IEEE 802.3 Ethernet Working Group
DRAFT Liaison Communication

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To:	Kingston Zhang	ISO/IEC JTC 1/SC 6/AG 4 Convenor
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	Jon Lewis	Secretary, IEEE 802.3 Ethernet Working Group
	Peter Yee	Chair, IEEE 802 JTC1 Standing Committee
From:	David Law	Chair, IEEE 802.3 Ethernet Working Group

Subject: Review of 'Proposing LAN/Ethernet MCS Gap Analysis'

Approval: Agreed at IEEE 802.3 interim meeting, Campinas, Brazil, 14 September 2023

Dear Mr Zhang and members of ISO/IEC JTC 1/SC 6/AG 4,

The IEEE 802.3 Ethernet Working Group has had the opportunity to review 'Proposing LAN/Ethernet MCS Gap Analysis' (ISO/IEC JTC 1/SC 6/AG 4 N 107) and notes numerous errors.

These include the assumption that groups of IEEE 802.3 Ethernet physical layer devices (PHYs) use a single modulation and coding scheme, whereas they use many different modulation and coding schemes. There also seems to be an assumption that higher rates were enabled solely by improvements in the media, whereas, for example, the same category of

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twisted-pair cabling is supported at higher data rates through improved signaling techniques. It is also notable that there is no consideration for the multiple different noise environments seen in the different IEEE 802.3 Ethernet applications, as well as the economic considerations of the applications, both of which are important considerations in Modulation and Coding Scheme (MCS) specifications in IEEE 802.3 Ethernet standards. Finally, there are references to IEEE 802.3 Ethernet PHYs that don't exist such as 50GBASE-T.

The breadth and variety of PHY modulation coding schemes found in IEEE Std 802.3 Standard for Ethernet you propose to analyze will either result in a report that is too basic to provide useful information or will take a very long time. Further, we struggle to see the value in refining a document looking at existing specifications, well-accepted in the marketplace and we are therefore not inclined to participate in ISO/IEC JTC 1/SC 6/AG 4's work. Instead, we remind participants in ISO/IEC JTC 1/SC 6/AG 4 that are interested in advancing MCS work in IEEE 802.3 Ethernet standards that IEEE 802.3 standards activities are open to all individuals. The IEEE 802.3 Ethernet Working Group invites all interested individuals to participate through contributions to IEEE 802.3 Ethernet activities.

Sincerely,
David Law
Chair, IEEE 802.3 Ethernet Working Group