

欧专局审查指南 2010	国知局审查指南 2010	评注
11.2 State of the art; date of filing		
The "state of the art" for the purposes of considering inventive step is as defined in Art. 54(2) (see IV, 6). It is to be understood as concerning such kind of information as is relevant to some field of technology (T 172/03, not published in OJ). It does not include later published European applications referred to in Art. 54(3). As mentioned in IV, 6.4, "date of filing" in Art. 54(2), means date of priority where appropriate (see Chapter V). The state of the art may reside in the relevant common general knowledge, which need not necessarily be in writing and needs substantiation only if challenged (see T 939/92, OJ 6/1996, 309).		【注解】 现有技术可以包含在公知常识中（公知常识可以包含现有技术）。
11.3 Person skilled in the art	2.4 所属技术领域的技术人员	
The "person skilled in the art" should be presumed to be a skilled practitioner in the relevant field, who is possessed of average knowledge and ability and is aware of what was common general knowledge in the art at the relevant date (see T 4/98, OJ 2002, 139, T 143/94, OJ 1996, 430, T 426/88, OJ 1992, 427). He should also be presumed to have had access to everything in the "state of the art", in particular the documents cited in the search report, and to have had at his disposal the normal means and capacity for routine work and experimentation. If the problem prompts the person skilled in the art to seek its solution in another technical field, the specialist in that field is the person qualified to solve the problem. The skilled person is involved in constant development in his technical field (see T 774/89, T 817/95, not published in	2.4 所属技术领域的技术人员 发明是否具备创造性，应当基于所属技术领域的技术人员的知识和能力进行评价。所属技术领域的技术人员，也可称为本领域的技术人员，是指一种假设的“人”，假定他知晓申请日或者优先权日之前发明所属技术领域所有的普通技术知识，能够获知该领域中所有的现有技术，并且具有应用该日期之前常规实验手段的能力，但他不具有创造能力。如果所要解决的技术问题能够促使本领域的技术人员在其他技术领域寻找技术手段，他也应具有从该其他技术领域获	【注解】 1、更加适当的理解是，将其视为一组 技术人员 （例如，一个研究及生产团队），而不是视为单个人员(参见 T 164/92, OJ 5/1995, 305, T 986/96, not published in OJ)。 2、应当认为，所属领域技术人员在评价“创造性”和评价“充分公开”这两方面，具有同一水准(参见 T 60/89, OJ 6/1992, 268, T 694/92, OJ 9/1997, 408, T 373/94, not published in OJ)。

<p>OJ). He may be expected to look for suggestions in neighbouring and general technical fields (see T 176/84, OJ 2/1986, 50, T 195/84, OJ 2/1986, 121) or even in remote technical fields, if prompted to do so (T 560/89, OJ 12/1992, 725). Assessment of whether the solution involves an inventive step must therefore be based on that specialist's knowledge and ability (see T 32/81, OJ 6/1982, 225). There may be instances where it is more appropriate to think in terms of a group of persons, e.g. a research or production team, rather than a single person (T 164/92, OJ 5/1995, 305, T 986/96, not published in OJ). It should be borne in mind that the skilled person has the same level of skill for assessing inventive step and sufficient disclosure (see T 60/89, OJ 6/1992, 268, T 694/92, OJ 9/1997, 408, T 373/94, not published in OJ).</p>	<p>知该申请日或优先权日之前的相关现有技术、普通技术知识和常规实验手段的能力。 设定这一概念的目的，在于统一审查标准，尽量避免审查员主观因素的影响。</p>	
<p>11.4 Obviousness</p>	<p>2.2 突出的实质性特点 2.3 显著的进步</p>	
<p>Thus the question to consider, in relation to any claim defining the invention, is whether before the filing or priority date valid for that claim, having regard to the art known at the time, it would have been obvious to the person skilled in the art to arrive at something falling within the terms of the claim. If so, the claim is not allowable for lack of inventive step. The term "obvious" means that which does not go beyond the normal progress of technology but merely follows plainly or logically from the prior art, i.e. something which does not involve the exercise of any skill or ability beyond that to be expected of the person skilled in the art. In considering inventive step, as distinct from novelty (see IV, 9.3), it is fair to construe any published document in the light of knowledge up to and including the day</p>	<p>2.2 突出的实质性特点 发明有突出的实质性特点，是指对所属技术领域的技术人员来说，发明相对于现有技术是非显而易见的。如果发明是所属技术领域的技术人员在现有技术的基础上仅仅通过合乎逻辑的分析、推理或者有限的试验可以得到的，则该发明是显而易见的，也就不具备突出的实质性特点。 2.3 显著的进步 发明有显著的进步，是指发明与现有技术相比能够产生有益的技术效果。例如，发明克服了现有技术中存在的缺点和不</p>	

<p>before the filing or priority date valid for the claimed invention and to have regard to all the knowledge generally available to the person skilled in the art up to and including that day.</p>	<p>足，或者为解决某一技术问题提供了一种不同构思的技术方案，或者代表某种新的技术发展趋势。</p> <p>3.2.1 突出的实质性特点的判断 判断发明是否具有突出的实质性特点，就是要判断对本领域的技术人员来说，要求保护的发明相对于现有技术是否显而易见。</p> <p>如果要求保护的发明相对于现有技术是显而易见的，则不具有突出的实质性特点；反之，如果对比的结果表明要求保护的发明相对于现有技术是非显而易见的，则具有突出的实质性特点。</p>	
<p>11.5 Problem-and-solution approach</p>	<p>3.2.1.1 判断方法</p>	
<p>In order to assess inventive step in an objective and predictable manner, the so-called "problem-and-solution approach" should be applied. Thus deviation from this approach should be exceptional. In the problem-and-solution approach, there are three main stages:</p> <p>(i) determining the "closest prior art",</p> <p>(ii) establishing the "objective technical problem" to be solved, and</p> <p>(iii) considering whether or not the claimed invention, starting from the closest prior art and the objective technical problem, would have been obvious to the skilled person.</p>	<p>判断要求保护的发明相对于现有技术是否显而易见，通常可按照以下三个步骤进行。</p> <p>(1) 确定最接近的现有技术</p> <p>(2) 确定发明的区别特征和发明实际解决的技术问题</p> <p>(3) 判断要求保护的发明对本领域的技术人员来说是否显而易见</p>	
<p>11.5.1 Determination of the closest prior art</p>	<p>(1) 确定最接近的现有技术</p>	
<p>The closest prior art is that which in one single reference discloses the combination of features which constitutes the most</p>	<p>最接近的现有技术，是指现有技术中与要求保护的发明最密切相关的一个技术</p>	

<p>promising starting point for an obvious development leading to the invention. In selecting the closest prior art, the first consideration is that it should be directed to a similar purpose or effect as the invention or at least belong to the same or a closely related technical field as the claimed invention. In practice, the closest prior art is generally that which corresponds to a similar use and requires the minimum of structural and functional modifications to arrive at the claimed invention (T 606/89, not published in OJ).</p> <p>The closest prior art must be assessed from the skilled person's point of view on the day before the filing or priority date valid for the claimed invention.</p> <p>In identifying the closest prior art, account should be taken of what the applicant himself acknowledges in his description and claims to be known. Any such acknowledgement of known art should be regarded by the examiner as being correct, unless the applicant states he has made a mistake (see VI, 8.2).</p>	<p>方案，它是判断发明是否具有突出的实质性特点的基础。最接近的现有技术，例如可以是，与要求保护的发明技术领域相同，所要解决的技术问题、技术效果或者用途最接近和 / 或公开了发明的技术特征最多的现有技术，或者虽然与要求保护的发明技术领域不同，但能够实现发明的功能，并且公开发明的技术特征最多的现有技术。</p> <p>应当注意的是，在确定最接近的现有技术时，应首先考虑技术领域相同或相近的现有技术。</p>	
<p>11.5.2 Formulation of the objective technical problem</p>	<p>(2) 确定发明的区别特征和发明实际解决的技术问题</p>	
<p>In the second stage, one establishes in an objective way the technical problem to be solved. To do this one studies the application (or the patent), the closest prior art and the difference (also called "the distinguishing feature(s)" of the claimed invention) in terms of features (either structural or functional) between the claimed invention and the closest prior art, identifies the technical effect resulting from the distinguishing features, and then formulates the technical problem.</p>	<p>在审查中应当客观分析并确定发明实际解决的技术问题。</p> <p>为此，首先应当分析要求保护的发明与最接近的现有技术相比有哪些区别特征，然后根据该区别特征所能达到的技术效果确定发明实际解决的技术问题。从这个意义上说，发明实际解决的技术问题，是指为获得更好的技术效果而需</p>	<p>【注解】</p> <p>对“发明实际解决的技术问题”进行上位归纳，不可太过具体。否则，会导致本发明的技术方案成为唯一的技术方案，从而丧失了创造性。</p>

Features which cannot be seen to make any contribution, either independently or in combination with other features, to the technical character of an invention are not relevant for assessing inventive step (see T 641/00, OJ 7/2003, 352). Such a situation can occur for instance if a feature only contributes to the solution of a non-technical problem, for instance a problem in a field excluded from patentability (see T 931/95, OJ 10/2001, 441).

In the context of the problem-and-solution approach, the technical problem means the aim and task of modifying or adapting the closest prior art to provide the technical effects that the invention provides over the closest prior art. The technical problem thus defined is often referred to as the "**objective technical problem**".

The objective technical problem derived in this way may not be what the applicant presented as "the problem" in his application. The latter may require reformulation, since the objective technical problem is based on objectively established facts, in particular appearing in the prior art revealed in the course of the proceedings, which may be different from the prior art of which the applicant was actually aware at the time the application was filed. In particular, the prior art cited in the search report may put the invention in an entirely different perspective from that apparent from reading the application only.

The extent to which such reformulation of the technical problem is possible has to be assessed on the merits of each particular case. As a matter of principle any effect provided by the

对最接近的现有技术进行改进的技术任务。

审查过程中，由于审查员所认定的最接近的现有技术可能不同于申请人在说明书中所描述的现有技术，因此，基于最接近的现有技术重新确定的该发明实际解决的技术问题，可能不同于说明书中所描述的技术问题；在这种情况下，应当根据审查员所认定的最接近的现有技术重新确定发明实际解决的技术问题。重新确定的技术问题可能要依据每项发明的具体情况而定。作为一个原则，发明的任何技术效果都可以作为重新确定技术问题的基础，只要本领域的技术人员从该申请说明书中所记载的内容能够得知该技术效果即可。

invention may be used as a basis for the reformulation of the technical problem, as long as said effect is derivable from the application as filed (see T 386/89, not published in OJ). It is also possible to rely on new effects submitted subsequently during the proceedings by the applicant, provided that the skilled person would recognise these effects as implied by or related to the technical problem initially suggested (see IV, 11.11 and T 184/82, OJ 6/1984, 261).

It is noted that the objective technical problem must be so formulated as not to contain pointers to the technical solution, since including part of a technical solution offered by an invention in the statement of the problem must, when the state of the art is assessed in terms of that problem, necessarily result in an ex post facto view being taken of inventive activity (T 229/85, OJ 6/1987, 237). Where the claim refers to an aim to be achieved in a non-technical field, however, this aim may legitimately appear in the formulation of the problem as part of the framework of the technical problem to be solved, in particular as a constraint that has to be met (T 641/00, OJ 7/2003, 352 and T 172/03, not published in OJ).

The expression "technical problem" should be interpreted broadly; it does not necessarily imply that the technical solution is a technical improvement over the prior art. Thus the problem could be simply to seek an alternative to a known device or process which provides the same or similar effects or is more cost-effective. A technical problem may be regarded as being solved only if it is credible that substantially all claimed embodiments exhibit the technical effects upon which the

【针对所要求保护的全部整个范围应当令人信服地实现技术效果。】

<p>invention is based.</p> <p>Sometimes, the objective technical problem must be regarded as an aggregation of a plurality of "partial problems". This is the case where there is no technical effect achieved by all the distinguishing features taken in combination, but rather a plurality of partial problems is independently solved by different sets of distinguishing features (see IV, 11.6 and T 389/86, OJ 3/1988, 87).</p>		
<p>11.5.3 Could-would approach</p>	<p>(3) 判断要求保护的发明对本领域的技术人员来说是否显而易见</p>	
<p>In the third stage the question to be answered is whether there is any teaching in the prior art as a whole that would (not simply could, but would) have prompted the skilled person, faced with the objective technical problem, to modify or adapt the closest prior art while taking account of that teaching, thereby arriving at something falling within the terms of the claims, and thus achieving what the invention achieves (see IV, 11.4).</p> <p>In other words, the point is not whether the skilled person could have arrived at the invention by adapting or modifying the closest prior art, but whether he would have done so because the prior art incited him to do so in the hope of solving the objective technical problem or in expectation of some improvement or advantage (see T 2/83, OJ 6/1984, 265). Even an implicit prompting or implicitly recognizable incentive is sufficient to show that the skilled person would have combined the elements from the prior art (see T 257/98, T 35/04, not published in OJ). This must have been the case for the skilled person before the</p>	<p>在该步骤中，要从最接近的现有技术和发明实际解决的技术问题出发，判断要求保护的发明对本领域的技术人员来说是否显而易见。判断过程中，要确定的是现有技术整体上是否存在某种技术启示，即现有技术中是否给出将上述区别特征应用到该最接近的现有技术以解决其存在的技术问题（即发明实际解决的技术问题）的启示，这种启示会使本领域的技术人员在面对所述技术问题时，有动机改进该最接近的现有技术并获得要求保护的发明。如果现有技术存在这种技术启示，则发明是显而易见的，不具有突出的实质性特点。</p>	<p>【could-would 方法的激励（驱动）或引导可以是暗示性的。】</p>

filing or priority date valid for the claim under examination.		
11.6 Combining pieces of prior art		11.6 组合多份现有技术
<p>In the context of the problem-solution approach, it is permissible to combine the disclosure of one or more documents, parts of documents or other pieces of prior art (e.g. a public prior use or unwritten general technical knowledge) with the closest prior art. However, the fact that more than one disclosure must be combined with the closest prior art in order to arrive at a combination of features may be a sign of the presence of an inventive step, e.g. if the claimed invention is not a mere aggregation of features (see C-IV, 11.7).</p> <p>A different situation occurs where the invention is a solution to a plurality of independent "partial problems" (see IV, 11.7 and 11.5.2). Indeed, in such a case it is necessary to separately assess, for each partial problem, whether the combination of features solving the partial problem is obviously derivable from the prior art. Hence, a different document can be combined with the closest prior art for each partial problem (see T 389/86, OJ 3/1988, 87). For the subject-matter of the claim to be inventive, it suffices however that one of these combinations of features involves an inventive step.</p> <p>In determining whether it would be obvious to combine two or more distinct disclosures, the examiner should also have regard in particular to the following:</p> <p>(i) whether the content of the disclosures (e.g. documents) is such as to make it likely or unlikely that the person skilled in the art, when faced with the problem solved by the invention, would</p>	<p>下述情况，通常认为现有技术中存在上述技术启示：</p> <p>(i) 所述区别特征为公知常识，例如，本领域中解决该重新确定的技术问题的惯用手段，或教科书或者工具书等中披露的解决该重新确定的技术问题的技术手段。</p> <p>(ii) 所述区别特征为与最接近的现有技术相关的技术手段，例如，同一份对比文件其他部分披露的技术手段，该技术手段在该其他部分所起的作用与该区别特征在要求保护的发明中为解决该重新确定的技术问题所起的作用相同。</p> <p>(iii) 所述区别特征为另一份对比文件中披露的相关技术手段，该技术手段在该对比文件中所起的作用与该区别特征在要求保护的发明中为解决该重新确定的技术问题所起的作用相同。</p>	<p>允许与最接近的现有技术进行组合：</p> <p>一份或多份文件公开、一份文件的多个部分或现有技术的其他部分(例如，公开在先使用或非书面的本领域公知常识)。</p> <p>但是，对于必须将一份以上的公开文献与最接近的现有技术进行组合、以实现特征的组合这一情况，这本身就可能是具备创造性，例如，如果所要求保护的发明并不是多个特征的简单叠加(参见 C-IV, 11.7)。</p> <p>在本发明是针对多个独立的"部分技术问题"的方案的情况下，会出现不同的情况(参见 IV, 11.7 and 11.5.2)。</p> <p>在这种情况下，必须针对各个部分技术问题来分别进行评价，解决了一个部分技术问题的特征的组合是否是可以显而易见地从现有技术推导获得的。</p> <p>因此，可以针对各个部分技术问题而将不同的文献与最接近的现有技术进行组合(参见 T 389/86, OJ 3/1988, 87)。但是，如果这些特征</p>

<p>combine them - for example, if two disclosures considered as a whole could not in practice be readily combined because of inherent incompatibility in disclosed features essential to the invention, the combining of these disclosures should not normally be regarded as obvious;</p> <p>(ii) whether the disclosures, e.g. documents, come from similar, neighbouring or remote technical fields (see C-IV, 11.3);</p> <p>(iii) the combining of two or more parts of the same disclosure would be obvious if there is a reasonable basis for the skilled person to associate these parts with one another. It would normally be obvious to combine with a prior-art document a well-known textbook or standard dictionary; this is only a special case of the general proposition that it is obvious to combine the teaching of one or more documents with the common general knowledge in the art. It would, generally speaking, also be obvious to combine two documents one of which contains a clear and unmistakable reference to the other (for references which are considered an integral part of the disclosure, see IV, 7.1 and 9.1). In determining whether it is permissible to combine a document with an item of prior art made public in some other way, e.g. by use, similar considerations apply.</p>		<p>的组合具备创造性，则权利要求的主题具备创造性。</p> <p>在确定对两份或多份不同公开文献的组合是否显而易见时，审查员还应当具体考虑以下内容：</p> <p>(i) 公开文献(例如，文件)的内容是否会使得所属领域技术人员在对本发明解决的问题时，<u>可能会或不可能</u>进行组合。</p> <p>例如，如果两份公开文献整体上在对于本发明而言必要的技术特征方面由于<u>其内在固有的互不兼容性</u>而在实际上不能容易地进行组合，则通常不应当将对这两份公开文献的组合视为“显而易见的”。</p> <p>(ii) 公开文献（例如，文件）是否来自类似的、相邻的或较远的技术领域(参见 C-IV, 11.3)。</p> <p>(iii) 对于同一份文献的两个或多个部分的组合而言，如果对所属领域技术人员而言存在将这些部分彼此关联的合理基础，则这种组合是“显而易见的”。</p> <p>将现有技术文件与公知教科书或标准字典进行组合，这通常是显而易见的；<u>仅作为一般情况的特殊情况</u>：将一份或多份文件的教导与本领域公知常识进行组合是显而易见的。</p>
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		<p>一般地说，如果一份文件清楚且无疑义地引用了另一文件，则将这两份文件进行组合是显而易见的(对于被视为公开的一部分的引用方式，参见 IV， 7.1 and 9.1)。</p> <p>在确定是否允许将文献与按照其他方式（例如，通过使用）而公开的现有技术内容进行组合时，适用类似的评价过程</p>
<p>11.7 Combination vs. juxtaposition or aggregation</p>	<p>4. 2 组合发明</p>	
<p>The invention claimed must normally be considered as a whole. When a claim consists of a "combination of features", it is not correct to argue that the separate features of the combination taken by themselves are known or obvious and that "therefore" the whole subject-matter claimed is obvious. However, where the claim is merely an "aggregation or juxtaposition of features" and not a true combination, it is enough to show that the individual features are obvious to prove that the aggregation of features does not involve an inventive step (see C-IV, 11.5.2, last paragraph). A set of technical features is regarded as a combination of features if the functional interaction between the features achieves a combined technical effect which is different from, e.g. greater than, the sum of the technical effects of the individual features. In other words, the interactions of the individual features must produce a synergistic effect. If no such synergistic effect exists, there is no more than a mere aggregation of features (see T 389/86, OJ 3/1988, 87, T 204/06, not published in OJ).</p>	<p>4. 2 组合发明</p> <p>组合发明，是指将某些技术方案进行组合，构成一项新的技术方案，以解决现有技术客观存在的技术问题。</p> <p>在进行组合发明创造性的判断时通常需要考虑：组合后的各技术特征在功能上是否彼此相互支持、组合的难易程度、现有技术中是否存在组合的启示以及组合后的技术效果等。</p> <p>（1）显而易见的组合</p> <p>如果要求保护的发明仅仅是将某些已知产品或方法组合或连接在一起，各自以其常规的方式工作，而且总的技术效果是各组合部分效果之总和，组合后的各技术特征之间在功能上无相互作用关系，仅仅是一种简单的叠加，则这种组合发明不具备创造性。</p> <p>此外，如果组合仅仅是公知结构的变型，</p>	

<p>For example, the technical effect of an individual transistor is essentially that of an electronic switch. However, transistors interconnected to form a microprocessor synergically interact to achieve technical effects, such as data processing, which are over and above the sum of their respective individual technical effects (see also C-IV-Annex, 2).</p>	<p>或者组合处于常规技术继续发展的范围之内，而没有取得预料不到的技术效果，则这样的组合发明不具备创造性。</p> <p>(2) 非显而易见的组合</p> <p>如果组合的各技术特征在功能上彼此支持，并取得了新的技术效果；或者说组合后的技术效果比每个技术特征效果的总和更优越，则这种组合具有突出的实质性特点和显著的进步，发明具备创造性。其中组合发明的每个单独的技术特征本身是否完全或部分已知并不影响对该发明创造性的评价。</p>	
<p>11.8 "Ex post facto" analysis</p>	<p>6.2 避免“事后诸葛亮”</p>	
<p>It should be remembered that an invention which at first sight appears obvious might in fact involve an inventive step. Once a new idea has been formulated, it can often be shown theoretically how it might be arrived at, starting from something known, by a series of apparently easy steps. The examiner should be wary of ex post facto analysis of this kind. When combining documents cited in the search report, he should always bear in mind that the documents produced in the search have, of necessity, been obtained with foreknowledge of what matter constitutes the alleged invention. In all cases he should attempt to visualise the overall state of the art confronting the skilled person before the applicant's contribution, and he should seek to make a "real-life" assessment of this and other relevant factors. He should take into account all that is known concerning the background of the invention and give fair weight to relevant arguments or evidence submitted by the applicant. If, for example, an invention is shown</p>	<p>6.2 避免“事后诸葛亮”</p> <p>审查发明的创造性时，由于审查员是在了解了发明内容之后才作出判断，因而容易对发明的创造性估计偏低，从而犯“事后诸葛亮”的错误。审查员应当牢牢记住，对发明的创造性评价是由发明所属技术领域的技术人员依据申请日以前的现有技术 with 发明进行比较而作出的，以减少和避免主观因素的影响。</p>	

<p>to be of considerable technical value, and particularly if it provides a technical advantage which is new and surprising and which is not merely achieved as a bonus effect in a "one-way street" situation (see 11.10.2), and this technical advantage can convincingly be related to one or more of the features included in the claim defining the invention, the examiner should be hesitant in pursuing an objection that such a claim lacks inventive step.</p>		
<p>11.9 Origin of an invention</p>		
<p>While the claim should in each case be directed to technical features (and not, for example, merely to an idea), in order to assess whether an inventive step is present it is important for the examiner to bear in mind that an invention may, for example, be based on the following:</p> <p>(i) the devising of a solution to a known problem;</p> <p>Example: the problem of permanently marking farm animals such as cows without causing pain to the animals or damage to the hide has existed since farming began. The solution ("freeze-branding") consists in applying the discovery that the hide can be permanently depigmented by freezing.</p> <p>(ii) the arrival at an insight into the cause of an observed phenomenon (the practical use of this phenomenon then being obvious);</p> <p>Example: the agreeable flavour of butter is found to be caused by minute quantities of a particular compound. As soon as this insight has been arrived at, the technical application comprising adding this compound to margarine is immediately obvious.</p>	<p>【例如】 自有农场以来，人们一直期望解决在农场牲畜（如奶牛）身上无痛而且不损坏牲畜表皮地打上永久性标记的技术问题，某发明人基于冷冻能使牲畜表皮着色这一发现而发明的一项冷冻“烙印”的方法成功地解决了这个技术问题，该发明具备创造性。</p>	

<p>Many inventions are of course based on a combination of the above possibilities - e.g. the arrival at an insight and the technical application of that insight may both involve the use of the inventive faculty.</p>		
<p>11.10 Secondary indicators</p>	<p>辅助因素</p>	
<p>11.10.1 Predictable disadvantage; non-functional modification; arbitrary choice</p>		
<p>It should be noted that if the invention is the result of a foreseeable disadvantageous modification of the closest prior art, which the skilled person could clearly predict and correctly assess, and if this predictable disadvantage is not accompanied by an unexpected technical advantage, then the claimed invention does not involve an inventive step (see T 119/82, OJ 5/1984, 217, and T 155/85, OJ 3/1988, 87). In other words, a mere foreseeable worsening of the prior art does not involve an inventive step. However, if this worsening is accompanied by an unexpected technical advantage, an inventive step might be present. Similar considerations apply to the case where an invention is merely the result of an arbitrary non-functional modification of a prior-art device or of a mere arbitrary choice from a host of possible solutions (see T 72/95, not published in OJ, and T 939/92, OJ 6/1996, 309).</p>		
<p>11.10.2 Unexpected technical effect; bonus effect</p>	<p>5.3 发明取得了预料不到的技术效果 6.3 对预料不到的技术效果的考虑</p>	
<p>An unexpected technical effect may be regarded as an indication of inventive step. However, if, having regard to the state of the art, it would already have been obvious for a skilled person to</p>	<p>5.3 发明取得了预料不到的技术效果 发明取得了预料不到的技术效果，是指发明同现有技术相比，其技术效果产生</p>	

<p>arrive at something falling within the terms of a claim, for example due to a lack of alternatives thereby creating a "one-way street" situation, the unexpected effect is merely a bonus effect which does not confer inventiveness on the claimed subject-matter (see T 231/97, not published in OJ and T 192/82, OJ 9/1984, 415).</p>	<p>“质”的变化，具有新的性能；或者产生“量”的变化，超出人们预期的想象。这种“质”的或者“量”的变化，对所属技术领域的技术人员来说，事先无法预测或者推理出来。当发明产生了预料不到的技术效果时，一方面说明发明具有显著的进步，同时也反映出发明的技术方案是非显而易见的，具有突出的实质性特点，该发明具备创造性。</p> <p>6.3 对预料不到的技术效果的考虑</p> <p>在创造性的判断过程中，考虑发明的技术效果有利于正确评价发明的创造性。按照本章第 5.3 节中所述，如果发明与现有技术相比具有预料不到的技术效果，则不必再怀疑其技术方案是否具有突出的实质性特点，可以确定发明具备创造性。但是，应当注意的是，如果通过本章第 3.2 节中所述的方法，可以判断出发明的技术方案对本领域的技术人员来说是非显而易见的，且能够产生有益的技术效果，则发明具有突出的实质性特点和显著的进步，具备创造性，此种情况不应强调发明是否具有预料不到的技术效果。</p>	
<p>11.10.3 Long-felt need; commercial success</p>	<p>5.1 发明解决了人们一直渴望解决但始终未能获得成功的技术难题</p> <p>5.4 发明在商业上获得成功</p>	
<p>Where the invention solves a technical problem which workers in the art have been attempting to solve for a long time, or otherwise</p>	<p>5.1 发明解决了人们一直渴望解决但始终未能获得成功的技术难题</p>	

<p>fulfils a long-felt need, this may be regarded as an indication of inventive step.</p> <p>Commercial success alone is not to be regarded as indicative of inventive step, but evidence of immediate commercial success when coupled with evidence of a long-felt want is of relevance provided the examiner is satisfied that the success derives from the technical features of the invention and not from other influences (e.g. selling techniques or advertising).</p>	<p>如果发明解决了人们一直渴望解决但始终未能获得成功的技术难题，这种发明具有突出的实质性特点和显著的进步，具备创造性。</p> <p>5.4 发明在商业上获得成功 当发明的产品在商业上获得成功时，如果这种成功是由于发明的技术特征直接导致的，则一方面反映了发明具有有益效果，同时也说明了发明是非显而易见的，因而这类发明具有突出的实质性特点和显著的进步，具备创造性。但是，如果商业上的成功是由于其他原因所致，例如由于销售技术的改进或者广告宣传造成的，则不能作为判断创造性的依据。</p>	
<p>11.11 Arguments and evidence submitted by the applicant</p>		
<p>The relevant arguments and evidence to be considered by the examiner for assessing inventive step may either be taken from the originally-filed patent application or submitted by the applicant during the subsequent proceedings (see 11.5.2 above and VI, 5.3.4, 5.3.5 and 5.3.7).</p> <p>Care must be taken, however, whenever new effects in support of inventive step are referred to. Such new effects can only be taken into account if they are implied by or at least related to the technical problem initially suggested in the originally filed application (see also IV, 11.5.2, T 386/89, not published in OJ, and T 184/82, OJ 6/1984, 261).</p>		

<p>Example of such a new effect: The invention as filed relates to a pharmaceutical composition having a specific activity. At first sight, having regard to the relevant prior art, it would appear that there is a lack of inventive step. Subsequently, the applicant submits new evidence which shows that the claimed composition exhibits an unexpected advantage in terms of low toxicity. In this case, it is allowable to reformulate the technical problem by including the aspect of toxicity, since pharmaceutical activity and toxicity are related in the sense that the skilled person would always contemplate the two aspects together.</p> <p>The reformulation of the technical problem may or may not give rise to amendment or insertion of the statement of the technical problem in the description. Any such amendment is only allowable if it satisfies the conditions listed in VI, 5.3.7. In the above example of a pharmaceutical composition, neither the reformulated problem nor the information on toxicity could be introduced into the description without infringing Art. 123(2).</p>		
11.12 Selection inventions	4.3 选择发明	
<p>The subject-matter of selection inventions differs from the closest prior art in that it represents selected sub-sets or sub-ranges. If this selection is connected to a particular technical effect, and if no hints exist leading the skilled person to the selection, then an inventive step is accepted (this technical effect occurring within the selected range may also be the same effect as attained with the broader known range, but to an unexpected degree). The criterion of "seriously contemplating" mentioned in connection</p>	<p>4.3 选择发明 选择发明，是指从现有技术中公开的宽范围内，有目的地选出现有技术中未提到的窄范围或个体的发明。 在进行选择发明创造性的判断时，选择所带来的预料不到的技术效果是考虑的主要因素。 (1) 如果发明仅是从一些已知的可能</p>	

<p>with the test for novelty of overlapping ranges should not be confused with the assessment of inventive step. For inventive step, it has to be considered whether the skilled person would have made the selection or would have chosen the overlapping range in the hope of solving the underlying technical problem or in expectation of some improvement or advantage. If the answer is negative, then the claimed matter involves an inventive step.</p>	<p>性中进行选择，或者发明仅仅是从一些具有相同可能性的技术方案中选出一一种，而选出的方案未能取得预料不到的技术效果，则该发明不具备创造性。</p> <p>（2）如果发明是在可能的、有限的范围内选择具体的尺寸、温度范围或者其他参数，而这些选择可以由本领域的技术人员通过常规手段得到并且没有产生预料不到的技术效果，则该发明不具备创造性。</p> <p>（3）如果发明是可以从现有技术中直接推导出来的选择，则该发明不具备创造性。</p> <p>（4）如果选择使得发明取得了预料不到的技术效果，则该发明具有突出的实质性特点和显著的进步，具备创造性。</p>	
<p>11.13 Dependent claims; claims in different categories</p>		
<p>If an independent claim is new and non-obvious, there is no need to investigate the novelty and the non-obviousness of any claims dependent thereon, except in situations where the subject-matter of a dependent claim has a later effective date than the independent claim and intermediate documents are to be considered (see V, 2.4.3).</p> <p>Similarly, if a claim to a product is new and non-obvious there is no need to investigate the novelty and non-obviousness of any claims for a process which inevitably results in the manufacture of that product or of any claims for a use of that product. In particular, analogy processes, i.e. processes which themselves</p>		

<p>would otherwise not involve an inventive step, are nevertheless patentable insofar as they provide a novel and inventive product (see T 119/82, OJ 5/1984, 217). It should, however, be noted that in cases where the product, process and use claims have different effective dates, a separate examination as to novelty and inventive step may still be necessary in view of intermediate documents.</p>		