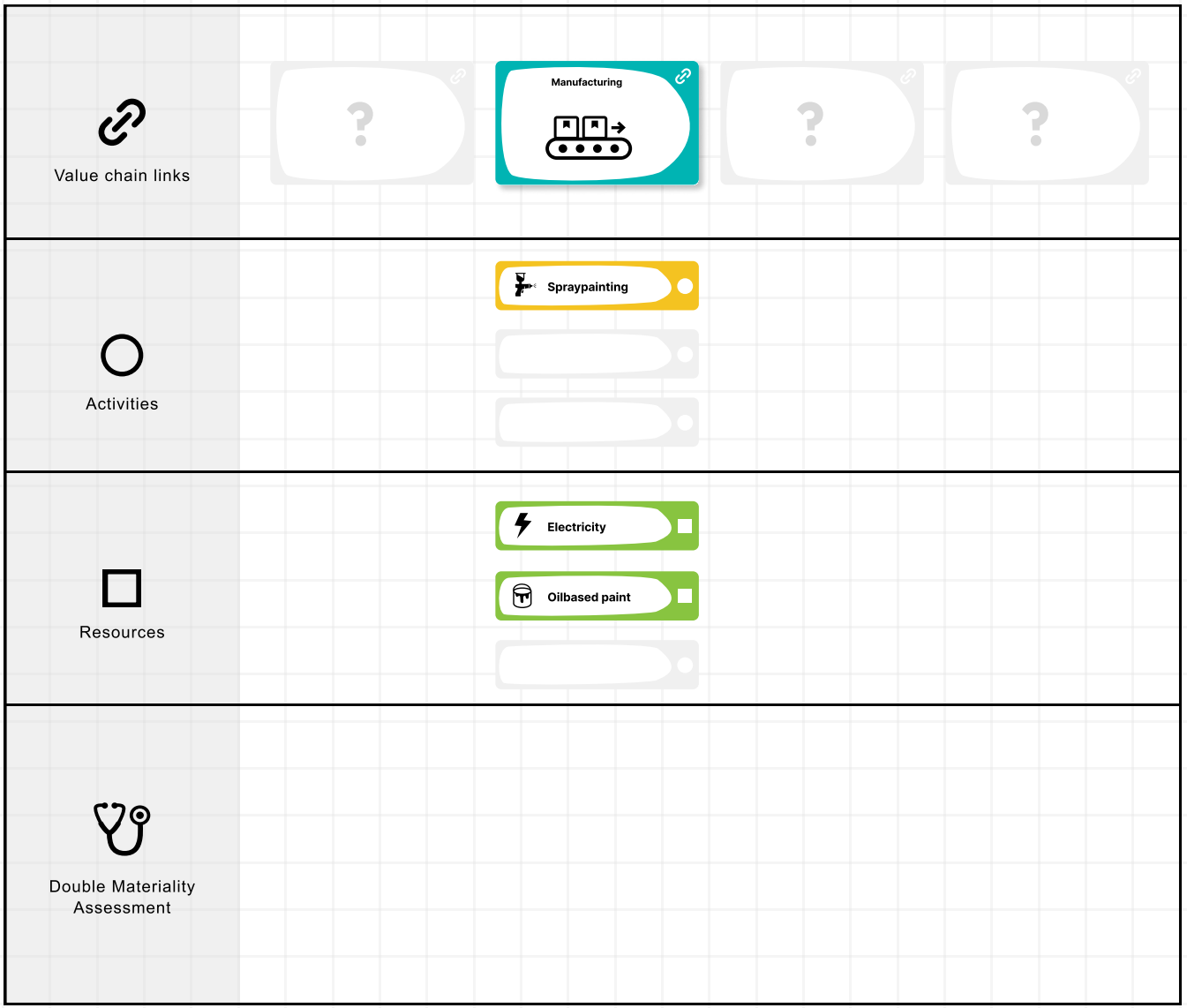
Each link can be broken down into key components: activities and resources.

Activities
These are the processes that your company engage in to help create your product.

Resources
These are the physical building blocks like materials or energy that your company uses in its activites.

DOUBLE MATERIALITY ASSESSMENT

Breaking down your value chain into its activities and resource uses allows you to assess material matters related to the topics in the ESRS. However, assessing materiality is not covered in this guide.



3

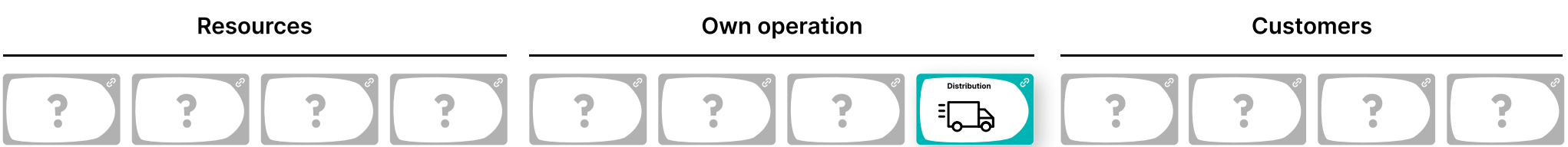
Identify Value Chain Links

Trace the journey of resources used through the three main sections of the value chain: Resources, Own operation and Customers. Use physical locations and activities involved to discover chain links.

Resources
This section is about the prerequisites of your products. Key links include raw materials, preprocessing, suppliers, and transport. Raw materials are the core ingredients that flow through your value chain, and identifying them early helps highlight potential sources of impact througout the value chain.

Own operation
This section covers how your company transforms raw or preprocessed materials into finished products. Key steps include product design, manufacturing, warehousing, and distribution. This is where your company holds the most influence, carries significant responsibility, and can be held directly accountable.

Customers
This section focuses on how your products interact with end users and what happens after they finish using them. Key links include product delivery, reseller involvement, product use, and end-of-life management. This is where customers can enjoy the convenience of your product while feeling confident about its sustainability.



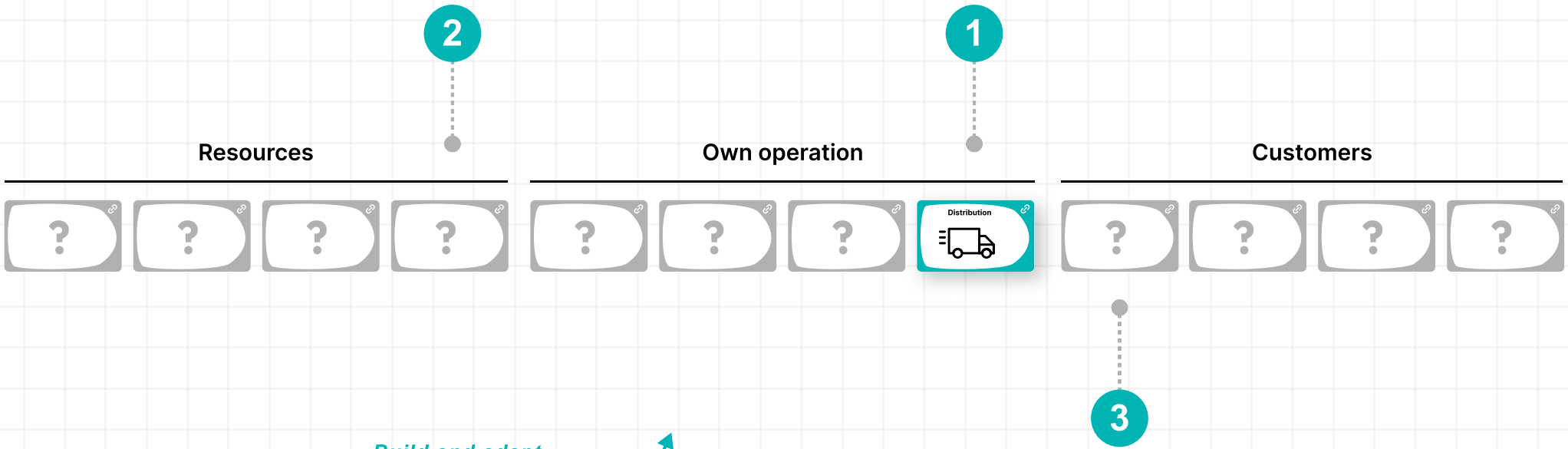
Value Chains Are Different
Your value chain may have more or fewer links than four in each section. Each section might also contain a different number of links, depending on your specific business.

START WITH YOUR PRODUCT

Start with the value you create for your customers and work backwards. Ask questions like: How do we deliver our product? How is it packaged? What processes went into its production, and what design choices influenced its creation?

TRACE IT BACK TO THE ROOTS

Work backwards through the Resources section by asking questions like: What do we need continuously to operate? How do we obtain these resources, who provides them, where in the world are they located, and what processes are involved in making them available to us?



FOLLOW THROUGH TO THE END

Follow the journey of your product to understand how customers gain value from it. Ask questions such as: How do customers acquire our product? How do they use it, and does it enable them to act sustainably? What happens to the product when customers are done using it?

Build and adapt

Using cards to build your value chain gives you the flexibility to add, rearrange, or remove links, allowing you to adapt as new insights emerge and your shared understanding evolves.

3

Build Your Own Value Chain

On the next pages, you'll find an example of how to map out your value chain using icon cards.

Every industry has its own unique value chain, so don't worry if yours doesn't look exactly like the example here.

Get Your Value Chain Cards here

List of industri NACA codes View all codes

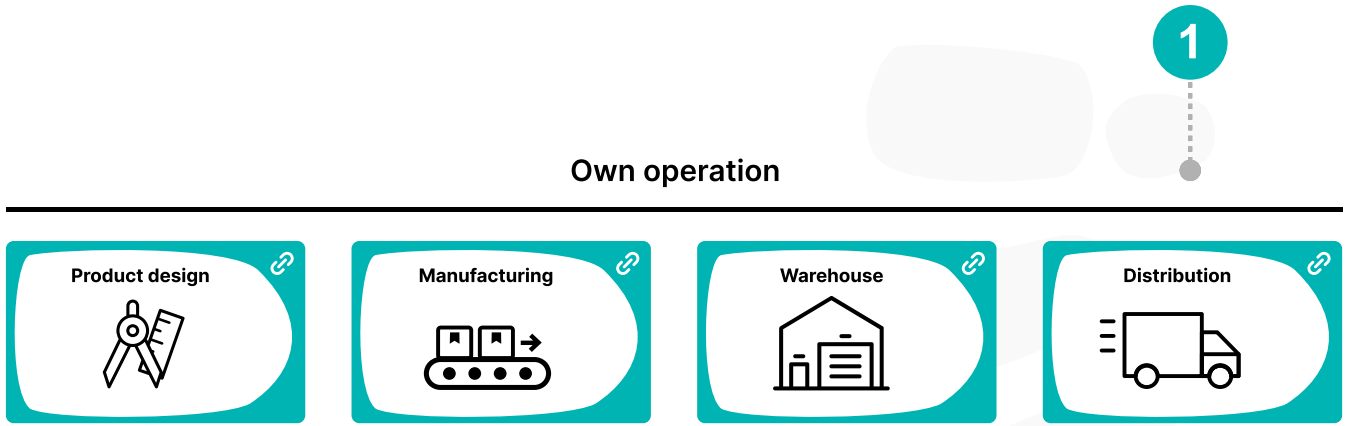
A: Agriculture, Forestry and Fishing
B: Mining and Quarrying
C: Manufacturing
D: Electricity, Gas, Steam and Air Conditioning Supply
E: Water Supply; Sewerage, Waste Management and Remediation Activities
F: Construction
G: Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles
H: Transportation and Storage
I: Accommodation and Food Service Activities
J: Information and Communication
K: Financial and Insurance Activities
L: Real Estate Activities
M: Professional, Scientific and Technical Activities
N: Administrative and Support Service Activities
O: Public Administration and Defence; Compulsory Social Security
P: Education
Q: Human Health and Social Work Activities
R: Arts, Entertainment and Recreation
S: Other Service Activities

Resources	Own operation	Customers
? ? ? ?	? ? ? ?	? ? ? ?

Identify Value Chain Links: Own operation

Your product and the value proposition you offer to customers form the foundation of your company's existence. The activities and resource use are under your direct control, and this section is where you can expect to be held directly accountable.

Build up your Own Operations section by choosing cards that represent departments, physical locations, specific activities, or organizational units that influence your product's design.



Product design
This link may involve a low use of resources, but it can have a significant impact on your company's overall sustainability throughout the entire value chain.

Manufacturing
This link represents the core of your business, where the processes focus on assembling or building the final product that customers derive value from.

Warehouse
This link represents the storage of your products before they are distributed to customers. It may involve large buildings with significant energy consumption for heating or cooling and could also pose human hazards from handling heavy products.

Distribution
This link represents the process of shipping your products to customers. It may involve the use of your own vehicles or external shipping providers.

Companies are different
Your company may have more or fewer than four links, or links that are not represented by the four cards shown on this page.

Use a blank link card to draw an icon and write a description that clearly communicates to the sustainability team what the link you're representing is about.

3

Identify Value Chain Links: Resources

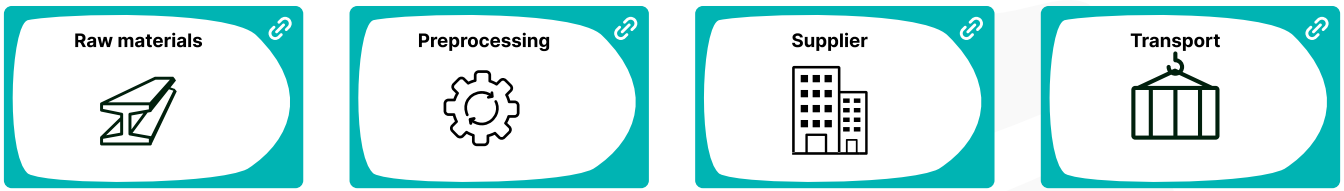
Your company depends on the delivery of external resources to create its products.

With a clear understanding of the activities and resources used in the Own Operations section, trace your dependencies backward through the Resources section.

Build up your Resources section by choosing cards that represent transportation methods, suppliers, raw materials, and their preprocessing.

2

Resources



Raw materials
This link may involve a low use of resources, but it can have a significant impact on your company's overall sustainability throughout the entire value chain.

Preprocessing
This link represents the core of your business, where the processes focus on assembling or building the final product that customers derive value from.

Supplier
This link represents the suppliers you purchase from. Focus on their geographical locations to identify potential unsustainable practices and recognize opportunities for working with other suppliers.

Transport
This link represents the process of getting resources to your company, typically involving ships, trucks, trains, or planes.

Note on logistics
Materials are moved both to and from your company.

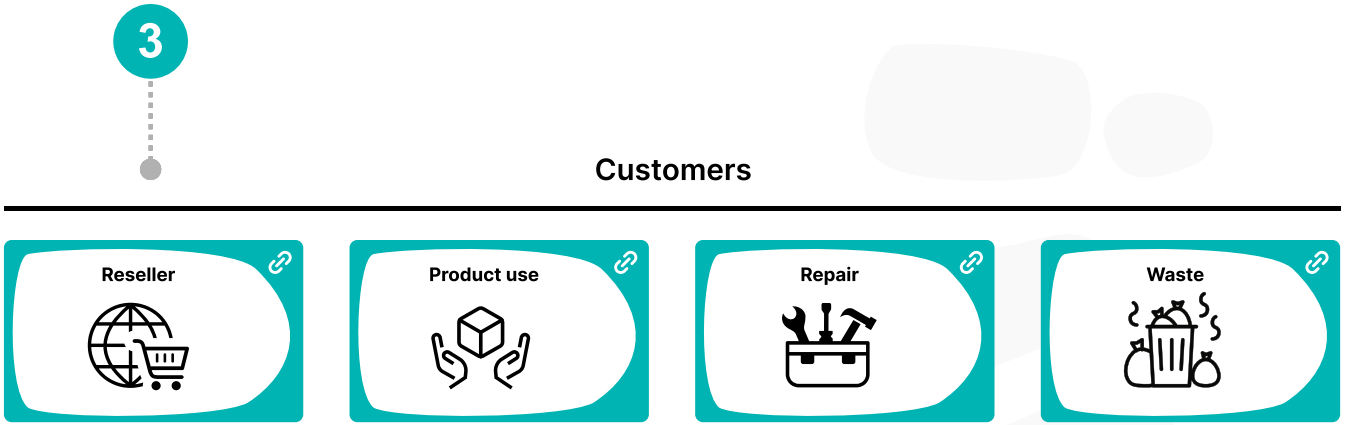
To avoid confusion about the type of logistics being depicted in the value chain, the term **Transport** is used to describe the movement of materials to your company, while **Distribution** refers to the movement of materials or products from your company to your customers.

Identify Value Chain Links: Customers

Your product is now ready to bring value to your customers.

Follow your product from distribution in the Own operations section through the Customers section.

Build up your Customers section by choosing cards that represent resellers, product use, repair and waste management.



Reseller
This link represents activities that are related to how your customers acquire your product. This could be physical store, internet shops, auctions or other ways of selling your product.

Product use
This link represents the actual use of your product. Your product may consume additional resources, such as energy, or function by using or processing other raw materials.

Repair
This link represents activities related to repairing broken products. The repair process may require additional logistics, energy, and raw materials.

Waste
This link represents the end of life for your product. How does the customer dispose of the product? Can it be disposed of in a way that allows its materials to be reused in other contexts?

Identifying components
Next, you will dive deeper into each link and identify the activities and raw materials used.

As you identify links in the value chain, some of these components may have already been discussed during the process of building the value chain.

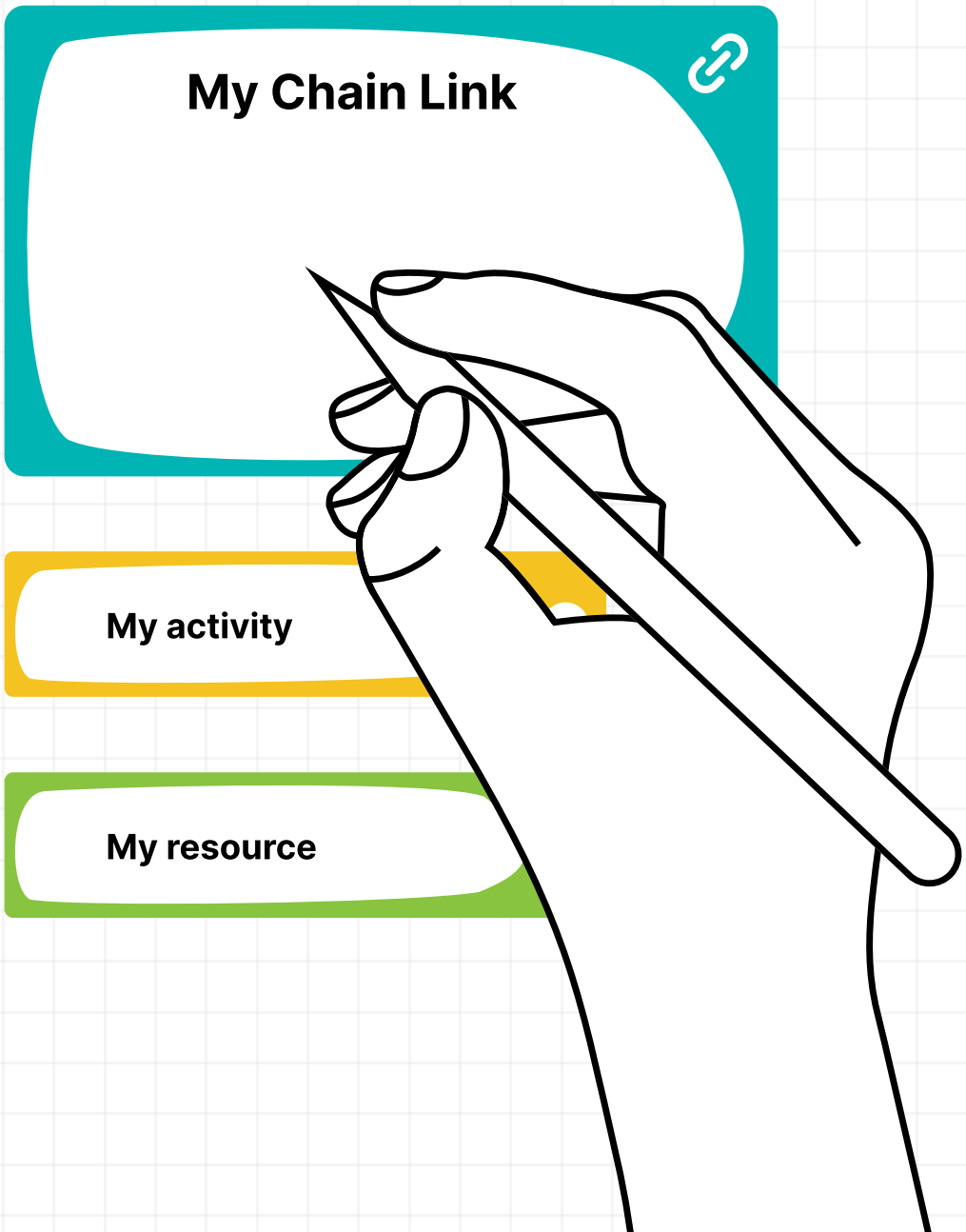
This is normal, as analyzing your company's anatomy is not necessarily a linear process. Feel free to add components under the relevant links as you proceed to capture their identification.

Create Your Own Cards

Bring your value chain to life by showcasing the unique ways you deliver value to your customers.

You can even download blank icon cards to create custom ones for your links, activities, and resources.

Get Your Value Chain Cards here



4

Identify Components: Activity and Resource

Activities and resources are the fundamental building blocks of your value chain.

Activities occur throughout the value chain and involve harvesting, transforming, dividing, or merging resources.

Examine each link in the chain to identify the activities and the resources that serve as inputs and outputs.

Activities are represented by circles, and resources are represented by squares.

Harvesting
This activity involves producing resources, typically to be used in other activities along with additional resources.



Dividing
This activity involves separating a resource into smaller components, with some parts potentially being classified as waste.



Transforming
This activity alters the properties of a resource or involves moving it along the value chain.

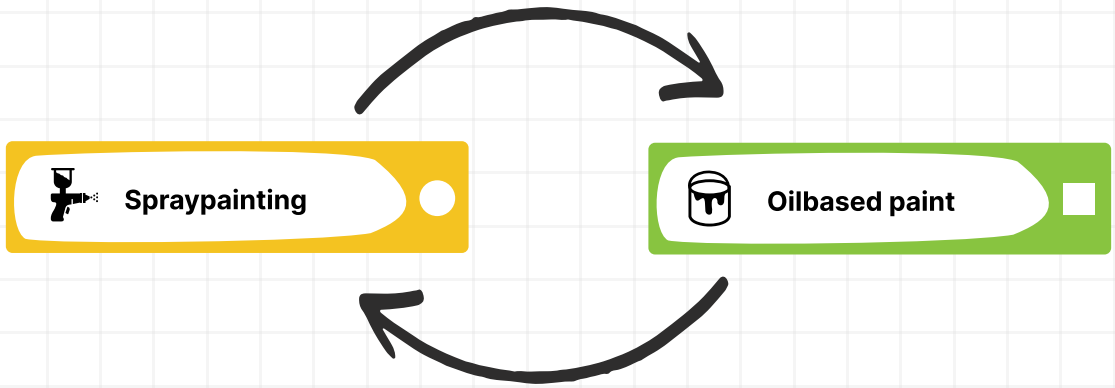


Merging
This activity combines multiple resources, typically as part of an assembly or chemical process.



● ACTIVITY ■ RESOURCE

Activities and Resources work in tandem. Whenever you identify one, you can identify the other.



WHEN IDENTIFYING ACTIVITIES

Ask questions such as: What resources went into this activity? What resources came out of the activity?

WHEN IDENTIFYING RESOURCES

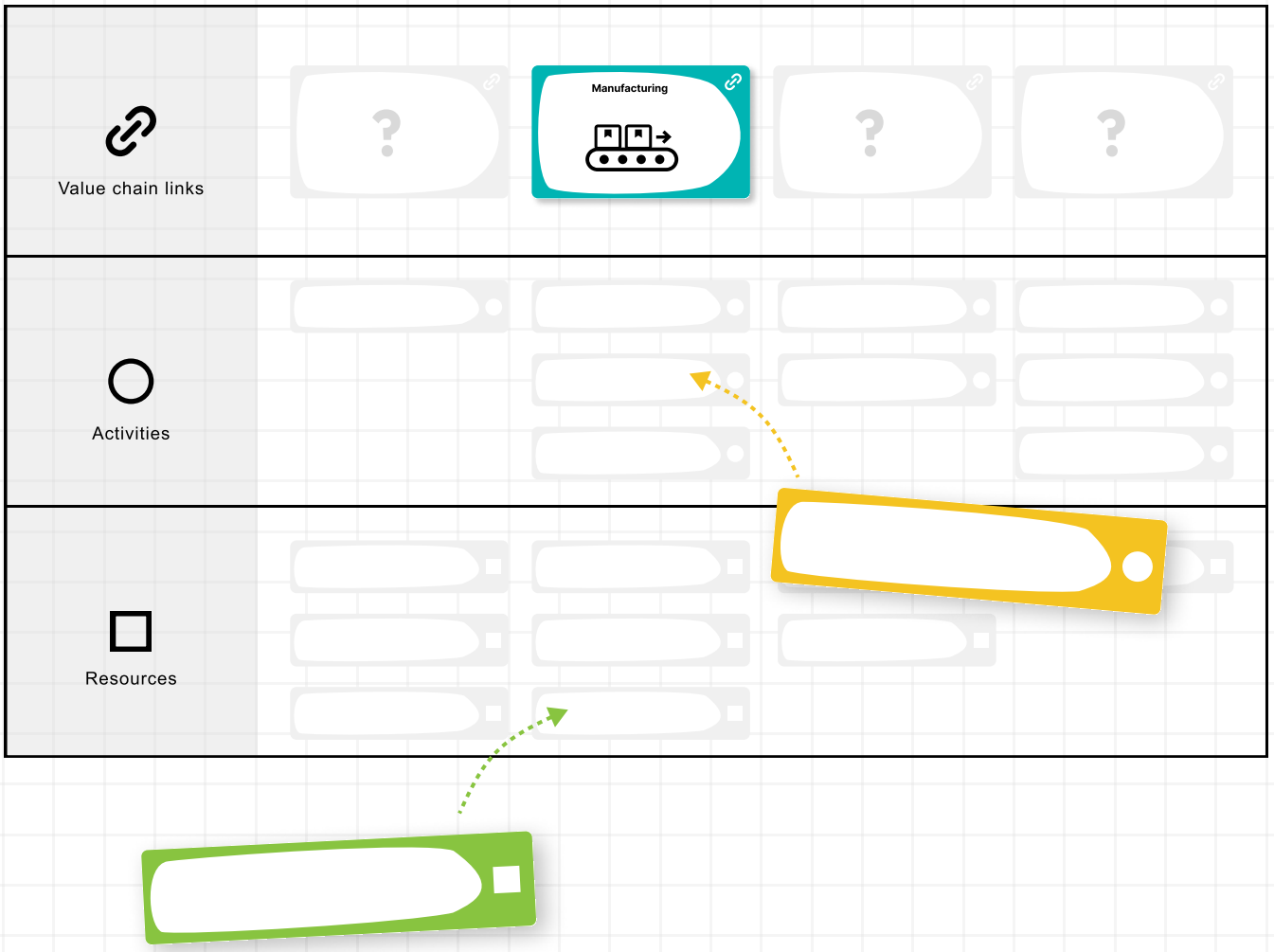
Ask questions such as: Which activity does this resource serve as input to? Which activity is this the output of?

Identify Components:
Activity and Resource

Use the Activity and Resource cards to document what you've identified under each value chain link.

These cards let you add, remove, or rearrange components as you refine your understanding of how your company operates.

With a visual representation of your value chain, you'll be ready to assess how each component impacts the ESRS topics through the double materiality assessment.

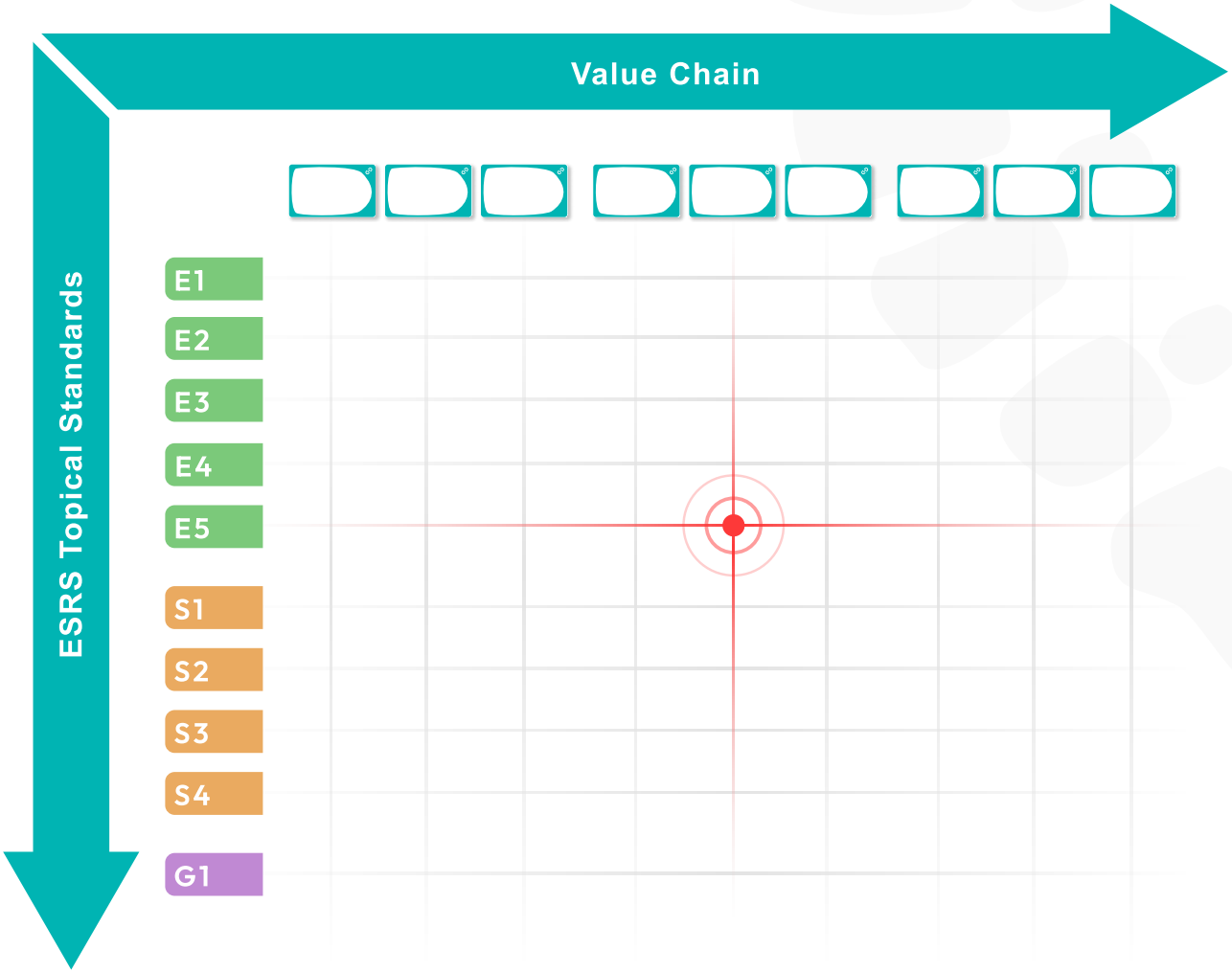


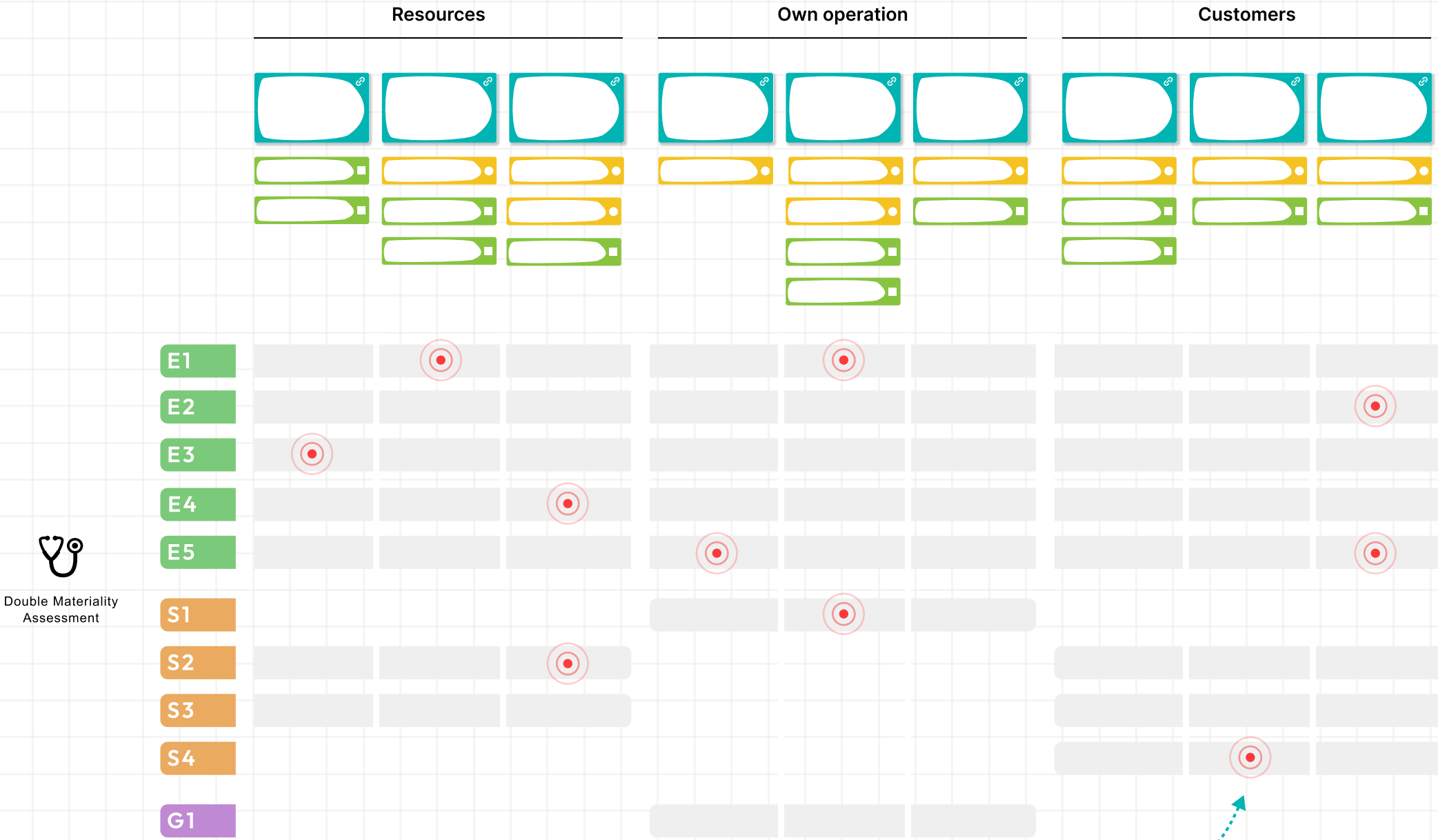
Apply Double Materiality Assessment

The process of double materiality assessment is beyond the scope of this guide.

However, using your value chain map alongside topical standards as a matrix allows for a systematic assessment of how your activities and resource use impact sustainability topics and sub-topics.

This approach ensures all actual impacts are accounted for and supports discussions on whether changes to the value chain could create additional or mitigate impacts.




Resources
Own operation
Customers
E1
E2
E3
E4
E5
S1
S2
S3
S4
G1
Double Materiality Assessment
ASSESS AND RECORD IMPACT
Use the value chain map to ask questions like: How do the activities and resource use in this link impact this topic or its sub-topics?

6

Prioritize Value Chain Links

To execute effectively on your identified impacts, risks, and opportunities, you must prioritize to deliver on your goals with quality.

"Do less, but with more quality"

This key takeaway was highlighted at the EU Conference: *How To Support Companies In Applying ESRS*, held on november 10th.

The Focus Trap
To make meaningful progress, it's crucial to concentrate on a few sustainability matters at a time, translating broad strategies into specific, actionable objectives that your company can work toward with measurable results.

Resist taking on every identified impact, risk or opportunity; there will always be more projects than available resources. True impact comes from focusing on what is most material and ensuring it is done well.

Step by Step
The impacts you choose to address in the first year shouldn't be seen as static or the only focus. Strategic work involves selecting priorities and progressively tackling new challenges over time.

Data Quality
Obtaining high-quality data in sustainability can be challenging, which makes it difficult to act on your goals and measure progress effectively.

Prioritize collecting data that is actionable and reliable, rather than gathering large amounts of data that obscure your reporting and or becomes subject for auditing for no reason.

Value Chain Map
Once you have completed the double materiality assessment using the value chain matrix, the identified impacts, risks, and opportunities can be prioritized, adding to your sustainability efforts as your experience grow.

As you gain experience with your initially selected sustainability matters, they become part of your daily operations, enabling you to expand and address the next set of identified impacts.

Prioritize Value Chain Links

Resist taking on every identified impact, risk or opportunity in the first year.

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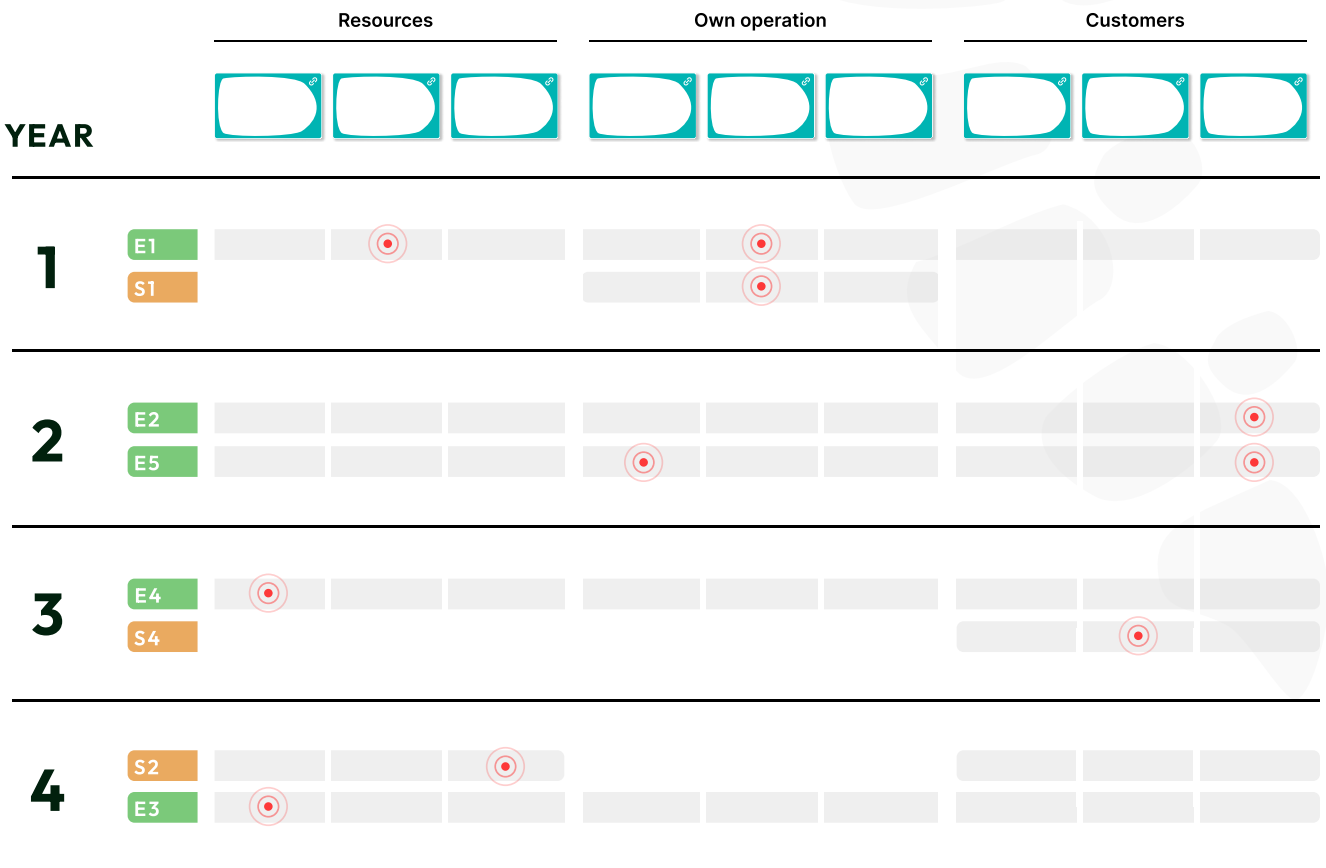

APPENDIX

Common Resources (Materials and energy)



Metals:

- Ferrous Metals: Iron, steel
- Non-Ferrous Metals: Aluminum, copper, zinc, lead



Minerals:

- Industrial Minerals: Clay, sand, gravel, limestone
- Precious Stones: Gold, silver, platinum



Energy Resources:

- Fossil Fuels: Coal, oil, natural gas
- Renewable Energy Sources: Biomass, solar, wind



Agricultural Products:

- Food Crops: Wheat, corn, rice
- Non-Food Crops: Cotton, rubber, hemp



Animal Products:

- Food: Meat, dairy, eggs, honey
- Non-Food: Leather, wool, gelatine



Timber and Forestry:

- Lumber, plywood, paper products



Synthetic Materials:

- Plastics: Polyethylene, polypropylene, polystyrene
- Chemicals: Petrochemicals, fertilizers



Textiles:

- Natural fibers: Cotton, wool, silk
- Synthetic fibers: Polyester, nylon



Building Materials:

- Cement, bricks, glass



Water:

- Freshwater resources for drinking and agriculture



Biomaterials:

- Bio-based materials from living organisms, such as bioplastics or natural composites

7

Building Your Value Chain Map

This workshop will guide your team through the process of visualizing your company's value chain using cards that represent each key link, creating a shared understanding of your value chain.

1. PREPARATION

- Materials: Print a set of the Value Chain Link cards from esrs-reporter.eu.
- Participants: Gather coworkers from different departments involved in the value chain (e.g., procurement, production, logistics, etc.). Aim for cross-functional representation.
- Workspace: Use a large surface such as a whiteboard or table where the cards can be moved around

2. DEFINE THE LINKS

- Begin by briefly explaining the goal of the workshop: to map out the value chain of the company.
- Distribute the cards and encourage each participant to suggest where their department or responsibility fits into the flow of the chain. This ensures that different perspectives and details are represented.

3. BUILD THE VALUE CHAIN

- Start Chronologically: Begin by placing the "Raw Materials" card at the starting point on the whiteboard or table. Then, work together to place subsequent cards in order based on the flow of materials and processes.
- Ask Questions: As each card is placed, ask questions like:
  - What happens before and after this step?
  - Who or what is involved in this process?
  - Are there any dependencies we should account for?
- Focus on Dependencies: Encourage the team to think about how each link relies on the previous one, and if a disruption in one part of the chain would affect others.

7

Building Your Value Chain Map

Workshop guide continued...

4. REARRANGE AND REFINE

- After the cards are laid out, go back through the chain and check for missing links or overlaps.
- Reverse Engineer: Take a moment to “walk backwards” through the chain. Starting from the end (e.g., Waste Management or Repair), ask: “What happened before this step?” This backward tracing often helps identify gaps or overlooked dependencies.
- Consensus Building: Allow for open discussion until the group agrees that the chain is accurate and complete.

5. CAPTURE THE VALUE CHAIN

- Once the value chain is built and refined, take a picture of the final arrangement for documentation.
- Optionally, transcribe the results into a digital format for use in reports or presentations.

6. NEXT STEPS: PRIORITIZATION

- Use the visualized value chain as a starting point for deciding which links to focus on first in your DMA, based on the materials and processes that are most impactful or feasible to address.