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# Tender for blocks of frequencies Questions - Answers

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# 1 Auction procedure - General

1	<p>Wie rechtfertigen sich angesichts des fernmeldegesetzlichen Interesses, kostengünstige, innovative Mobilfunkdienstleistungen zu gewährleisten, die gegenüber den gesetzlichen Vorgaben teils verdreifachten Mindestpreise wie auch die während der Auktion möglichen einschneidenden Mindestgebotserhöhungen?</p> <p>Antwort: Die Konzessionsbehörde kann gemäss Art. 39 Abs. 4 FMG ein Mindestgebot festlegen. Art. 23 Abs.1 FKV regelt die Untergrenze eines Mindestgebots. Die Festlegung eines Mindestpreises oberhalb dieser Grenze liegt im Ermessensspielraum der Konzessionsbehörde. Die Erhöhung der Gebote während der Auktion ergibt sich durch die Nachfrage und das Verhalten der Bieter.</p>
2	<p>Was rechtfertigt, mit sehr hohen Mindestpreisvorgaben von einer grundsätzlich durch den Markt bestimmten Preisfestlegung abzuweichen? Inwiefern spielt der Markt nach der Vergabe der Frequenzen, wenn er für deren Vergabe offenbar als nicht funktionierend beurteilt wird?</p> <p>Antwort: Die Konzessionsbehörde kann gemäss Art. 39 Abs. 4 FMG ein Mindestgebot festlegen. Art. 23 Abs.1 FKV regelt die Untergrenze eines Mindestgebots. Die Festlegung eines Mindestpreises oberhalb dieser Grenze liegt im Ermessensspielraum der Konzessionsbehörde.</p>
3	<p>Die einseitig vom Konzedenten festgelegten Mindestpreise sind um ein Vielfaches höher, als die Zuschlagsgebote auf analoge Frequenzen in Vergaben verschiedener EU-Länder. Was rechtfertigt diese Differenz, wenn der Konzedent zeitgleich bemängelt, dass die Retailpreise in der Schweiz über den Retailpreisen in der EU liegen?</p> <p>Antwort: Die Konzessionsbehörde kann gemäss Art. 39 Abs. 4 FMG ein Mindestgebot festlegen. Art. 23 Abs. 1 FKV regelt die Untergrenze eines Mindestgebots. Die Festlegung eines Mindestpreises oberhalb dieser Grenze liegt im Ermessensspielraum der Konzessionsbehörde.</p>
4	<p>Wie ist die Schadloshaltung der Teilnehmer bei nicht von ihnen zu vertretenen Änderungen am Vergabeverlauf sichergestellt?</p> <p>Antwort: Eine Schadloshaltung ist nicht vorgesehen (vgl. Ausschreibungsunterlagen Ziffer 4.5).</p>
5	<p>Was rechtfertigt einen derart ehrgeizigen, die schlank aufgestellten potentiellen Anbieterinnen benachteiligenden Zeitplan?</p> <p>Antwort: Die Ausschreibung erfolgt insbesondere auch im Hinblick auf das Ende der laufenden GSM Konzessionen per Ende 2013. Eine möglichst rasche Durchführung trägt dazu bei, dass die neuen Allokationen frühzeitig bekannt sind. Potentielle Anbieter werden dadurch nicht benachteiligt.</p>
6	<p>Was sind wesentliche Voraussetzungen, bei deren Vorliegen zwischen Ausschreibung und Konzessionserteilung mit einer Änderung des Mindestangebots gerechnet werden muss?</p> <p>Antwort: Die Angabe stützt sich auf Art. 24 FKV und muss im konkreten Anwendungsfall durch die zuständige Behörde näher bestimmt werden.</p>
7	<p>Was geschieht mit einem allfällig unnütz gewordenen Aufwand der potentiellen bzw. in der Vergabestufe zugelassenen Bieterinnen?</p> <p>Antwort: Eine Schadloshaltung ist nicht vorgesehen (vgl. Ausschreibungsunterlagen Ziffer 4.5).</p>
8	<p>Was geschieht mit dem bisherig aufgelaufenen Aufwand, sollte sich eine aktuelle Konzessionärin unter den gegebenen Ausschreibungsbedingungen gezwungen sehen, nicht an der Auktion teilzunehmen?</p> <p>Antwort: Eine Schadloshaltung ist nicht vorgesehen (vgl. Ausschreibungsunterlagen Ziffer 4.5). Die Eigenschaft bereits bestehende Konzessionärin zu sein vermag daran grundsätzlich nichts zu ändern.</p>
9	<p>Nach welchen Kriterien wird die ComCom über die Auktions-Zulassung oder –Ausschluss von Bewerberinnen entscheiden?</p> <p>Antwort: Nach Massgabe der Anforderungen wie in Kapitel 4 der Ausschreibungsunterlagen beschrieben.</p>

10	<p>Werden Bewerberinnen ausgeschlossen, die nur beschränkte oder keine Erfahrung im operationellen Betrieb von Telekommunikationsinfrastrukturen vorweisen können?</p> <p>Antwort: Die Zulassungskriterien werden in Kapitel 4 der Ausschreibungsunterlagen beschrieben.</p>
11	<p>Werden Bewerberinnen ausgeschlossen, wenn sie nicht substantiierte, unglaubwürdige oder unvollständige Pläne zur Einführung von neuen Mobilfunktechnologien und –diensten im Schweizer Markt einreichen?</p> <p>Antwort: Die Zulassungskriterien werden in Kapitel 4 der Ausschreibungsunterlagen beschrieben.</p>
12	<p>Werden Bewerberinnen, die unklare oder fehlerhafte Bewerbungsunterlagen einreichen, Gelegenheit erhalten, die Unterlagen zu verbessern oder zu korrigieren?</p> <p>Antwort: Die Frage ist in Ziffer 4.4.4 der Ausschreibungsunterlagen vollständig beantwortet.</p>

## 2 Candidature documents

13	<p>In Punkt 4.4.1 des Ausschreibungsdokumentes ist angegeben: „Die Bewerberinnen reichen eine einzige Eingabe ein. Die Eingabe ist bezüglich Aufbau und Inhalt gemäss den unter Ziffer 5 verlangten Angaben sowie entsprechend deren Gliederungsschema (Titel und Nummerierung) zu gestalten.“ Ist es richtig, dass dies bedeutet, die unter Ziffer 5 formulierten Angaben und die Gliederung sind sinngemäss zu beachten, jedoch nicht wörtlich in dem Sinne, dass das Dokument des Bieters mit dem Titel „5.1“ beginnt?</p> <p>Antwort: Die Eingaben müssen Angaben gemäss Kap. 5 enthalten und nach dem dortigen Gliederungsschema gestaltet sein. Logischerweise beginnt die Nummerierung mit Ziffer 1 und nicht mit 5.1.</p>
14	<p>Was rechtfertigt, den Preis für Frequenzen in einem Zeitpunkt zu beziehen, in dem von den erworbenen Rechten noch längst kein Gebrauch gemacht werden kann? Woraus ergibt sich der zur Anwendung gebrachte Diskontsatz (Diskontierung der Mindestpreise)?</p> <p>Antwort: Die Zahlungsmodalitäten wurden basierend auf Art. 23 Abs. 2 FKV festgelegt. Die Diskontierung richtet sich nach Art. 23 Abs. 1 FKV.</p>
15	<p>Die Zahlungspflicht innert 30 Tagen nach rechtskräftigem Zuschlag (ca. im September 2011) führt nicht nur zu einer investitionsbehindernden Kapitalbindung ohne Gegenwert, sondern auch zu einer Risikoüberwälzung, da keine Rückzahlung geleistet wird, selbst wenn die Konzessionärin die Nutzung unverschuldet nicht antreten kann. Was rechtfertigt diese Risikoüberbindung und was rechtfertigt die Entlassung des Konzedenten aus der Schadloshaltungspflicht?</p> <p>Antwort: Die Zahlungsmodalitäten wurden basierend auf Art. 23 Abs. 2 FKV festgelegt. Es gibt keine Schadloshaltungspflicht.</p>
16	<p>In case there is a merger of two players after the auction, what happens to the spectrum they were allocated? What happens in other forms of collaboration such as network sharing, allowing roaming of one operator's customers on another's network etc.?</p> <p>Answer: The described scenarios are not related to the upcoming auction but may happen independent from any tender. Mergers of licenses imply a license transfer. According to Art.24d para.1 LTC licenses may be transferred in part or as a whole only with the consent of the licensing authority. The decision of the license transfer has to be taken by a formal proceeding, in particular considering the request that the license transfer must not eliminate or constitute a serious obstacle to effective competition (Art. 23 para. 4 LTC).</p> <p>ComCom will analyze each request on a case by case basis. Guidance with respect to the evaluation of possible forms of collaboration is given by the ComCom paper "Gemeinsame Nutzung von UMTS-Infrastruktur". An amendment of this paper concerning the deployment of the LTE technology is foreseen.</p>

17	<p>If we have a contract with an MVNO, that is also a bidder in the auction, does that represent a conflict of interest? As there is no official information to the (potential) bidders on who is (planning to) participating, how do we know, with whom we are allowed to communicate? How do we know, if we are not allowed to communicate with anyone whether we are an authorized bidder or not?</p> <p>Answer: The answer on this question is given by chapter 7.1 of the tender document: From publication of the tender documents onwards, it is forbidden for parties interested in participation to establish contact with other parties interested in participation directly or indirectly via intermediaries or to exchange information with the aim of influencing the outcome of the auction. Public notification of presumed or actual bidding strategies or concrete bids or other statements likely to influence the participation or bidding behavior of third parties is also forbidden.</p>
18	<p>How essential is it to the correct operation of this auction that participation is not disclosed? Participants seem obvious. Media and analysts will try hard to find out. This auction will have a material impact on the participant, and in some jurisdictions disclosure of such events is mandatory. Accidental disclosure that an entity is a bidder can happen in many ways, and the more employees the entity has, the bigger the chance of accidental disclosure.</p> <p>Answer: Solely disclosure of the participation of any party on the auction would not cause essential consequences concerning the correct operation of the auction. However activities like the public notification of presumed or actual bidding strategies or concrete bids or other statements likely to influence the participation or bidding behavior will have an essential influence and hence are forbidden. For details see chapter 7.1 of the tender document.</p>
19	<p>Are winning bidders allowed, after the assignment round, to exchange spectrum blocks, for instance within the same spectrum categories?</p> <p>Answer: No! The exchange of spectrum blocks is not allowed outside a licenses transfer which is subject of approval by ComCom. Spectrum trading is currently not foreseen.</p>
20	<p>What public statements are prohibited by the rules preventing collusion? E.g. are we allowed to communicate that we have the intention to roll out LTE in cities in 2012? It could be interpreted that we have the intention of bidding for the 2600 MHz spectrum. This auction process is expected by BAKOM to last until June or longer. During this time all bidders must make (often legally required) normal disclosures and public statements about a whole range of issues. Normal refinancing, declaration of dividends etc can be mistaken for indications of bidding strategy. How do we ensure that such disclosures do not unintentionally lead to conflict with auction rules?</p> <p>Answer: The answer on this question is given by chapter 7.1 of the tender document: From publication of the tender documents onwards, it is forbidden for parties interested in participation to establish contact with other parties interested in participation directly or indirectly via intermediaries or to exchange information with the aim of influencing the outcome of the auction. Public notification of presumed or actual bidding strategies or concrete bids or other statements likely to influence the participation or bidding behavior of third parties is also forbidden.</p>

21	<p>Invitation to tender – chapter 3.1.2 Auction price:</p> <p>8.1 In section 3.1.2 of the main document, under licenses, it is stated that the auction prices must be settled as a single payment within 30 days of award of the license. It appears that this is the case even for licenses containing frequencies that may not be available for use for many years. Could OFCOM please explain the rationale for this approach?</p> <p>Answer : The rationale is given by art. 23 para. 2 of the Ordinance of 9 March 2007 concerning Frequency Management and Radiocommunication Licences (OFMRL; CC 784.102.1).</p> <p>8.2 Did OFCOM consider alternative more investment-friendly approaches, as used in other European countries such as Denmark, which would allow bidders to spread the cost of the auction price over the period in which the spectrum can actually be used?</p> <p>Answer: According to Art. 23 para. 2 OFMRL the payment has to be carried out in full immediately after license assignment.</p> <p>8.3 In the event that a licensee gives back part of the spectrum allocated before the expiry date of the license, would OFCOM consider partial reimbursement of the payment made in advance or renounce to the payment for the given back spectrum in case of deferred terms of payment? According the concerned chapter of the Invitation to tender and clause 1.7 of the draft license, this is not possible. However, we urge OFCOM to review this rule since depending on market development; it could well be that at some point in time before 2028 some frequencies may become obsolete.</p> <p>Answer: This rule is based on Art. 23 para. 2 OFMRL. There will be no modification of clause 1.7 of the draft license.</p>
22	<p>Invitation to tender – chapter 3.1.4, Coverage obligations:</p> <p>9.1 Future licensees will have to respect following coverage requirements:</p> <ul style="list-style-type: none"> <li>◊ Licensees who have the right to use frequencies below 1 GHz are obliged to ensure coverage of 50% of the population of Switzerland with mobile radio services via their own infrastructure by 31 December 2018;</li> <li>◊ Licensees who have the right to use frequencies in the 1800 MHz and 2100 MHz FDD bands are obliged to ensure coverage of 25% of the population of Switzerland with mobile radio services via their own infrastructure by 31 December 2018 (1800 MHz) and by 31 December 2021 (2100 MHz FDD) respectively.</li> </ul> <p>Following the information provided during the information meeting held at OFCOM's premises on 8th December 2010, we understood that the coverage requirements are cumulative, meaning that they can be reached with all frequency bands together. In other words, the 50 % requirement by 31 December 2018 could be reached with all frequencies below and above 1 GHz together. Could OFCOM please confirm this?</p> <p>Answer: Yes, OFCOM can confirm this. Note that the deadlines for 900 MHz and 1800 MHz bands have changed in the updated tender document.</p> <p>9.2 If this is confirmed, this would mean that the current mobile operators would be already compliant with those future coverage requirements. Could OFCOM please confirm this?</p> <p>Answer : Compliance with the given coverage obligations has to be verified for all new licensees (even for those who have already a license).</p>
23	<p>Gemäss Ziffer 1.2 der Musterkonzession sollen künftige Regelungen betreffend den Netzzugang für Dritte vorbehalten bleiben. Solche künftigen Regelungen können massive Auswirkungen auf den Wert/die Bewertung der ausgeschriebenen Frequenzblöcke zeitigen. Um unter den ohnehin schwierigen Bedingungen eines Herausforderers (Maverik) trotz derartiger Unsicherheiten ein nachhaltiges rentables Geschäftsmodell umsetzen zu können, bedarf diese offene Formulierung der Konkretisierung insbesondere hinsichtlich Zuständigkeit zur Implementierung solcher Regelungen wie auch hinsichtlich Zugangsbedingungen.</p> <p>Antwort: Das liegt in der Verantwortung des Gesetzgebers.</p>

24	<p>Angesichts der Tatsache, dass die auktionenbasierte Vergabe zu einer sofortigen Bezahlung des Zuschlagspreises führt und die Konzessionärin die Konzession, nicht ohne alleine schon durch die vorbezogene Gebühr Schaden zu erleiden (vgl. Ziffer 1.7 der Musterkonzession), vorzeitig zurückgeben kann, sollte der Terminus „wesentlich“ gestrichen werden. Inwiefern rechtfertigt sich die Einschränkung der Entschädigungspflicht unter diesen Bedingungen?</p> <p>Antwort: Die Entschädigung für den Fall einer Änderung oder eines Widerrufs der Konzession durch die Konzessionsbehörde ist im Gesetz geregelt. Die Entschädigung ist zu entrichten, wenn die Konzessionsbehörde in ein Konzessionsverhältnis eingreift und der Eingriff wesentlich ist. Eine Entschädigung bei freiwilligem Verzicht auf die Konzession ist nicht vorgesehen.</p>
25	<p>Die Konzessionärin hat das Recht, jederzeit auf die Konzession zu verzichten, insbesondere wenn ihr aufgrund der Rahmenbedingungen die Pflichterfüllung unzumutbar ist. Weshalb trifft den Konzedenten bei der Rückgabe der Frequenzen keine Schadenminderungspflicht?</p> <p>Antwort: Weil es vom Gesetz- bzw. Verordnungsgeber so vorgesehen wurde (Art. 23 Abs. 2 FKV).</p>
26	<p>Per wann wird das erforderliche Refarming abzuschliessen sein (Ziffer 2.2 der Musterkonzession)?</p> <p>Antwort: Für die Frequenzen im 900 MHz / 1800 MHz Band sind die notwendigen Anpassungsarbeiten landesweit mit Ausnahme der Regionen Basel und Genf bis 31.12.2014 abzuschliessen. Für die Regionen Basel und Genf wird der späteste Zeitpunkt, an dem alle Umstellungsarbeiten betreffend 900 MHz und 1800 MHz Band abgeschlossen sein müssen, auf den 31.12.2015 festgelegt.</p>
27	<p>Gelten die Abdeckungsaufgaben für die &lt; 1 GHz, 1800 MHz und 2100 MHz Frequenzen für jedes einzelne Band oder für die aggregierten Frequenzbänder? Oder anders formuliert, genügt es, die Abdeckungsaufgabe in einem Band zu erfüllen? Beispielsweise würde es genügen, wenn eine Konzessionärin, die über 800 MHz und 2100 MHz verfügt, nur im 800 MHz Bereich die Abdeckungsaufgabe erfüllt und 2100 MHz aus Kapazitätsgründen einsetzt und hier eine geringere Abdeckung erreicht? Falls die Abdeckungsaufgabe für jedes Band einzeln gilt, müssen dann alle Carrier in einem Band die Auflage erfüllen oder reicht ein einzelner Carrier, für den Fall, dass „Multiple Blocks of 2x5 MHz“ ersteigert wurden?</p> <p>Antwort: Die Abdeckungsaufgaben gelten für die aggregierten Frequenzbänder.</p>
28	<p>Erfüllen Konzessionärinnen, welche über &lt; 1 GHz, 1800 MHz und 2100 MHz Frequenzen verfügen, die Nutzungsaufgaben, indem sie zwar 50% der Bevölkerung der Schweiz bis 31.12.2018 mit eigener Infrastruktur versorgen, jedoch nicht 25% der Bevölkerung mit 1800 MHz oder 2100 MHz abdecken?</p> <p>Antwort: Die Abdeckungsaufgaben gelten für die aggregierten Frequenzbänder.</p>
29	<p>Erfüllen Konzessionärinnen die Nutzungsaufgaben, indem sie die Abdeckungsaufgaben nur teilweise mit eigener Infrastruktur erfüllen? Falls ja, welchen Umfang muss die eigene Infrastruktur aufweisen?</p> <p>Antwort: Die Nutzungsaufgaben gelten als nicht erfüllt, wenn die unter Ziffer 3.1.4 der Ausschreibungsunterlagen aufgeführten Abdeckungsaufgaben nicht mit eigener Infrastruktur erfüllt werden.</p>
30	<p>Invitation to tender – chapter 3.1.8 Transfer of licenses:</p> <p>10.1 Could OFCOM please clarify under which conditions licenses awarded or actual spectrum blocks from within licenses might be tradable?</p> <p>10.2 Is it possible to trade frequencies in blocks other than those sold in the auction?</p> <p>10.3 Do the proposed spectrum caps also apply to trading after the auction?</p> <p>Answer : It's not possible to trade frequencies between operators without the prior approval of Com-Com. Any change of the frequency allocation must be approved by ComCom.</p>

31	<p>Invitation to tender – chapter 5.4.2 Compliance with applicable law:</p> <p>According this chapter of the invitation to tender, the candidate must specify whether it, related companies or persons involved in its company have been or are affected by one of the following measures within the five years preceding the submission of the bid, at home or abroad:</p> <ul style="list-style-type: none"> <li>◇ Revocation of licenses or authorizations in the telecommunications sector awarded by the state,</li> <li>◇ Imposition of restrictions due to disregard of obligations under licenses awarded by the state or authorizations in the telecommunications sector,</li> <li>◇ Prosecution for a breach of the applicable national or international telecommunications law, the rules on cartels and other restraints on competition, the rules on unfair competition, employment law or for a breach of data protection provisions,</li> <li>◇ A pending procedure relating to any of the above-mentioned cases.</li> </ul> <p>We assume that this request of information only applies on potential measures as described above regarding the shareholders/affiliates of the candidate operating in the territory of Switzerland. Could OFCOM please confirm this?</p> <p>Answer : No, we do not confirm. The requested information about the mentioned measures applies in any case, even if they happened abroad.</p>
32	<p>Invitation to tender – chapter 7.1 Collusion:</p> <p>The collusion rules as currently defined appear to render negotiations on potential network sharing agreements impossible before the auction takes place. How does OFCOM foresee that operators may well enter into such agreements and act as bidding consortium without considering that this is a breach of chapter 7.1?</p> <p>Answer: The answer on this question is given by chapter 7.1 of the tender document: From publication of the tender documents onwards, it is forbidden for parties interested in participation to establish contact with other parties interested in participation directly or indirectly via intermediaries or to exchange information with the aim of influencing the outcome of the auction. Public notification of presumed or actual bidding strategies or concrete bids or other statements likely to influence the participation or bidding behavior of third parties is also forbidden.</p> <p>Any company may put itself forward as a candidate for the frequencies being put out to tender either on its own or as part of a consortium (chapter 4.3.1 of the tender document).</p>

### 3 Bank guarantee

33	<p>Invitation to tender – chapter 5.3 Bank Guarantee:</p> <p>13.1 According to chapter 5.3 "the licensing authority may request an extension of the bank guarantee". Could OFCOM please specify in which case(s) the bank guarantee may have to be extended and for how long?</p> <p>13.2 We assume that such a request will be done sufficiently in advance to give enough time to the candidates and their respective banks for such an extension. Could OFCOM provide further information on the minimum deadline that can be envisaged?</p> <p>13.3 According to chapter 5.3 "the licensing authority may then require increases in the bank guarantee during the auction". Could OFCOM specify the deadline that is considered as reasonable for submission of the additional guarantee?</p> <p>13.4 In case a deadline extension is needed by a candidate could OFCOM specify what would be a reasonable additional delay?</p> <p>Answer : The auction rules (appendix 3 of the tender document) answer this question in full. Additional bank guarantees have to be delivered upon request. The auctioneer will provide a time limit of max. 3 working days. In order to be in line with this time frame it is in the responsibility of the bidder to agree the maximum credit line with her bank in advance to the auction.</p>
34	<p>Annex V–Bank Guarantee:</p> <p>14.1 According to Annex V, specimen template for the bank guarantee, the bank guarantee must be issued by a bank authorized according to the Federal Law on Banks and Savings (SR 952.0) with a place of business in Switzerland. We understand that a guarantee issued by a foreign bank which has a branch (but no headquarter) in Switzerland is acceptable. Could OFCOM please confirm this?</p> <p>Answer : The bank has to fulfill the obligations of the federal law on banks and savings (SR 952.0, Art. 2).</p> <p>14.2 Annex V mentions that the wording of the bank guarantee does not necessary have to be the same as in the specimen. Could OFCOM confirm that the following wording is acceptable for the period of validity clause? "Our guarantee is valid until 31 December 2011 and will expire automatically and in full if your written request for payment is not in our possession by that date, irrespective of whether this is a bank working day or not."</p> <p>Answer : The decision if some specific text is suitable or not will be taken during the evaluation of the applications. Note that the validity of the bank guarantee has changed in the updated tender document.</p>
35	<p>Is the initial amount of the bank guarantee limited to be exactly the price of the frequency application or can it be above?</p> <p>Answer: It can be above.</p>
36	<p>Do you return our bank guarantee right after payment of the auction price?</p> <p>Do you return unneeded bank guarantees right after the auction ends?</p> <p>Answer: The bank guarantee is returned after payment of the auction price or if it isn't needed anymore.</p>
37	<p>Can the initial bank guarantee be exchanged with another one, containing a different amount (with a higher or lower amount, depending on the situation)?</p> <p>Answer: The bank guarantee must not be exchanged unless it is requested by OFCOM.</p>
38	<p>Can the total amount of the bank guarantee split into more than one document (e.g. each with an amount of 100 Mio CHF)?</p> <p>Answer: No.</p>
39	<p>Can we deliver additional bank guarantees at any time or only upon your request?</p> <p>Answer: Additional bank guarantees have to be delivered upon request.</p>



40	<p>Is the amount of later handed bank guarantees limited to the minimum required amount or can it contain a higher amount?</p> <p>Answer: It can contain a higher amount.</p>
41	<p>Can we count on our internal grace period of 5 days to increase the amount the bank guarantee (starting with the time we submitted a higher bid amount than is covered by the previous bank guarantee)?</p> <p>Answer: No! Additional bank guarantees have to be delivered upon request. The auctioneer will provide a time limit of max. 3 working days. In order to be in line with this time frame it is in the responsibility of the bidder to agree the maximum credit line with her bank in advance to the auction.</p>
42	<p>Do you accept guarantees from insurance companies with registered offices in Switzerland as well (e.g. AXA Winterthur or Swiss Re)?</p> <p>Answer: Only bank guarantees issued by a bank authorised according to the Federal Law on Banks and Savings (SR 952.0) with a place of business in Switzerland are accepted.</p>
43	<p>How can we submit additional bank guarantees? Via FAX or physical delivery?</p> <p>Answer: There must be a physical delivery. The details will be communicated upon request.</p>

## 4 Auction - rules

44	<p>Annex III, page 4/26: Tabelle 1-1: "Beschreibung der zu versteigernden Frequenzblöcke": Why is the bid entitlement high (6) for low and low (2 or 3) for high frequencies? Has OFCOM chosen this approach in order to maximize demand for low frequencies?</p> <p>Answer: Sub-1 GHz spectrum is more valuable because of its greater scarcity. We would not expect bidders to be willing to substitute between sub-1GHz spectrum and higher frequency spectrum on a one-to-one basis. If the same number of eligibility points were assigned to categories of low and high frequency spectrum, bidders might be inclined to bid on high frequency spectrum in order to maintain their eligibility but then switch to low frequency spectrum at a later point, thus distorting the price discovery process.</p>
45	<p>Why not allow a bidder to log on from two locations? We can make sure that only the last bid submitted is the intended bid, and would not hold Bakom responsible. This would simplify back up bidding in case of an emergency (e.g. fire alarms).</p> <p>Answer: The system allows for bidders to implement back up procedures as they see fit. A bidder can log on from different locations but not at the same time. Hence it must first log out at one location before it can log in from a different location. The system also operates auto log out procedures, which means that if a bidder loses access due to connectivity problems the system will automatically log the bidder out and the bidder can log in from an alternative location to continue bidding.</p>
46	<p>Will all these questions and answers be communicated to the general public? Some of them could have unintended impact on analysts/investors?</p> <p>Answer: The list of questions and answers will be published in anonymised form on the OFCOM website. The anonymity of those posing the questions is guaranteed (point 4.7 of the principal tender document).</p>
47	<p>What happens if there is an internet and a fax network problem at the same time?  Can the bids physically be delivered physically by a person?  Under which circumstances is this possible?  In case of a network problem, can we receive round-results at an alternative location?  How is the connection for bid input and bid results verified and authenticated?</p> <p>Answer: Widespread technical failure would likely be considered an exceptional circumstance and in this case the auction manager has the discretion to extend the round duration or to postpone the start of further rounds. Please refer to rule 2.6.1 of the auction rules.</p>

48	<p>Why are there not any waivers (cancel a round of bidding)/recesses (auction interruption for a defined period of time) for the bidders in case of (technical) problems?</p> <p>Answer: Bidders have a number of extension rights in case of technical problems. In case a bidder is experiencing technical problems it should contact the auction manager immediately. See also rule 2.6.1. of the auction rules.</p>
49	<p>Section 2.6.1 in Annex III: The 'Auction Manager' reserves the right to end the primary rounds while demand exceeds supply, if it believes that proceeding directly to the supplementary round at such time is in the general interest of running an efficient award process.</p> <p>Could you please illustrate the circumstances in which this may arise?</p> <p>Answer: This could include, for example, concerns about possible collusion amongst bidders.</p> <p>Could you please clarify what is meant by running an 'efficient award process' in this context? Specifically, does this relate to the efficient allocation of spectrum among participants? Does this include maximisation of auction revenue and/or the avoidance of strategic demand reduction by auction participants?</p> <p>Answer: This could include, for example, concerns about possible collusion amongst bidders.</p>
50	<p>Our understanding is that the CCA is not incentive compatible, i.e. bidders can have incentives to depart from straightforward bidding, when there are complements. Can OFCOM explain how bidders may have incentives to report truthfully valuations when this is the case? The economic research papers on CCAs state that bidders will have disincentives to bid straightforwardly in these cases.</p> <p>Answer: How bidders should bid in the auction is a matter of bid strategy. OFCOM will not make recommendations about how bidders should decide on their bids in the upcoming Swiss auction.</p>
51	<p>Annex III, 3.2.14: page 11/26: Zero bid: Is our understanding right that a zero bid is a bid which does not include any lot in all categories? Can you provide an example?</p> <p>Answer: Yes a zero bid is a bid that does not include any lots in any category.</p>
52	<p>Annex III, 3.2.18: page 11/26: We understand that the activity can never increase during clock rounds. What is the rule for the supplementary round? Can a bidder then bid for a spectrum combination with higher activity?</p> <p>Answer: A bidder cannot submit a supplementary bid for a package for which it was not eligible to bid in any primary round. Please also refer to rule 3.3.12 of Annex III.</p>
53	<p>Section 3.2.28 in Annex III: Under the current rules, the round prices can increase by up to 100% over subsequent rounds. This makes it very difficult for bidders to gauge when authorised bid limits for specific packages may be breached and take appropriate action aligned with normal corporate governance processes. Bearing this in mind, as well as the high reserve prices (relative to recent spectrum auction outcomes in other markets), could the maximum increase in round prices over subsequent rounds be reduced to a level that is more manageable? We would suggest no more than 5% per round, which would imply a maximum increase of 40% per day assuming eight rounds per day.</p> <p>Answer: The auction manager intends to give as much notice as possible of the round schedule and bid increments. Specifically, the auction manager intends to each day publish the schedule of rounds and bid increments for the following day so that bidders may anticipate the maximum bid increase that will apply the following day.</p>

54	<p>Section 6.3.2 in the Invitation to Tender states that a supplementary bid for a package A cannot be larger than the highest bid on the anchor package B plus the price difference between A and B at the round prices in the constraining “round n”.</p> <p>Can you confirm that this formula applies equally if the anchor package B has a larger number of eligibility points than A and/or in cases where there are negative differences between the prices of A and B?</p> <p>Answer: If the supplementary bid for A is constrained relative to a package B which has a larger number of eligibility points, this can only occur in a situation in which B is the package of the final primary bid. In this case, there will be a negative difference between the prices of A and B.</p> <p>If not, could you please outline the maximum permissible bid on a package A that has fewer eligibility points and/or is cheaper than the anchor package B?</p> <p>Answer: N.A.</p>
55	<p>Can you confirm that the anchor package B is the package bid in the last active round with respect to bids for packages A with fewer eligibility points?</p> <p>Answer: This is correct.</p>
56	<p>Annex III Auction Rules – Eligibility points:</p> <p>15.1 Please explain the rationale for the ratio of eligibility points between different lot categories. In particular, please explain why the ratio of eligibility points for low frequency FDD spectrum (800, 900) to higher frequency FDD spectrum (1.8, 2.1, 2.6) is 3:1?</p> <p>15.2 Has OFCOM considered the risk that with such a high ratio, bidders may be impeded from switching from higher frequency spectrum to lower frequency spectrum, thus frustrating price discovery in the principal stage of the auction?</p> <p>Answer : Sub-1GHz spectrum is more valuable because of its greater scarcity. We would not expect bidders to be willing to substitute between sub-1GHz spectrum and higher frequency spectrum on a one-to-one basis.</p> <p>If the same number of eligibility points were assigned to categories of low and high frequency spectrum, bidders might be inclined to bid on high frequency spectrum in order to maintain their eligibility but then switch to low frequency spectrum at a later point, thus distorting the price discovery process.</p>
57	<p>Annex III Auction Rules – Reserve prices:</p> <p>16.1 The proposed reserve prices are significantly higher than those used for similar spectrum bands in other European countries. Please explain the rationale for setting reserve prices at these levels?</p> <p>Answer: According Art. 39 par. 4 LTC the regulator may define a reserve price. Art. 23 par.1 OFMRL settles the minimum level of reserved prices. The determination of reserved prices above this minimum level is left to the discretion of the regulator. According to Art. 23 OFMRL adequate revenues have to be achieved.</p> <p>16.2 Did OFCOM consider the risk that setting reserve prices at these levels could deter potential participants from bidding for some of the available spectrum, potentially resulting in a less competitive auction and frequencies going unsold unnecessarily?</p> <p>Answer: The determination of reserved prices above this minimum level is left to the discretion of the regulator.</p> <p>16.3 Does OFCOM consider to modify this rule?</p> <p>Answer: No, ComCom does not intend to modify this rule.</p>
58	<p>Annex III Auction Rules – Spectrum caps:</p> <p>17.1 Please explain the rationale for setting spectrum caps at these levels, which are significantly higher than levels for similar awards across Europe.</p> <p>17.2 In particular, please explain why there are no individual caps for 1.8GHz and 2.6GHz, and why there is no cap across all the bands?</p> <p>Answer : ComCom has modified this rule. Please see the redefined spectrum caps of the updated tender documents.</p>

59	<p>Annex III Auction Rules – Spectrum caps:</p> <p>18.1 An implication of the proposed spectrum caps is that it is possible for a single bidder to win over 60% of all spectrum suitable for providing mobile services, regardless of the level of participation in the auction. Please confirm that this is a possible outcome?</p> <p>18.2 Please also confirm that OFCOM considers that this is an acceptable auction outcome?</p> <p>18.3 Is OFCOM considering modifying this rule?</p> <p>Answer : ComCom has modified this rule. Please see the redefined spectrum caps in the updated tender documents.</p>
60	<p>Under the prevailing spectrum caps, it is technically possible for a single bidder to acquire 79% of total uplink plus downlink bandwidth in categories A – K. Bearing in mind (a) the public interest issues at stake and the impact that such an outcome would have on the competitive landscape; and (b) the fact that such loose limits on total spectrum holdings are highly unusual by international standards, could a cap on total spectrum acquired by a single participant be introduced, and set at a level that will assure the viability of effective competition in the Swiss mobile communications market? In addition to the proposed caps in Section 1.5 of Annex III, we would suggest adding the following: a cap of 60% on all individual FDD bands above 1GHz and a total cap of 60% of all uplink and downlink bandwidth across all categories A to K.</p> <p>If not, could you please:</p> <p>a) confirm that such high concentrations of spectrum would indeed be considered acceptable by the regulatory authorities;</p> <p>b) explain why this would be deemed acceptable and</p> <p>c) outline which regulatory measures might be taken to mitigate such high concentrations of spectrum.</p> <p>Answer: ComCom has modified this rule. Please see the redefined spectrum caps in the updated tender documents.</p>
61	<p>Annex III Auction Rules – chapter 3.2.4 Schedule for primary rounds:</p> <p>19.1 Clause 3.2.4 states that the duration between primary rounds is discretionary. However, clause 3.2.7 states that bidders will be notified of the start time of a primary bid round “at least 15 minutes in advance”. To assist our planning processes, could you please confirm that the gap between rounds will always be at least 15 minutes?</p> <p>19.2 Ideally, we would prefer a minimum gap of at least 30 minutes. Is OFCOM considering modifying this rule?</p> <p>Answer : As stated in chapter 6 of the tender document, the auction rules mentioned in Annex III are still subject to adjustments and the definitive auction rules will be communicated to the participants in detail after the authorisation decision has been issued. ComCom will check a modification of this clause.</p>
62	<p>Why is there only a minimum of 15 minutes between the primary rounds? Isn't that time too short to determine the next bid? A bidder might require X blocks in total, and have a strong preference for a small number of these to be in specific bands (say 800 or 900), the rest can be any combination of groups of blocks across higher frequency bands. This is a very large number of combinations which have to be valued and prioritized potentially for each round depending on the clock prices set for that round. The chosen combination has then to be verified and approved before submitting that bid. This can take [40] minutes or more?</p> <p>Answer: As stated in chapter 6 of the tender document, the auction rules mentioned in Annex III are still subject to adjustments and the definitive auction rules will be communicated to the participants in detail after the authorisation decision has been issued. ComCom will check a modification of this clause.</p>

63	<p>Annex III Auction Rules – chapter 3.2.6 Schedule for primary rounds:</p> <p>Clause 3.2.6 states that the auction manager does not anticipate running more than eight primary rounds in a single day. In order to help bidders plan their internal approval processes, it would be helpful if this could be turned into a hard rule, i.e. no more than eight primary rounds per day under any circumstances. Is OFCOM considering modifying this rule as proposed?</p> <p>Answer : OFCOM wants to preserve a maximum of freedom of action during the auction in order to guarantee a smooth development of the process therefore, this rule will not be modified.</p>
64	<p>Does Bakom have a target number of rounds it would prefer to conduct each day (independent of the maximum eight rounds)?</p> <p>Given the stakes, bidders might want ample time to discuss each round's bid. Unless Bakom finds there is a hard deadline for completing the auction, could Bakom consider a slow auction to be preferable?</p> <p>Answer: The pace of the auction depends on the round schedule as well as the size of the bid increments. The auction manager will manage the pace of the auction within the parameters set out in the rules so that bidders have a reasonable amount of time to make their decisions, and aim to communicate round schedules and price increments sufficiently in advance.</p>
65	<p>Given the vast number of bids and the risk of entry errors, to be submitted e.g. in the supplementary round (Ref. 19), will Bakom allow electronic uploading of bid submissions as an electronic file in the clock rounds, supplementary round and/or assignment rounds?</p> <p>Answer: Bidders will be able to enter primary bids via a bid form interface presented by the auction system. Drop down boxes will be presented for each category and bidders can chose the number of lots they want to include in their bid at the given prices. These bids are subjected to checking by the system before they can be submitted and the system will report back on any entry errors, and present a summary screen that will allow bidders to check their entry before confirmation.</p> <p>Supplementary bids can be entered through a supplementary bids editor interface in a similar manner, or uploaded to the system as a CSV (comma separated value) or TSV (tab separated value) file. The system will also allow bidders to download the supplementary bids currently held on the system in such a file format, and re-upload these bids after editing or amending the file.</p>
66	<p>Annex III Auction Rules – chapter 3.2.14 Bid submission:</p> <p>Clause 3.2.14 states that each bidder must submit a bid for a package “containing at least one lot” in the first primary bid round. Such a bid may be significantly less than the binding bid submitted at application. Please clarify that if the award proceeds to an auction phase, the bidder’s bid at application is no longer valid, and will not be considered for the purposes of winner and price determination?</p> <p>Answer : If a principal stage is required, the winner and price determination process will consider all valid bids received during the principal stage (primary rounds and supplementary round). It will not take into account the lot applications.</p>
67	<p>Annex III Auction Rules – chapter 3.2.14 Bid submission:</p> <p>Clause 3.2.14 states that the bidder must submit a non-zero bid in the first primary round, but clause 3.2.15 states that, in any round, if a bidder fails to bid, the system will automatically enter a zero bid. Please clarify what happens if a bidder fails to submit a bid in round one?</p> <p>Answer : If a bidder fails to submit a bid during the first primary round, it will be granted an extension of 30 minutes. If the bidder fails to submit a bid during the extension period, it will be deemed to have made a zero bid.</p> <p>If a bidder is unable to submit a bid using the electronic auction system it should notify the auction manager immediately as it may be granted permission to submit a bid using fax.</p> <p>If a bidder does not submit a bid in the first round through any means it will be considered to be in breach of the auction rules and it may be excluded from the auction.</p>

68	<p>Annex III Auction Rules – chapter 3.2.28 Clock prices:</p> <p>Clause 3.2.28 states that the clock price for a category may increase by up to 100% in each round. This is a very large increment, especially given that the reserve prices have been set at relatively high levels (compared to other European countries). With up to eight rounds per day, this means that prices could rise by 12700% in a single day! Exposing bidders to such high increments is clearly unreasonable, as it makes it impossible to plan internal reporting procedures tied to predictable price increases. To remove this problem, we propose that OFCOM imposes an absolute maximum bid increment for each lot per round of CHF 2 million. Further, we propose that the price of a lot in any category should not increase by more than CHF 10 million in a single day, and that if prices reach this limit, bidding should be suspending until the next working day. Please confirm if the rules can be changed as proposed?</p> <p>Answer : The auction manager intends to give as much notice as possible of the round schedule and bid increments. Specifically, the auction manager intends to each day publish the schedule of rounds and bid increments for the following day so that bidders may anticipate the maximum bid increase that will apply the following day. The rules will not be modified as suggested.</p>
69	<p>Will BAKOM communicate any indications on how it will determine the increments in price between the primary rounds?  What logic will it use? Can we expect that only decreasing percentage increments as clock prices go up to prevent overshooting?  Will the increments be the same absolute amounts even if some category prices are several times the price of others?  How consistent will increments be round to round?  How much advance notice will be given that the round to round increment will change?</p> <p>If there is overshooting of market clearing in the last clock round, the supplementary round creates more risks, of bidders being reduced to inefficient combinations of blocks at the end. In particular, if more than one bidder reduces in the last clock round, then it may be possible that only one wins adequate spectrum in the supplementary round despite the fact that any efficient equilibrium would have all those bidders winning adequate amounts of spectrum. For this reason, it would seem that Bakom would want to ensure that there is no overshooting, unless getting the auction concluded in a week or two is seen as more important than achieving an efficient outcome.</p> <p>Answer: The auction manager intends to give as much notice as possible of the round schedule and bid increments. Specifically, the auction manager intends to each day publish the schedule of rounds and bid increments for the following day so that bidders may anticipate the maximum bid increase that will apply the following day.</p>
70	<p>In which format will the results of the bidding rounds be communicated to the bidders electronically?  When will BAKOM release samples of the results files, to test our systems and procedures?</p> <p>Answer: The round results are published in the electronic auction system and bidders will see these on their interface. The format will be communicated to approved bidders in time.</p>
71	<p>Annex III, 3.2.29: page 12/26: “Rundenverlängerungsrechte”: How many clock round prolongation rights does a bidder get?</p> <p>Answer: Each bidder starts the primary rounds with two extension rights. Please see rule 3.2.33.</p>
72	<p>Annex III, 3.3.2: page 14/26: What are the restrictions the paragraph is referring to?</p> <p>Answer: The restrictions described in rules 3.3.18 to 3.3.21</p>

73	<p>Why is there only a minimum of 24 hours between the primary and the supplementary rounds? Isn't that time too short to determine over a 1000 bid packages? This leaves 90 seconds per bid preparation time and just 15 seconds per bid to submit?</p> <p>We have done one calculation that shows that there are 215,460 possible combinations that would satisfy one probable set of requirements. If we have 24 hours to evaluate all these combinations, then we will have to evaluate over 8,000 options per hour, 130 per minute, or over 2 per second. There are possible ways for a bidder to submit combination bids, such as all packages including 6 blocks less than 1 GHz, which would save enormous time and effort. Are such ways foreseen by Bakom?</p> <p>It would seem that Bakom might find it more efficient to allow bidders to submit constraints on packages and values for each package that satisfies any given set of constraints. Absent more efficient mechanisms for submitting bids, it would seem that significantly more than 24 hours to prepare bids, and 6 hours to submit them would be prudent. In addition, would Bakom provide a way for bidders to electronically upload bids?</p> <p>Answer: Bidders can start preparing their business cases well in advance of the auction and analyse different combinations of lots. Bidders will have the opportunity to upload supplementary bids as a bid file or enter these via an interface.</p> <p>This supplementary bids editor interface will be available throughout the primary rounds and bidders may start to enter and edit supplementary bids before the start of the supplementary round, and have these checked for compliance with the rules at any particular point in time by the auction system. (Note that supplementary bids can only be submitted during the supplementary round, however).</p>
74	<p>Annex III, 3.3.10: page 14/26: paragraph 3.3.12: In the paragraph it is mentioned that a bidder can bid for up to 1000 different spectrum combinations. If we compare two strategies: the first only bidding for a very limited amount of combinations, in extreme only one and the second issue close to 1000 bids: What is in general the outcome of the auction in terms of winner determination and prices paid?</p> <p>Answer: The outcomes are determined by the application of the rules on winner determination and pricing.</p>
75	<p>Annex III Auction Rules – chapter 3.3.12 Bid submission:</p> <p>24.1 Please explain the rationale for limiting bidders to “up to 1000 packages” in the supplementary bids round, as stated in Clause 3.3.12?</p> <p>24.2 Has OFCOM undertaken analysis to ensure that this limit will not unduly constrain a bidder's ability to express its valuations for all packages that it is willing to buy?</p> <p>24.3 Has OFCOM considered how difficult it will be for bidders to identify 1000 preferred packages from the over six million bid options possible for this auction?</p> <p>Answer : For practical reasons, it is necessary to limit the number of supplementary bids that can be submitted by each bidder. On the basis that the open bidding stage should allow bidders to identify their efficiency relevant packages, the limitation to 1000 packages appears reasonable, but ComCom would consider increasing this number in the definitive auction rules if bidders would like to be able to submit a larger number of supplementary bids, although some reasonable limit would need to be imposed.</p>
76	<p>Why is the limit of the number of bid combinations set at 1,000 in the supplementary bid round? Should the limit not be based on the number of feasible combinations that would meet each bidder's business plan?</p> <p>Answer: For practical reasons, it is necessary to limit the number of supplementary bids that can be submitted by each bidder. On the basis that the open bidding stage should allow bidders to identify their efficiency relevant packages, the limitation to 1000 packages appears reasonable, but ComCom would consider increasing this number in the definitive auction rules if bidders would like to be able to submit a larger number of supplementary bids, although some reasonable limit would need to be imposed.</p>
77	<p>What are the incentives to bid straightforwardly when rivals cannot fully report preferences due to either the 1000 combination constraint or budget constraints?</p> <p>Answer: How bidders should bid in the auction is a matter of bid strategy. OFCOM will not make recommendations about how bidders should decide on their bids in the upcoming Swiss auction.</p>

78	<p>Could you confirm that rule 3.3.21 part c when applied to packages that at the end of the regular rounds were cheaper than the “final primary bid” would use a negative price difference?</p> <p>In particular, suppose a bidder’s final primary bid is for package Y of 10 licenses at 10M each. Suppose in the supplementary round the bidder wants to submit only a bid for a package X consisting of 8 licenses i.e. being a subset of Y.</p> <p>Final Primary Bid: Package Y (10 blocks) at 100M CHF Desired Supplementary Bid: Package X (8 blocks)</p> <p>Assume final clock round price of 10M per additional block.</p> <p>Our understanding of the rule 3.3.21 point c is that this is a standard revealed preference activity rule, so that the largest allowable bid for the X package, assuming no increase in the Y package bid, would be 80M, which is our bid for Y plus the (negative) price difference between X and Y at the clock prices.</p> <p>Similarly if we submitted a supplementary round bid for the package Y and a price P then the most we could bid for X would be P-20 (both constraints being consistent with the statement that this rule captures revealed preference).</p> <p>Is this correct? Answer: Yes.</p>
79	<p>How does the CCA set prices, and determine the winning allocation, when there is no set of prices for the individual blocks that would result in market clearing, and bids are above the reserve prices for all blocks?</p> <p>Answer: The conditions set out in Rule 3.3.27 identify a unique base price for each winning package.</p>
80	<p>Will there be any intervention if one bidder wins less spectrum than a rival but pays substantially more for it as occurred in Austria?</p> <p>Answer: No.</p>
81	<p>The auction design is very complex and untested for such a large scale of spectrum to be auctioned. Why has there be no discussion or consultation with potential bidders before finalisation and communication of these rules?</p> <p>Answer: It is in the discretion of ComCom to determine the design of the auction.</p>
82	<p>What happens to blocks of spectrum that end up unsold after the auction? At what point in time and under which process would this spectrum subsequently be sold?</p> <p>Answer: Not assigned frequency blocks will be kept with the license authority. Any further proceeding will be determined at some future date.</p>
83	<p>Section 3.3.26 in Annex III (Auction Rules) states that the winning combination will be selected via random process if Rule 3.3.25 identifies multiple potential winning combinations. Could Rule 3.3.26 be amended to select winning combinations that yield the greatest equality of total bandwidth among winners (i.e. the smallest statistical variance in uplink plus downlink bandwidth)?</p> <p>Answer: OFCOM does not see any benefit in the proposed amendment in this context where multiple bands are to be awarded. Considering just the total bandwidth would imply that all types of spectrum are equally useful to licensees, which is not the case.</p>
84	<p>Annex III, 3.3.21 Relative Cap. Concerns of business continuity make it crucial for bidders to retain specific bands of spectrum. The introduction of a sealed supplementary bid round after the open primary clock phase makes this retention unduly difficult for bidders. Does OFCOM agree? If not, why not?</p> <p>Answer: The supplementary bid round is an integral part of the Combinatorial Clock Auction. It is important in order to ensure the efficiency of the resulting allocation. The relative cap rule restricts the bid amounts that can be submitted in the supplementary round according to the bids submitted during the open primary rounds. This in turn serves as an incentive for bidders to reveal their demand during the primary rounds.</p>



85	<p>The fourth condition in Annex III paragraph 3.3.29 would seem to give incentives for bidders to raise the opportunity costs of their competitors by bidding on unwanted spectrum. Is this correct? If so, why is this desirable?</p> <p>Answer: It is for bidders to determine their best bid strategy. OFCOM will not comment on matters relating to bid strategy.</p>
86	<p>Annex III Auction Rules – chapter 3.3.29 Base price determination:</p> <p>In clause 3.3.29, could you please confirm that the first condition should read “..., but less than or equal to the winning bid amount”, not “..., but below the winning bid amount”, as stated in the draft rules?</p> <p>Answer : Please refer to the modified tender documents which include a clarification of the text.</p>
87	<p>Annex III Auction Rules – chapter 3.3.30-31 End of principal stage:</p> <p>26.1 With respect to information released at the end of the principal stage, please explain why you will not be releasing information about the identity of winning bidders and the lots they have won?</p> <p>26.2 Our understanding is that this information was made available in other CCAs, such as the Danish 2.6 GHz auction. Please explain the rationale for restricting information in this case? Our strong preference is for full information, except for base prices of other bidders, to be released at the end of the Principal Stage.</p> <p>Answer : At the end of principal stage, the following information will be released to all bidders: the number of lots won by the appropriate bidder in each of the categories A to J. This information will not be released to other bidders. In addition, each winning bidder will be told the base price that applies to their own winning bid. This information will not be released to other bidders. (3.3.30 and 3.3.31 of the auction rules). The reason for this is avoiding collusion.</p>
88	<p>Annex III Auction Rules – chapter 3.3.30-31 End of principal stage:</p> <p>Without information about the lots won by other bidders, it is not possible for a bidder to identify its bid options in advance of the assignment stage. However, this information is required to prepare valuations and bids for the assignment round. Please clarify when information about bid options will be provided to bidders? The current rules imply that this information may only be available when the round starts but this is clearly too late.</p> <p>Answer : OFCOM understands that winning bidders need to know their frequency assignment options in advance of the start of the assignment round. Hence it is the intention that the assignment options available to each bidder will be communicated to that bidder at the same time as the result of the principal stage is announced. This means there will be at least one clear business day between receiving this information and the start of the assignment round.</p>
89	<p>Annex III Auction Rules – chapter 4.3.3 Schedule of assignment round:</p> <p>Clause 4.3.3 states that the Assignment round will “last for at least 2 hours.” This is acceptable if bid options are provided well in advance of the round, but may be insufficient if this information is not provided. Please clarify your approach in light of previous questions relating to the release of information on bid options?</p> <p>Answer : Please refer to the answer above.</p>
90	<p>Annex III Auction Rules – chapter 4.4.3 Bid options for the assignment round:</p> <p>29.1 Our preliminary assessment is that the rules for placement of unallocated lots within each frequency band are acceptable. However, to assist valuation, please explain your rationale for unsold lot placement for each frequency band. Has OFCOM undertaken research to suggest that there may be material differences in value between lots in these bands?</p> <p>29.2 If yes, how was this research used in the determination of the placement of unsold lots?</p> <p>Answer : The rationale for unsold lot placement for the different frequency bands is the protection of devices in the neighboring band. No significant differences in values between the lots have been identified with regard to the placement of unsold lots.</p>

91	<p>Annex III Auction Rules – chapter 4.4.4 Bid options for the assignment round:</p> <p>Clause 4.4.4 states that the auction manager “also reserves the right to limit the assignment options to ensure an equal distribution of preference channels in the 900MHz and 1800MHz bands”. Annex VII provides specific information about package bid options that may be excluded from the bid options if applicable. Package combinations are excluded where winners of a single lot gain either Block B4 or B7. This is due to the lack of availability of preference lots near either the French or German borders. However, we strongly feel that a winner of a single block would be significantly disadvantaged if it gained either Block B1 or B5:</p> <ul style="list-style-type: none"> <li>• Block B1 is very unattractive due to restrictions due to GSM-R</li> <li>• Block B5 has very few preference frequencies near the German border</li> </ul> <p>Therefore, we request that OFCOM:</p> <ul style="list-style-type: none"> <li>• excludes combinations where Block B1 and B5 are allocated individually</li> <li>• allows for bidders to receive non-contiguous spectrum allocations within the 900MHz band if this is necessary to ensure that a winner of a single 900MHz lots does not receive one of the four low-value lots</li> <li>• revises Annex VII in light of these comments, and confirms that the revised annex VII provides an exhaustive list of bid options that may be excluded according to Clause 4.4.4, and that there are no circumstances under which these bid options would not be excluded.</li> </ul> <p>Could OFCOM confirm that the rules will be modified as suggested above?</p> <p>Answer : Contiguous spectrum assignment is a key feature of this auction mode. Therefore it is not possible to deviate from this feature without changing the design which is now fixed.</p>
92	<p>Annex III paragraph 4.8.2 second condition. This is rather vague. Can OFCOM confirm whether circumstances can arise whereby (1) and (2) occur together?</p> <p>(1) each bidders preferred overall assignment is the same – i.e. B1 prefers spectrum band A1, B2 prefers A2, etc. where A1, A2,... are consistent with the conditions set out in paragraph 4.7.2.</p> <p>(2) Some or all bidders are charged a positive price at the assignment stage.</p> <p>If the answer is ‘Yes’, what is the justification for this given that uncertainty over payments at the assignment stage, make formulation of bidding strategies at the principal stage considerably more difficult? Why not simply charge the opportunity cost as defined in footnote 6?</p> <p>Answer: The conditions set out in rule 4.7.2 define the possible assignment options. The pricing rule for the assignment stage as described in rule 4.8.2 follows the same principle as that for the principal stage – the only difference is that there is no reserve price.</p> <p>If bidders’ overall preferred assignments are mutually consistent, they impose no opportunity cost on each other and the additional prices will be zero.</p>
93	<p>What is the reason for having clock rounds if the winning combination and the price to be paid is only determined in the supplementary round?</p> <p>Answer: The winning combination and base prices are determined on the basis of all bids submitted, primary bids as well as supplementary bids. The clock round is intended to aid price discovery and guide bidders in relation to the efficiency-relevant packages.</p>

94	<p>Annex III Auction Rules – chapter 4.8.3 End of the assignment stage:</p> <p>Under clause 4.8.3, please explain the rationale for not providing full information about the auction results following the completion of the assignment stage? The decision not to publish winning bids implies that such information could in some way distort bidding behavior in the following 2010MHz auction, but if this were the case, then the decision to exclude the 2010MHz lot from the main auction must be flawed. Please also consider that companies may have public responsibilities to disclose information about their expenditure in the auction, so unnecessarily delaying the release of such information may put winning bidders in a difficult position.</p> <p>Answer : OFCOM does not deem it necessary for bidders to know what other bidder's have won in other categories in order to decide on any potential bid in category K, and the decision not to publish winning bids prior to the completion of all stages and rounds does not imply that OFCOM believes that knowledge of what other bidders have won would affect bidding behavior for the category K lot.</p> <p>OFCOM understands that companies may have responsibilities to disclose information about expenditure in the auction. The auction manager will aim to conduct a separate bid round for 2010-2025MHz shortly after the conclusion of the assignment stage and this will last for no more than 4 hours (plus a possible extension).</p>
95	<p>Angenommen, ein Bieter wünscht den Erwerb des einen in der Kategorie C verfügbaren Blockes, so wird er diesen im Rahmen des Frequenzzuteilungsantrages angeben und erwirbt damit 4 Bietberechtigungen. Steigt im Rahmen der CCA Runden der Preis auf einen nicht mehr seitens des Bieters tolerierten Wert, wird er in allen weiteren Runden keine neuen Gebote mehr abgeben. Ist es richtig, dass:</p> <ol style="list-style-type: none"> <li>Der Wert des letzten Gebotes auf den Block C des Bieters für den weiteren Verlauf der Auktion uneingeschränkt Gültigkeit hat, auch wenn mehrere „Nullgebote“ abgegeben wurden.</li> <li>Kein neues Gebot auf Blöcke zum Beispiel der Kategorie D während der Clock-Runden abgegeben werden können, da keine Bietberechtigungen hierzu „gebucht“ wurden.</li> <li>In der Zusatzrunde ein weiteres, höheres, Gebot auf den Block C abgegeben werden kann.</li> <li>In der Zusatzrunde für alle anderen Blöcke im Rahmen der gegebenen 4 Bietberechtigungen zusätzliche beliebig viele Angebote abgegeben werden können.</li> </ol> <p>Antwort: Zu a): Das letzte Gebot auf den Block C hat uneingeschränkt Gültigkeit für die Gewinner- und Preisermittlung. Die Anzahl der abgegebenen Nullgebote hat somit keinen Einfluss auf das Gebot für den Block C.</p> <p>Zu b): Richtig. Die erworbenen 4 Bietberechtigungen können, solange kein Nullgebot abgegeben wurde, für den Kauf jegwelcher Blöcke benutzt werden, der Bieter ist nicht verpflichtet nur auf Block C zu bieten.</p> <p>Zu c): Der Bieter kann ein Zusatzgebot für den Block C abgeben, welches höher sein muss als sein höchstes Gebot für diesen Block in den Clockrunden, aber nicht höher sein darf als der Preis für diesen Block in der Runde, in der der Bieter erstmals nicht mehr geboten hat.</p> <p>Zu d): Der Bieter kann bis zu 1000 Zusatzgebote für alle Pakete abgeben, die 4 oder weniger Bietberechtigungen einschliessen. Zusatzgebote für diese Pakete sind gemäss Regeln 3.18 – 3.21 beschränkt.</p>
96	<p>Annex III Auction Rules – chapter 5 Separate bid round for 2010-2025 MHz:</p> <p>32.1 Please clarify whether a bidder that submitted an application to buy the 2010MHz lot at the application stage is obliged to submit a bid at the reserve price in the auction for this lot, if an auction is required?</p> <p>32.2 If this is not the case, please explain why bidders that did not submit an application for this lot are excluded from this auction, given that the OFCOM approach implies a potential linkage across the two auctions?</p> <p>Answer : If a bidder who is eligible to bid in the 2010-2025 MHz round does not submit a bid this will be considered a 'zero bid' and its bid at the reserve price submitted at the lot application stage will be considered its highest bid for this lot.</p> <p>A bidder is only eligible to bid in the 2010-2025 MHz round if it included this lot in its lot application form. This is to encourage bidders to state their true demand at the lot application stage as there will only be a 2010-2025 MHz round if there is excess demand for this lot on the basis of lot applications.</p>

97	<p>Annex III Auction Rules – chapter 5.3.3 Separate bid round for 2010-2025 MHz:</p> <p>Clause 5.3.3 describes the bid in the 2010 MHz auction as an “assignment bid” instead of a “bid”. Is this an error?</p> <p>Answer : The bid in the 2010-2025MHz round should be described as a “bid”.</p>
98	<p>Annex III Auction Rules – chapter 5.3.4 Separate bid round for 2010-2025 MHz:</p> <p>Clause 5.3.4 describes an option to submit a ‘zero bid’, but implies that in this case a bidder may be deemed to have submitted a bid at reserve price. Please clarify what is meant by a “zero bid” in this case, and what happens if an eligible bidder does not submit any bid.</p> <p>Answer : In this case a ‘zero bid’ means that the bidder does not want to increase its bid above reserve price.</p>
99	<p>Calculation of Base and Additional Prices Page 2/7 to 4/7, paragraph a) to n): Let’s assume a situation where the sum of the reserve prices in the winning bid <math>m_j</math> is zero and therefore</p> $d_j^{\max} = \sigma(j)$ <p>Then the price determination for the winning bid would stop at step e) and it would not be required to iterate the steps f) to n). Is this correct?</p> <p>Answer: No, this is incorrect.</p>
100	<p>Can OFCOM confirm that the same mechanism (relative cap rule and knock out bid strategy) as was proposed in the Irish auction to avoid continuity risk in the supplementary round is available within the proposed auction design?</p> <p>Answer: Please refer to the auction rules. OFCOM will not comment on bid strategy, nor on similarities or differences with other auctions.</p>
101	<p>Can OFCOM provide a written guarantee that if this knock out bid strategy is pursued the bidder will receive the allocation from the end of the primary round?</p> <p>Answer: OFCOM will not comment on bid strategy.</p>
102	<p>Can OFCOM confirm that the auctioneer will notify bidders what this knock out bid should be and when it should be placed?</p> <p>Answer: OFCOM will not comment on bid strategy or suggest potential bid amounts.</p>
103	<p>How is the assignment of abstract blocks to concrete blocks done for the period starting 1.1.2014 for the winner of the category C blocks?</p> <p>Answer: Because of the modification of the tender document the starting date 1.1.2014 has changed to 1.1.2015 for the Swiss territory without the regions Basel and Geneva and to 1.1.2016 for the regions Basel and Geneva. The category C lot is assigned jointly with the category D lots for the period starting at the appropriate date (1.1.2015/ 1.1.2016). The winners of 1800 MHz spectrum will be offered all possible assignments options available to them in this band in accordance with rule 4.7.2. So for example, if a bidder has won the category C lot and two category D lots it will be able to make assignment bids on the options for which its 2x15 MHz can be placed in the band given that other winners also receive contiguous assignments and the placement of any unsold lots.</p>
104	<p>As stated in 2.2.2 from the tender document the block allocation is done in a contiguous manner. Moreover, according to annex VII, B4 and B7 cannot be assigned separately. Does that mean, in case of three operators and one of those has won 4 blocks, only 2 possible allocations are possible, i.e. one operator will get 5 MHz, the second one 10 and the third 20?</p> <p>Answer: No. Depending from the outcome of the assignment stage, four scenarios are feasible:</p> <p>5 / 10 / 20</p> <p>5 / 20 / 10</p> <p>10 / 5 / 20</p> <p>20 / 5 / 10</p>

## 5 Software

105	<p>When (at what date) do we get the file-specification (file-format, field descriptions, hand-shake procedures, ...) for up- and downloading bid-information of the auction system?</p> <p>Answer: There will be a mock auction prior to the real auction where bidders will have an opportunity to try using the electronic auction system. The necessary access details will be distributed shortly before the mock auction. File specifications will be communicated after participants have been determined.</p>
106	<p>Wie viele "mock auctions" werden zwecks Trainingsmöglichkeit vor der Auktion durch das BAKOM angeboten werden?</p> <p>Antwort: Es wird Bietern die Möglichkeit gegeben, an einer „mock auction“ teilzunehmen.</p>
107	<p>Will the auction training be separate for all accepted bidders? (e.g. on different days?) How many participants can attend training? Can bids only be submitted by those who have attended training?</p> <p>Answer: The auction training will be separate for all accepted bidders. The number of participant that can attend the training will be communicated with the invitation for training. Participation at the auction training is optional. Further details will be communicated during the training session.</p>
108	<p>What type of training material will be available before the bidder training – and when?</p> <p>Answer: Admitted bidders will receive a user manual for the electronic auction system. There will also be an opportunity to participate in a mock auction.</p>
109	<p>Will BAKOM release any simulation software to prepare for the auction incl. algorithm to solve the auction (winner and price determination)? When will this be available? What file format will it use?</p> <p>Answer: An appropriate software will be made available for approved applicants. Details will be announced after the decision on admission to the auction is made.</p>
110	<p>When can we start sending test bids to BAKOM to validate our systems and procedures? Would mid February be a reasonable start date?</p> <p>Answer: There will be a mock auction shortly before the actual auction. Appropriate dates will be announced in time.</p>
111	<p>Besteht die Möglichkeit zur Überprüfung des Source Codes im Hinblick auf das mathematische Modell welches im Auktionsverfahrens zur Ermittlung des / der Gewinner ermittelt wird?</p> <p>Antwort: Der Source Code kann von Bietern nicht eingesehen werden.</p>
112	<p>Wird die Software, die während der Auktion zur Bestimmung der Gewinner und der Preise eingesetzt werden wird, vorab den Teilnehmerinnen zur Verfügung gestellt werden? Zu welchem Zeitpunkt? Sollte das nicht der Fall sein, was wären angesichts der hohen Komplexität des Preis- und Gewinnerbestimmungsalgorithmus und der Tatsache, dass solche Software in anderen Ländern mit vergleichbarem Auktionsformat üblicherweise zur Verfügung gestellt wurde, die Gründe dafür?</p> <p>Antwort: Zugelassene Bieterinnen erhalten eine entsprechende Software zu Testzwecken zugestellt. Details hierzu werden nach der Zustellung des Entscheids über die Zulassung zur Auktion bekanntgegeben.</p>
113	<p>Besteht abgesehen von der Testrunde die Möglichkeit eine Testumgebung zu benutzen, welche es erlaubt, das Auktionsverfahren vertieft kennen zu lernen?</p> <p>Antwort: Zugelassene Bieterinnen erhalten eine entsprechende Software zu Testzwecken zugestellt. Details hierzu werden nach der Zustellung des Entscheids über die Zulassung zur Auktion bekanntgegeben.</p>
114	<p>Will the start date of the bidding be communicated to the general public? This could be a concern for the safety for the auction process. How long in advance will the start date/time be communicated to the bidders?</p> <p>Answer: The communication to the general public isn't defined yet. Safety concerns will be taken in consideration.</p>

115	<p>Winner and Price determination software:</p> <p>Our understanding is that for previous implementations of the CCA, such as in Denmark and the UK, the regulator has made available on its website downloadable software that can be used to solve winner and price determination for any sample data set. Given the complexity of the proposed auction, the timely availability of such software is clearly even more important here than for previous CCAs. Could OFCOM please confirm if and when such software will be made available and what conditions will be applied to its use?</p> <p>Answer : An appropriate software will be made available for approved applicants. Details will be announced after the decision on admission to the auction is made.</p>
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## 6 Licenses

116	<p>Was genau bedeutet „allgemeine Nutzungspflicht“ im Sinne von Ziffer 3.1.4 der Musterkonzession?</p> <p>Antwort: Allgemeine Nutzungspflicht bedeutet die effiziente Nutzung der zugeteilten Frequenzen zwecks Erbringung von Fernmeldediensten im Sinne von Art. 1 FMG.</p>
117	<p>Welche Sanktionen werden erlassen, wenn der erforderliche Netzwerk-Rollout nicht erreicht werden kann?</p> <p>Antwort: Die Nichteinhaltung der Abdeckungsverpflichtungen wird im Einzelfall geprüft und kann gegebenenfalls ein Aufsichtsverfahren gemäss Art. 58 FMG nach sich ziehen.</p>
118	<p>Inwiefern weichen die neuen Netzbeschriebe von jenen der aktuellen Konzessionen ab?</p> <p>Antwort: Die neuen Netzbeschriebe werden die Nutzungsbedingungen für alle zugeteilten Frequenzbänder enthalten. Abhängig vom Auktionsresultat werden die erworbenen Frequenzen und Nutzungsbedingungen in den einzelnen, zur Vergabe stehenden Bändern aufgeführt. Weiterhin wird der Netzbeschreibung den Zeitraum für entsprechende Netzanpassungsmassnahmen von der heutigen Allokation zur neuen Allokation hin enthalten. Zusätzlich ist es notwendig, bestehende technische Frequenznutzungsbedingungen aus Verträgen welche zwischenzeitlich mit dem Nachbarländern neu abgeschlossen oder angepasst wurden im technischen Netzbeschreibung zu modifizieren. Das trifft ebenfalls zu, falls ECC-Empfehlungen zwischenzeitlich verändert wurden. Weiter werden die Nutzungsbedingung um die neuen Frequenzbänder erweitert sofern zugeteilt.</p>
119	<p>Wie hoch sind die Verwaltungsgebühren für die Ausschreibung und Erteilung der Konzessionen, die in das Mindestgebot eingeflossen sind?</p> <p>Antwort: Der veranschlagte Verwaltungsaufwand wurde bei der Festsetzung der Mindestgebote gemäss Art. 23 Abs. 1 lit. b FKV berücksichtigt.</p>
120	<p>Welche Möglichkeiten und Rahmenbedingungen bestehen für Betreiber, die den Endkundenpreis und den Wettbewerb stark belastenden Infrastrukturkosten in Form von Antennen- oder Networksharingvereinbarungen zu reduzieren (vgl. Pflicht, über eigene Sende- und Empfangseinheiten kommerzielle Fernmeldedienste anzubieten, Ausschreibung Mobilfunk, Ziff. 3.1.4)?</p> <p>Antwort: Als Richtlinie dient das ComCom-Papier „Gemeinsame Nutzung von UMTS-Infrastruktur“. Eine Überarbeitung dieser Richtlinie im Hinblick auf LTE-Netze ist vorgesehen. Die ComCom behält sich eine einzelfallweise Prüfung vor.</p>
121	<p>Unter welchen Bedingungen ist ein Frequenzsharing möglich? Ist die Vermietung von Frequenzen möglich? Welche Vorgaben betreffend Frequenzsharing gelten für Kooperationen zwischen den Konzessionärinnen? Nach welchen Kriterien würden Gesuche zur Übertragung von Frequenzen zwischen den Konzessionärinnen beurteilt werden?</p> <p>Antwort: Frequenzsharing ist derzeit nicht zulässig. Eine vollständige oder teilweise Konzessionsübertragung wird im Sinne des Gesetzes zugelassen (Art. 24d FMG). Vorbehalten bleiben MVNO, die nicht als Frequenzsharing qualifiziert werden.</p>

122	<p>Wie rechtfertigt es sich trotz grosser Bewertungsunterschiede je nach Interferenz-Effekt, abstrakte 5MHz Blöcke zu verwenden und dadurch die ökonomische Effizienz zu gefährden?</p> <p>Antwort: Bieter haben in der Zuteilungsphase die Möglichkeit, auf zusammenhängende spezifische Blöcke zu bieten und somit ihre unterschiedliche Bewertung von verschiedenen Frequenzblöcken zum Ausdruck zu bringen.</p>
123	<p>Das ersteigerte, konkrete Frequenzset und damit auch der Netzanpassungsbedarf stehen erst am Schluss der Auktion fest. Ist ein Frequenzabtausch unter den Zuschlagsempfängern möglich? Falls ja, unter welchen Bedingungen?</p> <p>Antwort: Nein, ein freihändiger Abtausch ist nicht möglich. Die einzige Form bildet eine genehmigungspflichtige Konzessionsübertragung (Art 24d FMG). Für allfällige Netzbauarbeiten wird in den Frequenzbereichen 900/1800 MHz eine Übergangsphase von einem Jahr, in den Städten Basel und Genf von 2 Jahren festgelegt.</p>

## 7 Conditions of use of frequencies

124	<p>Invitation to tender – chapter 2.3.1 800 MHz:</p> <p>Both Annex 3 of ECC/DEC(09)03 and CEPT report 30 acknowledge that the BEMs for the 800MHz band do not always provide protection to victim services. Notably, they may not always provide sufficient protection to DTT services below 790MHz (either from adjacent channel interference from out-of-block emissions from mobile/fixed communications networks, or from block caused by in-block emissions). Could OFCOM confirm that as long as a licensee with 800MHz spectrum operates within the BEMs defined with Annex 3 of ECC/DEC(09)03 mitigation of any resulting interference to victim services (including DTT) is not the responsibility of the licensee?</p> <p>Answer: No, this cannot be confirmed in general. Potential mitigation depends on the deployment scenario and on the magnitude of impact. For DTT Switzerland has enlarged the lower guard band between Broadcasting and Mobile Services from 1 MHz to 9 MHz (782-791 MHz). Furthermore there are within Switzerland no Broadcasting Services (BS) in the band 782-790 MHz. A part of this band will be used for wireless microphones instead. Therefore, few problems with the protection of DTT services are expected in Switzerland. As mentioned in the tender, a general clause within the network specifications (Technischer Netzbeschrieb) will cover interference cases which cannot be foreseen.</p> <p>The following clause is contained in the network specifications (Technischer Netzbeschrieb) currently in force for GSM and UMTS. It states as follows:</p> <p>“If particular base stations/node-b of this license cause interference, then the licensee is obligated to adapt upon the requests of BAKOM to modify the parameters of causing base station/node-b or stop its emissions.</p> <p>1.2 Is this also the case for such interference to victim services in neighboring countries?</p> <p>Answer : Along the Swiss border there are no notified Broadcasting services in the band 782-790 MHz. Therefore no interference problems are expected. As long as field strength values at or behind the Swiss border are in line with BEMs, CEPT recommendations, reports and decisions, bilateral agreements or GE06 agreement, mitigation of any resulting interference to victim services (including DTT) is most unlikely in the responsibility of the licensee.</p>
125	<p>Invitation to tender – chapter 2.3.1 800 MHz:</p> <p>OFCOM has chosen the most stringent in-block EIRP limit recommended by Annex 3 of ECC/DEC(09)03 for the 800 MHz band (56 dBm /(5 MHz) from a recommended range of 56-64 dBm / (5 MHz)). Could OFCOM explain why it has chosen this limit, especially in rural areas where a more relaxed EIRP limit would make the provision of mobile broadband services viable in more remote locations? We note that in Germany a limit of 56 dBm / (5 MHz) was chosen for urban areas, but this is relaxed to 64 dBm / (5 MHz) in rural areas.</p> <p>Answer : OFCOM has chosen this value in order to protect DTT in urban and rural areas.</p>

126	<p>Invitation to tender – chapter 2.3.1 800 MHz:</p> <p>The BEMs for the 800 MHz band in ECC/DEC(09)03 do not take account of coexistence with aeronautical navigation systems (ARNS). Could OFCOM confirm that there are no such systems in operation that require protection in either Switzerland or neighboring countries?</p> <p>Answer : Neither in Switzerland nor in the neighboring countries aero-nautical navigation systems (ARNS) are in operation. We refer to the Radio Regulations Res. 224 and the footnote 5.312.</p>
127	<p>Invitation to tender – chapter 2.3.2 900/1800 MHz:</p> <p>We understand from ECC Report 096 that the lowest frequency used by DME is 977 MHz, and that material interference issues do not occur as long as DME operation remains above 972 MHz. However, we understand that there may be plans to extend DME se below 977 MHz in the future. Could OFCOM provide more information regarding these plans, and as the implications this would have on users of Block B7?</p> <p>Answer : At the moment, the lowest assigned utilization of DME in Switzerland is 981 MHz. There is no knowledge about plans for future extensions with deeper frequency use for DME. In case of interference to DME guidelines from ECC Report 096 or from possible new recommendations will be applied.</p>
128	<p>Invitation to tender – chapter 2.3.3 2.1 GHz:</p> <p>Could OFCOM provide further information regarding any plans for the future use of the 1980-2010 MHz / 2170-2200 MHz range for MSS?</p> <p>Answer : Currently, there are no projects or intentions known. The frequency bands mentioned are not subject to the WRC-12 agenda (agenda item 1.25). Further, a change in the allocation of radio spectrum for MSS could happen only at the level of the ITU and CEPT.</p>
129	<p>Invitation to tender – chapter 2.4.3 2.6 GHz:</p> <p>6.1 In its ITT, OFCOM outlines that air traffic control radars at Geneva and Zurich airports may cause interference to mobile radio use in the upper part of the 2.6GHz band. We understand that in the UK there are significant concerns regarding mobile base station transmission in the 2.6 GHz band interfering with air traffic control Watchman radars in the 2.7-31 GHz radars. These concerns have been sufficient to delay the award of the 2.6 GHz band until the radar equipment is upgraded. Could OFCOM please confirm that there is not a similar issue in Switzerland?</p> <p>Answer: BAKOM do not confirm that this issue may not influence the process. For the time being this situation cannot be investigated completely. We understand that in spite of having correct specified receiver filters there are scenarios where base stations could interfere radars in the adjacent frequency band. Anyway this will only affect base stations which are close to radars and/or have line of sight to them. Consequently such problems will occur locally and not countrywide.</p> <p>Possible interference cases have to be checked case by case.</p> <p>6.2 Could OFCOM further indicate if specific filters to protect radar could be required on 2.6 GHz base stations located near GE and ZH airports?</p> <p>Answer : BAKOM cannot indicate or specify which kind of filter base stations must be fitted with since there are many different mitigation techniques possible.</p>
130	<p>Invitation to tender – chapter 2.4.3, 2.6 GHz:</p> <p>We understand that radio astronomy use above 2.7 GHz requires stringent protection. Could OFCOM please confirm that there are no radio astronomy sites that require protection from use of the 2.6 GHz band in either Switzerland or neighboring countries?</p> <p>Answer : We confirm, as long as the regulations (including BEM) are respected.</p>



## 8 Frequency utilisation and coordination at the national border

131	<p>Paragraph 2.5 states that “detailed conditions for the utilization of frequencies at the national border will be included in the network specification”</p> <p>Question : When will such specs become available ?</p> <p>Answer : The network specifications (Technischer Netzbescrieb) will be issued together with the new licenses after the end of the auction. At this time it may be not secured that all conditions for the utilization of frequencies at the borders will be fixed and agreed among the administrations. Anyway in order to give the interested parties some orientation there will be stated either interim values (draft or pending until agreement) or some values from previous regulations or investigations (eg. ECC reports). In most of cases adopted conditions are much better for operators than the interim ones.</p> <p>For the time being ECC Recommendations (11)04 and –(11)05 or technical provisions out of future bi or multilateral agreements could be used for the values in the network specifications.</p>
132	<p>Paragraph 2.5.2 (which deals with frequency utilization and coordination at the national border for the 900 and 1800 MHz band) does not mention the LTE 1800 case.</p> <p>Question : Will LTE 1800 be addressed in the “network specifications” ?</p> <p>Answer : For the time being, ECC Recommendation (08)02 is valid as it stands. ECC PT1 is currently updating this recommendation in a correspondence group to allow MFCN1 including LTE in the 900/1800 MHz bands.</p>
133	<p>Was geschieht mit Frequenzblöcken, für die nicht geboten wird?</p> <p>Antwort: Nicht vergebene Frequenzblöcke verbleiben bei der Konzessionsbehörde. Das weitere Vorgehen wird zu einem späteren Zeitpunkt bestimmt.</p>
134	<p>Wie ist sichergestellt, dass die Frequenzen im Sinne ihrer Zwecksetzung in effizienter Zusammensetzung vergeben werden und nicht die finanzstärkste Bewerberin den anderen Bieterinnen eine effizient brauchbare Frequenzausstattung verunmöglicht oder massiv verteuert (vgl. Ausschreibung Mobilfunk, Ziff. 2.2.2)?</p> <p>Antwort: Das Auktionsverfahren wurde gewählt um eine möglichst effiziente Zuteilung von Frequenzen sicherzustellen. Erfolgreiche Bieter bezahlen nur so viel wie nötig gewesen wäre, um den Zuschlag zu erhalten („second price“). Die Spektrumsbeschränkungen schliessen wettbewerbsverzerrendes Bietverhalten weitgehend aus.</p>

<sup>1</sup> Mobile/fixed communications networks

135	<p>Frage zur Einschränkung der Nutzung des Blocks B1 (E-GSM). Gilt diese Einschränkung für alle Frequenzen des Blocks gleichermassen oder nur, wenn der Block als UMTS carrier oder LTE carrier genutzt würde? Mit anderen Worten: Ist eine Störung des GSM-R durch E-GSM Frequenzen nur am unteren Rand des E-GSM zu befürchten? Falls ja, könnte man - falls man die Frequenzen hat - den 5MHz carrier etwas nach "oben" verschieben und damit der GSM-R Koordinationspflicht entkommen?</p> <p>Antwort: Grundsätzlich wird das Störpotential geringer wenn der WCDMA Carrier weiter vom GSM-R Frequenzband entfernt ist. Als Schwellenwert für eine allfällige Koordinationspflicht wird zukünftig die Höhe der Feldstärkewerte der Ausserbandaussendungen, welche in das Frequenzband von GSM-R hineinreichen, definiert. Dieser wird voraussichtlich wie folgt lauten:</p> <p>„Für unkoordinierten Netzaufbau darf der Median der Ausserband-Aussendungen des Node-B [Basisstation] von UMTS900/LTE900 entlang der Schienen auf der Höhe von 4,5 m im Frequenzbereich 921 – 925 MHz in der Messbandbreite von 200 kHz [in jedem 100-m-Intervall] höchstens -107 dBm betragen. Die Messantenne hat dabei einen Gewinn von 0 dBi. Höhere Werte müssen mit GSM-R koordiniert werden“.</p> <p>Eine Überschreitung des obigen Feldstärkewertes kann unter gewissen Bedingungen und bei Distanzen von bereits 4km vom Node-B zum Eisenbahntrasse auftreten. Es ist also denkbar, dass diese Distanz ebenso als Auslöser für die Koordinationspflicht herangezogen wird.</p> <p>Es kann aber kein bestimmter Mindestabstand genannt werden, bei dem mit absoluter Sicherheit keine Störungen mehr auftreten würden. Die oben genannten Parameter können später angepasst werden, falls Erfahrungen und/oder Anpassungen von ECC-Empfehlungen sowie Frequenznutzungsabkommen mit dem Ausland zu andere Parameter notwendig machen.</p>
136	<p>Welche Regeln legen konkret fest, wie die Priorisierung von GSM gegenüber UMTS/LTE im 900 MHz Band kontrolliert und implementiert werden soll?</p> <p>Antwort: Die Frequenzen werden technologieneutral vergeben. Grundsätzlich legt der Markt bzw. legen die Betreiber fest, welche Technologien sie auf welchen Frequenzbänder nutzen wollen. Geht es um den Schutz von älteren Technologien gegen Störungen durch neuere Technologien wird gemäss Empfehlung (z.B. ECC Recommendation (08)02) bei der grenznahen Nutzung der Schutz von GSM 900/1800 im benachbarten Land gegenüber UMTS/LTE 900/1800 priorisiert. Weiter soll der Schutz von GSM gegen Störungen durch neuere Technologien eines anderen Betreibers in benachbarten Frequenzblöcken gewährleistet werden.</p>
137	<p>Welche Regeln definieren, wie die Koordination mit GSM-R/SBB erfolgen muss?</p> <p>Antwort: Die Koordination mit GSM-R SBB beschreibt Kapitel 2.3.2 der Ausschreibungsunterlagen.</p>
138	<p>Welche Schritte wird das BAKOM unternehmen, um das Problem der fehlenden Grenzregulierung zu Italien im 800 MHz Band zu lösen?</p> <p>Antwort: Die ECC Empfehlung für die grenzüberschreitende Koordinierung der Mobile / Fixed Communications Networks (MFCN) im Band 790-862 MHz wurde von der Arbeitsgruppe WGFM verabschiedet. Diese regelt lediglich die Koordination zwischen Mobilfunknetzen nicht aber zwischen Rundfunk und Mobilfunk. Es ist vorgesehen mit Italien die grenznahe Nutzung dieser Frequenzen bilateral und auf Basis der oben genannten Empfehlungen und/oder bereits bestehenden Vereinbarungen zu regeln.</p>
139	<p>Mit welcher Interferenzstärke von Italienischen TV Sendern ist in der Region Tessin zu rechnen?</p> <p>Antwort: Zum Zeitpunkt der Vergabe ist damit zu rechnen, dass verschiedene Kanäle wie u.a. 64 und 69 an der Grenze belegt sein können, und die meisten ebenfalls in die Schweiz senden werden. Die zur Zeit zerfahrene Zuteilungs- und Informationssituation mit Italien lässt keinen Rückschluss auf die momentane und zukünftige Nutzung bis Ende 2012 zu. Messungen im Sommer 2010 entlang der Grenze zu Italien haben gezeigt, dass mehrere Kanäle über Kanal 60 für analoges und digitales Fernsehen benutzt wurden. Eine nachhaltige Quantifizierung der Interferenzsituation für die verbleibende Zeit bis zur Abschaltung ist wegen der lebhaften Frequenznutzung und -umnutzung in Italien schwerlich möglich. Es handelt sich immer nur um eine „Momentaufnahme“.</p> <p>Gemäss GE06 ist der Kanal 60 nicht Italien zugewiesen. Somit kann davon ausgegangen werden, dass dieser Kanal nicht durch Italien genutzt wird und es somit nicht zu Interferenzen in der Schweiz kommen sollte.</p>

140	<p>Wie viele Blöcke im 800 MHz Spektrum werden in den Regionen Graubünden und Wallis bis zum 31.12.2013 nicht nutzbar sein?</p> <p>Antwort: Die nachfolgenden TV-Kanäle sind an nachfolgend genannten Orten für Mobilfunk bis 31.12.2013 nicht uneingeschränkt einsetzbar. Die Auflistung ist informativ. Die jeweiligen Versorgungsgebiete sind unterschiedlich.</p> <p>Wallis</p> <table border="0"> <thead> <tr> <th>Kanal</th> <th>Gebiet</th> </tr> </thead> <tbody> <tr><td>62</td><td>VISPERTERMINEN</td></tr> <tr><td>63</td><td>FERDEN</td></tr> <tr><td>63</td><td>GRAECHEN</td></tr> <tr><td>63</td><td>BLATTEN</td></tr> <tr><td>64</td><td>GUTTET-FESCHEL</td></tr> <tr><td>65</td><td>VISPERTERMINEN</td></tr> <tr><td>66</td><td>AUSSERBERG</td></tr> <tr><td>67</td><td>NIKLAUS</td></tr> <tr><td>67</td><td>BUERCHEN</td></tr> <tr><td>67</td><td>SIMPLONPASS</td></tr> <tr><td>67</td><td>INDEN</td></tr> <tr><td>68</td><td>VISPERTERMINEN</td></tr> <tr><td>69</td><td>GUTTET-FESCHEL</td></tr> </tbody> </table> <p>Graubünden:</p> <table border="0"> <thead> <tr> <th>Kanal</th> <th>Gebiet</th> </tr> </thead> <tbody> <tr><td>61</td><td>VERSAM</td></tr> <tr><td>62</td><td>TRUN</td></tr> <tr><td>62</td><td>DAVOS</td></tr> <tr><td>62</td><td>CELERINA</td></tr> <tr><td>63</td><td>DAVOS</td></tr> <tr><td>63</td><td>AROSA</td></tr> <tr><td>64</td><td>DAVOS</td></tr> <tr><td>64</td><td>VERSAM</td></tr> <tr><td>66</td><td>DAVOS</td></tr> <tr><td>67</td><td>GRONO</td></tr> <tr><td>68</td><td>CELERINA</td></tr> <tr><td>69</td><td>GRONO</td></tr> </tbody> </table>	Kanal	Gebiet	62	VISPERTERMINEN	63	FERDEN	63	GRAECHEN	63	BLATTEN	64	GUTTET-FESCHEL	65	VISPERTERMINEN	66	AUSSERBERG	67	NIKLAUS	67	BUERCHEN	67	SIMPLONPASS	67	INDEN	68	VISPERTERMINEN	69	GUTTET-FESCHEL	Kanal	Gebiet	61	VERSAM	62	TRUN	62	DAVOS	62	CELERINA	63	DAVOS	63	AROSA	64	DAVOS	64	VERSAM	66	DAVOS	67	GRONO	68	CELERINA	69	GRONO
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141	<p>Annex VII – 900 MHz band:</p> <p>Will the 900 MHz band be allocated in strictly continuous blocks? Given that there are significant value differences between blocks (due to the availability of preference GSM channels) and that the best channels are not contiguous, bidders may prefer non-contiguous blocks. Moreover, introducing non-contiguous bid options may be essential to ensure that a small bidder is not left with one of the four lower value lots (B1, B4, B5 or B7).</p> <p>Answer : Contiguous spectrum assignment is a key feature of this auction mode. Therefore it is not possible to deviate from this feature without changing the design which is now fixed.</p>																																																						
142	<p>Wie ist die Aufteilung der Vorzugsfrequenzen in den benachbarten Ländern in Dreiländerfällen?</p> <p>Antwort: Die detaillierte Vorzugsaufteilung in den GSM-Frequenzbändern findet sich in den folgenden Tabellen.</p>																																																						

## 900 MHz Band

Gebiet	E-GSM 900 (von ... bis und mit)	Detail Dreiländerfall (von ... bis und mit)	
		D/AUT/SUI	983-990 1000-1007
AUT/SUI	983-995 1000-1007 1020-1023		
AUT/LIE/SUI	983-990 1000-1007	AUT: 975-982 1008-1015	LIE: 991-999 1016-1023
F/SUI	980-991 1002-1014		
F/D/SUI	982-989 1002-1009	F: 975-981 997-1001 1020-1024	D: 990-996 1010-1019
D/SUI	979-990 998-1009		

Legende: AUT: Österreich; D: Deutschland; F: Frankreich; LIE: Fürstentum Liechtenstein; SUI: Schweiz

## 900 MHz Band

Gebiet	P-GSM 900 (von ... bis und mit)	Detail Dreiländerfall (von ... bis und mit)	
		F/SUI	1-10 42-93
F/D/SUI	1-10 50-59 81-86 88-102	F: 11-30 103-124	D: 31-49 60-80 87
D/SUI	1-25 88-124		
D/AUT/SUI	13-37 109-124	AUT: 1-12 64-92	D: 38-63 93-108
AUT/SUI	13-49 100-124		
AUT/LIE/SUI	13-37 109-124	AUT: 1-12 50-99	LIE: 38-49 100-108
I/SUI	7-26 49-54 67-96 119-124		

Legende: AUT: Österreich; D: Deutschland; F: Frankreich; I: Italien; L: Fürstentum Liechtenstein; SUI: Schweiz

## 1800 MHz Band

Gebiet	GSM 1800 Block 1 - 3 (von ... bis und mit)	Detail Dreiländerfall (von ... bis und mit)	
F/SUI	550-600 625-661 700-736 781-812 856-885		
F/D/SUI	557-593 631-661 712-728 787-804 862-885	F: 512-534 594-611 662-680 729-750 805-845	D: 535-556 612-630 681-711 751-786 846-861
D/SUI	512-524 557-600 631-668 712-741 787-824 862-885		
D/AUT/SUI	557-593 631-661 712-728 787-804 862-885	AUT: 512-530 594-615 662-680 729-750 805-845	D: 531-556 616-630 681-711 751-786 846-861
AUT/SUI	550-593 618-661 700-736 781-812 856-885		
AUT/L/SUI	557-593 631-661 712-728 787-804 862-885	AUT: 512-549 594-617 662-699 737-780 813-855	LIE: 550-556 618-630 700-711 729-736 781-786 805-812 856-861
I/SUI <sup>2</sup> (Provisorisch)	512-524 <sup>1)</sup> 557-600 <sup>1)</sup> 631-635 <sup>1)</sup> 663-700 <sup>1)</sup> 738-760 <sup>1)</sup> 787-824 <sup>1)</sup> 862-885 <sup>1)</sup>		

Legende: AUT: Österreich; D: Deutschland; F: Frankreich; I: Italien; LIE: Fürstentum Liechtenstein; SUI: Schweiz

<sup>2</sup> Italien : Provisorische Aufteilung auf Zusehen hin