|  |  |
| --- | --- |
| **ITU – Telecommunications Standardization Sector**  STUDY GROUP 21 Question C/16  **Video Coding Experts Group (VCEG)**  2-8 November 2024, Kemer, TR | Document VCEG-BW09-v1 |

|  |  |  |  |
| --- | --- | --- | --- |
| Question: | C/16 SG21 (VCEG) | | |
| Source: | **Telefon AB – LM Ericsson** | Email: | [lukasz.litwic@ericsson.com](mailto:lukasz.litwic@ericsson.com)  [jacob.strom@ericsson.com](mailto:jacob.strom@ericsson.com) |
| Title: | **Towards future video coding standard** | | |
| Purpose: | **Proposal** | | |

# Abstract

This contribution lists recommended actions for gathering evidence on video coding capabilities beyond Rec. ITU-T H.266. These actions are asserted to be essential for progression towards potential future video coding standard.

# Introduction

WG5/JVET has worked on exploration of novel video compression methods which have been shown to provide compression performance gains beyond the Rec. ITU-T H.266 baseline. At the same time, it is not known how this exploratory work should be evaluated in the context of industry requirements which may be identified essential for a potential future video coding standard. Therefore, this contribution asserts that before any commitment to setting a timeline for such a major project, the following prerequisites need to be addressed:

1. Solicit industry input on future video coding requirements and use cases.
2. Solicit test material reflecting up-to-date content characteristics and key requirements and use cases identified in a).
3. Develop Common Test Conditions reflecting a) and b), including compression performance and computational complexity metrics.
4. Solicit evidence on future video coding capabilities beyond Rec. ITU-T H.266 based on a), b), and c).

# Discussion

Given the complexities of video codec deployments across different industry verticals which are likely aimed to be addressed with a potential new video coding standard, we argue there is little value in guiding any potential standardization timeline based on past gaps between codec standardizations.

The view presented in this contribution is that a new video coding standardization project could be advanced when there is sufficient evidence available on the expected benefits provided against the state-of-the-art, namely Rec. ITU-T H.266. What these benefits are should not be extrapolated directly from the exploratory work and should be aligned with identified and agreed requirements. Any supporting evidence towards the expected benefits such as compression performance should be provided based on an evaluation framework aligned with requirements for such a potential future standard.

# Proposal

Work on a) has been started and it is argued that there should be an opportunity provided to gather input from a wide industry base as well as allow the requirements to stabilize and mature during the next few meeting cycles.

Work on b), c) can be started in parallel to a).

The most obvious and tested way to address d) would be through a Call for Evidence (CfE).

Our view is that it is premature to set a detailed standardization timeline including Call for Proposals (CfP) before a CfE (or equivalent of thereof) is agreed to be satisfied.