Title:	**AMR Wideband Codec Development Project** **Deliverables for the Qualification Phase (WB-6a)**
Version:	**0.1**
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This document lists the deliverables for the Qualification Phase. The deliverables are all items the candidates must provide in order to be considered for the Qualification Phase

Section 1 lists the major schedule assumptions relevant for the definition of Qualification deliverables. The deliverables are listed in section 2.

1. Schedule assumptions:

The delivery dates for all Qualification deliverables are based the following assumptions (see also the action table and [1]):

1. All participants complete the required non-disclosure agreements by March 20th 2000.

2. The Test plan for the Qualification phase [2] is finalised and approved by [TBD].

3. The Processing Procedures document for the Qualification phase [3] must be completed and approved by [TBD].

4. The Rules for the Qualification phase [4] must be completed and approved by [TBD]

5. Those Requirements applicable to the Qualification phase testing [5], [2] must be completed and approved by [TBD]

6. The Noise Laboratory supplies the required noise samples to the Independent Distributor by March 24th 2000.

7. The candidates are responsible for the processing of the speech samples with their solution. To receive the speech samples, the candidates must have delivered copies of their executable to ETSI by March 30th 2000. Pre-processed speech samples from the Independent Distributor will only be delivered to the candidates once copies of the executables have been received by ETSI.

8. Candidates are responsible for executing the Qualification phase test plan in regard of their own candidate and two other candidates, the identity of which is not revealed.

9. An independent distributor is appointed to distribute speech and noise material according to the instruction contained within the Qualification phase Test Plan.

The following table lists the key actions and dates associated with these assumptions:

Actions for the Qualification Phase

Responsible	Action Description	Deadline
Candidates, Independent Distributor, Noise Lab	Finalise and sign NDAs for the test material between candidates, Noise Laboratory, and Independent Distributor.	March 20th 2000
Noise Lab	Delivery of Noise samples to Independent Distributor.	March 24th 2000
Candidates	Delivery of speech test database to Independent Distributor	March 24th 2000
Candidates	Receipt of executables for AMR/WB solution by ETSI	March 30th 2000
Independent Distributor	Delivery of the appropriate test material (speech and noise) to each candidate for processing	March 31st 2000
Candidates	Delivery of the processed speech database to the Independent Distributor	April 19th 2000
Independent Distributor	Delivery of the appropriate speech databases to candidates	April 25th 2000
Candidates	Delivery of test results and other deliverables (excluding IPR statement) to the 3GPP S4 reflector	June 1st 2000
Candidates	Delivery of IPR Declaration to ETSI	June 1st 2000
SMG11/S4	Review of the Qualification Phase test results	June 5-9 2000

2. List of Deliverables:

The candidates participating to the selection phase must provide the following deliverables:

- Signed NDAs between the candidates, Noise Laboratory, and Independent Distributor, covering the test material (speech and noise)

- Speech Codec Executable (fixed or floating point)

- Speech test database

- Processed speech test databases

- High level technical description of the candidate algorithm

- Qualification test results (using common Excel spreadsheet)

- Report covering the Listening tests undertaken

- Report covering the design constraints

- IPR declaration

- Optional additional information

Each item is described in the following sections:

2.1 NDAs for access to Speech and Noise Material

A non-disclosure agreement covering all required areas will be provided . The document will cover the following:

- Release of noise material from the Noise laboratory to the Independent Distributor and all Candidates

- Release of speech material from each candidate to the Independent Distributor and all candidates

The text of the agreement shall be common to all parties.

2.2 *Executable:*

Before receiving the pre-processed speech samples from the Independent Distributor, each candidate must deliver a copy of their executable to ETSI.

The executables delivered to ETSI shall be obtained from a floating-point or fixed-point implementation of the candidate solution. It should be possible to re-generate the processed speech samples using the pre-processed samples, the delivered executable program and the Error Patterns identified in [TBA]. To that purpose, the candidates must also deliver instructions on how to generate the processed samples from these components.
The candidates cannot change the behaviour of their solution once they have received the speech samples.

The executables must be received at ETSI by March 30th 2000. It is the responsibility of the candidates to be sure that the executable will effectively be delivered by the due date. ETSI will register the executable delivery date for each candidate and will report the effective delivery date to SMG11/S4. ETSI will not check the correct operation of the files delivered.

The executables will be used after the end of the Qualification Phase to verify that candidate solutions entering the Selection Phase are able to regenerate the processed speech samples used during the Qualification tests.

2.4 Speech Database

The candidates must deliver a database of speech samples required by the Qualification Test Plan [2] to the Independent Distributor by March 24th.

2.4 Processed speech Test Database :

The candidates must process the speech and noise samples received from the Independent Distributor according to the Qualification phase Processing Functions document [4] and deliver the processed material to the Independent Distributor by April 19th.

2.5 High level technical description:

The candidates must publish a technical description of their solution on the 3GPP S4 reflector by June 1st 2000. The description should contain sufficient detail to allow analysis of the solution.

2.6 Test results:

The candidates must publish the results of the subjective tests they undertake (for their own candidate and two other candidates) on the 3GPP S4 reflector by June 1st 2000. This will utilise the common format defined by S4 using the defined Excel spreadsheet format.

2.7 Listening Lab report

Each listening lab must publish a report outlining the listening tests undertaken and showing conformance to the procedures outlined in the Qualification phase Test Plan [2]. Publication on the S4 reflector must take place by June 1st 2000.

2.8 Report on Design Constraints:

Each candidate shall also provide a report showing that the proposal fulfills all design constraints as outined in [6]. This includes a complexity evaluation based on the fixed-point code: Worst Observed Frame for the speech codec, memory (scratchpad RAM, static RAM and data ROM) and Program ROM estimates. The Worst Observed Frame figure must be computed from the complete database of speech material used for the Qualification phase. Publication on the S4 reflector must take place by June 1st 2000.

2.9 IPR Declaration:

The candidates must provide by June 1st 2000 a mutually acceptable declaration of IPR. Candidates are advised to discuss the form of this IPR statement with the ETSI Legal Adviser (see below) well in advance of this date, to define what is mutually acceptable.

Mr. Stephane Tronchon
ETSI Legal Adviser
ETSI / PT SMG
650 Route des Lucioles
06921 Sophia Antipolis Cedex
France
Email: stephane.tronchon@etsi.fr

The written statement can also be sent by Fax before the deadline.

2.8 Optional additional information:

The candidates are free to provide any additional information likely to help in the evaluation of their proposal.

3. References

The latest versions of all referenced documents can be obtained from the SMG11 FTP site:

http://docbox.etsi.org/tech-org/smg/Document/smg11/SMG11_WB/

[Pointer to 3GPP site TBA]

[1]: Project Plan (WB-2). Latest version.
[2]: Qualification Phase Test Plan (WB-8a). Latest version.
[3]: Qualification Rules (WB-5a). Latest version.
[4]: Processing Functions (WB-7). Latest version.
[5]: Perfomance Requirements (WB-3). Latest Version.
[6]: Design Constraints (WB-4). Latest Version.

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