



### January 2023

# Establishing an Independent Global Tailings Management Institute (GTMI)

#### Global Industry Standard on Tailings Management

Strengthening current practices in the mining industry by integrating social, environmental and technical considerations, the Standard covers the entire tailings facility infecycle – from site selection, design and construction, through management and monitoring, to

th an utilimate goal of zero harm to people id the environment, the Standard sets a bab lenchmark for achieving strong social, bab lenchmark for achieving strong social, evironmental and technical outcomes. It within a constraint of the strong social gamastional levels and adds new gamements for independent oversight, le Standard also establishes clear pectations acround transparency and public

mprising six Topic areas, 15 Principles d 77 auditable Requirements, the Standard ovides a framework for safe tailings facility anagement while affording Operators solitity as to how best to achieve this goal.







# 1. Introduction: Context & International Advisory Panel

#### Global Industry Standard on Tailings Management

Strengthening current practices in the mining industry by integrating social, environmental and technical considerations, the Standard covers the entire tailings facility (fecycle – from site selection, desion and construction.

oure and post-closure. Ith an ultimate goal of zero harm to people the environment, the Standard sets a obai benchmark for achieving strong social, inviornmental and technical outcomes, it evites accountability to the highest ganastional levels and adda new ganastional levels and adda new ganastional levels and adda new the Standard allow establishes closer to S

norrested solvericouers. nprising six Topic areas, 15 Principles 177 auditable Requirements, the Standard videa a framework for safe tailings facility nagement while affording Operators







# **Context: Why an Independent Institute**

- Following the January 2019 Brumadinho tailings dam disaster PRI, UNEP and ICMM co-convened an international process with an independent Chair and multi-stakeholder Expert Panel to develop and recommend a Global Industry Standard on Tailings Management (GISTM).
- The Standard was agreed by the Co-Convenors and published in August 2020.
- ICMM Members agreed to adopt it and work towards implementation. Investors in the mining sector subsequently reinforced this beyond ICMM Members and called on companies to adopt the Standard and work towards implementation.
- To date 53% by market capitalisation of listed mining companies are implementing the Standard and a further 17% are reviewing implementation. A number of investors have begun to vote against Chairs of companies where they have not indicated they will support the Standard.
- The UN Environment Assembly welcomed the GISTM and encouraged its effective implementation in its resolution 14 approved at its 5th session in 2022.

- Alongside the Standard a key recommendation of the Chair of the process was the need to create an Independent Institute that could manage an assurance framework for facilities to be audited against the Standard.
- Based upon this recommendation PRI and UNEP agreed to establish a process to create an Independent Institute. A multistakeholder International Advisory Panel was convened by PRI and UNEP and a lead Technical Expert recruited to support the work of the Panel.
- The International Panel has concluded its work and this presentation sets out the recommendations that PRI and UNEP have adopted and will now move to implement.







## **International Advisory Panel**

- In October 2021 UNEP, together with the Church of England Pensions Board and the Council on Ethics of the Swedish AP Funds (on behalf of PRI) announced the creation of a multi-stakeholder advisory panel to support the foundation of the Global Tailings Management Institute.
- The members of the Panel represented a diverse set of interests reflecting the multiple stakeholders with an interest in effective tailings management.
- Supported by former Alcoa Tailings Expert, David Cooling, the Panel has met 9 times.

Members of the Advisory Panel are:

Jan Morrill Victoria (Vicky) Corpuz Peter Kindt Günter Becker Rebecca Campbell Glen Mpufane Andressa Lanchotti Prof Andy Fourie Antonia Mihaylova Paul Bateman Tamara Johndrow Johan Boshoff Prof Elaine Baker Angelica Andrade David Cooling

Earthworks Tebtebba Foundation ING Insurance Representative (formerly Munich RE) White & Case IndustriALL State Prosecutor University of Western Australia International Union for Conservation of Nature (IUCN) International Cyanide Management Institute Freeport Gold Fields University of Sydney/GRID Arendal Affected Community Representative Consultant to the GTMI Organising Committee





## Section 2: Institute Vision & Mission

### 

#### Global Industry Standard on Tailings Management

Strengthening current practices in the mining industry by integrating social, environmental and technical considerations. The Standard covers the entire tailings facility lifecycle – from site selection, design and construction, through management and monitoring, to devine and driver.

Ith an utilimate goal of zero harm to people did the environment, the Standard extes a solab benchmark for achieving storag social, wivenewstal and technical outcomes. It writes accountability to the highest generational levels and adds new guarements for independent oversight. It is Standard allow establishes class pectations around transparency and public retorates halfors to immore undertand

nprising six Topic areas, 15 Principles 177 auditable Requirements, the Standard vides a framework for safe tailings facility nagement while affording Operators white as to how thest to achieve this coal

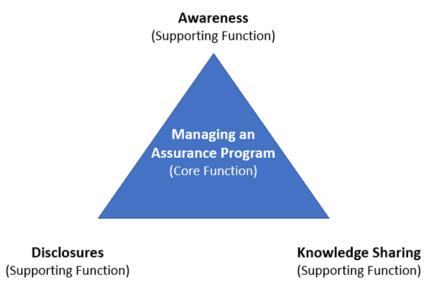




## Vision

#### Vision:

To be recognised globally as the organisation overseeing the implementation of, and conformance with, the Global Industry Standard on Tailings Management, driving safety, continuous improvement, accountability, and transparency in tailings management with the aim of achieving zero harm to people and the environment.







### Mission

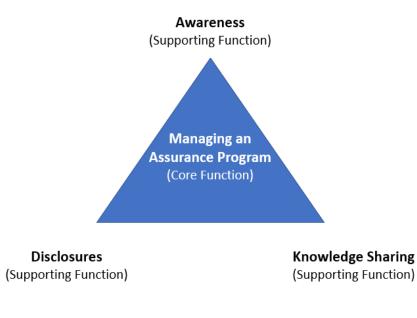
#### **Mission:**

The core function of the Institute is to oversee the implementation of, and conformance with, the Global Industry Standard on Tailings Management (GISMT). To achieve this, the Institute's core priority will be:

• **Assurance**: Managing an assurance framework where tailings facility will be audited and certified against the GISTM by qualified, independent third-party assessors.

This will be supported by:

- Awareness: Promoting awareness, understanding and adoption of the GISTM by (all) mining companies (public, private and government owned), building on the efforts of the Global Tailings Review.
- **Knowledge Sharing**: Facilitating the sharing of knowledge of implementing the Standard to improve overall knowledge in tailings management.
- **Disclosures:** Supporting confidence in the Standard and its implementation through transparency of tailings facility details and auditing outcomes.





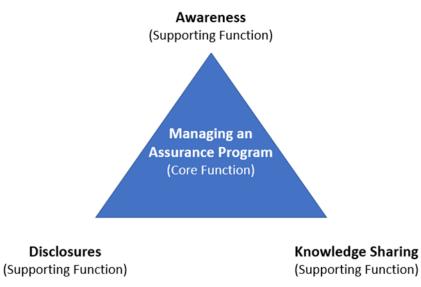


# **Core Priority**

#### The Institute will have One Core Priority:

#### **Assurance Programme:**

- Oversee an **accreditation process** for auditors who will be carrying out the tailings facility audits.
- Provide a **reference point** for mining companies and auditors seeking clarification on aspects of the standard.
- Provide a mechanism to receive and act on **feedback from stakeholders**.
- Accommodate and **implement any improvements to the GISTM** received from the co-conveners of the Global Tailings Review.







# **Supporting Functions**

#### The Institute will have 3 Supporting Functions:

#### Awareness:

- Liaise with other industry representative bodies who have developed standards and best practice guidelines to recognise equivalence and/or align with the Standard where appropriate.
- Liaise with regulators with a view to **align regulatory oversight** of tailings facilities with the Standard.

### Disclosures

• Facilitate ongoing updates of **company disclosures** on tailings facility details, including summary outcomes from certification audits and links to company disclosures required under GISTM.

### **Knowledge Sharing:**

- Work with academic institutions to promote appropriate GISTM awareness training for a range of professionals and regulators working with tailings facilities.
- Work with stakeholders to continually **improve knowledge** of tailings management practices.
- Facilitate stakeholder engagement on issues of concern with feedback received contributing to the inputs to future reviews of the Standard.
- **Promote and encourage independent investigations** of any future tailings facility failures, facilitating public access to enable learnings derived from investigations to be built into the knowledge base, with outcomes contributing to the inputs of future reviews of the Standard.





## Section 3: Institute Governance & Executive

#### Global Industry Standard on Tailings Management

Strengthening current practices in the mining industry by integrating social, environmental and technical considerations, the Standard covers the entire tailings facility (fecycle – from site selection, design and construction, through management and monitoring. to

th an ultimate goal of zero harm to people of the environment, the Standard sets a oble herochneck for ochieving storage social wironmental and technical outcomes. It were accountability to the highest garnastional levels and adds new garnements for independent oversight. the Standard also establishes clear pectations acround transparency and public

mprising six Topic areas, 15 Principles d 77 auditable Requirements, the Standard wides a framework for safe tailings facility magement while affording Operators ibility as to how best to achieve this goal.



10





### **Institute Governance & Executive**

#### Not for Profit Organisation

 The GTMI will be a not-for-profit organisation that is focused on promoting responsible tailings management, where funds received are used to meet the organisation's operating costs or in pursuing the objectives consistent with the organisation's Charter.





### **Board Remit**

### Strategic:

- Defining and re-evaluating the long-term strategy by which the GTMI fulfills its Charter at intervals set out in the bylaws of the Institute.
- Ensuring the GTMI is tracking and assessing its performance in implementing the strategy and achieving its stated goals

### Financial:

- Approving budgets, financial plans, and financial statements; reviewing and approving material capital allocations and expenditures; monitoring and ensuring the integrity of the organisation's financial reporting processes, internal control systems and audit; hiring the independent financial auditor and assuring the auditor's independence.
- Support the Executive in obtaining resources through financial contributions, fundraising and/or grant-writing.

### **Executive:**

- Selecting, monitoring, evaluating, compensating and succession planning of the CEO.
- Balancing constituency interests in a manner that is consistent with the Charter.

### **Risk & Board Composition:**

- Understanding the GTMI's risk profile and reviewing and overseeing the GTMI's management of risks.
- Ensuring compliance with all applicable laws, regulations, policies and ethical standards of the GTMI (including laws and regulations, as well as the organisation's conflict of interest and other policies).
- Affirming the composition of the board and its committees and determining governance practices.





## **Board Composition & Attributes**

### **Board composition:**

The Board will consist of up to 9 members comprising 7 members, 1 Chair and 1 Deputy Chair. The Members will be drawn from the following stakeholder groups with industry having two representatives, one of which would be either the Chair or Deputy Chair.

- Mining Industry (tailings management engineering expert)
- Potentially affected community
- Indigenous community
- Investment community
- Insurance / Banking Industry
- Technical / academic community
- Environmental expertise
- Workforce
- Regulatory

### **Board Member Attributes:**

| Knowledge:           | A working knowledge of tailings management.         |
|----------------------|---|
| Passion:             | Deep interest in the mission of GTMI and a desire   |
|                      | to see it succeed.                                  |
| Vision & Leadership: | Desire to build on the vision of the GTMI to set    |
|                      | direction and achieve the GTMI's mission.           |
| Stewardship:         | The integrity to serve the interests and pursue the |
|                      | goals of the GTMI, as well as the interests of all  |
|                      | stakeholders.                                       |
| Availability:        | Will have the time available to commit to the Board |
|                      | and its activities.                                 |
| Diligence:           | Dedication and commitment to fulfilling GTMI goals. |
| Collegiality:        | Possessing a sincere and respectful attitude toward |
|                      | colleagues and their views.                         |
| Discretion:          | Maintains confidentiality of Board discussions and  |
|                      | speaks with one voice when representing the GTMI    |
|                      | to the community.                                   |





# **Decision Making**

#### **Decision Making:**

In order to encourage consensus and ensure minority views are not discarded, if the representatives from two different stakeholder groups vote against a resolution, that resolution will not be passed.

When there is a disagreement on a technical issue (broadly construed), and two members of the Board disagree, the issue under consideration can be referred to the Technical Committee for a formal recommendation to the Board.

In order to avoid an endless decision-making loop, an issue could only be referred once, before the Board would need to take a decision.





### **Board Committees**

**Creation of Board Committees:** 

- **Technical Committee:** This Committee will oversee technical issues and could comprise additional technical expertise in addition to any Board Members. The primary remit will be technical issues related to the Audit and Certification process. The Committee will be supported by the Institute's Chief Technical Advisor.
- Audit Committee: This committee is responsible for hiring and assuring the independence of the independent auditor (if any), and providing oversight of (a) the audit, review or compilation of financial statements, (b) internal controls and related processes designed to assure the reliability of financial data, and (c) risk management processes.
- **Compensation Committee:** This committee is responsible for determining and reviewing the compensation of the CEO and other senior managers.
- Nominating and Governance Committee: This committee is responsible for nominating Board candidates, ensuring that the size, leadership and composition of the Board are appropriate, and overseeing governance structures and policies (including committee structure, conflict of interest and other policies, and bylaws).





### **Technical Committee**

- The Technical Committee will comprise 5-7 members maximum.
- Any two members of the Board can request a decision to be referred (the two industry representatives would count as two individual members for this purpose).
- It will include experts in the range of topics covered by the Standard, and will include members from outside the Board who cover the range of technical areas of the Standard inclusive of tailings management, geotechnical, environmental and social/community aspects. Two members of the Board will be part of the Technical Committee, at least one of which is an industry representative.
- The boundaries for the types of issues which can be referred to the Technical Committee from the Board would be inclusive of all aspects covered by the Standard.

- The Technical Committee should reach decisions based on a super-majority for Board consideration.
- A matter can only be referred to the Technical Committee once. Based on the recommendation of the Technical Committee, the Board will take the final and binding decision. Where this contradicts the super-majority recommendation of the Technical Committee, the rationale should be formally recorded.
- Either the Chair or the Deputy Chair always participate in the Technical Committee.
- The Chief Technical Advisor has an important administrative and advisory role to play, but is not a voting member of the Technical Committee.

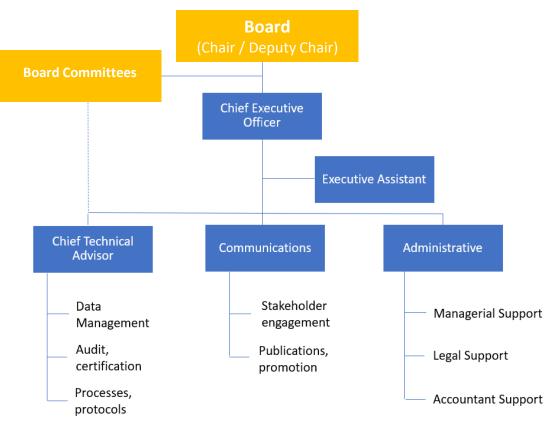




### Executive

#### Appointment of an Executive:

A professional executive will be recruited under a **CEO**. Whilst the CEO will have overall executive responsibility a **Chief Technical Advisor** will also be appointed to be the lead technical expert and support the relevant committee as well as have access to the Board. The Proposed executive structure is as detailed in the diagram:







# Section 4: Corporate Signatories to the Standard & Supporters

#### Global Industry Standard on Tailings

Strengthening current practices in the mining industry by integrating social, environmental and technical considerations, the Standard covers the entire tailings facility if ecycle – from site selection, design and construction.

osure and post-closure. Ith an ultimate goal of zero harm to people di the environment, the Standard sets a obai benchmark for achieving strong social, invormental and technical autocomes. It evates accountability to the highest garisational levels and adds new garrements for independent oversight. the Standard also establishes clear

mprising six Topic areas, 15 Principles 177 auditable Requirements, the Standard vides a framework for safe tailings facility nagement while affording Operators





# **Corporate Signatory to the Standard**

#### Value Proposition:

Becoming a Signatory to the Global Industry Standard on Tailings Management (GISTM) will provide companies and government owned enterprises with a means to demonstrate Responsible Tailings Management, thereby maintaining and enhancing their social license to operate, relationship with regulators and affected communities, investor confidence and potential for improved access to preferred insurance coverage.

#### **Responsible Tailings Management encompasses:**

- Continuous improvement in tailings management practices
- Conformance to the internationally recognised Global Industry Standard on Tailings Management (GISTM), independently verified.
- Transparency in reporting, via a data management system, accessible to the public.
- Contribution to improved tailings management, reflected in broad uptake of the GISTM and sharing lessons learned from implementation that can be considered in periodic updates to the GISTM.
- Enhanced communication with stakeholders, particularly in relation to difficult subjects (e.g., outcomes from Dam Break Assessments and resulting Emergency Response Planning, tailings facility closure with long term landform management).





## **Corporate Signatory to the Standard**

Signatories to the Standard:

- Mining companies and government owned enterprises would become a **Signatory to the Standard**, thereby committing to the implementation of the Standard along with independent auditing and certification.
- As a signatory they would register each facility that is to be audited by independent third-party auditors to ensure conformance with the GISTM.
- Each facility that is registered would incur a fee based upon its classification.
- Signatories would be publicly disclosed on the Institute website alongside the outcome of their independent audits.

### Supporter of the GTMI:

Those other than Mining companies can become a Supporter of the Institute. Becoming a **Supporter of the GTMI** will provide other stakeholders with a window into tailings management practices through:

- Access to a publicly available, industry wide, database of tailings facilities
- Facilitated stakeholder engagement on issues of concern through the hosting of roundtables with experts and key stakeholders
- Knowledge sharing with stakeholders, such as community representative groups, insurance professionals, investor groups, regulators, and others to continually improve their understanding of tailings management practices.





## Section 5: Audit & Certification Process

### 

#### Global Industry Standard on Tailings

#### Management Strengthening current practices in the

Industry by integrating social, environmental and technical considerations, the Standard covers the entire tailings facility lifecycle – from site selection, design and construction, through management and monitoring, to closure and post-closure.

Ith an ultimate goal of zero harm to people of the environment, the Standard sets a obait benchmark for achieving strong social, winonmental and technical outcomers. It evistes accountability to the highest gainstational levels and adda new quirements for independent oversight, the Standard also establishes class spectations around transparency and public extorus before to immove surdentabolica.

mprising six Topic areas, 15 Principles d 77 auditable Requirements, the Standard ovides a framework for safe tailings facility anagement while affording Operators solitity as to how best to achieve this goal.







## **Audit & Certification Process**

### Audit & Certification Processes to be overseen by the Institute:

The auditing and certification process being promoted through the development of the Global Industry Standard on Tailings Management (GISTM) is targeted toward certifying individual tailings facility managed by operators that are Signatories to the GTMI. Given the very large number of tailings facilities globally, auditing and certification at an individual tailings facility level will present some very significant challenges for the Global Tailings Management Institute (GTMI) and the industry they are supporting which are summarised in the following points:

- The very large number of individual audits that would need to be carried out.
- The breadth of the GISTM, covering much more than geotechnical and operational aspects of the individual tailings facilities.
- The limited technical expertise available to carry out such a large number of audits on a regular/recurring frequency.
- The costs to undertake audits at an individual tailings facility level (large number of protocols that will need to be audited across a very large number of tailings facility).





### **Audit & Certification Process**

To enable specialist auditors to focus on a specific (limited) number of GISTM requirements in a staged audit process, the following is proposed:

- 1. Split the requirements into **3 focus areas**, each with its own audit protocol:
  - a. Corporate/Governance where the audit would be conducted at a corporate level, focussing on the governance aspects of the GISTM that are a corporate responsibility. Where the corporate governance is common across all of the company's locations and storage facilities, this would remove the need for a detailed audit of these aspects each time a tailings facility audit is conducted. Auditors would be required to have expertise in aspects of corporate governance. Given that aspects of corporate governance should remain relatively constant across time, follow-up audits for lower risk tailings facilities may only be required on a 10-year frequency or following a merger or acquisition.
- b. Location Management where the audit would be conducted at a location level, covering the overall management processes common across the tailings facilities at that location. Follow-up audits would need to be conducted more frequently (5 yearly) given the level of turn-over of management/professionals within the mining industry, and potential changes to management structures and processes.
- *c. Tailings Facility audits* where the audits would focus on the individual tailings facility units, ensuring aspects of design, operation, closure, are focussed on dam safety. These audits would typically be carried out by geotechnical and dam safety experts. The frequency of the follow-up audits would also be more clearly focussed on the higher consequence facilities *(refer to Frequency Audit).*

There will be a degree of overlap for a number of the requirements, where there are responsibilities and accountabilities within a specific requirement at more than 1 level in the organisation. The specific roles, responsibilities and deliverables of the requirement that reside at each level can be detailed in each protocol and its corresponding conformance requirement.





### **Audit & Certification Process**

Companies would be able to seek audits under each of these protocols combined or separately. Companies would still be required to meet all 3 protocols for any TF to be certified, however, splitting the auding into these three separate protocols would aid:

*Reducing the cost burden* – the scope of the audits would be reduced, given they would be focussed on the specific level. Each audit will be more focussed and therefore be less reliant on a team of auditors. The frequency of follow-up audits at the corporate and location management levels could also be substantially reduced, with the main frequency of follow-up audits focussed on dam safety.

- b. Spreading the auditing load the limited geotechnical and dam safety resources could focus their attention on the TF protocols, while other auditing resources could be utilised for the governance and location management protocols.
- A company's progression through the certification process

   companies would not need to meet all of the
   requirements for a particular TF before commencing the
   auditing process. They could move through the auditing
   process, showing progress as they meet the criteria for each
   on the protocols in turn.
- d. Transparency it will be easier to see where a company has met the GISTM and where they still have gaps to close.

The Chief Technical Officer with reference to the Technical Committee and Board will review the proposed approach to splitting the protocol (and potentially the audit) into the three key focus areas and determine whether to adopt or amend.





# Section 6: Audit Frequency

#### 

#### Global Industry Standard on Tailings Management

Strengthening current practices in the mining industry by integrating social, environmental and technical considerations, the Standard covers the entire tailings facility ifrecycle – from site selection, design and construction, through management and monitoring, to downer wide neutral behavior.

Ith an utimate goal of zero harm to people of the environment, the Standard sets a obab benchmark for achieving strong social, wivenematal and technical outcomes. It evintes accountability to the highest gainstational levels and adds new quirements for independent oversight, the Standard alos establishes class spectations around transparency and public extenses helions to immove understanding

mprising six Topic areas, 15 Principles d 77 auditable Requirements, the Standard wides a framework for safe tailings facility magement while affording Operators ibility as to how best to achieve this goal.



25





## **Audit Frequency**

For tailings facilities with Extreme or Very High consequence category assigned:

- Conformance covering all three protocols will be required within 3 years from a formal commitment to adopt and comply with the GISTM.
- For new facilities where a commitment is made to apply the GISTM (i.e., for either new tailings facilities constructed by an existing signatory, or a new signatory to the Standard), conformance covering all three protocols will be required within 3 years from funding approval for the facility.
- Follow-up audits will then be required at the frequency in the Table. The frequency will be reviewed by the Board upon assumption of their duties to consider if aligning audit timeframes across all three areas would be more practical.

### For all other tailings facilities:

- Conformance covering all three protocols will be required within 5 years from a formal commitment to adopt and comply with the GISTM.
- For new facilities where a commitment is made to apply the GISTM, conformance covering all three protocols will be required within 5 years from funding approval for the facility.
- Follow-up audits will then be required at the frequency in the Table:

| Tailings Facility Consequence Category                                     |               | Audit Protocol                                    |               |                   |
|--|---------------|---|---------------|-------------------|
|  |               | Corporate   | Location      | Tailings Facility |
|  |               | Governance  | Management    | Specific          |
| Extreme or Very High<br>(Including closed tailings<br>facilities)          | Initial Audit | Within 3 years of a commitment to adopt the GISTM |               |                   |
|  | Repeat Audits | Every 5 years                                     | Every 5 years | Every 3 years     |
| All other tailings facilities<br>(Including closed tailings<br>facilities) | Initial Audit | Within 5 years of a commitment to adopt the GISTM |               |                   |
|  | Repeat Audits | Every 10 years                                    | Every 5 years | Every 5 years     |





## Section 7: Conformance

#### Global Industry Standard on Tailings Management

trengthening current practices in the mining dustry by integrating accial, environmental and technical considerations, the Standard overs the entire tailings facility if tecycle – om site selection, design and construction, rough management and monitoring, to look and do external and monitoring.

Ith an ultimate goal of zero harm to people d the environment, the Standard sets a solal benchmark for achieving strong social, vironmental and technical outcomes. It revises accountability to the highest gammatical solar extra and addin new gammatical alow establishes clear petitions account pranporency and public petitions.

nprising six Topic areas, 15 Principles 177 auditable Requirements, the Standard vides a framework for safe tailings facility nagement while affording Operators whilto as to how best to achieve this noal



27





### Conformance

The following proposal has been adapted from the verification and certification processes of the Cyanide Code:

- Audits will be conducted by independent, third-party professionals. Auditors will be selected and hired by the company or operation being audited but must meet the Institute's criteria for their experience and expertise.
- Auditors will evaluate an operation against the applicable Protocol to determine if its governance, management processes, or TF specific requirements meet agreed minimum expectations.
- Operations will be required to make all relevant data available to the auditors, including the complete findings of their most recent independent audit, to be considered for certification.

### Submission of audit results; finding of full conformance:

Before finalising an audit report, the auditor will review the audit findings with the company to ensure that the information presented is accurate. In the case of the Corporate/Governance protocol, this will be reviewed with the Accountable Executive. In the case of either a Location Management protocol, or TF specific protocol, the audit findings will be reviewed with the location management and responsible engineer.

Within a maximum of 90 days of completing the audit, the auditor will submit the following to the parent company, the location and to the GTMI:

- A Detailed Audit Findings Report responding to the questions in the Audit Protocols.
- A Summary Audit Report that includes the auditor's conclusion regarding the operation's conformance with the GISTM; and
- The auditor's credentials





### Conformance

#### Role of the GTMI:

- The GTMI will review the audit report to ensure that appropriate responses have been provided for all Audit Protocol questions and that adequate evidence has been included in support of the auditor's findings and will advise the auditor and the operation when the report has been accepted as complete.
- A particular TF will only be certified as complying with the GTMI once all 3 protocols have been audited, and the individual auditors find conformance with the GISTM. The certification will become effective when the Institute announces the certification and posts the Summary Audit Report on the GISTM website.

- The Detailed Audit Findings Report will remain the confidential property of the operation and shall not be released by the Institute in any fashion without the written consent of the company and/or audited operation.
- The Summary Audit Report and the credentials of the auditor(s) will be made available to the public on the GTMI website. The operation may submit its comments regarding the Summary Audit Report to the Institute, which will be posted along with the Summary Audit Report on the Institute's website.





## Section 8: Conformance Findings

#### Global Industry Standard on Tailings Management

Strengthening current practices in the mining industry by integrating social, environmental and technical considerations, the Standard covers the entire tailings facility iffecycle – from site selection, design and construction, through management and monitoring, to income set of environments and monitoring.

Ith an utimate goal of zero harm to people d the environment, the Standard sets a solal benchmark for achieving strong social, winormential and technical outcomes. It wates accountability to the highest gamisational levels and adds new gamments for independent oversight. It Standard also establishes clear pectations acround transparency and public

mprising six Topic areas, 15 Principles d 77 auditable Requirements, the Standard wides a framework for safe tailings facility inagement while affording Operators whilt as to how thet to achieve this noal







## **Conformance Findings**

#### Finding of substantial conformance:

- Operations that are found in substantial conformance with the GISTM are conditionally certified, subject to the successful implementation of a Corrective Action Plan. Substantial conformance means that the deficiencies identified by the auditor can be readily corrected and do not present an immediate or substantial risk to employee or community health, safety, or the environment.
- Operations that are found in substantial conformance with a specific protocol must develop and implement a Corrective Action Plan to correct the deficiencies identified by the certification audit. The operation shall request that the auditor review the Corrective Action Plan or assist in its development so that there is agreement between the operation and the auditor that its implementation will bring the operation into full conformance.
- The Corrective Action Plan must include a time period, mutually ٠ agreed to by the operation and the auditor, to bring the operation into full conformance with the Standard. The Action Plan shall contain sufficient detail to demonstrate that the gap identified by the auditor is going to be adequately addressed. The detailed (engineering) plan for the works remains the responsibility of the company to develop and implement. The auditor must submit the Corrective Action Plan to the Institute for posting on the Institute's website along with the Summary Audit Report. The Technical Committee would make a recommendation on whether full corrective action plans or a summary should be posted on the GTMI's website. Where corrective actions will take longer than 1 year to complete (e.g., complex engineering works), the Accountable Executive should clearly document the measures and associated timelines.





### **Conformance Findings**

#### **Corrective Action Plan and Completion Report:**

- The operation must provide evidence to the auditor demonstrating that it has implemented the Corrective Action Plan as specified and in the agreed time frame. In some cases, it may be necessary for the auditor to re-evaluate the operation to confirm that the Corrective Action Plan has been implemented. Upon receipt of the documentation that the **Corrective Action Plan** has been fully implemented, the auditor must provide a Completion Report to the Institute verifying that the operation is in full conformance with the GISTM.
- All tailings facilities certified in conformance with the GISTM will be identified on the GTMI website. Tailings facilities found to be substantially compliant, or non-conformance, will have their Summary Audit Reports, Corrective Action Plans and Corrective Action Plan Completion Reports posted.

#### Finding of non-conformance:

 Tailings facilities at specific operations that are audited and found in non-conformance with one or more requirements of a particular protocol, and those that have not fully implemented a Corrective Action Plan by the applicable deadline, are not in conformance with the Standard.

### Publication of the Corrective Action Plan:

 Once the first audits have been completed and it is possible to review Corrective Action Plans, the Institute Board will determine whether the Institute will publish the full Corrective Action Plan, or any summary taking into account any issues of sensitivity related to security and what information would be most useable for readers.





## **Conformance Findings**

#### Pre-operational conditional certification:

- A tailings facility that is not yet active but that is sufficiently advanced in its planning and design phases can request preoperational conditional certification based on an auditor's review of its site plans and proposed operating procedures.
- Tailings facilities audited pre-operationally and found in full conformance, for which the company's Corporate Governance and Location Management protocol are also in full conformance, will be certified conditionally and will remain so until the findings of its operational audit become effective.
- An on-site audit is required within one year of a tailings facility's first receipt of tailings to confirm that the tailings facility has been constructed and is being operated in conformance with the Standard. These operations must advise GTMI within a maximum of 90 days of the date of the first receipt of tailings. The new certification period begins when the findings of the audit conducted in full operation become effective.
- Tailings facilities that have been designated for certification before they become active, but which do not request pre-operational certification must be audited for conformance as outlined in section on Audit Frequency.





## Section 9: Conformance Transition Arrangements

#### Global Industry Standard on Tailings Management

Strengthening current practices in the mining industry by integrating social, environmental and technical considerations, the Standard covers the entire tailings facility lifecycle – from site selection, design and construction,

When a submet space doal of zero harm to people of the environment, the Standard sets a bob leochmark for achieving strong social, winommental and technical outcomes, it winother accountability to the highest gammatical levels and adds new gumments for independent oversight, the Standard also establishes clear metations aveced transmesses and public

nprising six Topic areas, 15 Principles 177 auditable Requirements, the Standard vides a framework for safe tailings facility nagement while affording Operators



34





## **Conformance Audit Protocol**

#### **Assessing Conformance Approaches:**

- The Institute will produce a Conformance Audit Protocol (CAP) to ensure effective implementation of the Standard whilst seeking not to extend the Standard (which is overseen by a separate process).
- The CAP will be developed by the Institute's Chief Technical Officer with specific reference to the Board's Technical Committee and any other relevant Committees the Board creates, before being proposed to the Board by the Chief Technical Officer.
- In developing the CAP an assessment will be undertaken of the existing ICMM Conformance Protocol and other relevant tailings guidance such as MAC TSM.



# **Conformance Transition Arrangements**

- The Assessment may also consider the overall structure developed by MAC for the Tailings Protocol Assessment as a part of their Towards Sustainable Mining Tailings Management and whether this offers a model in terms of assessing "effective implementation" of the GISTM requirements that may be of interest to the GTMI.
- Under this model, the current ICMM Conformance Protocols could for example be considered as fulfilling the TSM AA audit level (example related to Policy as set out in Attachment 1), with audit level AAA assessing the degree of "effectiveness" of the implementation.
- In order to aid this process and to ensure that the Institute may be able to advance this work promptly, the Expert Technical Consultant, David Cooling, has been asked by PRI & UNEP to undertake a preliminary technical gap analysis between the Standard and ICMM/other industry conformance guidance.

Tailings Management Policy and Commitment: Assessment Criteria

| LEVEL | CRITERIA  |  |  |
|-------|---|--|--|
| с     | No tailings management policy and/or commitments have been developed.   |  |  |
|       | Policy and/or commitments are assumed to be covered by overall site management policies, but these do not specifically address tailings management.   |  |  |
|       | Action plan to meet the requirements of Level A has been developed.   |  |  |
| в     | Tailings management policy and/or commitments are in place, but not in conformance with MAC's <i>A Guide to the Management of Tailings Facilities</i> .   |  |  |
|       | Action plan to meet the requirements of Level A has been developed.   |  |  |
| A     | <ul> <li>Policy and/or commitments are: <ul> <li>in conformance with MAC's <u>A Guide to the Management of Tailings</u></li> <li><u>Facilities</u>; and</li> <li>approved by senior management and endorsed at governance level.</li> </ul> </li> <li>There is a process in place to ensure that: <ul> <li>the policy and/or commitments are communicated to employees;</li> <li>employees and contractors whose roles, either directly or indirectly, may affect the safety of tailings facilities understand the policy to a degree appropriate to their relevant level and function; and</li> <li>policy and/or commitments are implemented with budget allocation.</li> </ul> </li> <li>Internal audit is conducted to determine whether the tailings management policy and commitments, and their implementation, meet the requirements listed above.</li> </ul> |  |  |
| АА    | External audit is conducted to determine whether the tailings management policy and commitments, and their implementation, meet the requirements of Level A.  |  |  |
| AAA   | The external audit, as outlined in Level AA, also involves an evaluation of the effectiveness of the policy, commitments and their implementation.  |  |  |





## **Conformance Transition Arrangements**

## **Conformance Transition Arrangements**

- Until such time that the Institute has agreed and published a Conformance Audit Protocol (CAP) or post-August 2025, whichever is later, the Institute will recognise that a number of companies are already in the advanced stages of implementing the Standard in line with conformance guidance from ICMM and other tailings guidance such as MAC TSM.
- The Institute will recognise these Audits in line with the related guidance they have used.
- Companies would be expected in their next audit to complete this in line with the Institute Conformance Audit Protocol.





# Section 10: Certification Maintenance

### Global Industry Standard on Tailings Management

Strengthening current practices in the mining industry by integrating social, environmental and technical considerations, the Standard covers the entire tailings facility (frecycle – from site selection, design and construction, through management and monitoring, to

Ith an ultimate goal of zero harm to people d the environment, the Standard sets a bub benchmark for achieving storag social, vironmental and technical outcomes, it were accountable to the highest gamsational levels and adds new gamments for independent oversight. B Standard also establishes clear pectations anount transparency and public

mprising six Topic areas, 15 Principles d 77 auditable Requirements, the Standard wides a framework for safe tailings facility magement while affording Operators whilt as to how best to achieve this coal







# **Certification Maintenance**

In order to maintain certification, an operation must meet all of the following conditions:

- The auditor has concluded that it is either in full conformance or substantial conformance with the GISTM.
- An operation in substantial conformance has submitted a Corrective Action Plan to correct its deficiencies and has demonstrated that it has fully implemented the Corrective Action Plan within the agreed time.
- Conformance with all of the Requirements which were found to be in full conformance during the audit have been maintained
- An operation has had a conformance audit within the nominated timeframe in Table 1.

- An operation has had a conformance audit within two years of a change in ownership, defined as a change of the controlling interest of the operating company.
- Companies that have voluntarily withdrawn as signatories to the Standard can seek re-admission to the program. Tailings facilities that had been certified or designated for certification, but which were subsequently voluntarily withdrawn from the program by the company can return to the program and for the process of certification can re-commence with appropriate auditor checks on aspects of conformance that may have previously been accepted.





# Section 11: Auditor Accreditation

### Global Industry Standard on Tailings Management

Strengthening current practices in the mining industry by integrating social, environmental and technical considerations. The Standard covers the entire tailings facility lifecycle – from site selection, design and construction, through management and monitoring, to devine and driver.

Itti an utilimate goal of zero harm to people di the environment. the Standout este a obail benchmark for achieving strong social, invironmental and technical subcomes, it evates accountability to the highest ganisational levels and adda new querements for independent oversight, the Standard also establishes clear pectations acround transparency and public

emprising six Topic areas, 15 Principles of 77 auditable Requirements, the Standard ovides a framework for safe tailings facility anagement while affording Operators while a sto-how best to a schizer this soul







## **Auditor Accreditation**

### **Auditor Accreditation**

- The Institute will develop specific criteria for GISTM Auditor Accreditation and will implement procedures for review of auditor credentials.
- Auditor criteria will include requisite levels of experience specific to the protocol being audited, along with relevant experience in conducting audits, certification as a professional auditor and lack of conflicts of interest with company to be audited.
- A list of accredited auditors will be maintained on the Institute website.





# Section 12: Dispute Resolution

### MM UN® PRIMA

### Global Industry Standard on Tailings Management

Strengthening current practices in the mining industry by integrating social, environmental and technical considerations, the Standard covers the entire tailings facility lifecycle – from site selection, design and construction, through management and monitoring, to design and dest colors are design of the dest colors.

Ith an utilimate goal of zero harm to people di the environment, the Standard ests a babi benchmark for achieving storing social, vivonmental and technical ostroomens. It invistes accountability to the highest guarantenal leves and adds new guarantenta for independent oversight, e Standard allow establishes clear petitotics, around triamparency and public

mprising six Topic areas, 16 Principles d 77 auditable Requirements, the Standard wides a framework for safe tailings facility magement while affording Operators



42





# **Dispute Resolution**

### **Dispute Resolution:**

- The Institute will need to develop and implement fair and equitable procedures for resolution of disputes regarding audit findings, auditor credentials and certification and/or decertification of tailings facilities.
- The procedures will need to provide due process to all parties that may be affected by these decisions.

### **Grievance Mechanism:**

- A mechanism will be established to receive and act on feedback (including grievances) from stakeholders related to the accreditation process.
- The GTMI could initiate/commission independent investigations if warranted and re-assess accreditation status depending on investigation findings. This process does not replace the existing grievance processes expected under the Standard.





# Section 13: Closed Facilities

### Global Industry Standard on Tailings Management

Strengthening current practices in the mining ndustry by integrating social, environmental and technical considerations, the Standard overs the entire tailings facility lifecycle – from site selection, design and construction, hrough management and monitoring. to

In an ultimate goal of areo harm to people dith environment, the Standard usets a bab benchmark for achieving strong social, vivonmental and exhical outcomes. It waters accountability to the highest gamisticinal level and adds new superments for independent oversight. 8 Standard also establishes clear estations around transperency and public

mprising six Topic areas, 15 Principles d 77 auditable Requirements, the Standard wides a framework for safe tailings facility magement while affording Operators iolitity as to how best to achieve this goal.







## **Closed Facilities**

• Guidance to be provided by Conformance Audit Protocol when agreed by the Institute Board.





# Section: 14 Future Updates of the Global Standard

### Global Industry Standard on Tailings

Strengthening current practices in the mining industry by integrating social, environmental and technical considerations, the Standard covers the entire tailings facility lifecycle –

rough management and monitoring, to soure and post-closure. Ith an ultimate goal of zero harm to people di the environment, the Standard sets a obbi benchmark for achieving strong social, wironmental and technical outcomes. It exists accountability to the highest ganisational levels and adds new garinetanoil levels and adds new garinetional levels and adds new

nterested stakeholders. nprising six Topic areas, 15 Principles 177 auditable Requirements, the Standard vides a framework for safe tailings facility nagement while affording Operators







# **Future Updates of the Global Standard**

Over time the Institute is expected to play a key role related to the GISTM

- As the Institute comes into existence, best practice evolves and feedback is provided on practicality / learnings from implementation of the Standard it is clear the Standard will need to be reviewed.
- It was always envisaged that that the GISTM will need to evolve over time. A specific governance process will therefore need to be established to oversee future reviews and updates to the Standard.
- It is anticipated that the timing for any update, along with the review process and stakeholder engagement will be agreed and coordinated by the original co-conveners (ICMM, UNEP and PRI).





## **Updating GTISM (The Standard)**

- The GTMI should be directly involved in the review process along with the co-conveners (rather than just being consulted) given that they would have knowledge of issues arising from ongoing contact with auditors and companies through the compliance checks.
- As confidence in the GTMI grows and matures PRI and UNEP have expressed a desire for the whole review process over time to transition to the GTMI. ICMM have stated that they would also need to gain confidence in the effective functioning of the GTMI over time before they would consider ceding responsibility to the GTMI for updating the Standard.
- Until this time, changes to the Standard cannot be made without the approval of the three co-conveners (UNEP, PRI and ICMM), with recommendations being made by them to the Board of the GTMI for final endorsement and ratification.

- If the Board disagree with any of the proposed changes, they should be referred back to the co-convenors for further consideration.
- It is not expected that the Standard will be updated until post-August 2025 after the first round of audits have been reviewed by the Institute and lessons drawn from that process.





# Section: 15 Budget and Fee Structure

#### Global Industry Standard on Tailings Management

Strengthening current practices in the mining industry by integrating social, environmental and technical considerations, the Standard covers the entire tailings facility if crycke – from site selection, design and construction, through management and monitoring. To drowne wide net chemism.

Ith an utilimate goal of zero harm to people d the environment. the Standard sets a obail benchmark for achieving strong social, wironmental and technical outcomes. It evides accountability to the highest ganisational levels and adds new guarrements for independent oversight, the Standard also establishes clear pectations acround transparency and public

mprising six Topic areas, 15 Principles 177 auditable Requirements, the Standard vides a framework for safe tailings facility nagement while affording Operators







# **Budget and Fee Structure**

**Resourcing the Institute:** 

- To create a long-term sustainable source of funding for the Institute, a fee will be applied to each tailings facility a company registers with the Institute.
- The fee level will be graded based upon the likely effort required to support the auditing and conformance checks.
- The standard fee for operating tailings facility, will therefore be higher for Very High and Extreme Consequence tailings facility, lower for closed facilities that are assessed as Low Consequence and for which audit frequency will likely be less.

- The below diagram is based upon a limited number of declared facilities to the Global Tailings Portal.
- Fees to be set and reviewed by the Board considering the running costs of the Institute and the number of facilities registered.
- The fee level is ONLY indicative of potential revenue generation. The Board will determine the necessary level.

| Total number of tailings  | Active        |             | Inactive      |             | Total       |
|---------------------------|---------------|-------------|---------------|-------------|-------------|
| facilities                | 849           |             | 1142          |             | 1991        |
| Tailings facilities by    | Vhigh/Extreme | Other       | Vhigh/Extreme | Other       |             |
| Consequence Category      | 120           | 729         | 90            | 1052        |             |
| Fee per tailings facility | \$3,000       | \$2,000     | \$1,500       | \$1,000     |             |
| Total Fee                 | \$360,000     | \$1,458,000 | \$135,000     | \$1,052,000 | \$3,005,000 |





## Section 16: Implementation Phase

### Global Industry Standard on Tailings Management

Strengthening current practices in the mining industry by integrating social, environmental and technical considerations, the Standard covers the entire tailings facility (frecycle – from site selection, design and construction, through management and monitoring, to

Ith an ultimate goal of zero harm to people d the environment, the Standard sets a bub benchmark for achieving storag social, vironmental and technical outcomes, it were accountable to the highest gamsational levels and adds new gamments for independent oversight. B Standard also establishes clear pectations anount transparency and public

mprising six Topic areas, 15 Principles d 77 auditable Requirements, the Standard wides a framework for safe tailings facility magement while affording Operators whilt as to how best to achieve this coal



51





# **Implementation Phase**

## **Next Steps:**

- **Nominations:** Open invitation to be published on the UNEP website for nominations for:
  - Chair
  - Deputy Chair
  - Board Member(s)
  - Board Technical Committee
- **Founding Partners:** Open invitation for organisations to nominate themselves to become Founding Partners to work with UNEP/PRI in supporting the set up of the Institute.
- Institute Headquarters: Headquarters for Institute to be agreed for purposes of registering an independent legal entity.

## **Institute Founding Partners**

- Before the Institute becomes operational it is necessary to establish a budget so that the Institute can set up before becoming fully operational.
- Institute Founding Partners are sought for a one-off contribution to bring the Institute into existence.
- Further details on the rights, responsibilities and obligations to be provided upon institutional expressions of interest.





January 2023

Establishing an Independent Global Tailings Management Institute (GTMI)

#### Global Industry Standard on Tailings Management

Strengthening current practices in the mining industry by integrating social, environmental and technical considerations, the Standard covers the entire tailings facility iffecycle – from site selection, design and construction, through management and monitoring, to

ifth an ultimate goal of zero harm to people of the environment, the Standard sets a bool Benchmark for adheving storag social, obside benchmark for adheving storag social, eventes accountability to the highest gamisational levels and adds new guarements for independent oversight, he Standard also establishes clear spectations acround transparency and public

emprising six Topic areas, 15 Principles of 77 auditable Requirements, the Standard ovides a framework for safe tailings facility anagement while affording Operators whilling as to how hest to achieve this coal

