Breaking Silos for Biodiversity

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Our group

Jing Luo
Creative Sustainability

Annu Mathew
Collaborative &
Industrial Design

Jamie Smyth
Creative Sustainability

Elli Törnqvist
Creative Sustainability

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1 Background

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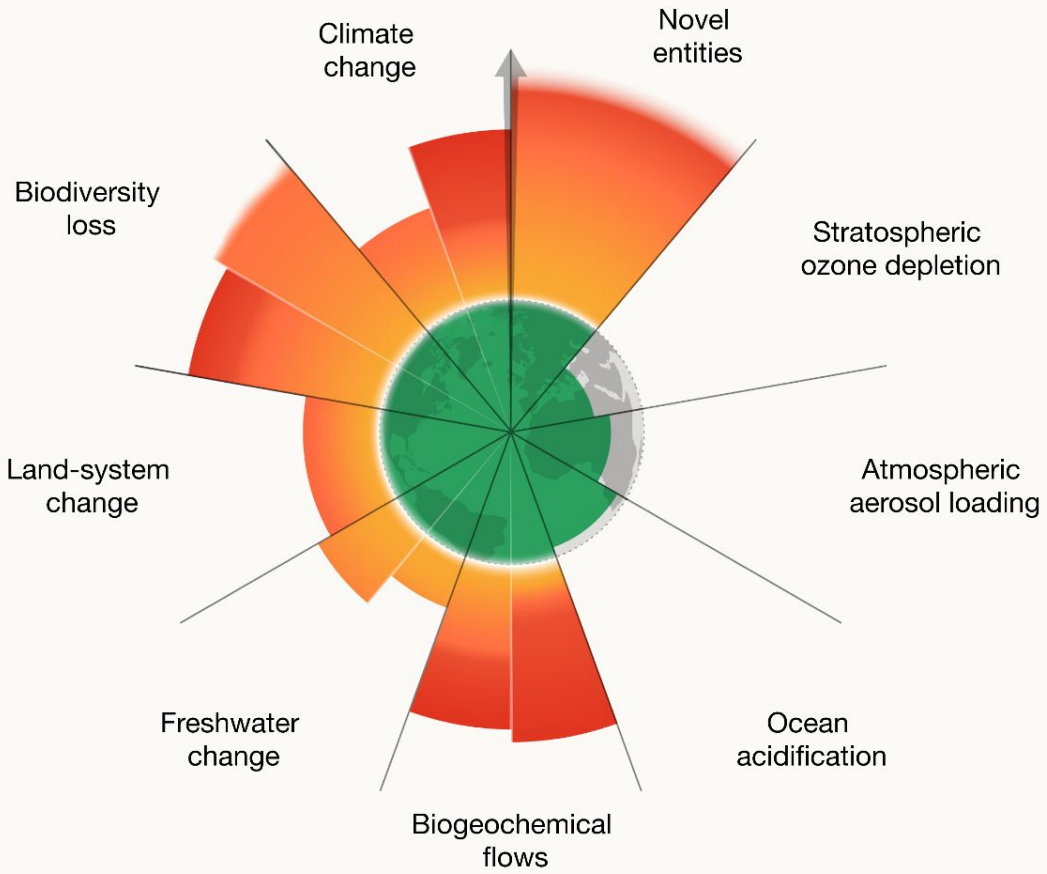
Biodiversity loss



Based on *Planetary Boundaries*, Stockholm Resilience Centre, 2023

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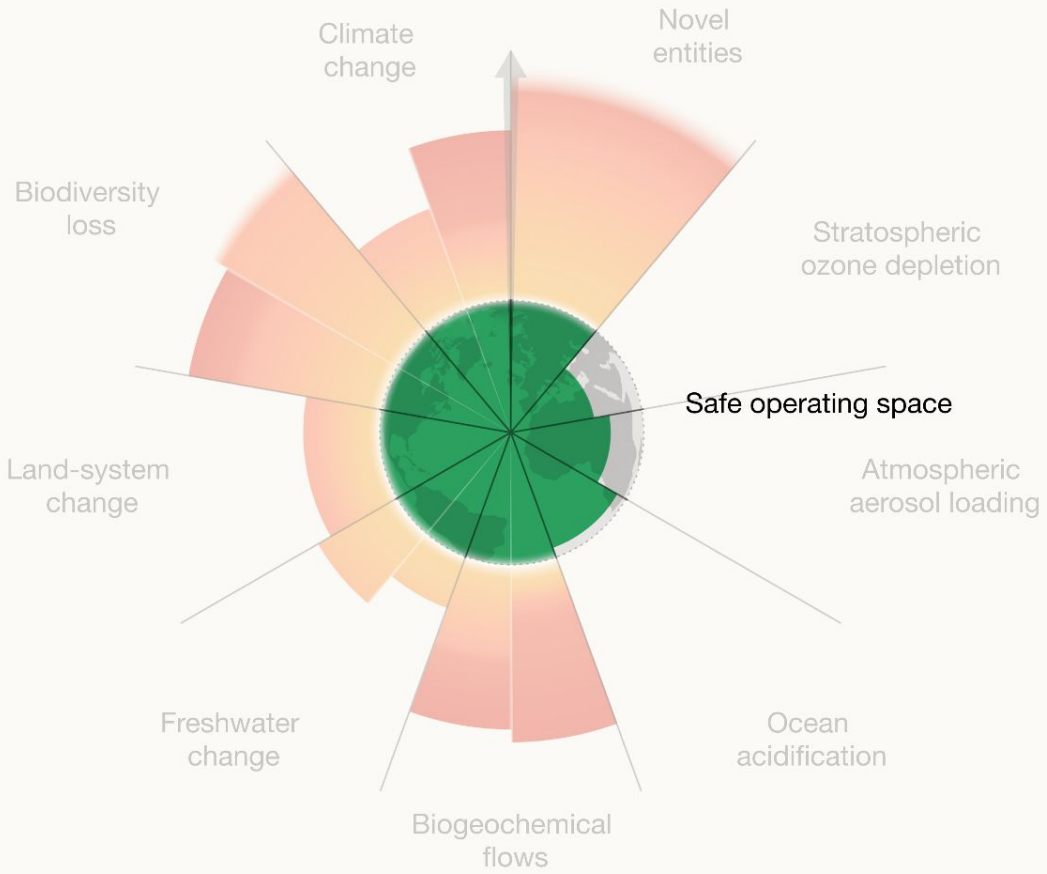
Biodiversity loss



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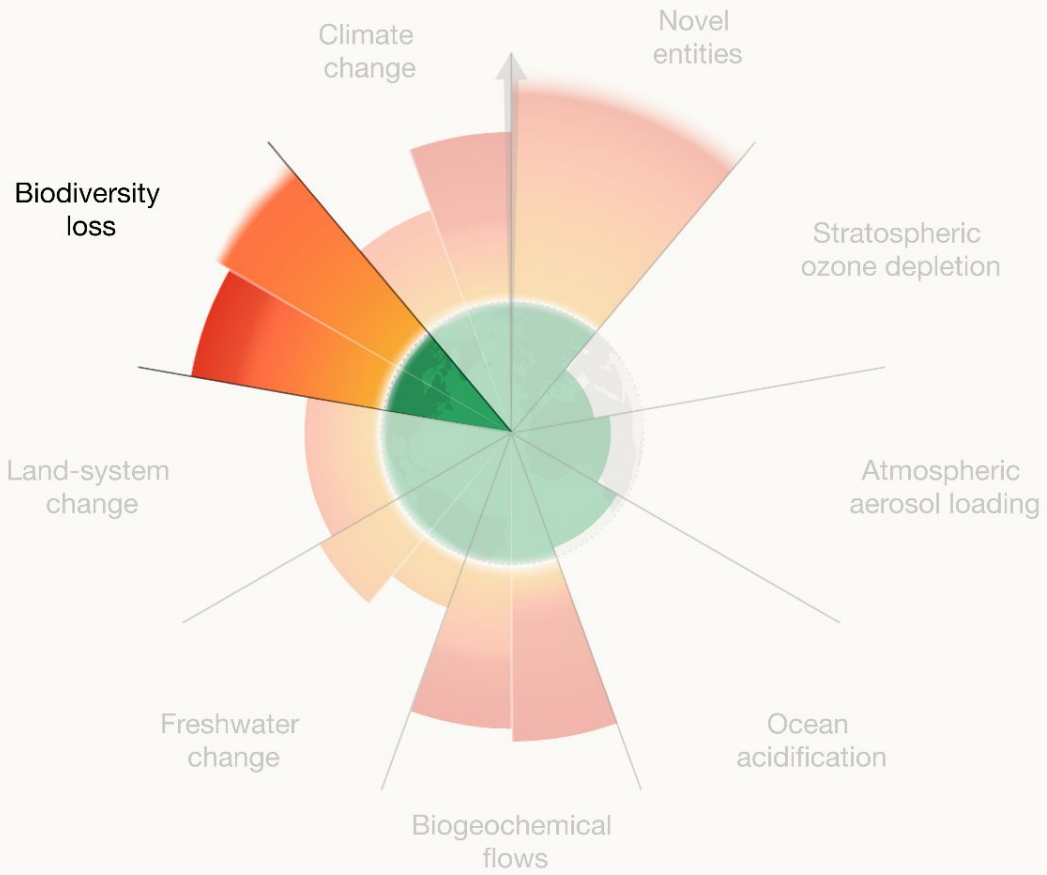
Biodiversity loss



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Biodiversity loss

Our planet wants change!

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Flow of biodiversity policy

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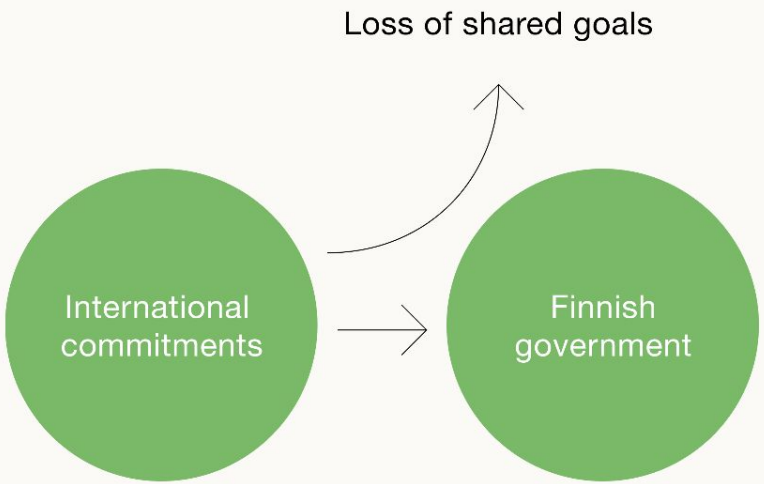
Flow of biodiversity policy



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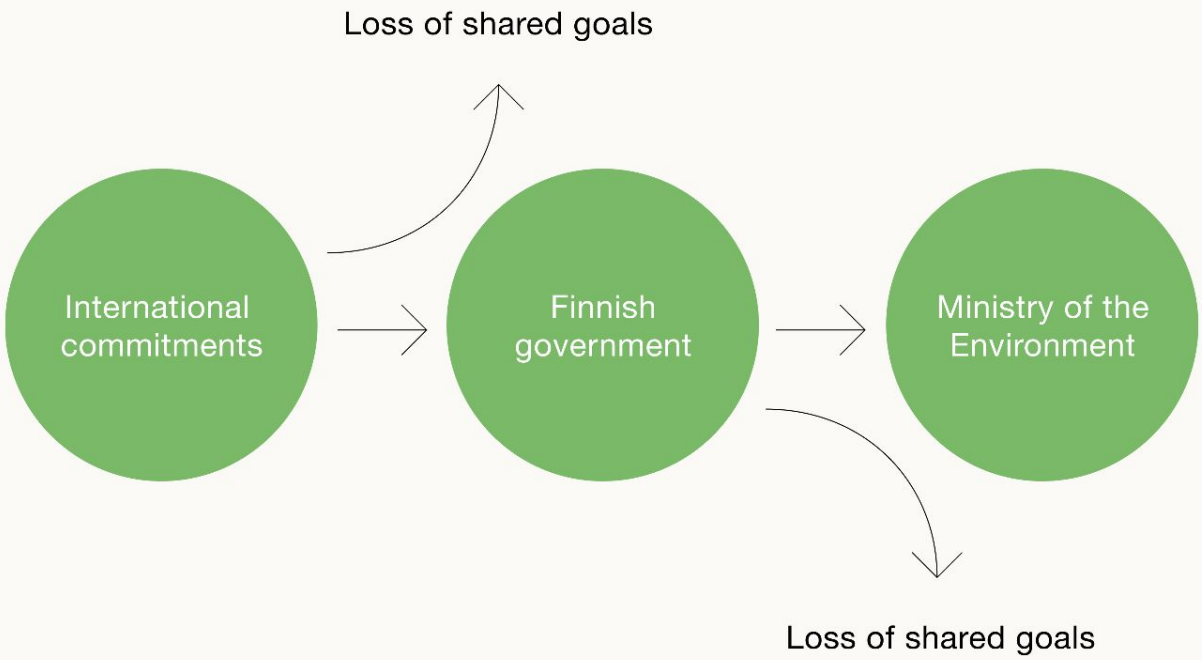
Flow of biodiversity policy



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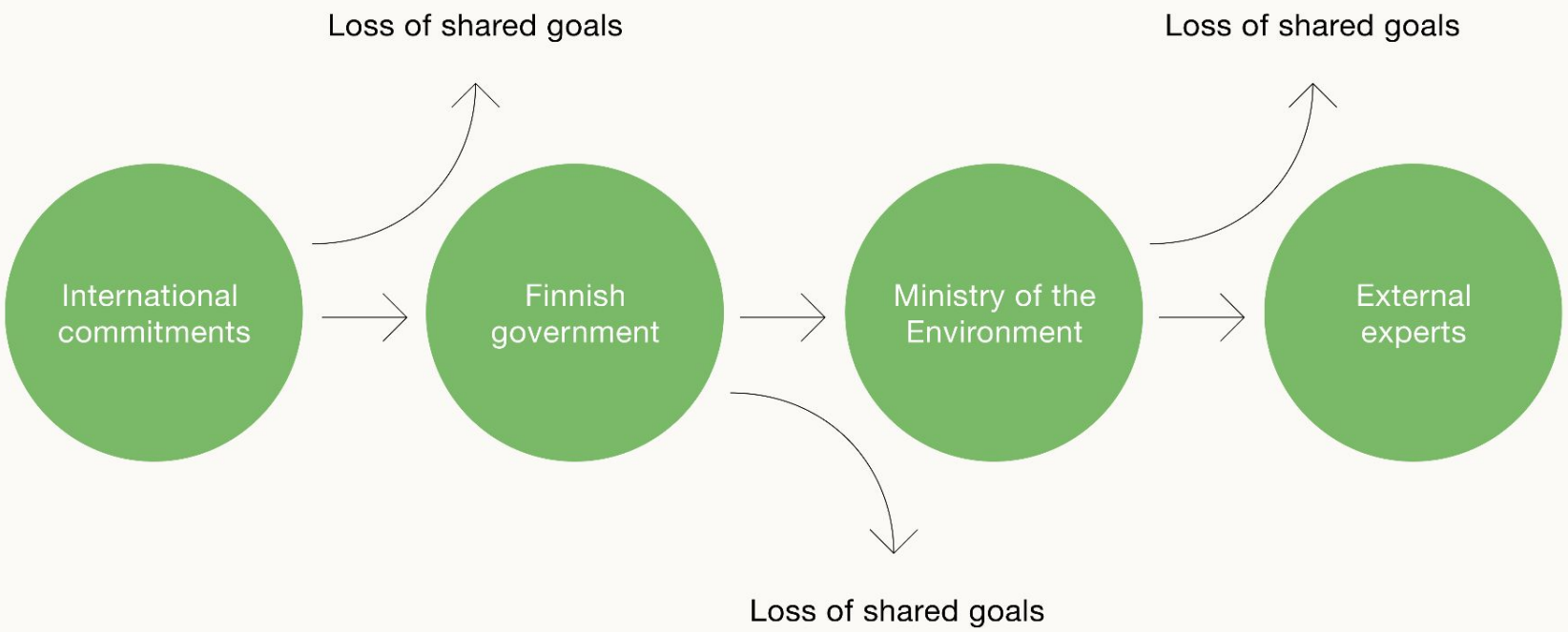
Flow of biodiversity policy



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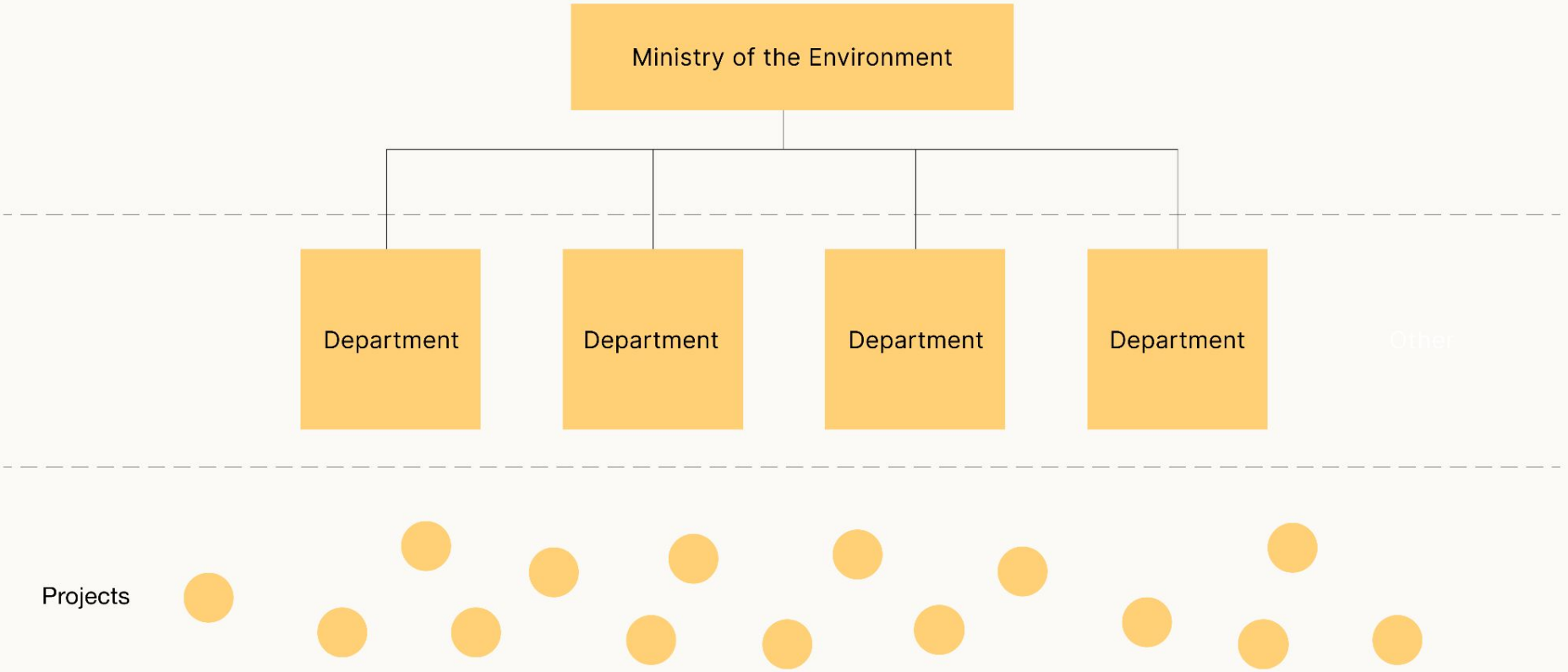
Structure of Ministry of the Environment



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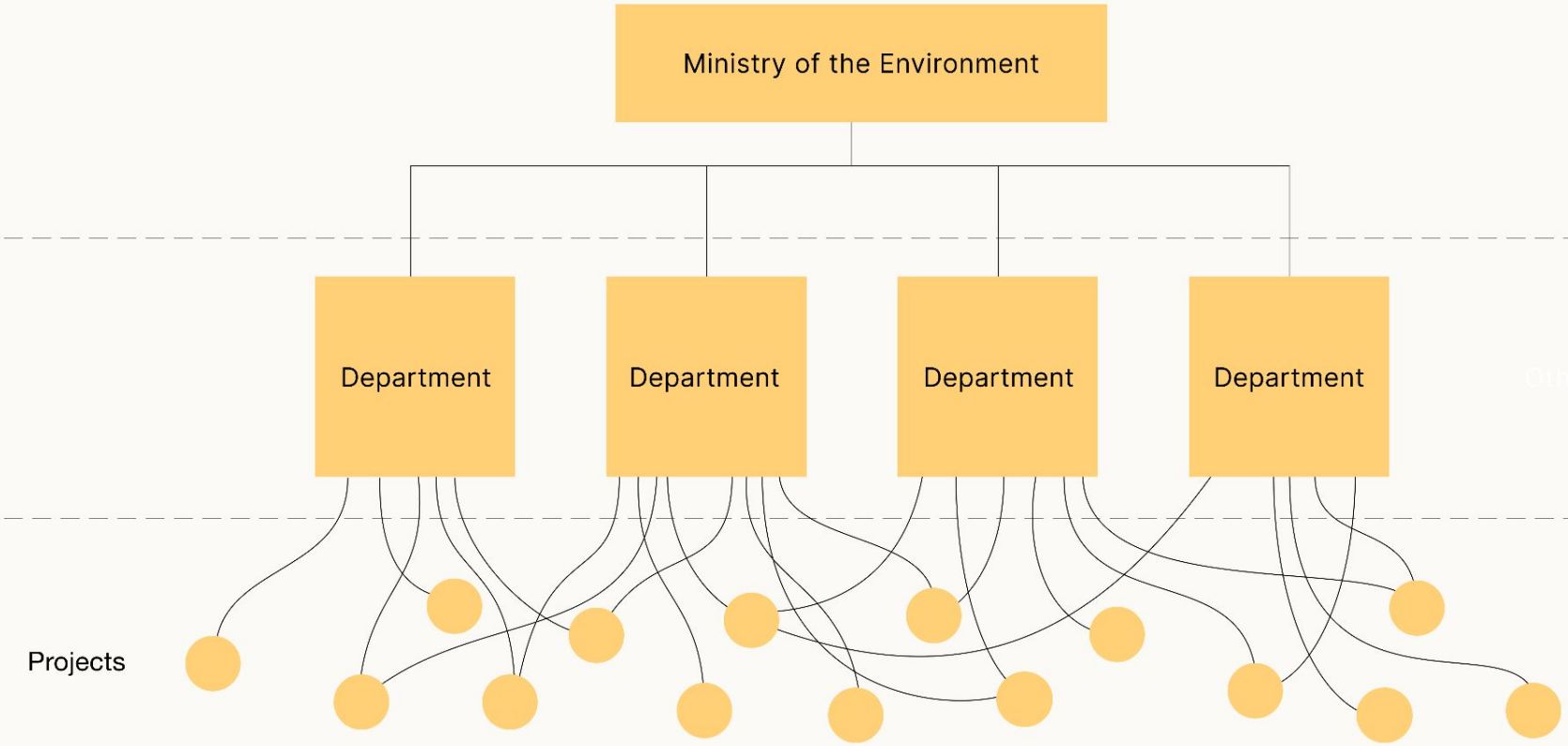
Structure of Ministry of the Environment



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Though projects are interdepartmental, they are siloed by topics

Insight from our research

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Barriers to policy coherence

> We don't have enough time or resources
>
> Civil servant, Ministry of the Environment

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2 How might we break the silos?

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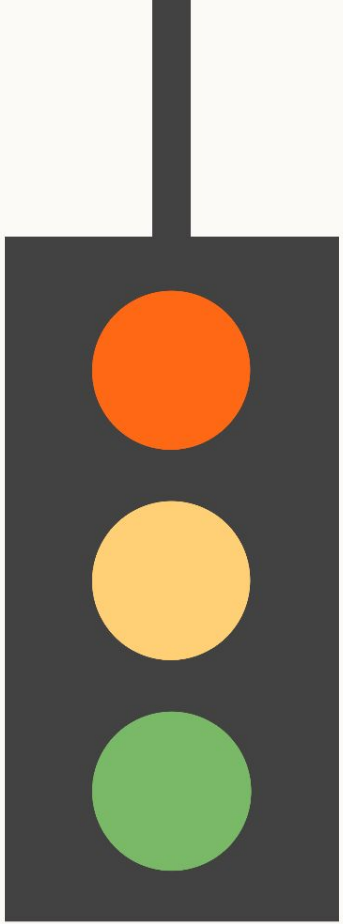
A new standard practice



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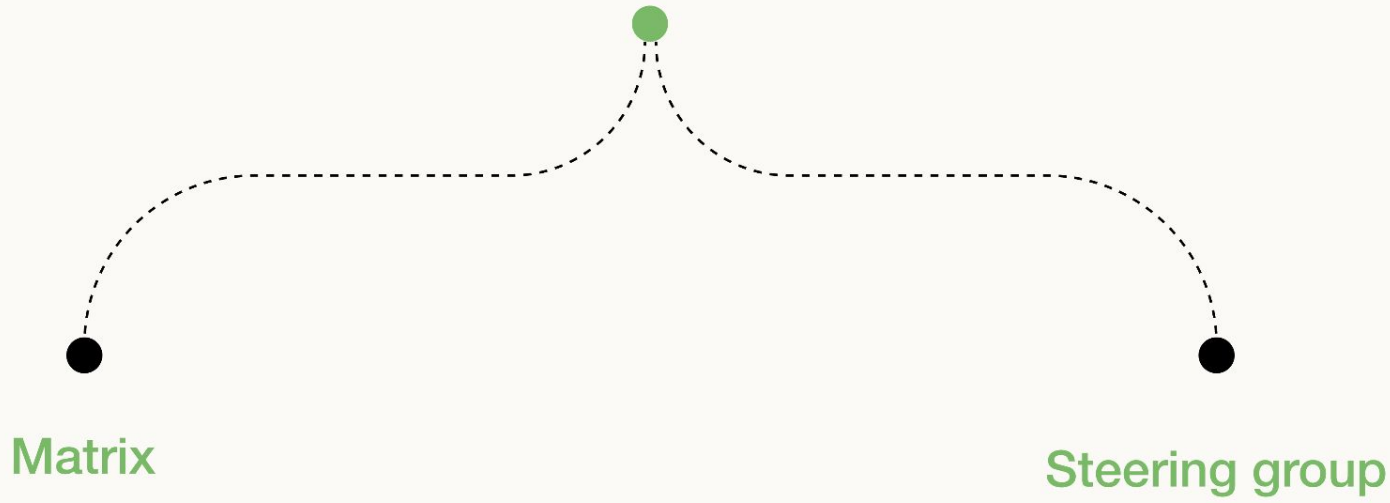
A new standard practice



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3 Matrix

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Workshop 1: Define targets

Workshop 2: Define indicators

Workshop 3: Fill in matrix

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Main goal
Reverse biodiversity loss by 2035

Target 1
Pollution is reduced to a level no longer harmful for biodiversity

Workshop 1: Define targets

Workshop 2: Define indicators

Workshop 3: Fill in matrix

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Main goal
Reverse biodiversity loss by 2035

	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		**Target 2**			

Workshop 1: Define targets

Workshop 2: Define indicators

Workshop 3: Fill in matrix

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Main goal
Reverse biodiversity loss by 2035

	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		**Target 2**		**Target 3**	

Workshop 1: Define targets

Workshop 2: Define indicators

Workshop 3: Fill in matrix

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	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		**Target 2**		**Target 3**	

Workshop 1: Define targets

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	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		**Target 2**		**Target 3**	
	Indicator 1 Decreasing amount of micro-plastics in water					

Workshop 1: Define targets

Workshop 2: Define indicators

Workshop 3: Fill in matrix

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	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		**Target 2**		**Target 3**	
	Indicator 1 Decreasing amount of micro-plastics in water	**Indicator 2** Decreasing amount of pesticides used				

Workshop 1: Define targets

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	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		**Target 2**		**Target 3**	
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Workshop 1: Define targets

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	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		**Target 2**		**Target 3**	
	Indicator 1 Decreasing amount of micro-plastics in water	**Indicator 2** Decreasing amount of pesticides used	**Indicator 3**	**Indicator 4**		

Workshop 1: Define targets

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Workshop 3: Fill in matrix

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	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		**Target 2**		**Target 3**	
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	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		**Target 2**		**Target 3**	
	Indicator 1 Decreasing amount of micro-plastics in water	**Indicator 2** Decreasing amount of pesticides used	**Indicator 3**	**Indicator 4**	**Indicator 5**	**Indicator 6**

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	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		**Target 2**		**Target 3**	
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Project Helmi Habitats Protection Programme						

Workshop 1: Define targets

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Project Helmi Habitats Protection Programme						

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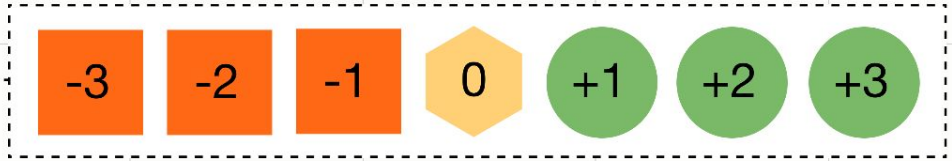
Project Helmi Habitats Protection Programme						



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	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		Target 2		Target 3	
	Indicator 1 Decreasing amount of micro-plastics in water	Indicator 2 Decreasing amount of pesticides used	Indicator 3	Indicator 4	Indicator 5	Indicator 6
Project Helmi Habitats Protection Programme	+2					

Workshop 1: Define targets

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	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		Target 2		Target 3	
	Indicator 1 Decreasing amount of micro-plastics in water	**Indicator 2** Decreasing amount of pesticides used	Indicator 3	Indicator 4	Indicator 5	Indicator 6
Project Helmi Habitats Protection Programme	+2					

Workshop 1: Define targets

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	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		Target 2		Target 3	
	Indicator 1 Decreasing amount of micro-plastics in water	**Indicator 2** Decreasing amount of pesticides used	Indicator 3	Indicator 4	Indicator 5	Indicator 6
Project Helmi Habitats Protection Programme	+2	0				

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	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		**Target 2**		**Target 3**	
	Indicator 1 Decreasing amount of micro-plastics in water	**Indicator 2** Decreasing amount of pesticides used	**Indicator 3**	**Indicator 4**	**Indicator 5**	**Indicator 6**
Project Helmi Habitats Protection Programme	+2	0				

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	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		**Target 2**		**Target 3**	
	Indicator 1 Decreasing amount of micro-plastics in water	**Indicator 2** Decreasing amount of pesticides used	**Indicator 3**	**Indicator 4**	**Indicator 5**	**Indicator 6**
Project Helmi Habitats Protection Programme	+2	0	+1			

Workshop 1: Define targets

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	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		**Target 2**		**Target 3**	
	Indicator 1 Decreasing amount of micro-plastics in water	**Indicator 2** Decreasing amount of pesticides used	**Indicator 3**	**Indicator 4**	**Indicator 5**	**Indicator 6**
Project Helmi Habitats Protection Programme	+2	0	+1	0		

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	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		**Target 2**		**Target 3**	
	Indicator 1 Decreasing amount of micro-plastics in water	**Indicator 2** Decreasing amount of pesticides used	**Indicator 3**	**Indicator 4**	**Indicator 5**	**Indicator 6**
Project Helmi Habitats Protection Programme	+2	0	+1	0	+2	

Workshop 1: Define targets

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	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		**Target 2**		**Target 3**	
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Project Helmi Habitats Protection Programme	+2	0	+1	0	+2	0

Workshop 1: Define targets

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Project Helmi Habitats Protection Programme	+2	0	+1	0	+2	0
Project National Chemicals Programme						

Workshop 1: Define targets

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	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		Target 2		Target 3	
	Indicator 1 Decreasing amount of micro-plastics in water	Indicator 2 Decreasing amount of pesticides used	Indicator 3	Indicator 4	Indicator 5	Indicator 6
Project Helmi Habitats Protection Programme	+2	0	+1	0	+2	0
Project National Chemicals Programme						

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	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		Target 2		Target 3	
	Indicator 1 Decreasing amount of micro-plastics in water	Indicator 2 Decreasing amount of pesticides used	Indicator 3	Indicator 4	Indicator 5	Indicator 6
Project Helmi Habitats Protection Programme	+2	0	+1	0	+2	0
Project National Chemicals Programme	-1					

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Project Helmi Habitats Protection Programme	+2	0	+1	0	+2	0
Project National Chemicals Programme	-1					

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Project Helmi Habitats Protection Programme	+2	0	+1	0	+2	0
Project National Chemicals Programme	-1	+1	-3	0	+1	+2

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	Indicator 1 Decreasing amount of micro-plastics in water	**Indicator 2** Decreasing amount of pesticides used	**Indicator 3**	**Indicator 4**	**Indicator 5**	**Indicator 6**
Project Helmi Habitats Protection Programme	+2	0	+1	0	+2	0
Project National Chemicals Programme	-1	+1	-3	0	+1	+2
Project						

Workshop 1: Define targets

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	Indicator 1 Decreasing amount of micro-plastics in water	**Indicator 2** Decreasing amount of pesticides used	**Indicator 3**	**Indicator 4**	**Indicator 5**	**Indicator 6**
Project Helmi Habitats Protection Programme	+2	0	+1	0	+2	0
Project National Chemicals Programme	-1	+1	-3	0	+1	+2
Project	0	+2	0	-2	+1	-1

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4 Steering group

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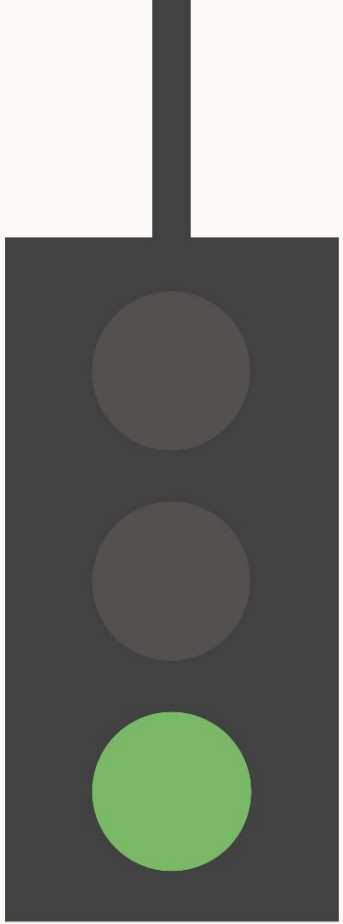
Steering group



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Steering group

A steering group to
lead the practice

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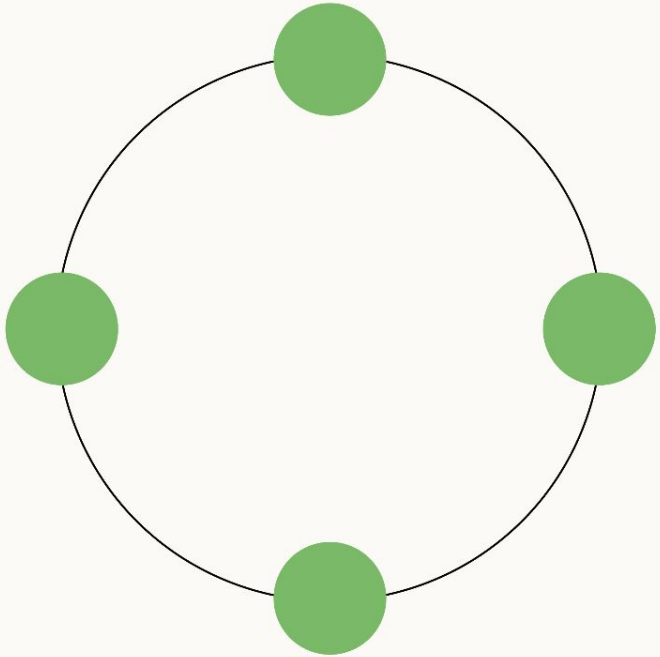

Representatives from each department of the Ministry of the Environment

Ministry of the Environment

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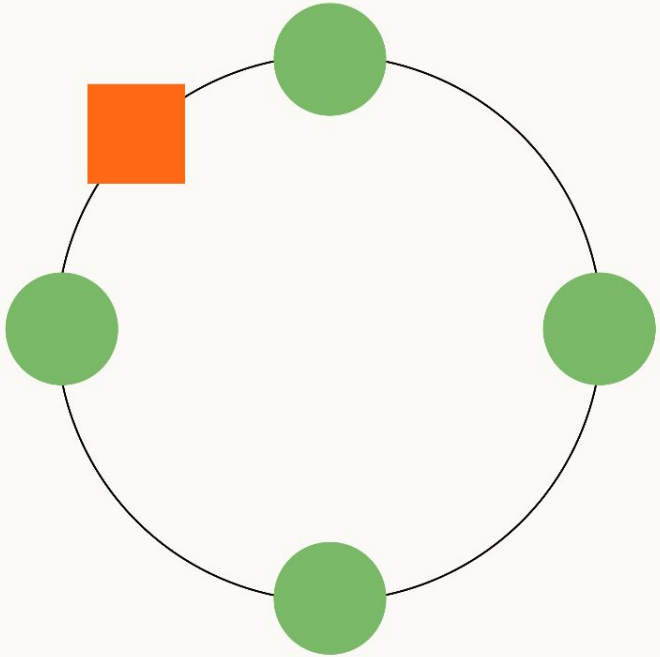
Steering group



Ministry of the Environment

Prime Minister's Office

Representative from the Prime Minister's Office

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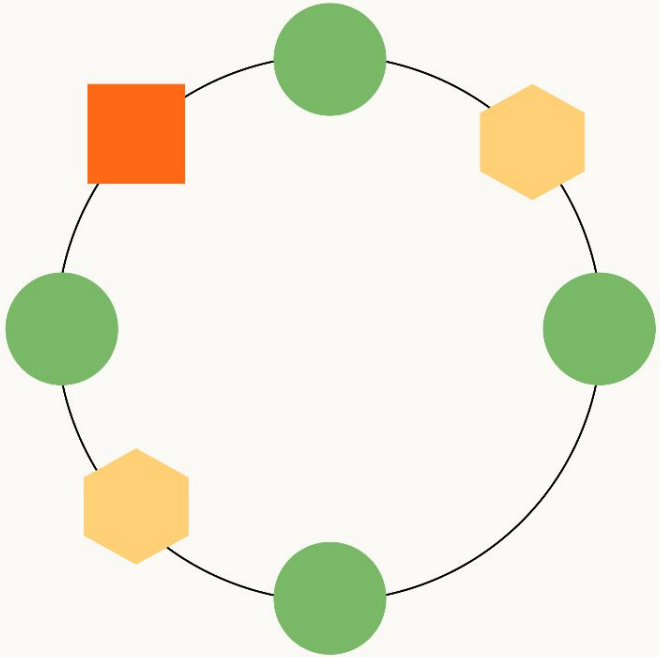
Steering group



Ministry of the Environment

Prime Minister's Office

Scientific expert

Scientific experts

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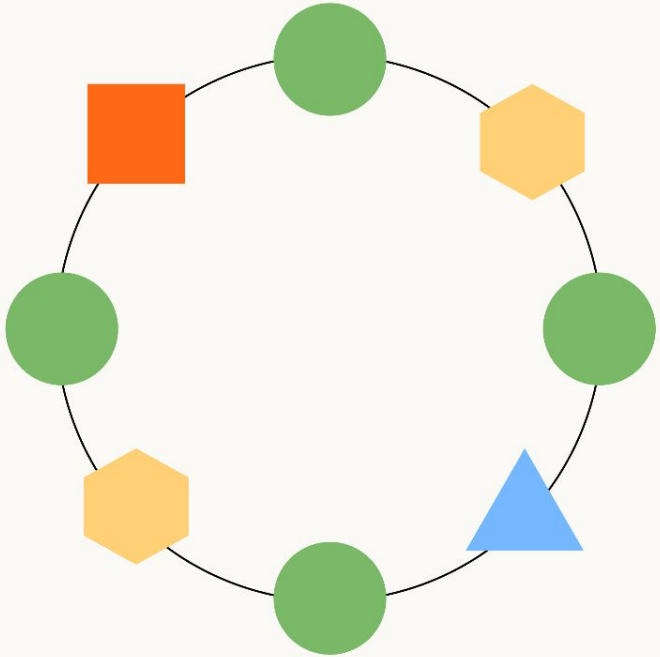
Steering group



Ministry of the Environment

Prime Minister's Office

Scientific expert

Expert on international policy

Expert on international policy

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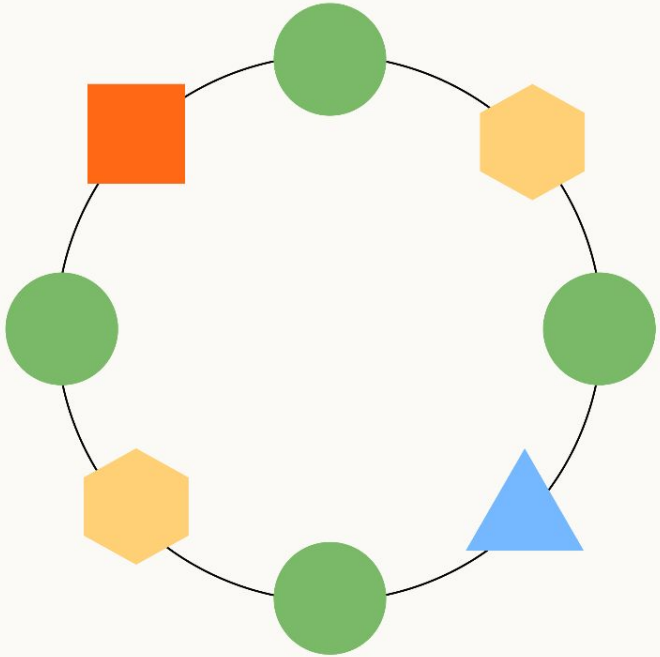
Steering group



- Ministry of the Environment
- Prime Minister's Office
- Scientific expert
- Expert on international policy

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5 Implementation

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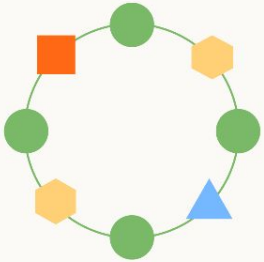
Implementation



Steering group

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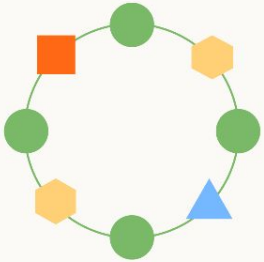
Implementation



	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		Target 2		Target 3	
	Indicator 1 Decreasing amount of micro-plastics in water	Indicator 2 Decreasing amount of pesticides used	Indicator 3	Indicator 4	Indicator 5	Indicator 6
Project 1 Helmi Habitats Protection Programme	+2	0	+1	0	+2	0
Project 2 National Chemicals Programme	-1	+1	-3	0	+1	+2
Project 3	0	+2	0	-2	+1	-1

Steering group

Matrix

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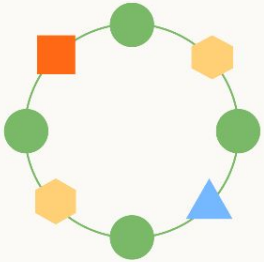
Implementation



	Target 1 Pollution is reduced to a level no longer harmful for biodiversity		Target 2		Target 3	
	Indicator 1 Decreasing amount of micro-plastics in water	Indicator 2 Decreasing amount of pesticides used	Indicator 3	Indicator 4	Indicator 5	Indicator 6
Project 1 Halmi Habitats Protection Programme	+2	0	+1	0	+2	0
Project 2 National Chemicals Programme	-1	+1	-3	0	+1	+2
Project 3	0	+2	0	-2	+1	-1

Ympäristöministeriö
Miljöministeriet
Ministry of the Environment

Steering group

Matrix

New standard practice

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Justification

SCORE	Negative impact	-3	-2	-1	0	1	2	3	Positive	
	? don't know									
Policy Instruments that have an impact on selected CS challenge	IMPACT ON FUNCTIONS:									
	Function 1		Function 2		Function 3		Function 4		Function 5	Function 6
Instrument 1	1	0	1	3	-2	1	1	2	-1	2	1	3
Instrument 2	2	3	-2	3	-3	1	0	3	-1	1	-2	2
Instrument 3	2	-2	-1	0	0	0	1	2	-2	1	1	-2
Instrument 4	-3	-2	-3	2	1	2	-1	2	0	1	3	0
Instrument 5	-1	2	1	3	3	-2	1	3	0	3	0	1
Instrument 6	-2	3	0	1	1	-3	2	0	0	1	1	3
Instrument 7	3	-3	-2	1	-2	3	0	1	0	3	2	0
Instrument 8	0	3	2	3	0	2	2	1	3	-1	1	0
Instrument 9	3	1	1	2	1	1	1	3	3	-2	3	-2

Similar matrices used in six European cities

Policy Coherence Analysis Report for Six Interlace Cities, Mortelmans D. & Carmen R., 2021

Similar quantitative data used for climate modelling

Kausal Paths: Software-as-a-service, Kausal, 2024

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6 Future opportunities

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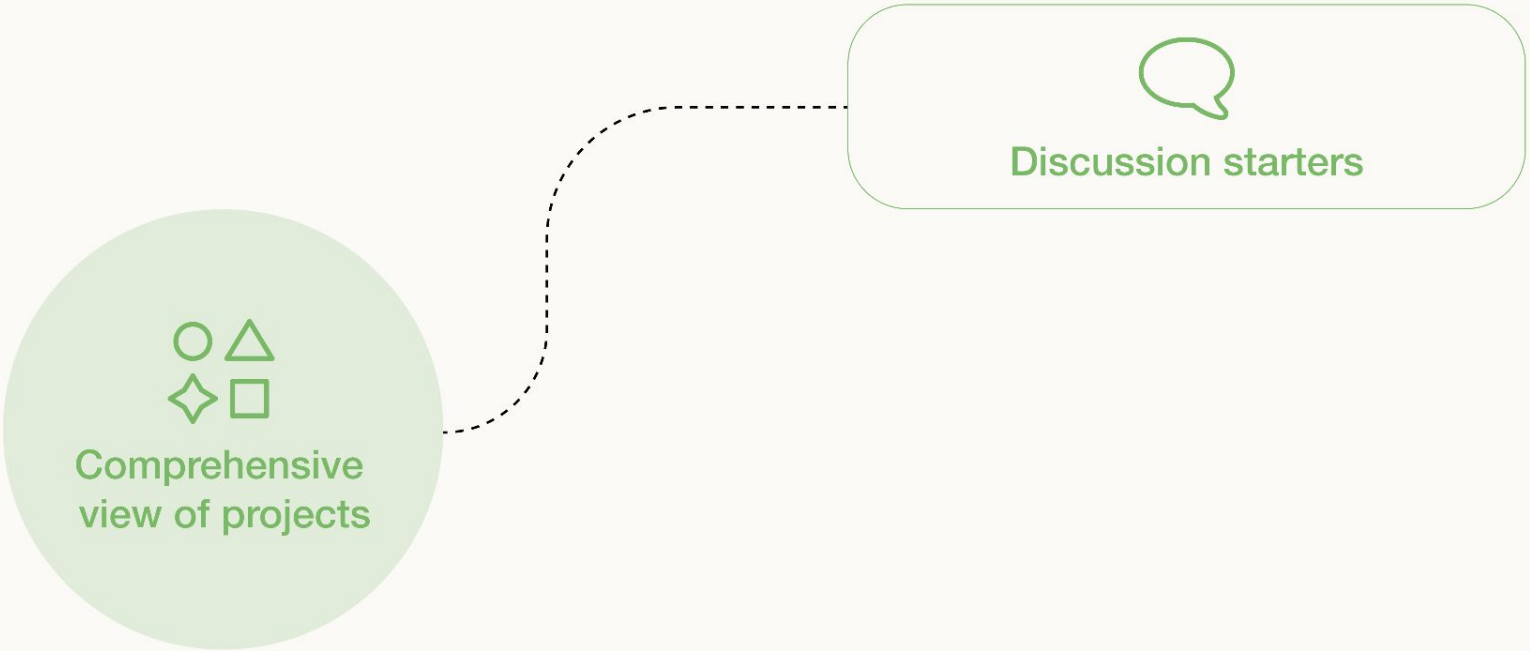
Opportunities



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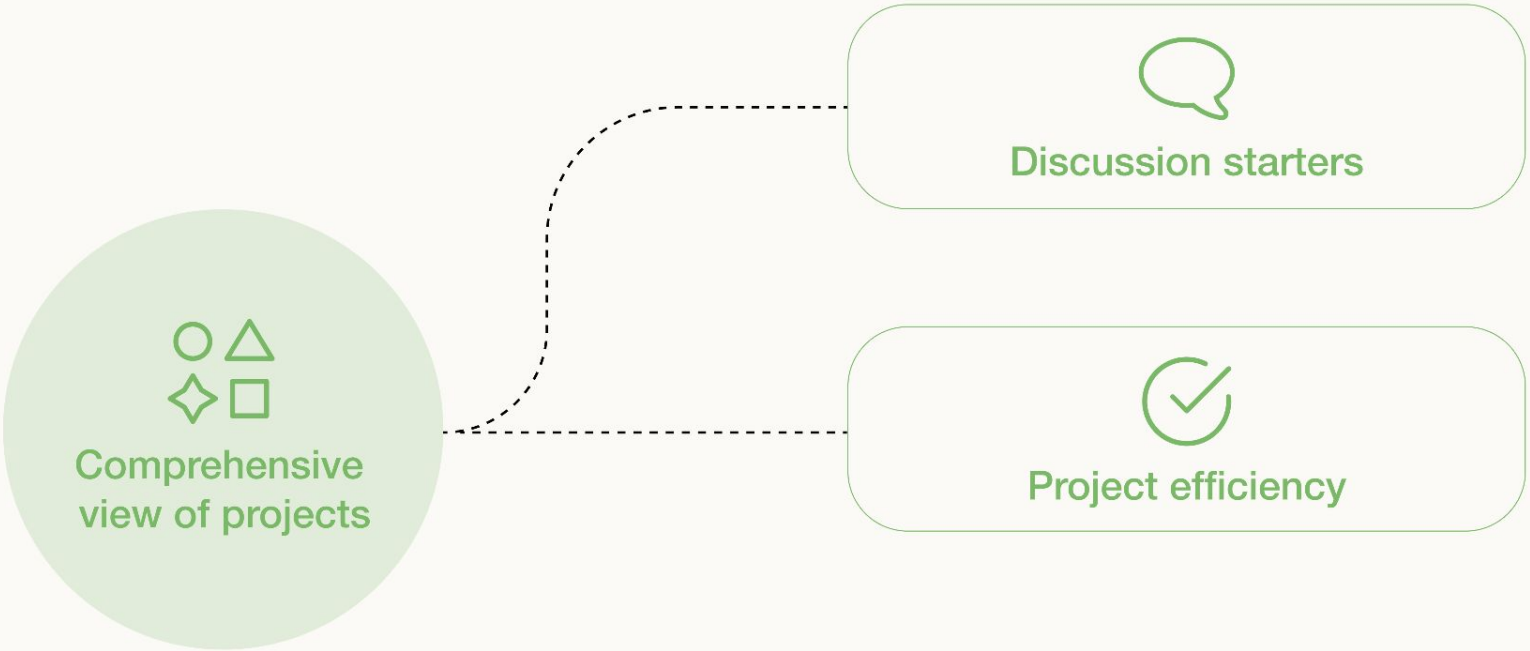
Opportunities



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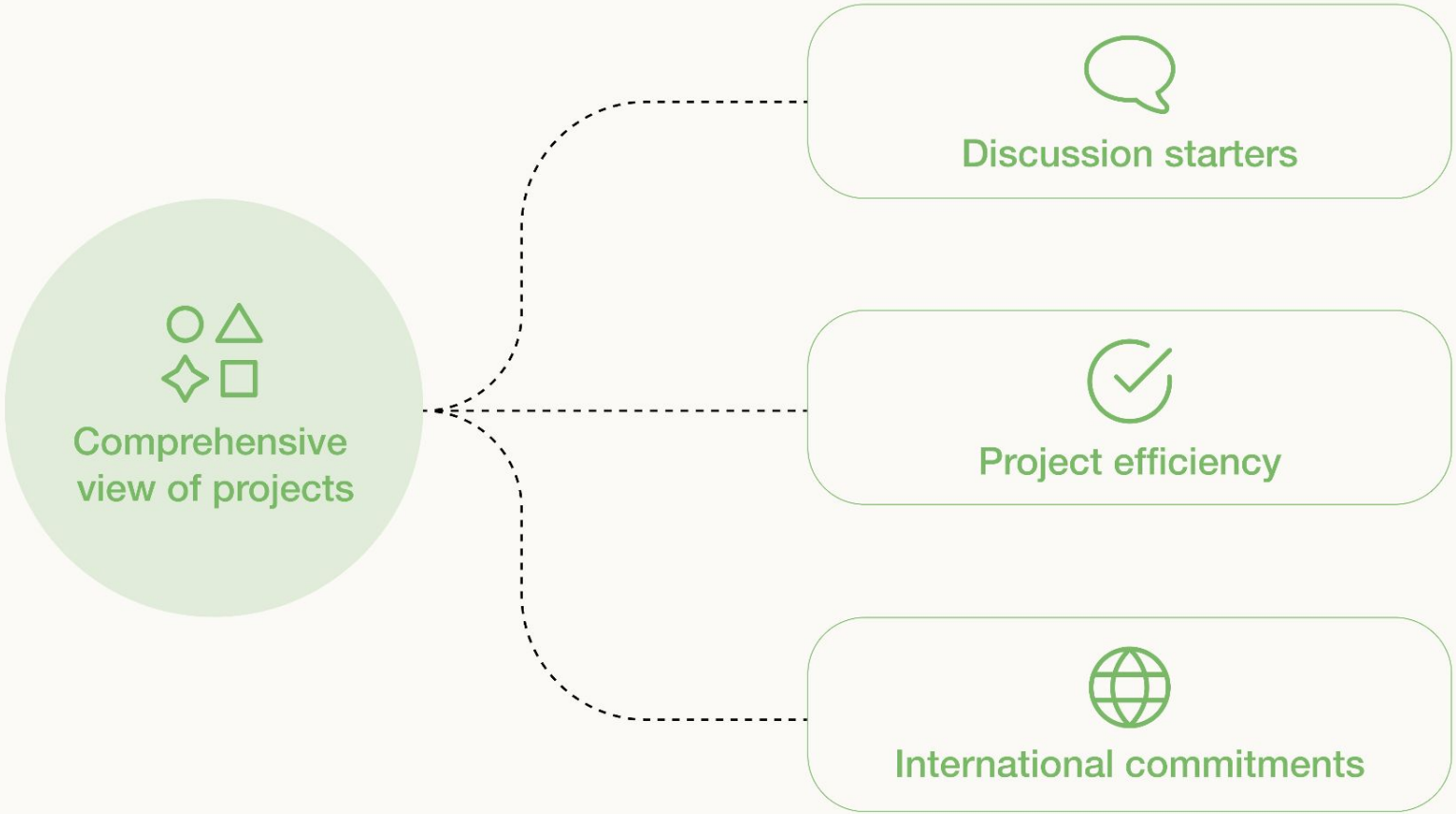
Opportunities



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Future opportunities

01

Set a new standard practice at the Ministry of the Environment

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Future opportunities

Set a new standard practice at the Ministry of the Environment

Achieve coherent and efficient biodiversity policy at the Ministry of the Environment

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Future opportunities

Set a new standard practice at the Ministry of the Environment

Achieve coherent and efficient biodiversity policy at the Ministry of the Environment

Share and implement the practice across all ministries

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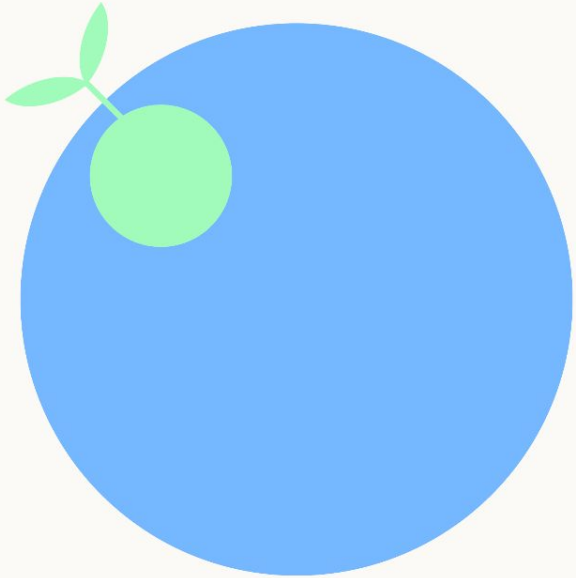
Biodiversity future



Finland meets its obligations to international commitments and sets a best practice for countries across the world

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Biodiversity future

Achieve biodiversity restoration through global cooperation

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Happy planet!

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