



## Align recommendations: updates and next steps

Jacob Bedford, Programme Officer, UNEP-WCMC

Heli Sihvonen, Programme Officer, UNEP-WCMC

26 OCTOBER 2023

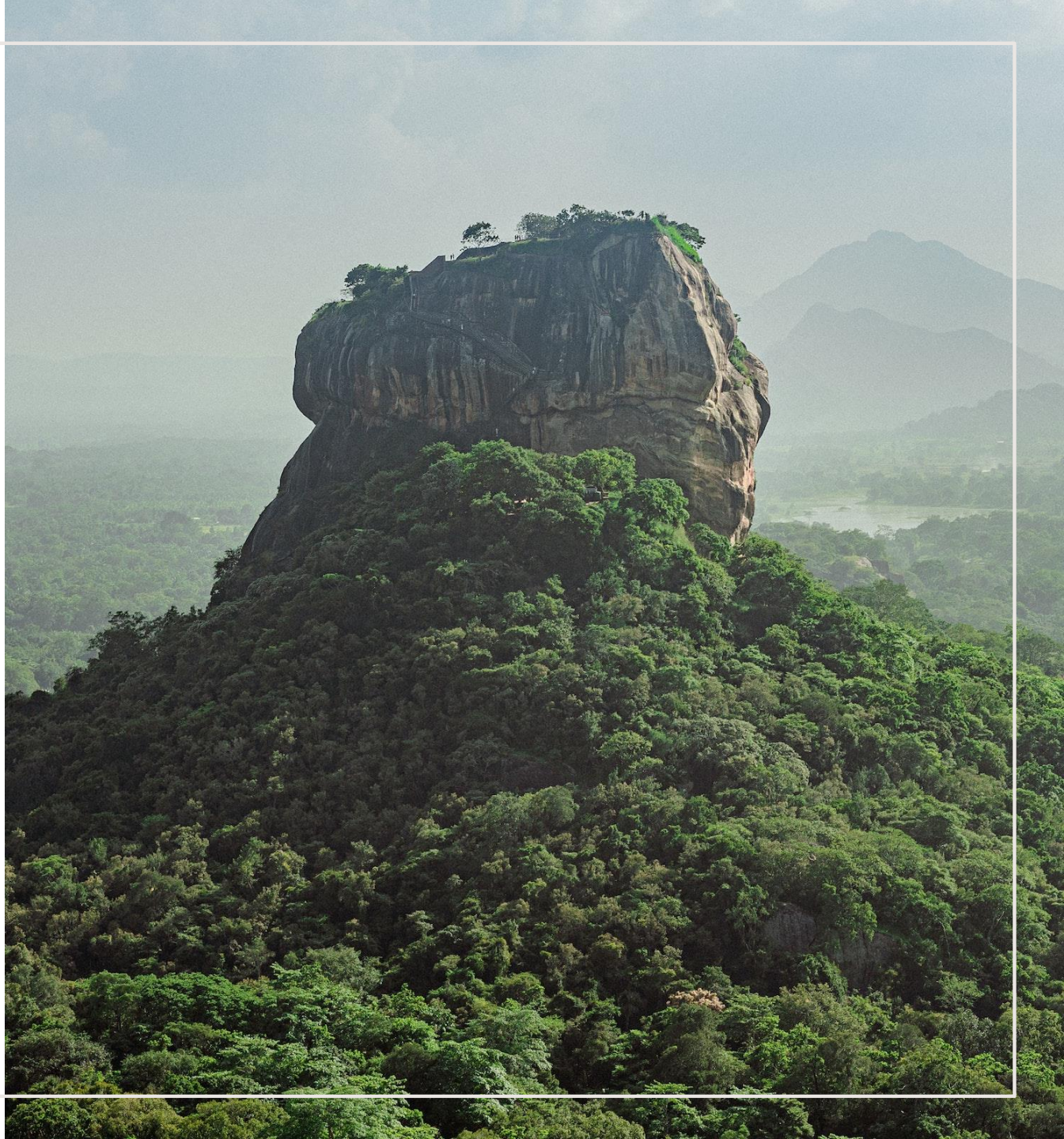
# PROTEUS HORIZON SCAN WEBINARS

A series of webinars for Proteus Partners sharing information and insights into the latest trends and developments in biodiversity and ecosystem services policy, initiatives, data and tools.



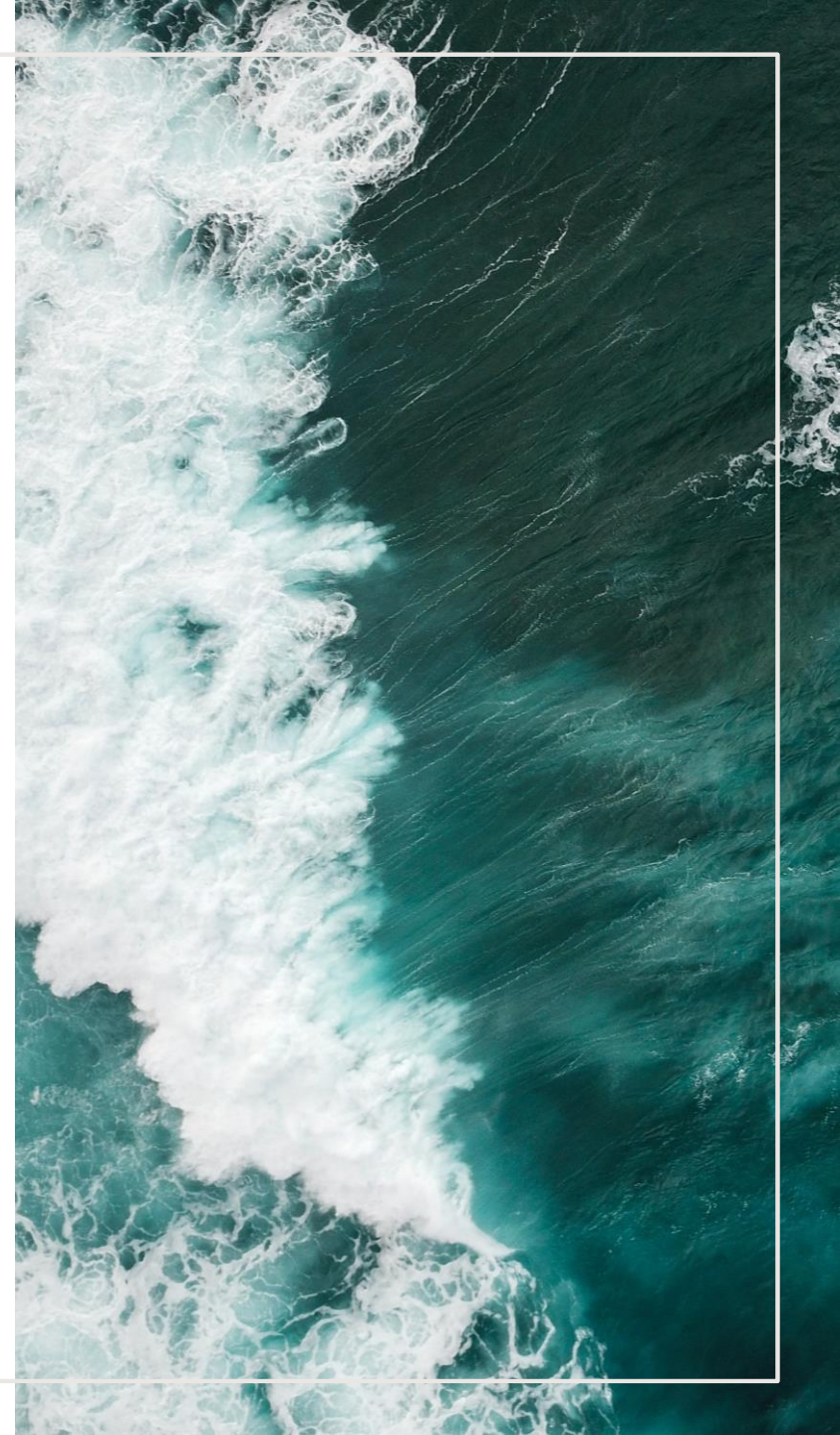
# LOGISTICS

- **Scheduling:** AM and / or PM sessions
- **Rules:** Chatham House rule for discussion, but presentation is recorded
- **Topics:** Your suggestions are welcome!



# AGENDA

- The Align project and Recommendations
- Measuring and valuing biodiversity at site level
- Measuring and valuing biodiversity across supply chains
- Questions and discussion
- Close remarks



A wide-angle photograph of a vast, arid landscape. The terrain is characterized by rolling hills and valleys, with sparse, dry vegetation in shades of brown and tan. The lighting suggests a bright, sunny day, casting soft shadows across the land. The overall scene is one of a dry, open environment.

# The Align project and Recommendations

Jacob Bedford, Programme Officer, UNEP-WCMC

# THE ALIGN PROJECT

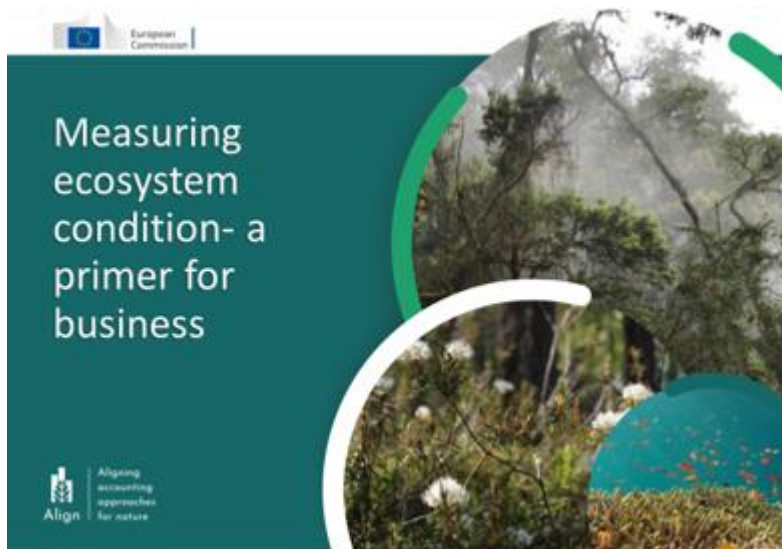
- Aligning accounting approaches for nature
  - Published in December 2022:  
Recommendations for a standard on corporate biodiversity measurement and valuation



Source: UNEP-WCMC, Capitals Coalition, Arcadis, ICF, WCMC Europe (2022)





# THE ALIGN PROJECT

- New guidance available now!



Available at: <https://capitalscoalition.org/project/align/>

# GOOD AND BEST PRACTICE CRITERIA FOR SITES AND SUPPLY CHAINS

SITE & PROJECT LEVEL		<span style="color: #00728f;">●</span> GOOD PRACTICE <span style="color: #009640;">●</span> BEST PRACTICE	
	WHAT TO MEASURE	CHARACTERISTICS OF MEASUREMENT APPROACH	MOST APPLICABLE METHODS
 <b>SCREEN</b>	<ul style="list-style-type: none"> <li>Potential presence &amp; proximity to material species &amp; ecosystems</li> <li>Potential impacts based on sector-average impact drivers</li> </ul>	<ul style="list-style-type: none"> <li>Feasibility (screening) - High (able to apply screening at multiple sites)</li> <li>Spatial precision - Medium</li> <li>Accuracy - Medium (measures reflect potential presence &amp; impacts on species &amp; ecosystems, but are not ground-truthed)</li> </ul>	<ul style="list-style-type: none"> <li>Spatial overlays with static biodiversity data layers (ecosystem extent / condition)</li> <li>Species threat &amp; range layers</li> <li>Screening using modelled state based on pressures</li> </ul>
	 <b>MEASURE</b>	<ul style="list-style-type: none"> <li>Ecosystem extent &amp; condition indicators; or</li> <li>Measurement of material impact drivers (at least land use change)</li> <li>Periodic measurements that start from a baseline, &amp; measurements that reflect changes in state resulting from company-specific impact drivers</li> </ul>	<ul style="list-style-type: none"> <li>Responsiveness - Medium (able to reflect how changes in pressures affects biodiversity state)</li> <li>Spatial precision - Medium</li> <li>Accuracy - Medium (measures reflect potential presence &amp; impacts on species &amp; ecosystems, but are not grounded-truthed)</li> </ul>
 <b>SCREEN</b>	<ul style="list-style-type: none"> <li>Potential presence &amp; condition of material species &amp; ecosystems, results ground-truthed</li> <li>Species extinction risk indicators</li> <li>Potential impacts based on company specific impact drivers</li> </ul>	<ul style="list-style-type: none"> <li>Feasibility (screening) - High (for screening, able to apply for screening at multiple sites)</li> <li>Spatial precision - High (captures species &amp; ecosystems at site level)</li> <li>Accuracy - High (measures reflect actual, ground-truthed presence of/impacts on species &amp; ecosystems)</li> </ul>	<ul style="list-style-type: none"> <li>Modelled state based on pressures (using company specific impact driver data) for screening only</li> <li>Species threat &amp; range layers</li> </ul>
	 <b>MEASURE</b>	<ul style="list-style-type: none"> <li>Ecosystem extent &amp; condition for individual ecosystem assets</li> <li>Species extinction risk indicators</li> <li>Periodic measurements that start from a baseline, &amp; measurements that reflect changes in state resulting from site-level mitigation measures</li> </ul> <p>Based on primary data on material impact drivers</p>	<ul style="list-style-type: none"> <li>Responsiveness (measuring impacts) - reflects effects of site-level mitigation measures</li> <li>Spatial precision - High (captures species &amp; ecosystems at site level)</li> <li>Accuracy - High (measures reflect actual, ground-truthed presence of/impacts on species &amp; ecosystems)</li> </ul>

# CASE STUDIES, APPROACHES AND TOOLS

Chocolatery Ltd is a Central European business that manufactures chocolate products. They are sourcing cocoa from 10 countries in South America, Africa and Southeast Asia. They have several contract producers that supply cocoa exclusively for Chocolatery.

Chocolatery



Upminerals Ltd is a multinational company operating in the mining sector that is looking to develop biodiversity action plans at priority sites.

Upminerals



Ecosystem extent and condition data layers

Remote sensing

Model-based footprinting approaches

eDNA

## Approaches from case studies

Life cycle impact assessment

Ecosystem Service Valuation approaches

Measurement approaches in the context of No Net Loss/Net Gain

Designated area layers

Species threat and range data layers



Measuring and valuing biodiversity at site level



# BIODIVERSITY MEASUREMENT AT SITE LEVEL

Implementing the Align project recommendations at sites with direct operational control

1. Decision context
2. Data availability
3. Screening and measuring biodiversity impacts
4. Measuring biodiversity supporting dependencies
5. Valuation

# FICTIONAL CASE STUDIES

## Business context and measurement objectives

Upminerals Ltd is a multinational company operating in the mining sector that is looking to develop biodiversity action plans at priority sites.

Upminerals



Alloybar Ltd is an aluminium manufacturing company with ambitions to meet No Net Loss and Net Gain Targets across their sites.

Alloybar



NRG is a multinational energy company transitioning from conventional fossil-based energy sources to renewables, focusing on marine offshore wind

NRG



# BIODIVERSITY MEASUREMENT AT SITE LEVEL

## 1. Decision context

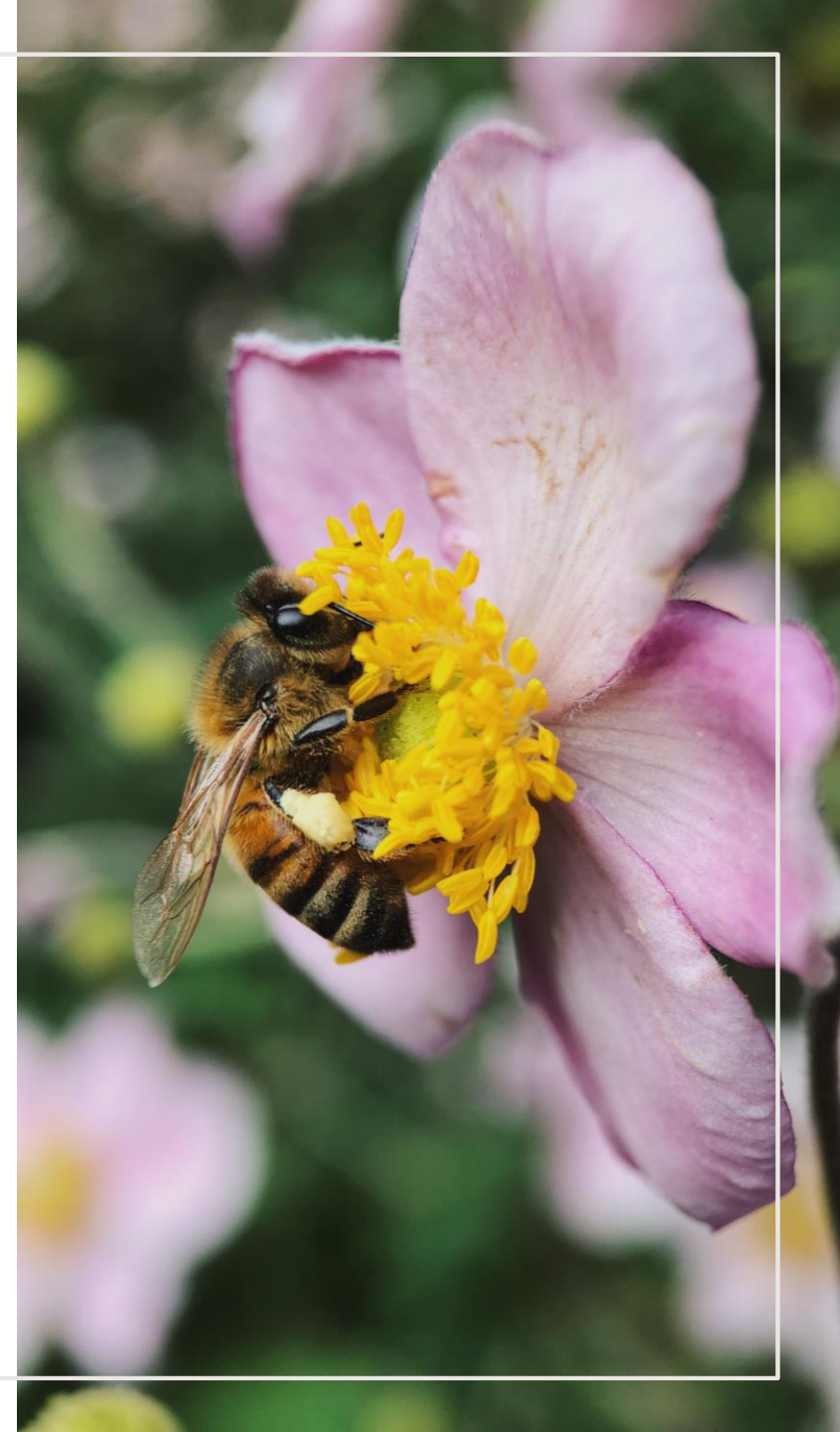
- Business context and measurement objective will influence the required level of spatial precision and accuracy, and which metric to use

## 2. Data availability

- Detailed spatial information, can be challenging in global context
- Trade-off between required resources and level of detail of measurements

## 3. Screening and measuring biodiversity impacts

- Good practice & best practice



# ALIGN RECOMMENDATIONS

## SITE & PROJECT LEVEL

GOOD PRACTICE

BEST PRACTICE

	WHAT TO MEASURE	CHARACTERISTICS OF MEASUREMENT APPROACH	MOST APPLICABLE METHODS
	<p><b>SCREEN</b></p> <ul style="list-style-type: none"> <li>Potential presence &amp; proximity to material species &amp; ecosystems</li> <li>Potential impacts based on sector-average impact drivers</li> </ul> <hr/> <p><b>MEASURE</b></p> <ul style="list-style-type: none"> <li>Ecosystem extent &amp; condition indicators; or</li> <li>Measurement of material impact drivers (at least land use change)</li> <li>Periodic measurements that start from a baseline, &amp; measurements that reflect changes in state resulting from company-specific impact drivers</li> </ul>	<ul style="list-style-type: none"> <li><b>Feasibility (screening) - High</b> (able to apply screening at multiple sites)</li> <li><b>Spatial precision - Medium</b></li> <li><b>Accuracy - Medium</b> (measures reflect potential presence &amp; impacts on species &amp; ecosystems, but are not ground-truthed)</li> </ul> <hr/> <ul style="list-style-type: none"> <li><b>Responsiveness - Medium</b> (able to reflect how changes in pressures affects biodiversity state)</li> <li><b>Spatial precision - Medium</b></li> <li><b>Accuracy - Medium</b> (measures reflect potential presence &amp; impacts on species &amp; ecosystems, but are not grounded-truthed)</li> </ul>	<ul style="list-style-type: none"> <li>Spatial overlays with static biodiversity data layers (ecosystem extent / condition)</li> <li>Species threat &amp; range layers</li> <li>Screening using modelled state based on pressures</li> </ul> <hr/> <ul style="list-style-type: none"> <li>Primary data based on surveys</li> <li>Measuring using responsive biodiversity data layers</li> <li>Measuring using modelled state based on pressures</li> </ul>
	<p><b>SCREEN</b></p> <ul style="list-style-type: none"> <li>Potential presence &amp; condition of material species &amp; ecosystems, results <b>ground-truthed</b></li> <li>Species extinction risk indicators</li> <li>Potential impacts based on <b>company specific impact drivers</b></li> </ul> <hr/> <p><b>MEASURE</b></p> <ul style="list-style-type: none"> <li>Ecosystem extent &amp; condition for <b>individual ecosystem assets</b></li> <li>Species extinction risk indicators</li> <li>Periodic measurements that start from a baseline, &amp; measurements that reflect changes in state resulting from <b>site-level mitigation measures</b></li> </ul> <p>Based on primary data on <b>material impact drivers</b></p>	<ul style="list-style-type: none"> <li><b>Feasibility (screening) - High</b> (for screening, able to apply for screening at multiple sites)</li> <li><b>Spatial precision - High</b> (captures species &amp; ecosystems at site level)</li> <li><b>Accuracy - High</b> (measures reflect actual, ground-truthed presence of/impacts on species &amp; ecosystems)</li> </ul> <hr/> <ul style="list-style-type: none"> <li><b>Responsiveness (measuring impacts) - High</b> - reflects effects of site-level mitigation measures</li> <li><b>Spatial precision - High</b> (captures species &amp; ecosystems at site level)</li> <li><b>Accuracy - High</b> (measures reflect actual, ground-truthed presence of/impacts on species &amp; ecosystems)</li> </ul>	<ul style="list-style-type: none"> <li>Modelled state based on pressures (<b>using company specific impact driver data</b>) for screening only</li> <li>Species threat &amp; range layers</li> </ul> <hr/> <ul style="list-style-type: none"> <li>Primary data based on surveys</li> </ul>

Source: UNEP-WCMC, Capitals Coalition, Arcadis, ICF, WCMC Europe (2022)

# CASE UPMINERALS: OBJECTIVES

Upminerals Ltd is a multinational company operating in the mining sector that is looking to develop biodiversity action plans at priority sites.

Upminerals



- **Company objectives:**

1. Multi-site screening on material biodiversity impacts
2. In depth baseline measurement of shortlisted sites

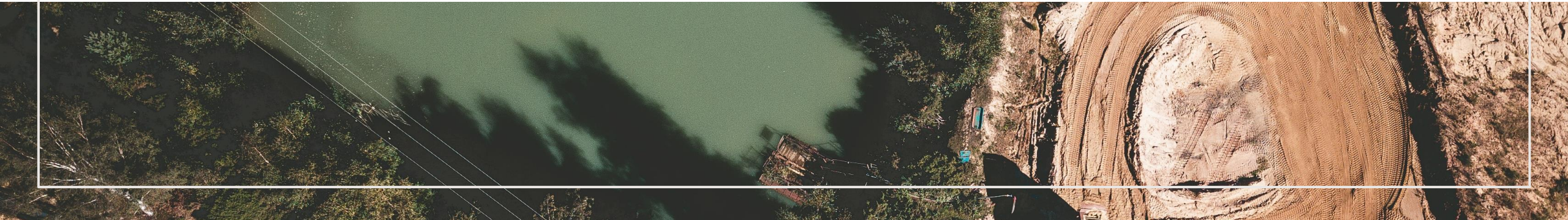


Screening: high feasibility, medium spatial precision and accuracy



Measuring: high spatial precision and accuracy

Source: Arcadis, UNEP-WCMC, Capitals Coalition, ICF, WCMC Europe (2023)



# CASE UPMINERALS: SCREENING MULTIPLE SITES

- **Company objectives:**

1. Multi-site screening on material biodiversity impacts
2. In depth baseline measurement of shortlisted sites



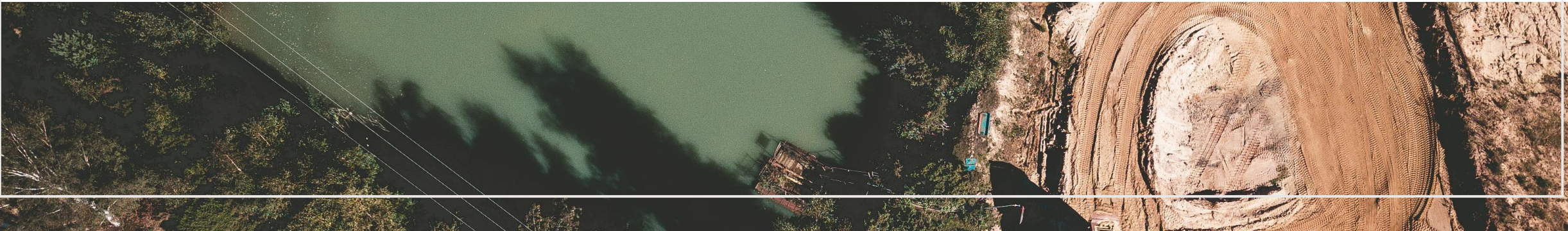
## Good practice

1. GIS file of site **coordinates**
2. Screening **proximity** of areas with high biodiversity significance
3. Rank their sites in order of **priority**
4. Refine prioritisation

## Best practice

Complementation with **ground-truthed** data through field surveys, secondary data on species and habitats sensitivities and through questionnaires

Source: Arcadis, UNEP-WCMC, Capitals Coalition, ICF, WCMC Europe (2023)



# CASE UPMINERALS: MEASURING SHORTLIST

- **Company objectives:**

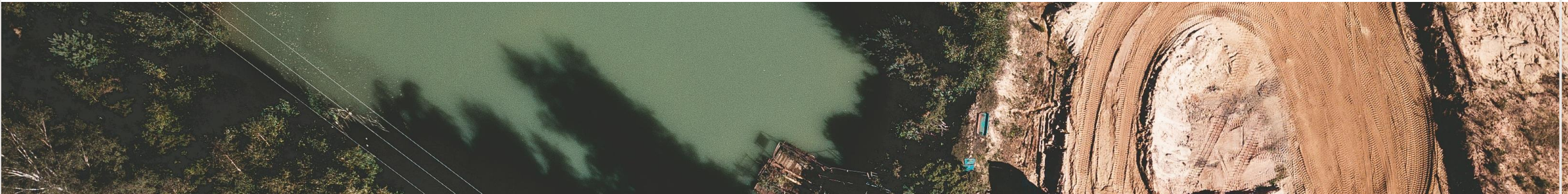
1. Multi-site screening on material biodiversity impacts
2. In depth baseline measurement of shortlisted sites



## For shortlist of 5 sites

- Measurements of ecosystem extent and condition to supplement ground-truthed screening data
  - Identify main impact drivers for biodiversity loss
  - Take into account accumulated impacts due to other activities in the same area
- Development biodiversity action plan for priority sites

Source: Arcadis, UNEP-WCMC, Capitals Coalition, ICF, WCMC Europe (2023)



# BIODIVERSITY MEASUREMENT AT SITE LEVEL

Implementing the Align project recommendations at sites with direct operational control

1. Decision context
2. Data availability
3. Screening and measuring biodiversity impacts
4. Measuring biodiversity supporting dependencies
5. Valuation



# BIODIVERSITY MEASUREMENT AT SITE LEVEL

## 4. Measuring biodiversity supporting dependencies

- Understand site-based operations and their dependencies on biodiversity and ecosystem services
- Assess material dependencies at sector level: e.g. screening tool
- Nature-related risks? E.g. site located in flood-prone area

Can result in investment in nature-based solutions (NBS)



# CASE ALLOYBAR: DEPENDENCIES

Alloybar Ltd is an aluminium manufacturing company with ambitions to meet No Net Loss and Net Gain Targets across their sites.

Alloybar



- **Objective:** assess site exposure to nature-related physical risks
  1. Key provisioning service: **use of water**, key regulation service: maintenance of the quality of this water
  2. **Risk assessment:** operations in a flood -prone area
  3. Wetland ecosystems: can provide both water filtration and flood defense services → **investment in NBS:** investing in upstream wetland restoration to sustain the water filtration and flood defense services

Source: Arcadis, UNEP-WCMC, Capitals Coalition, ICF, WCMC Europe (2023)

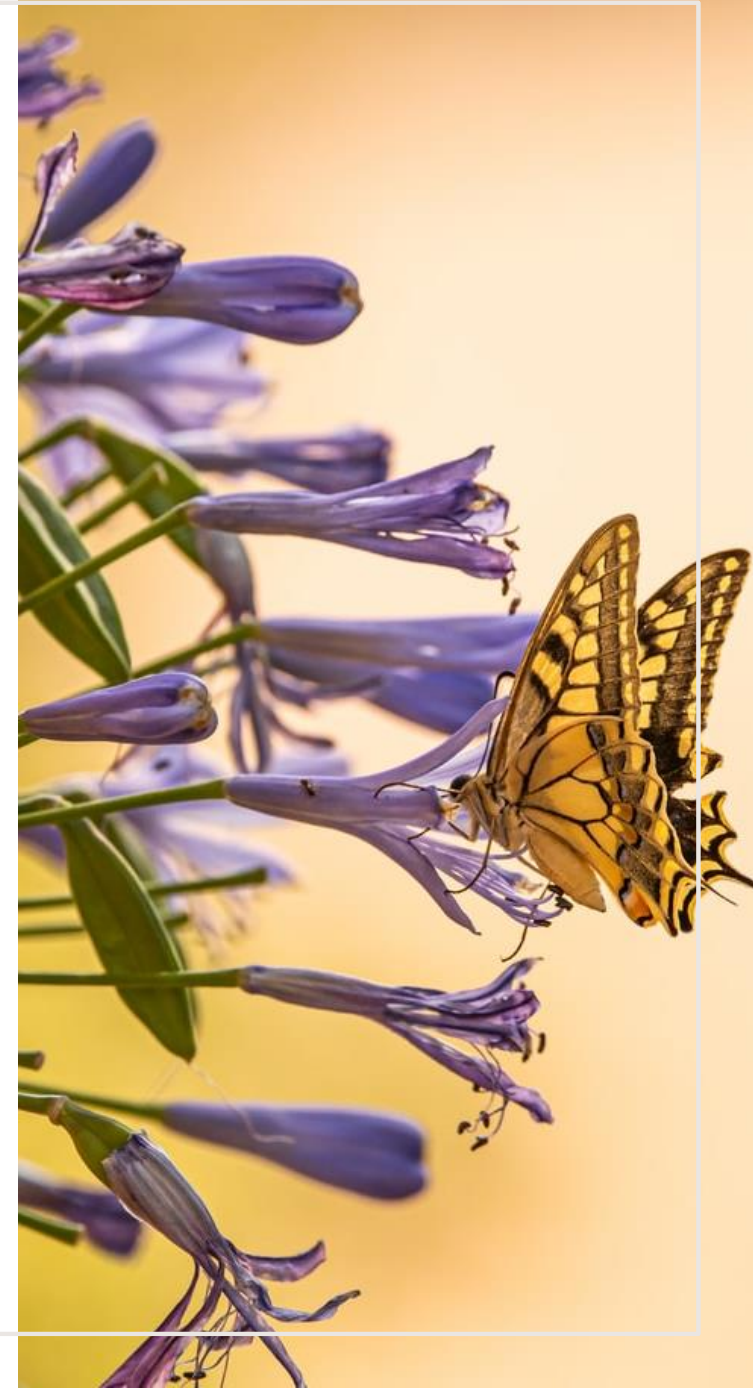


# BIODIVERSITY MEASUREMENT AT SITE LEVEL

## 5. Valuation of impacts and dependencies

Where impacts and dependencies are understood through the lens of importance to different stakeholders.

- **Direct value** - the value of resources that are tangible and direct
- **Underpinning or indirect value** - Benefits that support the direct values
- **Insurance and options value** - Option value represents undiscovered, underutilized, or less understood benefits that might exist though greater understanding in the future.
- **Intrinsic value** - the non-human value of an ecosystem.



# CASE ALLOYBAR: VALUATION

Alloybar Ltd is an aluminium manufacturing company with ambitions to meet No Net Loss and Net Gain Targets across their sites.

Alloybar



- **Valuation assessment** - within their assessment of dependencies and flood protection provided by the wetland ecosystems at the site
- Using an ecosystem service valuation database
- Applying a value transfer approach
- Water filtration is given a monetary value through replacement cost
- Benefits of flood protection is valued as prevented damage cost

Source: Arcadis, UNEP-WCMC, Capitals Coalition, ICF, WCMC Europe (2023)





Measuring and valuing biodiversity across supply chains

Heli Sihvonen, Programme Officer, UNEP-WCMC

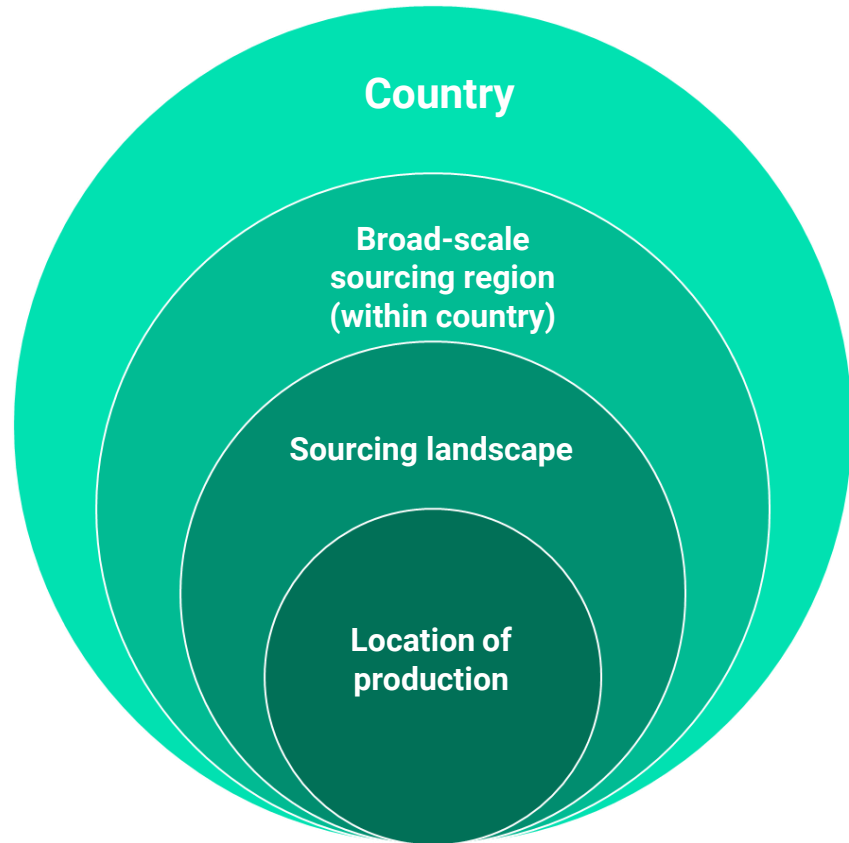
# BIODIVERSITY ACROSS SUPPLY CHAINS

Implementing the Align project recommendations in sourcing

- Decision context
- Data availability
- Screening and measuring biodiversity impacts
- Measuring biodiversity supporting dependencies
- Valuation



# DATA AVAILABILITY FOR SUPPLY CHAINS



The traceability of the commodity



The heterogeneity of likely impacts and dependencies



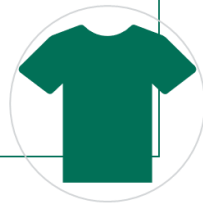
The type of actions that can be taken

# DECISION MAKING CONTEXT AT SUPPLY CHAIN LEVEL

## BUSINESS CONTEXT AND MEASUREMENT OBJECTIVES

Cottonlux Ltd is a large multinational clothing company with business operating in the UK markets and Europe. Its production is outside the EU, and it has a multi-tiered supply chain. Through its subcontractors, Cottonlux sourced cotton from three countries; India, China and the US. Within each country, the company has located the broad-scale sourcing regions.

Cottonlux



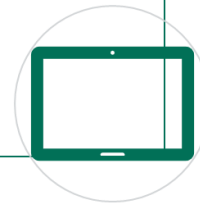
Chocolately Ltd is a Central European business that manufactures chocolate products. They are sourcing cocoa from 10 countries in South America, Africa and Southeast Asia. They have several contract producers that supply cocoa exclusively for Chocolately.

Chocolately



Tabletist Ltd is one of the world's leading technology companies with markets in all continents and production mainly in Asia. It is sourcing minerals, components, and products from thousands of partners around the world. It has put effort to shortening its supply chains and getting more direct control over them.

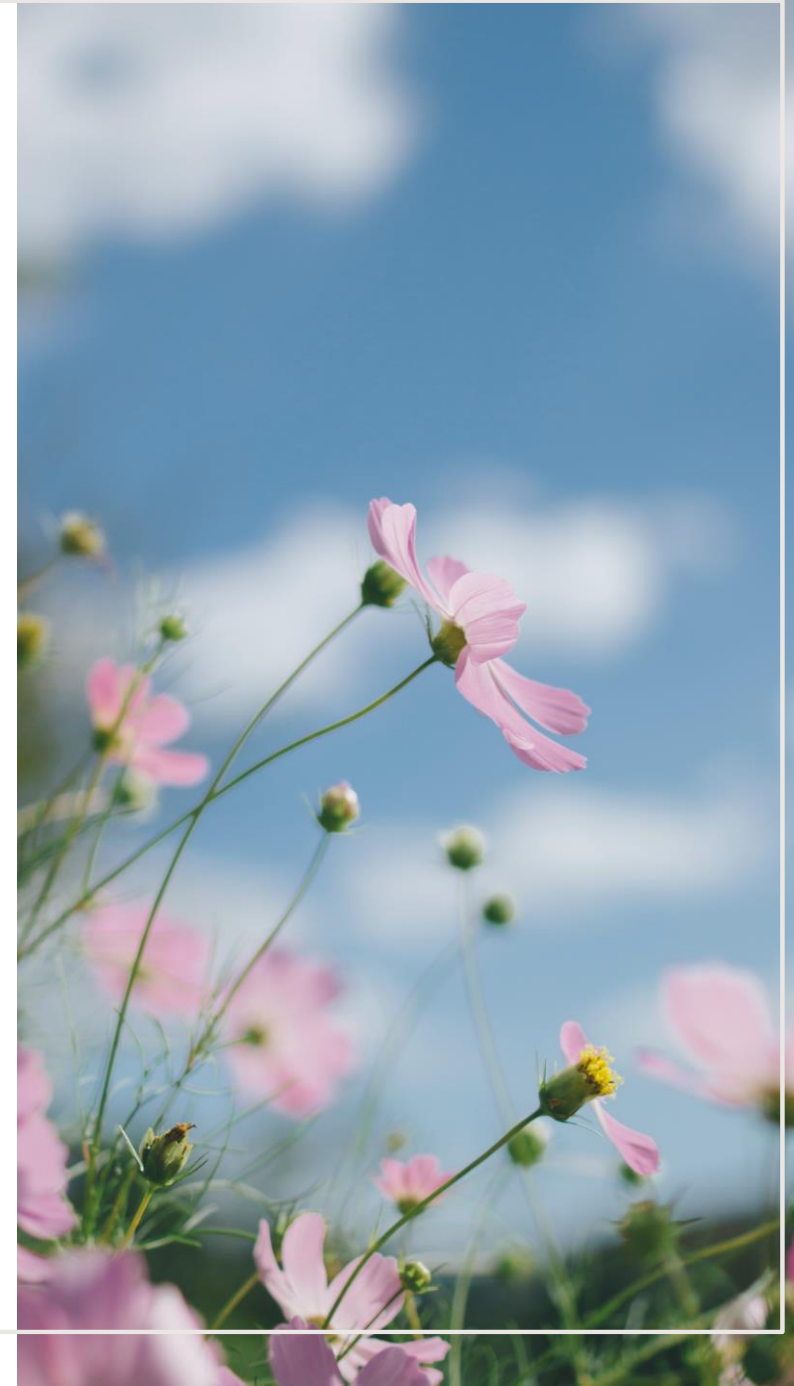
Tabletist



# BIODIVERSITY ACROSS SUPPLY CHAINS

Implementing the Align project recommendations in sourcing

- Decision context
- Data availability
- Screening and measuring biodiversity impacts
- Measuring biodiversity supporting dependencies
- Valuation



# SCREEN: WHAT IS THE STATE OF BIODIVERSITY AT SOURCING LOCATIONS?



## Tabletist's objectives:

To understand the biodiversity status of its **sourcing countries** to inform prioritization decisions



## Good practice screening:

- Ecosystem extent and condition and species threat and range data layers
- + High feasibility to apply at scale



*In the Guidance: Chocolatery Ltd has data of its **precise sourcing locations** and it can conduct a **best practice screening** of ecosystem condition.*

Source: UNEP-WCMC, Arcadis, Capitals Coalition, ICF, WCMC Europe (2023)



# SCREEN & MEASURE: WHAT ARE THE POTENTIAL IMPACTS AT THE SOURCING LOCATION?



## Tabletist's objectives:

To gain information on main environmental pressures associated with mineral extraction



## Best practice screening / good practice measurement:

- EE MRIO model and a model-based footprinting approach or life-cycle impact assessment



*In the Guidance: Chocolaterly has conducted an LCA of its chocolate products and is now focused on **best practice** measurement of impacts on the ground.*

Source: UNEP-WCMC, Arcadis, Capitals Coalition, ICF, WCMC Europe (2023)



# MEASURE: HOW TO IMPROVE THE ACCURACY OF THE ESTIMATION OF IMPACTS?




## Tabletist's objectives:

To improve the estimation of impacts from sector average data to reflect impacts of specific suppliers.



## Best practice screening / good practice measurement:

- A few suppliers for piloting
- Model-based footprinting approach with supplier data

 *Chocolately is using **best practice measurement approaches** such as **on-the-ground surveys, eDNA and remote sensing** to select evidence-based better agricultural practices.*

Source: UNEP-WCMC, Arcadis, Capitals Coalition, ICF, WCMC Europe (2023)



# ASSESSING DEPENDENCIES ON BIODIVERSITY AND ECOSYSTEM SERVICES



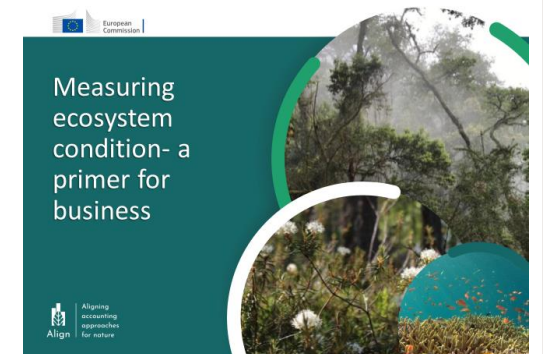
## Chocolately's objectives:

1. To understand the material dependencies as a step to assessing to dependency-related risks and opportunities
2. To understand which management practices best support pollinator abundance and high yields

1. A **dependency screening tool** and **published literature** reveal cocoa's high dependency on pollination ecosystem services
2. **Remote sensing** to assess the extent and condition of pollinator habitat surrounding the cocoa farms
3. **Ground surveys** to assesses the impact of different land management practices

# UPCOMING WORK FROM THE ALIGN PROJECT

- Workstream on measuring contributions to Nature Positive outcomes
- Supplementary guidance to the Transparent methodology focusing on biodiversity impact pathways
- Finance sector guidance
- Training modules





Thank you

**UN**   
**environment  
programme**

**WCMC**