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**ETSI**

European Telecommunications Standards Institute

**ETSI Secretariat**

**Postal address:** F-06921 Sophia Antipolis CEDEX - FRANCE

**Office address:** 650 Route des Lucioles - Sophia Antipolis - Valbonne - FRANCE

**X.400:** c=fr, a=atlas, p=etsi, s=secretariat - **Internet:** secretariat@etsi.fr

Tel.: +33 92 94 42 00 - Fax: +33 93 65 47 16

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## Contents

Foreword .....	5
Introduction .....	5
1 Scope .....	7
2 Milestones .....	7
3 Documentation .....	7
3.1 General .....	7
3.1.1 Types of deliverables .....	7
3.1.2 Approval responsibility.....	8
3.1.3 UMTS document numbering .....	8
3.2 Details of the UMTS work programme .....	8
3.2.1 General (UMTS 21-series) .....	8
3.2.2 Service aspects (UMTS 22-series) .....	8
3.2.3 Network aspects (UMTS 23-series) .....	8
3.2.4 Radio aspects (UMTS 25-series) .....	8
3.2.5 UMTS management aspects (UMTS 32-series) .....	9
3.2.6 Voice-band and audio aspects (UMTS 26-series) .....	9
3.2.7 Video aspects (UMTS 34-series) .....	9
3.2.8 Security aspects (UMTS 33-series).....	9
3.2.9 Terminal aspects (UMTS 35-series) .....	9
3.2.10 Interworking and internetwork signalling aspects (UMTS 24-series) .....	9
3.2.11 Conformance testing specifications (UMTS 31-series).....	9
4 Working structure .....	10
Annex A (informative): Milestones for the standardization of UMTS .....	11
Annex B (informative): Deliverables for UMTS standardization .....	12
B.1 Baseline material .....	12
Annex C (informative): Standards .....	14
Annex D (informative): Terms of Reference for ETSI/SMG 5 .....	18
D.1 Responsibility .....	18
D.2 Work Plan .....	18
D.3 Working methods .....	18
D.4 Liaisons .....	19
D.5 Specific guidance for SMG 5 work in the years 1996 - 1997 .....	19
History.....	20

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## Foreword

This Technical Committee Reference Technical Report (TC-TR) was prepared by the Special Mobile Group (SMG) Technical Committee of the European Telecommunications Standards Institute (ETSI).

This SMG-TR 004 corresponds to UMTS 00.01 version 3.2.0.

This TC-TR is an informative document resulting from ETSI studies which are not appropriate for European Telecommunication Standard (ETS), Interim European Telecommunication Standard (I-ETS) or ETSI Technical Report (ETR) status.

They can be used for guidelines, status reports, co-ordination documents, etc. They are used to manage studies inside TCs. They may also be utilized by the TC with overall responsibility for a study area for co-ordination documents (e.g. models, reference diagrams, principles, structures of standards, framework and guideline documents).

## Introduction

The Universal Mobile Telecommunications System (UMTS) is envisaged as the third generation mobile telecommunications system to follow in Europe after the second generation systems like GSM, DCS 1800, DECT, etc.

Universal Mobile Telecommunication System (UMTS) will offer flexible service capabilities, digital mobile voice, fax, video, multi-media, data and other information service capabilities and capacity via seamless wireless access to everyone equipped with a single easy to use terminal. UMTS is intended to enter service at the beginning of the 21st century (1.1.2002) in the 2 GHz frequency band.

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## 1 Scope

This ETSI Technical Committee Technical Report (TC-TR) describes the work programme for the standardization of the Universal Mobile Telecommunications System (UMTS) to be carried out by ETSI. It is envisaged that the work will be carried out in close co-operation with the work on Future Public Land Mobile Telecommunications Systems (FPLMTS) within the ITU. The ITU FPLMTS Recommendations form the global framework for system specifications such as the ETSI UMTS standard.

A single set of UMTS standards (ETSS) will cover general, service, network, radio, management and various implementation aspects. The application scopes and technical objectives of UMTS are already defined in the UMTS ETRs. The UMTS work within ETSI may additionally include technical studies for the support of work towards UMTS ETSS.

The overall responsibility for the standardization of UMTS within ETSI has been given to TC SMG. STC SMG 5 has been producing UMTS framework documents over the period 1991 - 1995 in the form of a set of ETRs[ refs]. The definition of detailed UMTS ETSS has been started now within the TC SMG and other ETSI TCs.

This UMTS work programme is to be used for long term programme management purposes and will be maintained by SMG 5. This UMTS work programme is used as the basis of the ETSI Work Programme (EWP).

This UMTS work programme contains short-term and long-term documentation, the time scales for their production, as well as allocation of responsibilities. In some cases, in particular for the short-term documentation, exact deliverables have been identified, while for the more long-term documentation only work areas identified for potential standards have been identified.

## 2 Milestones

The outline of milestones identified for the standardization of UMTS are included in annex A. Annex B. contains the milestones for baseline documents defining UMTS objectives, requirements and frameworks. The detailed structure for UMTS ETSS together with the timing and responsibilities is contained in annex C.

In defining and maintaining the ETSI Work Programme (EWP) sheets, the market demand for various parts of the UMTS standards has to be taken into account, taking into consideration the market situation for existing mobile systems, as well as the availability of frequencies for UMTS.

## 3 Documentation

### 3.1 General

#### 3.1.1 Types of deliverables

The documentation for UMTS will generally consist of two types of deliverables:

1) Baseline material:

This material will consist of some form of Technical Reports, typically ETSI Technical Reports (ETRs), containing material for key decisions, or work leading up to these, overall framework and requirements etc.

2) Standards:

This material will typically consist of European Telecommunications Standards (ETSS), and in exceptional cases Technical Basis for Regulations (TBRs), containing material for the exact definition of the system.

The UMTS system standard will be defined to the degree necessary for compatibility and international roaming. Open network interfaces are also desirable. For practical reasons, the UMTS system standard will further be developed in phases corresponding to the implementation phases of UMTS. This will be identified in the ETSI deliverable numbering, for example, the deliverable numbers of a phase 1 UMTS standard, shall be different from those of a potential phase 2 UMTS standard.

### 3.1.2 Approval responsibility

The work programme contains primary and secondary **technical** responsibilities, finalization dates and status for each deliverable. Primary technical responsibility is referred to the ETSI group which is carrying out the main part of the technical work on the deliverable, while secondary technical responsibility is referred to the ETSI groups with the most significant responsibility for consulting in a specific technical area. It should, however, be noted that the **approval** responsibility is with TC-SMG.

The finalization dates indicated in annex C refer to the time when the UMTS deliverables are submitted to TC SMG for approval. The other deliverable milestones are maintained in the EWP.

### 3.1.3. UMTS document numbering

All UMTS deliverables in this work programme are allocated a specification number (identifier).

The UMTS document processing is executed as defined in "Working Procedures for TC-SMG; SMG Standards Management" (GSM 01.00).

## 3.2 Details of the UMTS work programme

### 3.2.1 General (UMTS 21-series)

The general UMTS ETSS describe the system concept(s) and reference model for UMTS.

### 3.2.2 Service aspects (UMTS 22-series)

The UMTS Service ETSS contain the specifications (stage 1 type of descriptions) for the framework of services, terminals and environments that the UMTS system will support and the description of the service capabilities and service related requirements for the implementation of UMTS services.

### 3.2.3 Network aspects (UMTS 23-series)

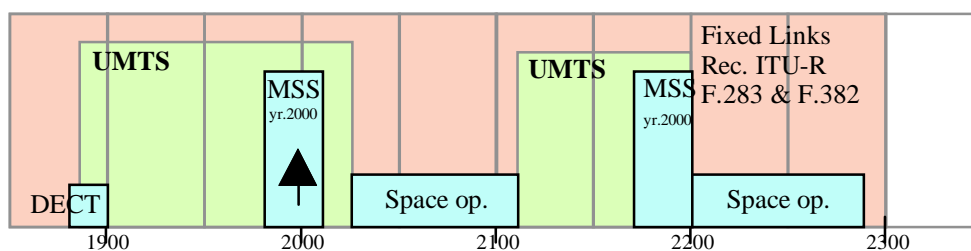
The UMTS network ETSS contain specifications of network functions, interfaces, operation, numbering and procedures for the implementation and provision of UMTS services. These are the foundations for choices of network architectures and network interfaces for UMTS. The UMTS network ETSS support evolutionary implementation of UMTS capabilities into existing and evolving networks.

### 3.2.4 Radio aspects (UMTS 25-series)

The UMTS radio ETSS will introduce a new radio interface technology for the FPLMTS frequency bands (see figure 1) which provide radio bearer capabilities up to 144 kbits/s with full coverage and mobility and up to 2 Mbits/s with possibly limited coverage, mobility or capacity.

Though the primary objective is to define the UMTS radio interface for the frequencies available in Europe (foreseen to be the frequency bands 1900 MHz - 1980 MHz / 2010 MHz - 2025 MHz / 2110 MHz - 2170 MHz for terrestrial applications and 1980 MHz - 2010 MHz / 2170 MHz - 2200 MHz for satellite applications), the standard should also possess a long term applicability for deploying UMTS services and technology in the existing European 2nd generation mobile frequency bands.





**Figure 1: European UMTS/FPLMTS frequency bands after WARC'92 and WRC'95 decisions**

### **3.2.5 UMTS management aspects (UMTS 32-series)**

One or several ETSs will be needed on management aspects of UMTS. This includes the TMN framework for UMTS, requirements on operations, administration, maintenance and management of the system etc.

### **3.2.6 Voice-band and audio aspects (UMTS 26-series)**

One or several ETSs will be needed on voice-band aspects of UMTS. Voice-band refers to any signal within the band 300 - 3 400 Hz. This includes description of speech codecs, other codecs, voice-band data, integration of audio coding and related issues. In the long term a merging of UMTS and GSM voice band/audio coding aspects is expected.

### **3.2.7 Video aspects (UMTS 34-series)**

ETSs will be needed on video aspects of UMTS. This includes description of video codecs and integrated support of video services in UMTS.

### **3.2.8 Security aspects (UMTS 33-series)**

One or several ETSs will be needed on specific security aspects of UMTS. This includes the detailed realization of the various security mechanisms for UMTS. General security aspects are otherwise planned to be integrated in the other ETSs throughout the whole series of ETSs.

### **3.2.9 Terminal aspects (UMTS 35-series)**

The UMTS ETSs for terminal specify user interface (formerly man-machine interface, or MMI), UIM functions and interfaces necessary to support the UMTS service capabilities.

### **3.2.10 Interworking and internetwork signalling aspects (UMTS 24-series)**

One or several ETSs will be needed on interworking of UMTS with other systems. This includes service, network and protocol interworking issues. The systems to be considered include, non-UMTS satellite systems, PSTN, ISDN, PLMN, PMR, LANs etc. Evolutionary protocols (INAP, MAP) need to be considered.

### **3.2.11 Conformance testing specifications (UMTS 31-series)**

The UMTS conformance testing ETSs define testing methods and conformance criteria for UMTS Mobile Station, Base Station, UIM and other equipment performances. These ETSs may include subparts dealing separately with physical (e.g. radio or audio) and protocol performance.

It is the purpose of the description methods for ETSs to support a direct and simultaneous creation of the test standards on the basis of corresponding functional ETSs. Additionally, the conformance testing standards are aimed to clearly and easily serve two different purposes, firstly to support voluntary testing for full conformity to UMTS functional standards, and secondly the creation of legal documents (e.g. TBRs, CTRs) for type approval or market access purposes applying the relevant European directives.

## 4 Working structure

TC SMG has been given the mandate to study and define the third generation mobile system UMTS, and SMG 5 has been set up to reflect this task. The terms of reference for SMG 5 are included in annex D. The work on UMTS will require work in a wide range of technical areas. The work will therefore need to be well co-ordinated and organized, internally and externally, to best carry out the task.

Within TC SMG, the following general guidelines for the work on UMTS apply:

- TC SMG has been given the mandate for the standardization of UMTS by the ETSI Technical Assembly, and is thus the primary responsible body for the system;
- within TC SMG, the overall responsibility for the study and design of the UMTS standard resides with SMG 5. SMG 5 is the system architect for UMTS;
- for the UMTS standardization work, the expertise of the existing SMG STCs and other STCs outside SMG will be used as far as relevant;
- as regards UMTS matters, SMG 5 co-ordinates within and outside TC SMG and its STCs the contributions to and from the ITU, RACE, ACTS, COST etc.;
- the baseline material in the UMTS work programme is the primary responsibility of SMG 5, with secondary responsibility for the appropriate other STCs;

Within the whole of ETSI, SMG 5 co-ordinates the work on UMTS and maintains a consistent work programme. When appropriate, e.g. when a detailed knowledge of a particular technology is required, SMG 5 shall request assistance from a TC other than SMG for assistance in the production of deliverables identified in the UMTS work programme. In addition, SMG 5 keeps direct liaisons with TCs and STCs outside SMG, when appropriate.

**Annex A (informative): Milestones for the standardization of UMTS**

Preparatory meeting of SMG 5:	End 91
Spectrum identified by WARC:	Mid 92
UMTS work programme agreed in ETSI:	End 94
Initial UMTS vocabulary defined:	Mid 95
UMTS objectives and requirements defined	Mid 95
Service framework defined:	Mid 95
Security principles defined	Mid 95
Framework for satellite integration defined:	Mid 95
System concepts and reference model defined	End 96
Service principles defined	Mid 97
Service capability aspects defined	End 97
Security algorithms defined:	Mid 98
Audi coding issues defined:	End 97
Video coding issues defined:	End 97
Voice-band, audio and video aspects ready:	End 98
Radio interface requirements defined:	End 95
Selection procedure and choice for radio transmission technologies	End 96
Radio interface principles defined	End 97
Radio interface protocols defined :	Mid 98
Physical radio access aspects ready:	End 98
Network requirements defined:	End 95
Network management principles defined:	Mid 95
Network protocols ready:	End 98
Network management aspects ready:	End 98
UMTS functional standards completed	End 98
Conformance specifications ready:	Mid 99
Possible start of service:	2000 - 2005

NOTE: Dates for Standards refer to TC approval for public enquiry

**Planned and estimated milestones for the introduction of UMTS into service:**

WRC '95 resolutions on MSS bands within the FPLMTS frequencies	End 1995
ERO report on UMTS frequencies	Mid 1996
ERC decisions on UMTS frequencies	End 1997
Licensing policy for UMTS defined	End 1998
ACTS demonstrations on UMTS type of services	Mid 1999
First licenses for UMTS frequency band delivered	End 1999
Allocation of MSS bands within FPLMTS frequencies possible	1.1.2000
Part of UMTS frequencies into use	1.1.2002
UMTS frequency bands into use	1.1.2005

NOTE: The European plans for the implementation of UMTS are outlined in the following documents:

1. Commission of the European Communities "Communication to the European Parliament and the Council on the consultation on the Green Paper on Mobile and Personal Communications: Proposal for a Council Resolution on the further Development of Mobile and Personal Communications in the European Union" (COM(94) 492 final/23.11.1994 Brussels).
2. Resolution of the European Parliament on the further development of mobile and personal communications in the EU (PE211.595). Unanimously adopted 19.5.1995.
3. Council resolution on the further development of mobile and personal communication in the European Union, 13.6.1995.
4. UMTS Task Force Report "The Road to UMTS", published 1.3.1996 and available from CEC DG XIII B.

**Annex B (informative): Deliverables for UMTS standardization****B.1 Baseline material****Table B.1**

Work Item code	UMTS identifier	UMTS title	STC	Editor	SMG app:	Version Date	Additional information
<b>TR's 00</b>		<b>ADMINISTRATIVE</b>					
DTR/SMG-050001 (SMG-TR 004)	UMTS 00-01	Work programme for the standardization of the Universal Mobile Telecommunications System (UMTS)	<b>SMG 5</b>	PT 83V	n/a	3.1.0 04/96	Published May 1996 as SMG-TR 004
DTR/SMG-050002 [TC-TR 001]	UMTS 00-02	Co-ordination guideline for SMG on UMTS with respect to ITU and European research programmes	<b>SMG 5</b>	Rapeli	n/a	3.0.0 08/93	To be withdrawn and replaced by TC-TR 00-03
DTR/SMG-050003 [TC-TR 003]	UMTS 00-03	Overall plan for the UMTS	<b>SMG/ SMG 5</b>	Rapeli		0.0.0	Living document to contain the general UMTS planning issues.
DTR/SMG-050100	UMTS 01-00	Overall introduction to UMTS documentation	<b>SMG/ SMG 5</b>	Rapeli	TBD	0.0.0	
<b>ETR's 01</b>		<b>GENERAL</b>					
DTR/SMG-050101 (ETR 271)	UMTS 01-01	Universal Mobile Telecommunications System (UMTS); Objectives and overview	<b>SMG 5</b> SMG 1	PT 83Vi	04/95	3.1.0 2/96	Publication Feb 1996 as ETR 271
DTR/SMG-050102	UMTS 01-02	Vocabulary for the (UMTS)	<b>SMG 5</b>	Groteluschen	04/95	3.0.0 10/94	Under continuous review. Publication July 1996 as ETR 309
DTR/SMG-050103 (ETR 291)	UMTS 01-03	(UMTS); System requirements	<b>SMG 5</b> SMG 1	PT 83V	04/95	3.1.0 04/96	Publication May 1996 as ETR 291
DTR/SMG-050104	UMTS 01-04	Scenarios and considerations for the introduction of the (UMTS)	<b>SMG 5, SMG II</b> SES, NA, RES	Ljungberg	07/96	2.0.0 05/96	Publication July 1996 as ETR 312
DTR/SMG-050105	UMTS 01-05	System design methodology for the UMTS	<b>SMG 5</b> SMG 1-4, SES, NA6	Soderbacka	10/96	0.1.0	
<b>ETR's 02</b>		<b>SERVICE ASPECTS</b>					
DTR/SMG-050201	UMTS 02-01	Framework for services to be supported by the (UMTS)	<b>SMG 1</b> SMG 5, SES, SMG 4, NA1	Richards	04/95	3.0.0 10/94	On hold (SMG#18)
<b>ETR's 03</b>		<b>NETWORK ASPECTS</b>					
DTR/SMG-050301	UMTS 03-01	Framework of network requirements, interworking and integration for the (UMTS)	<b>SMG 5</b> SMG 3,4,6 SES, NA6	Plas	04/96	2.0.0 6/95	Under review and endorsement in SMG 3 and NA6.
DTR/SMG-050303	UMTS 03-03	Principles for handling of data services in the (UMTS)	<b>SMG 3</b> SMG 4/5 SES	Klas	12/96	1.3.3 2/95	
DTR/SMG-050304	UMTS 03-04	Framework of network functions to support Multimedia services in UMTS	<b>SMG 3</b> SMG 4/5	Klas	04/97		

(continued)

Table B.1 (concluded)

Work Item code	UMTS identifier	UMTS title	STC	Editor	SMG app:	Version Date	Additional information
<b>ETR's 04</b>		<b>RADIO ASPECTS</b>					
DTR/SMG-050401	UMTS 04-01	Overall requirements on the radio interface(s) of the (UMTS)	<b>SMG 5</b> SMGall, SES	Gibbs	04/95	3.0.0 7/95	
DTR/SMG-050402	UMTS 04-02	Selection procedures for the choice of radio transmission technologies for the (UMTS)	<b>SMG 2</b> SMG 5	Ojanpera	01/97	0.8.5	
DTR/SMG-050403	UMTS 04-03	Choice of radio access principles for the (UMTS)	<b>SMG 2</b> SMG 5	Mohr	01/97	0.0.2	
DTR/SMG-050404	UMTS 04-04	Choice of source and channel coding principles for the (UMTS)	<b>SMG 2</b> SMG 5	Gibbs	01/97		
<b>ETR's 05</b>		<b>NETWORK MANAGEMENT ASPECTS</b>					
DTR/SMG-050501	UMTS 05-01	(UMTS); Objectives and framework for the Telecommunications Management Network (TMN)	<b>SMG 5</b> SMG 6, NA4	Rapeli	04/95	3.0.0 4/95	For review in late 1996
<b>ETR's 06</b>		<b>VOICE-BAND ASPECTS</b>					
DTR/SMG-050601	UMTS 06-01	Quality requirements for speech and associated channel coding for the (UMTS)	<b>SMG 2</b> SMG 5, SES	Gibbs (interim)	07/95	3.0.0 7/95	moved to SMG 2 Speech Experts group
<b>ETR's 07</b>		<b>VIDEO ASPECTS</b>					
DTR/SMG-050701	UMTS 07-01	Integration of audio/visual source coding in to UMTS.	<b>SMG 5</b> SMG 1-4	Alikhani	1/97	0.1.0 2/95	Scope requires further study
<b>ETR's 09</b>		<b>SECURITY ASPECTS</b>					
DTR/SMG-050901	UMTS 09-01	Security principles for the (UMTS)	<b>SMG SG</b> SMG 1,3, 5,9STAG, NA6	Youngs	7/95	2.1.0 12/94	Undergoing further development in SMG Security Group a(edition 2 06/96).
<b>ETR's 12</b>		<b>SATELLITE ASPECTS</b>					
DTR/SMG-051201	UMTS 012-01	Framework for satellite integration within the (UMTS)	<b>SMG 5</b> SES	Kokkos	7/95	3.0.0 7/95	
DTR/SMG-051202	UMTS 012-02	Technical characteristics, capabilities and limitations of mobile satellite systems applicable to the (UMTS)	<b>SMG 5</b> SES	Wildey	4/95	3.0.2 1/95	

**Annex C (informative): Standards****Table C.1**

Work Item code	UMTS identifier	UMTS title	STC	Editor	SMG app:	Version Date	Additional information
<b>ETS 21- xx series</b>		<b>GENERAL</b>					
DE/SMG-0502101U	UMTS 21-01	System concepts and reference model for the Universal Mobile Communication System (UMTS)	<b>SMG 5</b> SMG all SES	W Robinson	1/97		
<b>ETS 22- xx series</b>		<b>SERVICE ASPECTS</b>					
DE/SMG-0102201U	UMTS 22-01	UMTS Service Principles	<b>SMG 1</b> SMG 5	Richards	12/96	1.0.0 05/96	SMG 1/5 to review overall structure of this series.
DE/SMG-0102205U	UMTS 22-05	Bearer services	<b>SMG 1</b> SMG 5, NA1	Richards	01/98		Includes data and will possibly include overall requirements.
DE/SMG-0102210U	UMTS 22-10	Teleservices and required bearer services	<b>SMG 1</b> SMG 5,NA1	Richards	01/98		Includes data.
DE/SMG-0102215U	UMTS 22-15	Supplementary services	<b>SMG 1</b> SMG 5,NA1	Richards	01/98		
DE/SMG-0102220U	UMTS 22-20	Quality of service and network performance	<b>SMG 1</b> SMG 5,SES	Tiainen	01/98	0.0.0	Ref. E.800. Includes satellites.
DE/SMG-0502225U	UMTS 22-25	Types and features of Mobile Stations or mobile earth stations	<b>SMG 5</b> SMG 1,SES	Leskinen	01/98		
DE/SMG-0102230U	UMTS 22-30	Service requirements on security	<b>SMG 1</b> SMG 5,SES	Richards	01/98		
DE/SMG-0102235U	UMTS 22-35	Service requirements on numbering, addressing and identities	<b>SMG 1</b> SMG 5,NA2	Richards	01/98		
DE/SMG-0102240U	UMTS 22-40	Charging, billing and accounting principles	<b>SMG 1</b> SMG 5	Richards	01/98		
DE/SMG-0102245U	UMTS 22-45	Human Factors, service principles and their application to UMTS	<b>SMG 1</b> SMG 5,HF	Richards	06/97	0.1.0 3/95	
DE/SMG-0102250U	UMTS 22-50	Subscriber and service profile requirements	<b>SMG 1</b> SMG 5	Richards	01/98		
DE/SMG-0102255U	UMTS 22-55	UMTS User Identity Modules	<b>SMG 1</b> SMG 5, SMG 9	Richards	01/98		
<b>ETS 23- xx series</b>		<b>NETWORK ASPECTS</b>					
DE/SMG-0302301U	UMTS 23-01	UMTS functional model and network architecture	<b>SMG 3,NA6</b> SMG 5,SES	Napolitano	10/98	0.1.0	SMG 3 to liaise with NA6 and discuss structure, dates etc.
DE/SMG-0302305U	UMTS 23-05	UMTS Network principles	<b>SMG 3</b>	Mouley (interim)			New work item
DE/SMG-0302310U	UMTS 23-10	Generic access network and its interfaces	<b>SMG 3</b> SMG 5	Soderbacka	10/98		
DE/SMG-0302320U	UMTS 23-20	Network transport aspects for UMTS	<b>SMG 3</b> SMG 5	Soderbacka	10/98		
DE/NA-0202330U	UMTS 23-30	Numbering, addressing and identification	<b>NA2</b> SMG 3, SMG 5		10/98	0.0.2	SMG 3 to liaise with NA2 and discuss structure, dates etc.

(continued)

Table C.1 (continued)

Work Item code	UMTS identifier	UMTS title	STC	Editor	SMG app:	Version Date	Additional information
DE/SMG-0302340U	UMTS 23-40	Relationship with UPT	<b>SMG 3</b> SMG 5,NA6	Napolitano	10/98	0.1.0	SMG 3 to liaise with NA6 and discuss structure, dates etc.
DE/SMG-0302350U	UMTS 23-50	IN and B-ISDN concepts in a UMTS environment	<b>SMG 3, NA6</b> SMG 5,NA5	Napolitano	10/98	0.0.2	see note above
DE/SMG-0302360U	UMTS 23-60	UMTS data organization	<b>SMG 3</b> SMG 5, NA6	Napolitano	10/98	0.0.2	see note above
DE/SMG-0302370U	UMTS 23-70	UMTS operations and procedures	<b>SMG 3, NA6</b> SMG 5	Soderbacka	10/98	0.0.1	see note above
DE/SMG-0302380U	UMTS 23-80	Signalling requirements for UMTS	<b>SMG 3</b> SPS/SES ,SMG 5	Soderbacka	10/98	0.0.1	SMG 3 to liaise with SPS/SES and discuss structure, dates etc.
DE/SMG-0302390U	UMTS 23-90	Network performance requirements	<b>SMG 3</b> SMG 5	Soderbacka	07/97		
DE/SMG-0302395U	UMTS 23-95	Network functionalities relevant to Satellites	<b>SES</b> SMG 3, SMG 5	Dondl	10/98		Scope to be defined by SES TF UMTS.
<b>ETS 24- xx series</b>		<b>INTERWORKING AND INTERNETWORK SIGNALLING ASPECTS</b>					f
DE/SPS-0002401U	UMTS 24-01	Network interfaces	<b>SPS</b> NA6, SMG 3/5		06/98		
DE/SMG-0502405U	UMTS 24-05	Interworking of UMTS with other systems	<b>SMG 5</b> SMG 3/4, SES NA6	Willey	06/97		
DE/SMG-0502410U	UMTS 24-10	Requirements for provision of UMTS services via satellite access	<b>SMG 5</b> SES SMG 1/2/4/6/9	Kokkos	12/97		
<b>ETS 25- xx series</b>		<b>RADIO ASPECTS</b>					
DE/SMG-0202501U	UMTS 25-01	Framework of radio system	<b>SMG 5</b> SMG 2,SES	Ojanpera	04/97		
DE/SMG-0202502U	UMTS 25-02	UMTS radio network planning aspects	<b>SMG 2</b> <b>SMG 5, SES</b>	Andersen (interim)			New document (equiv 03.50)
DE/SMG-0202503U	UMTS 25-03	UMTS Background RF requirements	<b>SMG 2</b> <b>SMG 5, SES</b>	Andersen (interim)			New document (equiv 05.50)
DE/SMG-0202505U	UMTS 25-05	Multiplexing and multiple access	<b>SMG 2</b> SMG 5,SES	Grayson	04/97		
DE/SMG-0202510U	UMTS 25-10	Channel coding	<b>SMG 2</b> SMG 5,SES	Andersen (interim)	04/97		
DE/SMG-0202515U	UMTS 25-15	Modulation	<b>SMG 2</b> SMG 5,SES	Andersen (interim)	04/97		
DE/SMG-0202520U	UMTS 25-20	Transmission and reception	<b>SMG 2</b> SMG 5,SES	Andersen (interim)	12/97		
DE/SMG-0202525U	UMTS 25-25	Radio channel performance requirements	<b>SMG 2</b> SMG 5,SES	Andersen (interim)	06/98		
DE/SMG-0202530U	UMTS 04-30	Physical link control	<b>SMG 2</b> SMG 5,SES	Andersen (interim)	06/98		
DE/SMG-0202535U	UMTS 25-35	Synchronization	<b>SMG 2</b> SMG 5,SES	Andersen (interim)	12/97		
			(continued)				

Table C.1 (continued)

Work Item code	UMTS identifier	UMTS title	STC	Editor	SMG app:	Version Date	Additional information
DE/SMG-0202540U	UMTS 25-40	Radio interface protocols, layer 1	<b>SMG 2</b> SMG 5,SES	Andersen (interim)	12/97		
DE/SMG-0302545U	UMTS 25-45	Radio interface protocols, layer 2	<b>SMG 3</b> SMG 5,SES	Andersen (interim)	06/98		
DE/SMG-0302550U	UMTS 25-50	Radio interface protocols, layer 3	<b>SMG 3</b> SMG 5/2,SES	Andersen (interim)	06/98		
<b>ETS 26- xx series</b>		<b>VOICE-BAND VIDEO ASPECTS</b>					
DE/SMG-0502601U	UMTS 26-01	Speech codec requirements for UMTS	<b>SMG 5/SMG 2</b> SES	Gibbs (interim)	01/97		SMG 2/SEG to review
DE/SMG-0202605U	UMTS 26-05	Voice Activity Mechanisms	<b>SMG 2</b> SES	Gibbs (interim)	01/97		SMG 2/SEG to review
DE/SMG-0402610U	UMTS 26-10	Voice band data coding description	<b>SMG 4</b>	Roth (interim)			
DE/SMG-0102615U	UMTS 26-15	Integration of audio visual coding into UMTS	<b>SMG 1</b> SMG 2	Cox (interim)	12/97		
<b>ETS 31- xx series</b>		<b>CONFORMANCE TESTING SPECIFICATIONS</b>					
DE/SMG-0703110U	UMTS 31-10	UMTS Mobile Station performance	<b>SMG 7</b> SMG 5	Thomas (interim)	12/98		
DE/SMG-0803120U	UMTS 31-20	UMTS Base Station performance	<b>SMG 8</b> SMG 5	Pike (interim)	12/98		
DE/SMG-0903130U	UMTS 31-30	UMTS User Identity Module interface performance	<b>SMG 9</b> SMG 5	Vedder (interim)	12/98		
DE/SMG-0703140U	UMTS 31-40	Other equipment specifications	<b>SMG 7/8/9</b> SMG 5	Thomas (interim)	12/98		
DE/SMG-0503150U	UMTS 31-50	Essential requirements for UMTS Mobile Stations (ME) operating within frequency bands 1885-1980, 2010-2025 and 2110-2200 MHz	<b>SMG 5</b> SES, SMG 2/7	Dondl	12/98		Proposed FPLMTS Recommendation
DE/SMG-0503160U	UMTS 31-60	Essential requirements for UMTS Mobile Earth Stations (MES) operating within frequency bands 1980- 2010 and 2170-2200 MHz	<b>SES</b> SMG 2/5/7	Dondl	12/98		Proposed FPLMTS Recommendation
			(continued)				



Table C.1 (concluded)

Work Item code	UMTS identifier	UMTS title	STC	Editor	SMG app:	Version Date	Additional information
<b>ETS 32- xx series</b>		<b>NETWORK MANAGEMENT ASPECTS</b>					
DE/SMG 0503201U	UMTS 32-01	Overall TMN framework	<b>SMG 5/SMG 6</b> SMG 6/NA4	Hertel (interim)	10/96 0.0.2 4/95		
DE/SMG 0603205U	UMTS 32-05	Subscriber, Mobile Equipment and Service data administration	<b>SMG 6</b> SMG 5/NA4	Hertel (interim)	12/98		
DE/SMG 0603210U	UMTS 32-10	Subscriber Related Event and Call Data	<b>SMG 6</b> SMG 5/NA4	Hertel (interim)	12/98		
DE/SMG 0603215U	UMTS 32-15	Security management	<b>SMG 6</b> SMG 5/NA4	Hertel (interim)	12/98		
DE/SMG 0603220U	UMTS 32-20	Performance management	<b>SMG 6</b> SMG 5/NA4	Hertel (interim)	12/98		
DE/SMG 0603225U	UMTS 32-25	System Configuration Management and Administration	<b>SMG 6</b> SMG 5/NA4	Hertel (interim)	12/98		
DE/SMG 0603230U	UMTS 32-30	Maintenance of UMTS Infrastructure	<b>SMG 6</b> SMG 5/NA4	Hertel (interim)	12/98		
DE/SMG 0603235U	UMTS 32-35	UMTS Management Information	<b>SMG 6</b> NA4	Hertel (interim)	12/98		
<b>ETS 33- xx series</b>		<b>SECURITY ASPECTS</b>					
DE/SMG-0003301U	UMTS 33-01	Security for UMTS	<b>SMG SG</b> SMG 5, STAG	Walker (interim)	6/98		to be reviewed by SMG SG
DE/SMG-0003305U	UMTS 33-05	Security algorithms for UMTS	<b>SAGE</b> SMG SG,SMG 5	Walker (interim)	6/98		to be reviewed by SMG SG
<b>ETS 34- xx series</b>		<b>VIDEO ASPECTS</b>					
DE/SMG-0003401U	UMTS 34-01	Integration of Video codecs into UMTS	<b>SMG</b>		12/97		
<b>ETS 35- xx series</b>		<b>TERMINAL ASPECTS</b>			10/98		
DE/SMG0903501U	UMTS 35-01	Interface to UIM	<b>SMG 9</b>	Vedder (interim)	10/98		
DE/SMG0903505U	UMTS 35-05	UIM functions	<b>SMG 9</b>	Vedder (interim)	10/98		
DE/HF-0003510U	UMTS 35-10	MMI	<b>HF</b>		10/98		

## **Annex D (informative): Terms of Reference for ETSI/SMG 5**

### **Sub Technical Committee SMG 5**

#### **UMTS**

##### **D.1 Responsibility**

SMG 5 has a co-ordinating role for the Universal Mobile Telecommunications System (UMTS). Its main task is to study and define this third generation mobile system, based on the conclusions of ad-hoc group UMTS (as given in document TC/RES (91) 34 rev 1) and, ITU studies on FPLMTS. UMTS should also respond to emerging market needs and technology opportunities.

##### **D.2 Work Plan**

- To study and define the objectives, requirements, framework and system concept for the standardization of UMTS:
  - services;
  - system architecture;
  - air interface(s);
  - network interfaces, functions and support requirements;
  - other functions and interfaces as required;within the appropriate ETSI TC/STCs or other bodies.
- To ensure the mutual coherence of UMTS standards.
- To ensure that regulatory and commercial requirements are properly addressed within UMTS system concept and work plan.
- To ensure timely and effective exploitation of research results in UMTS standards.
- To position UMTS with developments of GSM, FPLMTS, DECT, fixed telecommunications and development outside telecommunication standardization (e.g. audio/visual source coding, information technology applications).
- To develop a migration strategy towards UMTS standards implementing true 3rd generation objectives and also optimizing the use of existing standards and system implementations.
- To study and recommend where new areas of standardization for UMTS are required because of market needs, system requirements or technology opportunities (e.g. adaptive terminals, Application Programming Interfaces, Mobile Broadband Systems).

##### **D.3 Working methods**

SMG 5 should:

- Establish links with other TCs and STCs as well as other bodies preparing relevant standards for UMTS. The objectives behind such links will be to make use of the existing expertise, and to subcontract out defined specific tasks e.g. where a detailed knowledge of a particular technology is required.
- Liaise with European funded and other research relevant to UMTS (e.g. European COST, RACE, ACTS and STM programs) on the conduct of this research if necessary.
- Work with world-wide standards bodies such as the ITU-R and ITU-T with the objective of establishing a common framework of standards and detailed world-wide standards where appropriate or third generation mobile systems. It is desired to submit a European view to such bodies through TC SMG. Informal arrangements where one ETSI member submits a contribution with the support of other members are also possible.

- Co-ordinate, agree and keep under review a programme (TCR-TR 015) defining the work to be undertaken and the resources required to enable it to be successfully completed, and to submit such work programme for approval to TC SMG and to any other relevant bodies on a regular basis (e.g. annually).
- Work in close liaison with SMG 1-4/6-9 and other TC/STCs for the proper planning and timing of UMTS standards falling under mandate of these groups

#### **D.4 Liaisons**

SMG 5 has direct liaisons with appropriate ETSI TCs and STCs on issues concerning UMTS standards. Examples are TCs NA, RES, SES, SPS, TE, and TM. In addition, SMG 5 has direct liaison with CEPT/ERC, with information to RES/RPM, on UMTS spectrum issues, and should further liaise in co-ordination with SMG with other regional/national standardization bodies and processes relevant to third generation mobile systems (e.g. FAMOUS, RAST, GSC).

#### **D.5 Specific guidance for SMG 5 work in the years 1996 - 1997**

SMG 5 should:

- propose a revised UMTS WP in early 1996;
- complete a high level UMTS definition (ETRs) during 1996;
- define the system concept for UMTS in during 1996, for the support and technical co-ordination of ETS work;
- support the detailed standardization with e.g. requirement and framework documents, review of draft documents from other groups, joint meetings, and exchange of experts and groups from SMG 5 to other SMG STSc;
- aim at supporting and contributing to a European overall plan for UMTS, including, in addition to technical objectives and requirements, frequency band and regulatory aspects.

## History

Document history	
October 1994	First Edition of TCR-TR 015
February 1996	SMG approval of UMTS 00.01 version 3.0.0
March 1996	SMG 5 review and proposed UMTS 00.01 version 3.1.0
April 1996	First Edition of SMG-TR 004 (UMTS 00.01 version 3.1.0)
July 1996	Second Edition SMG-TR 004 (UMTS 00.01 version 3.2.0)
August 1996	Publication of Second Edition