ASSESSING SEAFOOD SUPPLY CHAINS: NEW PUBLIC-PRIVATE PARTNERSHIP TO SUPPORT COMPANIES IN ASSESSING IUU FISHING RISKS USING VESSEL DATA

The Supply Chain Risk Tool (SCRT) Project

May 2022

FRIENDS of OCEAN ACTION

FISH WISE

Global Fishing Watch

Stanford | Center for Ocean Solutions

WORLD ECONOMIC FORUM

Outline

Introduction
- Challenges of assessing risk of IUU fishing in supply chains
- Supply Chain Risk Tool project as a potential solution

Phase 1
- User research
- Pilot project

Conclusion
- Long-term vision
- Next steps

Seafood industry as stewards

2025 PLEDGE TOWARDS SUSTAINABLE TUNA

25PST

Transparency & Traceability

- Global Dialogue on Seafood Traceability (GDST)
- 100% Observer Coverage
- Electronic Monitoring (EM)
- Port State Measures Agreement (PSMA)
- Transshipment Regulations
- Public tracking of fishing vessels and carrier vessels
- Support publication of Authorised Vessel lists
- Support Unique Vessel Identification/Global Record of Fishing Vessels

Environmental Sustainability

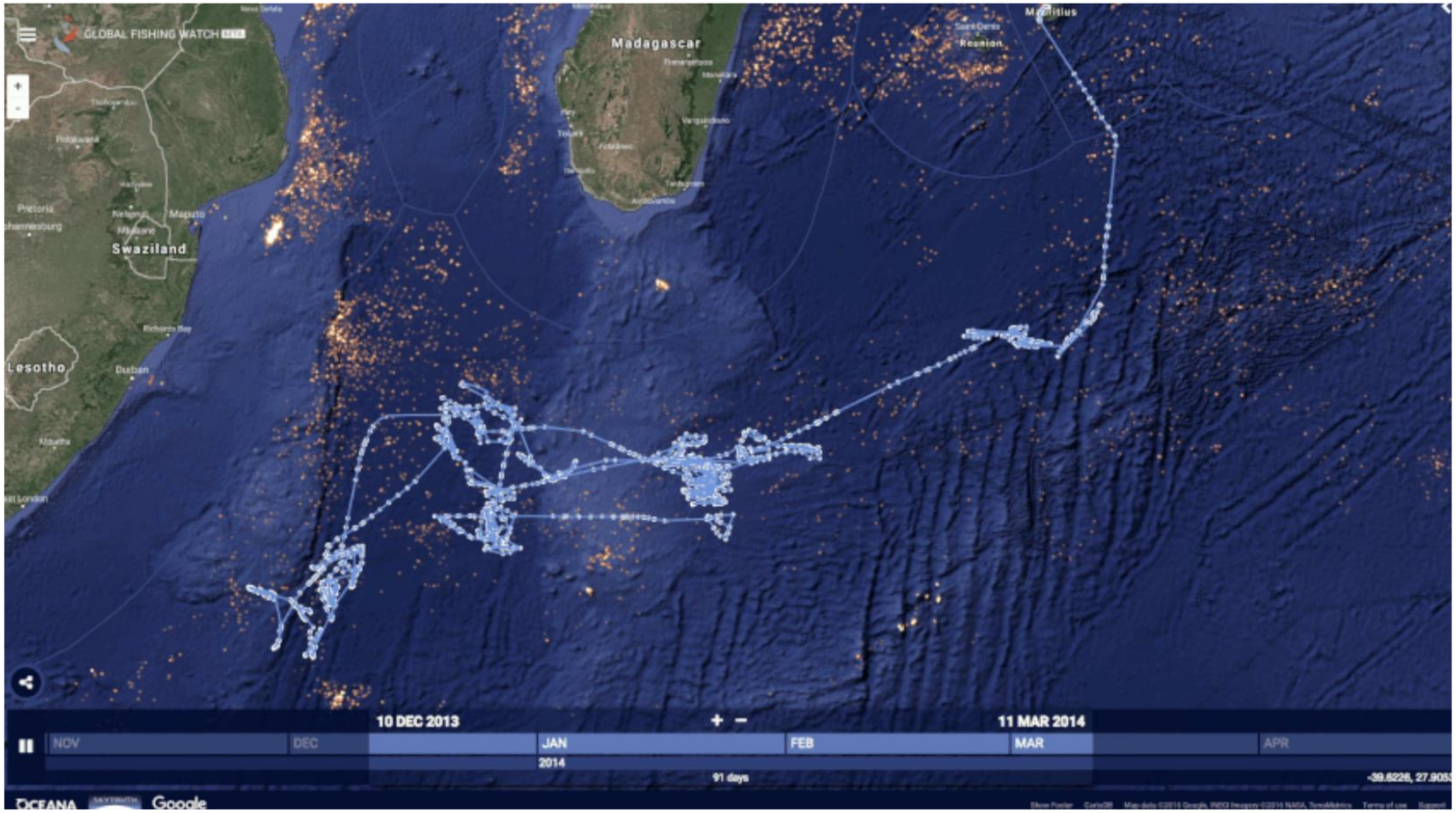
- Sourcing Policy
- Harvest Strategies
- FAD Management
- Fins Naturally Attached (FNA) advocacy and policies
- Ending Harmful Subsidies
- Biodiversity

Social Responsibility

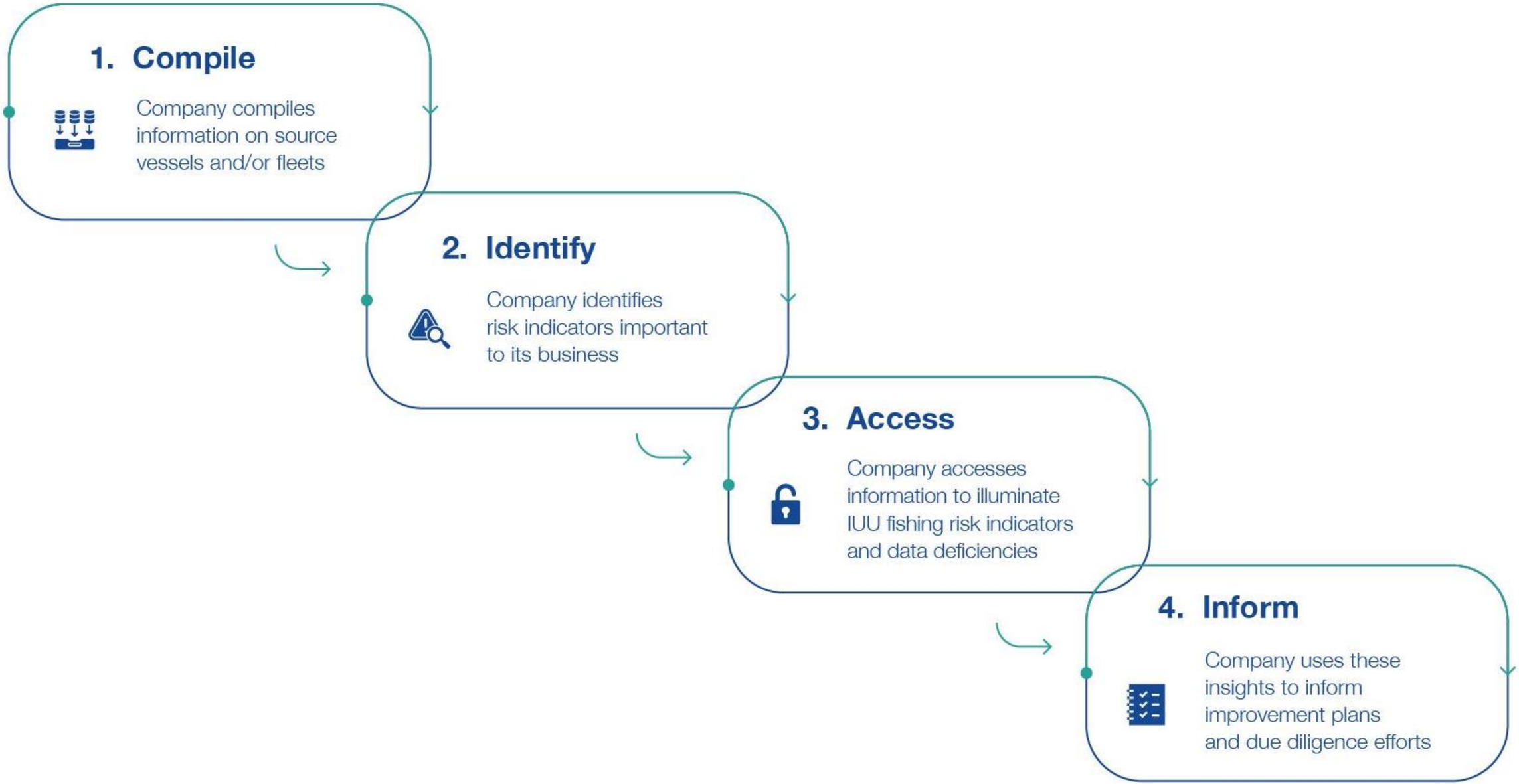
- Ensuring Socially Responsible Seafood Supply Chains
- ILO 188
- Cape Town Agreement
- Observer safety

Challenge: Multiple Databases

Challenge: Verification of activities at sea



Solution: A supply chain risk tool to assess IUU fishing



The SCRT Partners

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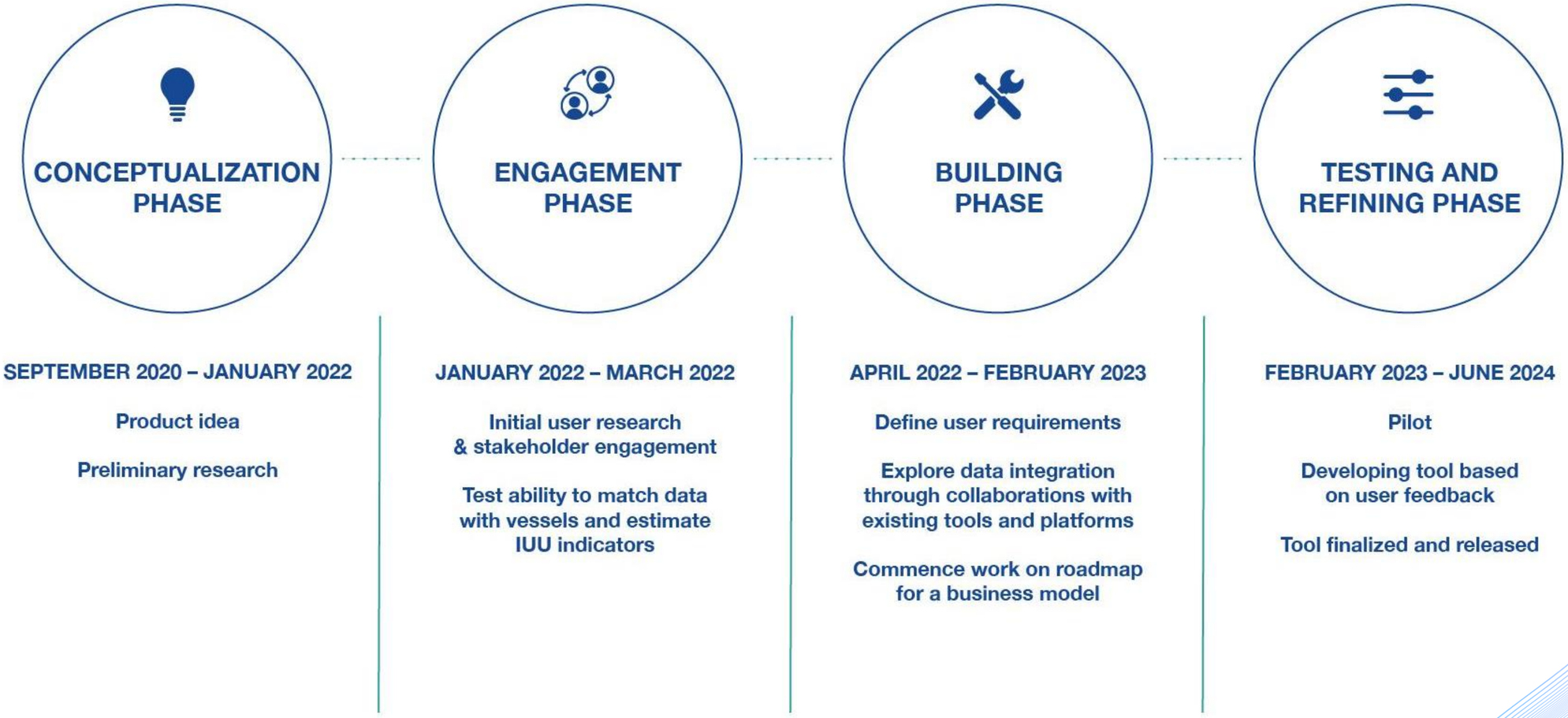
SCRT Project Development Roadmap

PHASE 1



PHASE 1:
USER RESEARCH

Phase 1: User research

Who did we talk to?

- Seafood companies (processors, exporters, importers, end-buyers)
- Third parties (NGOs, consultants)

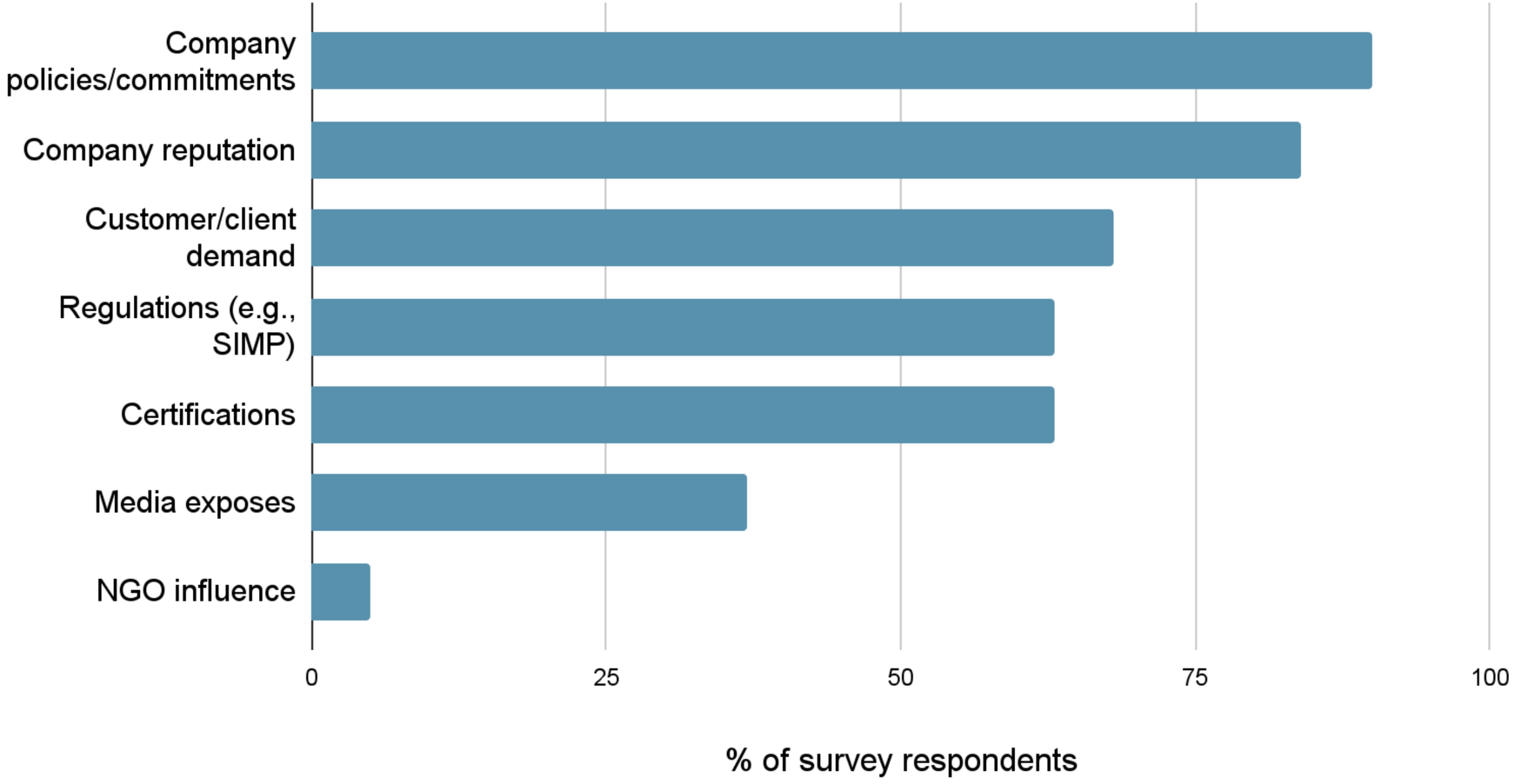
How did we reach out?

- Online survey
- Semi-structured interviews
- Expert community workshop

What did we ask?

- Current practices, resources, and challenges in assessing IUU fishing risks
- Feedback on risk indicators and due diligence strategies

Motivations to assess IUU fishing risk



Current processes

INFORMAL

- No clear definition of risk or methodology
- Supplier-level vs. fisheries-level risk
- Reactive and non-regular assessments

SEMI-FORMAL

- Varied scope of assessments
- Wide range of methodologies *and* outputs
- Mix of proactive and reactive

FORMAL

- Often outsourced to trusted advisor or 3rd party provider
- Replicable and (relatively) standardized
- Proactive and assessed regularly

Barriers to risk assessments

- Lack of available information to assess IUU fishing risks
- Company capacity (time, money, staff)
- Lack of product data
- Trust in supply chain data
- Cost

HOW WILL THE SCRT HELP COMPANIES?

Support regulatory compliance by verifying vessel activity at-sea

Streamline and bring consistency to companies' existing IUU fishing risk assessments

Mitigate reputational risk, especially in accordance with companies' sustainability policies and commitments

Allow companies to prioritize supply chains in need of attention and risk mitigation in near-real-time

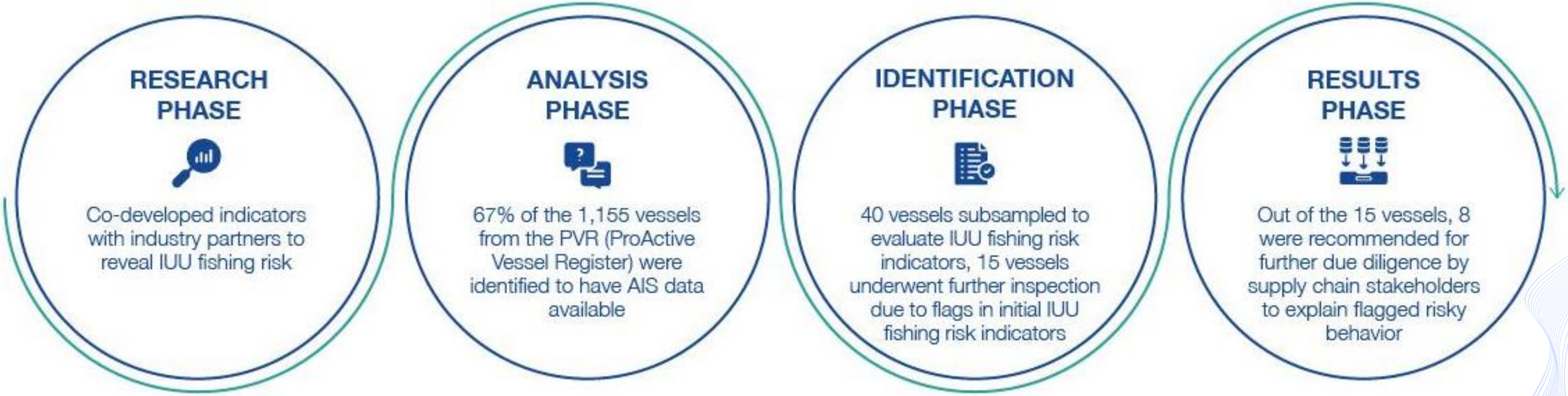
PHASE 1:
PILOT PROJECT

The ISSF PVR pilot project
Showing the data in action

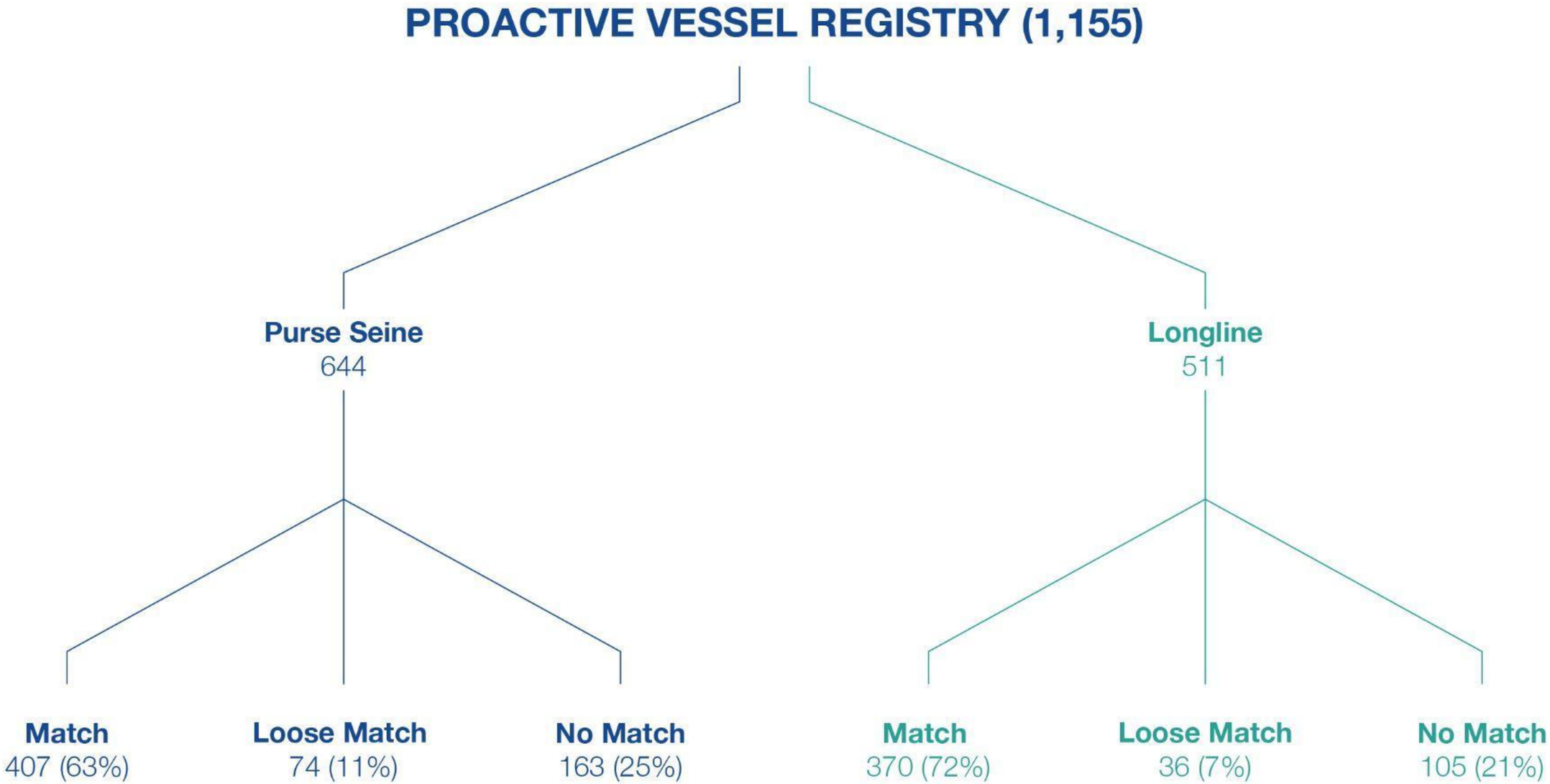
Apply Global Fishing Watch data and methods to the ISSF Proactive Vessel Registry

- Objective: Test data coverage and the potential utility of the SCRT
- Questions:
    - For all vessels: How many PVR vessels could be matched to AIS?
    - For subsample of 40 vessels: Can we assess PVR vessels against the draft set of risk indicators?

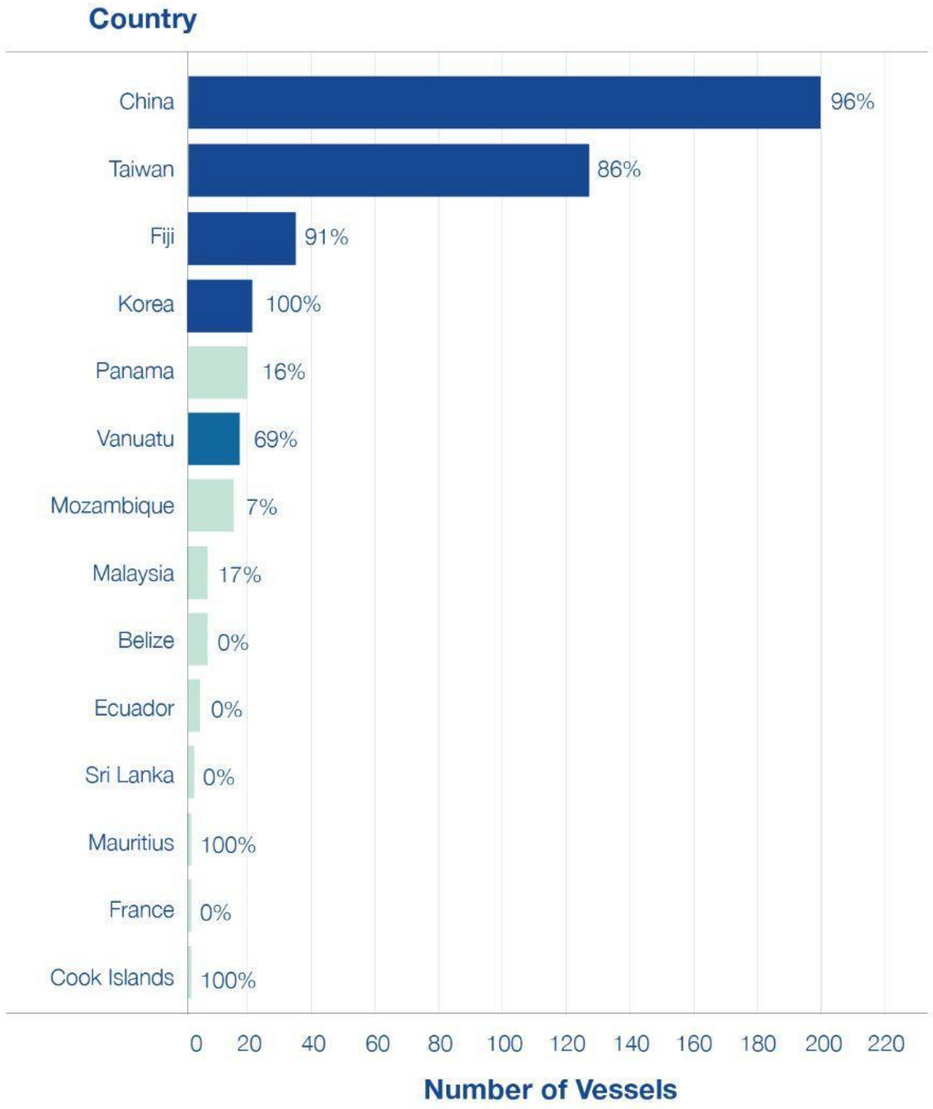
ISSF pilot project roadmap



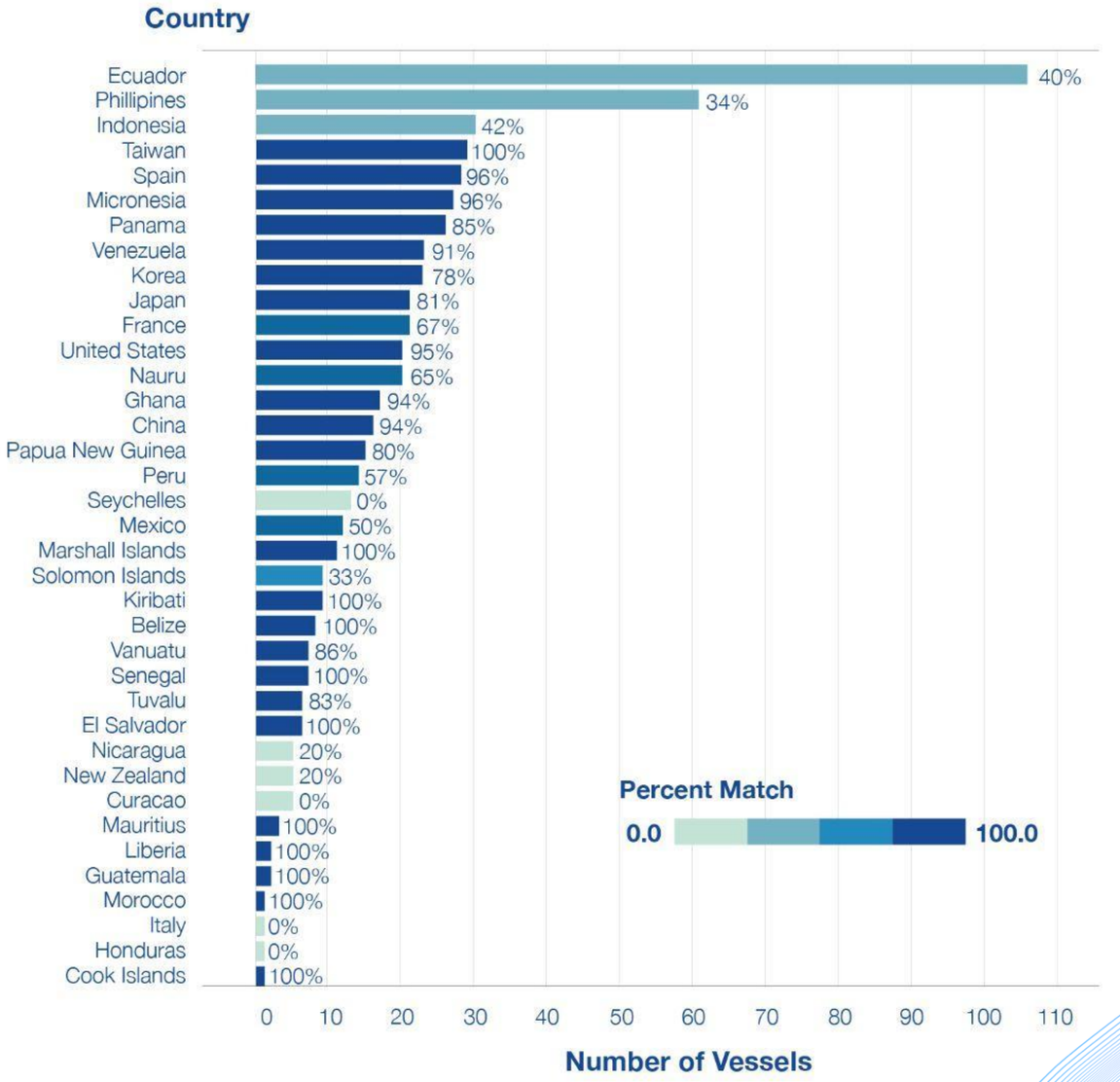
How many PVR vessels could be matched to AIS?



MATCHED LONG LINE VESSELS



MATCHED PURSE SEINES VESSELS



Evaluating a draft set of IUU fishing risk indicators

- Vessel Participation in the PVR
- IUU-listed vessel
- Vessel flag changes in last 5 years
- Vessel name changes in last 5 years
- Flag with open registries
- Most recent flag carded by EU
- Most recent flag identified as of IUU fishing concern by U.S.
- Number of AIS gap events
- Identifying events in RFMOs and authorization status
- Identifying events in no-take MPAs
- Number of encounters (transshipment)
- Days at sea before going to port/anchorage

Purse seine vessels

VESSEL	FLAG	Fishing in no-take MPA	Flag in Open Registries	EU Carded	US Flag of Concern	Total Trip Count (#)	Average Trip Length (days)	Fishing Events (hours)	EEZ Fishing Events (hours)	RFMO Fishing Event (hours)	Unauthorized Fishing Event (hours)	Gap Events (#)	Vessel Encounters (#)
PS 1	ECU	None	No	Yes	No	10	20.84	1,015	276	734			
PS 2	ESP	None	No	No	No	1	8.89	5	5			1	
PS 3	SLV	None	No	No	No	47	27.44	2,880	2,557	309		83	
PS 4	PNG	None	No	No	No	6	19.62	27	27			1	
PS 5	KOR	MPA Fishing	No	No	No	32	20.87	1,679	1,547	129	129.2	16	
	SEN	None	No	No	Yes	39	21.10	4,730	4,237	409	45.2	3	
PS 6	ECU	None	No	Yes	No	17	23.27	1,393	656	729		2	
PS 7	CIV	None	No	No	No	10	25.43	55	52	3	3.5	2	
	SEN	None	No	No	Yes	26	18.98	2,262	2,163	78		1	
PS 8	IDN	None	No	No	No								
PS 9	PHL	None	No	No	No	11	49.38	1,052	1,051			1	
PS 10	CHN	None	No	No	Yes	47	28.00	2,451	2,445	1		147	4
PS 11	GHA	None	No	No	No	45	31.23	8,703	2,758	5,868		2	
PS 12	JPN	None	No	No	No	35	38.01	7,143	7,046	20		8	
PS 13	CHN	None	No	No	No	46	30.57	9,084	8,919	29		5	
PS 14	ESP	None	Yes	No	No	9	48.96	166	28	138		2	
PS 15	FRA	None	No	No	No	19	22.69	252	95	157		34	
PS 16	FSM	None	No	No	No	45	26.53	4,805	4,749	25		27	
PS 17	TWN	None	No	No	Yes	29	27.23	2,538	2,530			92	
PS 18	ECU	None	No	Yes	No	2	32.30	3	3			11	
PS 19	NRU	None	No	No	No	17	34.45	3,676	3,042	603		6	14
	PNG	None	No	No	No	24	28.93	4,932	4,895	2			
PS 20	PAN	None	Yes	Yes	No								
						0 20 40	0 20 40	0K 4K 8K	10 100 1,000	0K 2K 4K 6K	0 50 100	50 100 150	0 5 10 15

Longline vessels

VESSEL	FLAG	Fishing in no-take MPA	Flag in Open Registries	EU Carded	US Flag of Concern	Total Trip Count (#)	Average Trip Length (days)	Fishing Events (hours)	EEZ Fishing Events (hours)	RFMO Fishing Event (hours)	Unauthorized Fishing Event (hours)	Gap Events (#)	Vessel Encounters (#)
LL 1	CHN	None	No	No	Yes	43	32.4	17,610	14,549	2,961		15	
		None	No	No		4	30.1	1,357	1,357			1	
LL 2	CHN	None	No	No	Yes	12	51.4	6,167	6,014	126			
LL 3	CHN	None	No	No	Yes	6	86.8	3,077	3,050	22		3	
LL 4	CHN	None	No	No	Yes	19	73.4	11,388	4,502	6,654		25	
LL 5	CHN	None	No	No	Yes	3	166.1	11,188	234	10,722	6	2	9
LL 6	FJI	None	No	No	No	21	34.1	9,138	6,381	2,692			
LL 7	FJI	None	No	No	No	24	59.3	2,732	2,420	213		3	
LL 8	TWN	None	No	No	Yes	11	114.4	6,037	29	5,811	2,524	53	
LL 9	TWN	None	No	No	Yes	16	61.8	5,008	801	4,190		9	
LL 10	TWN	None	No	No	Yes	14	73.0	10,015	2,406	7,537		1	
LL 11	TWN	None	No	No	Yes	13	73.8	7,541	5,734	1,743		21	
LL 12	TWN	None	No	No	Yes	10	40.7	5,041	1,337	3,702	15		
LL 13	KOR	None	No	No	No	1		22,657	1,874	20,354		2	9
LL 14	VUT	None	Yes	No	No	7	148.8	13,437	144	13,161	162	14	12
LL 15	FJI	None	No	No	No	18	84.2	10,171	6,493	3,455		14	
LL 16	FJI	None	No	No	No	8	110.1	870	439	417		3	
LL 17	CHN	None	No	No	Yes	19	76.5	16,830	16,013	389		2	
LL 18	CHN	None	No	No	Yes	46	33.6	19,256	17,255	1,826		24	
						3	44.9	1,586	1,531	55			
LL 19	CHN	None	No	No	Yes	8	75.4	7,594	4,988	2,537		21	1
LL 20	CHN	None	No	No	Yes	93	14.4	14,718	14,430	4		2	
						20 40 60 80	0 50 100 150	0K 10K 20K	10 100 1,000 10,000	0K 10K 20K	0K 1K 2K	0 20 40	0 5 10

Caveats

- Not all vessels are required to have AIS
- The ability to match a vessel to AIS does not mean AIS data quality is good enough to evaluate indicators
- Indicators do not confirm ***presence*** of risk, rather the ***likelihood*** and need for verification with suppliers
- Thresholds to evaluate risk were used for the purposes of the pilot but these will need further revision
- Global Fishing Watch also has VMS data for some countries but this was not included in this analysis

ISSF pilot takeaways

1. AIS coverage sufficient enough to provide insights into PVR vessels using GFW data
2. Information gaps are also a potential risk area
3. Some indicators require interpretation by the user (e.g. transhipment)
4. Thresholds and indicators will be refined with stakeholders
5. There are valid reasons why a vessel could not be matched but it is worth investigating to understand why

Assessing Seafood Supply Chains: New Public-Private Partnership Will Support Companies in Assessing IUU Fishing Risks Using Vessel Data

Phase 1

April 2022

Full report

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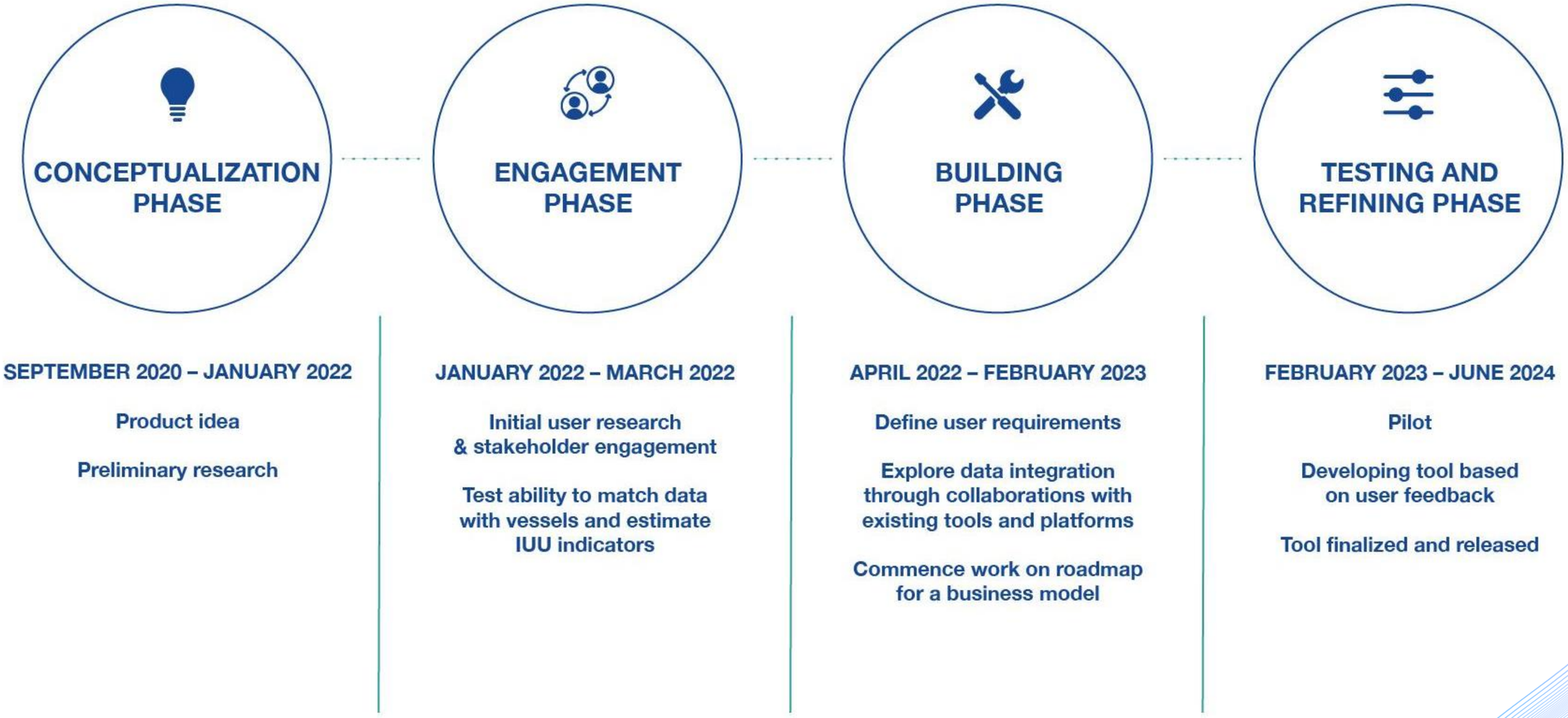
SCRT Project Development Roadmap

We are here



GET INVOLVED

- Participate in upcoming user research by sharing supply chain data
- Read the report and share feedback (on indicators and interpretation)
- Reach out for conversations to learn more

scrt@weforum.org

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