3GPP TSG SA4 #113-e ***Tdoc S4-210645***

6-14 April 2021

**Source: Editor[[1]](#footnote-1)**

**Title: IVAS-6: Selection Deliverables, Version 0.0.1**

## Agenda Item: 8.5

**1. Introduction**

This Permanent Document describes the Deliverables for the IVAS Selection Phase.

The deliverables shall meet the schedule specified in IVAS-2, IVAS Project Plan.

The objective of the Selection Deliverables is to provide sufficient amount of information about the candidate for decision by SA4.

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**2. Selection Deliverables**

1. **High level technical description of the candidate algorithm**
2. **Draft specifications of the candidate**
3. **Report covering the compliance to Design Constraints**
4. **Demo material may be useful**
5. **Funding payment**
6. **IPR declaration**
7. **Optional additional information**
8. **Objective evaluation results**
9. **Legal framework to cover use of executables, source codes, unprocessed audio test material, processed audio test material, and test results**
10. **Candidate Codec Executable**
11. **Candidate Codec Source Code**

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# Annex: Working assumptions

Editor’s note: *The following points were agreed as working assumption with the aim to give SA4 the necessary planning security for the IVAS codec selection and characterization test campaigns and a basis for working on further details of IVAS selection and characterization phases including discussions with potential external labs. Sufficiently before the steps of this working assumption become due for action, SA4 will endorse them in formal decisions.*

Working assumption:

* The registered IVAS proponent companies shall reconfirm their interest to submit an IVAS codec candidate together with an optional indication if this will be a joint submission together with other proponents.

This information will result in an up to date indication of the number of IVAS codec candidates to plan with. The reconfirmation should take place soon when the proponents had enough time for their considerations.

* IVAS proponents are requested to issue a first binding Letter of Intent (LoI) for initial funding of the selection and characterization process for the IVAS codec. Signing the LoI commits the proponent to support the selection tests and, through a corresponding payment, to contribute to a codec candidate’s share of the IVAS codec testing funds. It has the following purposes:
  + Give SA4 planning security about the maximum number of IVAS codec candidates to consider in selection tests.
  + Secure a basic level of funds for the selection testing campaign, with an amount per codec candidate to be agreed in SA4.

For participation of a candidate codec in the IVAS codec selection, the first LoI and the required payments associated with that codec must be submitted/completed by certain dates specified by SA4. These deadlines should be set such that there is sufficient time for SA4 to work with good planning security on the relevant IVAS selection phase Pdocs like the selection test plan or the selection rules.

* IVAS proponents are subsequently requested to issue a second binding LoI for the remaining funding of their candidate codec in the selection and characterization process. Signing the second LoI commits the proponent to a second payment. It has the following purposes:
  + Cover the actual costs of the selection phase campaign, which will most likely exceed the previously collected funds (associated with the first LoI).
  + Secure sufficient funds for the characterization phase campaign and give corresponding planning security.

The submission date of the second binding LoI and the deadline for the associated payment should be after finalization of the relevant selection phase Pdocs and shortly before the candidate codec submission deadline for IVAS codec selection. SA4 should determine the specific dates as soon as a detailed selection phase planning is complete and listening lab resources for the selection testing have been secured.

* Since groups of companies are likely to submit joint candidates (which is clear in the case of public collaboration), the LoIs should cater for the possibility to make partial payments associated with joint candidate codecs.
* To be entitled to submit a given candidate codec to the IVAS selection tests, SA4 should require that first and second LoIs pertaining this candidate are signed and that the associated payments fulfilling the total amount required for a candidate are done by the specified dates. No refunds shall be possible for withdrawing proponent companies except a proportionate share of potentially unused funds after the closure of the IVAS codec work item (see last bullet).
* The total budget for IVAS codec testing campaigns (selection and characterization) shall be 1.2 M€. The funds will be collected by ETSI from the IVAS codec proponents via the first and the second LoIs, which each shall raise 600 k€. These numbers may be subject to adjustments depending on the actual number of candidate codecs, cost and number of the experiments, and potential support functions by external and internal labs.
* The amount to be paid for each candidate codec in association with the first LoI will depend on the number of reconfirmed codec candidates in the first step. However, since after the deadline for the payments the actual number of codec candidates may turn out to be lower, this may result in that the funds collected with the first LoI may be substantially lower than the expected 600 k€. In that case SA4 should be prepared to decide if/when the proponents of the remaining candidates must make an extra payment to close this gap.   
  There may also arise the case that first LoIs and corresponding payments from proponent companies associated with a given candidate codec arrive after the deadlines and even if that candidate codec has already fully been paid for. In that case, this extra payment should be credited as an advance payment associated with that candidate codec for the funds to be collected under the second LoI. This means, the payment for that candidate required under the second LoI will be reduced accordingly.
* Based on previous 3GPP experience with speech/audio codec standardizations incl. EVS, splitting the total funds for selection and characterization with a 2/1 ratio is a good guideline. This leads to the working assumption of 800 k€ available for the selection phase and 400 k€ available for characterization. Potentially unused funds from the selection phase shall be added to the characterization phase funds. Unused funds after closure of the IVAS codec work item shall be refunded to the IVAS codec proponents unless they decide otherwise.

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