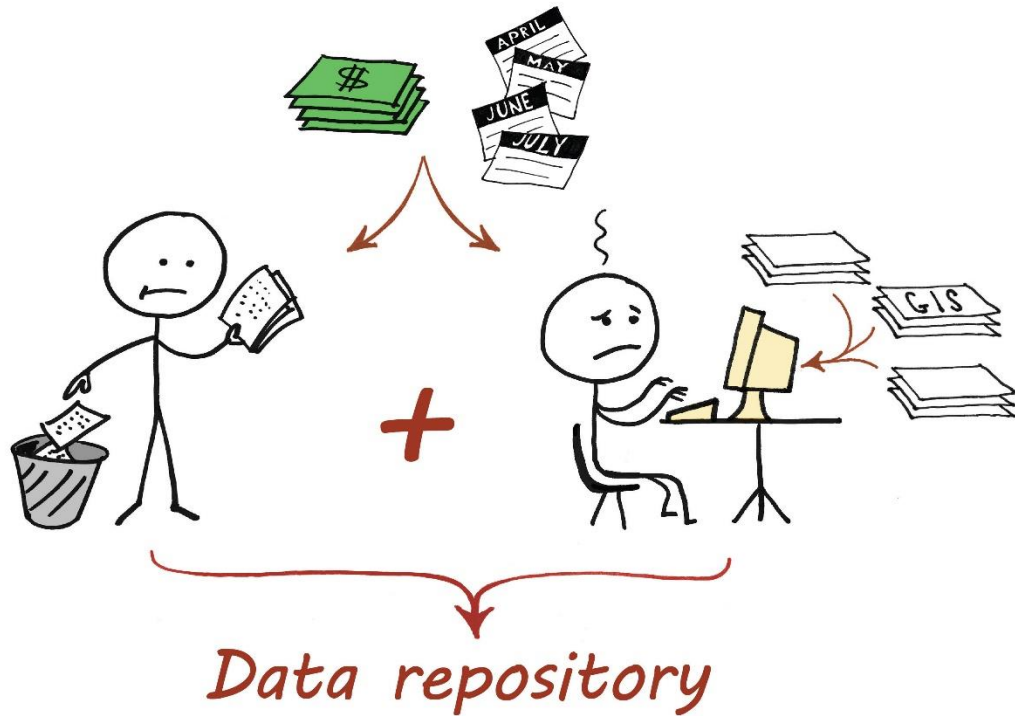


# ARIES for SEEA: Speeding the compilation of natural capital accounts for greater policy uptake

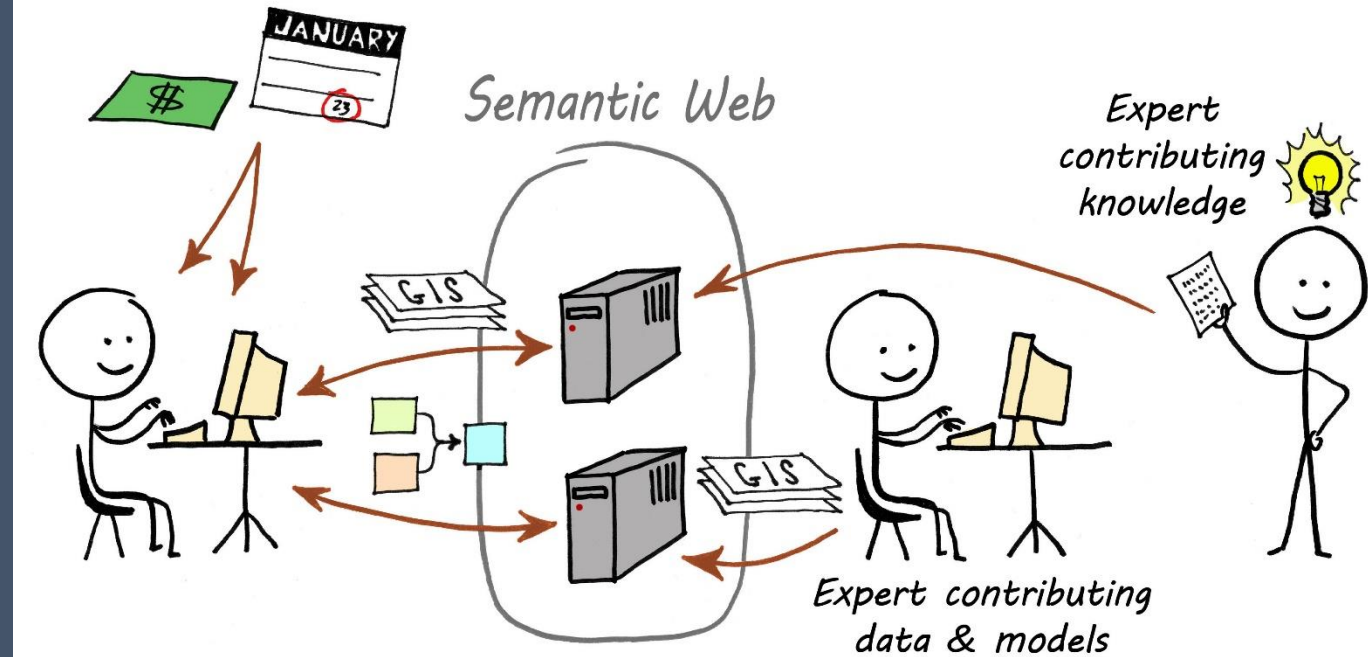
Ferdinando Villa, Ken Bagstad, Stefano Balbi, Alessio Bulckaen,  
Alessandra Alfieri, Bram Edens, William Speller

Fifth Policy Forum on Natural Capital for Better Decision Making  
September 2021

Does ecosystem accounting always need to be painstakingly slow?



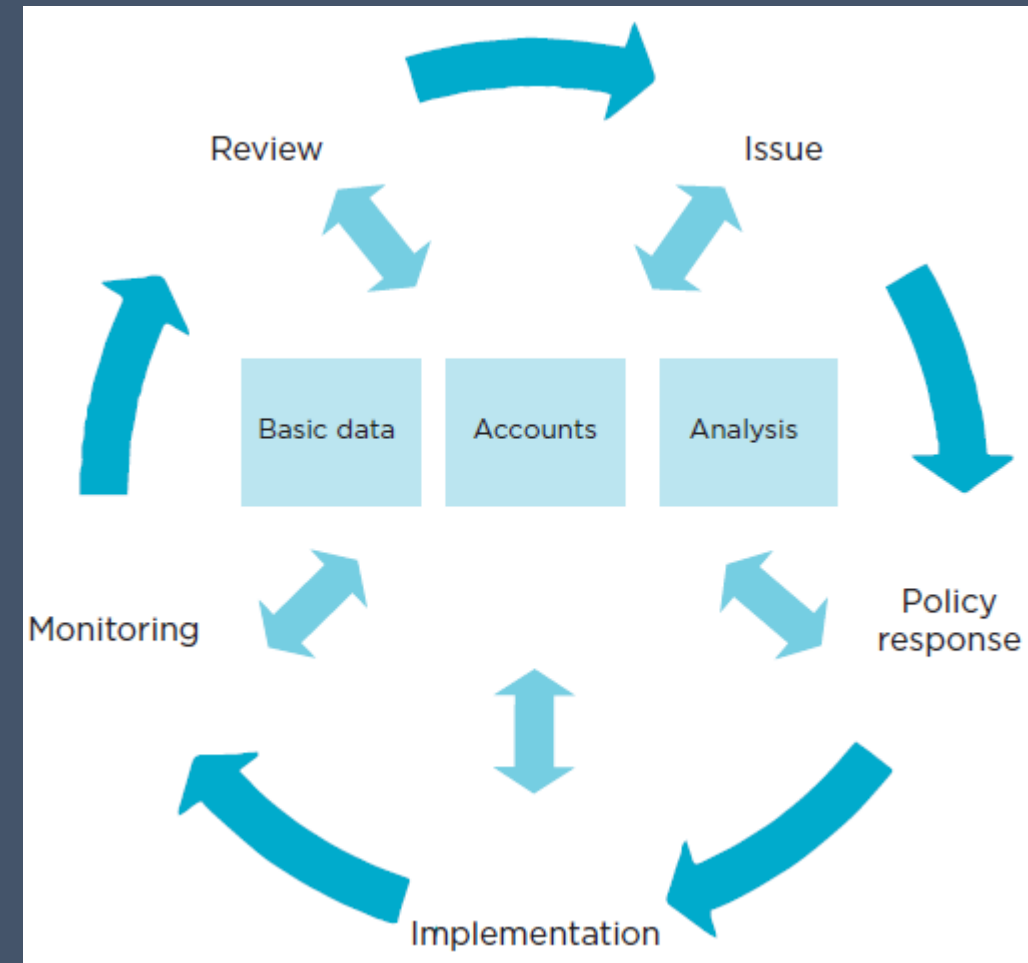
Status quo



Linked, web-based collaborative modeling

# Why speed & accessibility matter to policy

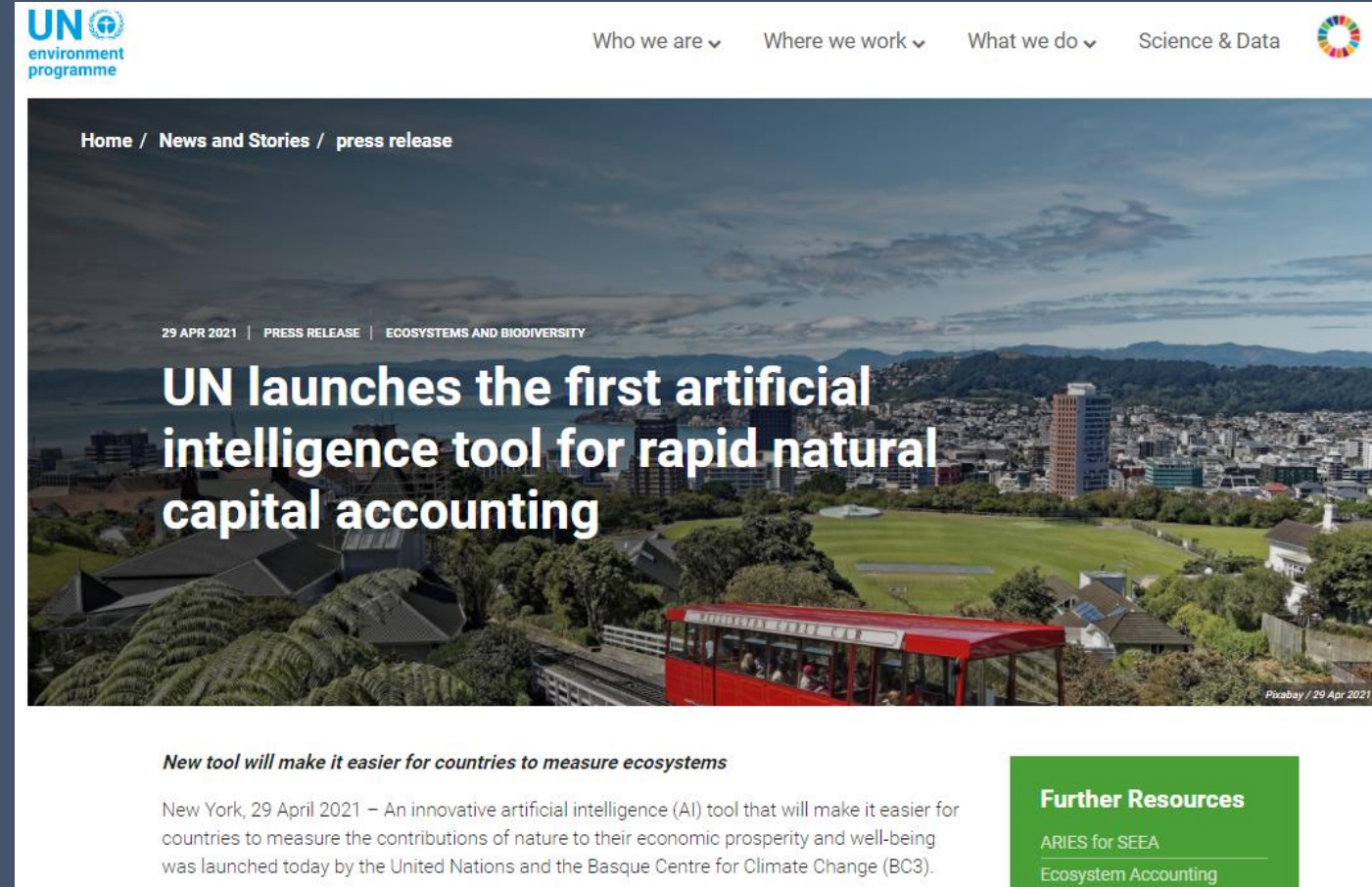
- SEEA accounts are time-consuming to compile, require specialized knowledge & capacity development esp. in Global South
- Accounts, when available, are partial; forward-looking scenarios are equally hard to develop so information gets left out of decisions
- Equity, access, speed can all be improved through use of AI

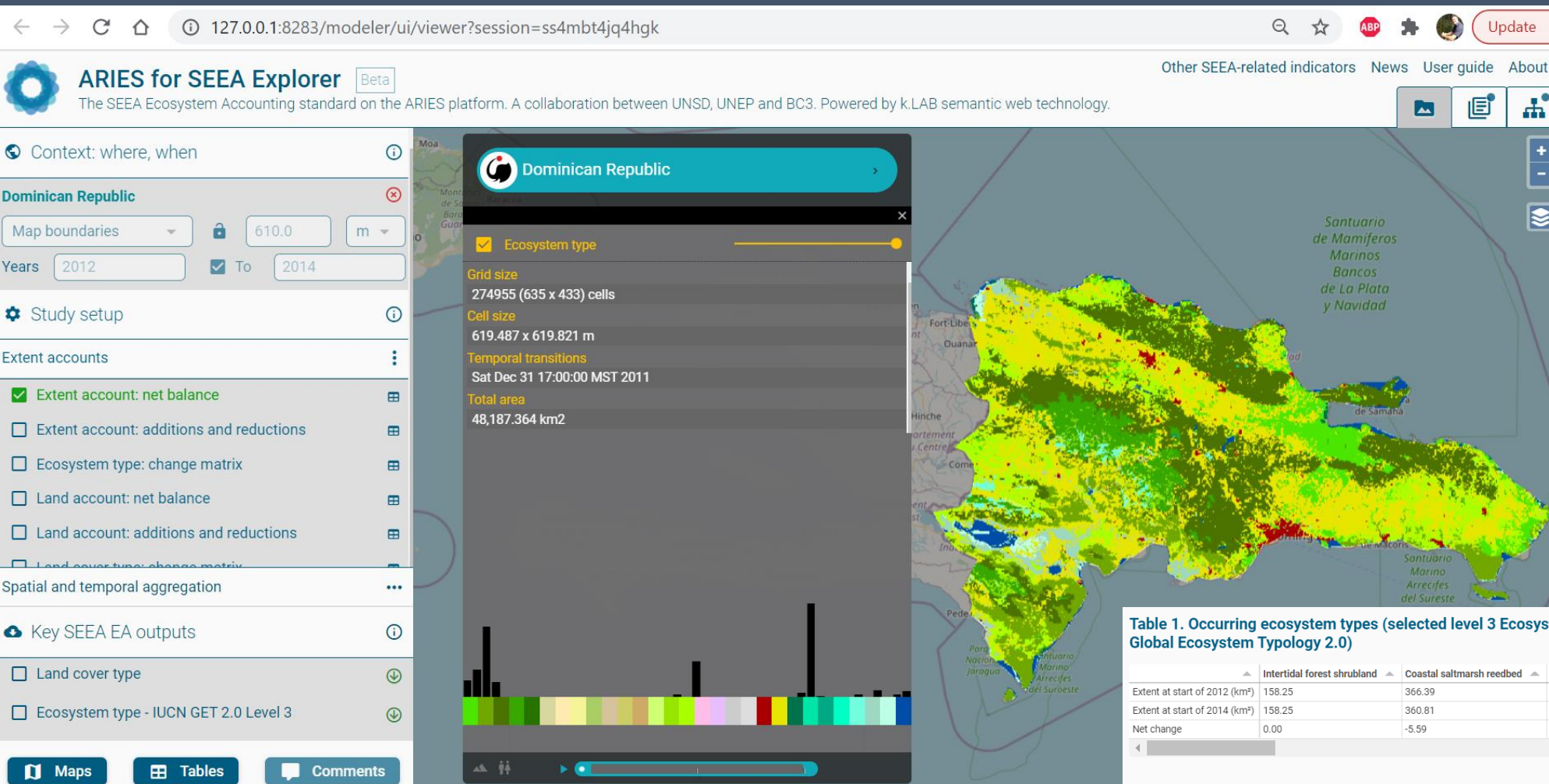




# ARIES for SEEA: Rapid, standardized, customizable environmental-economic accounting

- Global, customizable models approach enables SEEA EA compilation anywhere & improvement with local data where available
  - Fast & easy to learn
- Automate production of maps & tabular output
- Infrastructure for the community to share & reuse interoperable data & models





<https://seea.un.org/content/aries-for-seea>

[https://seea.un.org/sites/seea.un.org/files/how\\_to\\_access\\_the\\_aries\\_for\\_seea.pdf](https://seea.un.org/sites/seea.un.org/files/how_to_access_the_aries_for_seea.pdf)

Table 1. Occurring ecosystem types (selected level 3 Ecosystem Functional Groups of the IUCN Global Ecosystem Typology 2.0)

	Intertidal forest shrubland	Coastal saltmarsh reedbed	Cropland	Urban industrial ecosystem	Temperate
Extent at start of 2012 (km²)	158.25	366.39	16017.82	650.13	390.60
Extent at start of 2014 (km²)	158.25	360.81	15978.72	692.57	403.63
Net change	0.00	-5.59	-39.10	42.45	13.03

Table 2. Occurring ecosystem types (selected level 3 Ecosystem Functional Groups of the IUCN Global Ecosystem Typology 2.0)

		Intertidal forest shrubland	Coastal saltmarsh reedbed	Cropland	Urban
Opening extent (at start of 2012)		158.25	366.39	16017.82	650.13
	Additions to extent				
	Expansions	0.00	0.00	32.39	42.45
	Reductions in extent				
	Regressions	0.00	5.59	71.49	0.00
Net change in extent		0.00	-5.59	-39.10	42.45
Closing extent (at start of 2014)		158.25	360.81	15978.72	692.57

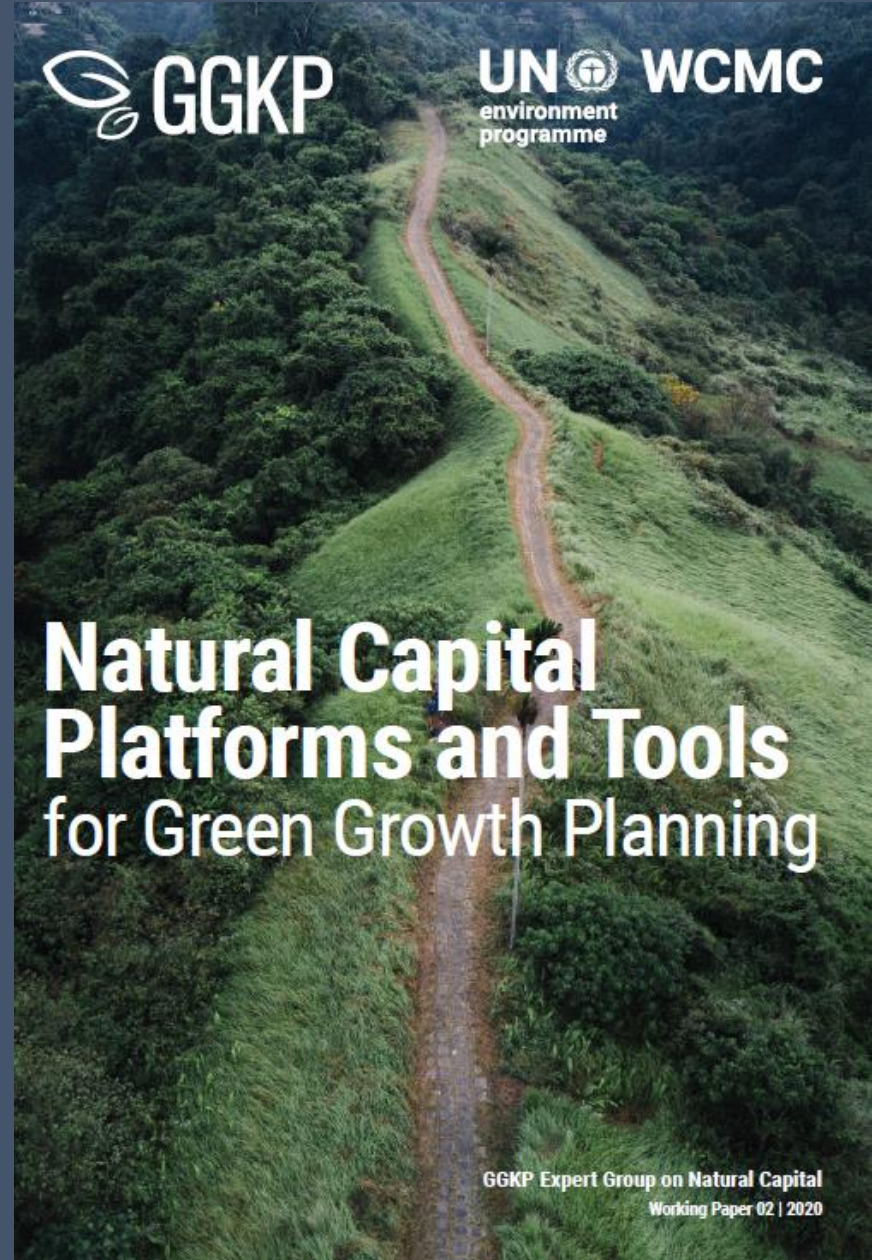


# A shared vision

SEEA accounts & related indicators will be:

1. rapidly recompilable as new science emerges,
2. quickly produced to show the most recent trends as new annual data become available, with
3. robust international comparisons possible from common global data, while country-specific customization is still easily done.

This vision moves high-quality, meaningful information from scientists into the hands of decision makers, the public, and the media as quickly as possible.

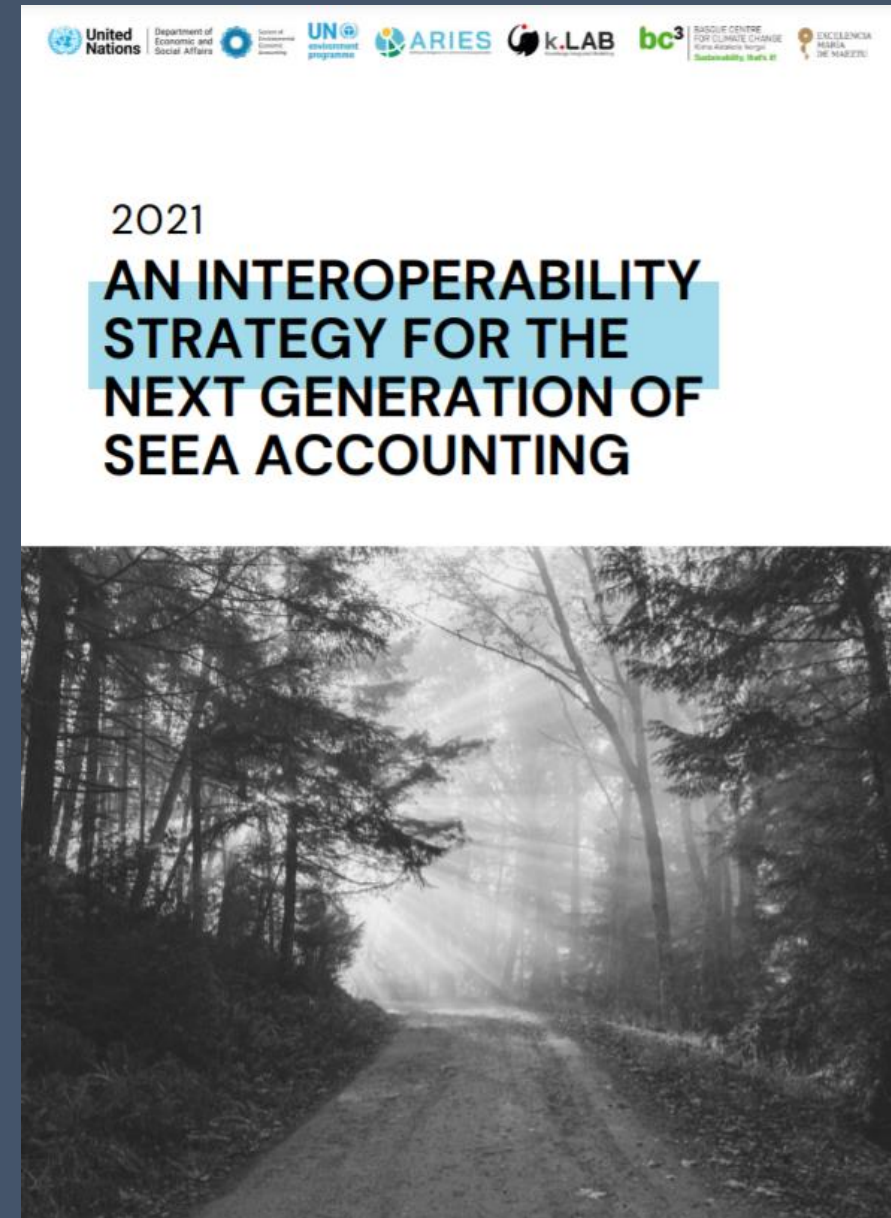


EARTH OBSERVATIONS FOR  
ECOSYSTEM ACCOUNTING

# SEEA interoperability strategy

1. Current state of interoperability & vision for the future
2. Roles & responsibilities (data providers, modelers, institutions incl. NSOs)
3. Implementing the strategy (pilot testing, engaging key stakeholders, governance, training/capacity building)
4. Conclusions

<https://aries.integratedmodelling.org/aries-releases-a-strategy-to-scale-up-knowledge-sharing-for-better-informed-policymaking/>





# Next steps

- Improved ease of uploading own data (i.e., customization)
- Additional ecosystem services & content in ecosystem extent/condition models; models for SDG/CBD indicators
- Continued country applications, outreach, & training aimed toward user-friendliness, equitable access, community endorsement

