

LMepassport: Discussion Paper Response

December 2020



SETTING THE GLOBAL STANDARD





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1 EXECUTIVE SUMMARY

The LME has been greatly encouraged by the demonstrable support and clear mandate the market has provided on LMEpassport; the LME's digital credentials register supporting certificates of analysis (“CoAs”) and voluntary certifications and disclosures.

The value in a centralised and robust model on metal provenance and production information is clearly recognised throughout the LME ecosystem. The role of steward and infrastructure provider is the right role for the LME in the growing need for product transparency; working as a trusted intermediary to the metals market.

Spurred by the support for the LMEpassport Discussion Paper the LME will build and deliver LMEpassport as a new service to the market. LMEpassport will:

- **Drive market utility.** The LME will implement changes to the Rulebook and LME Warehouse Agreement that integrates LMEpassport into the processes of handling LME branded metal – in particular, the handling of certificates of analysis. By virtue of these changes the LME can drive coalescence around the LMEpassport model and ensure a high degree of network benefit to the LME ecosystem.
- **Support accessible and robust information.** LMEpassport will provide the infrastructure to promote and distribute a broad scope of provenance and production information to an unrivalled level of granularity. The platform supports certifications and disclosures relevant to a corporate group, company, asset or individual unit of metal. This flexibility will future-proof the LMEpassport model through the evolving efficacy of provenance certifications and disclosures.

Further, the platform will empower users to scrutinise and make confident decisions based upon the provenance and production information available. LMEpassport will support standards and disclosure frameworks or themes determined with the market and requiring the support of a third party audit or an industry-accepted verification route. The LME cannot police and validate the entire portfolio of certifications and disclosures but it can oblige a minimum standard of transparency to robustly support the due diligence process.

- **Complement market initiatives and standards.** An array of provenance and production certification and disclosure initiatives exist in the metals market. Many of these initiatives represent substantial investment from a wide range of market participants and are effective agents for change. As such, the LME will actively look to support and work collaboratively with these initiatives under the scope of LMEpassport. Further, the platform will provide the infrastructure to promote and drive coalescence around incumbent market-led initiatives. LMEpassport will also provide a platform for any new or emerging areas of disclosure. The LME understands the broad variety of goals market participants have in pursuit of ethical and sustainable production. The LME stands in support of these goals in whatever form they take; we have power in unity.
- **Best-practice data security.** The LME is an experienced and well-practiced steward of highly sensitive commercial information. As a regulated exchange the LME has a strong track record in managing secure and resilient IT applications. The full weight of this experience will be employed in creating best-practice data security protocols for LMEpassport and the data it holds.



2 BACKGROUND

On 13 August 2020, the LME released a discussion paper via Notice 20/194 (“LME Discussion Paper on LMEpassport” or the “discussion paper”) outlining its proposals in respect of a digital credentials register called LMEpassport.

2.1 LMEpassport rationale

The LMEpassport proposal was a response to emerging demands in the global metals market by the LME. First, a need for efficient and cost-effective processes around quality assurance documentation; in particular Certificates of Analysis (“CoAs”). Second, an increasing appetite for transparency around provenance and production information. Both of these demands are hindered by the current market practice of transferring essential documentation bilaterally, which permits a single actor to degrade the quality of a document to the detriment of downstream stakeholders.

2.1.1 Operational efficiency

Certificates of analysis are quality assurance documents. In this role it is essential these documents travel with the underlying parcels of metal to which they relate. This need places a great burden upon those stakeholders who manage metal and its associated documents on a daily basis. The many demands placed on physical documentation gives rise to degradation, unnecessary duplication and the potential to be lost throughout the supply chain. These challenges add costs, impede quality assurance practices, and undermine auditability. This longstanding pain-point is familiar to many stakeholder groups across the LME. Despite this, a credible solution has yet to emerge or find consensus in the market.

Certificates of analysis are an essential tool within the LME ecosystem and the wider metals market. They communicate purity, size and shape of a batch of metal. As such, CoAs are common practice in the physical market and are a warranting requirement for the majority of physically settled contracts at the LME.

Action by the LME to address the operational challenges around CoAs will directly benefit not just the participants of the LME ecosystem but also their associates, trading partners and clients.

2.1.2 Growing appetite for transparency

The metals market is experiencing a growing demand for transparency, which extends to provenance and production information detailing how, where and under what conditions metal has been produced. Examples such as environmental and social factors are increasingly important to consumers.

The response by the metals market has been tangible. Of note, producers have responded by investing in a broad array of certifications and disclosures, demonstrating compliance to set standards and principles, or promoting particular areas of effort to make their business more sustainable. Details around certifications and disclosures are often made publicly available, however, they are not commonly distributed alongside physical parcels of metal to which they relate. Downstream stakeholders must make a deliberate effort to seek out production information, corporate policies, certifications, disclosures or any other area of relevant information.

The LME believes the effective distribution of provenance and production information with physical parcels of metal would benefit all market participants. Current practices reflect neither the investment from producers nor the value placed on certifications and disclosures by end users. Sharing comprehensive provenance and production information in LMEpassport will promote greater user choice and transparency for all stakeholder types.



2.1.3 Objectives of LMEpassport

The LME has set out three core objectives in developing the LMEpassport proposal. The LME believes the platform must provide:

- **A utility service aligned to industry.** The proposed solution should be aligned to current industry practices. This means enhancing those industry practices rather than replacing them. In turn, this helps ensure a low impact on the business models of stakeholders at all stages.
- **A safeguarded library of provenance and production information.** The proposed solution must maintain robust, immutable data safeguarded for all downstream users and their agents.
- **Detail on-demand.** Centralised data must be provided in real time, at the points it is needed, and in the form that is most convenient.

2.2 Respondents

The LME would like to thank the nineteen market participants who provided written feedback to the discussion paper, as well as all those who contacted the LME and provided their ideas and thoughts through meetings and calls. The Exchange very much appreciates the time and effort taken by all those who contributed.

The LME has taken all the feedback received into careful consideration. This paper explores that feedback in detail and explains, where appropriate, the amendments to the LMEpassport model on the basis of such feedback and the LME's own analysis. For completeness, this paper also outlines areas of feedback received not to be incorporated into the LMEpassport proposals and provides a rationale for these decisions. Further, the LME intends to publish a consultation on proposed amendments to the LME Rulebook and LME Warehouse Agreements in early 2021.

Any market participant wishing to arrange further discussion or seeking clarification in relation to the LMEpassport initiative is asked to contact lmepassport@lme.com.



3 FEEDBACK TO THE DISCUSSION PAPER

The LMEpassport discussion paper was well responded to and solicited supportive feedback from the market. Nineteen formal responses were submitted to the LME, complemented by many bilateral conversations and a range of LME Committees that shared their views on the proposal.

The vast majority of responses to the discussion paper were supportive and encouraged the LME to implement the LMEpassport initiative. Respondents clearly indicated they would value the LMEpassport service, both in terms of the operational gains realised around CoAs and the transparency offered by a centralised repository of value-add certifications and disclosures. This broad support was qualified with the need to minimise market disruption and any unintended consequences.

Many respondents also offered suggestions as to how the LME's proposal could be refined. In general respondents shared the LME's ambition to adopt best practice for safeguarding provenance and production data, while remaining conscious the solution must be practical for LME market participants to implement.

For ease, the LME has categorised the key feedback themes and this paper will consider each in turn:

- Operational processes and workflows
- Governance, obligations and rule changes
- Considerations around value-add certifications and disclosures
- Considerations around the broader LME market
- LMEpassport implementation timeline
- Next steps

3.1 Operational processes and workflows

The operational processes and platform workflows of LMEpassport were common areas of comment by respondents to the discussion paper. In general, the responses indicated a strong level of support for LMEpassport functionality and the proposed processes around the platform. Queries or concerns raised by respondents largely focused on a desire to understand these processes in greater detail. The LME is encouraged by the consensus around the proposed operating model of LMEpassport. The LME will use this feedback analysis to address the most common and central themes raised around processes and workflows. As the platform develops the LME will release further guidance on its operational processes.

3.1.1 Reconciling LMEpassport data to LME Warrants

A number of respondents to the discussion paper stated a desire to connect LMEpassport information to LME warrants. While views differed on how this functionality might be implemented, the LME acknowledges the need to address this requirement. The benefits of connecting LMEpassport to LME warrants are manifold for LME market participants and, the LME believes, will aid adoption.

The LME will seek to link LME warrants to the detail held in LMEpassport via warrant ID (the unique and discrete reference number created by LMEsword). Users of LMEpassport will be permitted to search for information by inputting a desired LME warrant ID or batch of warrant IDs. Alternatively, users of LMEpassport will also be permitted to search for relevant information through the use of LMEpassport IDs (the concatenation of LME brand and production cast reference ("PCR") numbers). For the sake of clarity, warrant numbers (the reference used by warehouse companies holding metal on warrant) will not be used in the same way and will not be exported outside of LMEsword.

In order to implement this functionality a revision to LMEsword protocol will likely be required. The LME will provide guidance on any revised processes in LMEsword in due course.



3.1.2 Data security and confidentiality

Most respondents to the discussion paper raised questions around the proposed security of the platform and the data it holds. Many agreed that an adequate level of security could be provided in the framework proposed by the LME though felt that additional assurance is required in certain areas. A number of respondents highlighted that information provided on metal provenance and production carries value and in particular where CoA data might be aggregated and cross referenced with other sources of information.

The LME is committed to finding an appropriate balance between data security and distribution, to maximise adoption across a wide range of applications. The following mechanisms will be employed by LMEpassport to ensure data security without compromising the distribution model needed to create a highly accessible market utility:

- **Registered users only.** Only registered users will be permitted to access the platform. Each corporate entity requesting access to the platform will be subject to KYC and due diligence checks undertaken by the LME. Entities without any direct current relationship with the LME will require endorsement from an LME member or LME approved warehouse confirming their status as a client. This will ensure that only participants of the LME ecosystem can access the platform.
- **Terms of use.** Every user of the platform will be required to agree to terms of use. These will oblige users to only request information for which they are entitled, either as the owner or in their role as agent. Users will be prohibited from sharing LMEpassport data with other entities or individuals who do not have a right to access, either as the metal owner or as an agent on their behalf. Finally, the terms will set out the levels of recourse against users that breach the terms of use.
- **Two factor authentication.** Two factor authentication will be required to create user accounts in the service and can be employed during other sensitive activities where identity must be confirmed – for example, password reset. This function will help prevent illegitimate creation or use of log-in credentials.
- **Annual recertification process.** An annual recertification process conducted by the LME will re-validate corporate accounts with the platform. Further, corporate entities will be required to manage dormant or unused accounts as part of this exercise.
- **Activity log.** A centralised activity log will capture the actions of every user and will support surveillance of suspicious behaviour. It will also provide detail to support recourse against any potential bad actor under the LMEpassport terms of use.
- **Penetration testing and patching.** The LMEpassport platform will be subject to regular penetration testing undertaken by a third party. Any security concerns or bugs with the security protocol will be remedied in line with industry best practices.
- **Warehouse inspections.** The LME's Physical Operations team will integrate checks of LMEpassport within their existing inspection processes of warehouse companies.

The Exchange understands the importance of getting this component of the platform right for all market participants. The LME has ample experience in operating secure and highly resilient IT applications which will be applied to the development and management of LMEpassport.

3.1.3 Permissions

A small number of respondents to the paper proposed revisions to the permission structure set out by the LME:



- **Overwrite permission for LME warehouses.** One proposal outlined the need for LME approved warehouse companies to have an overwrite function. This permission would allow LME warehouses to revise and correct any errors in registering provenance and production information. The LME believes this is a pragmatic and beneficial function provided the overwrite function is limited to those records created by the specific LME warehouse in question.
- **Listed samplers and assayers.** Another proposal outlined a need for listed samplers and assayers to be permitted to create records in LMEpassport through the write permission. The LME accepts there are marginal use cases where direct access to the platform for LSAs could be beneficial. On balance, the Exchange believes that the registration of Basic CoA records supported by an LSA CoA should remain the responsibility of an LME warehouse or an LME member, as set out in the discussion paper.

3.1.4 Operational processes and workflows: Feedback not taken forward

The LME received a number of suggestions or feedback themes relating to operational processes that were not taken forward. In the spirit of transparency, the LME has sought to justify why these particular areas of feedback could not be taken forward.

A small minority of respondents suggested the LME should provide warranties around the integrity and accuracy of data held in LMEpassport. The practicalities in achieving this, however, are prohibitive. The liability for accurately representing provenance and production information is that of creators, ie LME brand producers, and promoters, ie warehouse companies or LME members sharing product details. By way of comparison, the LME does not require, nor undertakes, independent assay of every unit of LME branded metal warranted with the Exchange. While this requirement would undoubtedly further enhance quality assurance at the LME, the financial and administrative burden of doing so would negatively impact a well-functioning and liquid market.

A further proposal to the discussion paper was that of regular audits of market participants registering provenance and production information. Once again, the LME believes the administrative and financial burden of imposing such a regime would out-weigh the benefits. Further, the requirement to accompany any value-add certification or disclosure information with audit documentation helps mitigate these concerns.

3.2 Governance, obligations and rule changes

The proposed governance and rule changes set out in the LMEpassport discussion paper was another area which received substantial feedback from respondents. While many respondents broadly agreed with the proposals there were aspects that drew challenge or suggestions for improvement.

3.2.1 LMEpassport fees

LMEpassport fees were commented upon by a number of respondents to the discussion paper. Broadly speaking there was consensus around the fee structure proposed by the LME. Respondents challenging the LME model diverged significantly in their views and no alternative was identified as having material market support.

The proposed fee amounts set out in the LMEpassport discussion paper received little challenge. The LMEpassport Maintenance Fee of US\$5 per warrant at cancellation was not considered an unreasonable charge and market participants broadly understood a need for the LME to share ongoing costs of the service. Similarly, the Registration Fee Cap of US\$10 per lot where a warehouse company had undertaken work to register the CoA was not considered inappropriate. The themes most prominently raised around fees largely focused on the point of administration; who pays, when and the mechanism of collection:

- **Fees as a hindrance to early adoption.** A small minority of respondents shared concerns that fees levied in the formative stages of the initiative could hinder adoption and prevent LMEpassport from becoming



a market utility. Further, respondents suggested the costs shared via LME fees would undermine the long term vision of LMEpassport and could hurt the LME brand in the process. The Exchange does not believe that waiving fees in the formative stages of the initiative will benefit the long term vision of the project.

Any comparable service to LMEpassport will charge. It is fair and reasonable for the LME to similarly charge for these services. The LME believes the fee structure proposed under the LMEpassport discussion paper represents a fair and low-cost solution to the market.

- Warrant cancellation as the point of fee administration.** A small number of respondents to the discussion paper proposed that increased fees at the point of warrant cancellation are inadvisable. Both the LMEpassport Maintenance Fee and a fee charged by the warehouse company under the Registration Fee Cap are levied on the metal owner cancelling an LME warrant. Respondents suggested that inflating charges to take receipt of metal would reduce the willingness of market participants to take physical delivery. This reticence, in turn, may damage the strong link between LME prices to the physical market.

The LME takes any concern around the well-functioning of its futures market very seriously. The point at which these additional fees are administered has been very carefully considered. While any introduction of new fees will impact market behaviours to a degree the LME believes any unintended consequences of introducing LMEpassport fees at warrant cancellation will be minimal. The rationale being the maximum possible LMEpassport fees of US\$15 per lot represents a marginal increase on the investment made to purchase the underlying physical metal, most specifically Free on Truck (“FoT”) charges. As an example, assuming a lot of LME Zinc priced at US\$2,700 per ton and US\$67,500 per lot as detailed below in *Table 1*. We can compare three scenarios:

Scenario	Lot price 25 tons at \$2,700	FOT \$40 per ton	LMEpassport Maintenance Fee	LMEpassport Registration Fee	LMEpassport Total fees	Total charges	Marginal load on Total charges
1	\$67,500	\$1,000	-	-	-	\$1,000	-
2	\$67,500	\$1,000	\$5	-	\$5	\$1,005	0.005%
3	\$67,500	\$1,000	\$5	\$10	\$15	\$1,015	0.015%

Table 1.

Scenario 1 – today’s charges without LMEpassport fees. FOT charges in taking receipt of the metal, assuming an average FOT charge of US\$40 per ton, would equate to \$1,000 for the 25 ton lot. This represents a 1.48% load to the US\$67,500 lot price to take physical receipt of the metal.

Scenario 2 – CoA information has already been populated in LMEpassport by a producer or within a previous warranting cycle. FOT charges in taking receipt of the metal, using an example FOT charge of US\$40 per ton, would equate to \$1,000 for the 25 ton lot. Only the LMEpassport Maintenance Fee of \$5 would apply. Total fee would equal US\$1,005. This represents a 1.49% load to the US\$67,500 lot price to take physical receipt of the metal and a marginal increase of 0.005%.

Scenario 3 – where no CoA information has been populated in LMEpassport and a warehouse must undertake this work. FOT charges in taking receipt of the metal, using an example FOT charge of US\$40 per ton, would equate to \$1,000 for the 25 ton lot. The LMEpassport Maintenance Fee of \$5 would apply and the LME warehouse may charge up to US\$10 under the LMEpassport Registration Fee Cap. In the aggregate these



charges total US\$1,015. This represents a 1.50% load to the US\$67,500 lot price to take physical receipt of the metal and a marginal increase of 0.015%.

The LME does not believe that the marginal costs detailed in Scenario 2 or 3, in practice, discourages market participants from taking physical receipt of warranted material. Further, the LME believes the small charge for LMEpassport will be easily offset by operational efficiencies realised in handling CoA information throughout the remainder of the value chain.

- **Warehouse fees should be variable to reflect work done.** Under the proposed governance, warehouse companies are obliged to ensure CoA detail is registered in LMEpassport for warranted metal. Where CoA detail has been previously registered, the warehouse company will have no additional work to undertake. Should any unit of metal comprising the lot not have CoA credentials registered in LMEpassport then the warehouse company will be obliged to register it. The work done in registering CoA detail could vary greatly owing to the variable form and scope of CoA documents, and the right to aggregate LME branded metal from any number of batches into a single lot.

At one extreme, all the metal to be warranted under a lot could be detailed on a single CoA document. This document is of a high quality, is only one page long and in a PDF form which is easily readable by LMEpassport's optical character recognition ("OCR") function. The OCR function accurately locates and interprets the requisite information, and the warehouse company need only click to confirm the accuracy for each field. In this example the work done by the warehouse company would be relatively small.

At the other extreme, a lot comprising of 25 T-bars could be detailed in 25 different CoAs. In turn, these CoAs could each be low quality scans of 30 page documents. LMEpassport's OCR function would face greater challenge in correctly interpreting the requisite information and require the warehouse company to manually correct any erroneous parsing of the document. This extreme example would require a relatively greater degree of work to be done by the warehouse.

In either scenario the registration fee charged may be any sum up to and including US\$10 per warrant. LME warehouses will have the flexibility to vary the registration fee within this cap. The LME believes this proposed structure provides warehouse companies adequate flexibility to vary the registration fee basis the work done while protecting the broader marketplace from any unintended consequences.

The LME, having considered the three themes laid out above, believes the proposed LMEpassport fee structure is suitable and reasonable. As such, the LME will not be revising the LMEpassport Maintenance Fee of US\$5 per lot and LMEpassport Registration Fee Cap of US\$10 per lot as set out in the discussion paper.

3.2.2 Obligation on LME brand producers

A number of discussion paper respondents questioned the timing of obligations placed on LME brand producers. Under the current LMEpassport proposal, the producers of LME brands will be obliged to register CoAs for all LME branded material produced on or after the 1 January 2024. To a small minority of respondents this obligation is not implemented soon enough; LME brand producers are the natural source of provenance and production information and the LMEpassport model should rely on brand producers accordingly. The LME firmly agrees that LME brand producers are the natural source of provenance and production information and should, ultimately, be the principal data provider to LMEpassport. In considering how best to achieve this model the LME has aimed to balance two additional requirements:

- **System and process changes.** The LME has considered the time required for brand producers to revise systems and processes to register provenance and production information in LMEpassport. This is particularly pertinent for two reasons. First, the LME's recent implementation of responsible sourcing requirements already has presented significant change for brand producers. The addition of further change



before the responsible sourcing requirements are fully implemented is not reasonable or constructive in the view of the LME. Second, the LME believes the LMEpassport model would be best served by brand producers who connect to the platform's application programme interface ("API") and register provenance and production information through an automated mechanism. Connectivity via API will reduce the both the operational burden of registering detail but also the occurrence of errors. The additional lead-in time to support LME brand producers to connect via API, in the view of the LME, is highly beneficial.

- **Redundancy in registration.** Regardless of when LME brand producers are obliged to register CoA detail at source, a variety of use cases will remain where LME branded metal set to be warranted will not be accompanied by a COA record in LMEpassport. At the very least this will be true of all metal produced and entering the value chain prior to producer obligations being introduced. The LME believes it is paramount to have an additional mechanism that captures these use cases and prevents a two tiered market; where some lots are LMEpassport registered and some are not. The registration of Basic CoAs by warehouse companies is this catch-all mechanism and is an essential component of the LMEpassport model. Developing a mature and robust set of protocols around the registration of Basic CoAs will provide assurance to the market as LMEpassport transitions to Enhanced CoAs with the implementation of producer obligations from 1 January 2024.

3.2.3 Obligations on LME approved warehouses

Additionally the LME received a number of suggestions or feedback themes relating to the proposed obligations placed on warehouse companies:

- **Collection of Registration Fees.** A small number of discussion paper respondents suggested the LME should collect LMEpassport Registration Fees on behalf of LME approved warehouses. Under the current proposals the LMEpassport Registration Fee Cap conveys the right for LME approved warehouses to levy and collect additional fees from metal owners where a registration fee applies. Despite this right, a number of respondents have suggested warehouse companies would struggle to justify increased charges to their clients. Many warehouse companies would elect, instead, to simply assume the additional work required to register CoAs without any fee increase levied upon metal owners.

The LME understands the competitive environment in which LME approved warehouses operate and the impact of LMEpassport upon their business models. Additional obligations placed upon warehouse companies are balanced by operational benefits realised through LMEpassport. The LME cannot accept the administrative burden of collecting fees on behalf of warehouse companies nor does the LME see benefit in pursuing this approach. It is the prerogative of warehouse companies to charge their clients for the work done in registering CoA information, subject to the Registration Fee Cap.

- **Registration of Basic CoAs.** A number of questions were raised on the registration of Basic CoAs. LME warehouses will be required to register Basic CoAs for any unregistered metal, produced before 01 January 2024, and either placed onto LME warrant or cancelled from LME warrant. This obligation on warehouse companies will be staggered across LME contracts as set out in the Discussion Paper. Specific queries arise as to the treatment of metal to be newly warranted and legacy material already warranted on the date changes to the LME Rulebook and the LME Warehouse Agreement are made. The LME has set out below how each category will be treated:

- **Metal to be newly warranted.** Metal to be newly warranted must have complete CoA Records in LMEpassport. If an existing record exists, the LME warehouse need only check LMEpassport and confirm the accuracy of the records. The LME warehouse may then proceed with the warranting process in the same way as it is conducted today. If any unit of metal comprising the lot does not have a CoA Record in



LMEpassport then the LME warehouse is obliged to create the record as part of the warranting process and will earn the right to charge a fee up to and including the LMEpassport Registration Fee Cap.

- **Metal already on warrant.** Metal already on warrant when Rulebook and LME Warehouse Agreement changes are implemented will need to be progressively registered with LMEpassport in order to prevent any unwanted impacts on the market. The LME, therefore, will require the registration of Basic CoA Records for all warranted metal as the LME warrant is cancelled. Warehouse companies will be obliged to undertake the process for registering a Basic CoA as set out in the discussion paper. For the avoidance of doubt LME warehouse will not need to register Basic CoAs for any metal already on warrant until such time as that warrant is cancelled. This obligation will ensure that all LME branded material leaving the LME ecosystem will have a CoA Record in LMEpassport.

For the avoidance of doubt the obligations relating to both use cases as detailed above will be implemented over an Introductory Phase, platform go-live to 31 December 2023, and subject to a staggered implementation of LME contracts as detailed in the discussion paper. The LME appreciates the volume of work to be undertaken by the network of LME approved warehouses in this approach and believes an appropriate fee under the LMEpassport Registration Fee Cap should be levied upon metal owners to compensate the associated marginal cost. Further, the LME will not permit this obligation to impact load-out times at LME approved warehouses. The LME will address these obligations in a fourth coming consultation on the LME Rulebook and LME Warehouse Agreement.

3.2.4 LMEpassport scope

The majority of respondents to the LMEpassport discussion paper supported the proposed scope of LMEpassport and the progressive way rule changes would be implemented. A number of suggestions or alternatives to scope were proposed that the LME has carefully considered. Broadly speaking these comments can be divided into the following themes:

- **Voluntary registration of CoA material.** A material number of respondents queried when CoA information might be voluntarily registered with LMEpassport. As set out in the LMEpassport discussion paper, all LME branded metal can be registered voluntarily from the first day of operation. This voluntary registration can be undertaken by producers at source or by warehouse companies and LME members acting on instructions from the metal owner. The LME plans to broaden this voluntary scope to include an array of non-LME-branded metal products from January 2024. The additional products to be supported and how they are introduced will be determined through a collaborative approach with the market and, where necessary, will be subject to market consultation.
- **LME Copper.** A number of discussion paper respondents stated their desire to register copper CoAs via LMEpassport and queried where LME Copper will fall within the LME's proposed Rulebook changes. The Special Contract Rules in respect of LME Copper are nuanced as they do not require a CoA for the purposes of warranting material.

Rule changes proposed under the LMEpassport initiative are applicable to physically delivered contracts that require a CoA in their respective Special Contract Rules. Metals outside of this definition can be registered voluntarily (as detailed above) by either LME brand producers, or warehouse companies and LME members at the direction of metal owners. Copper would be included in this voluntary scope from the date of go-live. Further, the LME will work with the copper industry to keep this approach under review and will revise the mandatory scope of LMEpassport if appropriate and supported by the market.



3.3 Considerations around value-add certifications and disclosures

Value-add certifications and disclosures and how they are managed within the LMEpassport service was an area drawing a high number of varied responses. The views, challenges and suggestions shared by market participants have been of great value to the LME in determining how the LME will manage certifications and disclosures. The LME is particularly grateful to the many market participants who contributed on this critical topic.

Throughout the feedback received a number of core themes were raised.

3.3.1 Determining which value-add certifications and disclosures to support

A number of LME market participants queried how the LME intends to determine which value-add certification and disclosures to support on LMEpassport. To expand upon the content set out in the discussion paper and in response to feedback received the LME will propose three principles to underpin a joint approach:

- **Market support.** The LME will seek to support value-add certifications and disclosures that have support amongst the LME's market participants. The LME will use established engagement channels such as LME Committees and market consultation to determine the level of support for a given certification or disclosure theme. The intent is not to require consensus from all stakeholders but ensure an adequate level of interest exists to confirm the certification or disclosure will be used and add value to the LME ecosystem. Ultimately the LME will retain sole discretion for determining the certifications and disclosures supported by LMEpassport.
- **Specific.** The LME will seek to support certifications and disclosures themes provide comprehensive guidance to the metals market and are adequately granular in their specification. This principle will be underpinned by the LME's own due diligence work and support from LME market participants.
- **Adequate audit and verification.** Finally, the LME will seek to support certifications and disclosures that are transparent and publicly disclose their methodology and application. In practice this will mean a published summary or findings from a third party audit or an industry-accepted verification route. In the case of managed certifications the appropriate audit or verification regimes will be managed and overseen by the administering body. Where a producer wishes to disclose against an established framework or an internal set of objectives, accompanying documentation must be published demonstrating the audit or verification work undertaken. In both cases adequate information must be made available to allow market participants to scrutinise the process of disclosure and the resulting disclosed information.

The LME also notes that there are certain specific areas where significant disclosure is already undertaken by certain producers, but not always on an entirely consistent basis – two key examples of this are (i) carbon footprint, and (ii) recycled content. In considering the LMEpassport data taxonomy, the LME will aim to capture not just reported quantitative data, but also the calculation parameters (for example, the specific process steps which are within the scope of carbon disclosure, or whether scrap content relates just to post-consumer scrap, or also run-around scrap).

3.3.2 Mandating disclosures for LME branded metal

A minority of discussion paper respondents proposed the LME mandate certain value-add certifications and disclosures. By requiring a standardised set of disclosures the LME would enable a direct comparison between producers, LME brands and even individual units of metal traded within the LME ecosystem. The LME understands the value of reaching this end-state, however, the Exchange does not believe the metals market is yet able to adequately support this requirement. Further, the LME believes that the introduction of obligated



disclosures during this formative period would be counter-productive. The LME has considered two principles which underpin this rationale:

- **Support market efforts and user choice.** As with the LME's responsible sourcing initiative, the LME is firm in the belief that the Exchange should support the varied and substantial efforts already present in the market place. This means the LME is committed to working with industry associations and non-governmental bodies administering certifications and disclosures. These entities have invested deeply in engaging the market and creating frameworks, thresholds and protocols valued by the participants they work with. The LME believes it would be counterproductive to reinvent any standard and fragment the market without an overwhelming mandate to do so.
- **Risk of prejudice.** Given the intent to only work with established certifications and disclosures the LME must carefully consider how best to provide user choice and mitigate the risks of prejudicing the market. Mandating a single certification or disclosure framework would favour certain quarters of the market while penalising others. The LME must, therefore, support user choice and cannot mandate a single certification or disclosure at this time.

3.3.3 Additional certifications and disclosures recommended by respondents

Within the discussion paper a question was posed to the market on additional certifications and disclosure types LMEpassport might support. A small number of respondents proposed additions as outlined below. For clarity, the LME has noted these suggestions but has no current plans to include these documents as part of the LMEpassport scope. Once LMEpassport is established the LME will work with market participants to identify and determine additional certifications and disclosures. For the avoidance of doubt the certifications and disclosures to be supported by LMEpassport will be at the sole discretion of the LME.

- **Certificates of origin.** More than one request was made for LMEpassport to support Certificates of origin ("CoO"). While the certifications and disclosures function could support additional document formats it is not clear on where in the value chain these documents might be added to LMEpassport and who is responsible for their accuracy. The LME believes that Certificates of origin present an opportunity that should be explored but will not be included within the initial scope of the platform. The Exchange will work with the LMEpassport Advisory Group to determine the value of adding CoOs to the LMEpassport scope.
- **Bills of lading.** Similarly a number of discussion paper respondents proposed bills of lading ("BoL") as an additional certification type. The LME will not pursue BoLs and other commercial trade documentation at this time. First, BoLs and commercial trade documentation are trade specific; they hold commercially sensitive consumer and financing detail not appropriate for the LMEpassport model. Second, there are a broad range of market initiatives currently focusing specifically on commercial trade documentation and cater for the sensitive information they hold. Many of these initiatives are far broader in scope than the metals industry and have received significant investment from their proprietors. LMEpassport is neither intended nor well placed to service sensitive commercial documentation such as BoLs.
- **Producer safety sheets.** A proposal made by a number of the respondents was that of producer safety sheets including, for example, REACH formats required under EU law. Further analysis on producer safety sheets, what they comprise and their uses will be undertaken by the LME. The Exchange will work with the LMEpassport Advisory Group to determine the value of adding producer safety sheets to the LMEpassport scope.
- **Carbon credits and carbon offsets.** Carbon credits and carbon offsets were further suggestions made by respondents to the discussion paper. For carbon credits the LME has assumed respondents are referring to the European Emissions Trading System ("ETS") or similar initiatives seeking to limit the carbon



profile of emitting industries. Respondents propose the incorporation of carbon credits or carbon offsets would complement the underlying sustainability credentials registered on LMEpassport.

- **Coupled credits and offsets.** The LME will support value-add certificates and disclosures that meet the criteria set out at 3.3.1 determining which value-add certifications and disclosures to support; the market must be supportive, the disclosure must be specific, and audit or verification of the disclosed information must be published. For the avoidance of doubt the scope of these certifications and disclosures may include the use of carbon offset and carbon credit initiatives. In practice, this will require credits or offsets that are coupled to the underlying metal at the point of production with a third party auditing this processes and assessing the robustness of the credit/offset provider.
- **De-coupled credits and offsets.** While the LME recognises the value in supporting all avenues to creating a more sustainable metals market, the Exchange does not believe LMEpassport can adequately support de-coupled carbon credits or offsets after metal leaves the point of production. These nominal certificates require diligent and robust chain of custody mechanisms to ensure integrity and mitigate the risk of double counting. LMEpassport does not track chain of custody and is therefore ill placed to support de-coupled carbon credits or carbon offsets.

3.4 Considerations around the broader LME market

A number of respondents questioned the broader impact of LMEpassport on the LME market place. The Exchange has sought to address any and all unintended consequences to the introduction of LMEpassport. Key themes highlighted under this banner include:

- **Producers of listed brands.** A handful of respondents to the paper detailed concerns over the additional burden placed on producers. These respondents highlighted that the increased burden, in extremis, could prompt producers to de-list brands. The LME is conscious of the need for buy-in from producers to the LME model. While the registration of provenance and production information in LMEpassport requires additional work, the LME intends to make the process as convenient for producers as practicable by employing multiple mechanisms for registering material. The LME also believes that ultimately, producers will benefit significantly from the operational efficiency gains offered by an electronic model for CoAs.
- **Manipulation of LME stock.** A minority of respondents posed a concern around potential manipulation of LME stock. The additional transparency of metal credentials supported in LMEpassport could permit traders to pursue material with an associated premium based upon certain characteristics. While the manipulation of the LME market place is a key concern, the idea that active market participants may pursue metal with an associated premium is not new. Indeed a number of constructive behaviours in the market place, including the provision of liquidity, are motivated by market participants pursuing premiums amongst the LME stock. The priority of the LME is a well-functioning and fair market. The LME believes that an unfair or privileged position in the market will not be achievable given the protocols laid out in *3.1.2 Data security and confidentiality*.
- **Two-tier market.** A number of respondents to the discussion paper raised concerns over the potential to create a two tier market basis material with an electronic CoA (“**eCoA**”) and material without. Further, these concerns detailed a scenario where the pricing of LME contracts could be negatively impacted.

The LME believes the two LMEpassport mechanisms, through Enhanced CoAs and Basic CoAs, which capture provenance and production information will naturally mitigate the risk of a two tiered market. While there are a number of drivers behind the decision to only introduce producer obligations to register Enhanced CoAs in January 2024, the LME also sees benefit in refining and familiarising the market with Basic CoAs created by



warehouse companies and LME members in the preceding years. Crucially this will prevent any separation of physical stocks in January 2024 when producer obligations are introduced.

The LME was not alone in this assessment, a number of respondents deemed the role of warehouse companies to register eCoAs as highly important as a mechanism to limit a two tier market.

3.5 LMEpassport implementation timeline

LMEpassport will be implemented in a phased approach. From the LMEpassport go-live date, planned in mid-2021, until 31 December 2023, the LME will exercise an Introductory Phase. This Introductory Phase will mandate warehouse companies to interact with the service and register metal under specific circumstances across an increasing scope of LME contracts. Producers will be permitted to interact with the service voluntarily throughout this period. The Introductory Phase will allow all users of the service to revise workflows and business processes ahead of a second phase, Full Implementation, of LMEpassport from 01 January 2024.

From 01 January 2024, all proposed rule changes will come into effect and LMEpassport will be mandated to support all physically-settled contracts requiring a certificate of analysis as part of the LME's Special Contract Rules.

3.5.1 LMEpassport record types

As a reminder of the discussion paper, each record in LMEpassport will represent a single PCR held within a CoA document. Two distinct CoA record types will be supported by LMEpassport. The type of record created will be determined by the permissions of the registering user and the quality of the underlying information.

- **Enhanced CoA Records.** Enhanced CoA Records will comprise of structured CoA data registered in LMEpassport. The right to create Enhanced CoA Records in LMEpassport will be limited to producers of metal. These record types will require a high degree of quality assurance and, as such, are most appropriately limited to this stakeholder group.
- **Basic CoA Records.** Basic CoA Records will comprise of a few validated data fields and a digital version of the original document. The data fields populated will allow these record types to be searchable by key details. This will include producer name, CoA reference, CoA date, LME brand, the metal (ie zinc, lead, aluminium) and the individual production cast references listed. Digital versions of the original paper CoA document will provide the PCR specific detail.

3.5.2 LMEpassport rule changes by stakeholder type

Rule changes and obligations for each stakeholder type will come into effect across both phases of implementation.

- **LME brand producers.** Producers will have no obligations during the introductory phase of the service. Producers will be permitted and encouraged to register CoA and value-add certifications and disclosures with LMEpassport.

At full implementation of LMEpassport, producers will be required to register all LME branded metal produced on or after 01 January 2024. CoA detail must be registered as Enhanced CoA Records before leaving the site of production. Producers will be permitted and encouraged to append value-add certifications and disclosures with LMEpassport.

- **LME members.** LME members will have no obligations during the introductory phase or at full implementation. Members will be permitted and encouraged to register and consume information from LMEpassport. This will apply to both CoA detail and value-add certifications and disclosures.



- Metal owners.** Metal owners will have no obligations during the introductory phase or at full implementation of LMEpassport. Metal owners will be permitted and encouraged to consume information held in LMEpassport. This will apply to both CoA detail and value-add certifications and disclosures.
- Warehouse companies.** Subject to the LMEpassport scope (see section 3.5.3 Staggered introduction of LME contracts), warehouse companies will be required to check LMEpassport for CoA records of all metal at the point of being placed onto warrant or taken off warrant. Any PCR comprising the lot not registered on LMEpassport must be registered prior to warranting or at the point of cancellation, whichever is applicable. Where the metal is produced on or before 31 December 2023 warehouse companies will be required to register each PCR not otherwise registered as a Basic Record.

These obligations on warehouse companies will continue into the Full Implementation phase of LMEpassport. Over time the relative proportion of warranted material without an existing registered record, whether Basic or Enhanced, will decrease and so will the relative burden placed upon warehouse companies to register CoAs.

3.5.3 Staggered introduction of LME contracts

A number of respondents to the discussion paper proposed a period of access to the platform prior to any obligations introduced under changes to the LME Rulebook and the LME Warehouse Agreement. The benefits of this familiarisation period being two fold. First, users would be provided time to understand the platform and build competence in its processes. Second, users could voluntarily begin registering metal ahead of any obligations. This was considered particularly beneficial for warehouse companies.

The staggered introduction of LME contracts to LMEpassport’s scope can be seen in *Table 2*. These target dates are subject to change and are provided for indicative purposes only.

Go Live mid-2021	Mid-2021	01 June 2022	01 January 2023	01 January 2024
No obligations	Primary Aluminium	Primary Aluminium	Primary Aluminium	Primary Aluminium
		Zinc	Zinc	Zinc
		Lead	Lead	Lead
			Tin	Tin
			Nickel	Nickel
			NASAAC	NASAAC
			Aluminium Alloy	Aluminium Alloy
			Cobalt	Cobalt

No obligations	Warehouse obligations introduced	Producer obligations introduced
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Table 2.

Please note all dates are target dates and are subject to change

The LME will publish a consultation on proposed amendments to the LME Rulebook and LME Warehouse Agreements in early 2021. This consultation will provide a further indication of proposed implementation dates for LMEpassport.

3.6 Next steps

The LME would like to highlight the next steps on the LMEpassport initiative:

- LME Committees (December 2020 onwards).** The LMEpassport project team will be looking to work with the LME Metal Committees to review and provide feedback on progress of the initiative. The



Committees will not only play a key role in representing the needs of market users but also provide essential insight into which value-add certifications and disclosures are of most relevance to their respective LME contract.

- **LMEpassport Advisory Group (January 2021 onwards).** The LMEpassport Advisory Group, comprising of LME market participants, shall run monthly from December 2020 throughout the development and implementation of the solution. The Advisory Group will be a key part of the LMEpassport development process, providing feedback and direction on the prioritisation of work. Once again the LME would like to sincerely thank the members of the market who have volunteered their time for this initiative.
- **LME Rulebook and LME Warehouse Agreement Consultation (Q1 2021).** The LME intends to release a formal market consultation around the proposed changes to the LME Rulebook and the LME Warehouse Agreement. This document will be publicised to the market along with the relevant feedback window.
- **Outreach and collaboration with certification and disclosure providers (Q1 2021 onwards).** The LME will seek to engage and collaborate with the many incumbent and varied certification and disclosure providers in the market. By working closely with these industry or non-governmental bodies the LME intends to promote and support the excellent work already undertaken within the market.



4 CONCLUSION

As the feedback outlined above demonstrates, the LME's market participants have dedicated a considerable amount of their time and expertise to providing the LME with in depth and carefully thought through analysis of its proposals. The LME hopes that the above consideration of this feedback does justice to the effort involved and demonstrates the seriousness with which the LME takes all the comments received. Before the implementation of LMEpassport, the LME will issue a market consultation on changes proposed to the LME Rules and the LME Warehouse Agreement.

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