Thank you for the opportunity to speak at the roundtable.

Measuring Success – What does Success Look Like? In order to answer this we need metrics that are built on both data and systems:

1) **METRIC: Matching and linking master to publishing**

**Pre MMA**, there was a “match rate” that was generally but informally defined as at least one publishing share linked to an ISRC that had usage in a streaming platform. This % was largely used for mitigation of legal risk for statutory damages as well as winning DSP rights administration business. It was binary – at least one share = match. In this era of metrics, the higher the match rate, the lower the risk for DSPs and conceptually the better the rights admin service.

**Now, post MMA**, we do still need to monitor and measure match rate, but it is no longer focused on DSP risk since statutory damages are now gone, and we have a blanket license instead of individual licenses. We also have a central MLC as mandated by the legislation and all entities under S115 are reporting into the same pool and system. Different world.

**In our current era**, I recommend we use match rate metrics that get at the core of the problem of unattributed mechanical royalties: of all the music that has been streamed, what songs are matched at 100%? 75%? Measure by quartile as that will tell us how much is dripping out of the leaky bucket.

It is no longer meaningful to consider a 5% song share matched to ISRC a success. If just 5% of a song is matched to an ISRC, that means 95% of the royalties are unattributed. Now it is meaningful to address and measure the success of linking all publishing splits:

**Quarterly Match Rate Snapshot** – every quarter, measure the percentage match rate on all songs that are used/monetized in the previous period and organize data into quartiles:

- 100% matched (meaning 100% of all publishing shares have been linked to a master recording/ISRC and paid out to the publishers)
- 75-99% matched (meaning up to one quarter of the publishing associated with sound recordings streamed has not been identified or paid)
- 50-74% matched (at least half of publishing shares are unmatched/unpaid)
- 25-49% matched (up to 75% of publishing shares are unmatched/unpaid)
- 0-24% matched (most of the publishing shares are unmatched – putting nearly all of the mechanical royalties associated with these sound recordings into unattributed)

Measuring the publishing match rate by quartile will show trends as well as break the unattributed issue down from a monolithic problem into manageable pieces. We will find patterns in each of these categories – for instance music that is 50% matched and above may likely be associated with major publishers and major label artists, whose systems and data tend to be in better shape. Perhaps
the bottom half would include more indie music and foreign language/character sets that are messier and often incomplete.

Opening up the songs and data for analysis by data science companies as well as songwriters and publishers for claiming will help enable all parties to participate in improvements. It is often said that the longer tail costs more to clean up than its value, however, this approach would enable parties with varied interests to prioritize this task. This can create a competitive marketplace of startups and tech companies to build tools that create efficiencies at scale for solving this data problem.

Related data sets -- In addition to the above quartile matched snapshot done four times per year, it is reasonable to believe that all of the data and match rate will improve over time. It is also reasonable to assume that all rightsholders have a vested interest in getting their artists and writers paid accurately. Therefore I can envision a variety of other ways to measure success through data -- a rolling average of % match rates over time, parse the data by label or distributor to know where most of the problems are occurring, and measure effectiveness of tools at the songwriter level as well as in the supply chain. These are all just examples.

We should also measure engagement of the creator community – look at the outreach efforts and measure engagement with the MLC platform and whether this has an impact on improved data and linking of master recording to publishing.

I realize this is not easy! This will take time. It will take new approaches and modern systems.

→ It would also be useful to understand what percentage of all the music that is available will never have 100% -- public domain, long standing conflicts, music released without ISWC or publishing assigned, nature sounds – how much is this? 15% of the total catalog? It’s guesswork right now but it would be useful to know so if we got EVERYTHING RIGHT, what would be the maximum?

2) DATABASE and SYSTEMS: data management, data exchanges, data sets, and tools
We have hundreds of millions of publishing splits associated with the 60M songs that are available in Spotify, Apple, Soundcloud and other DSPs. These publishing rights are constantly changing hands and new releases are at an all time high. Composers are also creating differently now – highly collaborative with 6-7-8 writers per song. This presents an enormous challenge for everyone involved since all the parts are moving all the time.

We need to go far beyond a dataset in a table. Data silos that are not refreshed and do not cross-reference each other as well as third party sources will perpetuate problems.

We need to use a multi-faceted approach to this with modern tools for both data management as well as claiming portals. These tools should include machine learning and AI, audio fingerprinting, machine-readable data points that include PRO data and an ISRC reference library, as well as frequent data exchanges with PROs, publishers, and international collectives. Pre-matching should be done for existing catalog and constantly refreshed for changes in ownership. I believe this DB could be centralized or decentralized, but it must be viewed as a living entity that is in a state of constant change. We also need open and easy registrations for smaller entities that address the fastest growing segment of independent creators.