CREATING SHARED VALUE

How sustainability standards can learn from interoperability in the metals, minerals and mining sectors
Contents

Abbreviations 03
Acknowledgements 04
Executive summary 05
Introduction 07
Differences across sectors 07
SDGs and standards 07
Interoperability 08
What do we mean by interoperability? 08
Why aim for interoperability? 08
Identifying drivers for standards uptake 08
Figure 1: Key drivers for standards uptake 09
Interoperability: How it works 09
Figure 2: Framework of interoperability 10
Types of interoperability 11
- Joint working groups 11
- Joint processes 12
- Plug and play 12
- Recognition 13
- Shared processes 13
- Harmonisation 14
Overarching challenges and lessons learned 16
Other considerations for interoperability 17
Finding common ground: Using a theory of change (ToC) approach 18
- The theory of change for self-reflection 19
- Theory of change – a speed dating approach? 19
- Map your ToC using a generalised framework for the sector 19
- Figure 3: Generalised ToC framework for interoperability 20
Conclusions and recommendations 21
## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
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<tbody>
<tr>
<td>ARM</td>
<td>Alliance for Responsible Mining</td>
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<tr>
<td>ASI</td>
<td>Accreditation Services International</td>
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<tr>
<td>ASM</td>
<td>artisanal and small-scale mining</td>
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<tr>
<td>BC</td>
<td>Bettercoal</td>
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<tr>
<td>BGI</td>
<td>Better Gold Initiative</td>
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<tr>
<td>CCCMC</td>
<td>China Chamber of Commerce of Metals, Minerals, and Chemical Importers and Exporters</td>
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<tr>
<td>CCI</td>
<td>common core indicators (from ISEAL)</td>
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<td>CRAFT</td>
<td>Code of Risk-mitigation for ASM engaging in Formal Trade Code of Conduct (ARM)</td>
</tr>
<tr>
<td>CRC</td>
<td>Carey Research and Consulting</td>
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<tr>
<td>CSC</td>
<td>Concrete Sustainability Council of the WBCSD</td>
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<td>CSO</td>
<td>civil society organisation</td>
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<tr>
<td>CSRM</td>
<td>Centre for Social Responsibility in Mining (University of Queensland)</td>
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<tr>
<td>DIPI</td>
<td>Demonstrating and Improving Poverty Impacts (ISEAL)</td>
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<tr>
<td>EO</td>
<td>Equitable Origin</td>
</tr>
<tr>
<td>FI</td>
<td>financial institution</td>
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<tr>
<td>FPIC</td>
<td>free, prior and informed consent</td>
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<tr>
<td>FSC</td>
<td>Forest Stewardship Council</td>
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<tr>
<td>GIZ</td>
<td>Deutsche Gesellschaft für Internationale Zusammenarbeit</td>
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<tr>
<td>HCV</td>
<td>high conservation value</td>
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<tr>
<td>ICMM</td>
<td>International Council on Mining and Metals</td>
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<tr>
<td>IFC</td>
<td>International Finance Corporation</td>
</tr>
<tr>
<td>IISD</td>
<td>International Institute for Sustainable Development</td>
</tr>
<tr>
<td>IRMA</td>
<td>Initiative for Responsible Mining Assurance</td>
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<tr>
<td>ISEAL</td>
<td>International Social and Environmental Accreditation and Labelling Alliance</td>
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<tr>
<td>IUCN</td>
<td>International Union for the Conservation of Nature</td>
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<tr>
<td>LBMA</td>
<td>London Bullion Market Association</td>
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<tr>
<td>MAC</td>
<td>Mining Association of Canada</td>
</tr>
<tr>
<td>M&amp;E</td>
<td>monitoring and evaluation</td>
</tr>
<tr>
<td>MMM</td>
<td>metals, minerals and mining</td>
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<tr>
<td>MoU</td>
<td>memorandum of understanding</td>
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<tr>
<td>NGO</td>
<td>non-governmental organisation</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Cooperation and Development</td>
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<tr>
<td>OECD-D</td>
<td>OECD - Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas</td>
</tr>
<tr>
<td>PEFC</td>
<td>Programme for the Endorsement of Forest Certification</td>
</tr>
<tr>
<td>RA</td>
<td>Rainforest Alliance</td>
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<tr>
<td>RBA</td>
<td>Responsible Business Alliance (formerly Electronic Industry Citizenship Coalition)</td>
</tr>
<tr>
<td>RJC</td>
<td>Responsible Jewellery Council</td>
</tr>
<tr>
<td>RMI</td>
<td>Responsible Minerals Initiative (formerly Conflict-Free Sourcing Initiative) from RBA</td>
</tr>
<tr>
<td>RS</td>
<td>ResponsibleSteel™</td>
</tr>
<tr>
<td>SMAP</td>
<td>Sustainable Mining Action Plan (CCCMC and GIZ)</td>
</tr>
<tr>
<td>SDGs</td>
<td>United Nations Sustainable Development Goals</td>
</tr>
<tr>
<td>SSI</td>
<td>State of Sustainability Initiatives (IISD)</td>
</tr>
<tr>
<td>ToC</td>
<td>theory of change</td>
</tr>
<tr>
<td>TSM</td>
<td>Towards Sustainable Mining® (from MAC)</td>
</tr>
<tr>
<td>WBCSD</td>
<td>World Business Council for Sustainable Development</td>
</tr>
</tbody>
</table>
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Lastly, we would like to thank all of the organisations that participated in interviews as part of this project, namely: Alliance for Responsible Mining (ARM), Aluminium Stewardship Initiative, Bettercoal (BC), Better Cotton Initiative (BCI), Concrete Sustainability Council (CSC) of the World Business Council for Sustainable Development (WBCSD), FairMagnet, Fairtrade International, International Finance Corporation (IFC), Initiative for Responsible Mining Assurance (IRMA), International Council on Mining and Metals (ICMM), International Union for the Conservation of Nature (IUCN) Global Business and Biodiversity Programme, London Bullion Market Association (LBMA), Mining Association of Canada: Towards Sustainable Mining® (MAC TSM), Organisation for Economic Cooperation and Development (OECD) Due Diligence Guidance, Programme for the Endorsement of Forest Certification (PEFC), Responsible Minerals Initiative ((RMI), the former Conflict-Free Smelter Program) from Responsible Business Alliance (RBA) (formerly Electronic Industry Citizenship Coalition (EICC)), Responsible Jewellery Council (RJC), ResponsibleSteel™ (RS), UTZ Rainforest Alliance (RA), and Xertifix.
Executive summary

This report offers lessons learned on how interoperability of sustainability standards in the metals, minerals and metals (MMM) sectors can help standards systems in other sectors. In particular, it explores how MMM, forestry and agriculture standards can enhance collaboration and improve sustainability impacts through interoperability.

BACKGROUND ON MMM SUSTAINABILITY STANDARDS

The metals, mineral and mining (MMM) sectors are a highly diverse collection of industries with different supply and demand dynamics, operating in a world of finite resources and increasing complexity.

As a response, a comprehensive range of MMM sustainability standards have emerged. Within this, the key concept of ‘interoperability’ is already being widely discussed across MMM standards and their stakeholders as an essential part of driving impact – indeed, many MMM standards organisations are leaders in interoperability, with others moving from opportunistic interoperability to integrating it into their strategic plans and operations.

As standards find themselves overlapping in their operations with regard to geographical areas, sectors and supply chains, the calls from their stakeholders to consider working together, recognising one another, or even harmonising their standards and schemes, have increased.

The report is the result of research carried out by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the ISEAL Alliance. A literature review, interviews and surveys were conducted with a range of people working with MMM sustainability initiatives, with findings added to the outputs from four face-to-face Theory of Change (ToC) workshops, to form the findings and recommendations. The research also integrates cross-sector learning from more established agricultural and forestry standards.

WHAT IS INTEROPERABILITY?

Interoperability is defined as the degree to which diverse systems, organisations and individuals are able to work together to achieve a common goal. Drivers to increase interoperability include responding to market demand, seeking efficiencies for end users, and cost savings for the scheme. Interoperability presents opportunities to engage with both upstream and downstream actors as well as governments and other interested stakeholders.

In addition, we explore a detailed Theory of Change model to help standards identify opportunities for interoperability. Findings indicate that:

- Developing a ToC is a way for individual organisations to examine their own strategy and determine where interoperability would help achieve their end goals.
- Individual organisational ToCs (or strategic plans) can be shared as an easy way to ‘get to know one another’. The idea of using a ToC as a way of speed dating could be a quick win.
- ToCs can be mapped within a generalised sector framework to help show areas of overlap and complementarity or gaps to be relevant for existing standards.

The research revealed several learnings and recommendations:

- Start with areas that are broadly relevant, but not too contentious across stakeholders.
- Having clear formalised objectives and expectations is important. Clarity and agreement on what can be adapted and changed, acknowledgement and communication is critical.
Timing is everything. The most significant steps and most effective time to embed interoperability is in the initial stages of a standard development or during revisions. Joint activities or information sharing can be a first step in a recognition process to build trust and understanding of each other’s systems. Understanding what is happening at the field level is key. Finding complementary positions in the supply chain offers good opportunities to work together, rather than compete. Interoperability takes time and resources.

**Recommendations:**
The first step towards interoperability is to have a clear idea of the objectives and strategies of the different standards. The next step is to get senior-level, organisational and stakeholder buy-in. With a clear value proposition, this will be easier (but perhaps not easy). The overwhelming advice is to start small, build trust and be creative.

Interoperability should be considered strategically in the development of or revision of standards, new tools and approaches.

It is also important to find common ground in a non-competitive space to add value. There is strong interest in having a space for sharing and learning across initiatives. There is also interest from the MMM sector for collaboration with other sectors, such as agriculture and forestry, on topics that are relevant (e.g. free, prior and informed consent).

Finally, interoperability is not just about standards working together, but about leveraging the diversity of stakeholders, expertise, coverage and approaches of the individual standards to create a more responsible sector.

**What will future standards systems look like?**
We are certain interoperability will play a key role.
Introduction

Since the 1992 Rio Earth Summit, the international community has recognised the central role of sustainable consumption and production in the implementation of sustainable development. Several sustainability standards and other sustainability initiatives rapidly emerged across the agriculture and forestry sectors, taking a global approach from the beginning of the standard-setting process.

By the year 2000, the next generation of standards systems started to emerge, with broader multi-stakeholder participation in sectors such as palm oil, soy, sugar, cotton, biofuels and beef. These commodity-based ‘roundtables’ brought together stakeholders from industry, NGOs and government to develop standards for commodities with known and significant negative impacts on the environment.

Since then, there has been rapid growth in the development and adoption of multi-stakeholder, market-based supply chain initiatives aimed at promoting sustainable production practices at the global level. These global market-based standards have seen increased adoption in other sectors, ranging from tourism and golf to the MMM sector.

DIFFERENCES ACROSS SECTORS

However, there are fundamental differences between the agriculture and forestry commodities and the MMM sector. The agriculture and forestry sectors adopted consumer-based labelling strategies to drive demand for sustainably produced products. Coupled with certification, these standards operated with products that, while commodities, had the potential for high quality differentiation and visibility in the marketplace. They included products such as coffee, paper and chocolate that could be more easily identified and labelled to differentiate from ‘unsustainable’ production – and which more often than not were directly consumed.

In comparison, the MMM supply chain is more complex with regard to material flows. MMM resources generally lose traceability as they move through processing and into the economy. This ‘loss of identity’ can occur in the refining process, in the marketplace (e.g. as metals are traded or exchanged), and/or in the manufacturing process, as MMM resources are combined or become parts of components or subcomponents of products used in consumer products, industrial processes or construction.

As a result, there is a more business-to-business approach within MMM standards, as opposed to the business-to-consumer strategy originally assumed for market-based certification standards. Historically, the power of the consumer in the MMM sector has been less compelling, but this is starting to change in some high value niche sectors as we see the rise of the Responsible Jewellery Council and Fairmined certified retail jewellery products.

SDGS AND STANDARDS

In 2015, the Sustainable Development Goals (SDGs) were adopted by the United Nations, providing a universal call to action and framework to end poverty, protect the planet and ensure peace and prosperity.

A 2017 WWF and ISEAL report entitled: “SDGs Mean Business” identifies the role of credible multi-stakeholder standards and roundtables as one as important tools that provides concrete guidelines and metrics to address the environmental and social issues captured in the SDGs. In doing so, these initiatives provide platforms for collective action within sectors and supply chains.¹ In effect, credible sustainability standards can function as SDG indicators.
WHAT DO WE MEAN BY INTEROPERABILITY?
A first narrow definition of the interoperability concept was applied by Mori Junior et al. (2015) in their assessment of MMM standards as, ‘recognising or referencing other standards in their own processes’. Yet this highlights that interoperability is not only the capacity of schemes to recognise or reference other schemes, but also their capacity to interact with governments, industry sectors and civil society organisations to further their reach and outcomes.

In a second report, Mori Junior et al. (2017) applied the broader definition that is used in this report: “Interoperability is the degree to which diverse systems, organisations and individuals are able to work together to achieve a common goal”. While the Mori 2017 report limited its scope to the interoperability between initiatives only, this report goes one step further to consider how interoperability between standards can be leveraged when interacting with other stakeholder groups.

WHY AIM FOR INTEROPERABILITY?
There are many reasons and drivers for increased interoperability. These include responding to market demand, seeking efficiencies for end users, and gaining cost savings for the scheme.

Externally, users and supporters of standards see multiple standards as confusing or frustrating, and are often unable to differentiate between credible standards. Others may simply see multiple standards as duplicative and inefficient. Meanwhile, companies do not want to deal with multiple standards for each commodity or geography in their supply chain – consistency in the definition of ‘responsible’ or ‘sustainable’ and how it is assured is critical to meeting their market requirements.

Interoperability presents opportunities to engage with both upstream and downstream actors, as well as governments and other interested stakeholders (e.g. NGOs). It can be seen in terms of productivity factors with the potential to reduce costs, minimise overlaps and reduce bureaucracy and unproductive information flows. This in turn can improve stakeholders’ understanding of the credibility and influence of such initiatives in the marketplace. It can also be seen to facilitate exchange of knowledge and practices, broaden the range and type of entities covered, increase performance and amplify outcomes. In the end, these efforts contribute to driving impact.

As standards find themselves overlapping in their operations with regard to geographical areas, sectors and supply chains, the calls from their stakeholders to consider working together, recognising one another, or even harmonising their standards and schemes, have increased. Similarly, standards themselves have seen opportunities to create synergies, to increase efficiencies or to unite in the face of external threats.
IDENTIFYING DRIVERS FOR STANDARDS UPTAKE
Identifying the drivers for the uptake of specific standards is an important consideration for all standards planning on working together. These can be competing, conflicting or complementary, and understanding and discussing these is a key part of the process for interoperability. For example, if one standard has uptake for reputational risk or corporate brand value, then another standard may be very interested in collaborating to leverage this reputation. However, for the standard with a good reputation, they will need to ensure that any collaboration does not negatively affect their brand – for example by being associated with a perceived ‘weak’ standard. This situation poses both opportunities and challenges for interoperability, so it is important to have a clear understanding of these differences when working together.

FIGURE 1: Key drivers for standards uptake

<table>
<thead>
<tr>
<th>MOTIVATIONS/DRIVERS FOR STANDARDS UPTAKE</th>
<th>BRIEF DESCRIPTION</th>
</tr>
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<tbody>
<tr>
<td>Strategic considerations</td>
<td>Will vary by company and context. An example is to signal sector sustainability leadership</td>
</tr>
<tr>
<td>Reputational risk/corporate brand values</td>
<td>May be strategic, but specifically related to reputational issues</td>
</tr>
<tr>
<td>Direct social/environmental costs and risks (e.g. waste, water, energy, social costs)</td>
<td>Reduce direct costs or financial risks, or improve productivity</td>
</tr>
<tr>
<td>Social/environmental risks in the supply chain</td>
<td>Identify and help manage key social/ environmental risk associated with their supply chains</td>
</tr>
<tr>
<td>Regulatory benefits</td>
<td>Tool to help achieve or demonstrate legal compliance or avoid statutory regulation</td>
</tr>
<tr>
<td>Social license to operate</td>
<td>Build or strengthen acceptance of a company or industry’s standard business practices and operating procedures</td>
</tr>
<tr>
<td>Market demand</td>
<td>Meet the requirements of customers</td>
</tr>
<tr>
<td>Product branding</td>
<td>Building or protecting the brand value of particular products</td>
</tr>
<tr>
<td>Product pricing</td>
<td>Potential to raise prices or to use compliance to maintain access to higher-value markets, or to position brands as ‘premium’</td>
</tr>
<tr>
<td>Investor/lender requirements</td>
<td>Meet the requirements of investors and lenders</td>
</tr>
<tr>
<td>Employee satisfaction</td>
<td>Benefits ability to recruit, motivate and retain staff</td>
</tr>
<tr>
<td>Corporate values</td>
<td>Reflection of their underlying ethos</td>
</tr>
</tbody>
</table>


INTEROPERABILITY: HOW IT WORKS
Communication, dialogue and information exchange are pre-cursors to interoperability, and serve as a basis for building trust and understanding of how other standards work. Indeed, a critical success factor for interoperability identified in the interviews carried out for this report was personal relationships and trust.

Meanwhile, it is evident that different types of interoperability can happen in parallel and across different organisations. Much of what is currently taking place within MMM standards is bilateral, with some good examples emerging of collaboration across several initiatives e.g., the London Bullion Market Association, Responsible Jewellery Council and the Responsible Minerals Initiative.
The following Framework of Interoperability can help the reader navigate the types and intensity of interoperability in MMM standards.

**FIGURE 2: Framework of Interoperability**

<table>
<thead>
<tr>
<th>CONTINUUM OF COLLABORATION</th>
<th>COMPETE</th>
<th>CO-EXIST</th>
<th>COMMUNICATE</th>
<th>COOPERATE</th>
<th>COORDINATE/HARMONISE</th>
<th>COLLABORATE</th>
<th>INTEGRATE/MERGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPETITION for resources: clients, funding, support etc.</td>
<td>No systematic connection among organisations. Independent.</td>
<td>Dialogue and information exchange. Build understanding and trust. Identify opportunities.</td>
<td>Ad-hoc, informal interaction and/or discrete activities or projects.</td>
<td>Organisations systematically adjust and align work for greater outcomes.</td>
<td>Longer term interaction based on shared missions, goals, shared decision making and resources.</td>
<td>Fully integrated programs.</td>
<td></td>
</tr>
</tbody>
</table>

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### CONTINUUM OF COLLABORATION

- **COMPETE**
  - Competition for resources: clients, funding, support etc.

- **CO-EXIST**
  - No systematic connection among organisations. Independent.

- **COMMUNICATE**
  - Dialogue and information exchange. Build understanding and trust. Identify opportunities.

- **COOPERATE**
  - Ad-hoc, informal interaction and/or discrete activities or projects.

- **COORDINATE/HARMONISE**
  - Organisations systematically adjust and align work for greater outcomes.

- **COLLABORATE**
  - Longer term interaction based on shared missions, goals, shared decision making and resources.

- **INTEGRATE/MERGE**
  - Fully integrated programs.

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### ASPECTS OF INTEROPERABILITY

<table>
<thead>
<tr>
<th>TYPE</th>
<th>ISSUES-BASED WORKING GROUPS</th>
<th>JOINT PROJECTS</th>
<th>“PLUG AND PLAY”</th>
<th>RECOGNITION</th>
<th>SHARED PROCESSES</th>
<th>HARMONISATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESCRIBITION</td>
<td>Address common challenges, including defined terms, methodologies and assurance.</td>
<td>Pooling resources. Investing together, e.g. for capacity building.</td>
<td>Use of only specific tools and processes often for efficiencies but may also lead to harmonisation.</td>
<td>Refer to or accept another system, so its provisions including full, partial, unilateral, stepwise.</td>
<td>Mechanisms which sustainability standards are able to operate jointly, for example, by joint auditing and other assurance processes.</td>
<td>Alignment of texts to adopt similar language eliminating major differences and creating common minimum requirements.</td>
</tr>
<tr>
<td>EXAMPLES</td>
<td>FPIC working group, Living Wage Coalition</td>
<td>RMI, RJC, LBMA support CRAFT Code of Conduct (ARM)</td>
<td>Reference to other standards or guidelines, IRMA MoU with FSC for use of policies and procedures.</td>
<td>RJC/LBMA/RMI</td>
<td>RJC and Fairmined joint audits</td>
<td>ISEAL Common Core Indicators (CCI), OECD-D</td>
</tr>
</tbody>
</table>

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### Source:


Moving from left to right in the above figure, the potential to accomplish together that which cannot be achieved alone increases. Each level requires an increase in time, trust and ‘turf-sharing’. We will explore the different types of interoperability in the next section.
These types of interoperability should not be considered as discrete, rather as a means of understanding the different organisational demands for each. All of these contribute in some way to the benefits of interoperability, ultimately multiplying individual contributions to make an impact far greater than could be done by going it alone.

Interestingly, the merging of standards organisations can be a product of interoperability, as demonstrated by the recent merger of the Rainforest Alliance and UTZ, and the merger of RA-Cert (the auditing division of the Rainforest Alliance) and NEPCon (an NGO working for sustainable land use). These examples go beyond interoperability, as they result in one overall organisation.

Below, we explore the different approaches, challenges and lessons learned through this research for:

1. Joint working groups (e.g. issues-based)
2. Joint projects
3. Plug and play
4. Recognition
5. Shared processes
6. Harmonisation

1. JOINT WORKING GROUPS
Sustainability standards define responsible practices and operationalise complex concepts such as free, prior and informed consent (FPIC), fair wages or high conservation value (HCV). Collectively working together to address these common challenges enables the pooling of resources, perspectives and shared learning. The result is aligned outputs, whether these are agreed-upon terms and definitions, methodologies, approaches or tools. One goal is to harmonise different approaches and to increase coordination in implementation efforts. This in turn creates consistency and adds value to users of standards (e.g. companies, governments or financial institutions) through a common approach, which can in turn drive uptake. The long-term goal is to drive sustainability in the sector by addressing challenges together.

CHALLENGES
- These processes take time and resources to participate in the dialogue.
- Reaching consensus on complex topics may require further consultation with each organisation’s stakeholders, adding another layer and requiring yet more time.

Types of interoperability

There are several ‘types’ of interoperability identified in the literature and interviews, all with some nuances.
LESSONS LEARNED

- A key lesson learned is to start with areas or issues that are broadly relevant, but not too contentious across stakeholders. If it is an area or issue that a broad range of standards are interested in and see value in a common approach, then it will be easier to get started and meet less internal resistance.
- The process of working together is valuable in getting to know one another and building trust, so the advice from several interviewees was to start with something ‘easy’.
- In the agricultural sector, several issue-based working groups recognised the need to have some sort of ‘backbone organisation’ or convenor to move the discussion along, and play a neutral role.
- Having a shared explicit outcome was also important for these working groups to communicate internally and gain support for the time and resources required to participate.
- ISEAL coordinates several peer learning groups with dedicated listservs, webinars and some in-person meetings. This cross-sectoral learning also sets priorities for research and collaboration.

2. JOINT PROJECTS

A second type of interoperability is achieved through joint projects. This may be similar to a joint working group – to address a specific challenge – or where common interests or the pooling of resources is the driver. For example, several MMM standards are working together specifically to address some of the challenges of the Artisanal and Small-Scale Mining (ASM) sector. Others are pooling resources to pilot specific tools together such as auditor training. This shares costs and learning. In the end there may or may not be a joint product.

CHALLENGES

- When there are vast differences between organisations, whether in maturity, size or mission, joint projects can be harder to implement.
- One interviewee noted that an imbalance in size can create tensions in perceived power.

LESSONS LEARNED

- Having clear formalised objectives and expectations is important, and they can be captured in a Memorandum of Understanding (MoU). While this is not necessarily a legally binding document, it can highlight and document what each organisation brings to the table, and what each expects to achieve from the joint project.
- Some organisations found MoUs may take a long time to negotiate and develop, depending on the governance system, and are not useful because of their non-binding nature. In this case, a confidentiality agreement may be a better first step, in order to share initial information.
- Feedback from the agriculture standards revealed that joint projects around M&E systems and a shared research agenda created opportunities to share costs, risks and learning from each other’s skills and expertise. As one interviewee noted, M&E offers a non-competitive area to collaborate.
- Within the agricultural sector, standards used a shared general Theory of Change as a basis for shared work on measurement and indicators.

3. PLUG AND PLAY

Interoperability can occur by using individual pieces of a system, such as the adoption of another standard’s policy or procedure. Many MMM standards reference other schemes, standards, initiatives or guidelines, something that this report describes as ‘plug and play’. This does not require any action or acknowledgement by the referenced standard, so may not be inter-organisational.

‘Plug and play’ interoperability can even be with a standard from another sector, as exemplified by the agreement between the well-established Forest Stewardship Council (FSC) standard and the emerging standard Initiative for Responsible Mining Assurance (IRMA), which is tapping into the tried and tested systems of FSC through a MoU that enables IRMA to use and adapt FSC policies and procedures. FSC can add value to market actors who purchase from the forestry and mining sector by signalling a consistent and reliable system.

CHALLENGES

- As with other types of interoperability, there needs to be clear value for all players.
- While the organisation that takes existing processes or tools has the clear benefit of not having to invest in that process or tool, it may not be as obvious to the other standard’s internal or external stakeholders why they should ‘give away’ tools and processes they have invested in.
- This can be particularly challenging when standards compete for funders or market share.

LESSONS LEARNED

- Formalising the agreement and the objectives for all involved is important, even if only in a simple format.
Clarity and agreement on what can be adapted and changed, plus acknowledgement and communication, is critical.

4. RECOGNITION

While many standards reference other standards, there are few that recognise the certificates, claims or labels issued by other standards. Recognition is when one system retains its own systems but recognises the other as partially or fully equivalent for compliance. There may be different drivers, including responding to market demands, as well as saving on transaction costs by allowing products to flow into a supply chain partially covered by one standard, which has been already been deemed as meeting the other standard requirements. Recognition can be unilateral (or one way), partial or full. An agreement may build in a stepwise approach to allow incremental recognition, and this is called stepwise recognition.

CHALLENGES

- Accepting another standard’s systems and processes requires trust in the credibility and rigor of that standard.
- If issues arise in one system, it will reflect on the other, which is a risk that some stakeholders are not willing to accept.
- Though benchmarking systems may seem the same on the surface, there is the need to get to the field/site level and understand the differences in implementation. This can be as “mundane as auditor approval, audit frequency and reporting requirements”, said one interviewee.
- Other challenges may relate to different assurance mechanisms, approved certification bodies and exchange of data related to recognised entities.
- A cautionary tale from the agricultural and forestry sectors is that the proliferation of standards and lack of evidence on impact (both trends in the MMM sector as well) has created a number of benchmarking tools – each with different stakeholders and agendas and with some overlap of criteria. This can lead to more competition as standards are ranked based on ‘check boxes’, rather than fostering collaboration.
- Users and supporters of standards can also feel confused about which benchmark is ‘better’.

LESSONS LEARNED

- Joint activities or information sharing can be a first step in a recognition process to build trust and understanding of each other’s systems.

There are many lessons captured in the ISEAL ProForest Recognition Methodology guidance, which can serve as a checklist. This includes pilot testing with joint audits and clear decision-making processes.

Recognition can make some stakeholders uneasy, particularly in cases where schemes are competing for either customers or funding. It is therefore important that standards take the time to understand what the implications might be before engaging externally.

A number of MMM standards that have mutual recognition meet once per month for coordination purposes. These regular meetings have created several additional outputs beyond quality control, keeping the process ‘live’ and fostering increased trust. Through the meetings, they have identified other opportunities for alignment across programmes, including the alignment of outputs of audits, so that reports and data generated are useful for companies further downstream for due diligence purposes.

5. SHARED PROCESSES

Shared processes include mechanisms by which standards are able to operate jointly, for example, by joint auditing and other assurance processes. This requires more intensive inter-organisational alignment and resources. A main driver is to reduce duplication and overlap, thus reducing costs for both the standard in maintaining separate, distinct systems, as well as the standard user by eliminating the administrative and time burden of duplicative processes.

Within the agriculture and forestry sectors, there have been multiple efforts to create joint audit processes, with one project with FSC and Fairtrade dating back 15 years, and another from 2001 that involved four ISEAL agricultural members. However, few of these efforts have moved beyond the project phase because of the challenges of merging different system components, even when addressing the same commodities or geographies.

The area of assurance and traceability has been identified in previous MMM research as having some of the greatest potential for efficiencies and cost savings, as well as adding value to upstream and downstream actors through interoperability. As noted in one interview, the only entity that loses out is the auditing company.

CHALLENGES

- Previous research has highlighted both the overlap and similarities of several MMM standards. However, even on paper – when the
standards’ systems seem to have the same third-party accreditation and certification – the implementation and systems are often quite distinct, with different audit cycles, training or approaches to risk.

- Some standards have not been designed with a system of indicators. There is only a compliance checklist of yes/no, which has implications for alignment with other systems. This also has implications for any data coming out of the assurance process.
- Many agriculture standards use the assurance process for M&E purposes, so data on compliance is not sufficient.
- Timing is an important consideration for adapting systems to align in order to share processes. This can be in terms of initial development for emerging systems, revision processes or organisational changes.
- In 2017, ISEAL conducted an unpublished Traceability and Chain of Custody study across 12 ISEAL member organisations to identify opportunities for interoperability. Although all participants were full ISEAL members and on paper would tick the same boxes in terms of ‘overlapping’ types of systems, the general conclusion was that the underlying systems and processes were highly diverse and could not be considered as easily shared or ‘plug and play’.

LESSONS LEARNED

- Understanding what is happening at the field level is key to identifying opportunities to work together.
- Finding complementary positions in the supply chain offers good opportunities to come together, rather than compete.
- There are different maturity levels of standards with well-developed systems and legacy systems that need to be considered.
- It is easier to design shared processes with/ for emerging standards than retro-fitting, changing or even eliminating system parts of operational standards, as this could meet with resistance if there is no clear value proposition or a clear understanding of what the standard has to change or give up.

6. HARMONISATION

Harmonisation is the alignment of requirements to adopt similar language, eliminating major differences and creating common minimum requirements, whether those are standard content or implementation requirements. Existing alignment examples include the OECD Due Diligence Guidance Framework and Assessment Methodology, and the ISEAL Common Core Indicators. Standards should ensure that their requirements are aligned with key regulations such as the Dodd Frank Act and upcoming EU Conflict Minerals regulation, rather than replacing them.

The OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (OECD-D) provides a good model of harmonisation, by setting a common set of baseline practices. It is being used as the basis and benchmark for many MMM standards. The OECD-D connects stakeholders across various minerals, geographies and positions in the supply chain and provides for a clear, common set of expectations for buyers. As industry audit programmes begin to cross-recognise each other and compliance expectations are narrowed down to one clear set of standards, it will reduce the audit burden and ultimately the cost of due diligence.

Another example of harmonisation efforts relates to harmonisation of M&E frameworks to address the effectiveness of standards. In these days of the SDGs and big data, uniting behind a common set of definitions and tools for sustainability reporting is an ambitious goal, but is happening within ISEAL. Recognising the burden of multiple assessments in different systems with an assortment of metrics, ISEAL has been working with other sustainability initiatives and measurement frameworks as well as several agriculture standards to align definitions and methodologies. Tools and learnings are available to the wider community, and include The Global Impacts Platform, the ISEAL Common Core Indicators and the ISEAL Demonstrating and Improving Poverty Impacts (DIPI) project’s impact evaluation and regional demonstration projects.

Some standards organisations are themselves examples of the alignment of standards from different geographies or sectors – such as forestry’s PEFC (Programme for the Endorsement of Forest Certification), or in the MMM sector, the International Council on Mining and Metals, Responsible Minerals Initiative, Mining Association of Canada, and eventually Responsible Steel.

CHALLENGES

- One of the frequently cited challenges to harmonisation are the expectations of stakeholders, who often have vested interests in specific language or requirements.
While there is some overlap of stakeholders, each standard has a unique set of stakeholders that they need to respond to, and who often need to be consulted on and approve of any changes.

Another major challenge experienced by several MMM standards is how a sustainability requirement seems relatively the same on the surface – but may be very distinct in the detail.

In terms of alignment of indicators and metrics, different organisations had existing definitions, different tools, protocols for gathering data, data platforms, legal constraints and a host of other elements that also need to be considered in aligning language. There are also processes and systems behind these.

There has been a lot of pressure for MMM standards to align on content requirements, with the assumption that because the standard requirement covers a certain topic, there is overlap and alignment is relatively straightforward. However, it is not just about terms and definitions. Some standards may list prescriptive detailed requirements, while others make general statements. Detail is key in terms of implementation of a specific requirement, as well as the assurance process of the requirement being met.

LESSONS LEARNED
Harmonisation takes time and resources. For example, within the DiPi multi-year project, six standards worked together to develop a set of common indicators and methodologies for reporting on poverty alleviation. While on the surface this seemed very straightforward, challenges included data interoperability (e.g., legal considerations, data architecture, data governance, internal policies), and different audit cycles and reporting cycles, among many others. It took more than three years for four of the standards to align on definitions and protocols and be able to report on a small subset of basic common indicators.

It may be easier to start with one or two content requirements and try to align, rather than attempt to agree on a whole set of sustainability requirements, as this will vary by geographies, products and clients.

A working group could be a first step, with one or two ‘issue’ areas. This builds the relationship and trust which, as one interviewee noted, “like eating an elephant”. When a task is daunting, take it one bite at a time.
Overarching challenges and lessons learned

THE CHALLENGES AND BARRIERS TO INTEROPERABILITY ARE MORE OFTEN ORGANISATIONAL AND POLITICAL RATHER THAN TECHNICAL.

There will always be an element of tension between standards and stakeholders in both MMM and agriculture and forestry standards, all of whom have their own particular agendas and, in some cases, actively work to differentiate themselves. There can be competition for funding, markets or even companies. As MMM standards often address different commodities, there is potentially less ‘market competition’ and more collaboration interest to address downstream markets. However, there can also be intense competition in international markets between some of the commodities, e.g. steel and aluminium. From the interviews and learning from the agriculture and forestry sector, it was clear that the challenges and barriers are not necessarily technical or related to resourcing.

Some challenges related to governance models were identified. This included understanding how and by whom decisions are made. Several standards noted that it is critical to have clarity on decision-making from the outset. For example, one standard could take a decision about changes in a process in two days, while another organisation took two years. There may also be internal resistance to interoperability (or simply change) that is due to a lack of understanding of the other standards or the potential benefits.

Another related area is understanding the basic business model of the different standards. While this was not looked at in any of the existing literature, nor directly covered in this report, it did come up in interviews and in two of the Theory of Change workshops. Who is funding the standard? How are audits/assessments/verifications paid for? While sometimes it is uncomfortable to talk about, this area can cause fundamental challenges, so should be transparent and discussed upfront when working towards intensifying collaboration. It may be reflected in the Theory of Change, but not necessarily. Thus, it is important to be explicit on different funding models, as they are a potential area for perceived competition or could create friction if assumptions are not clearly understood.

Some standards are working to get internal buy-in and improve the understanding of other standards by participating in governance committees and/or joining as members of other standards. There are numerous examples of standards becoming members of other standards, signalling their support and commitment.

Another challenge noted by several standards is the lack of flexibility in approaching interoperability. The starting point will generally be different systems, so there needs to be some willingness to give up or adapt some elements. Collaboration may imply changes in systems or tools and there may be resistance within an organisation, particularly if one standard feels ‘unequally burdened’.

Interviewee

“Interviewee”
There were several challenges identified by interviewees related to stakeholders. There may be overlap, with stakeholder fatigue of serving on multiple standard committees.

It was commonly cited that, while at a high level there is the call to collaborate, there can be a vested interest in the standard to maintain the status quo. This reluctance or resistance to change — whether to align with another standard on definitions, requirements or share a process, particularly when it meant changing procedures and processes — is a barrier to overcome.

An important lesson learned from the interviews was to have a clear value proposition — “what’s in it for us?” As noted by one of the standards surveyed, this could create a consistent interaction with actors across the supply chain, and improve relations and marketing with the downstream sector.

Another important consideration concerns the ‘due diligence’ of the partnership. This is related to several of the other points raised (governance, business models) and the key success factor of trust. This is particularly important in the MMM sector, where there is distrust by some stakeholders and scepticism around the terms ‘sustainable’ or ‘responsible’ mining. Some MMM standards have had criticisms and questions about a partner reflected on them. Who you partner with is an important decision, and hence there could be some reluctance within organisations to deal with the risk, particularly if the benefits of partnership are not clear.

While there is strong appetite for interoperability expressed in the interviews, there is the need to acknowledge the differences, challenges and tensions between standards. Some level of trust must be in place in order to get to this stage. Regular open dialogue is very important, especially on sensitive subjects. The DIPI project saw a major shift in collaboration once there was a comfort level to talk frankly about issues.

**OTHER CONSIDERATIONS FOR INTEROPERABILITY**

It’s important to note when thinking about interoperability that several of the MMM standards reviewed here and in previous research reports are either recently operational or still under development. This poses both challenges and opportunities in terms of interoperability. On the one hand, it is a hypothetical exercise to determine how one standard could work with another that is not yet operational and does not have systems and governance structures in place. On the other, it is much better to design in interoperability or align with others before the standard is developed, consulted on and agreed to by stakeholders.

At later stages of development there is often less flexibility for alignment, whether for joint working groups, recognition, shared processes or harmonisation. Several emerging standards have the principle of interoperability in their Terms of Reference, e.g. IRMA and Responsible Steel, and are working deliberately with a range of other standards to build in alignment and harmonisation.

Comparative mapping of the standard content and systems requirements, as provided in Kickler and Franken (2017) and in the upcoming 2018 International Institute for Sustainable Development State of Sustainability Initiatives Review, provide detailed summaries of each standard and can be used as an excellent starting point for understanding other standards. It can be used to highlight common ground and areas of differences, noting that these comparisons are high level.

However, it is important to note that these comparative studies are desk-based. They do not cover the performance of the standard, nor can they get at the details of the underlying systems. Another challenge is that they also become quickly out-of-date as systems evolve. Standards systems are complex, and understanding the vast and nuanced differences in standards and the quality of their implementation of systems is very technical. A more in-depth analysis could be then conducted along specific sustainability priorities. Many interviewees noted that it is necessary to get to site/field level to truly understand how other systems operate and get into the nitty gritty details.

How can we make sense of all the ways in which a standard could potentially interoperate? A key challenge for the MMM standards interviewed and lesson learned from the agriculture sector is that interoperability takes time, resources and commitment. Leadership commitment and buy-in is essential.

**TIMING CAN BE EVERYTHING**

As previously noted, building in interoperability while in the design phase of a standard is ideal. For existing and operating standards, looking at standard revision cycles for language and requirement alignment may be one path forward. If undergoing system changes, consider the potential to approach partners to collaborate. A change in leadership can also open up new ideas, energy, priorities and even philosophies towards interoperability. One key driver of the Rainforest Alliance and UTZ merger was considered the urgency of the global sustainability agenda, but a leadership change also created a critical moment.
Finding common ground
Using a theory of change approach

How does an organisation know where to invest its limited resources? How does an organisation justify to internal and external stakeholders that investing time and resources to work with other organisations is a good idea, especially when some may be considered ‘competitors’ for funding, stakeholders, sustainability services and/or markets? In this section, a Theory of Change (ToC) approach is proposed to help standards identify common ground and opportunities for interoperability.

There is a high level of diversity among standards, and there are a multitude of ways standards can interoperate. MMM standards understand that there are synergies and efficiencies in working together. They are already doing a lot in the area of interoperability, but recognise the potential (and pressures) of doing more. The challenge is to identify when and how working together makes most sense. Where are the areas of tension? What can all sectors learn from work already underway?

A ToC approach is proposed as a way to understand shared objectives (as identified by each organisation’s vision and goals), and the different approaches MMM standards use to achieve this shared vision. MMM standards each have different Theories of Change to that is, different understanding of the drivers for their uptake and impact, and this in turn explains differences in the design of the standards, their activities and their strategies.

A ToC requires being explicit on:
- **What** you are trying to achieve – the end goals.
- **How** you will achieve this – the strategies.
- **The results** you expect to see – outputs, short and longer-term outcomes.
- **Assumptions** about how the strategy is supposed to work – the theory.

There are a number of excellent free public resources on ToCs, and ISEAL provides the standards community with a wide range of tools and resources. A distinct advantage of a ToC approach for thinking about interoperability is that it specifically starts with end goals and works backwards (asking what would be needed to achieve that end goal), rather than starting with
activities or strategies. This focus on outcomes can help to quickly identify areas of shared objectives and goals – even where strategies may be different. This is important because a critical success factor for collaboration and interoperability identified from the agriculture sector and reinforced by interviews, is having shared goals and objectives. When two organisations compare their ToCs, these quickly become obvious.

If a standard does not have a ToC, other organisational documents such as a strategic plan or log frame can be used as the basis for thinking about the potential for and value of interoperability. The disadvantage of strategic plans or log frames is that they are often quite focused on activities, and do not clearly articulate the logic behind activities and strategies.

In the workshops conducted as part of this project, ToCs became a structured way for organisations to think about how interoperability fits within their own strategy, and to look across organisations and discuss. Examining the distinct activities, actors and intended outcomes through this comparison of ToCs helps to understand where standards overlap or are complementary, and where there are gaps in their approaches. These are the potential opportunities and benefits of interoperability between standards, or for standards to collectively interact with governments, industry sectors and civil society organisations to further their reach and outcomes.

THEORY OF CHANGE – A SPEED DATING APPROACH?
Information exchange and engagement about each organisation and system is a pre-cursor and critical success factor to interoperability. Recognising that they are seeking common outcomes, standards can then focus on those differences in the ‘how to achieve those outcomes’ – or their strategies. Are these approaches similar? Is there potential overlap or duplication? Are they addressing different issues and potentially complementary?

ToCs also frequently identify the actors that standards are trying to influence, or whose behaviour they are trying to change through their work. What part of the supply chain are they trying to influence? Which organisations do they have the most leverage over? In short, comparing ToCs has the potential to be a strategy for quickly getting to know each other in some degree of detail.

MAP YOUR TOC USING A GENERALISED FRAMEWORK FOR THE SECTOR
Another potential way to use ToC is looking at a generalised Theory of Change framework for the sector. As each standard will have a different ToC, any generalised ToC would need to be at a high level, and cannot pretend to capture the complexity of the sector. However, it can be a good starting point for an individual standard to understand where that standard fits into the bigger picture (see Figure 3 over the page).
A generalised framework could also be used as a basis for two or more standards to discuss how they think they fit into driving sustainability in the sector, and where they may overlap or complement one another. Again, it is not a blueprint for exactly how to work together, but a basis for a structured discussion around shared outcomes or strategies.

The specifics can be tailored to each standard, depending on how and why they want to work with other standards – the objectives, the benefits and the added value to interoperability. There is no single answer. It will depend on many factors, including stakeholders, maturity, size and mission.

Source: LiSeed Consulting April 2018
Creating shared value

The first step to interoperability is to have a clear idea of the objectives and strategies of the different standards. Understanding the differences and identifying where they are competitive and complementary is critical. Getting explicit about governance, stakeholders and assumptions in how each standard achieves its goals is important. While these recommendations are tailored to the MMM sector, they can also prove valuable for enhancing collaboration among standards in other sectors.

A ToC approach that focuses on (shared) outcomes is an excellent tool to find common ground – it could be as simple as agreeing on common principles, operating in common geographies, advocacy with governments or supply chain requirements.

The overwhelming advice from initiatives was to start small, build trust, be creative and, above all, find common ground in a non-competitive space that adds value.

Interoperability should be considered strategically in the development of or revision of standards, new tools and approaches.

There is recognition in the MMM sector of the opportunities and of the value of collaborating with other sectors, in particular agriculture and forestry.

A unique space for standards initiatives would help to drive impact collectively.

Cross-sectoral sharing and learning should be targeted where the experience of other sectors can be brought in and/or where there are common challenges that would be better served working together, such as: technical tools, methodological challenges (e.g. FPIC and landscape approaches), or institutional challenges such as data governance policies and procedures. MMM standards are ahead of other sectors in landscape approaches and can contribute, as well as learn from other sectors.

The highest priorities for interoperability identified through the MMM initiatives are joint assurance tools and shared key performance indicators, in addition to the establishment of working groups that will help the move from theory to action. It was noted that working groups should have clear objectives and decision-making processes to ensure success.

**OTHER SUGGESTIONS FOR COLLABORATION INCLUDE:**
- Adopt a common framework with key performance indicators, using the SDGs.
- Adopt common principles (high-level) including critical or baseline issues.
- Establish cross-sectoral learning working groups on specific challenges such as FPIC or others to be determined.
- Create ‘how to guides’ on specific topics such as data sharing and data governance guidance (learning from the agriculture and forestry sector).

Conclusions and recommendations
There is a lot of interest in developing a best practice guide on responsible metal, mineral and mining standards – including what doesn’t work. Thus, a key recommendation is to build upon the lessons learned to create a ‘how to guide to interoperability’ with case studies and best practices.

Another key recommendation is to encourage information sharing and exchange within and between sectors. This could be by convening an interoperability discussion platform, conference or conference session within an existing industry conference to provide a space for these discussions, and also to raise awareness of just how much interoperability is going on in the MMM sector. This should also include cross-sectoral opportunities for exchange.

It would also be key to encourage emerging standards and operational standards undergoing revision processes to explore how to integrate interoperability at a strategic level and systems level.

It is strongly recommended that efforts on interoperability are coordinated, in order to share learning and avoid duplicating efforts.

Finally, there are many ways standards supporters, such as development cooperation organisations, donor agencies, foundations, ISEAL Alliance and others, can promote and foster interoperability. They can create a neutral convening space and focused opportunities to enable potential partners to identify opportunities and build trust. They can support cross-sectoral learning and promote how to get started with ‘how to guidelines on interoperability’. In short, they can provide the necessary resources to address one of the biggest challenges to further interoperability – that is, time and resources.

However, the agenda should be driven by the individual sectors themselves in terms of what is most important, that is, what adds value and is most relevant.

REFERENCES
1. WWF and ISEAL (2017)
2. This is referred to as cross referencing in the Mori Junior et al. (2017) Interoperability Framework
3. Available to ISEAL community members only
4. ISEAL Common Core Indicators available to ISEAL community members only

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