ASI Monitoring and Evaluation (M&E) Plan

Version 2 – October 2021

Contents

1. Background

The challenge of demonstrating outcomes and impact is central to the design of the ASI certification program. The adoption of the ASI standards by actors in the aluminium value chain is a means to achieve responsible production, sourcing and stewardship of aluminium: it is not an end in itself.

The Monitoring & Evaluation (M&E) program is a key tool for ASI to gain insight into the outcomes and impact of its efforts and that of its members and, over time, to support continual improvement of its program. Implementing an effective M&E program will enable ASI to both communicate its progress and value, and inform the design and regular revision of its standards and assurance model so that it adapts to changing contexts and expectations.

The M&E Plan is intended as a dynamic document, similar to the ASI Risk Assessment and Management Plan, to be regularly reviewed and updated. The analysis of collected data, assessment of materiality associated with the data, and/or case studies to evaluate impacts may also result in changes to the M&E Plan and the indicators. For any questions on ASI's M&E program, please contact ASI Director of Impacts & Partnerships Marieke van der Mijn.

2. Definitions and terminology

The main impact question that we all aim to answer is: are we making a difference and to whom? Four universal (M&E) questions are central to the development of ASI's approach:

- Are we doing what we said we would do?
- Are we doing things well?
- Are we making any difference and to whom?
- Are these the right things to do?

3. Aims of M&E Program

ASI's M&E program has a dual role:

- To collect, review and share evidence of outcomes and impact ("to prove"), and
- To learn from implementation and feedback ("to improve").

The M&E program therefore aims to capture the most important changes brought about by value chain actors that have adopted ASI standards, and identify gaps and/or issues that need further attention. An effective M&E program can feed into learning for ASI itself, its members and its stakeholders, and can provide an evidence base for future revisions of its standards and assurance models.

4. Scope and Boundaries of M&E Program

The current scope of ASI's M&E program is:

- The global aluminium value chain, from bauxite mining through to downstream use sectors
- The identified 'sustainability hotspot' issues in the ASI Performance Standard:
    - Greenhouse gas emissions
    - Wastes such as bauxite residue, spent pot lining (SPL) and dross
    - Indigenous Peoples rights
    - Biodiversity management
    - Material Stewardship
    - Gender as a cross-cutting issue.
- The effectiveness of the Chain of Custody Standard as a driver for uptake and impact.

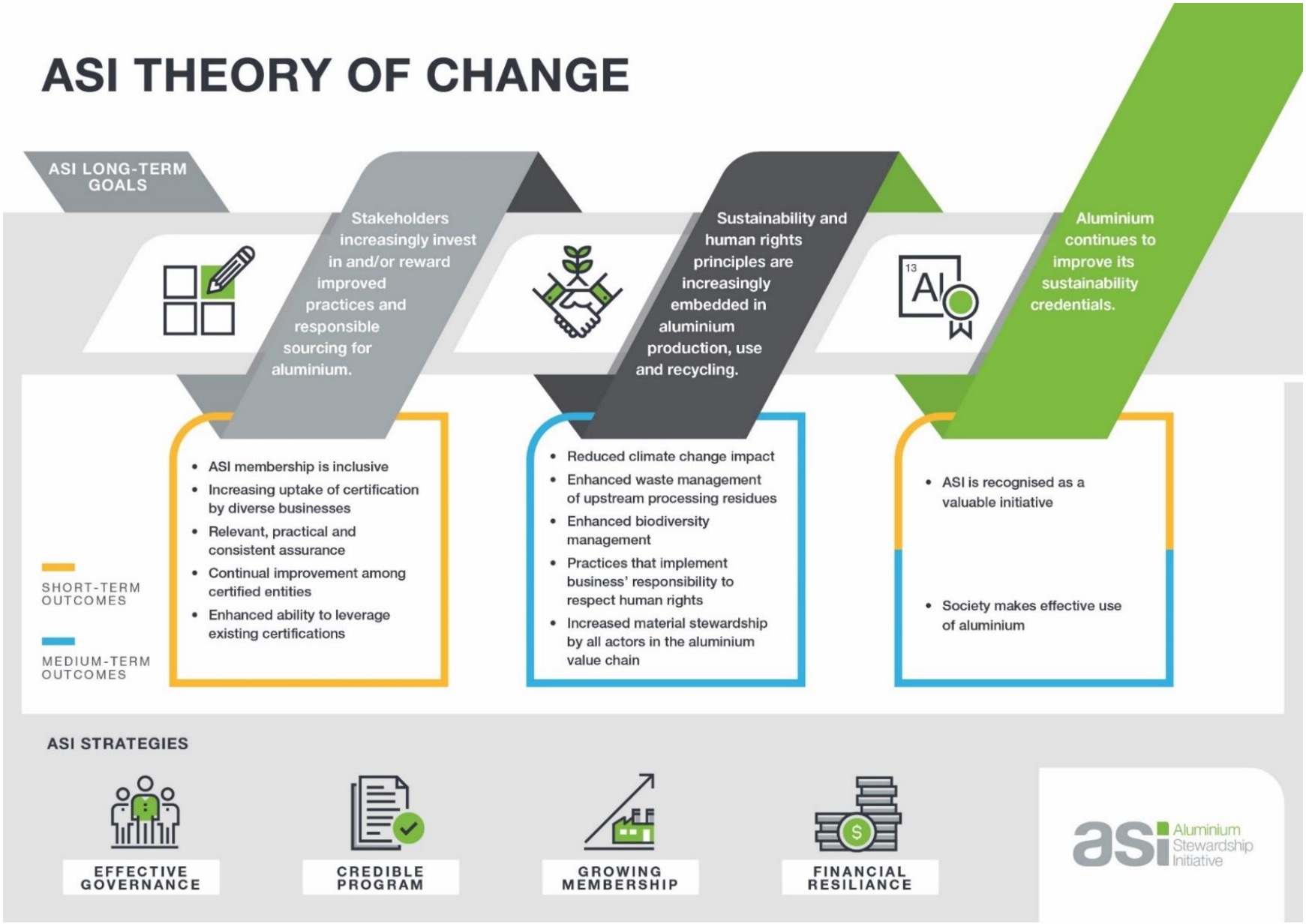
ASI's certification program was launched in December 2017. While routine data collection started when ASI was incorporated in 2015, full implementation of the M&E program took place in 2019, following at least one year of operation and when a critical mass of certifications was in place. During 2020-2022, ASI is conducting a major Standards Revision process to review all of the 6 ASI Documents – Performance Standard and Guidance, Chain of Custody Standard and Guidance, Assurance Manual and Claims Guide. When the revised ASI Standards are launched mid 2022, the ASI M&E Plan and List of Indicators will be reviewed accordingly to align with the new and updated ASI Standards requirements.

5. ASI Theory of Change – V3

An ASI Theory of Change was first set out in March 2015. A stakeholder input opportunity was provided during 2015, and it has been iteratively developed since the through internal discussions, and input from the ASI Board and Standards Committee. It sets a foundation for this M&E Plan, developed with the Standards Committee, and also for the ASI Strategic Plan, developed with the Board.

It is a high-level visualisation of ASI's Long-term goals (section 6 of the M&E Plan) and Short- and Medium-term outcomes (section 7 of the M&E Plan). It also illustrates ASI's four strategic pillars (section 8 of the M&E Plan) that aim to support the achievement of ASI's goals.

Figure 1 below shows V3 of the ASI's Theory of Change.


ASI THEORY OF CHANGE
ASI LONG-TERM GOALS
Stakeholders increasingly invest in and/or reward improved practices and responsible sourcing for aluminium.
Sustainability and human rights principles are increasingly embedded in aluminium production, use and recycling.
Aluminium continues to improve its sustainability credentials.
SHORT-TERM OUTCOMES
MEDIUM-TERM OUTCOMES
• ASI membership is inclusive
• Increasing uptake of certification by diverse businesses
• Relevant, practical and consistent assurance
• Continual improvement among certified entities
• Enhanced ability to leverage existing certifications
• Reduced climate change impact
• Enhanced waste management of upstream processing residues
• Enhanced biodiversity management
• Practices that implement business' responsibility to respect human rights
• Increased material stewardship by all actors in the aluminium value chain
• ASI is recognised as a valuable initiative
• Society makes effective use of aluminium
ASI STRATEGIES
EFFECTIVE GOVERNANCE
CREDIBLE PROGRAM
GROWING MEMBERSHIP
FINANCIAL RESILIANCE
asi Aluminium Stewardship Initiative

6. Long-term goals

Table 1 below identifies and defines the intended long-term goals (impacts) that have framed the development of the ASI Certification program since 2015.

Long-term goals	Description
A. Stakeholders increasingly invest in and/or reward improved practices and responsible sourcing for aluminium.	ASI intends to create long-term incentives for developing and maintaining improved practices at every stage of the aluminium value chain, from mining through to downstream use sectors. The ASI Chain of Custody Standard enables a link between verified practices at successive steps of the supply chain under the ASI Performance Standard, to the products produced by ASI Certified Entities. It is designed as a platform to progressively build the market drivers for investment and preferential sourcing for improved practices. The incentives are driven mainly through B2B demand and also via stakeholder recognition and/or encouragement.
B. Sustainability and human rights principles are increasingly embedded in aluminium production, use and recycling.	Aluminium is recognised for its recyclability and physical properties in a wide range of industrial and commercial applications. However, there is more to be done across the value chain to improve approaches to the various 'sustainability hotspot' issues. The ASI Performance Standard sets out a framework for companies in the aluminium value chain to address key sustainability and human rights issues in their operations. Through driving increased uptake of the™ Performance Standard, ASI intends that that these principles become increasingly embedded in the production, use and recycling of aluminium.
C. Aluminium continues to improve its sustainability credentials.	Aluminium is the second most-used metal in the world, and demand in the transport, construction, packaging and other engineering and consumer use sectors continues to grow. ASI's multi-stakeholder governance can provide a structure for participation, engagement, and consultation with a wide range of key stakeholders on current and future approaches to standards, assurance and impacts in the aluminium value chain. Partnerships and collaborations with related initiatives are intended to provide opportunities to further share and harmonise, and create inter-operability. Data capture, effective data management and transparency of outcomes will be key to communicating with stakeholders on sustainability issues. The broader goal will be supported by a culture of continual improvement for both ASI and the aluminium value chain more broadly.

7. Short- and medium-term outcomes

Table 2 below identifies and defines the intended short- and medium-term outcomes that ASI expects to see, as a result of ASI's strategies agreed with the ASI Board, set out in section 7 below.

Short-term outcomes	Description
A1. ASI membership is inclusive	ASI has designed a membership structure and supporting outreach strategies to encourage participation of members over a wide range of value chain activities, stakeholder groups, sizes of organisations and regions of the world.
A2. Increasing uptake of certification by diverse businesses	ASI has designed a certification program that is designed to create and progressively build market drivers for increasing uptake through the aluminium value chain. Uptake by a diverse range of businesses and sectors is a key stepping stone to the medium term outcomes below.
A3. Relevant, practical and consistent assurance	ASI's investment in developing *elementAl,* ASI's online assurance platform, as well as the development of a new risk-based assurance approach using 'Maturity Ratings', are designed to support more relevant, practical and consistent assurance as a foundation for effectiveness and efficiency.
A4. Continual improvement among certified entities	Areas of non-conformance are addressed by certified entities in the short term, extending a commitment to continual improvement of processes and practices.
A5. Enhanced ability to leverage existing certifications	ASI's commitment to benchmarking and harmonisation reduces duplication with recognised standards and enables certified entities to leverage existing certifications through a responsible sourcing initiative for aluminium.
C1. Stakeholders recognise ASI as a valuable initiative	Success of the ASI program will need to build on the support and/or recognition of a wider range of stakeholders beyond members, including regulators, analysts, trading houses, researchers, media and affected communities.
Medium-term outcomes	**Description**
B1. Reduced climate change impact	Existing primary aluminium production processes are energy intensive by nature. Primary aluminium production results in associated direct greenhouse gas emissions from the use of fossil fuels in the alumina calcination process, as well as indirect

	emissions from production of electricity used in the electrolysis process. Direct greenhouse gas emissions also arise from process-related conditions in electrolysis, such as consumption of anodes (CO2) and PFC emissions (PerFluoroCarbon) from anode effects. Reduction of greenhouse gas emissions from energy use and from the electrolysis processes is thus important to reduce the overall carbon footprint of primary aluminium. Approximately 80% of all GHG emissions in the aluminium industry worldwide relate to the energy-intensive smelting process. The ASI Performance Standard includes two smelter-specific criteria. Smelters starting production after 2020 must achieve a level of Scope 1 and 2 GHG emissions below 8 tonnes CO2-eq per metric tonne of aluminium produced. Existing aluminium smelters that were in production before 2020 must achieve the 8 tonnes CO2-eq per metric tonne level by 2030. To put this in perspective, the current global average for aluminium ingot production is estimated to be 12 CO2-eq per metric tonne. ASI has committed to explore what a 2°C compliant GHG emissions trajectory would look like for the aluminium sector. A GHG Working Group has been established to enable input and engagement with climate change experts, members and stakeholders to be taken into account in the next revision of the Performance Standard.
B2. Enhanced waste management of upstream processing residues	Between two and four tonnes of bauxite are required to produce one tonne of alumina. Once the alumina is extracted from the bauxite, the remaining bauxite residue is stored in landfills. Disposal of the bauxite residue is a challenging aspect of alumina production. Aluminium smelters also generate significant quantities of solid waste. One of the main sources of waste production during the smelting process is 'spent pot lining' (SPL) from the relining of pots, which takes place every five-to-eight years. Leading companies minimise the generation of SPL by extending life times of the pots, and ensure proper handling of SPL waste through treatment or use by other industries, such as the cement industry. ASI's standards set good practice requirements for both types of wastes, and encourages alternatives to landfill.
B3. Enhanced biodiversity management	The vast majority of the world's bauxite comes from surface mines in tropical areas, where bauxite occurs in horizontal layers, normally beneath a few meters of overburden. Bauxite mining involves disturbance of relatively large land areas, which can include areas of high biodiversity value. Effective mitigation of biodiversity impacts from bauxite mining involves avoiding negative impacts to protected areas and areas with natural and critical habitats (including avoidance of invasive species), as well as rehabilitation of mined areas. ASI's standards set good practice requirements for biodiversity assessment and management, no-go areas for World Heritage Sites, and rehabilitation with best available techniques.

	ASI has committed to explore expansion of the ASI Performance Standard in the areas of ecosystem services and no-go areas ahead of the next revision process. A Biodiversity and Ecosystem Working Group has been established in early 2018 to enable input and engagement with biodiversity experts, members and stakeholders to be taken into account.
B4. Practices that implement business' responsibility to respect human rights	Large-scale industrial development – including mine exploration and development, resource processing and transportation, manufacturing and waste disposal – often requires access to land and water that can be the basis of livelihoods for vulnerable communities. These impacts can bring economic opportunity but have also been associated with impacts on the rights to resources, livelihoods, self-determination, security, non-discrimination, a clean environment and other fundamental human rights. ASI has convened a Human Rights Working Group to address human rights risks associated with the aluminium value chain. Mining and mining-related activities (exploration, development, resource extraction, processing, transportation and waste disposal) often take place on, or near, Indigenous lands. ASI has convened an Indigenous Peoples Advisory Forum (IPAF) as part of its formal governance structure. IPAF representatives liaise with both the ASI Board and Standards Committee on matters relating to standards setting, the ASI Complaints Mechanism, and the broader involvement of indigenous peoples in ASI's programs. ASI's standards include the key elements of the UN Guiding Principles on Business and Human Rights, and set good practice requirements for respect of Indigenous Peoples Rights, Free Prior Informed Consent (FPIC), and sacred and cultural heritage.
B5. Increased material stewardship by all actors in the aluminium value chain	Aluminium is 100% recyclable and experiences no loss of properties or quality during the recycling process. Recycling aluminium also uses only 5% of the energy used to created new aluminium and emits only 5% of the greenhouse gases. Approximately 75% of the aluminium ever produced is still in use today. The majority of aluminium is used in products with very long use phases, for example transportation products that have a typical lifetime of 20 years or buildings with lifetimes of approximately 50 years. Recycling of post-consumer scrap and waste requires a number of conditions, including the availability of systems to collect and sort used materials, and the adequate design of products that enable classification and recycling, among others. ASI's standards place requirements on downstream companies that design and produce consumer and commercial goods to consider future recyclability and support society's efforts to increase recycling. ASI has established a Recycling and Material Stewardship Working Group to explore practical opportunities to support improved practices within and across the value chain.

C2. Society makes effective use of aluminium	Aluminium is a versatile metal that is used a huge range of industrial and commercial applications, often in competition with a range of other metals and/or materials including steel, copper, plastics, timber and composites. It is intended that ASI's certification program enables a responsible sourcing approach to be linked to targeted use of aluminium for social and environmental benefit in transport, construction, packaging and other applications.

8. ASI Strategies

Table 3 below sets out ASI's four strategic pillars: *Effective Governance*, *Credible Program*, *Growing Membership* and *Financial Resilience*. ASI's operational strategies in these four areas are updated on an annual basis.

Our vision	To maximise the contribution of aluminium to a sustainable society.
Our mission	To recognise and collaboratively foster responsible production, sourcing and stewardship of aluminium.
Our strategic priorities and goals	**1.** Effective governance: Support organisational performance through effective governance processes, including multi-stakeholder engagement and decision-making. **2.** Credible program: Build and implement credible systems for ASI's certification program through consultative and consensus-building processes, for future ISEAL compliance. **3.** Growing membership: Strengthen the future success of ASI by encouraging membership growth and certification uptake throughout the global aluminium value chain. **4.** Financial resilience: Enhance the financial resilience of the organisation to enable it to securely plan and positively adjust to risks and changing circumstances.

Since 2021, ASI also publishes its annual Strategy 'on one page' on the ASI website. This PDF aims to provide a high level overview of ASI's Strategy for members, stakeholders and the Secretariat. It can be shared with any interested party.

9. Contributions to the SDGs

In September 2015, the Sustainable Development Goals (SDGs) were adopted by the United Nations. A joint report by WWF and ISEAL Alliance illustrates how sustainability standards, as instruments for business, can help accelerate progress on many of the SDGs.

ASI's program aims to support stakeholder action towards the SDGs, which provide a broader context to the key 'sustainability hotspot' issues of the aluminium value chain. The relevant SDGs are:

- Good health and well-being (SDG 3)
- Gender equality (SDG 5)
- Elimination of forced labour (SDG 8.7)
- Industry, innovation and infrastructure (SDG 9)
- Reduced inequality (SDG 10)
- Sustainable cities and communities (SDG 11)
- Responsible production and consumption (SDG 12)
- Climate action (SDG 13)
- Life on land (SDG 15)
- Peace, Justice and Strong Institutions (SDG 16)

The linkages to individual indicators are noted in section 13 below.

10. Stakeholder consultation

ASI works with the Standards Committee, relevant Working Groups, and the Indigenous Peoples Advisory Forum to seek multi-stakeholder input into the development of the M&E program.

ASI also provides wider stakeholder consultation opportunities for its M&E program, commencing from the first drafts of the V1 Theory of Change published in 2015. Stakeholder protocols align with ASI's standards-setting processes. At the outset of a consultation process, the ASI Secretariat shall review and where necessary update lists of stakeholder sectors and groups that have an interest in ASI's impacts. Stakeholders are currently identified to include:

- ASI Members in every membership class (Production and Transformation, Industrial Users, Downstream Supporters, Civil Society, Associations and General Supporters)

- Indigenous Peoples, including through the Indigenous Peoples Advisory Forum
- Other users, producers and recyclers of aluminium
- Other civil society organisations, associations and technical experts
- Aluminium traders and market analysts
- Finance and investment sector
- Small businesses
- Governments and regulators
- The ISEAL Alliance and its members
- Other standards systems and sustainability initiatives
- Academic and research organisations and individuals
- Benchmarking and reporting initiatives
- Any other stakeholders with an interest in the aluminium value chain.

ASI recognises that different stakeholders will have different interests and priorities in terms of the information they need from M&E. Stakeholders may also have different criteria for what success looks like. ASI aims to satisfy wherever possible the different needs of its diverse stakeholder groups in our M&E approach and reporting on our outcomes and impacts.

ASI maintains a database of stakeholders in all these categories, and there is an easy sign-up process to register which is publicly available on the ASI website. M&E consultation opportunities will be published in ASI newsletters, which are received by all stakeholders who have registered for ASI communications, and also advised via the ASI website.

11. Data Collection and Reporting

To help structure different types of data collection, ISEAL differentiates between three different levels:

- **Level 1 (monitoring):** monitoring data from all certified entities in a standard system
- **Level 2 (sampled monitoring):** monitoring data from a sample of certified entities and stakeholders
- **Level 3 (in-depth evaluations):** in-depth scientific studies to support evaluation of outcomes

ASI publishes data on the outcomes from its program since 2019. All reports and evaluations are published on the ASI website to uphold ASI's commitment to transparency. The way ASI collects and reports on these different levels of data is described in more detail below.

Level 1 (monitoring):

ASI collects data from **Level 1** indicators directly from all its members at the time of their membership application, during the certification process through its online assurance platform, *elementAl,* and through annual surveys of members. Level 1 indicators are mainly used to monitor the reach and scale of the program and to provide data on output and intermediate outcome level. These data points are also used for calculating more complex indicators. ASI reports on Level 1 data in the following ways:

- The Outcomes Dashboard is updated regularly and focuses on presenting key outcomes achieved from our program such as numbers and growth throughout the years of ASI members, certificates issued against ASI Performance Standard and ASI Chain of Custody Standard, numbers of countries where certified facilities operate, ASI accredited auditing firms, and more.
- For the certification process, ASI has developed its own customised assurance platform called *elementAl*, which is housed on a SAAS platform called Knack. It collects M&E data through the audit process and some through annual surveys through this platform. Audit Reports and Summary Audit Reports for all ASI Certifications are also stored here. In 2021, ASI has launched a Public Dashboard in elementAl, so that users (Members, Auditors and others with an elementAl account) can more easily access, download and analyse published and aggregated data on all ASI Certifications.
- ASI keeps track of ASI Certified operations worldwide in an ASI Certification Map that shows ASI Certified operations worldwide.
- Since January 2021, ASI is reporting monthly on various program-level indicators to assess progress towards expected short and medium term outcomes as defined in our Theory of Change. These 'M&E Insights' are published in our Public Newsletter and on our website.
- Every year, ASI sends out a Governance Survey of Board, Standards Committee, members and the Secretariat. Aggregate reports are shared with the Governance Committee, Members and the Standards Committee.

Level 2 (sampled monitoring):

ASI collects **Level 2** indicators through case studies and collaborations with other data collecting bodies based on which baselines and trends over time are being established. Level 2 indicators are collected only for a selected sample during short and focused studies which we conduct ourselves or outsource to consultants or other third parties. They are not linked to other systems and therefore more flexible; ASI will continue to decide on the indicators on a needs basis and will plan these studies accordingly. The studies will mostly focus on short or mid-term outcome issues. The goal is both to monitor the progress on key outcome areas as well as contribute to increasing internal learning and expertise on these issues. ASI reports on Level 2 data through the following formats:

- Stories of Change: Since the launch of the ASI Standards, we have been collecting anecdotal evidence and feedback from ASI Members as to how their implementation of the ASI Standards and process of certification has created change in their activities and impact on the ground. This evidence is continuously being assessed, refined and expanded through on-site investigation and interviews.
- ASI Chain of Custody Material Flows: The ASI Chain of Custody (CoC) Standard sets out requirements for CoC Certified Entities to account for the flow of ASI Material along the aluminium value chain. CoC Certified Entities are required to report annually on CoC material inputs and outputs. This enables ASI to evaluate system integrity and support communication of aggregated and deidentified flows to interested stakeholders. A Memorandum of Understanding between ASI and the International Aluminium Institute (IAI) enables the use of IAI global material flow modelling as a basis for visualisation of ASI material flows. The final project outcome is a Sankey diagram visualising reported ASI CoC input/output data in the context of IAI's global demand/supply modelling. ASI collects data and publishes the material flows annually.

Level 3 (in-depth evaluations):

Level 3 indicators, collected by independent researchers through outcome and impact evaluations, commenced in 2020, two years after implementation of the ASI certification program began. Outcome and impact studies are commissioned to external researchers and ideally start with a baseline that allows assessing and attributing change over time to the impact areas. ASI monitors all external research and publications by third parties on the ASI certification program. ASI reports on Level 3 data in the following ways:

- Outcome and Impact Evaluations: ASI periodically conducts independent outcome and impact evaluations on specific topics of critical importance to implementing our M&E program. These outcome or impact evaluations are undertaken by independent third-parties to document results and evaluate the effectiveness of ASI's standards and certification program. All completed, ongoing, and planned evaluations are uploaded on the ASI website.

In the choice of level 2 and 3 data collection tools and methodologies ASI includes tools that are also able to capture unexpected and/or unintended changes. Data collection methods could include field visits, participant observation, structured/semi-structured interviews and focus groups. The choice of indicators depends on the methodologies applied and the questions to be answered by the evaluation.

ASI has established reporting protocols and templates in *elementAl* (or by alternative means) for Certified Entities to report the required information as appropriate for each indicator. Data quality procedures have been developed by ASI to support the quality, reliability and accuracy of data used for monitoring and evaluation.

ASI's Antitrust Compliance Policy is an important consideration for publication of some data, and advice from the ASI Legal Committee and/or independent legal counsel may be sought regarding publication of commercially sensitive information.

12. Data Analysis and Baseline Information

Collected data and information will be aggregated in order to evaluate our progress towards outcomes and goals identified in the Theory of Change. ASI is mindful of the importance of collecting as much baseline information from companies when they join ASI (or earlier) in order to understand the situation before they embark on the certification process, from which change and progress can be assessed.

In the case of Level 1 indicators, some baseline information is already available and this will be used as a starting point for evaluation. For example, for Level 1 indicators 1-15, and 28-29, the baseline will be zero, i.e., the moment that ASI launched its certification program or when companies achieved ASI certification. Other indicators will not require a zero state, such as Level 1 indicator 27, where collected data will be used to validate for Chain of Custody claims and mass models.

If there is no baseline information available, a baseline will be established when enough information has been collected and analysed (for example for Level 1 indicators 16-26). A further detailed study would then be needed to identify good practices, lessons learnt and added value for companies having gone through the certification process. For Level 2 and 3 indicators, a separate baseline study can be conducted to determine the baseline conditions and in order to conduct an outcome or impact evaluation.

13. M&E Indicators

An indicator is something that provides evidence of change – it is however not the desired change itself. Indicators can be set at many different levels. There are many different types of indicators, the most common of which are quantitative and qualitative indicators. Generally, quantitative indicators are expressed in numbers, and qualitative indicators are expressed in words.

ASI's program-level indicators will be used to assess progress towards the expected outcomes and long-term goals.

The identified indicators have been developed with consideration of the following:

- Is the indicator critical for the ASI Theory of Change?
- Is it possible to collect this data in a cost effective way?
- Is the data likely to be reliable?
- Can the data be reported in aggregate and be meaningful?
- How often do we have to collect the information?

Some of the medium-term outcomes are also linked to relevant goals in the UN Sustainable Development Goals. Data gathered for indicators 16-27 are independently verified by the ASI Accredited Auditor during the audit.

Indicators marked with ***** show those that are also in the ISEAL Common Core Indicators.

Additional indicators may be added to the list during future revisions of the M&E plan, as resources permit.

Notes for table:

- *Goals, medium-term outcomes and short-term outcomes are aligned with those set out in the Theory of Change*

Long-term goal A: Stakeholders increasingly invest in and/or reward improved practices and responsible sourcing for aluminium.			
Expected Outcome	**Level 1 Indicators**	**Level 2 and 3 indicators**	**Collection/Timing/Other comment**
1. ASI membership is inclusive.	1. Growth in ASI members by membership class, size and location. 2. Duration from launch of certification program or date of membership (as applicable) to date of first certification.	I. Feedback on ASI governance (member survey).	• Indicator 1 – data available from membership database. • Indicator 2 – data available from membership database. A distribution (across class/size/location) can indicate whether some types of organisations find the certification process more challenging. Will also include transitions from Downstream Supporters to Industrial Users in the analysis.
2. Wide uptake of certification by diverse businesses.	3. Growth in certified entities/facilities by sector/activity (both Standards).* 4. Number and identity of countries where certified entities produce.* 5. Growth in CoC Material: input and output quantities and input percentages per calendar year for CoC Material/s from CoC Certified Entities. Will include mass of ASI Aluminium (tonnes) from Casthouses produced and	II. Potential future demand for ASI Aluminium (tonnes) from downstream users (member survey). III. Case studies of value chain examples, assessment of costs and benefits along the chain.	• Indicators 3 and 4 from certification data. • Indicators 5 and 6 collected under CoC Standard on an annual basis, and provides an assessment of CoC Material (including ASI Aluminium) and ASI Credits production/supply from CoC Certified Entities.

	transferred to certified customers and/or carried over as Positive Balance and/or produced under Internal Overdraw. 6. Quantity of ASI Credits allocated to certified customers and received. 7. Number of companies that join ASI (as PT or IU) to seek ASI certification as a result of a request from their business partners/customers.		
3. Relevant, practical and consistent assurance.	8. Duration of participation in the program since first year of certification.* 9. Number of Certified entities/facilities entering and leaving the program in the last year.* 10. Number of non-conformances by Standard, by criteria, by severity rating, completion status, and by ASI Accredited Audit firm.	IV. Satisfaction with certification program (post-cert interviews, surveys)* V. Reasons for not renewing Certification (exit surveys). VI. Reports from oversight procedures, including results of witness audits of ASI Auditors, to evaluate consistency of audits.	• Indicators 8 and 9 collected through certification data. For 9, consider how to capture scale through scope changes, as these are not necessarily at a single facility level. • Indicator 10 collected through audit reports, and is to distinguish number and nature of the non-conformances including the severity rating (i.e. minor versus major classifications) and status (open / closed), with a longitudinal assessment over time.

4. Continual improvement among certified entities. 	11. Number and nature of non-conformances by principle. 12. Number of non-conformances closed on time through corrective action plans. 13. Distribution of 'Overall Maturity Rating' levels for Risks, Systems and Performance for certified entities/facilities. 14. ASI training participation – including educationAl webinar views.	VII. Case studies of selected certified entities that implement corrective action including the effectiveness of the actions to address the root cause and prevent recurrence of the non-conformance.	• Indicators 11, 12, 13 collected through audit reports and normalised based on the number of audits in the reporting period. • Indicator 14 collected through participation data.
5. Enhanced ability to leverage existing certifications.	15. Existing recognised certifications held by ASI certified entities, leveraged for ASI certification.	VIII. Members' engagement with other initiatives. IX. Reviews of activities of Benchmarking and Harmonisation Working Group to review potentially relevant standards and certifications.	• Indicator 15 collected through audit and normalised based on the number of audits in the reporting period.
Long-term goal B: Sustainability and human rights principles are increasingly embedded in aluminium production, use and recycling.			
Expected Outcome	**Level 1 Indicators**	**Level 2 and 3 indicators**	**Collection/Timing/Other comment**
1. Reduced climate change impact.	16. GHG emissions (Scope 1 and Scope 2), GHG intensity (scope 1 and scope 2) and energy usage by source (coal, oil, gas, solar, wind, hydroelectric, nuclear, etc) from **Performance Standard-certified entities** during a calendar year – total	X. GHG WG study on 1.5 degree trajectory.	• Indicator 16 is required to be publicly disclosed by certified entities under the ASI Performance Standard: require a web link in the audit report. • Indicator 17 is required to be reported by certified entities directly to the ASI Secretariat annually, within 6 months of the end of the reporting period (July 1).

 	for the member relevant to the aluminium value chain (criteria 5.1), and if applicable, for each aluminium smelter within the Certification Scope. 17. GHG emissions, GHG intensity and energy usage by source (coal, oil, gas, solar, wind, hydroelectric, nuclear, etc) from **CoC-certified entities** engaged in aluminium smelting, and/or aluminium re-melting and/or refining to produce Recycled Aluminium (as defined in CoC Standard), and/or operating a Casthouse, during a calendar year. *Units:* • GHG emissions – tonnes CO_2 – eq / mass of specific GHGs (to accommodate any future changes to global warming potential of these) • GHG intensity – tonnes CO2 – eq per metric tonne aluminium • Energy usage – Peta Joules		Collection of 3 data points to enable normalising. • For indicators 16 and 17, the GHG emissions, GHG intensity and energy usage by each source, is to be reported separately.

2. Enhanced waste management of upstream processing residues.   	18. Bauxite residue – total generated and proportion treated by mass using (i) lagooning, (ii) neutralisation, (iii) dry stacking (iv) recycling - please state nature of recycling or, (iv) Other – please state other treatment or use …. 19. Spent Pot Lining – total generated and proportion by mass where carbon and refractory materials are recycled. 20. Dross – total generated and proportion by mass where treated dross residues are recycled. *Units:* • Bauxite residue – tonnes • Spent Pot Lining – tonnes • Dross – tonnes	XI. Outcome evaluation study on reduction of bauxite residue lagooning in collaboration with International Aluminium Institute.	• Indicators 18, 19 and 20: Data will be reported by certified entities directly to the ASI Secretariat, within 6 months after the end of the reporting period (July 1). The total generated and proportion data are used to normalise data across entities/facilities.
3. Enhanced biodiversity management.	21. Number and type of disclosed biodiversity outcomes from Biodiversity Action Plans.	Proposed by IUCN, WWF, Chimbo for discussion by BESWG: XII. Number of operational sites (and related infrastructure) that are owned, leased, managed in or have influence	• Indicator 21 - Collect information through the ASI audit: require a web link in the audit report.

		on protected areas (Indicator of PRESSURE) XIII. Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk (Indicator of STATE) XIV. Surface and number of habitats protected or restored (Indicator of RESPONSE) XV. Gain of loss (if possible in monetary terms) of ecosystem services. (AVOIDANCE OF IMPACT OR ADDITIONAL BENEFITS) XVI. Surface and number of nature compensation projects compare to surface or number of populations lost. (RESPONSE)	
4. Practices that implement business' responsibility to respect human rights.	22. Nature of non-conformances related to UN Guiding Principles on Business and Human Rights. 23. Nature of non-conformances related to criteria required to be implemented in the presence of Indigenous Peoples. 24. Nature of non-conformances relating to Freedom of	XVII. Case study/ies of implementation of the UNGPs, particularly human rights due diligence processes; awareness and/or use of grievance processes. XVIII. Case study/ies of implementation of effective Free, Prior and Informed Consent (FPIC) processes with Indigenous Peoples – potential project with GIZ funding on FPIC for mine rehabilitation.	• Indicators , 22, 23, 24 and 25 – collect data through ASI Audit. • Case studies looking at forced labour will include indicators focussing on positive actions taken by certified entities such as training, due diligence and reporting. Indicators will also include how companies are responding to or making public commitments against modern slavery whether operating in jurisdictions with

  	Association/Right to Collective Bargaining. 25. Total number of workers (including contractors) employed by certified entities in Production and Transformation class, and by gender (M/F)*	XIX. Case study/ies of gender in the aluminium industry - potential for support from GIZ, as they are currently conducting a study on gender in voluntary initiatives.	modern slavery regulations (e.g. UK, Australia) or not.
5. Increased material stewardship by all actors in the aluminium value chain. 	26. Publicly available Life Cycle Assessments (LCA's). 27. Mass of Recyclable Scrap Material (Pre- and Post-Consumer) inputs to CoC certified entities on a calendar year basis.	XX. Global and regional Mass Flows in collaboration with IAI showing flows of primary and secondary aluminium. *(Note these are models not statistics and that bauxite mass does not differentiate for bauxite quality.)* XXI. Study of recycling rates in key markets, collaborating with industry associations.	• Indicator 26 – public LCA's are not required by the Performance Standard, only if publicly communicating about the findings does the 'LCA information and its underlying assumptions including system boundaries' need to be publicly available. Where applicable - require a web link in the audit report. • Indicator 27 – collected under CoC Standard to enable oversight of CoC integrity and as input for Mass Flow models.

			• Indicator 27 requires that the mass of Pre-consumer Recyclable Scrap Material and the mass of Post-consumer Recyclable Scrap Material are to be reported as separate amounts.
Long-term goal C: Aluminium continues to improve its sustainability credentials.			
Expected Outcome	**Level 1 Indicators**	**Level 2 and 3 indicators**	**Collection/Timing/Other comment**
1. ASI is recognised as a valuable initiative.	28. Number of 'on-product' claims. 29. Number of countries where such products are sold.*	XXII. Stakeholders' perceptions of ASI (including unintended consequences) and aluminium's sustainability impacts and benefits (stakeholder survey). Collaborate with association members re existing data/surveys and outreach. XXIII. Review independent benchmarking reports of ASI. XXIV. Recognition of ASI certification by other standards systems.	• Indicators 28 and 29 – Claims Guide requires approval of on-product claims, so will collect this data via that process. Growth in ASI members and certifications (indicators 1 and 3) are also relevant.
2. Society makes effective use of aluminium.		XXV. Trend data on proportional volumes of aluminium used by sector (eg construction, automotive, packaging). XXVI. Review existing studies on in-use benefits of aluminium by sector (eg vehicle emissions saved through lightweighting).	• Level 2/3 indicators and studies: Collaborate with IAI and association members. They will be used to provide context for ASI's outcomes and current and strategies.