



Partial Reprint of AIPLA book

**Patents and Standards:
Practice, Policy,
and Enforcement**

**BARDEHLE
PAGENBERG**

III. Europe: Preparation and Prosecution
Process and Considerations Before
the European Patent Office

Chapter Contribution by
Dr. Georg Anetsberger and **Dr. Hans Wegner** of
BARDEHLE PAGENBERG Partnerschaft mbB

International Prosecution

The typical applicant involved in standards development and standards-setting organizations will file patent applications around the globe. U.S. counsel can handle some aspects of global filings but in many situations advice is needed from local agents who are familiar with the patent laws of various jurisdictions. The jurisdictions most often filed in include the EPO, China, Japan, and India. This chapter gives tips and best practices for choosing and dealing with foreign agents.

This chapter also provides advice on claiming strategies and other considerations, provided by premier practitioners in each of the crucial jurisdictions.

I. GENERAL GUIDELINES	
A. Interfacing with Foreign Agents	
B. Streamlined Prosecution	
C. Consistency Across Jurisdictions	
D. Cost Considerations, and the Value Rationale	
1. <i>Why and How to File Internationally</i>	
2. <i>Attorney Fees and Governmental Fees – Some Considerations</i>	
II. CHAPTER II PCT PROSECUTION	
A. Pros/Cons for Front-Loading International Prosecution to Achieve Consistency Across Jurisdictions	
B. Timing with Respect to Standards Development	
C. Leveraging Patent Prosecution Highway	
III. EUROPE: PREPARATION AND PROSECUTION PROCESS AND CONSIDERATIONS BEFORE THE EUROPEAN PATENT OFFICE.....	6
A. State of Patent Law with Respect to Standards-Related Patents in Europe..	6
B. Patent Preparation in Europe.....	7
1. Application Structure	7
a. <i>Background Section</i>	7
b. <i>Summary Section</i>	8
c. <i>Detailed Description and Drawings</i>	9
C. Claiming Strategies before the EPO	10
1. Claim Types	10
2. Key Issues	10
D. Patent Prosecution in EPO	11
1. Prosecution	11
a. <i>Claim Amendment Strategy</i>	11
b. <i>Other Considerations</i>	12
2. Strategic Use of Divisional Applications	13
3. Special Initiatives Undertaken by Patent Office	13
IV. CHINA: PREPARATION AND PROSECUTION PROCESS AND CONSIDERATIONS BEFORE THE CHINESE PATENT OFFICE	
A. State of Patent Law with Respect to Standards-Related Patents in China	
B. Patent Preparation in China	
1. Application Structure	
a. <i>Background Section</i>	
b. <i>Summary Section</i>	
c. <i>Detailed Description and Drawings</i>	

C. Claiming Strategies in China

1. Claim Types
2. Key Issues

D. Patent Prosecution in China

1. *Prosecution*
2. *Strategic Use of Divisional Applications*

V. JAPAN: PREPARATION AND PROSECUTION PROCESS AND CONSIDERATIONS BEFORE THE JAPANESE PATENT OFFICE

A. State of Patent Law with Respect to Standards-Related Patents in Japan

B. Patent Preparation

1. *Application Structure*
 - a. *Background Section*
 - b. *Summary Section*
 - c. *Detailed Description and Drawings*

C. Claiming Strategies in Japan

1. *Claim Types*

D. Patent Prosecution in Japan

1. *Prosecution*
2. *Strategic Use of Divisional Applications*
3. *Special Initiatives Undertaken by Patent Office*

VI. INDIA: PREPARATION AND PROSECUTION PROCESS AND CONSIDERATIONS BEFORE THE INDIAN PATENT OFFICE

A. State of Patent Law with Respect to Standards-Related Patents in India

B. Patent Preparation

1. *Application Structure*
 - a. *Background Section*
 - b. *Summary Section*
 - c. *Detailed Description and Drawings*

C. Claiming Strategies in India

1. *Claim Types*
2. *Key Issues*

D. Patent Prosecution in India

1. *Prosecution*
2. *Strategic Use of Divisional Applications*
3. *Special Initiatives Undertaken by Patent Office*

List of Tables

Table 10.1. Attorney Fees for Filing Patent Applications

Table 10.2. Governmental Patent Fees

III. EUROPE: PREPARATION AND PROSECUTION PROCESS AND CONSIDERATIONS BEFORE THE EUROPEAN PATENT OFFICE

A. State of Patent Law with Respect to Standards-Related Patents in Europe

The European Patent Office (EPO) provides a route to obtain patent protection in its currently 38 contracting states in a single application procedure.¹ In 2016, approximately 160,000 patent applications were filed at the EPO, including PCT applications entering the regional phase before the EPO, and about 96,000 patents were granted.² Notably, the procedures at the EPO are governed by the European Patent Convention (EPC). Upon grant, the European patent may be validated in the various contracting states and then provides, in each contracting state, the same rights as a nationally granted patent.³

The enforcement of European patents in each contracting state is, however, governed by the law of the respective state. Despite considerable harmonization, differences from state to state remain. A uniform framework for the enforcement of SEPs within the member states of the European Union has however been set by the European Court of Justice in its landmark decision *Huawei v ZTE* (C-170/13).⁴ In short, the proprietor of an SEP may seek an injunction if the following two conditions are fulfilled: First, the proprietor has alerted the infringer by specifying the patent and the way in which it has been infringed and presented a written licensing offer on FRAND terms. Second, where infringement continues, the infringer has not diligently responded to the offer in good faith and without delaying tactics. In other words, if the proprietor of an SEP brings an infringement action seeking an injunction although one of the above conditions is not fulfilled, the proprietor risks a violation of antitrust law of the European Union.

The EPO has made efforts to take into account the specifics of standards-related patents during examination. Notably, the EPO is the first among the major patent offices to make agreements with various standards setting bodies, such as the European Telecommunications Standards Institute (ETSI), the International

¹ A list of all contracting states can be found at www.epo.org/about-us/organisation/member-states.html

² See Annual Report 2016 of the EPO; available at www.epo.org/about-us/annual-reports-statistics/annual-report/2016.html.

³ Any infringement of a European patent is, however, dealt with by the respective national laws of the contracting states, as demanded by Art. 64(3) EPC.

⁴ The full text of the decision is available at <http://curia.europa.eu>.

Electrotechnical Commission (IEC), the Institute of Electrical and Electronics Engineers (IEEE), and the International Telecommunication Union (ITU), giving the Examiners of the EPO full text access for searching documents of these bodies.⁵ Thus, recent developments within major standards setting bodies are generally considered during examination at the EPO. In fact, in technical fields dominated by standards, such as telecommunications, standards and publicly available standards proposals are regularly cited as prior art documents by the EPO.

The following sections provide a practical guide on specifics regarding patent drafting, claiming and the prosecution process before the EPO that may be particularly relevant for standards related applications.

B. Patent Preparation in Europe

As is generally the case for standards related patent applications, in view of possible changes to (drafts of) standards that are to be covered, European patent applications should be drafted such that they provide maximum flexibility regarding claim amendments. According to the EPC, amendments may be based on disclosure from the whole of the documents as filed, including the description, the claims and the drawings (but not the abstract). However, a very strict legal standard applies (*e.g.*, compared to examination before the USPTO) regarding the admissibility of claim amendments. We will outline these in more detail in section D. Importantly, this legal standard should be considered already when drafting applications for prosecution at the EPO or a preceding U.S. priority application. In the following, recommendations are provided for the various portions of an application to make it best fit for prosecution at the EPO.

1. Application Structure

a. Background Section

The background section of a European patent application provides general technical background information and “sets the stage” for the invention. Care should be taken, however, to not recite all technical features that might be useful for later claim amendments in only the background section. In other words, if technical features are recited in the background section, care should be taken

⁵ See, for example, <http://www.epo.org/news-issues/news/2013/20130611.html>;
<http://www.epo.org/news-issues/news/2013/20130417.html>

to also describe those technical features later in the detailed description. If an applicant amends the claims using material found only in the background section, formal objections could be raised by the Examiner (or in contentious opposition procedures) that such features were only disclosed with regard to the prior art but not with regard to the invention.

b. Summary Section

As best practice for prosecution at the EPO, the patent specification should contain a summary section that is worded in a manner similarly generic as the claims. The summary section can include claim wording and possible additions or modifications may be specified in an abstract manner, which may serve as a basis for later claim amendments or clarifications. Such additions and modifications may be particularly used to bridge the logical gap in the level of abstraction that may arise between the generic claim wording and the very specific features of the embodiments described in the detailed description. It can be difficult to extract or generalize a specific feature described only in relation with a detailed embodiment, and the summary section may be used to disclose various intermediate levels of abstraction and generalization to help overcome this difficulty. For example, in telecommunications, a specific embodiment of an application may relate to details of an implementation in a certain standard (*e.g.*, LTE), whereas the claims may be fully generic. In such a scenario, intermediate abstractions of the implementation details should be recited in the summary section, which may then be used for later claim amendments on the level of abstraction needed.

The summary section may also be used to alleviate the issue that applications originating from the United States often do not comprise multiple dependencies in the claims. For example, if dependent claims 2 and 3 each refer to claim 1 only, the EPO may object that claim 1 cannot be amended with claims 2 *and* 3 (as these may not be disclosed *in combination*). To prevent such objections, the dependent claims may be recited in the summary section, wherein also multiple dependencies may be disclosed.

Finally, the summary section can be used to describe or discuss possible technical advantages of the invention. Technical advantages can be discussed or raised during inventive step (non-obviousness) discussions before the EPO. Inventive step discussions typically involve the so-called “problem-and-solution approach.” According to the problem-and-solution approach, an invention generally provides

an inventive step if, starting from the closest prior art and the objective technical problem (*i.e.*, the fictitious problem solved by the technical effect(s) provided by the invention over the closest prior art), it would not have been obvious for the skilled person to realize the claimed solution in view of the remaining prior art and common general knowledge. While there is no formal requirement that the technical advantages provided by an invention be recited in the application, a recitation of technical advantages may have a strong impact with Examiners during consideration of inventive step issues. This applies in particular if the application only relates to software.

c. Detailed Description and Drawings

When drafting the detailed description, counsel should consider the rather strict approach of the EPO regarding claim amendments. Specifically, the detailed description should be more than a description of all features of one or more specific embodiments. Otherwise, there is risk that the EPO may object to claim amendments that comprise only selected ones out of a plurality of features described for a specific embodiment. An added subject matter objection may be raised, stating that the plurality of features is disclosed *in combination* only (so-called “*intermediate generalization*”).⁶ Similarly, the EPO may object to claim amendments based on features taken from different embodiments, arguing that these features are not disclosed *in combination*. To avoid such issues, features should be described in the detailed description as being optional, and possible alternative features should be specified. Also, it may be advisable to explain how different embodiments and aspects thereof may be combined. To this end, it is generally not sufficient to make only generic statements (*e.g.*, stating that any of the disclosed aspects may be used independently or in combination with other aspects). Rather, such statements should be directed to the individual features that may be combined or used independently from each other.

⁶ See overview provided in the decision of the EPO's Technical Boards of Appeal T 1944/10; retrievable on www.epo.org

C. Claiming Strategies before the EPO

1. Claim Types

There are two generic claim categories in European practice: physical entities (typically apparatus claims or product claims) and physical activities (typically process, method or use claims).

The EPC generally only allows a single independent claim for each claim category.⁷ Exceptions can be made if, *e.g.*, the claims relate to interrelated products that complement each other or work together (*e.g.*, a transmitter and receiver, encoder and decoder, etc.). However, in contrast to U.S. practice, it is not advisable to direct several independent claims of the same category to similar subject matter in a slightly different manner.

2. Key Issues

With specific regard to apparatus claims, it is generally advisable to use the so-called means-plus-function form (*e.g.*, apparatus comprising means for ...). This typically allows obtaining the broadest extent of protection according to the EPC, as determined by Art. 69 EPC. Notably, all means implementing the claimed function are generally covered by such claims, including means that are not expressly mentioned in the patent specification.

If the invention relates to software-related aspects, in addition to an apparatus claim and a method claim, an independent computer program claim is generally admissible. Here, a quite generic wording may be used, *e.g.*, “Computer program comprising instructions to perform the steps: ...” In other words, tangible items such as a processor or a storage medium need not be expressly recited in the claim wording. However, patent eligibility requires that a further technical effect is provided by the claimed subject matter, going beyond the normal physical interactions between a program and the computer on which it is run. Preferably, such further technical effect (*e.g.*, less processing time or fewer errors), should be explicitly mentioned in the description.

D. Patent Prosecution at the EPO

1. Prosecution

a. Claim Amendment Strategy

According to the EPC, the applicant may amend the claims at least once.⁸ In practice, further claim amendments are typically not refused by the Examiner, particularly if the further claim amendments address deficiencies pointed out by the Examiner, without giving rise to new deficiencies.

Generally, claim amendments during examination are restricted by the provision of Art. 123(2) EPC, which states that a European patent application “may not be amended in such a way that it contains subject-matter which extends beyond the content of the application as filed.” According to relevant case law, the “content of the application as filed” includes “what a skilled person would derive directly and unambiguously, using common general knowledge, and seen objectively and relative to the date of filing” from the whole of the documents as filed, including description, claims and drawings.⁹ In practice, the mentioned requirement of “direct and unambiguous” disclosure for claim amendments developed by the case law of the EPO poses a quite strict bar (*e.g.*, when compared to corresponding provisions applicable before the USPTO):

On the one hand, the requirement of “direct and unambiguous” disclosure excludes aspects that the skilled person may derive only by adding his own considerations to what is stated in the patent application, regardless of the obviousness or simplicity of these considerations. Therefore, in order to comply with the “direct and unambiguous” requirement, the drafting counsel should add any such additions and possible further considerations during the drafting stage of the application. While literal disclosure is not required¹⁰, apart from what is explicitly stated in the application as filed, only those aspects that any person skilled in the art would consider as necessarily implied by the patent application as a whole (*e.g.*, in view of basic scientific laws) would be considered to be “directly and unambiguously” disclosed.¹¹

⁸ Rule 137(2) EPC

⁹ See Case Law of the Boards of Appeal, 8th edition, section II.E.1; retrievable on www.epo.org

¹⁰ See decision of the EPO's Technical Boards of Appeal T 667/08; retrievable on www.epo.org

¹¹ See Case Law of the Boards of Appeal, 8th edition, section II.E.1.2.2; retrievable on www.epo.org

On the other hand, the requirement of “direct and unambiguous” disclosure excludes aspects that may be derived only by interpreting the application in one specific out of several possible ways. For example, if a certain broad aspect that is disclosed may be implemented by several distinct specific aspects but the application does not allow to unambiguously derive whether a certain one of the specific aspects is part of the disclosure, claiming that aspect would be considered added subject matter even if each of the specific aspects would be obvious.

In order to avoid at least the above issues, drafting counsel should take into account the strict requirements regarding claim amendments when drafting the application. Possibly relevant fallback positions, which may be used for later claim amendments, should be carefully considered from the outset, and preferably be literally contained in the dependent claims, as the EPC does not allow much flexibility in *à-posteriori* combinations of features or generalizations. Of course, it is impossible to predict all possibly needed future claim amendments and therefore counsel must often rely on features from the description or drawings for claim amendments. Therefore, maximum flexibility demands that each technical aspect is described in the application—individually or in combination with other aspects—on several levels of abstraction, as outlined in section B.

b. Other Considerations

A further important issue specific to prosecution before the EPO is the so called “inescapable trap” situation.¹² Such a situation may arise if, during examination, the claims are amended with a feature that contains added subject matter extending beyond the content of the application as filed, but the claims are nevertheless granted. This may occur, for example, if a certain disclosed feature is replaced by a slightly more specific undisclosed feature. If such claims are challenged in an opposition procedure¹³ for added subject matter, the added subject matter would need to be excised from the claims. If this is not possible without extending the scope of protection, which is prohibited by Art. 123(3) EPC, the *patent as a whole* would be revoked (in the mentioned example: the undisclosed specific feature cannot be deleted or replaced by the disclosed more general

¹² See decision of the EPO’s Enlarged Board of Appeal G 1/93; retrievable on www.epo.org

¹³ Any third party may file an opposition within a time limit of nine months after the publication of the mention of the grant of the European patent. The opposition procedure is an inter partes procedure. Validity may be challenged based on patent-eligibility, patentability, enablement, and added subject matter. Any documents or arguments may be heard, even if these had already been considered by the Examiner. Filing an opposition is low cost (official fee below EUR 1,000) and affects the validity of the European patent in all contracting states at once. If the European patent is maintained, or if no opposition is filed within the mentioned time limit, each national part of the European patent must be challenged separately.

feature, since this would extend the scope of protection). This issue, which may put the entire patent at stake, should always be kept in mind when amending claims during examination. If counsel is uncertain whether a specific claim feature is sufficiently disclosed in the application as filed, counsel should carefully consider whether amending the claims with this feature may lead to an “inescapable trap” situation and whether the corresponding risk should be taken—even if such an amendment was proposed by a “helpful” Examiner.

2. Strategic Use of Divisional Applications

Regarding divisional applications, it should be noted that the subject matter that may be claimed therein is also limited to what is “directly and unambiguously” disclosed in the parent application. This limitation is imposed by Art. 76(1) EPC, which states that a divisional application “may be filed only in respect of subject-matter which does not extend beyond the content of the earlier application as filed.” This requirement is interpreted just as strictly as Art. 123(2) EPC.¹⁴ Therefore, according to the EPC, divisional applications may not be used to prosecute generalizations beyond the subject matter disclosed in the parent application. Nevertheless, divisional applications may be a useful tool to pursue subject matter directly and unambiguously disclosed but not claimed in the parent application.

A divisional application may be filed as long as the parent application is pending. Chains of divisional applications are also possible, *i.e.*, a divisional application may be filed from a pending application even if the latter is already a divisional application.

3. Special Initiatives Undertaken by Patent Office

As noted earlier in this chapter, the EPO frequently cites standard drafts and standard documents during examination, and the EPO makes efforts to establish whether such documents are indeed prior art according to the EPC. However, particularly regarding older documents, it remains heavily disputed whether such documents can be assumed to be prior art. This dispute can arise especially when it is difficult to elucidate the applicable procedures that were in place for a given standards setting body at the time of adoption of the document in question.

¹⁴ See decision of the EPO's Enlarged Board of Appeal G 1/06; retrievable on www.epo.org

A specific document is prior art according to the EPC if it was “made available to the public.”¹⁵ This has consistently been confirmed to be the case by the EPO’s Boards of Appeal, and the rule holds if even a single member of the public is in a position to gain access to the document, if that member may understand the document, and if that member is not bound to secrecy.¹⁶ Such a situation may arise, for example, if it can be established that a document was handed out to participants of a standardization meeting who were not bound to secrecy. On the other hand, there is also case law stating that a document may be prior art even if it was disseminated only under a confidentiality agreement, provided that the document was offered to all interested parties.¹⁷

However, due to the various specific circumstances that may be present at the different standards setting bodies, decisions regarding the prior art status of different standards documents are made on a case by case basis, and there are numerous decisions in which standards related documents were considered as prior art¹⁸ and wherein such documents were not accepted as prior art.¹⁹ Whether the situation will become clearer in the light of the EPO’s more recent agreements with standards setting bodies remains to be seen.

¹⁵ *cf.*, Art. 54(2) EPC

¹⁶ See Case Law of the Boards of Appeal, 8th edition, section I.C.3.3; retrievable on www.epo.org

¹⁷ See decision of the EPO’s Boards of Appeal T 50/02; retrievable on www.epo.org

¹⁸ See decisions of the EPO’s Boards of Appeal T 202/97, T 382/03, T 1331/09, T 1469/10, T 2032/09; retrievable on www.epo.org

¹⁹ See decisions of the EPO’s Boards of Appeal T 273/02, T 738/04, T 1659/07, T 762/12, T 763/12; retrievable on www.epo.org



© 2018 BARDEHLE PAGENBERG Partnerschaft mbB

BARDEHLE PAGENBERG Partnerschaft mbB, Patentanwälte Rechtsanwälte is a partnership of patent attorneys and attorneys-at-law registered at Amtsgericht München, Partnership Registry No 1152.

Our offices act legally independent from the other countries' offices in each country and are not liable for those.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, mechanical, photocopying, recording or otherwise, without prior permission of the publishers.

Nothing in this publication constitutes legal advice. BARDEHLE PAGENBERG assumes no responsibility for information contained in this publication or on the website www.bardehle.com and disclaims all liability with respect to such information.

Contact

BARDEHLE PAGENBERG
Partnerschaft mbB
Patentanwälte Rechtsanwälte

www.bardehle.com

Munich

Prinzregentenplatz 7
81675 München
T +49.(0)89.928 05-0
F +49.(0)89.928 05-444
info@bardehle.de

Düsseldorf

Breite Straße 27
40213 Düsseldorf
T +49.(0)211.478 13-0
F +49.(0)211.478 13-31
info@dus.bardehle.de

Barcelona

Avenida Diagonal 420, 1⁰¹^a
08037 Barcelona
T +34.93.4 57 61 94
F +34.93.4 57 62 05
info@bardehle.es

Paris

SO Square Opéra, 5 rue Boudreau
75009 Paris
T +33.(0)1.53 05 15-00
F +33.(0)1.53 05 15-05
info@bardehle.fr

Verona

Circonvallazione Raggio di Sole 9
37122 Verona
T +39.(0)45.92 30 18 5
F +39.(0)45.92 30 18 6
verona@bardehle.eu

Yusarn Audrey Singapore

24 Raffles Place
#27-01 Clifford Centre
Singapore 048621
T +65.63 58 28 65
F +65.63 58 28 64
enquiries@yusarn.com

 **YUSARN
AUDREY**
IP Strategists • IP Lawyers • Patent Attorneys