

**Consultation in the context of the development of an
RSPG Opinion on priorities and objectives for the
Community in the World Radiocommunication
Conference 2007**

Radio Spectrum Policy Group
European Commission
Information Society Directorate General, BU33 4/69
B-1049 Brussels

Email: info-rspg@cec.eu.int
for the attention of the RSPG Secretariat.

Name	Christoph Legutko
Department	ICM N PG SP ST A1
Telephone	+49 89 636 75 187
Fax	+49 89 636 75 165
E-Mail	christoph.legutko@siemens.com
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**Siemens Response to the
Consultation in the context of the development of an RSPG Opinion on priorities and
objectives for the Community in the World Radiocommunication Conference 2007**

Dear Madams and Sirs,

Siemens congratulates RSPG for its interesting consultation initiative in advance to the World Radiocommunication Conference 2007 (WRC-07). We welcome the opportunity to comment at an early stage in the EU process which is an important step for further international negotiations at WRC-07.

We would like to provide the Siemens Information and Communication Mobile's opinions in response to the RSPG questions on the policy priorities and objectives to be pursued by the European Community at the WRC-07, to ensure that European preparation of this event would be accompanied by a reflection process at political level to take into account Community interests.

Please find our comments and responses in the attachment.

We hope that you will find our contributions useful and wish you furthermore a successful consultation and insightful results.

Yours sincerely

Christoph Legutko
Spectrum Policy

Geschäftsgebiet:
Networks

Leitung: Karl-Christoph Caselitz

Bereichsvorstand
Information and Communication
Mobile:
Rudi Lamprecht, Vorsitzender
Joe Kaeser
Lothar Pauly

Briefadresse:
Siemens AG
ICM N PG SP NI
D-81359 München

Hausadresse:
Hofmannstraße 51
D-81359 München
Telefon +49 89 722-0

Attachment

Siemens Response to the

Consultation in the context of the development of an RSPG Opinion on priorities and objectives for the Community in the World Radiocommunication Conference 2007

Answers to issues submitted to consultation

1) What are the agenda items at WRC-07 (to be specified by the respondent) which potentially could have a significant positive or negative impact on common European policies and on important pan-European industrial sectors?

Siemens AG with its Information and Communication branch provides wide spectrum of telecommunication equipment and solutions for terrestrial services. Therefore our comments concentrate generally on Agenda Items (AIs) concerning the terrestrial services although Siemens delivers terrestrial infrastructure for telecommunication satellite systems and participates in some developments in the Galileo project.

The relevant AI here for are the items 1.4 and 1.9. In the framework of the AI 1.4 the development of IMT-2000 systems will be discussed as a whole inclusive their terrestrial/satellite components and systems beyond as defined by the Resolution 228. The AI 1.9 will offer a discussion platform on sharing between terrestrial and space services in the 2.5-2.69 GHz band.

We see only limited benefit from introduction and operation of satellite component of IMT-2000 systems. Taking into account the situation in the past and the estimations for the future, we expect that in terms of subscriber numbers the satellite component of IMT-2000 will remain a niche market. Also the Broadcasting Satellite Services planned in the 2.5-2.69 GHz band by some countries in the Region 3 are a threat for IMT-2000 telecommunication systems and their successors, because these BSS systems cause interference to IMT-2000 systems.

WRC-07 will review the sharing conditions between all terrestrial and satellite systems in the 2.5-2.69 GHz band. In the light of the planned use of this spectrum in Europe for IMT-2000, possibly from 2008, Europe will need to ensure its interests are safeguarded by an adequate protection of its mobile markets.

Resuming the issue of the 2.5-2.69 GHz band let us shortly say that this band should be world wide harmonised with paired and unpaired spectrum in the band, no MSS and BSS, terrestrial only.

It should be here emphasized that our doubts in respect of the satellite services discussed above are restricted and concern the further development of terrestrial mobile telecommunication systems only; we recognize and appreciate satellite services with all their benefits and therefore other satellite business fields are of course not affected.

The European telecommunication industry providing equipment and services for terrestrial mobile telecommunication fulfils the growing needs of the society for mobile communications, in the future also towards mobile multimedia. It generates significant more revenues than satellite industry active in the same telecommunication sector and therefore the interests of those industries should be supported by the Community adequate to their importance for the European economies.

Concerning the AI 1.4 and the Resolution 228 we would also like to set requirements for common European positions concerning UWB.

The second, third and future generation mobile telecommunication terrestrial systems should be protected not only from interference caused by space services but also from technologies having potential for broad band interfering as for example Ultra Wide Band (UWB) for telecommunication applications. Therefore we would welcome if the UWB can be generally avoided. If it is not achievable the UWB operation could be tolerate in the band between 6-10 GHz. In general it would be our aim if the UWB allocation would be solved at the WRC-07.

In the case of UWB allocation in the band between 6-10 GHz, the separation between UWB and mobile telecommunication systems as GSM, UMTS, WLANs and other wireless systems would be achieved in the frequency domain. The protection of systems as fixed wireless access operating above 6 GHz would be achieved by geographical separation – the spurious emissions generated by indoor UWB applications may be tolerated by outdoor systems.

The UWB systems planned at 24 GHz (later at 79 GHz) and discussed for automobile application are different from UWB systems planned for telecommunication. The automobile UWB does not transport the information content between the communicating parties. It is just radar which needs 500-1000 MHz of bandwidth for achieving of high recognising resolution of objects in the car's environment.

For both kinds of UWB – telecommunication and automotive – it would be advantageous if they base on OFDM technology. Using the OFDM principle it is easier to avoid interference with neighbouring services then if using the direct spread one.

2) Which are the broad objectives which Europe could set itself for these agenda items, bearing in mind that many technical constraints are not yet clarified, and the fact that non-European interests might not support such objectives during the negotiations?

The geopolitical European objectives differentiate substantial from those of other regions or countries. As well known, on the small European continent exist many countries with individual languages and cultures, the population density is high. During the centuries Europe has learnt to apply a consensus and compromise as coexistence principles between the states. This takes time; it is complicated end expensive but necessary and the only way possible for economical and political survival.

Those are also some out of many reasons which lead to high coordination efforts between the European countries, especially for telecommunication systems. Therefore Europe should not drop its principle of harmonisation and interoperability principle that has been successfully applied for the second generation of telecommunication systems (GSM).

The very fashionable term of "technology neutrality" has nothing in common with standard neutrality. The IMT-2000 system family comprises six standards as CDMA DS, CDMA MC, CDMA TDD, TDMA SC and FDMA/TDMA and therefore it may be considered as standard

neutral. The technology neutrality would be achieved if the customer could choose an implementation of an open, harmonised standard with different technologies as for example a UMTS base stations constructed either with vacuum tubes or with high integrated silicon circuits.

The “technology neutrality” actually implemented in the new European legal Framework, where it is used without being precisely defined what it means, may lead to competition between the vendors trying to establish their proprietary standards and will result in splitting up the mobile market and weakening the European telecommunication industry. In this sense “Technology neutrality” contradicts potentially the European objective of market harmonisation.

Fortunately the majority of industry agreed to introduce the 3rd generation of telecommunication systems based on the UMTS 3GPP standard.

Therefore the Commission in preparation of and during the WRC-07 should undertake every possible effort to harmonise the telecommunication standards and their frequencies.

3) Is it currently foreseeable that there could be contrasting requirements for different Community policies which would need to be interpreted preferably before the WRC-07 negotiations? If so, where?

In the chapter “Relationship between Community Interests and WRC-07” of this consultation it is stated that:

“The timeline for the introduction of systems beyond IMT-2000 is expected to be around 2015 to 2020. WRC-07 will look at the spectrum available in relation to what is needed for these mobile systems, with new spectrum identified perhaps in 2010. WRC-07 will look at the spectrum available in relation to what is needed for these mobile systems. A possible conclusion at the WRC-07 may be that additional spectrum will have to be identified at a later date.”

This is an opinion of a minority within the European industry and stands in contradiction to interests of European research community and telecommunication industry. It is also in contradiction to the Commission Research policy stated in the “Research and Development” chapter of the introduction to this consultation:

“Timely access to radio spectrum harmonised at European and global level will continue to be essential for research efforts and provide researchers with a focus to develop new scientific knowledge and to turn their visions into real applications available to European society. The adequate protection from interference of scientific passive services, such as radio astronomy, is also needed. At the same time, research activities are making a significant contribution to the efficient and fulsome use of spectrum by developing new adaptive and “intelligent” technologies.”

The European telecom industry faces the strong competition from Asia. In contradiction to the European approach, the Asian administrations have a clear vision and clear targets for their telecommunication industries. They have a homogenous policy by supporting the research and development of so called 4G telecommunication systems and by simultaneously requiring of the adequate spectrum where their 4G systems could be placed.

The European Community supports the research on future telecommunication systems as well but on the other hand the Community hesitates to identify spectrum for those systems as discussed above. We urge the European administrations to develop the same homogenous attitude to the research and spectrum as Asian partners and to supports the spectrum identification for 4G systems

by WRC-07 as well as the spectrum allocation by the WRC-10. This would be a consequent step on the way to a "Mobile Europe" targeted by the Commission for the year 2010.

4) How to effectively promote at the conference and within ITU the Common Proposals on spectrum selected by Europe in other regions of the world, in order to enable European industry and consumers to benefit from lower barriers to trade and greater economies of scale?

The effective promotion of an idea can be usually achieved only by acceptance of the idea content and by the respect to its author.

If Commission asks now how to effectively promote the European interests for industry and consumer benefit then the answer can be only one – repeat the success of GSM by promoting common standards for interoperability, harmonized spectrum worldwide to facilitate global roaming and large economy of scale leading to lower price levels for developing countries in order to avoid «Digital Divide»..

The Commission should have a clear vision which kind of telecommunication infrastructure can be useful and necessary for Europe not only for benefit of consumer but also for keeping the European leading role in the (telecom) world. Furthermore, it could be the role of Commission to develop and popularise an adequate framework and then to convince the European market players to follow that target collectively. Such approach would have the best chances to be accepted and respected by the rest of the world and it would be the best and most effective promotion of European interests not only during the WRC-07.

5) How to ensure that generic regulatory principles enshrined in Community legislation for various spectrum-using sectors are supported in the WRC-07 process, and notably the principles of technology neutrality, fair competition, regulatory transparency, non-discrimination and proportionality, as well as the optimisation of spectrum use?

Less regulation is in most cases the better regulation. The best regulation is when politics and industry agree on common targets and adequate playing rules. Not every regulatory principle enshrined in Community legislation is enshrined by industry and consumer. For being useful and effective the infrastructure industry needs realistic targets and clear playing rules to follow and not plain and to a degree undefined principles like "technology neutrality".

The consumer industry has their harmonised standards although they are technology neutral – the refrigerators and vacuum cleaner use 220V, all radios have the same connection to CD-player but they are all technology neutral – fridges can be with compressor or vaporizing principle, the vacuum cleaner with filter or with cyclone technology and radios with tubes or with transistors but all consumer products are interoperable in their market segments. Why not in the mobile telecommunication?

The European mobile telecommunication market can be treated as a single market with some segments as broadcasting, mobile telephony, wireless data access etc. The systems in every market must be interoperable independent on the product. They are technology neutral automatically because they are from different vendors. Facing the strong competition from the entire world, Europe needs a unified market with harmonised standards and frequencies. Europe needs even more

– open and common standards as well as harmonised frequency spectrum for telecom infrastructure targets and projects should be harmonised in advance and prior to their introduction.

Having the common positions and targets supported by acceptable regulatory principles it should be easy for Europe to ensure their acceptance by WRC-07.

6) What should be the strategy approaches before and during the conference for European delegations to optimise the possibility to reach the above-identified common European objectives? Should some European Common Proposals be mandatory for EU members?

For the success of the future mobile telecommunication systems it would be helpful if the Community could support the industry in the common positions finding process. The industry discusses actually their political, technical and economical issues in the framework of organisations which are either operator or vendor or regulatory specific. Practically there is a lack of an organized platform, where the operators and vendors would be able to debate their technical, service and regulatory objectives. It would be very useful if the Commission would catalyse the creation of such organisation. Having a strong organisation like that it would be easier to achieve European consensus on future mobile telecommunication systems and to defend those at future World Radio conferences.

The EU members are also organised within CEPT where the European Common Proposals (ECPs) are prepared in advance of a World Radio Conference. The ECPs are prepared in consensus and should be commonly supported by the CEPT members during the Conference. Unfortunately it can occur that one or some CEPT member(s) present their own proposal(s) at the Conference which may be not in line with previously achieved common position(s). Therefore the Commissions wish is understandable to make some ECPs obligatory for EU members. The CEPT members are sovereign states represented by their regulatory authorities. It will take time if not generations to transfer their regulatory competence to the Commission. Then the ECPs will become automatically obligatory for the EU members and the idea itself is worth to be followed for achieving the same level of powerful representation of European interests as some other administrations have.

7) Are the current procedural arrangements for the European WRC preparations, such as participation to and scheduling of meetings, drafting of European Common Positions and Briefs, availability of information, etc., appropriate? If not, please suggest ways to improve this process.

Actually the administrations are in charge of the decision making and the industry can only consult them. Thanks to the close cooperation between the national regulatory authorities and their industry the results are usually satisfactory and achieved with acceptable efforts. Implementing ECC with its RSPG on EU level has added to the complexity of the decision making and consultancy processes. For example the industry has only an observer status at ECC and RSPG via its organisations such as EICTA as well as it can influence their works only via national regulatory authorities. The industry is also completely disclosed from the ECC's and RSPG's decision making process. Closer cooperation between EU and industry should be considered as positively contributing to process

transparency and optimisation of efforts. An improvement of the procedural arrangement could be found in the best way in a dialogue between the European administration and the industry. By the way, such discussions between the industry and administrations should be limited in time and the decisions should be made and implemented without delay.

8) If applicable, please indicate your early views on issues Europe could propose to be included in the agenda for the next conference after WRC-07 (see the preliminary agenda WRC-10 proposed by WRC-03).

We presented our views on issues that could be proposed to be included in the agenda of WRC-07 in the discussion and comments of the previous questions (UWB, 4G spectrum identification by WRC-07, terrestrial only use of 2.5 GHz band, spectrum harmonisation and interoperable standards). We hope that at least some of that targets can be achieved during the WRC-07. For issues which are not achieved at WRC-07, adequate agenda proposals should be done for the WRC-10.

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