

ASEAN COMMON GUIDELINES ON PATENT EXAMINATION



one vision
one identity
one community



ASEAN Common Guidelines on Patent Examination

The ASEAN Secretariat
Jakarta

The Association of Southeast Asian Nations (ASEAN) was established on 8 August 1967. The Member States are Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam. The ASEAN Secretariat is based in Jakarta, Indonesia.

For inquiries, contact:
The ASEAN Secretariat
Community Relations Division (CRD)
70A Jalan Sisingamangaraja
Jakarta 12110, Indonesia
Phone: (62 21) 724-3372, 726-2991
Fax: (62 21) 739-8234, 724-3504
E-mail: public@asean.org

Catalogue-in-Publication Data

ASEAN Common Guidelines on Patent Examination
Jakarta, ASEAN Secretariat, February 2023

ISBN

ASEAN: A Community of Opportunities for All

The text of this publication may be freely quoted or reprinted, provided proper acknowledgement is given and a copy containing the reprinted material is sent to the Community Relations Division (CRD) of the ASEAN Secretariat, Jakarta.

General information on ASEAN appears online at the ASEAN Website:
www.asean.org

Copyright Association of Southeast Asian Nations (ASEAN) 2023.
All rights reserved.

The guidelines were developed with the support and cooperation of the European Patent Office (EPO) and Rouse



one vision
one identity
one community



ROUSE

Acronyms and Abbreviations

ASEAN Member States (Country Codes)

BN	Brunei Darussalam
KH	Cambodia
ID	Indonesia
LA	Lao PDR
MY	Malaysia
MM	Myanmar
PH	Philippines
SG	Singapore
TH	Thailand
VN	Viet Nam

Other abbreviations

AMSS	ASEAN Member States
ASEAN	Association of Southeast Asian Nations
ASPEC	ASEAN Patent Examination Cooperation
CNIPA	China National Intellectual Property Administration
IPO	Intellectual Property Office
IPONZ	Intellectual Property Office of New Zealand
JPO	Japan Patent Office
KIPO	Korean Intellectual Property Office
KE	Key Expert
LE	Local Experts
EPO	European Patent Office
USPTO	United States Patent and Trademark Office
EUIPO	European Union Intellectual Property Office

Table of Content

ACRONYMS AND ABBREVIATIONS	5
ASEAN MEMBER STATES (COUNTRY CODES)	5
OTHER ABBREVIATIONS	5
INTRODUCTION.....	10
PATENT PROTECTION IN THE ASEAN MEMBER STATES	15
CHAPTER 1 – PATENT FILING REQUIREMENTS.....	18
1.1 LANGUAGE(S) IN WHICH THE PATENT APPLICATION MUST BE FILED (QUESTION 1).....	18
1.2 DOCUMENTS AND INFORMATION REQUIRED FOR FILING A PATENT APPLICATION (QUESTION 2)	18
1.3 REQUIREMENTS FOR THE TRANSLATION, CERTIFICATION, NOTARIZATION OR LEGALIZATION OF FILING DOCUMENTS (QUESTION 3).....	20
1.4 OPTION FOR LATE FILING OF DOCUMENTS AND MAXIMUM DEADLINE (QUESTION 4).....	21
1.5 TRANSLATION OF THE SPECIFICATION; PERIOD FOR SUBMISSION OF THE TRANSLATION (QUESTION 5)	21
1.6 PRIORITY CLAIM FROM MULTIPLE APPLICATIONS (QUESTION 6)	22
1.7 CALCULATION OF FILING FEES PER APPLICATION, PER CLAIM, OR PER EXCESS CLAIMS OVER A CERTAIN NUMBER (QUESTION 7).....	23
1.8 ELECTRONIC FILING OF APPLICATIONS (QUESTION 8).....	23
1.9 CONVERSION OF A PATENT OR UTILITY MODEL (PETTY PATENT/SIMPLE PATENT/UTILITY INNOVATION) BASED ON A PRIORITY DOCUMENT (QUESTION 9).....	24
1.10 GRACE PERIOD (QUESTION 10)	24
CHAPTER 2 - PATENT FORMALITIES EXAMINATION.....	27
2.1 INFORMATION REQUIRED FOR CONDUCTING THE FORMALITIES EXAMINATION (QUESTION 21).....	27
2.2 GROUNDS FOR REJECTING A PATENT APPLICATION BASED ON THE FORMALITIES EXAMINATION (QUESTION 24)....	28
2.3 AMENDMENT OF A PATENT APPLICATION BEFORE AND DURING THE FORMALITIES EXAMINATION (QUESTION 25) .29	
2.4 AMENDMENT OF A PATENT APPLICATION AFTER COMPLETION OF THE FORMALITIES EXAMINATION, ON GROUNDS OTHER THAN TO CONFORM WITH THE FORMALITIES EXAMINATION REPORT (QUESTION 26).....	30
2.5 ELECTRONIC OR PAPER-BASED FILING OF AMENDMENTS (QUESTION 27).....	30
2.6 ASSESSMENT OF UNITY OF INVENTION (QUESTION 28)	30
2.7 DIVISIONAL APPLICATIONS (QUESTION 29)	31
2.8 NECESSITY OF OBTAINING A FOREIGN FILING LICENCE BEFORE FILING A FOREIGN PATENT APPLICATION	31
2.9 RECORDAL OF CHANGE OF NAME, ADDRESS ETC. (QUESTION 30)	32
2.10 WITHDRAWAL OF A PATENT APPLICATION BEFORE FORMALITIES EXAMINATION (QUESTION 31).....	32
2.11 EFFECT OF REJECTION OR ABANDONMENT OF THE PRIORITY APPLICATION (QUESTION 32)	32
2.12 PROCEDURE FOR APPEALING AN OBJECTION BASED ON FORMALITY GROUNDS (I.E. ADMINISTRATIVE AND/OR JUDICIAL PROCEDURE) (QUESTION 33).....	33
CHAPTER 3 - PUBLICATION OF PATENTS.....	34
3.1 PUBLICATION OF THE APPLICATION (QUESTION 34)	34
3.2 POSSIBILITY OF DELAYING OR EXPEDITING THE PUBLICATION OF A PATENT APPLICATION (QUESTION 35)	34
3.3 INFORMATION PUBLISHED IN PATENT GAZETTE/BULLETIN (QUESTION 36)	35
3.4 AMENDMENT OF CLAIMS OF PUBLISHED PATENT APPLICATION (QUESTION 37).....	35
3.5 PUBLICATION OF GRANTED PATENT SPECIFICATION (QUESTION 37A).....	36
3.6 CORRECTION AND RE-PUBLICATION OF GRANTED PATENTS IN CASE OF MISTAKES BY THE APPLICANT/PATENT PROPRIETOR OR THE PATENT OFFICE (QUESTION 38)	36
3.7 DURATION, FORMAT, AND LANGUAGE(S) OF THE PUBLICATION (QUESTION 39)	37
3.8 CONVERSION OF A PATENT INTO A PETTY PATENT/UTILITY MODEL AND VICE VERSA BEFORE, DURING OR AFTER PUBLICATION OF THE APPLICATION (QUESTION 40)	37
3.9 PROVISIONAL RIGHTS UPON PUBLICATION OF AN APPLICATION	38
CHAPTER 4 - SUBSTANTIVE EXAMINATION OF PATENTS	39
4.1 SUBSTANTIVE EXAMINATION OF PATENT APPLICATIONS (QUESTION 78).....	39

4.2 TIME LIMIT TO FILE A REQUEST FOR SUBSTANTIVE EXAMINATION (QUESTION 79).....	39
4.3 CONDUCT OF SUBSTANTIVE EXAMINATION BY THE PATENT OFFICE OF FILING (QUESTION 80)	40
4.4 OPTIONS FOR APPLICANTS AS TO PATENT OFFICE CONDUCTING SUBSTANTIVE EXAMINATION (QUESTION 81)	42
4.5 SCOPE OF SUBSTANTIVE EXAMINATION (QUESTION 82)	42
4.6 OPTIONS FOR EXPEDITING SUBSTANTIVE EXAMINATION (QUESTION 85).....	43
4.7 ASSESSMENT OF PATENTABILITY OF SUBJECT MATTER DURING THE FORMALITIES OR SUBSTANTIVE EXAMINATION (QUESTION 86).....	46
4.8 AVAILABILITY OF SUBSTANTIVE EXAMINATION REPORTS TO THIRD PARTIES (QUESTION 87)	46
4.9 APPEAL OF THE SUBSTANTIVE EXAMINATION REPORT (QUESTION 88).....	46
4.10 GROUNDS AND PROCEDURE FOR APPEAL OF THE SUBSTANTIVE EXAMINATION REPORT (QUESTION 89)	46
4.11 LANGUAGE AND INFORMATION CONTAINED IN THE SUBSTANTIVE EXAMINATION REPORT (QUESTION 90)	46
4.12 PRE-GRANT OR POST-GRANT OPPOSITION ACTIONS (QUESTION 41)	47
4.13 GROUNDS FOR OPPOSITION (QUESTION 42)	50
4.14 PARTIES ENTITLED TO FILE AN OPPOSITION ACTION (QUESTION 43).....	50
4.15 PERIOD FOR WITHDRAWAL OF AN OPPOSITION (QUESTION 45).....	50
4.16 OPPORTUNITY FOR THE PATENT OWNER TO RESPOND TO THE OPPOSITION (QUESTION 46).....	50
4.17 APPEAL FROM THE DECISION ON THE OPPOSITION (QUESTION 47).....	50
4.18 CONSIDERATION OF DECISIONS OF FOREIGN PATENT OFFICES ON OPPOSITION ACTIONS FOR THE SAME INVENTIONS (QUESTION 48).....	51
4.19 THIRD PARTY SUBMISSIONS BEFORE AND DURING SUBSTANTIVE EXAMINATION (QUESTION 91)	51
CHAPTER 5 - PATENTABLE SUBJECT MATTER.....	52
5.1 DEFINITIONS OF INVENTION.....	52
5.2 STATUTORY SUBJECT MATTER	52
5.2.1 Discoveries, scientific theories and mathematical methods.....	53
5.2.2 Schemes, rules, or methods for doing business, performing purely mental acts, or playing games	55
5.2.3 Aesthetic creations.....	56
5.2.4 Presentation of information	56
5.2.5 Inventions contrary to public order and morality, peace, security.....	57
5.2.6 Computer program.....	58
5.2.7 Method for the treatment of the human or animal body by surgery or therapy or of diagnosis.....	59
5.2.8 Plants, animals and essentially biological processes for the production of plants or animals	61
5.2.10 Pharmaceutical product, drug & foodstuff.....	63
CHAPTER 6 - UNITY OF THE INVENTION	64
6.1 DEFINITION OF "UNITY OF INVENTION" (QUESTION 66).....	64
6.2 EVALUATION OF UNITY OF THE INVENTION (QUESTION 67)	64
6.3 ASSESSMENT OF UNITY OF INVENTION WITH REGARD TO PRIOR ART (QUESTION 68).....	68
6.4 APPEAL FROM THE FINAL DECISION OF THE EXAMINER ON UNITY OF INVENTION (QUESTION 69)	68
CHAPTER 7 - CLARITY OF THE INVENTION	70
7.1 CONDITIONS FOR CLARITY OF INVENTION (QUESTIONS 49 AND 50).....	72
7.2 TERMS NOT ALLOWED IN THE CLAIMS AND DESCRIPTIONS FOR REASONS OF LACK OF CLARITY (QUESTION 51)	73
7.3 RULES FOR DRAWINGS AND FIGURES IN RELATION TO THE CLARITY REQUIREMENT (QUESTION 52)	76
7.4 MULTIPLE DEPENDENCIES OF CLAIMS (QUESTION 53)	77
7.5 ONE PART-CLAIMS, TWO-PART-CLAIMS, AND TWO-PART-FORM (QUESTION 54).....	78
7.6 MULTIPLE INDEPENDENT CLAIMS IN THE SAME APPLICATION (QUESTION 55)	78
7.7 USE CLAIMS (QUESTION 56)	79
7.8 PRODUCT-BY-PROCESS CLAIMS (QUESTION 57)	79
7.9 USE OF RANGES (E.G., DOSAGE) IN CLAIMS (QUESTION 60).....	80
7.10 USE OF LIMITATIONS AND DISCLAIMERS IN CLAIMS (QUESTION 61)	80
7.11 USE OF IMPRECISE TERMS (QUESTION 62)	81

7.12 TYPE OF CLAIMS ALLOWED	81
7.13 CLAIMS, INDEPENDENT AND DEPENDENT, NEED TO BE SUPPORTED BY THE DESCRIPTION AND DRAWINGS (QUESTION 64).....	82
7.14 REQUIREMENT OF AMENDMENT OF A CLAIM TO ALSO AMEND THE DESCRIPTION IN ORDER TO MEET THE REQUIREMENT OF CLARITY (QUESTION 65)	83
CHAPTER 8 - SUFFICIENT DISCLOSURE OF PATENTS.....	84
8.1 NEED TO SUBSTANTIATE THE PATENT SPECIFICATION (QUESTION 63)	84
CHAPTER 9 - PATENT SEARCH	89
9.1 SEARCH OPTIONS AND DATABASES AVAILABLE TO APPLICANTS (QUESTION 70)	90
9.2 PATENT SEARCH FOR PRIORITY AND NON-PRIORITY-BASED APPLICATIONS (QUESTION 71)	90
9.3 LANGUAGE(S) USED BY THE PATENT OFFICE IN CONDUCTING SEARCHES (QUESTION 72)	91
9.4 DATABASE(S) USED BY THE PATENT OFFICE IN CONDUCTING A PATENT SEARCH (QUESTION 73)	91
9.5 PATENT SEARCH PARAMETERS AND COVERAGE (QUESTION 74)	94
9.6 DETERMINATION OF THE "CLOSEST PRIOR ART" (QUESTION 75).....	98
9.7 CONTENTS OF THE SEARCH REPORT OF THE PATENT OFFICE. (QUESTION 76)	99
9.8 POSSIBILITY OF A PARTIAL SEARCH AND/OR A "NO SEARCH" OPTION	100
CHAPTER 10 - NOVELTY REQUIREMENT	101
10.1 DEFINITION OF "NOVELTY"	101
10.2 DETERMINING THE SCOPE OF THE CLAIMED INVENTION	101
10.3 NOVELTY TEST	102
10.3.1 Absolute novelty.....	102
10.3.2 Matters which are part of the State of the Art	103
10.3.3 Technical equivalents.....	104
10.3.4 Non prejudicial disclosure or matters which do not form part of the state of the art ..	104
10.3.5 Alternatives	105
10.3.6 Relevant date to assess prior art	105
10.3.7 Person Skilled In the Art.....	105
10.3.8 Enabling disclosure.....	106
10.3.9 Single and combination of prior arts to destroy the novelty of a patent	106
10.3.11 Second medical use	110
CHAPTER 11 - INVENTIVE STEP REQUIREMENT	113
11.1 DEFINITION OF INVENTION	113
11.2 DEFINITION OF INVENTIVE STEP.....	113
11.2.1 Prior Art	114
11.2.2 Test for inventive step.....	116
11.2.2.1 Methods of determining inventive step	118
11.3 DEFINITION OF THE PERSON SKILLED IN THE ART	122
11.4 SCOPE OF KNOWLEDGE OF THE PERSON SKILLED IN THE ART	124
11.6 SECONDARY CONSIDERATIONS	126
11.6.1 Secondary considerations in support of the existence of an inventive step.....	126
11.6.2 Secondary considerations in support of the non-existence of an inventive step	129
11.7 CLAIMS DEPENDENCY AND INVENTIVE STEP.....	130
CHAPTER 12 - INDUSTRIAL APPLICABILITY REQUIREMENT	131
12.1 DEFINITION OF "INDUSTRIAL APPLICABILITY"	131
12.2 GROUNDS FOR APPEALING THE REJECTION OF A PATENT APPLICATION BASED ON LACK OF INDUSTRIAL APPLICABILITY (QUESTION 124)	134
CHAPTER 13 - AMENDMENT OF PATENTS	135
13.1 PRE-GRANT AMENDMENTS (QUESTION 126)	135
13.2 POST-GRANT AMENDMENTS (QUESTION 127).....	142

13.3 SCOPE OF ALLOWABLE AMENDMENTS (QUESTION 127A).....	142
13.4 AMENDMENTS VERSUS CORRECTIONS (QUESTION 127B).....	142
CHAPTER 14 - WORK PRODUCTS SHARING.....	144
14.2 OBLIGATION TO PROVIDE AVAILABLE WORK RESULTS FROM THE PRIORITY APPLICATION(S) (QUESTION 129) ...	149
14.3 ASPEC WORK SHARING (QUESTION 130).....	149
14.4 ADDITIONAL REQUESTS FOR INFORMATION OR DOCUMENTS APART FROM DOCUMENTS/INFORMATION REQUIRED UNDER ASPEC (QUESTION 131).....	153
14.5 RE-USE OF SEARCH AND EXAMINATION RESULTS OF OTHER OFFICES (QUESTION 133).....	154
CONCLUSION	156

Introduction

Background

ASEAN IPR Action Plan 2016-2025 & EPO-ASEAN Memorandum of Co-operation

The Association of South-East Asian Nations (ASEAN) Working Group on Intellectual Property Co-operation (AWGIPC) brings together the Intellectual Property Offices (IPOs) of the 10 ASEAN member states (AMS) to promote co-operation in the area of Intellectual Property Rights (IPR), in particular as defined by the ASEAN IPR Action Plan 2016-2025.

The ASEAN Intellectual Property Rights Action Plan 2016-2025 (Action Plan) defines Intellectual Property (IP) as:

“One instrument of development, [which] should also be considered in terms of its linkage to other components of socio-economic development strategy, including (among others) poverty reduction, health, education, industrial development, and especially trade”¹

The Action Plan further states:

“In the post-2015 environment of a more competitive ASEAN, ASEAN Member States will have made significant progress in aligning national laws and policies on IP to cater to the AEC framework. National IP regimes will have achieved technical and procedural convergence [...]”

The above statements and deliverables adopted by the ASEAN Working Group on Intellectual Property Cooperation (AWGIPC) clearly indicate the desire of the ASEAN Member States (AMSs) to further enhance the level of regional cooperation on patent prosecution and patent protection. It is envisioned that a coherent patent system among the AMSs could be developed in a phased approach.

A key founding element of this phased approach is the comparison of the practices and procedures across the 10 AMS, and the definition of a possible common substantive examination approach to patent prosecution.

More precisely, the following is defined within the Action Plan:

- *STRATEGIC GOAL 1: A more robust ASEAN IP System is developed by strengthening IP Offices and building IP infrastructures in the region.*

¹ ASEAN Intellectual Property Action Plan 2016-2025 is available at [https://www.aseanip.org/Portals/0/ASEAN%20IPR%20ACTION%20PLAN%202016-2025%20\(for%20public%20use\).pdf?ver=2017-12-05-095916-273](https://www.aseanip.org/Portals/0/ASEAN%20IPR%20ACTION%20PLAN%202016-2025%20(for%20public%20use).pdf?ver=2017-12-05-095916-273)

- *Initiative 2. Promote improvement of IP services in terms of timeliness and quality of output.*
 - *2.1 Identify similarities and differences in practices of patent and industrial design among the AMSs;*
 - *2.4. Develop ASEAN Common Guidelines on Patent Examination*

The European Patent Office (EPO) agreed to support the AWGIPC in the drafting of ASEAN Common Guidelines for Patent Examination (ACG-PE) within its co-operation with the AWGIPC under the EPO-ASEAN Memorandum of Co-operation signed in 2014. The ACG-PE are aimed at supporting the strategic goals identified in the ASEAN IPR Action Plan above.

Scope of the Comparative Study on the National Patent Laws and Procedures of the Southeast Asia Countries

In support of the objectives of the AMSs to enhance cooperation on patent protection in the region, the EPO and the IP Key South-East Asia project of the European Union Intellectual Property Office (EUIPO) undertook the Comparative Study on the National Patent Laws and Procedures of the Southeast Asia Countries (Comparative Study).

The objective of this Study was to provide detailed information on the patent laws, procedures and practices of each of the 10 AMSs, in order to establish the basis for the subsequent drafting of the ASEAN Common Guidelines on Patent Examination (Common Guidelines). Such Common Guidelines are intended to enhance transparency in the examination of patent applications, foster predictability in examination outcomes, facilitate work-sharing among the AMSs, and promote a consistent high quality of patent search and examination results for patent applications filed in the AMSs. It can therefore serve as a useful resource for patent examiners of the AMSs, as well as for patent applicants seeking protection in the various Southeast Asia countries.

Comparative Study Report

Over 2020-2021, the “Comparative Analysis” of the laws, regulations, Guidelines and practices of the Intellectual Property Offices (IPOs) of the 10 AMS resulting in the “Comparative Study On The National Patent Laws And Procedures Of The Southeast Asia Countries” (hereafter Comparative Study Report or CSR), whose content was verified by the 10 AMS IPOs at the AWGIPC in May 2021.

The Comparative Study Report (CSR) will be referred to throughout these Common Guidelines, and the Common Guidelines rely on the CSR as a basis. The CSR includes around 1000 references to national AMS patent laws, implementing regulations and guidelines, as well as general practices of the AMS POs as captured by original surveys and questionnaires and as indicated by “local experts” and the POs in each country. These references are not generally repeated within the Common Guidelines, however,

the structure of the Common Guidelines is aligned with that of the CSR. Therefore, the two documents complement each other.

When future national AMS patent laws, implementing regulations and guidelines as well as general practices are amended or enhanced with extensions and/or new technologies, both the Common Guidelines and the CSR should be updated in parallel.

Objectives of ACG-PE project

Objectives of the ACG-PE include:

- To provide Common Guidelines, guiding AMS IPOs patent examiners wishing to re-use the search and examination results from another AMS;
- To provide guidelines for AMS IPOs which do not have published national examination guidelines, to supplement the AMS's internal guidelines and manuals and to support the approximation and convergence of the patent examination standards and criteria applied by ASEAN IPOs;
- To enhance ASEAN regional integration and support for further convergence of examination of patents in the ASEAN region, in line with international standards and best practices;
- To serve as a reference document for patent applicants, professional advisors and industrial property agents intending to file at multiple AMS IPOs;
- To serve as a practical training tool for patent examiners.

Scope of the ACG-PE

In 2021, the EPO initiated the drafting of the ACG-PE, agreeing the Terms of Reference of the project with the AMS POs through the AWGIPC, and engaging the project consultant (Rouse) to carry out the drafting with guidance throughout from the EPO. Each step of the project was reviewed and agreed with the AMS POs, with support from the ASEAN Secretariat.

The scope of the ACG-PE was agreed by the AWGIPC to be defined by the Comparative Study on the National Patent Laws and Procedures of the Southeast Asia Countries ("Comparative Study" or CSR). Within that scope, many common practices exist; firstly, all AMS IPO practices should be compliant with the PCT laws and practices, as most are contracting states to the PCT. Secondly, the AMS also have common practices in addition to those specified by the PCT GLs, as derived from the CSR. For instance, sometimes the PCT Guidelines provide a choice, but all AMS POs follow the same practice. The scope of the ACG-PE is therefore defined by the CSR; but within this scope, only covers those practices that are similar across all or at least a clear majority of the AMS IPOs.

The ACG-PE cover two main sections:

- Part A: “Formalities”, including the scope of Chapters 1-3 of the CSR, namely Filing, Formalities Examination, and Publication, i.e. limited to those areas most relevant to the substantive examination; and
- Part B: “Substantive Examination”, covering the remaining chapters 4-14 of the CSR including Patentability, Unity of Invention, Novelty, Inventive Step etc.;

Methodology

The 10 AMS have undertaken a number of regional commitments in the context of building a more closely integrated market in the medium and long term. That underlying regional project comprises specific projects and activities in relevant areas, including intellectual property.

The project to develop ACG-PE is partly challenged by the fact that differences subsist among the AMS particularly as regards the economic development, level of innovation, research and development, infrastructures, populations. The countries’ history has strongly determined their legal traditions (e.g. common law, civil law, Muslim law) and, consequently, the structure and content of their intellectual property legislation including their patent systems.

The ACG-PE have been drafted taking into account the laws, regulations of AMS, relevant to the substantive examination of patent applications, as well as the practices followed by ASEAN IPOs. The internal guidelines and manuals currently used by some of the ASEAN IPOs to examine patent applications have also been taken into account. The ACG-PE also take into account international standards and best practices, in particular the PCT International Search and Preliminary Examination Guidelines (PCT/GL/ISPE/12 of 2022), the Guidelines for Search and Examination at the EPO as PCT Authority.

All AMS have enacted patent legislation (either in the form of dedicated laws or as specific chapters or provisions within a broader law) as well as a variety of implementing norms of lower hierarchy, including implementing regulations and other subsidiary administrative decisions. The following countries have also published or otherwise adopted for internal use by their patent examiners, manuals, guidelines or regulations for the examination of patent applications: Indonesia, Malaysia, Singapore, Philippines, Thailand, Viet Nam. While much of the matter covered in those texts is consistent in substance with these ACG-PE, some divergences remain on certain points. The development of the ACG-PE for the region can stimulate convergence of the patent examination standards and criteria applied by patent examiners in the region.

The process to prepare these ACG-PE included the following main stages:

(i) Fact-finding missions undertaken by the project consultant and local experts during the period 2020-2021 and verification of information by the IPOs of AMS which led to the CSR. The missions compiled information on relevant provisions in the laws, regulations and administrative guidelines, manuals and directives applied by AMS IPOs, as well as relevant examination practices that have a bearing on the substantive examination of patent applications by those offices. The missions included questionnaires sent to IPOs' officials on their patent legislation and examination practice.

These questionnaires provide the basic information contained in the CSR, and many of the headings of both the CSR and the ACG-PE refer to these questions.

(ii) The structure or taxonomy of the CSR was drawn up to reflect a generic patent prosecution process as this is conducted throughout the national patent offices around the world. The Formalities Section is limited to areas which are directly relevant to the substantive examination, which is considered to be the core relevant to the objectives of this project. The formalities procedures in each national system vary considerably and are dependent on and defined by local laws. However, they are of less relevance to the patent protection granted by each AMS PO, and to possible re-use of search and examination results.

(iii) Preparation by the project consultant of the ACG-PE. Each chapter of the ACG-PE was reviewed by the EPO and submitted for comments and approval to the AWGIPC during online workshops. At each session between the EPO, AWGIPC and the project consultant, the draft chapters of the ACG-PE were presented and discussed in detail. The draft chapters of the ACG-PE were finalized by the EPO and the project consultant by taking into account the comments, suggestions and inputs received from ASEAN IPOs throughout the sessions as well as the written comments provided throughout. This process ensured that the AMS POs have ownership of the Common Guidelines while the EPO and consultant services provided support.

Patent Protection in the ASEAN Member States

ASEAN has long emphasised the significance of Intellectual Property to promote creativity, innovation, technological progress, protection of traditional knowledge and genetic resources, and sustainable economic growth in the region. It has fostered cooperation among the AMSs in the field of patent protection, with the aim to develop a cohesive patent system among the AMSs.

One of the significant challenges for ASEAN is the divergence of certain patent policies, laws, examination standards, and practices among AMSs. Identifying and in the future, possibly addressing these differences in approach could further promote the ASEAN objectives of facilitating regional economic and technological development, as well as enabling applicants to more efficiently obtain patent rights and protection for their inventions.

Substantive examination of patents

One of the important tasks of an IPO is to decide whether a patent shall be granted or refused, based on the procedures and patentability requirements under the applicable national law. Making such decisions accurately, effectively and efficiently is a complex and time-consuming task. The choice of a search and examination system in each country plays an important role and is based on its national policy in accordance with its specific circumstances.

Some IPOs have chosen to conduct the patent search and examination internally through their own patent examiners, while others rely on foreign IPOs while maintaining their autonomy to make a final decision on the grant of a patent. All AMSs, regardless of whether they conduct the substantive examination by themselves or not, make the grant of patents subject to substantive examination.

Memberships to patent-related international agreements

In recent years AMSs have further developed and harmonised their patent legislations in accordance with the standards of international conventions, in particular the Patent Cooperation Treaty (“PCT”) and the Agreement on Trade-Related Aspects of Intellectual Property Rights (“TRIPS”). AMSs also have established work product sharing mechanisms such as the ASEAN Patent Examination Cooperation (“ASPEC”).

The Comparative Study Report, and the Common Guidelines, provide further steps supporting further convergence of patent practices and procedures, which should further support trade, development, and investment between the AMS as well as internationally.

Memberships to Patent Cooperation Treaty (PCT)

Except for Myanmar, all AMSs are member of the PCT:

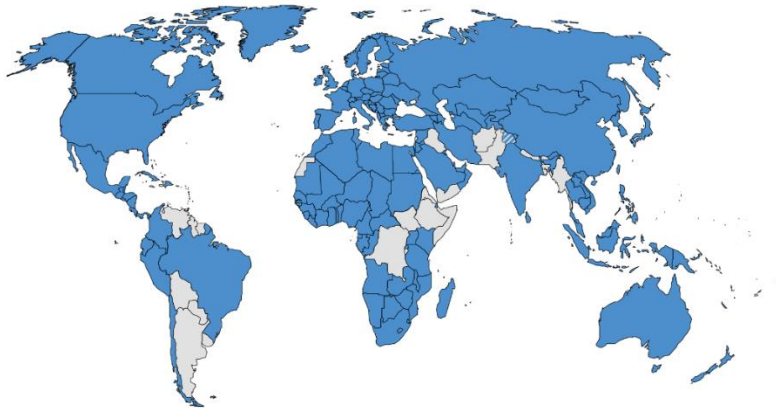


Figure 1: PCT Contracting States as of December 18, 2020²

PCT Members	Date of Entry into Force	Non PCT Member
Brunei Darussalam	July 24, 2012	Myanmar
Cambodia	December 8, 2016	
Indonesia	September 5, 1997	
Lao PDR	June 14, 2006	
Malaysia	August 16, 2006	
Philippines	August 17, 2001	
Singapore	February 23, 1995	
Thailand	December 24, 2009	
Viet Nam	2009 March 10, 1993	

Membership to the Paris Convention for the Protection of Industrial Property of 1883³

Except for Myanmar, all AMSs are member of the Paris Convention.

Members	Date of Entry into Force	Non-Member
Brunei Darussalam	February 17, 2012	Myanmar
Cambodia	September 22, 1998	
Indonesia	December 24, 1950	
Lao PDR	October 8, 1998	
Malaysia	January 1, 1989	
Philippines	September 27, 1965	
Singapore	February 23, 1995	
Thailand	August 2, 2008	
Viet Nam	March 8, 1949	

² https://www.wipo.int/pct/en/pct_contracting_states.html#note2

³ WIPO-Administered Treaties, available at: https://wipolex.wipo.int/en/treaties/ShowResults?search_what=C&treaty_id=2

Memberships to TRIPS Agreement of 1994

All AMSs are member of the TRIPS Agreement⁴

WTO Member	Date of Entry into Force
Brunei Darussalam	January 1, 1995
Cambodia (LDC*)	October 13, 2004
Indonesia	January 1, 1995
Lao PDR (LDC*)	February 2, 2013
Malaysia	January 1, 1995
Myanmar (LDC*)	January 1, 1995
Philippines	January 1, 1995
Singapore	January 1, 1995
Thailand	January 1, 1995
Viet Nam	January 11, 2007

(*) Least Developed Country

ASEAN Patent Examination Cooperation (“ASPEC”)⁵

Except for Myanmar, all AMSs are participating countries to ASPEC

Participating countries	Not participating country
Brunei Darussalam Cambodia Indonesia Lao PDR Malaysia Philippines Singapore Thailand Viet Nam	Myanmar

⁴ WIPO IP Treaties Collection, available at: <https://wipolex.wipo.int/en/treaties/parties/231>

⁵ ASPEC Brochure, available at: <https://www.aseanip.org/Portals/0/ASPEC/ASPEC-brochure.pdf>

Chapter 1 – Patent filing requirements

1.1 Language(s) in which the patent application must be filed (Question 1)

Applicants must file their patent application, including the specification, in the official language of the country of filing. (for Cambodia, Lao PDR, Indonesia, Thailand and Viet Nam) and English (for Brunei Darussalam and Singapore).

In Malaysia, Myanmar and the Philippines, applicants can choose between the official language of the country of filing and English. The language in which the patent is filed is also used as the language of the proceedings, and any amendments made to the application, or the patent must be drawn up in that language. In Myanmar, even though English language is selected, the proceedings of office communication are in the country's official language.

If an application is filed in any language other than an official or authorized language, a translation of the specification (title, abstract, claims, description and drawings) in the required language must be filed within a specified period or upon request of the patent office/registrar (please refer to **Paragraph 1.5** below).

A large proportion of internationally filed patents are submitted in English, and the ability to file nationally with the AMS (ASEAN Member States) in English saves considerable time and money when filing across jurisdictions. It also supports the re-use of search and examination results, as claims that are filed across different jurisdictions can be more easily assessed and compared.

1.2 Documents and information required for filing a patent application (Question 2)

In all the AMS, a person who wishes to obtain a patent must file an application which must include the following documents and information:

1. Request for grant of a patent

A request for grant of a patent, also known as an application form, which must be filed on paper or electronically (except Indonesia and Singapore in which only electronic submission is acceptable) on a form prescribed by the patent office/registrar concerned and must be accompanied by the prescribed official fee. The request shall indicate the following minimum information though the information may not be required at the point of filing the request for grant of a patent:

- a. Date of request for grant of a patent;
Applicant details (name, address or place of business and in some cases nationality). These details are required in order to identify the applicant(s).
- b. Inventor details (name, address, nationality). The inventor is the actual person or individual who has devised the invention and therefore cannot be a legal entity. If one or more of the inventors are not an applicant, the details of the inventors must be indicated.

In some AMS, the request may include the name and address of the resident agent/representative (if any) and signature of the applicant or resident agent/representative.

2. Title of the invention

The title of the invention is a formal requirement. It must be short and must clearly indicate the subject matter to which the invention relates.

3. Abstract

The abstract is a formal requirement where a summary of the invention is presented. It may be used for technical information only and must not be used to define the scope of the invention for which patent protection is sought, and it is instrumental for the purpose of searching.

4. Description

The description must

- specify the technical field to which the invention relates;
- indicate the background art which, as far as it is known to the applicant, can be regarded as useful for the understanding of the invention, and for search and examination purposes;
- disclose the invention in a clear and detailed manner in such a way as to enable a person of ordinary skill in the relevant field of technology to understand and carry it out;
- disclose at least one mode of making or using the invention;
- briefly describe the figures and the drawings (if any).

5. Claims

The application must contain one or more claims which define the matter for which protection is sought.

- The claim or claims of the invention must be clear and must be supported by the description;
- The definition in the claim of the subject matter for which protection is sought must be in terms of the technical features of the invention, which may be expressed in structural and/or functional terms including mathematical terms;
- Claims must not rely, in respect of the technical features of the invention, on references to the description or drawings, unless such a reference is

necessary for the understanding of the claim or enhances the clarity or conciseness of the claim.

6. Drawings (if any)

Where necessary, any drawing referred to in the description or in any claim must be included.

7. Priority (if applicable)

If, prior to the application in question, the applicant filed an application in a state party to the Paris Convention or any World Trade Organization member state, the earlier filed application may be claimed as a priority application in the subsequent patent application, provided that the application is filed within 12 months of the date of filing of the earlier filed application.

If the applicant claims priority, they must also submit the priority document (if applicable) together with sufficient evidence that they are entitled to the priority right within a specified time frame according to national provisions.

8. Power of Attorney

A power of attorney must be submitted if the patent applicant is not a resident of the country of filing and represented by an agent (For Brunei Darussalam and Singapore, it is encompassed in the patent application form).

9. Assignment / statement of inventorships / declaration of invention

A deed of assignment/ statement of inventorships / declaration of invention must be filed if the ownership of the invention was transferred from the inventor(s) to the applicant(s) before the filing date. It must be filed within the periods prescribed in the respective national provisions (for further details see Section 1.4 of Chapter 1 of the CSR). A standard compulsory form of deed of assignment/ statement of inventorships / declaration of invention is available in Brunei Darussalam, Myanmar, the Philippines and Singapore. For further requirements please refer to **Paragraph 1.3** below.

1.3 Requirements for the translation, certification, notarization or legalization of filing documents (Question 3)

If the specification is filed in a language other than the official or authorized language of the country of filing, a translation into an official language of the country of filing or other authorized language must be filed within a specified period or upon request of the patent office/registrar.

For the priority document(s), a certified copy of the priority application must be filed (exception: Singapore). If a power of attorney is signed in a country other than the county of filing, it must be notarized by a national public notary or certified by a national authorized organization in Cambodia, Lao PDR and Thailand. Cambodia, Lao PDR and the Philippines also require the notarization of a deed of assignment.

1.4 Option for late filing of documents and maximum deadline (Question 4)

In order to file a patent application expeditiously or as early as possible, the AMS provide options for the late filing of documents as follows:

1. Claims

In Singapore, applicants may submit the claims to the patent office within 12 months of the priority date (if a priority claim is present), or the date of filing of the national application. This is similar to a provisional patent application.

2. Priority (if any)

A certified copy of the foreign application and a translation into the official language of the country of filing or English must be submitted within the period prescribed by national provisions, if applicable, upon request of the office/registrar (for further details please refer to Section 1.4 of Chapter 1 of the CSR) (Exception: Singapore, the priority document can be certified or submitted in a manner acceptable to the Registrar).

3. Power of Attorney

Power of attorney may be filed after filing the application or receiving notice within the period prescribed by national provisions (for further details please refer to Section 1.4 of Chapter 1 of the CSR).

4. Assignment / statement of inventorships / declaration of invention

A deed of assignment/statement of inventorships / declaration of invention must be filed if the ownership of the invention was transferred from the inventor(s) to the applicant(s) before the filing. It must be filed within the period prescribed by national provisions, if applicable, upon request of the office/registrar (for further details please refer to Section 1.4 of Chapter 1 of the CSR).

1.5 Translation of the specification; period for submission of the translation (Question 5)

For PCT National Phase applications in Cambodia, Indonesia, Lao PDR, the Philippines, Singapore, Thailand and Viet Nam, the translation of specification into an official language of the country of filing or other authorized language can be submitted after filing the application within the period prescribed in the respective national provisions, if applicable, upon request of the office/Registrar (for further details please refer to Section 1.5 of Chapter 1 of the CSR).

1.6 Priority claim from multiple applications (Question 6)

A national application may claim the priority of an earlier application, that was filed not more than 12 months before the filing date of the application in any state party to the Paris Convention for the Protection of Industrial Property or any member state of the World Trade Organization. The 12-month period cannot be extended.

The earlier application may be for a patent, or for a utility model, petty patent, utility certificate or for an inventor certificate.

If it is found that the application to which the priority claim is directed is in fact not the first application by the applicant, the priority claim is invalid as far as the subject-matter was already disclosed in the still earlier application.

It is the priority date (i.e. the date of filing of the earlier application) which becomes the effective date for the purposes of determining the prior art relevant to the novelty or obviousness of the subject-matter of the application, and for determining which of two or more applications from independent persons for the same invention is to proceed to grant.

Multiple priorities from different countries may be claimed in one national application. This means that, for AMS that charge a fee for claiming priority, if there is more than one priority claim the fee for the priority claim must be paid for each of those. The earlier application may have been filed in or for the same or different countries as the other priority applications, but in all cases the earliest application must have been filed not more than 12 months before the date of filing of the national application.

The subject matter of a national application will be accorded the priority date of the earliest priority application which discloses it. If, for instance, an Indonesian application describes and claims two embodiments (A and B) of an invention, A being disclosed in a Malaysian application and B in a Thai application, both filed within the preceding 12 months, the priority dates of both the Malaysian and Thai applications may be claimed for the appropriate parts of the Indonesian application: embodiment A will have the Malaysian priority date and embodiment B will have the Thai priority date as effective dates.

Applicants who wish to claim priority must file a declaration of priority giving particulars of the previous filing. They must provide a certified copy of the previous application (if applicable) except in Singapore where it is provided only if requested and, if necessary, a translation of it in the required language according to national provisions.

To the extent that the priority claim is invalid, the effective filing date of the local application under examination is the date of its filing with the patent office/registrar. Upon filing, a priority claim is considered invalid when it is made outside of the priority period of 12 months. All other causes of invalidity are dealt with during the substantive examination.

1.7 Calculation of filing fees per application, per claim, or per excess claims over a certain number (Question 7)

Apart from Thailand where the filing fee is calculated per application irrespective of the number of pages and/or claims, other AMS calculate the official filing fees by taking into account the number of claims and, in some cases, the number of pages.

The threshold for the excess claims fee in the AMS varies between five claims (Philippines) and 25 claims (Brunei) regardless of whether the claims are independent or not. The exception is Viet Nam, where the excess claims fee applies to independent claims only. Excess claim fees must be paid at the time of filing (Cambodia, Indonesia, Lao PDR, Malaysia, Philippines), search/grant (Singapore) or grant (Brunei Darussalam, Viet Nam).

Some AMS (Indonesia, the Philippines and Viet Nam) also apply an excess fee for additional pages with different thresholds ranging from pages in excess of five (Viet Nam) to thirty (Indonesia and the Philippines).

Filing fees are calculated as described in Section 1.7 of Chapter 1 of the CSR.

1.8 Electronic filing of applications (Question 8)

Most AMS use web-based filing and some of them offer both e-filing and paper filing procedures. Certain documents such as an original certified copy of the foreign application for a priority claim must still be submitted in the original.

In addition to payment in cash or by bank transfer or other payment service providers, the e-filing system allows users to pay official fees online via credit card or online banking. E-filing is designed to make it quicker and easier to file patents and to help the IP registration systems of the AMS to be more in line with the ASEAN digital economy policy (“Bandar Seri Begawan Roadmap” endorsed by the 20th ASEAN Economic Community Council on 18 October 2021) Electronic filing may also better support the publication process.

Countries	Electronic means	Links
Brunei Darussalam	Online filing.	https://efiling.bruipo.gov.bn/efiling/login
Cambodia	Online filing system available for trademark registration only.	
Indonesia	Online filing.	https://dgip.go.id/
Lao PDR	An online system providing information and services has been developed	
Malaysia	Online filing.	https://iponline2u.myipo.gov.my/myipo/www/
Myanmar	Online filing.	https://efiling.ipd.gov.mm/efiling/login
Philippines	Online filing.	https://www.ipophil.gov.ph/online-filing/
Singapore	Online filing.	https://ip2sg.ipos.gov.sg/RPS/RPSLogin/SPLogin.aspx
Thailand	Online filing.	https://sso.ipthailand.go.th/
Viet Nam	Online filing.	https://ipvietnam.gov.vn

1.9 Conversion of a patent or utility model (petty patent/simple patent/utility innovation) based on a priority document (Question 9)

A patent or utility model (petty patent/simple patent/utility innovation) can be applied for based on a patent for invention priority claim and vice versa in all the AMS (exceptions: Brunei Darussalam and Singapore, where there is no utility model protection).

Requests to convert a patent into a utility model (petty patent/simple patent/utility innovation) or vice versa can be applied based on a patent or utility model priority claim by the applicant. In most AMS, such requests can be filed at any time before the grant or refusal of a patent or utility model.

1.10 Grace period (Question 10)

A patent application for an invention should be filed at the patent office/registrar before the invention is disclosed to the public, otherwise the disclosure is deemed to be “prior art” with regard to the patent application and will be taken into account when considering whether the invention meets the requirements of being new and inventive.

All AMS countries operate a grace period whereby, if an applicant files a patent application within that period after disclosing the invention, specific earlier disclosures are not considered to be prior art for the patent application.

The grace period provisions vary between AMS, ranging from six to twelve months. Most AMS provide twelve-month grace period.

In all the AMS, grace periods apply to disclosures by the inventor(s) and the applicant(s) or their predecessor(s) in title. Most of the AMS have provisions to exempt disclosures from consideration as prior art if the disclosure was an abuse in relation to the applicant or inventor or their predecessor in title, for example, a disclosure made in breach of confidence.

In the Philippines, Singapore and Viet Nam disclosures made by the patent office (e.g., a patent application published in error) are specifically covered by the grace period. International exhibitions also have a special status so that disclosure of an invention at the exhibition is not considered prior art against a patent application originating from the same inventor if the disclosure in the exhibition is within a specific period according to national provisions. A certificate of disclosure at the exhibition may be required by the patent office/registrar.

If an abstract or brief summary of an invention has already been published outside the grace period, it may still be possible to obtain a valid patent. For example, if the disclosure does not contain enough detail to enable a skilled person to carry out the invention, then the invention may still be considered new. The inventive step (obviousness) of the claimed invention compared with the earlier disclosure would also need to be assessed, and this would depend on how much information about the invention had been published; this assessment is conducted during the substantive examination phase.

A declaration of non-prejudicial disclosure may contain the following information:

- Type of disclosure:
 - i. Disclosure by the applicant / inventor
 - ii. Unlawfully and lawfully disclosure by a third party
 - iii. Exhibition
 - iv. Paper/ presentation/ research
- Date of disclosure
- Title of disclosure
- Place of disclosure

Most of the AMS have provisions to exempt disclosures from consideration as prior art if such disclosure was by reasons or in consequence of acts committed by the inventors/applicants or their predecessor in title including if such disclosure was by reasons or in consequence of an abuse of the rights of the inventor/applicant or their predecessor in title.

If the pre-filing disclosure was made in a printed publication in which the authors are identical to the named inventors or applicants, the disclosure should be regarded

automatically as having been disclosed by the inventors or applicants except in Singapore where the evidence in the form of statutory declaration is required to be filed. However, if the names of the authors of the printed publication are not those of the inventors or applicants mentioned in the patent application, then evidence in the form of a statutory declaration or an affidavit by the inventors or applicants need to be filed when claiming a grace period. Based on the filed evidence, the Office concerned will determine if a prima facie case is present that the earlier disclosure was indeed made by the inventors or the applicants (Exception: Viet Nam).

Chapter 2 - Patent formalities examination

All patent applications will undergo a formalities examination during which they are examined for compliance with the formal requirements, and are then either accepted for further examination, accepted subject to amendment(s) or refused. All ASEAN Member States (“AMS”) conduct their formalities examination “in-house” or internally before the substantive examination.

2.1 Information required for conducting the formalities examination (Question 21)

In all AMS, any person who wishes to obtain a patent must file an application and submit the following documents and information:

- (i) A request for grant of a patent, also known as an application form, accompanied by the prescribed official fee.
- (ii) Information identifying the inventor(s) and the applicant(s), including their address or place of business (if the applicant is a corporation) and nationality. A deed of assignment in case of transfer of the ownerships of the invention to a third party may be required to be furnished.
- (iii) A title of the invention together with a description and one or more claims to define the scope of protection, supported by the description in a language which is an official or authorized language. The title should clearly and concisely indicate the subject -matter of the invention and should be meaningful.
- (iv) When necessary, any drawing(s) referred to in the specifications.
- (v) An abstract of the invention. This is a summary of the invention and is included in the publication of the patent application. Abstracts are used for technical information only and cannot be used to define the scope of the invention for which patent protection is sought.
- (vi) The name and the domicile or place of business of a professional representative if the applicant is represented.
- (vii) Priority claim, if any.

The principle on submission of application documents applies to original applications as well as divisional applications converted from a utility model/simple patent/petty patent/utility innovation to a patent.

The contents of the abstract, description, drawings, title and claims are not closely scrutinized during the formalities examination per se; it is sufficient that a document (or documents) which appears to include a description and one or more claims is identifiable; the content will usually be examined closely during the substantive phase. However, some AMS may already examine:

- the formal drafting of abstract, description, claims and drawings, initial clarity, multiple dependency and the evaluation of the claim(s) for priority right (the Philippines);
- exclusions of inventions (e.g. an immoral invention) and exceptions to patentability, and initial clarity (Thailand).
- and unity invention 'a priori' according to the conditions prescribed in **Section 2.6** below, during the formalities examination phase.

The rights to file the patent application belong primarily to the inventor or inventors. However, it can also be transferred to any person who is entitled to the patent by virtue of any rule of law or any enforceable agreement entered into with the inventor before or after the making of the invention.

If an applicant has filed an application earlier in a Paris Convention country or a World Trade Organization member country, the same applicant may claim the earlier filed application as a priority application in any subsequently filed patent application, provided that the subsequent application is filed within twelve months from the date of filing of the earlier application. The applicant may claim priority from one or more earlier relevant applications. For each of the earlier applications, the respective filing date and the country in which the application was filed must be furnished. However, the evaluation of the claim for priority right with regards to its allowance or disallowance is usually carried out during the substantive examination of the application.

With the exception of Singapore, a power of attorney form must be submitted where the applicant is a foreigner or foreign entity based outside the jurisdiction where the application is filed.

Supporting documents may be filed within a reasonable prescribed period after the filing date of the patent application and further extensions may be allowed based on national provisions.

2.2 Grounds for rejecting a patent application based on the formalities examination (Question 24)

In all AMS, the examiner conducts the formalities examination, identifying and reporting deficiencies in the application and/or supporting documents and rendering other supplementary office actions.

If the examiner identifies deficiencies preventing the application from proceeding further, they communicate them to the applicant or their agent and invite them to remedy any deficiency within a defined period of time, which may be extendable, starting from the notification of the communication.

If the applicant does not remedy the deficiencies in due time, they are informed that the application will not be dealt with and will be deemed abandoned or rejected.

In all AMS, the grounds for an application to be abandoned or rejected during the formalities examination are as follows:

- Required filing documents are missing, erroneous, incomplete or not compliant with the format.
- The application does not contain one or more of the following: either the title, abstract, description, and/or claim(s).
- The specification is not translated into an official language in a timely manner.
- Applicants not having their residence or principal place of business in the jurisdiction where the patent application is filed are not represented by a professional representative.
- The designation of the inventor has not been made or a deed of assignment has not been submitted.
- The filing and supporting documents are not filed in due time.
- The prescribed fees are not paid on time.
- Non-patentable subject matters (Thailand, Viet Nam).

2.3 Amendment of a patent application before and during the formalities examination (Question 25)

In all AMS the applicant may, of their own initiative or at the request of the patent office/registrar, amend or correct the application including the specification without impacting the accordance of a filing date.

However, applicants are not entitled to file an amendment to the application and specification unless they have made a request to do so to the patent office/registrar in the prescribed manner, within the prescribed period and the request is accompanied by the prescribed documents and fees, if applicable.

Such amendments, if accepted by the patent office/registrar, are entered in the application and are considered for publication.

New matter found in the amendments that extends beyond that disclosed in the patent application as originally filed, will be rejected. In other words, there is no restriction on applicants broadening the scope of their claims as long as the amendment does not include matter extending beyond that disclosed in the application as originally filed. That is, if the disclosure in the specification as filed is broader than the claims as filed, the applicant may make amendments before grant to claim more/all subject -matter disclosed in the specification. The applicant shall be informed by the patent office/ Registrar during the substantive examination if the amendment(s) filed constitute new matter and will be allowed to amend - them within a prescribed period of time.

2.4 Amendment of a patent application after completion of the formalities examination, on grounds other than to conform with the formalities examination report (Question 26)

In all AMS, amendment of the specification, at the request of the applicant, may also occur once the formalities examination has been completed. Applicants must comply with the requirements that pre-grant amendments do not result in the application including subject-matter extending beyond that disclosed in the application as originally filed.

2.5 Electronic or paper-based filing of amendments (Question 27)

The amendments can be filed electronically or on paper, with the exception of Singapore which only allows amendments filed electronically.

2.6 Assessment of unity of invention (Question 28)

A patent application must relate to one invention only or to a group of inventions so linked as to form a single general inventive concept.

The assessment of the unity of invention is conducted using both *a priori* and *a posteriori* approaches.

Where there is a group of inventions, the link between them must be a technical relationship which finds expression in the claims in terms of the same or corresponding special technical features. Lack of unity must be determined solely from the language of the claims as properly construed and, where appropriate, by having regard to relevant prior art.

Whether or not the requirement of unity of invention is fulfilled when more than one invention appears to be present is dealt in these Guidelines in a further chapter.

Lack of unity of invention may be directly evident "*a priori*," i.e., before the substantive examination is conducted, or may only become apparent "*a posteriori*," i.e., after the prior art has been taken into consideration, or even at both instances. The assessment of unity of invention must ensure efficient use of examination resources and for that reason, it is suitable to assess the unity of invention during the substantive examination of the claims in view of the prior art available.

For example, independent claims to A + Z, A + Y, Z + Y can be said to lack unity *a priori* in the absence of subject-matter common to or corresponding to all three claims. As far as independent claims to A + Z and A + Y are concerned, unity of invention is present *a priori*, as A is common to both claims. However, if it can be

established that A is known (prior art) after a search, there is lack of unity *a posteriori*, since A is not a technical feature that defines a contribution over the prior art.

Although unity of invention is best assessed during the substantive examination, it must be considered at the earliest possible opportunity. Indeed, if lack of unity is not raised promptly unnecessary costs are imposed on the applicant if this results in a significant additional search effort.

The lack of unity of invention should neither be raised nor maintained based on a narrow or literal approach. There should be a broad, practical consideration of the degree of interdependence of the alternatives presented, in relation to the state of the art as revealed by the patent search or by any additional document considered to be relevant.

2.7 Divisional applications (Question 29)

If unity of invention is found to be lacking, the applicant shall be required to limit their claims in such a way as to overcome the objection. In addition, the applicant has the option of filing a divisional application(s).

Whether an applicant may pro-actively file a divisional application, or if they need to await the patent office's objection before filing it, varies between AMS. However, with the exception of Myanmar and Thailand, a divisional application can be filed both voluntarily by the applicant and at the request of the examiner.

In both cases, the divisional application's subject-matter shall not go beyond the disclosure in the initial application. The claims of a divisional application need not be limited to subject-matter already claimed in claims of the parent application, otherwise this could raise an issue of double patenting.

Provided this requirement is met, the divisional application is deemed to have been filed on the date of filing of the parent application and enjoys that application's priority. An application may also give rise to more than one divisional application. A divisional application may also itself give rise to one or more divisional applications.

2.8 Necessity of obtaining a foreign filing licence before filing a foreign patent application

At present, five countries (Brunei Darussalam, Malaysia, Myanmar, Singapore and Viet Nam) have some degree of foreign filing licence requirements as part of their patent laws and regulations. Brunei Darussalam, Malaysia, Myanmar and Singapore's filing licence requirements are based on residency, and Viet Nam's is based on where inventive activity occurred as well as citizenship.

Failure to adhere to requirements related to foreign filing can have wide-ranging consequences, including penalties. In Myanmar, the requirement for a foreign filing licence only applies to patent applications including disclosure that may be of interest for national security and safety of the people. In Viet Nam, the requirement for a foreign filing licence only applies to patent applications that are identified as secret inventions by the competent authorities.

The other five AMS (Cambodia, Indonesia, Lao PDR, Thailand, the Philippines) without foreign filing licence requirements have prohibitions against inventions that endanger national security, public order, and morality. These provisions serve a similar effect as the foreign filing licence requirements without the burden of applying for a foreign filing licence.

In countries requiring a foreign filing licence, obtaining such a licence should be a relatively simple process and expeditive, requiring only the submission of a petition along with the petition fee (if applicable) and a copy of any relevant application documents.

2.9 Recordal of change of name, address etc. (Question 30)

All AMS allow changes of name and/or address of the applicant or inventor to be recorded during the formalities examination. Those changes must be entered in the Register and submitting supporting evidence is usually required. These documents are checked for appropriate form used and fee payment (if applicable) and recorded with the date of receipt.

2.10 Withdrawal of a patent application before formalities examination (Question 31)

In the majority of AMS, a patent application which is withdrawn before formalities examination starts will not be published (exception: the Philippines where it may still be published in the official journal). Therefore, it is possible to refile it without facing an objection for lack of novelty.

2.11 Effect of rejection or abandonment of the priority application (Question 32)

In all AMS, the rejection or abandonment of the priority application (Patent A) from which a corresponding patent application (Patent B) claims priority does not result in the rejection of the corresponding patent application (Patent B).

However, particular care should be taken with the reasons for the abandonment or rejection of the priority application, especially where the examiner discovers a potentially relevant disclosure that is an application made by the same applicant (or

their predecessor in title) with an earlier priority date or date of filing, which is not the priority document of the application under examination. In such an instance, the patentability of the corresponding application under examination may be called into question since, *prima facie*, the priority document is not the earliest application containing the same subject- matter as that in the application under examination. In other words, the rejection of the priority application may also lead to rejection of the subsequent application.

2.12 Procedure for appealing an objection based on formality grounds (i.e. administrative and/or judicial procedure) (Question 33)

In all AMS it is possible to request administrative relief against a decision or order of the patent office/registrar. Also, in all AMS any person aggrieved by any decision or order of the patent office/registrar may appeal to the court (in Brunei Darussalam appeal is limited to certain decisions made by the Registrar). If a decision to refuse a patent application is reversed on appeal by the court, the examiner is bound by the decision of the court.

Chapter 3 - Publication of patents

"Patent publication" is the term used to describe a patent or patent application that has been published in an official journal or gazette, either as a physical document or in an electronic format. A published patent application serves several purposes. Firstly, it serves as prior art against later-filed patent applications and contributes to the "state of the art" in any technical field. Secondly, it is accessible to the public who can monitor its progress and file observations, oppositions or revocation actions, where applicable.

A key difference between a published patent application and a granted patent is the potential for infringement. Generally speaking, no one can infringe a pending application. However, in some AMS (ASEAN Member States) provisional protection and liability for damages for infringement are calculated from the date of publication of the patent application (please refer to **Paragraph 3.9** below).

3.1 Publication of the application (Question 34)

Unless the application is withdrawn, deemed withdrawn or refused before or within a specific time frame before the termination of the technical preparations for publication by the patent office/registrar, the patent application is published as soon as possible after the expiry of a period of 18 months from the date of filing or from the data of priority date (Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Viet Nam). Except in Singapore, applicants will be notified by the patent office/registrar about the occurrence of the publication, including publication particulars.

3.2 Possibility of delaying or expediting the publication of a patent application (Question 35)

Deferment of publication of a patent application, by means of a request filed by the applicant, is only available in Thailand by request in the application form. The applicant may file a request for early publication of a patent application (exception: Lao PDR, Malaysia, and Thailand). When a request for the early publication of a patent application is filed, the patent office/registrar concerned checks if all the requirements have been complied with. Some AMS (Brunei Darussalam, Myanmar, the Philippines and Singapore) do not require any explanation or justification from the applicant, while Indonesia requires the applicant to give "reasons". Furthermore, Indonesia and the Philippines confine the earlier publication not to be earlier than 6 months as of the filing date. The advantages of an early publication of the patent application may include faster prosecution, and earlier claim to infringement damages.

The patent office/registrar concerned may issue a communication to the applicant if any of the requirements have not been met. Failure of the applicant to respond will

not cause the withdrawal of the application, but instead may lead to the request for early publication being denied.

3.3 Information published in patent gazette/bulletin (Question 36)

The publication of a patent application must contain the title, the description, the claims and at least the most representative drawings as filed (if any), including any sequence listing filed on the date of filing, as well as any late-filed missing parts of the description or drawings, provided that the latter were not subsequently withdrawn and publication does not include amendments that introduced new matter outside the disclosure as filed. The publication also includes the applicant's name and address and the person(s) designated as the inventor(s), and patent agent (if any), the priority application number and date, if any. The specific contents published in each AMS are described in Section 3.3 of Chapter 3 of the CSR, along with the examples of publications in Annex 4.

3.4 Amendment of claims of published patent application (Question 37)

Amending the claims of a published patent application before its grant whether voluntarily or at the request of the examiner, is a normal step in the patent prosecution procedure.

All AMS allow the amendment of claims of published patent applications subject to specific conditions. In particular, the amendment must not introduce subject-matter which extends beyond the disclosure in the initial application. New or amended claims filed by the applicant must not go beyond the disclosure in the initial application and it must not itself cause the amended application to be open to further objection. For example, an amendment may not introduce clarity issues. If the amended claim does not meet these conditions, the applicant will be notified that the amendment cannot be allowed.

An amendment should be regarded as introducing subject-matter which extends beyond the disclosure in the initial application, and therefore unallowable, if the overall change in the content of the application whether by way of addition, alteration or deletion results in the person skilled in the art being presented with information which is not directly and unambiguously derivable from that presented in the application as filed, even when account is taken of matter which is implicit to such a person in what has been expressly mentioned. If the applicant can show convincingly that the subject-matter in question would, in the context of the invention, be so well-known to the person skilled in the art that its introduction could be regarded as an obvious clarification, the amendment may be permitted.

A request for an amendment limiting a claim already considered allowable will normally be allowed, as will a request for an amendment improving the clarity of the

description or claims in a manner which is clearly desirable. However, especially when the claims have been substantially limited, the following questions may require special consideration at the amendment stage (i) unity of invention and (ii) alignment between the description and the claim(s). The applicant is not required to re-publish the applications once an amendment of claims has been made except in Viet Nam. In Singapore, the amendments will be made available on the dossier.

3.5 Publication of granted patent specification (Question 37a)

All AMS except Cambodia publish granted patents. Singapore only publishes a reference to the grant of the patent. The publication of a granted patent specification is similar to that of the published patent application (Please refer to **Paragraph 3.3** above).

A final publication of a granted patent specification with the granted claims, description, and drawings enables a clear and definite assessment of the granted patent rights for various purposes including licensing, enforcement, freedom to operate etc.

3.6 Correction and re-publication of granted patents in case of mistakes by the applicant/patent proprietor or the patent office (Question 38)

Patent proprietors may apply to the patent office/registrar for the correction of clerical errors or obvious mistakes subject to compliance with the required conditions and payment of the prescribed fee. A request to correct any clerical error or obvious mistake needs to be accompanied by a statement or declaration by the relevant person setting out the facts of the case and explaining why discretion should be exercised in the proprietor's favor.

A clerical error is a mistake made in the course of some process such as word processing or photocopying, or translation, as distinct from being caused by a lack of knowledge or the use of incorrect information.

An obvious mistake must be obvious in the sense that it is evident from the documents as a whole (i) that an error has occurred; and (ii) what correction should be made. In Singapore, the application to correct the error may also be published for opposition in the Patent Journal after which the correction will be applied to the patent.

Most AMS, except the Philippines and Viet Nam, do not re-publish the patent specifications once a correction has been made. In Singapore, the correction will be made available in the register/dossier upon approval.

3.7 Duration, format, and language(s) of the publication (Question 39)

Patent applications are published in the official gazette in both paper and electronic form in Indonesia, Malaysia, Thailand and Viet Nam. In Brunei Darussalam, Lao PDR, the Philippines, Singapore they are published in electronic form only. In Cambodia, copies may be made available to the public on payment of the prescribed fee.

Countries	Electronic official gazette
Brunei Darussalam	<u>BRUIPO Journal</u>
Indonesia	<u>Indonesia Journal</u>
Malaysia	<u>Malaysia Online Journal</u>
Philippines	<u>Philippines e-Gazette Patent</u>
Singapore	<u>The Patents Journal</u>
Thailand	<u>Thai Government Gazette</u>
Viet Nam	<u>Viet Nam Industrial Property Official Gazette</u>

While the majority of AMS provide no fixed duration of the publication of the patent in the electronic official gazette, Brunei Darussalam and Indonesia specify the duration in accordance with their national provisions, and in Singapore it is a matter of practice (see CSR 3.7).

3.8 Conversion of a patent into a petty patent/utility model and vice versa before, during or after publication of the application (Question 40)

The conversion of a patent application into a petty patent/simple patent/utility innovation model is relatively common, especially in the face of prior art which may destroy the inventive step of a patent application.

In all AMS that offer petty patent/utility model protection, such conversion is possible under the conditions prescribed in Section 3.8 of Chapter 3 of the CSR, at any time before the grant or refusal decision (Cambodia, Indonesia, Myanmar, the Philippines, Viet Nam), or before the publication of the application (Thailand), any time before substantive examination (Lao PDR) or within six months of receiving the substantive examination report (Malaysia). The possibility of conversion up to the decision to grant or refuse gives the applicants the flexibility to adjust their filing strategy without unduly or negatively impacting third-party rights.

The conversion results in a petty patent or utility model application, which is published under the conditions applying to patent or utility model applications.

3.9 Provisional rights upon publication of an application

Since the gap between the publication date and the grant of a patent may be several years, the majority of AMS (Brunei Darussalam, Lao PDR, Malaysia, the Philippines, Singapore, Thailand and Viet Nam) give applicants provisional rights upon publication in accordance with the conditions prescribed in Section 3.9 of Chapter 3 of the CSR. Thus, an applicant of a patent in those countries could send a warning letter informing the alleged unauthorized user of the invention of the filing date and publication date in the official gazette and requiring them to cease making, selling, importing or using the invention.

Chapter 4 - Substantive examination of patents

4.1 Substantive examination of patent applications (Question 78)

Once a patent application is filed and the formality requirements have been checked and met, an examiner conducts a prior art search and substantive examination.

Substantive examination considers the patentability of the invention; whether the invention is new, involves an inventive step, is capable of industrial application and does not fall within excluded subject-matter. There are also other requirements, such as whether the invention as disclosed in the application can be carried out by the Person Skilled in the Art (“PSIA”), the clarity of the claims, unity of invention or whether any amendments go beyond the disclosure of the application as originally filed.

If an examination reveals that an application or an invention to which it relates does not meet the substantive examination requirements, an examiner will raise objections and invite the applicant to amend its application and/or explain certain aspects of its application or invention. If all objections raised by an examiner are overcome, a patent will be granted. Otherwise, the application will be refused.

Most AMS conduct the search and examination directly. A minority of AMS patent offices outsource search and examination work to other offices with substantive examination capabilities.

4.2 Time limit to file a request for substantive examination (Question 79)

The substantive examination must occur within a prescribed period, which may be accelerated based on applicants’ needs and subject to an examiner’s reviews.

In some AMS, the substantive examination commences automatically within a specific time frame, while in some other jurisdictions a formal request for a substantive examination must be submitted within a defined period if an applicant wishes to proceed with its application.

The time period for commencing the substantive examination varies from 18 months (Philippines) to 60 months (Thailand) and the event from which the time period commences varies, being either the publication date of a patent application in the patent gazette, the international filing date or the national application filing date. For more exact details please see the CSR 4.2.⁶

⁶ The CSR entry needs updating with the new information provided.

The most common practice amongst the Asian IP5 offices (JPO, KIPO, CNIPA) is to allow the applicant to file a request for examination up to the end of a reasonable period (e.g. between 18-36 months) either from the date of filing of the national application and/or priority application.

In order to start substantive examination, for those AMS where the substantive examination is not initiated automatically, applicants are required to file a request for examination in accordance with the timeline prescribed in Section 4.2 of Chapter 4 of the CSR. If the request for examination is not filed within this period, the application is deemed to be withdrawn.

4.3 Conduct of substantive examination by the Patent Office of filing (Question 80)

One of the important tasks of a patent office is to decide whether a patent is to be granted, or an application is to be refused, based on the procedures and patentability requirements under the applicable national law.

Making such decisions accurately, effectively and efficiently is a complex task, since AMS patent offices receive a growing number of patent applications of increasing complexity.

Several options are available for conducting substantive examination (see Ch.14 Work sharing for more details on this topic):

Utilisation of PCT Work Products

The Patent Cooperation Treaty (PCT) offers applicants an alternative route which is advantageous for filing applications abroad. One of the aims of the PCT is to increase the likelihood of granting high quality patents through international cooperation. International applications under the PCT are subject to international search by International Searching Authorities, and, upon request by an applicant, international preliminary examination by International Preliminary Examining Authorities. These Authorities issue the PCT International Search Reports, written opinions and International Preliminary Reports on Patentability. Such reports, while not binding on offices of PCT Contracting States, can be used by the offices for determining the patentability of inventions once a PCT international application enters into the national phase. The reports are all translated into English and established in a standard format.

Modified examination

Some AMS (e.g., Indonesia, Thailand, Malaysia) allow the systematic replacement of a part or all of the national search and examination process with evidence that equivalent work has already been done by another recognised patent office with respect to the same invention claimed in a counterpart application. The specification

must be amended to be substantially the same as the specification and claims of the granted patent and evidence of the granted patent must be filed. The examiner will then examine the application.

Regional sharing of search and examination work products

Under the ASEAN Patent Examination Co-operation Programme (ASPEC) regional framework, AMS patent offices, except Myanmar, allow to share and use search and examination reports between themselves to support their national examination.

Bilateral frameworks for search and examination work products

Bilateral frameworks for sharing search and examination work products also exist between AMS and some non-ASEAN patent offices such as the European Patent Office and the Japanese Patent Office.

Unilateral use of foreign work products

Most AMS patent offices unilaterally decide to use search and examination reports as well as other useful information issued by other offices in order to facilitate the examination of corresponding national applications. Some AMS examination practices require, or give the patent office the authority to require, that applicants submit information concerning corresponding foreign applications and grants.

Submission of prior art information by applicants in order to assist examiners in conducting substantive examination

There is no formal requirement in AMS for an applicant to submit to the patent office information about prior art documents that are known at the time of filing a patent application, or, throughout the procedure before the office, to continuously supply any newly-discovered prior art that the examiner would consider material to the examination.

Third party observations

However, third party observations are available in some AMS (such as Malaysia, Philippines and Singapore) whereby third parties are able to submit relevant prior art information to examiners. While examiners may take into account the submitted information, the third-party observation mechanism typically does not trigger any specific inter parties procedure, and the submitted information is simply included in the file which can be consulted by the public. The TPO should be submitted within 3 (Malaysia) or 6 (Philippines) months of publication with payment of the subscribed fee; and for Singapore anytime between the publication of the application and the issuance of the relevant examination report.

The third party observation system is relatively simple to use at some POs such as the EPO⁷ where they may be submitted at any time using a dedicated website. Once the submitted prior art information is included in the public file, even if an examiner did not use that information, it may be used by other third parties in evaluating the validity of the patent.

Outsourcing substantive examination to other patent offices with search and examination capabilities

The size of patent offices and the scale of their operations differ substantially from one AMS patent office to another. The choice of a search and examination system in each country should be based on its national policy and strategy, in accordance with its specific circumstances.

The challenges for patent offices with limited resources may be addressed in different ways. One of them is to carry out search and substantive examination, fully or partly, in cooperation with technical experts external to a patent office, for example, by appointing another patent office or by having recourse to scientists in universities and research institutions, while maintaining the autonomy of the patent office to make a final decision regarding the grant of a patent. Appropriate measures should be taken in order to maintain the confidentiality of information contained in patent dossiers, especially by way of a contractual framework.

4.4 Options for Applicants as to Patent Office conducting Substantive Examination (Question 81)

In all AMS, applicants do not have the option to choose between the substantive examination conducted by a local patent office or the substantive examination conducted by a foreign patent office. It is only in relation to searches that an applicant may, in some AMS (e.g., Thailand), select this option.

4.5 Scope of substantive examination (Question 82)

The scope of substantive examination includes the determination as to whether a patent application meets the requirements of:

1. Patentable subject matter

All AMS' patent systems contain exclusions from patentable subject matter no matter how novel or inventive a particular example within the exclusion may be. Common examples are the exclusion of abstract theories, discoveries, or methods of treatment. (for further details please refer to **Chapter 5**).

⁷ Guidelines for Search and Examination at the EPO as PCT Authority, E, II; "Observations by third parties".

2. Unity of invention
The application must relate to only one invention only or to a group of inventions forming a single general inventive concept. (for further details please refer to **Chapter 6**).
3. Clarity of invention
The clarity of the patent application, and especially of the claims therein, is of the utmost importance in determining whether the claimed invention is new involves an inventive step and is industrially applicable. Therefore, the meaning of the terms of a claim should be clear for the person skilled in the art (“PSIA”) from the wording of the claim(s) alone. (for further details please refer to **Chapter 7**).
4. Sufficient disclosure
A patent application is said to be enabled if it provides sufficient details to enable a PSIA to “practise the invention”. (for further details please refer to **Chapter 8**).
5. Novelty
Novelty is one of the most important patentability requirements. An invention must be new. In other words, the invention must not be in public use or publicly known by others. (for further details please refer to **Chapter 10**).
6. Inventive step
The claimed invention must involve inventive step (or be non-obvious) in the following manner: the invention is not obvious to a PSIA having regard to the prior art available on the effective date of filing (or priority). (for further details please refer to **Chapter 11**).
7. Industrial applicability
A patent can only be granted for an invention which is capable of industrial application, i.e. for an invention which can be made or used in some kind of industry. (for further details please refer to **Chapter 12**).

4.6 Options for expediting substantive examination (Question 85)

Accelerating

Under the bilateral Patent Prosecution Highway (PPH) agreements, if the claims of an application are found patentable by the office of first filing (OFF) or office of first examination (OFE), an applicant may request accelerated examination of corresponding claims in a corresponding application at the office of the second filing (OSF) or office of later examination (OLE). The accelerated examination procedures allow applicants to reach final examination decision at the OSF more quickly. At the same time, the OSF/OSE can utilise the search and examination result of the OFF or

OFE in considering the compliance with the patentability requirements under the national law of the OSF/OSE. The OSF/OSE's use of the work product of the OFF/OFE allows for a better starting point for examination at the OSF/OSE's office.

Regional patent prosecution highways

There are three operating ASEAN regional patent prosecution highway programmes which have different levels of success.

- ASPEC Prosecution Highway
- PCT-ASPEC programme
- ASPEC for Industry 4.0 Infrastructure and Manufacturing

These ASPEC programmes are described in more detail in **Chapter 14** "Work sharing".

ASEAN bilateral and national patent prosecution highway programmes

In addition to ASEAN regional programmes, there are bilateral and national PPH programmes allowing the expedition of the examination of patent applications. They can be paired with ASPEC programmes to further expedite the examination and grant of patents.

➤ Bilateral patent prosecution highway programmes

AMS have entered into a number of bilateral PPH programmes around the world. These are again described in more detail in **Chapter 14**.

➤ Recognition of patents

Some AMS have likewise entered into bilateral "Recognition" or "Validation" agreements with other patent offices around the world, wherein e.g. granted patents from China, Europe, Japan, Singapore etc. These are again described in more detail in Ch.14 "Work sharing".

National laws-based acceleration procedures

Malaysia, Thailand and Singapore provide domestic fast track programmes for expediting the examination and grant of patents in their countries (Thailand: pilot project).

Malaysia	
Tech fields	All
Additional fee	Yes
Cap	None
Reasons	Applicant must indicate its reason for requesting an expedited examination of the patent
Expected granting date	If the S&E report is adverse, the applicant will have 3 weeks to respond and address the objections. If no response is made within 3 weeks, or if the response fails to overcome the examiner's objections, the application for expedited examination is deemed withdrawn. If the examination report is clear, grant of the patent can be expected within 1 week

Thailand	
Tech fields	Medical Science and/or Public Health Technology
Additional fee	None
Conditions	Application must be first filed in Thailand Apply for the program via e-filing 10 claims maximum per application The patent office accepts 5 applications per month, which must be from 5 different applicants
Reasons	Applicant must indicate its reasons for requesting an expedited examination of the patent (e.g., benefits to the public, commercialisation of the invention).
Expected granting date	Up to 12 months (invention patent) and 6 months (petty patent).

Singapore	
Launching date	4 May 2020
Tech fields	All
Additional fee	None
Cap	10 patent applications per month and 2 patent application per entity (individual or corporate)
Conditions	Singapore-based applicants, no formalities objection issued, clear S&E report.
Reasons	Applicant must indicate its reason for requesting an expedited examination of the patent
Expected granting date	Less than 12 months from the filing date

4.7 Assessment of patentability of subject matter during the formalities or substantive examination (Question 86).

(Please refer to Chapter 5 for further details on patentable subject matter.)

In all AMS, the examiner assesses patentability of subject matter during the substantive examination (exception: Viet Nam where the assessment is conducted in both formalities examination and substantive examination). Since the assessment of the patentability of subject matter is usually complex, it is recommended that it be conducted during the substantive examination by examiners well versed in patentability conditions.

4.8 Availability of substantive examination reports to third parties (Question 87)

The substantive examination report should be made available to third parties at the latest after the granting date of a patent.

4.9 Appeal of the substantive examination report (Question 88)

If a patent office issues an objection against a patent application, the applicant must be allowed to file a response which could take the form of, for example, an explanation, data or evidence suitable for addressing the objections raised by the examiner. Whether the response will be admitted depends on the individual case. If the examiner upholds the rejection, the applicant has the option of appeal against the examiner's decision before an upper administrative body or a competent court.

4.10 Grounds and procedure for appeal of the substantive examination report (Question 89)

Following receipt of the substantive examination report, the applicant may file an appeal against a decision rejecting a patent based on an unresolved objection raised by the examiner through administrative and judicial procedure.

4.11 Language and information contained in the substantive examination report (Question 90)

The minimum information in a substantive examination report should include:

- Assessment of the patentability of the invention;
- Search report (if applicable);
- List and details of cited prior arts including patent and non-patent literature, if any;

- Grounds for rejecting the application and explanation;
- Deadline to respond to an objection.

The language of the substantive examination report is normally the official language of the country of filing, except for patent offices which outsource the substantive examination to another patent office in which the language of the substantive examination report is in English. Brunei, Philippines, Malaysia and Singapore generally produce all examination reports in English.

4.12 Pre-grant or post-grant opposition actions (Question 41)

Opposition actions offer third parties an opportunity to oppose the grant of a patent. An opponent must claim at least one of the grounds for opposition (e.g. lack of novelty).

One of the main objectives of the opposition system is to provide a simple, fast and inexpensive mechanism that ensures the quality and validity of granted patents by allowing an early rectification of invalid patents. In general, opposition proceedings are *inter partes* procedures conducted before the patent office, not a court.

An opposition may be requested before the grant of a patent and usually after the publication of the application (pre-grant opposition) or after the grant of a patent (post-grant opposition).

Pre-grant opposition

In five countries (Indonesia, Lao PDR, Myanmar, Thailand and Viet Nam), a person who wishes to file an opposition or objection regarding a patent application may submit an objection or opposition form to the patent office/Registrar within a time period prescribed in Section 4.12 of Chapter 4 of the CSR. For Malaysia, the Philippines and Singapore, any person may present observations in writing concerning the patentability of the invention which should be considered by the patent examiner. Pre-grant opposition often starts once the formality examination of a patent application has been completed by a positive result.

The patent office publishes, at least, the claimed invention contained in the application and provides a certain time period during which an opposition can be filed. The opponent must state the grounds for opposition and submit any evidence and pay the prescribed fees. If an opposition is filed, the applicant will be notified of this fact, together with the grounds for opposition and the evidence (for example, prior art documents that demonstrate the alleged lack of inventive step). The applicant will be given the opportunity to comply with the requirements under the applicable law, and to respond, within the prescribed time limit. Based on the submissions by the opponent and the applicant, an examiner will make a decision as

to whether or not the patent will be granted. The conclusion of the opposition will be notified to both the applicant and the opponent.

Post-grant opposition

In Indonesia and Malaysia, post-grant opposition of patents is available to third parties. In Singapore, a third party may apply to the Registrar to revoke a patent, which then becomes an *inter partes* proceedings. A third party may also request re-examination, however in this case the third party is not involved in proceedings. The deadline to request opposition starts once the patent is granted. Once the fact that a patent has been granted is published, an opposition may be filed with evidence within a certain time prescribed in the applicable law. Similar to the pre-grant opposition, the patentee will be notified of this fact and will be given the opportunity to comply with the requirements under the applicable law and to respond within the prescribed time limit. Based on the submissions by the opponent and the applicant, the examiner will make a decision as to whether the patent is to be maintained, amended or revoked.

Best practice

Since one of the objectives of the opposition system is to provide a simple mechanism to ensure the quality and validity of granted patents, procedural and substantive requirements provided by the applicable laws regarding opposition systems have certain common aspects. However, there are differences in the details. Some of these differences are the following:

- A pre-grant opposition system provides legal certainty by allowing a pre-review of the patentability of an invention by third parties before granting the patent. It helps to increase the validity of granted patents. It also helps applicants to avoid spending unnecessary granting fees if an opposition is successful. However, a major drawback is that the pre-grant opposition introduces an additional period during which all the applications are pending before the patent office prior to the grant of the patents. Consequently, although it is a matter of several months, in general, there is an inevitable delay across the board in granting patents, including for applications which were not subject to opposition, for the period during which an opposition could be filed.
- In a post-grant opposition system, the delay will only be applicable, in principle, to those affected by oppositions and this does not have an impact on those patents which are not subject to opposition. However, although the post-grant opposition system does not extend the period between the filing of the application and the grant of the patent, the enforceability of the opposed patent is uncertain during the opposition period. Another effect of the post-grant opposition could be that such patents may not be considered to be of high commercial value, since potential licensees may hesitate to enter into

licensing agreements owing to the uncertainty over the validity of the patent during the opposition period.

- When combining pre-grant and post-grant opposition, an additional review process may have a positive effect on the promotion of innovation by increasing the quality and the validity of granted patents. On the other hand, an additional process of this sort may delay the granting process, introduce a longer period of uncertainty with regard to the enforceability of opposed patents, and hold up licensing deals.

There appears to be only a small number of applications which are opposed in the AMS. Regardless of the selected opposition procedure, the publication of relevant information, such as the publication of the patent application after 18 months from the filing date or priority date and/or the publication of the granted patent, is a prerequisite for pre-grant and post-grant opposition.

The scope of published information for the purposes of opposition varies between AMS, from the publication of all information contained in patent applications, including the detailed description of inventions in some countries to only the bibliographic data in other countries.

A best practice is for the patent offices to make available to the public the full content of applications or granted patents for inspection, thus allowing third parties to access the entire patent in the pre-grant or post-grant opposition context.

Although opposition systems of AMS are different, non-exhaustive factors that may contribute to an enabling environment for an effective opposition system may include:

- Prompt and easy access to patent applications or granted patents in full that are laid open for opposition;
- Access to prior art information
- Reasonable opposition timeframe which balances the interests of applicants/patentees and third parties;
- Reasonable formalities and procedures that allow effective conduct of opposition procedures, such as:
 - conduct of the *inter partes* procedures, including written and/or oral proceedings;
 - rules for the provision of supporting evidence and arguments;
- Grounds for opposition that balance the interests of quality of the patent system and legal certainty;
- Rules on the interrelationship between opposition procedures and invalidation;
- Opportunities for the applicant or patentee to file a counterclaim to the opposition and appeal against the patent office's decision before the upper administrative and judicial authorities.

4.13 Grounds for opposition (Question 42)

Pre-grant and post-grant opposition may be filed on the grounds that:

1. the claimed invention is not patentable
2. the claimed invention lacks novelty
3. the claimed invention lacks inventive step
4. the claimed invention lacks industrial applicability

The lack of disclosure, support and incorrect amendments and applicant eligibility is considered as grounds of opposition in some countries (i.e. Indonesia, Lao PDR, Singapore and Viet Nam).

4.14 Parties entitled to file an opposition action (Question 43)

Any person/party is allowed to file an opposition action without opponents being restricted to “interested parties” or a limited number of persons in the countries that provide an opportunity for opposition.

4.15 Period for withdrawal of an opposition (Question 45)

The opponent must be able to withdraw its opposition at any time during the proceedings before issuance of the decision by the patent office/registrar.

4.16 Opportunity for the patent owner to respond to the opposition (Question 46)

The applicant/patent proprietor must be able to file a counter statement and/or to adduce evidence in response to the opposition filed.

4.17 Appeal from the decision on the opposition (Question 47)

An appeal against the final decision of the opposition body is generally possible, often before a court. It should be noted that, according to Article 62.5 of the TRIPS Agreement, final administrative decisions in procedures concerning the acquisition and maintenance of intellectual property rights as well as the administrative revocation and *inter partes* procedures are subject to review by a judicial or quasi-judicial authority. In view of this, the decision on the opposition must be able to be appealed through administrative and judicial procedure as prescribed in Section 4.17 of Chapter 4 of the CSR. (Third party observations e.g., in Malaysia and Philippines are not considered as *inter partes* procedures and as such cannot be appealed). However, a decision on post-grant invalidation/cancellation action may be appealed to the upper court.

4.18 Consideration of decisions of foreign patent offices on opposition actions for the same inventions (Question 48)

Opposition procedure or observation system should allow for the possibility of considering the decisions issued by foreign offices on oppositions for the same inventions to be part of the arguments in the opposition procedure.

4.19 Third party submissions before and during substantive examination (Question 91)

A third-party observation may help a patent office in identifying prior art(s) while examining a patent application. With the third-party observation system, it is possible to orient the search and/or the examination in a specific direction at a very early stage. The third party may file an observation before and during the substantive examination with or without an obligation to disclose its identity.

Chapter 5 - Patentable subject matter

5.1 Definitions of invention

"Invention" in this context means that which is specified in the claim(s) of a patent. In most ASEAN Member States ("AMS") invention is defined as a solution to a technical problem, such solution having a technical effect. Invention can be a product, process, or product-by-process. In some AMS, an improvement of a known product or process may also be an invention.

The term "improvement" should not necessarily imply that the technical solution is an improvement to the prior art. The problem could be simply to seek an alternative to a known device or process which provides the same or similar effects⁸.

If a patent application relates to a subject matter that does not comply with the legal definition of 'invention', or if it is clearly established that the object of the application is not an invention, the application will be rejected. In this case, it will not be necessary to examine the application for other grounds of refusal. In Singapore, the assessment of whether the object of the application is an invention is taken together with all other grounds of refusal.

5.2 Statutory subject matter

Patentable subject matter refers to subject matter which is susceptible to patent protection.

AMS' patent laws exclude certain subject-matters "as such" from patentability.

Together with criteria such as novelty, inventive step and industrial applicability, the question of whether a particular subject matter is patentable is usually one of the substantive requirements for patentability.

Practices differ among AMS regarding the examination phase and grounds for excluding subject matter from patentability. While most AMS assess the patentable subject matter during the substantive examination, a few review it during the formality examination. Some AMS exclude subject matter based on lack of industrial application, while others exclude them under a general prohibition provision or in their examination guideline or practice. Each AMS may use the approach that is consistent with its own practice. For more information on specific national practices, see Chapter 5 "Patentable subject matter" in the CSR.

Excluded subject-matters when taken "as such" are considered non-technical and/or unpatentable.

⁸ PCT ISPE GL, Chapter 13 "Inventive Step", Paragraph 13.08/9 "Problem-Solution Approach"

The limitation “as such” is a bar to a broad interpretation of the non-inventions. If a claim comprises excluded subject-matter as such and at least one technical feature then the claimed invention is regarded as statutory subject-matter. It implies that one technical feature is sufficient for eligibility: If the claimed subject-matter is directed to or uses technical means, it is an invention. This assessment is made without reference to the prior art⁹. (Exception Singapore: the presence of technical means in the claim does not guarantee that the claimed subject-matter is not excluded from patentability).

In the case of a claim containing a mixture of technical and non-technical features, the examiner should identify which features contribute to the technical character of the claimed subject-matter. Features that appear to be non-technical when taken “as such” or in isolation may nonetheless contribute to the technical character of a claimed invention if, in the context of that invention, they contribute to produce a technical effect serving a technical purpose¹⁰.

With respect to “technicality”, the invention must be of "technical character" to the extent that it must relate to a technical field, must be concerned with a technical problem and must have technical features in terms of which the matter for which protection is sought can be defined in the claim¹¹.

For example, the use of a smartphone provides technical character to a claimed invention, even if it also relates to non-statutory subject-matter.

The following paragraphs list subject matter that may be excluded from patentability which are applicable regardless of whether the patentable subject matter is assessed during the formal or substantive examination.

5.2.1 Discoveries, scientific theories and mathematical methods

All AMS, except Brunei, explicitly prohibit discoveries, scientific theories and mathematical methods from patentability.

Discoveries

The exclusion of discoveries results from the fact that this subject matter is abstract and/or has no technical effect and is therefore not an invention. If, however, that property is put to practical use, then this constitutes an invention which may be patentable.

⁹ EPO Guidelines for Examination, part G, chapter II, paragraph 2, “Examination practice”

¹⁰ EPO Guidelines for Examination, Part G VII, Inventive step, 5.4 “Claims comprising technical and non-technical features”; and Part B Chapter VIII “Excluded subject matter from patentability” Paragraph 2. “Considerations relating to specific exclusions from and exceptions to patentability”.

¹¹ EPO Guidelines for Examination, Part G, chapter I, paragraph 2, “Further requirements of an invention”

Example - the discovery that a particular known material is able to withstand mechanical shock would not be patentable, but a railway sleeper made from that material could well be patentable¹².

To find a previously unrecognized substance occurring in nature is also a mere discovery and therefore unpatentable. However, if a substance found in nature can be shown to produce a technical effect, it may be patentable.

Scientific theories

Scientific theories are a coherent group of propositions formulated to explain a group of facts or phenomena in the natural world and repeatedly confirmed through experiment or observation.

Example - the physical theory of semi-conductivity would be excluded.

A fundamental difference between a scientific theory and a technical process is that the former is an abstract concept which is in effect a more generalised form of discoveries. No direct technical result is produced by the theory as such¹³.

When viewing the claims as a whole, if the theories are applied or implemented to produce a technical effect, the subject matter is not purely abstract or intellectual and the claims should not be considered unpatentable¹⁴.

Mathematical theories

Mathematical theories are a set of statements or principles devised to explain a group of facts or phenomena, especially one that has been repeatedly tested or is widely accepted and can be used to make predictions about natural phenomena.

Example - a shortcut method of division would be excluded but a calculating machine designed to operate accordingly would require search and preliminary examination¹⁵.

Mathematical theories are excluded from patentability on the basis that they are purely abstract or intellectual methods.

¹² EPO Guidelines for Examination, Part G, Chapter II "Inventions" Paragraph 3.1 "Discoveries"

¹³ PCT ISPE GL, Chapter 13 "Inventive Step", Paragraph 9.05 "Scientific and Mathematical Theories"

¹⁴ PCT ISPE GL, Chapter 13 "Inventive Step", Paragraph 9.05 "Scientific and Mathematical Theories"

¹⁵ PCT ISPE GL, Chapter 13 "Inventive Step", Paragraph 9.05 "Scientific and Mathematical Theories"

5.2.2 Schemes, rules, or methods for doing business, performing purely mental acts, or playing games

The exclusion of 'pure' mental acts from patentability prevents the monopolization of items of an abstract or intellectual character. Granting patent rights over mental steps would be impossible to assess in terms of novelty and practically unenforceable.

Ways of playing games "as such" are also excluded from patentability. This exclusion is justified by the fact that intellectual activities do not produce a technical effect as such.

Method of doing business

Apart from Brunei, AMS explicitly exclude method of doing business from patentability.

Methods of doing business refer to subject-matter or activities which are of financial, commercial, administrative or organizational nature.

Example - operational research, planning, forecasting and optimizations in business environments, including logistics and scheduling of tasks¹⁶.

The key question as to whether an invention falls within this exclusion is whether the claimed invention, when viewed as a whole, is of abstract character, or thereby does not provide a technical effect.

If the claimed subject-matter specifies technical means, such as a programmable apparatus, for executing at least some steps of a method of doing business, the claim is not limited to excluded subject-matter "as such" and thus not excluded from patentability. In Singapore, the presence of technical means in the claim does not guarantee that the claimed subject-matter is necessarily excluded from patentability.

Example - a theory or method of doing business or related to a business function claimed in isolation without any practical application could be excluded from search and examination while a computer-implemented method or apparatus for performing a business-related function with a practical application could be a patentable subject matter.

Playing games

A game as an abstract entity defined by its rules should also be excluded from patentability.

¹⁶ EPO Guidelines for Examination, Part G, Chapter II "Inventions", Paragraph 3.5.3 "Schemes, rules and methods for doing business"

Example - scheme for learning a language, a method for solving crossword puzzles, a game (as an abstract entity defined by its rules) or a scheme for organizing a commercial operation would be excluded from both search and examination.

However, if the claimed subject matter specifies an apparatus or technical process for carrying out at least part of the scheme, that scheme and the apparatus or process could be a patentable subject matter¹⁷.

5.2.3 Aesthetic creations

The AMS exclude “aesthetic creations” from patentability as a non-patentable subject matter or due to its lack of industrial applicability. Regardless of the ground of rejection, the reason behind the exclusion from patentability is that an aesthetic creation is an abstract creation which lacks any technical effect.

However, when an aesthetic creation produces a technical effect, it will no longer be excluded from patentability. Furthermore, a technical process, even if it is used to produce an aesthetic creation (e.g. a cut diamond), is nevertheless a technical process which is not excluded from patentability.

Subject-matter relating to aesthetic creations having both technical aspects, e.g. a "substrate" such as a canvas or a cloth, and aesthetic aspects, the appreciation of which is essentially subjective, e.g. the form of the image on the canvas or the pattern on the cloth, may still be patentable. If technical aspects are present in such an aesthetic creation, it is not an aesthetic creation "as such" and it is not excluded from patentability

Example - the pattern of a tyre tread may actually be a further technical feature of the tyre if, for example, it provides improved channeling of water. On the contrary, this would not be the case when a particular colour of the sidewall of the tyre serves only an aesthetic purpose¹⁸.

5.2.4 Presentation of information

The exclusion of presentation of information is said to be concerned with the content of information. AMS’ patent laws do not protect the provision of information through patents.

The exclusion applies where the claim is directed to the presentation of the information “as such”.

¹⁷ PCT ISPE GL, Chapter 9, “Exclusions from, and Limitations of, International Search and International Preliminary Examination”, Paragraph 9.07, 9.07(1) & 9.07 (2) “Excluded Subject Matter Regarding Schemes, Rules or Methods of Doing Business, Performing Purely Mental Acts or Playing Games”.

¹⁸ EPO Guidelines for Examination, Part G, Chapter II “Inventions”, Paragraph 3.4 “Aesthetic Creation”.

Example – Presentation of information (per se) by acoustical signals, spoken words, visual displays.¹⁹

If, however, the presentation of information has a technical character or both a structural and functional relationship to the information carrier, process or apparatus, these should be examined as the subject matter relates to the information carrier or to the process or apparatus for presenting the information.

Example – a gramophone record characterized by a particular groove form to allow stereo recordings; or a diapositive with a sound track arranged at the side of it.

Mere arrangements or compilations of data are generally excluded subject matter unless the arrangement or manner of presentation has technical character.

Example - a mere program listing itself is not capable of execution and represents merely the expression of the underlying idea rather than the application of that idea, and would thereby fall within this exclusion. A disembodied data structure that has no interaction with an underlying program would not require search and examination, while a data structure embodied in a tangible medium that has a technical character or has a practical application should be a patentable subject matter.²⁰

5.2.5 Inventions contrary to public order and morality, peace, security

Inventions contrary to public order and morality, peace and security are excluded from patentability. The purpose of this is to deny protection to inventions likely to induce riot or public disorder, or to lead to criminal or other generally offensive behaviour.

Example - a suicide machine is likely to be excluded from patentability on the ground that it is contrary to public order.

This provision is likely to be invoked only in rare and extreme cases. A fair test to apply is to consider whether it is likely the public would regard the invention as so abhorrent that the grant of patent rights would be inconceivable.

¹⁹ PCT ISPE GL, Chapter 9 “Exclusions from, and Limitations of, International Search and International Preliminary Examination Excluded Subject Matter”, Paragraph 9.11 “Mere Presentations of Information”

²⁰ PCT ISPE GL, Chapter 9, “Exclusions from, and Limitations of, International Search and International Preliminary Examination”, Paragraph 9.11 & 9.12 “Mere Presentations of Information”.

5.2.6 Computer program

Computer programs as the sequences of instructions executable by a computer are abstract creations and devoid of any technical character.

Computer programs are excluded from patentability in AMS "as such", that is, this exclusion concerns only the sequence of executable instructions. A claim in a patent relates to a computer program "as such" if the actual contribution made by the alleged invention lies solely in it being a computer program. The normal physical effects of the execution of a program, namely the circulation of electrical currents in the computer, are not in themselves sufficient to confer technical effect to a computer program²¹.

Inventions having a technical effect which are implemented by a computer program are not excluded from patentability. A "technical effect" goes beyond the "normal" physical interactions between the program (software) and the computer (hardware) on which it is run²².

Example - a computer program which specifies a method of controlling an anti-lock braking system in a car, determining emissions by an X-ray device, compressing video, restoring a distorted digital image, or encrypting electronic communications brings about a further technical effect when it is run on a computer.

Technical effect can be produced in the external or internal operation of a computer on which it is installed.

Example - A method of creation of the specific files containing information for search of data on a computer. A computer program implementing security measures for protecting boot integrity or countermeasures against power analysis attacks²³.

Since patentability of computer programs depends on a technical effect, the claims must be so drafted as to include all the technical features of the invention which are essential for the technical effect. Where patentability is admitted then, generally speaking, product, process and use claims would be allowable.

There is no fixed criterion set out by AMS to determine if an invention is a computer program 'as such' or not. (For further examples of national AMS practices, see Chapter 5 section 5.2.1.6 "Computer program" of the CSR). One approach consists in applying the following four steps:

²¹ EPO Guidelines for Examination, Part G, Chapter II "Inventions", Paragraph 3.6 "Programs for Computers"

²² EPO Guidelines for Examination, Part G, Chapter II "Inventions", Paragraph 3.6 "Programs for Computers"

²³ EPO Guidelines for Examination, Part G, Chapter II "Inventions", Paragraph 3.6 "Programs for Computers"

1. Properly construe the claim;
 - a. Examiners must first determine the invention for which the applicant is actually seeking a temporary exclusive patent right. This invention is defined by the claims. The claimed subject matter will be assessed having regard to the content of the patent specification.
2. Identify the actual contribution made by the invention:
 - a. The examiner is not bound to accept the contribution claimed by the applicant. The examiner must objectively investigate the contribution actually made.
3. The examiner must determine whether the actual contribution falls solely within the excluded subject matter or not “as such”; and
4. The examiner must determine whether the actual or alleged contribution is actually technical in nature (“Technical contribution”).

If it passes the test for having technical character, the examiner then proceeds to the examination of other substantive aspects, such as novelty and inventive step.

Computer-implemented inventions

"Computer-implemented invention" is a term which is primarily intended to cover claims involving computers, computer networks or other programmable apparatus wherein at least one feature is implemented by means of a computer program²⁴.

A computer program and a corresponding computer-implemented method are distinct from each other. While the former refers to a sequence of computer-executable instructions specifying a method, the latter refers to a method being actually performed on a computer.

Claims directed to a computer-implemented method cannot be objected on the ground that they are not patentable subject matter. The reason is that any method involving the use of technical means (e.g. a computer) and any technical means itself (e.g. a computer or a computer-readable storage medium) have technical character and thus represent inventions.

5.2.7 Method for the treatment of the human or animal body by surgery or therapy or of diagnosis

AMS' patent laws exclude the method for treatment of the human or animal body for diagnosis, surgery and therapy from patentability. The purpose of this exclusion is primarily intended to ensure that medical or veterinary practitioners are not hindered from properly exercising their professional skills by patent rights.

²⁴ EPO Guidelines for Examination, Part G, Chapter II “Inventions”, Paragraph 3.6 “Programs for Computers”

Method of therapy

As long as the treatment cures, prevents or alleviates a disease, the treatment would constitute a method of therapy whether the treatment is performed by the patient or practitioner (such as the administration of a medicament to a patient), or by an automated system.

A method of chemical contraception is not considered to be therapeutic, since pregnancy is not a disease. Likewise, treatments of animals which improve for example the quality of the meat are not excluded, because they are not treating diseases of the animal.

Example - a patent application containing claims directed to the purely cosmetic treatment of a human by administration of a chemical product is considered as being patentable. A cosmetic treatment involving surgery or therapy would, however, not be patentable²⁵.

However, therapeutic instruments or apparatus for use in such method are not excluded from patentability. Likewise, the exclusion from patentability shall not apply to products, in particular substances or compositions, for use in any therapeutic methods.

Example - a method of manufacturing insoles in order to correct the posture or a method of manufacturing an artificial limb is patentable. However, a method of manufacturing an endoprosthesis outside the body, but requiring a surgical step to be carried out for taking measurements, would be excluded from patentability²⁶.

A method claim would fall under this prohibition even if it contains only one step that defines a therapeutic activity.

Example - a step of administering a substance for prophylactic reasons in a method claim would likely render the method claim unpatentable.

Method of diagnosis

A method of diagnosis must include the deductive step which leads to a diagnosis and a recommended treatment. Methods of diagnosis are only excluded if they are performed on the body. An extra-corporeal method which involves, for example, taking a sample of blood and carrying out tests on the blood sample may therefore be patentable. A pregnancy test or fitness test may therefore be patentable.

²⁵ EPO Guidelines for Examination, Part G, Chapter II "Inventions", Paragraph 4.2 "Surgery, therapy and diagnostic methods".

²⁶ EPO Guidelines for Examination, Part G, Chapter II "Inventions", Paragraph 4.2 "Surgery, therapy and diagnostic methods".

A treatment or diagnostic method, to be excluded, must be limited to being carried out on the living human or animal body. Therefore, a treatment of or diagnostic method practiced on a dead human or animal body would not be excluded from patentability²⁷.

Treatment of body tissues or fluids after they have been removed from the human or animal body, or diagnostic methods applied thereon would also not be excluded from patentability insofar as these tissues or fluids are not returned to the same body²⁸.

Example - The diagnostic testing of blood stored in a blood bank is not excluded from patentability, whereas a treatment and diagnosis of blood by dialysis with the blood being returned to the same body could be excluded.

Diagnostic methods do not cover all methods related to diagnosis. To determine whether a claim is directed to a diagnostic method is excluded from patentability, it must first be established whether all of the necessary phases are included in the claim. The claim must include method steps relating to all of the following phases²⁹:

- (i) the examination phase, involving the collection of data,
- (ii) the comparison of these data with standard values,
- (iii) the finding of any significant deviation, i.e. a symptom, during the comparison,
- (iv) the attribution of the deviation to a particular clinical picture, i.e. the deductive medical or veterinary decision phase (diagnosis for curative purposes *stricto sensu*).

5.2.8 Plants, animals and essentially biological processes for the production of plants or animals

AMS patent laws exclude plant and animal varieties from patentability. However, transgenic plants and genetically modified animals (with the exception of Thailand), as well as methods of making these types of inventions would be patentable. Product claims for plant or animal varieties cannot be allowed even if the variety is produced by means of a microbiological process.

The question whether a process is “essentially biological” is one of degree, depending on the extent to which there is technical intervention by man in the process; if such intervention plays a significant part in determining or controlling the result it is desired to achieve, the process would not be excluded from patentability.

²⁷ PCT ISPE GL PCT ISPE GL, Chapter 9, “Exclusions from, and Limitations of, International Search and International Preliminary Examination”, Paragraph 9.10 “Methods for Treatment of the Human or Animal Body by Surgery or Therapy; Diagnostic Methods Practiced on the Human or Animal Body”.

²⁸ PCT ISPE GL PCT ISPE GL, Chapter 9, “Exclusions from, and Limitations of, International Search and International Preliminary Examination”, Paragraph 9.10 “Methods for Treatment of the Human or Animal Body by Surgery or Therapy; Diagnostic Methods Practiced on the Human or Animal Body”.

²⁹ EPO Guidelines for Examination, Part G, Chapter II “Inventions”, Paragraph 4.2 “Surgery, therapy and diagnostic methods”

Example - a method of selectively breeding horses involving merely selecting for breeding and bringing together those animals having certain characteristics would be essentially biological. However, a method of treating a plant characterized by the application of a growth-stimulating substance or radiation would not be essentially biological since, although a biological process is involved, the essence of the claimed invention is technical.

Similarly, methods of cloning or genetically manipulating non-human animals are not essentially biological processes and would be searched and examined.³⁰ The treatment of soil by technical means to suppress or promote the growth of plants is also not excluded.

5.2.9 Naturally occurring micro-organism

“Micro-organism” is defined as “any of various microscopic organisms, including algae, bacteria, fungi, protozoa and viruses”³¹.

Bacteria, fungi and viruses constitute the major group of micro-organisms that have been exploited extensively by biotechnologists. The field of application of genetic engineering is broad and covers vast areas, for example, the use of fungi in bakery, wine and antibiotic industry, bacteria and viruses for the manufacture of vaccines, modification of plants/insects genome (transgenic plants) and the like.

A microorganism exists as a part of Nature; hence it is seen by some of the AMS as a discovery and therefore not patentable. However, most AMS don’t exclude micro-organisms from patentability and some of them have adopted the practice of interpreting a manner of manufacture as a patentable subject matter only if it results in a tangible non-living substance. (For more details on AMS national practices, refer to section 5.2.2.2 “Naturally occurring micro-organism” of the CSR).

According to the PCT Guidelines, “The exclusion [*relating to “Plants, animals and essentially biological processes”*] does not apply to microbiological processes or the products thereof. The term “microbiological process” is to be interpreted as covering not only industrial processes using microorganisms but also processes for producing microorganisms, for example, by genetic engineering”³² and the term “product of a microbiological process” covers plasmids and viruses also.

“Microbiological process” means any process involving or performed upon or resulting in microbiological material. The term “microbiological process” should be interpreted as covering not only processes performed upon microbiological material

³⁰ PCT GLs Chapter 9 “Exclusions from, and Limitations of, International Search and International Preliminary Examination - Excluded Subject Matter” section 9.06

³¹ The Concise Oxford Dictionary.

³² PCT ISPE GL PCT ISPE GL, Chapter 9, “Exclusions from, and Limitations of, International Search and International Preliminary Examination”, Paragraph 9.06.

or resulting in such, e.g. by genetic engineering, but also processes which as claimed include both microbiological and non-microbiological steps³³.

Plant cells or tissues are usually totipotent and are able to regenerate the full plant. Consequently, even if plant cells or cell cultures may be regarded as the product resulting from a microbiological process, plant material which is able to propagate the full plant is excluded from patentability if the plant from which the material originates has been exclusively produced by an essentially biological process.

5.2.10 Pharmaceutical product, drug & foodstuff

Pharmaceutical product, drug and foodstuff are not excluded from patentability in AMS except in Least Developed Countries³⁴.

³³ EPO Guidelines for Examination, Part G, Chapter II "Inventions", Paragraph 5.5 "Microbiological Process"

³⁴ The Council's decision of the WTO extends until January 2033 the period during which key provisions of the WTO's intellectual property agreement, the TRIPS Agreement do not apply to pharmaceutical products in Least Developed Countries (LDCs). This means LDCs can choose whether or not to protect pharmaceutical patents and clinical trial data before 2033. The decision also keeps open the option for further extensions beyond that date.

Chapter 6 - Unity of the invention

6.1 Definition of “Unity of Invention” (Question 66)

A patent application can claim only one invention or a group of closely related inventions. Unity of invention is a requirement in all AMS. However, all AMS except Thailand allow applicants to file divisional applications irrespective of an office action raising a unity of invention objection.

Unity of invention requires that the claims of a patent application must relate to a single invention, or, at most, to a group of inventions linked by a single general inventive concept. A group of inventions share a “single general inventive concept” if the inventions as defined by the claims, and as interpreted in light of the description and drawings, if any, have the same or corresponding special technical features. The group of inventions must all share inventive features that achieve the same technical effect or solve the same technical problem over the prior art³⁵.

Unity of invention is only relevant to pre-grant proceedings. Therefore, a lack of unity of invention is not a ground for revocation of a patent in the AMS after grant. When determining unity of invention, a finding of lack of clarity of the claims is per se not sufficient grounds for a finding of lack of unity³⁶.

If a patent application is objected to on the grounds of lack of unity, the application may still proceed to grant, subject to specific actions and remedies such as filing a divisional application, amending the application etc.

6.2 Evaluation of unity of the invention (Question 67)

The examiner assesses the requirements of unity of invention by determining whether two or more inventions detailed in the claims of a patent application have the same or corresponding special technical features³⁷.

An examiner determines the "special technical features" of an invention based on the content of the claims, in light of the description and drawings, if any, and on common general knowledge as of the filing date.

The terms “same” and "corresponding" mean that the special technical features of the group of inventions achieve the same technical effect or solve the same technical problem. Correspondence may be found for example in alternative solutions or interrelated features, e.g. the interaction between a plug and a socket causing a

³⁵ PCT ISPE GL, Chapter 10 “Unity of Invention”, Paragraph 10.01 “Determination of Unity of Invention”.

³⁶ EPO Guidelines for Search and Examination, Part F, Chapter V “Unity of Invention”, Paragraph 2.1 “Insufficient grounds for lack of unity”.

³⁷ PCT ISPE GL, Chapter 10 “Unity of Invention”, Paragraph 10.01 “Determination of Unity of Invention”.

releasable electrical connection, or in a causal relationship such as a step in a manufacturing process that causes a certain structural feature in a product³⁸.

Example - An application may include two sets of claims, one comprising a metal spring and another comprising a block of rubber. The metal spring and block of rubber may be considered to be corresponding technical features since they both achieve the same technical effect of resilience.³⁹

If a special technical feature of one invention is the same as, or corresponds to, a special technical feature of another invention, these inventions fulfil the requirements of unity of invention.

If not all the inventions stated in the claims belong to a group of inventions which fulfil the requirements of unity of invention, only the inventions belonging to the group of inventions which fulfils the requirements of unity of invention are designated by the examiner as the subject of the examination, or otherwise selected by the applicant.⁴⁰

Example - A set of claims having a first independent claim directed to a novel bicycle braking system and another independent claim directed to a new type of bicycle bell would not be considered to be linked by a shared inventive concept. Instead, these could represent two separate inventions.

Lack of unity does not arise if one claim contains a number of individual features which do not present a technical interrelationship (i.e. a combination) but merely a juxtaposition. By definition, no lack of unity can be present between an independent claim and its dependent claims, even if the features of the dependent claims are juxtaposed with the features of the independent claim⁴¹

Although lack of unity of invention should certainly be raised in clear cases, it should not be raised on the basis of a narrow, literal or academic approach⁴². There should be a broad, practical consideration of the degree of interdependence of the presented alternatives in relation to the state of the art as revealed by the search report or by any additional document considered to be relevant. If the common subject-matter of the independent claims is well known and the remaining subject-matter of each claim differs from that of the others without there being any unifying novel inventive concept common to all, then there is clearly lack of unity of invention. If, on the other hand, there is a single general inventive concept that appears novel and involves inventive step, the objection of lack of unity does not arise. In order to determine the

³⁸ EPO Guidelines for Search and Examination, Part F, Chapter V "Unity of Invention", Paragraph 2 "Requirement of unity of invention".

³⁹ EPO Guidelines for Search and Examination, Part F, Chapter V "Unity of Invention", Paragraph 2 "Requirement of unity of invention".

⁴⁰ Compare with EPO Guidelines for Search and Examination, Part F, Chapter V "Unity of Invention", Paragraph 3.4 "Determination of the invention first mentioned in the claims"

⁴¹ EPO Guidelines for Search and Examination, Part F, Chapter V "Unity of Invention", Paragraph 2.1 "Insufficient grounds for lack of unity"

⁴² EPO Guidelines for Search and Examination, Part F, Chapter V "Unity of Invention", Paragraph 2.2 "Division's approach"

action to be taken by the examiner if the situation lies between these two extremes, rigid rules are not set and each case is considered on its merits, the benefit of doubt being afforded to the applicant.⁴³

Minimum reasoning methodology

In order to assess whether an application claims non-unitary subject-matter, the patent office may apply the “minimum reasoning” methodology as follows:

- Identify the common or corresponding subject-matter, if any, between the (groups of) inventions,
- why this subject-matter cannot provide a single general inventive concept because of the lack of the same or corresponding special technical features, and
- why there is no technical relationship among the (groups of) inventions, if not apparent⁴⁴.

Examples of use of minimum reasoning are provided in paragraphs 10.59E to 10.59J of the PCT ISPE GL.

In particular, the analysis of whether there is a technical relationship among the (groups of) inventions may encompass an indication of the non-common technical features and why claims may be grouped together, a statement of why these features are different, the identification of the technical properties for each group (demonstrated by their features) and an explanation as to why their technical properties are different, if this is not immediately apparent.⁴⁵

Depending on the technical field, e.g. chemistry, the identification of the technical properties demonstrated by features can show that members of a grouping of alternatives of compounds are not of a similar nature, that the intermediate and final products do not have the same essential structural element and are not technically closely interrelated, that a process is not specially adapted to the production of a product, that a product itself does not provide a single general inventive concept linking different uses, or that a use in itself does not provide a single general inventive concept linking the claims.⁴⁶

However, the patent office should not raise an objection of lack of unity of invention merely because the inventions claimed are classified in separate classification groups or merely for the purpose of restricting the search to certain classification groups⁴⁷.

⁴³ PCT ISPE GL, Chapter 10 “Unity of Invention”, Paragraph 10.04 “Determination of Unity of Invention”

⁴⁴ PCT ISPE GL, Chapter 10 “Unity of Invention”, Paragraph 10.04-10-05 “Determination of Unity of Invention”

⁴⁵ PCT ISPE GL, Chapter 10 “Unity of Invention”, Paragraph 10.04-10-05 “Determination of Unity of Invention”

⁴⁶ PCT ISPE GL, Chapter 10 “Unity of Invention”, Paragraph 10.04-10-05 “Determination of Unity of Invention”

⁴⁷ PCT ISPE GL, Chapter 10 “Unity of Invention”, Paragraph 10.04-10-05 “Determination of Unity of Invention”

A priori vs. a posteriori assessment

Lack of unity of invention may be assessed and directly evident “a priori,” that is, before considering the claims in relation to any prior art or may only become apparent “a posteriori,” that is, after taking the prior art into consideration (i.e. substantive examination in terms of novelty and inventive step). In the majority of AMS, lack of unity of invention is assessed using both *a priori* and *a posteriori* approaches. Only in Lao PDR is the assessment conducted *a priori*.

Usually, the examiner will develop a first opinion regarding the unity of invention before they carry out the search. This first assessment is necessarily made in a *prima facie* manner, or *a priori*, on the basis of general knowledge and the statements of prior art contained in the application. During and after the search, the assessment is reconsidered in the light of the documents found. The beginning of substantive examination is a further procedural step where the previous findings on unity are reconsidered. Even later in the proceedings, the position adopted previously may be superseded in view of new facts and evidence.⁴⁸

Whether or not any particular technical feature makes a “contribution” over the prior art, and therefore constitutes a “special technical feature,” is considered with respect to novelty and inventive step.⁴⁹

At the search stage, the search examiner dealing with the question of unity applies the same criteria as in the substantive examination. In particular, it will not raise an objection of lack of unity merely because the inventions claimed are classified in separate classification groups, or merely for the purpose of restricting the search to certain sections of the documentation.⁵⁰

A patent will also not be limited to one independent claim in order to meet the requirement of unity, as long as (an)other independent claim(s) refer(s) to the same inventive concept.

The assessment of unity of invention must ensure efficient use of examination resources; for this reason, it is suitable to assess the unity of invention during the substantive examination of the claims in view of the prior art available.

Example - independent claims to A + Z, A + Y, Z + Y can be said to lack unity *a priori* in the absence of subject-matter common to or corresponding to all three claims. As far as independent claims to A + Z and A + Y are concerned, unity of invention is present *a priori*, as A is common to both claims. However, if it can be established that A is known (prior art) after a search, there is lack

⁴⁸ PCT ISPE GL, Chapter 10 “Unity of Invention”, Paragraph 10.08 “Determination of Unity of Invention”

⁴⁹ PCT ISPE GL, Chapter 10 “Unity of Invention”, Paragraph 10.02 “Determination of Unity of Invention”

⁵⁰ EPO Guidelines for Search and Examination, Part B, Chapter VII “Unity of Invention”, Paragraph 1.4 “Assessment and possible review of the unity requirement”

of unity *a posteriori*, since A is not a technical feature that defines a contribution over the prior art.⁵¹

6.3 Assessment of unity of invention with regard to prior art (Question 68)

An examiner determines "special technical features" of an invention based on the claims as interpreted in light of the content of the description, drawings, if any, and common general knowledge as of the filing date.

Lack of unity of invention may be directly evident before considering the claims in relation to any prior art, or after taking the prior art into consideration, e.g. if a document discovered during the search shows that the invention claimed in a generic or linking claim lacks novelty or is clearly obvious, leaving two or more claims joined thereby without a common inventive concept. In cases where it becomes clear that what was deemed to be a "special technical feature" does not make any contribution over the prior art relevant to the invention, it is denied *a posteriori* that said technical feature is a "special technical feature".⁵²

In a case where two or more groups of inventions have "the same (corresponding) special technical feature" these groups of inventions make the same contribution over the prior art, and therefore unity of invention is considered present.

Example

Claim 1 - Polymeric compound A (transparent substance having improved oxygen barrier characteristics).

Claim 2 - A food packaging container composed of polymeric compound A.

Polymeric compound A is a special technical feature which makes a contribution over the prior art. The inventions in claims 1 and 2 both have this technical feature, and thus have the same special technical feature.

If an independent claim does not avoid the prior art, then it needs to be carefully considered whether there is still an inventive link between all the claims dependent on that claim.

6.4 Appeal from the final decision of the examiner on unity of invention (Question 69)

In the case where the examiner has determined that the patent application does not fulfil the requirements of unity, they will inform the applicant thereof.

⁵¹ PCT ISPE GL, Chapter 10 "Unity of Invention", Paragraph 10.02 "Determination of Unity of Invention"

⁵² PCT ISPE GL, Chapter 10 "Unity of Invention", Paragraph 10.01 "Determination of Unity of Invention".

In the communication to the applicant, the examiner must indicate the inventions that are not deemed subject-matter of the examination and describe reasons for the inventions being ruled out.

If a lack of unity is established, the claimed subject-matter is divided into separate inventions and/or groups of inventions which are grouped together in view of their technical relationships.

The applicant should be given five options:

- Appeal against the examiner's decision or file a counter statement at the patent office
- Amend the claims to address the lack of unity of an invention
- Delete the claims that are said to be directed to one or more other invention(s)
- File a divisional application(s)
- Abandon/withdraw the application.

It is possible to file a written submission appealing against the final decision of the patent office/registrar on unity of invention. In Cambodia and Viet Nam, if the unity rejection is raised in an office action, it is not possible to appeal, but the applicant may present counter arguments in writing in response to the office action. It is also the case that in all AMS any person aggrieved by a decision or order of the patent office/registrar may appeal to the court (exception: Thailand, where the decision of the Director-General is deemed final).

Chapter 7 - Clarity of the invention

All AMS require the abstract, claims, description, and drawings, if any, of a patent application to be clear and concise. The above requirement follows from the PCT Guidelines according to which the description, the claims, or the drawings are so unclear that no meaningful opinion can be formed on the questions of novelty, inventive step, or industrial applicability of the claimed invention, then the examination may be restricted to those claims, or parts of claims, that are sufficiently clear to enable an opinion or report to be prepared.

Where an opinion cannot be established on a claim, the examiner may issue an objection for lack of clarity. The issues of clarity should, as appropriate, be raised separately from considerations of novelty, inventive step and industrial applicability⁵³.

The clarity of the claims is of the utmost importance in formulating an opinion on the questions of whether the claimed invention appears to be novel, to involve an inventive step and to be industrially applicable, in view of their function in defining the matter for which protection is sought⁵⁴.

All AMS require the claims of a patent application to be “clear and concise”.

A patent application must contain “one or more claims”⁵⁵. The PCT Guidelines require that the claims must:

- (i) “define the matter for which protection is sought;”
- (ii) “be clear and concise;” and
- (iii) “be fully supported by the description.”

The requirement that the claims should be clear applies to individual claims and also to the claims as a whole⁵⁶.

Form and content of claims

The claims must be drafted in terms of the “technical features of the invention”⁵⁷. The two-part form should be used “whenever appropriate”⁵⁸. See also **Section 7.5** here within.

⁵³ PCT ISPE GL, Part V Written Opinion/International Preliminary Examination, Chapter 17 “Content of Written Opinions and the International Preliminary Examination Report” paragraphs 17.34 & 17.35 “Clarity or Support”

⁵⁴ PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.31 “Clarity”

⁵⁵ PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.01 / 5.02 “Clarity”

⁵⁶ PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.31 “Clarity”

⁵⁷ PCT ISPE GL, Chapter 5 “Claims”, § 5.04-5.05 Form and content of claims

⁵⁸ See above

The claims must not, in respect of the technical features of the invention, rely on references to the description or drawings “except where absolutely necessary.”⁵⁹ See also **Section 7.3** here within.

The claims, as well as the description, “may contain chemical or mathematical formulae” but not drawings. “Any claim may contain tables” but “only if the subject matter of the claim makes the use of tables desirable.” In view of the use of the word “desirable,” the examiner should not object to the use of tables in claims where this form is convenient⁶⁰.

Kinds of claim, and categories. PCT ISPE GL §5.04-5.11 apply mutatis mutandis.

There are two basic kinds of claim, viz., claims to a physical entity (product, apparatus) and claims to an activity (process, use). PCT ISPE GL §5.12-5.14 apply mutatis mutandis. See also **Section 7.7** here within.

Independent and Dependent Claims

All applications will contain one or more independent main claims directed to the essential features of the invention. Any such claim may be followed by one or more claims concerning specific forms of that invention. It is evident that any claim relating to a specific form must effectively include also the essential features of the invention, and hence must include all the features of at least one independent claim.⁶¹ PCT ISPE GL §5.15-5.19 apply mutatis mutandis. See also **sections 7.4, 7.5, 7.6** here within.

Interpretation of claims

Claims should be interpreted the same way for both search and examination purposes. Each claim should be read giving the words the ordinary meaning and scope which would be attributed to them by a person skilled in the relevant art, unless in particular cases the description gives the words a special meaning, by explicit definition or otherwise.⁶²

A claim to a substance or composition for a particular use should generally be construed as meaning a substance or composition which is in fact suitable for the stated use. PCT ISPE GL §5.20-5.23 apply mutatis mutandis.

Open and closed claims

In evaluating novelty or inventive step, the examiner should consider which type of the transition phrase, such as “consisting of,” “comprising,” “characterized by,” or “consisting essentially of” is used in the claims. The subject matter to be searched

⁵⁹ PCT ISPE GL, Chapter 5 “Claims”, § 5.10

⁶⁰ PCT ISPE GL, Chapter 5 “Claims”, § 5.09 as above

⁶¹ PCT ISPE GL, Chapter 5 “Claims”, § 5.15 “Independent and dependent claims”

⁶² PCT ISPE GL, Chapter 5 “Claims”, § 5.20 Interpretation of claims

depends on the type of transition phrase used. PCT ISPE GL §5.20-5.23 apply mutatis mutandis.

“Means plus function” claims: PCT ISPE GL §5.25 apply mutatis mutandis.

Product-by-process claims: See also **Section 7.8** here within.

Product and Apparatus Limitations in Process Claims: See also **Section 7.12** here within.

Inconsistency Between Claims and Description: PCT ISPE GL §5.29-5.30 apply mutatis mutandis.

7.1 Conditions for clarity of invention (Questions 49 and 50)

The meaning of the terms of a claim must be clear for a Person Skilled in the Art (“PSIA”) from the wording of the claim alone.

Clarity of claim language must be analysed in light of the content of the particular application disclosure, the teachings of the prior art, and the claim interpretation that would be given by the PSIA at the time the invention was made. If a PSIA can determine the boundaries of the claimed invention with a reasonable degree of certainty, thus the claim should be considered to comply with the requirement for clarity⁶³.

Breadth of a claim is not to be equated with lack of clarity. If the scope of the subject-matter embraced by the claims is clear, and if the applicant has not otherwise indicated anywhere in the specification that it intends the invention to be of a scope different from that defined in the claims, then the claims comply with the requirement for clarity⁶⁴.

An independent claim should clearly specify all of the essential features needed to define the invention, except insofar as such features are implied by the generic terms used;

Example - A claim to a “bicycle” does not need to mention the presence of wheels⁶⁵.

The requirement that the claims should be clear applies both to individual claims and to the set of claims as a whole⁶⁶, irrespective of product, process or product-by-process claims.

⁶³ PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.32 “Clarity”

⁶⁴ PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.32 “Clarity”

⁶⁵ PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.33 “Clarity”

⁶⁶ PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.31 “Clarity”

If a claim relates to a process for producing the product of the invention, then the process as claimed should be one which, when carried out in a manner which would seem reasonable to a PSIA, necessarily results in that particular product; otherwise, there is an internal inconsistency and therefore lack of clarity in the claim.

In the case of a product claim, if the product is of a well-known kind and the invention lies in modifying it in a certain respect, it is sufficient if the claim clearly identifies the product and specifies what is modified and in what way. Similar considerations apply to claims for an apparatus. PCT ISPE GL §5.31-5.33 apply mutatis mutandis.

7.2 Terms not allowed in the claims and descriptions for reasons of lack of clarity (Question 51)

In the AMS, the following terms, when used in the claims and descriptions, may be regarded as ambiguous, inadequate, unclear, or too broad and restricted, and thus to lead to lack of clarity, as indicated in Section 7.2 of Chapter 7 of CSR.

- Indefinite/relative words, e.g., “thin”, “wide”, “strong”
- Term of approximation e.g., “about”, “approximately”, “somewhat”
- Ambiguous adverbs and other terms: preferably”, “more preferably”, “in particular”, “substantially”, “mostly”, “similarly”, “for example”, “such as”
- References e.g., “as described in part... of the description”, or “as illustrated in figure... of the drawings”
- Trademarks, trade names, proper names and similar expressions
- Multiple outcomes e.g., “and/or”.

More generally, a claim that includes vague or equivocal forms of wording which leave the reader in doubt as to the scope of a feature should be objected to for reasons of lack of clarity⁶⁷.

A claim should not use a relative or similar term such as “thin”, “wide” or “strong” as indicated above unless the term has a well-recognised meaning in the particular art, for example “high-frequency” in relation to an amplifier, and unless this is the meaning intended. If a term of degree appears in a claim, the examiner should determine whether the PSIA would be apprised of the meaning of that term either by a disclosure of a standard for measuring that degree in the description or in view of the prior art and state of the art⁶⁸.

Expressions like “preferably,” “for example,” “such as” or “more particularly” should be looked at carefully to ensure that they do not introduce ambiguity. The examiner

⁶⁷ PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.34 “Clarity of Relative Terms”

⁶⁸ PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.34 “Clarity of Relative Terms”

should generally regard expressions of this kind⁶⁹ as having no limiting effect on the scope of a claim; that is to say, the feature following any such expression should be regarded as entirely optional.

An applicant cannot rely on an unclear or ambiguous term to distinguish the claimed invention from the prior art. It may be appropriate to invite the applicant to either define or excise the term if they are able to do so without extending the subject-matter beyond the content of the application as filed, if it is not adequately supported in the description.

Examples

Not acceptable example: Claim 1 a glass substrate which is for use in an information recording medium wherein surface roughness of a principal surface is low.

Acceptable example: Claim 1 a glass substrate which is for use in an information recording medium wherein surface roughness of a principal surface of the glass substrate is set under conditions of $R_{max} < 10$ nm, $R_a < 0.8$ nm and $R_q < 1.1$ nm.

Result to be achieved

No objection should be raised if the invention can only be defined in such terms, as long as the result is one which can be achieved, without undue experimentation, as a result of being directly and positively verified by tests or procedures which are adequately specified in the description and which involve nothing more than trial and error⁷⁰.

Where the invention relates to a product, it may be defined in a claim in various ways, viz., by a chemical formula, as a product of a process or by its parameters⁷¹. Definition of a product solely by its parameters may be appropriate in those cases where the invention cannot be adequately defined in any other way, provided that these parameters can be clearly and reliably determined either by indications in the description or by objective procedures which are recognised in the art. The same applies to a process-related feature which is defined by parameters. This can arise, for example, in the case of macromolecular chains. Cases in which parameters are employed which are not recognised in the art, or a non-accessible apparatus is used for measuring the parameters, may be objectionable on grounds of lack of clarity. The examiner should be aware of the possibility that applicants may attempt to employ unusual parameters to disguise lack of novelty. Where a claim for an apparatus or a product seeks to define the invention by reference to features of the use to which the apparatus or product is to be put, a lack of clarity can result. This is particularly the

⁶⁹ PCT ISPE GL, Chapter 5 "Claims", Paragraph 5.40

⁷⁰ PCT ISPE GL, Chapter 5 "Claims", Paragraph 5.35 "Clarity of Relative Terms"

⁷¹ PCT ISPE GL, Chapter 5 "Claims", Paragraph 5.36 "Clarity of Relative Terms"

case where the claim not only defines the product itself but also specifies its relationship to a second product which is not part of the claimed invention.

Example - a cylinder head for an engine, where the former is defined by features of where it is connected in the latter. Such a claim must either set forth a clear definition of the individual product being claimed by wording the claims appropriately (for example, by substituting “connectable” for “connected”), or be directed to a combination of the first and second products (for example, “engine with a cylinder head” or “engine comprising a cylinder head”)⁷².

It may also be permissible to define the dimensions and/or shape of a first product in an independent claim by general reference to the dimensions and/or corresponding shape of a second product that is not part of the claimed first product but is related to it through use (e.g. in the case of a mounting bracket for a vehicle number-plate, where the bracket frame and fixing elements are defined in relation to the outer shape of the number-plate)⁷³.

Particular attention is required whenever the word “about” or similar terms, such as “approximately”, are used. Such a word may be applied, for example, to a particular value (for example, “about 200°C”) or to a range (for example, “about X to about Y”). In each case, the examiner should exercise judgment as to whether the meaning is sufficiently clear in the context of the application when read as a whole. Moreover, if such words as “about” prevent the invention from being unambiguously distinguished from the prior art, an objection should be raised as to lack of novelty or inventive step⁷⁴.

Trademarks and similar expressions

Trademarks and similar expressions which characterise the commercial origin of goods, rather than the properties of the goods (which may change from time to time) relevant to the invention, are usually considered to lack clarity⁷⁵.

For this reason, the examiner should invite the applicant to remove trademarks and similar expressions in claims, unless their use is unavoidable; they may be allowed exceptionally if they are generally recognised as having a precise meaning.

Disclaimers and Limitations in claims

Generally, the subject-matter of a claim is defined by positive features. However, the extent of a claim may be limited by means of a “disclaimer,” a “negative limitation,” or an “exclusion”; in other words, an element clearly defined by technical features

⁷² PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.36 “Clarity of Relative Terms”

⁷³ PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.36 “Clarity of Relative Terms”

⁷⁴ PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.38 “Clarity of Relative Terms”

⁷⁵ PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.39 “Clarity of Other Terms”

may be expressly excluded from the protection claimed, for example in order to meet the requirement of novelty. See also **Section 7.10** here within.

A claim may also include a negative limitation or language that defines subject-matter that is not present in the claimed invention (for example, “wherein the composition is free of water”). There is nothing ambiguous or uncertain about a negative limitation per se as long as each recited limitation is clear

A negative limitation renders the claim unclear where it is an attempt to claim the invention by excluding what the applicant did not invent rather than clearly and concisely reciting what he did invent.

A claim which recites the limitation “said homopolymer being free from the proteins, soaps, resins, and sugars present in natural Hevea rubber”, in order to exclude the characteristics of the prior art product, is considered to be clear where each recited limitation is clear.

In addition, the negative limitation “incapable of forming a dye with said oxidised developing agent” is clear because the boundaries of the patent protection sought are clear. If alternative elements are positively recited in the description, they may be explicitly excluded in the claims. The mere absence of a positive recitation is not a basis for exclusion⁷⁶.

Conciseness

Claims may also be objected to as lacking conciseness when they are unduly multiplied or duplicative. In addition, the number of claims must be considered in relation to the nature of the invention the applicant seeks to protect. PCT ISPE GL §5.42 [1] and/or [2] may apply mutatis mutandis in this respect⁷⁷.

Alternatives in a claim

A claim, whether independent or dependent, may refer to alternatives, provided that the number and presentation of alternatives in a single claim does not make the claim obscure or difficult to construe and provided that the claim meets the requirements of unity⁷⁸.

7.3 Rules for drawings and figures in relation to the clarity requirement (Question 52)

The specific rules for drawings and figures are prescribed in AMS regulations and guidelines, when available.

⁷⁶ PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.41 “Clarity of Other Terms”

⁷⁷ PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.42 “Conciseness”

⁷⁸ EPO GLs for Examination as PCT F-IV 3.7 Alternatives in a claim”

If drawings are included, they should first be briefly described, in a manner such as: “Figure 1 is a plan view of the transformer housing; Figure 2 is a side elevation of the housing; Figure 3 is an end elevation viewed in the direction of the arrow ‘X’ of Figure 2; Figure 4 is a cross-section taken through AA of Figure 1”⁷⁹.

When it is necessary to refer in the description to elements of the drawings, the name of the element should be referred to as well as its number, i.e., the reference should not be in the form “3 is connected to 5 via 4” but rather “resistor 3 is connected to capacitor 5 via switch 4”⁸⁰.

The description and drawings should be consistent with one another, especially in the matter of reference numbers and other signs⁸¹.

7.4 Multiple dependencies of claims (Question 53)

Dependency of claims is allowed in the AMS.

A dependent claim which refers to more than one other claim (“multiple dependent claim”) is also allowed in the AMS.

A multiple dependent claim includes all the limitations contained in the particular claim to which it relates. All dependent claims, however referred back, should be grouped together to the extent and in the most practical way possible. The arrangement must therefore be one which enables the association of related claims to be readily determined and their meaning in association to be readily construed⁸².

A patent office may rely on either of the following alternative guidelines, as appropriate:

- A dependent claim which refers to more than one other claim should refer to them only alternatively. Multiple dependent claims cannot form a basis for other multiple dependent claims⁸³.
- A dependent claim which refers to more than one other claim may refer to them either alternatively or cumulatively. Multiple dependent claims may form a basis for other multiple dependent claims⁸⁴.

⁷⁹ PCT ISPE GL, Chapter 4 “Content of the International Application (Other Than the Claims)”, Paragraph 4.08 “Brief Description of Drawings”

⁸⁰ PCT ISPE GL, Chapter 4 “Content of the International Application (Other Than the Claims)”, Paragraph 4.08 “Brief Description of Drawings”

⁸¹ PCT ISPE GL, Chapter 4 “Content of the International Application (Other Than the Claims)”, Paragraph 4.09 “Brief Description of Drawings”

⁸² PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.16 “Independent and Dependent Claims”

⁸³ PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.16 “Independent and Dependent Claims”

⁸⁴ PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.16 “Independent and Dependent Claims”

7.5 One part-claims, Two-part-claims, and Two-part-form (Question 54)

Most AMS prefer certain claim formats, one such being the two-part form.

Two-part claiming requires that the claim be sectioned into two parts, the parts being separated by the transitional phrase “*characterised in that*”, or “*characterised by*”. The general interpretation of such claims is that the section prior to this phrase describes the state of the art or the prior art, while the post-characterising portion describes the inventive component of the invention.

The first part should contain a statement indicating the designation of the subject-matter of the invention, that is, the general technical class of apparatus, process, etc. to which the claimed invention relates, followed by a statement of those technical features which are necessary for the definition of the claimed subject-matter but which, in combination, are part of the prior art.

It is clear from this wording that it is necessary only to refer to those prior-art features which are relevant to the invention.

Example - if the invention relates to a photographic camera but the claimed inventive step relates entirely to the shutter, it would be sufficient for the first part of the claim to read: “A photographic camera including a focal plane shutter having...” (here recite the known combination of features which is utilised) and there is no need to refer also to the other known features of a camera such as the lens and viewfinder⁸⁵.

The second part or “characterising portion” should state the technical features which, in combination with the features stated under the first part, it is desired to protect, that is, the features which the invention adds to the prior art.

The nature of the invention may be such that this form of claim is unsuitable, for example, because it would give a distorted or misleading picture of the invention or the prior art.

7.6 Multiple independent claims in the same application (Question 55)

Most AMS do not limit the number of independent claims in a patent application. Several independent claims in the same category directed to interrelated subject-matter may meet the requirement of unity even if it appears that the claimed subject-matter is quite different, provided that technical features making a contribution over the prior art at hand are the same or corresponding⁸⁶.

⁸⁵ PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.05 “Form and Content of Claims”

⁸⁶ EPO as PCT IA Guidelines F-IV 3.2 “Number of independent claims”

7.7 Use claims (Question 56)

Use claims are allowed in all AMS apart from Lao PDR and Viet Nam. In Indonesia, use claims apply only for new products. For the purposes of examination, a "use" claim in a form such as "the use of substance X as an insecticide" is regarded as equivalent to a "process" claim of the form "a process of killing insects using substance X". Thus, a claim in the form indicated is not to be interpreted as directed to the substance X recognisable (e.g. by further additives) as intended for use as an insecticide.

Similarly, a claim for "the use of a transistor in an amplifying circuit" is equivalent to a process claim for the process of amplifying using a circuit containing the transistor and is not to be interpreted as being directed to "an amplifying circuit in which the transistor is used", nor to "the process of using the transistor in building such a circuit"⁸⁷.

7.8 Product-by-process claims (Question 57)

All AMS allow product-by-process claims.

Where a claim defines a product in terms of the process by which the product is made, the claim as a whole is directed to a product. Such a claim lacks novelty if a prior art product, even if made by an undisclosed process, appears to be inherently the same as, or indistinguishable from, the claimed invention. (See the appendix to this chapter for more guidance with respect to product-by-process claims.).

Where a product can only be defined by the process steps by which the product is made, or where the manufacturing process would be expected to impart distinctive characteristics to the final product, the examiner would consider the process steps in determining the subject of the search and in assessing patentability over the prior art.

Example - a claim recites "a two-layer structured panel which is made by welding together an iron sub-panel and a nickel sub-panel." In this case, the process of "welding" would be considered by the examiner in determining the subject of the search and in assessing patentability over the prior art, since the process of welding produces physical properties in the end product which are different from those produced by processes other than welding; that is, the product can only be defined by the process step. The novelty of the claim is not brought into question unless an identical two-layer structural panel made by means of welding is discovered in the prior art⁸⁸

⁸⁷ EPO Guidelines for Examination, F-IV, Paragraph 4.16 "Use Claims"

⁸⁸ PCT ISPE GL, Chapter 5 "Claims", Paragraph 5.27 "Product-by-Process Claims"

7.9 Use of ranges (e.g., dosage) in claims (Question 60)

Use of ranges in claims is explicitly allowed in Indonesia, the Philippines, Singapore, Thailand and Viet Nam under the conditions prescribed in Section 7.9, Chapter 7 of CSR.

A specific example in the item of prior art which is within a claimed range anticipates the range claimed. Therefore, where, in a recitation of ranges or otherwise, a claim covers several compositions, the claim is anticipated if one of them is described in the item of prior art.

Example - a claim to titanium (Ti) alloy with 0.6 to 0.7% nickel (Ni) and 0.2 to 0.4% Molybdenum (Mo) would be anticipated by an item of prior art that describes a Ti alloy containing 0.65% Ni and 0.3% Mo.⁸⁹

Where an item of prior art discloses a range which touches, overlaps or is within the claimed range, but does not disclose a specific example falling within the claimed range, a case-by-case determination must be made as to the novelty of the claim.

In order to anticipate the claim, the claimed subject-matter should be disclosed with sufficient specificity in the item of prior art. If the claim is directed to a narrow range, if the item of prior art discloses a broad range, and if the claimed narrow range is not merely one way of carrying out the teaching of the item of prior art (for example, there is evidence that the effect of the selection (for example, unexpected results) occurred in all probability only within the claimed narrow range), then, depending on the other facts of the case, it may be reasonable to conclude that the narrow range is not disclosed with sufficient specificity in the prior art to anticipate the claims (a selection invention). The unexpected results may also render the claims unobvious (please refer to **Chapter 11 – Inventive Step**).

7.10 Use of limitations and disclaimers in claims (Question 61)

Generally, the subject-matter of a claim is defined by means of positive features. However, the extent of a claim may be limited by means of a “disclaimer,” a “negative limitation,” or an “exclusion”; in other words, an element clearly defined by technical features may be expressly excluded from the protection claimed, for example in order to meet the requirement of novelty.

A claim may also include a negative limitation or language that defines subject-matter which is not present in the claimed invention. For example, “wherein the composition is free of water”.

⁸⁹ PCT ISPE GL, Chapter 12 “Novelty”, Paragraph 12.10 “Ranges”

There is nothing ambiguous or uncertain about a negative limitation per se. A negative limitation renders the claim unclear where it is an attempt to claim the invention by excluding what the applicant did not invent rather than clearly and concisely reciting what it did invent. A claim which recites the limitation “said homopolymer being free from the proteins, soaps, resins, and sugars present in natural Hevea rubber” in order to exclude the characteristics of the prior art product, is considered to be clear where each recited limitation is clear. In addition, the negative limitation “incapable of forming a dye with said oxidised developing agent” is clear because the boundaries of the patent protection sought are clear. If alternative elements are positively recited in the description, they may be explicitly excluded in the claims. The mere absence of a positive recitation is not a basis for exclusion⁹⁰.

7.11 Use of imprecise terms (Question 62)

A claim that includes vague or equivocal forms of wording which leave the reader in doubt as to the scope of a feature should be objected to for lack of clarity. A claim should not use a relative or similar term such as “thin”, “wide” or “strong” unless the term has a well-recognised meaning in the particular art.⁹¹ See also **Section 7.2** above.

The appropriateness of imprecise terms such as “substantially”, “about”, “more or less” and “approximately” will depend on the specific circumstances of the case.

In some cases, the use of indefinite terms is objectionable when such use introduces an ambiguity in the scope of the claim.

- The terms “comprising” is considered as an open-ended transitional phrase, and “consisting of” is considered as a closed-ended transitional phrase. Both terms are allowed.
- The term “characterised by” is allowed in two-part claims.
- The terms ‘about’, ‘approximately’, ‘somewhat’ etc. are usually not allowed in the claims, since they make them unclear.

7.12 Type of claims allowed

While product, process and product-by-process claims are allowed in all AMS, use claims are allowed in most AMS. Most AMS prefer certain claim formats, one such being the two-part form.

All applications will contain one or more independent main claims directed to the essential features of the invention. Any such claim may be followed by one or more claims concerning specific forms of that invention. It is permitted to include a reasonable number of dependent claims claiming specific forms of the invention

⁹⁰ PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.41 “Clarity of Other Terms”

⁹¹ PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.34 “Clarity of Relative Terms”

which has been claimed in the independent claim, even where the features of any dependent claim could be considered as constituting an invention in themselves.

There are two basic kinds of claim, viz., claims to a physical entity (product, apparatus) and claims to an activity (process, use). The first basic kind of claim (“product claim”) includes a substance or composition (for example, chemical compound or a mixture of compounds) as well as any physical entity (for example, object, article, apparatus, machine, or system of cooperating apparatus) which is produced by a person’s technical skill.

7.13 Claims, independent and dependent, need to be supported by the description and drawings (Question 64)

The AMS require the claims to be fully supported by the description. This means that there must be a basis in the description for the subject-matter of every claim and that the scope of the claims may not be broader than is justified by the description and drawings.

A claim is regarded as being supported by the description unless, exceptionally, there are well-founded reasons for believing that the PSIA would be unable, on the basis of the information given in the application as filed, to extend the particular teaching of the description to the whole of the field claimed by using routine methods of experimentation or analysis.

Support must, however, relate to the features of the claimed invention. Vague statements or assertions having no technical or other relevant content do not provide any basis. The examiner should raise an objection of lack of support only if there are well-founded reasons. Where an objection is raised, the reasons, where possible, should be supported specifically by a published document⁹².

The issues of clarity and descriptive support of claims should, as appropriate, be raised separately from considerations of novelty, inventive step and industrial applicability⁹³. The requirement of clarity and support for the claims is a separate requirement from disclosure; for further details concerning sufficiency of disclosure, please refer to **Chapter 8**.

⁹² PCT ISPE GL, Chapter 5 “Claims”, Paragraph 5.44 “Support in Descriptions”

⁹³ PCT ISPE GL, Part V Written Opinion/International Preliminary Examination, Chapter 17 “Content of Written Opinions and the International Preliminary Examination Report” paragraphs 17.35 “Clarity or Support”

7.14 Requirement of amendment of a claim to also amend the description in order to meet the requirement of clarity (Question 65)

The amendment of a claim should be supported by the description and be clear and concise, in order to meet the requirement of clarity⁹⁴.

⁹⁴ PCT ISPE GL, Chapter 5 "Claims", Paragraph 5.29 "Inconsistency Between Claims and Description"

Chapter 8 - Sufficient Disclosure of patents

Disclosure is one of the key requirements of the patent system.

To obtain a valid patent, a patent application must meet several conditions. Not only must the invention be patentable subject-matter, novel and inventive, but the applicant must disclose in the description how to carry out the invention. The latter is commonly known as the “disclosure requirement”. Disclosure is the counterpart for patent grant and is what the applicant contributes to the art in exchange for a temporary exclusive right.

The “sufficiency of disclosure” is normally assessed during the substantive examination of the patent application. A patent application is said to be sufficiently disclosed if it provides enough details to enable a person of ordinary skill in the art (“PSIA”) to “carry out the invention”.

All AMS require that applicants provide a specification that sufficiently discloses the invention.

However, some AMS (Cambodia, Malaysia, Myanmar and Thailand) require applicants to disclose the “best mode” of carrying out the invention and not just to enable disclosure. Under this disclosure requirement, an applicant or inventor must, at the time of filing their patent application, disclose not only the invention and how to make and use the invention, but also the best mode contemplated for carrying out the invention.

8.1 Need to substantiate the patent specification (Question 63)

Sufficiency of disclosure, either enabling disclosure or best mode disclosure, is the responsibility of the applicant to ensure that they supply, together with the remaining application documents, a description that meets the requirements of disclosure. In this respect, a detailed description of at least one way of carrying out the invention must be given.

The requirement of disclosure should be met by the description with the aid of drawings, if any, to ensure that the application contains all the technical information required to enable a PSIA to put the invention into practice; and to enable the reader to understand the contribution to the art which the inventor has made⁹⁵.

Since the application is addressed to the PSIA,⁹⁶ it is neither necessary nor desirable for details of well-known ancillary features to be given, but the description must disclose any feature essential for carrying out the invention in sufficient detail to

⁹⁵ PCT ISPE GL, Chapter 4 Content of the International Application (Other Than the Claims), Paragraph 4.12 “Sufficiency”.

⁹⁶ PCT ISPE GL, Chapter 5, 5.46: The disclosure is aimed at a person skilled in the art (see paragraph 13.11).

render it apparent to the PSIA how to put the invention into practice. The invention as claimed should be disclosed in such a way that the technical problem, or problems, with which it deals can be appreciated and the solution can be understood by the PSIA⁹⁷.

It is the responsibility of the applicants to ensure that, on filing their application, they supply a sufficient disclosure in respect of the invention as claimed with regard to all of the claims. If the claims define the invention, or a feature thereof, in terms of parameters, the application as filed must include a clear description of the methods used to determine the parameter values, unless a PSIA would know which method to use or unless all methods would yield the same result⁹⁸.

If the examiner considers the disclosure to be insufficient, such a deficiency cannot be cured after the fact by adding further examples or features which will introduce subject-matter extending beyond the content of the application as filed. Instead, in such a case, the insufficient disclosure could, for example, be remedied by restricting the claims to correspond to those embodiments which have been sufficiently described, and by deleting the description of the remaining embodiments^{99 100}.

An objection of lack of sufficient disclosure presupposes that there are serious doubts which are substantiated by verifiable facts. It is necessary for the invention to be described not only in terms of its structure but also in terms of its function, unless the functions of the various parts are immediately apparent.¹⁰¹ Factors to be considered in determining whether undue experimentation is needed to carry out the claimed invention include:

- (i) the breadth of the claims;
- (ii) the nature of the invention;
- (iii) the general knowledge of a person skilled in the art;
- (iv) the level of predictability in the art;
- (v) the amount of direction provided in the application, including references to prior art; and
- (vi) the amount of experimentation required to carry out the claimed invention on the basis of the disclosure.

More details are given in PCT ISPE 5.48-5.51¹⁰².

⁹⁷ PCT ISPE GL, Chapter 4.06, "Disclosure of Invention"

⁹⁸ PCT ISPE GL, Chapter 4 Content of the International Application (Other Than the Claims), Paragraph 4.12 "Sufficiency".

⁹⁹ PCT ISPE GL Chapter 4 Content of the International Application (Other Than the Claims), Paragraph 4.12 "Sufficiency".

¹⁰⁰ EPO Guidelines for Examination, F-III "Sufficiency of disclosure", 2., "Disclosure Art.83 vs Added Subject-matter Art.123(2)

¹⁰¹ EPO Guidelines for Search and Examination, Part F, Chapter III "Sufficiency of disclosure", Paragraph 1 "sufficiency of disclosure".

¹⁰² PCT ISPE GL, Chapter 5, 5.48-5.51 "Clear and Complete Disclosure of Claimed Invention".

Occasionally applications are filed in which there is a fundamental insufficiency in the invention in the sense that it cannot be carried out by a PSIA; there is then a failure to satisfy the requirements of disclosure which is essentially irreparable.

Two instances thereof deserve special mention¹⁰³:

(a) The first is where the successful performance of the invention is dependent on chance. That is to say, a person skilled in the art, in following the instructions for carrying out the invention, finds either that the alleged results of the invention are not reproducible or that success in obtaining these results is achieved in a totally unreliable way. An example where this may arise is a microbiological process involving mutations. Such a case should be distinguished from one where repeated success is assured even though accompanied by a proportion of failures as can arise, for example, in the manufacture of small magnetic cores or electronic components; in this latter case, provided the satisfactory parts can be readily sorted by a nondestructive testing procedure, no objection necessarily arises.

(b) The second instance is where successful performance of the invention is inherently impossible because it would be contrary to well-established physical laws. This applies, for example, to a perpetual motion machine.

Burden of proof

As a rule, the burden of proof in the framework of sufficiency of disclosure lies with the party raising the objection. If there are serious doubts as regards the possibility of performing the invention and repeating it as described, the burden of proof as regards this possibility, or at least a demonstration that success is credible, rests with the applicant or the proprietor of the patent¹⁰⁴.

Sufficient disclosure and best mode

Some AMS (Cambodia, Myanmar, Malaysia, Thailand) require that the specification contains a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains to make and use the same and sets forth the best mode of carrying out the invention contemplated by the inventor.

The best mode requirement imposes an affirmative obligation on the inventor to disclose the best version of the invention, not the second best or some other inferior version. The best mode requirement is subjective. There is no requirement to disclose the absolute best way of carrying out the invention; instead, the inventor must disclose the best way known to them at the time the patent application is filed.

¹⁰³ PCT ISPE GL, Chapter 4, 4.13 "Sufficiency".

¹⁰⁴ EPO Guidelines for Search and Examination, Part F, Chapter III "Sufficiency of disclosure" / Chapter 4, "Burden of proof as regards the possibility of performing and repeating the invention".

The enablement requirement and best mode requirement are "separate and distinct from one another". The enablement requirement pertains to the sufficiency of the disclosure to teach the PSIA to implement the invention, whereas the best mode pertains to the quality of such disclosure and the honesty of the patent applicant.

The first paragraph of Article 29 of the TRIPS Agreement¹⁰⁵ provides that:

"Members shall require that an applicant for a patent shall disclose the invention in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the art and may require the applicant to indicate the best mode for carrying out the invention known to the inventor at the filing date or, where priority is claimed, at the priority date of the application".

The above paragraph includes two disclosure requirements: the enablement disclosure and the best mode disclosure requirement. The enablement disclosure requirement is a compulsory obligation which WTO members must adopt in national patent laws. However, the requirement to indicate the best mode for carrying out the invention is optional. It is left to the discretion of the members to include this requirement as a mandatory provision in their national laws.

Sufficient disclosure and support of claims

Where the disclosure is insufficient to enable a PSIA to carry out the claimed invention, the claims may also be too broad to be supported by the description and drawings. Therefore, in this case, there may be non-compliance with both the requirement concerning sufficiency under this paragraph and the requirement of support of the claims¹⁰⁶.

Disclosure and clarity

There is a delicate balance between lack of clarity and lack of disclosure which has to be assessed on the merits of each individual case.

An ambiguity in the claims may lead to an objection for lack of disclosure or lack of clarity. An ambiguity in a claim will normally lead to an objection of lack of disclosure if the whole scope of the claim is affected, in the sense that it is impossible to carry out the invention defined therein at all. Otherwise, an objection under lack of clarity is more appropriate¹⁰⁷.

¹⁰⁵ See: https://www.wto.org/english/docs_e/legal_e/27-trips_04c_e.htm

¹⁰⁶ EPO Guidelines for Examination, D-V "Substantive examination and opposition", Paragraph 4. "Insufficient disclosure of the invention"

¹⁰⁷ EPO Guidelines for Examination, part F, Chapter III "Sufficiency of Disclosure", paragraph 11 "Sufficiency of disclosure and clarity".

Trade name

The use of trade mark, company name, trade name or similar words to refer to materials or articles is undesirable in so far as such words merely denote origin or relate to a range of different products. If such a word is used, then, where it is necessary in order to satisfy the requirements of disclosure the product must be sufficiently identified, without reliance upon the word, to enable the invention to be carried out by the PSIA at the date of filing. However, where such words have become internationally accepted as standard descriptive terms and have acquired a precise meaning (e.g. "Bowden" cable, "Belleville" washer, "Panhard" rod, "caterpillar" belt) they may be allowed without further identification of the product to which they relate¹⁰⁸.

Furthermore, there appears to be consensus amongst the AMS concerning further "General" requirements for the Description as defined in §4.22 to 4.27 of the PCT GLs. These criteria apply mutatis mutandis.

A link may be envisaged between "sufficient disclosure" and "industrial applicability". If the disclosure is considered insufficient, an objection might be raised on the basis of lack of "industrial applicability".

¹⁰⁸ EPO Guidelines for Examination, part F, chapter III, "Sufficiency of disclosure", paragraph 1 "sufficiency of disclosure", Paragraph 7 "Proper names, trade marks and trade names".

Chapter 9 - Patent search

The objective of search is to discover relevant prior art(s). Therefore, the searching authority within a patent office must attempt to discover as much of the relevant prior art as its facilities permit. The “relevant prior art” consists of everything which is capable of being of assistance in determining that the claimed invention is, or is not, new and that it does, or does not, involve an inventive step. “Prior art” consists of everything which has been made available to the public anywhere in the world by means of disclosure prior to the relevant date.

In order to establish the search report, the searching authority is also encouraged to cite prior art documents which may be of assistance in determining whether other requirements, such as sufficiency, support and industrial applicability, are fulfilled.¹⁰⁹

The examination procedure and the preparation of the search opinion depend on the search for the state of the art on which assessment of the patentability of the invention is based. Therefore, the search must be as complete and effective as possible, within the limitations necessarily imposed by issues such as unity of invention and other considerations.

This is also applicable for clarity, and sufficiency of disclosure, as the concept of the “Person Skilled in the Art” (PSIA) used to determine these factors is effectively formed using the state of the art in any technical field at the time of patent application filing (or its valid priority).

The search itself is normally performed by one examiner but is not limited to being performed by only one examiner. In appropriate cases, where the invention is of a nature requiring searching in widely dispersed specialized fields, a search report containing the work of two or more examiners may be necessary¹¹⁰.

Best practice for all stakeholders is when the examiner provides a written opinion on novelty, inventive step and industrial applicability of the claimed invention at the same time as producing the search report¹¹¹. Without this information, it is difficult for the applicant to know how to suitably amend the application and overcome any objections.

¹⁰⁹ PCT ISPE GL, Chapter 15 “The International Search”, Paragraph 15-02 “Objective of the International Search and the Supplementary International Search”.

¹¹⁰ PCT ISPE GL, Chapter 15 “The International Search”, Paragraph 15-08 “The Examiner”

¹¹¹ PCT ISPE GL, Chapter 15 “The International Search”, Paragraph 15-09 “The Examiner”

9.1 Search options and databases available to applicants (Question 70)

Once the search has started, or after the request for search/examination has been submitted, there is no right of amending the application until after the search has been established; consequently the search must be carried out on the basis of the search copy of the application as submitted to the patent office. The only exception is that obvious mistakes may be corrected¹¹².

Search options, whether online or physical, although preferably online, are critical when assessing the patentability of inventions and conducting clearance search. All AMS, except Myanmar, provide online search options. However, online search options are not publicly available in Cambodia and Lao PDR.

The public search databases offered by the in Brunei Darussalam, Malaysia, the Philippines and Singapore offer an interface in English, which is a best practice.

In Thailand and Viet Nam, the search tools are available in both English and the official language, but the results are not provided in the English language. The search tool in Indonesia offers an interface in Bahasa Indonesia only and results are not provided in the English language.

The ASEAN Patentscope system is a one-stop-shop for searching the patent documentation available from the 10 ASEAN patent offices. This documentation is also available through the WIPO Patentscope system.

9.2 Patent search for priority and non-priority-based applications (Question 71)

For non-priority-based applications, patent searches are conducted by the patent offices of Indonesia, Malaysia, the Philippines, Thailand, Singapore and Viet Nam, while the patent offices in Brunei Darussalam, Cambodia, Lao PDR rely on search conducted by another patent office. Additionally for Thailand, applicants may request the search to be conducted by an organisation such as a Thai university or another patent office.

For priority-based applicants, the applicant may submit to the receiving patent office the results of an earlier search and examination report and/or written opinion and/or granted patent carried out/issued by another national or regional patent office¹¹³. The receiving patent office may also invite the applicant to furnish the S&E report and/or written opinion and/or granted patent within a time limit which is reasonable under the circumstances, where they have not been submitted by the applicant at the time of the search/examination¹¹⁴. Where the earlier search was carried out by a patent

¹¹² PCT ISPE GL, Chapter 15 “The International Search”, Paragraph 15-10 “Basis of the Search”

¹¹³ PCT ISPE GL, Chapter 15 “The International Search”, Paragraph 15-15 “Basis of the Search”

¹¹⁴ PCT ISPE GL, Chapter 15 “The International Search”, Paragraph 15-16 “Basis of the Search”

office other than that which is acting as the search authority, this authority may take the results into account. “Taking the results into account” in this context means finding a real benefit in those results to the extent that the earlier search may be considered to replace at least a part of the search. In any case, the examiner should consider the fields of search and cited documents in order to determine their relevance and whether they offer assistance in determining appropriate databases, classifications or terms of art, with the intention of improving the quality of the search¹¹⁵.

9.3 Language(s) used by the patent office in conducting searches (Question 72)

Both English and country’s official language should at least be used by AMS patent offices in conducting searches. Additional languages (e.g., Japanese or German) should be used by the search authority whenever possible, since the search must be as complete and effective as possible.

Search systems such as the EPO’s Espacenet are available free of charge and also host collections of CN, JP and KR patent documentation Machine Translated into English, to enable one search in the English language to be more effective.

9.4 Database(s) used by the patent office in conducting a patent search (Question 73)

Everything made available to the public anywhere in the world by means of written disclosure prior to the relevant date is part of the prior art. Information disclosed on the Internet or an online database is also included in the prior art. Therefore, when conducting a search on an application, it may be necessary to make use of the Internet as a search tool in addition to patent literature and non-patent literature databases.

The databases used by the patent office in the conduct of a patent search may include a mixture of non-commercial (e.g. EPO Espacenet database) and commercial databases (e.g. PatSnap database).

The searching authority of the AMS patent office carrying out the search attempts to discover as much of the relevant prior art as its facilities permit and considers relevant databases or other search resources such as those listed in the Search Guidance Intellectual Property Digital Library (IPDL), which is shown on the WIPO web site (www.wipo.int)¹¹⁶.

While searching an application, the searching authority, in principle, consults all documents within the field of search that exists in the search files or databases, irrespective of their language or age, or of the type of document. Nevertheless, the

¹¹⁵ PCT ISPE GL, Chapter 15 “The International Search”, Paragraph 15-17A “Basis of the Search”

¹¹⁶ PCT ISPE GL, Chapter 15 “The International Search”, Paragraph 15-43 “Field of Search”

examiner should, for reasons of economy, exercise appropriate judgment, based on their knowledge of the technology in question and of the documentation involved, in order to omit segments of the search file or databases in which the likelihood of finding any documents relevant to the search is very small, for example, documents falling within a period preceding the time when the area of technology in question began to develop. Similarly, the examiner needs to consult only one member of a patent family unless there is good reason to suppose that, in a particular case, there are relevant substantial differences in the content of different members of the same family, or because only another member of a patent family was published before the filing date and must therefore be cited in the first place¹¹⁷.

The search is carried out on the basis of the search files or databases which may contain material pertinent to the claimed invention. The search may then have to be extended to include other listed resources or databases, such as those listed in the Search Guidance Intellectual Property Digital Library (IPDL), or to analogous fields, but the need for this must be judged by the examiner in each individual case, taking into account the outcome of the search in the initial fields¹¹⁸.

The question as to which of the listed relevant search resources, including the databases listed in the Search Guidance IPDL, are to be consulted in a given area of technology, must be judged by the examiner in each individual case. Classification places to be included in the search should be selected in all directly relevant fields and, if necessary, in analogous fields. The examiner should consider all relevant search resources for the technology field and determine those most appropriate for the application. Search resources listed in the Search Guidance IPDL relevant to the technical areas may provide a useful guide as to the relevance to the application at hand. This includes, for example, specialised search systems, abstracting journals, and on-line databases. Where searches are made by using the International Patent Classification (IPC), the selection of classification places in analogous fields should be limited to:

- (i) higher subdivisions allowing searching by abstraction (generalisation) inasmuch as this is justified from a technical viewpoint, and
- (ii) parallel subdivisions, bearing in mind the fact that the fields in question will become increasingly unrelated¹¹⁹.

Frequently, various search strategies are possible that are relevant to the subject-matter of the application. The examiner should exercise judgment based on experience and knowledge of the search resources in order to select the search strategies most appropriate to the case in hand, and to establish the order in which various strategies (that is, classification places, databases, and other resources) are to be consulted accordingly. This process should give precedence to the main technical

¹¹⁷ PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-44 "Field of Search"

¹¹⁸ PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-45 "Field of Search"

¹¹⁹ PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-46 "Field of Search"

field of the application, and to the search resources and strategies in which the probability of finding relevant documents is highest¹²⁰.

Internet search¹²¹

The search can also cover internet sources, including online technical journals, online databases or other websites. The extent of such internet searches depends on the individual case, but in some technical fields a systematic internet search will regularly be necessary. Especially in fields related to information or software technology, searches bypassing the internet will often not yield the most relevant prior art. The examiner may therefore use the internet as necessary also when searching unpublished applications but must take great care not to disclose confidential information through the inadvertent use of search terms. It is left to the examiner to select keywords that enable such a search to be performed while respecting the duty of confidentiality regarding unpublished applications. This would entail, for example, choosing only a few keywords which do not disclose the invention, rather than entering long portions of the text of a claim as a search term.

Analogous Fields

The field of search should, where appropriate, include analogous fields to the extent that they are consistent with the description and drawings¹²².

The question of which arts are, in any given case, to be regarded as analogous is considered in the light of what appears to be the necessary function or use of the claimed invention, and not only the specific functions expressly indicated in the application¹²³.

In determining analogous fields into which the search should be extended, it is useful to give consideration to: (i) fields in which the same or similar structure would be expected by a person skilled in the art to be employed in a different activity or application; (ii) fields to which a generic concept of the claimed features pertains; (iii) art within the field of the inventor's activity and reasonably pertinent to the particular problem with which the inventor was involved; (iv) fields relevant to the function or utility inherent in the subject-matter covered by the claims, that is, the field to which the application is most likely to be applied would be searched in addition to the general field of the subject-matter¹²⁴.

The decision to extend the search to fields not mentioned in the application must be left to the judgment of the examiner, who should not try to imagine all the kinds of applications of the claimed invention that might have been envisioned by the

¹²⁰ PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-47 "Field of Search"

¹²¹ Guidelines for Search and Examination at the EPO as PCT Authority B, III, 1.4 "Search on the internet"

¹²² PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-48 "Analogous fields"

¹²³ PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-49 "Analogous fields"

¹²⁴ PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-50 "Analogous fields"

inventor. The overriding principle in determining the extension of the search in analogous fields should be whether it is possible that a reasonable objection of lack of inventive step could be established on the basis of what is likely to be found by the search in these fields¹²⁵.

9.5 Patent search parameters and coverage (Question 74)

The search parameters may cover the International Patent Classification (IPC), keywords and drawings and the search coverage may include abstracts, claims, title, description and drawings. AMS generally apply the following practice.

Analysis of the Claims

When beginning to search an application, the examiner first considers the application in order to determine the subject of the claimed invention. For this purpose, the examiner makes a critical analysis of the claims in the light of the description and drawings.¹²⁶

The search is directed to the invention defined by the claims, as interpreted with due regard to the description and drawings (if any) and with particular emphasis on the inventive concept towards which the claims are directed.¹²⁷

In principle, and insofar as possible and reasonable, the search should cover the entire subject-matter to which the claims are directed or to which they might reasonably be expected to be directed after they have been amended.¹²⁸

For example, where an application relating to an electric circuit contains one or more claims only directed to the function and manner of operation, and the description and drawings include an example with a detailed non-trivial transistor circuit, the search must necessarily include this circuit. Nevertheless, reasons of economy may make certain restrictions of the search necessary, for example, when there is a broad claim and many examples and it is not possible to foresee which will be the subject of amended claims.¹²⁹

Speculative Claims

No special search effort needs to be made when searching unduly wide or speculative claims, beyond the extent to which they are supported by the description.

¹²⁵ PCT ISPE GL, Chapter 15 “The International Search”, Paragraph 15-51 “Analogous fields”

¹²⁶ PCT ISPE GL, Chapter 15 “The International Search”, Paragraph 15-21 “Analysis of the Claims”

¹²⁷ PCT ISPE GL, Chapter 15 “The International Search”, Paragraph 15-22 “Analysis of the Claims”

¹²⁸ PCT ISPE GL, Chapter 15 “The International search”, Paragraph 15-25 “Full Coverage”

¹²⁹ PCT ISPE GL, Chapter 15 “The International Search”, Paragraph 15-25 “Full Coverage”

For example, if in an application relating to, and describing in detail, an automatic telephone exchange, the claims are directed to an automatic communication switching centre, the search should not be extended to automatic telegraph exchanges, data switching centres, etc., merely because of the broad wording of the claim, except if it is probable that such an extended search could produce a document on the basis of which a reasonable objection of lack of novelty or inventive step could be established¹³⁰.

However, if a meaningful search based on a claim that is not supported by the description can be carried out without much increase in effort, the search should be extended to cover the claimed subject-matter that is not supported by the description, if the scope of the claim is not unduly wide¹³¹.

Dependent Claims

The search carried out for the independent claim(s) must also take into consideration the subject-matter of all dependent claims. Dependent claims are interpreted as being restricted by all features of the claim(s) upon which they depend. Therefore, where the subject-matter of the independent claim is novel, that of the dependent claims is also considered novel for the purpose of search. When the novelty and inventive step of the independent claim are apparent as a result of the search, there is no need to make a further search in respect of the subject-matter of the dependent claims as such¹³².

However, where the novelty or inventive step of the main claim is questioned, it may be necessary, for assessing inventive step of a dependent claim, to establish whether the features of the dependent claim as such are novel by expanding the field of search. No special search should be made for features that are so well known that documentary evidence seems to be unnecessary; however, if a handbook or other document showing that a feature is generally known can be found rapidly, it should be cited. When the dependent claim adds a further feature (rather than providing more detail of an element figuring already in the main claim), the dependent claim in effect constitutes a combination claim and should be dealt with accordingly¹³³.

Search of Particular Claim Types and Features

The words of a claim must be read as they would be understood by a person skilled in the art in accordance with the meaning and scope which they normally have in the relevant art¹³⁴.

In two-part claims, the claimed invention includes the limitations of the preamble in combination with the limitations in the characterising portion of the claim. In these

¹³⁰ PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-26 "Speculative Claims"

¹³¹ PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-26 "Speculative Claims"

¹³² PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-27 "Dependent Claims"

¹³³ PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-28 "Dependent Claims"

¹³⁴ PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-29 "Search of particular claims types and features"

cases, the preamble is regarded as a limitation on the scope of the claim. In certain circumstances, it may be desirable to extend the subject-matter of the search to include the “technological background” of the claimed invention. This would include: (i) the preamble portion of the claim, that is, the part preceding the expression “characterised by” or “the improvement comprising”; (ii) the state of the prior art as explained in the introduction of the description of the application but not identified by specific citations; and (iii) the general technological background of the invention (often called “general state of the art”)¹³⁵.

Combination of Elements

For claims characterised by a combination of elements (for example, A, B and C), the search should be directed towards the combination; however, when searching classification units for this purpose, sub-combinations, including the elements individually (for example, AB, AC, BC and also A, B and C separately), should be searched in those units at the same time. A search in additional classification units either for sub-combinations or for individual elements of the combination should only be performed if this is still necessary for establishing the novelty of the element in order to assess the inventive step of the combination¹³⁶.

Different Categories of Claim

When the application contains claims of different categories that comply with the unity requirement, all these must be included in the search. When the application contains only claims of one category, it may be desirable to include other categories in the search. A reference describing a process of making a product but only claiming the product itself might only be classified in a subclass directed to the product and not be cross-referenced in a subclass directed to the process. Accordingly, when searching for a particular process of making a product it may be necessary to search for the product in order to discover the best prior art disclosing the process of making the product¹³⁷.

As such, for example, except when the application contains indications to the contrary, one may generally assume that in a claim directed to a chemical process, the starting products form part of the state of the art and need not be searched; the intermediate products will only be searched when they form the subject of one or more claims, but it is highly recommended that the final products always be searched, except when they are evidently known, since the most relevant prior art may only be classified in terms of the final products¹³⁸.

¹³⁵ PCT ISPE GL, Chapter 15 “The International Search”, Paragraph 15-30 “Search of particular claims types and features”

¹³⁶ PCT ISPE GL, Chapter 15 “The International Search”, Paragraph 15-31 “Combination of elements”

¹³⁷ PCT ISPE GL, Chapter 15 “The International Search”, Paragraph 15-32 “Different categories of claims”

¹³⁸ PCT ISPE GL, Chapter 15 “The International Search”, Paragraph 15-32 “Different categories of claims”

Search Strategy Preliminary Steps

Documents cited in the application should be examined if they are cited as the starting point of the invention, or as showing the state of the art, as alternative solutions to the problem concerned, or when they are necessary for a correct understanding of the application; however, when such citations clearly relate only to details not directly relevant to the claimed invention, they may be disregarded.¹³⁹

If the application cites a document that is not published or otherwise not accessible to the searching authority of the AMS patent office and the document appears essential to a correct understanding of the invention to the extent that a meaningful search would not be possible without knowledge of the content of that document, the searching authority may request the applicant to provide first a copy of the document, if it is possible to do so within the time limits imposed for the preparation of the search report¹⁴⁰.

If no copy of the document is received, the searching authority should first attempt to carry out the search and then, if necessary, indicate that it was not possible for a meaningful search to be carried out as a whole or that the search needed to be restricted¹⁴¹.

Abstract and Title

The examiner then considers the abstract (together with the title of the invention and the figure of the drawings to be published with the abstract). Since the abstract should relate to the application as filed, the examiner should consider it and determine its definitive contents no later than the completion of the search report¹⁴².

Classification

After having considered the abstract, if any, the examiner then classifies the application according to at least the International Patent Classification (IPC)¹⁴³.

Search Statement

Having determined the subject of the invention, it may be desirable for the examiner to prepare first a written search statement, defining the subject of their search as precisely as possible. In many instances, one or more of the claims may themselves serve this purpose, but they may have to be generalised in order to cover all aspects and embodiments of the invention. At this time, the considerations relating to the exclusion from search and to lack of unity of invention should be borne in mind¹⁴⁴. If

¹³⁹ PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-37 "Search Strategy, preliminary steps".

¹⁴⁰ PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-37 "Search Strategy, preliminary steps".

¹⁴¹ PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-37 "Search Strategy, preliminary steps".

¹⁴² PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-38 "Abstract and Title".

¹⁴³ PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-39 "Classification".

¹⁴⁴ PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-41 "Search Statement".

the examiner determines that unity of invention is not satisfied, the examiner may choose to conduct a search on the basis of the first invention or inventive concept only.

The examiner may also have to restrict the search in exceptional situations because no search at all is possible, but they should not do this if it can be avoided¹⁴⁵.

The claims should be construed and searched having particular regard to the various types and forms of claims used, such as two-part claims and product-by-process claims¹⁴⁶.

9.6 Determination of the "closest prior art" (Question 75)

The closest prior art is that which in one single reference discloses the combination of features which constitutes the most promising starting point for a development leading to the invention.

In terms of the determination of the "closest prior art", the consideration is that it should be directed to a similar purpose or effect as the invention, or at least should belong to the same or a closely related technical field. In practice, the closest prior art may belong to the same technical field as the invention or to a closely related technical field, be capable to carry out the function of the claimed invention and be selected based on the examiner's interpretation of the claims.

The examiner carries out the search, directing attention to any prior art likely to have bearing on novelty or inventive step. In addition, the examiner is encouraged to cite any prior art likely to be of assistance in determining sufficiency of description throughout the whole of the field claimed and the requirement that the claimed invention be fully supported by the description¹⁴⁷.

The examiner should also note any documents that may be of importance for other reasons, such as documents throwing doubt on the validity of any priority claimed, contributing to a better or more correct understanding of the claimed invention, or illustrating the technological background, but the examiner should not spend time in searching for these documents, nor in the consideration of such matters, unless there is a special reason for doing so in a particular case¹⁴⁸.

Documents which do not qualify as prior art because they post-date the claimed invention may nevertheless be cited to show a universal fact, such as characteristics

¹⁴⁵ PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-41 "Search Statement"

¹⁴⁶ PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-42 "Search Statement"

¹⁴⁷ PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-52 "Conducting the Search".

¹⁴⁸ PCT ISPE GL, Chapter 15 "The International Search", Paragraph 15-52 "Conducting the Search".

or properties of a material, or a specific scientific fact, or to show the level of ordinary skill in the art¹⁴⁹.

The examiner should concentrate the search efforts on the search resources and strategies in which the probability of finding highly relevant documents is greatest. Where the examiner intends to cite any prior art likely to be of assistance in determining sufficiency of description, while conducting a search in a relevant area, the examiner should identify all documents, regardless of publication dates, which are highly relevant to the determination of novelty, inventive step, adequacy of support, and industrial applicability of the claimed invention. The examiner should always take account of the search results already obtained in considering whether to extend the search (that is, consult additional databases, broaden a search query, or include additional classification places)¹⁵⁰.

The examiner typically first conducts a search of the patent literature. In certain art areas, such as those identified in the Search Guidance IPDL, a search of the non-patent literature may be necessary. However, regardless of the art being searched, if little or no relevant patent prior art is located, the examiner should consider broadening the resources searched to include databases containing non-patent literature¹⁵¹.

N.b.: no special search should be made for features that are instantly and unquestionably demonstrable as being well known such that documentary evidence is unnecessary. Preferably, however, a handbook or other document showing that a feature is generally known should be cited if practicable¹⁵².

The examiner determines whether the claimed invention meets the standards for novelty and inventive step¹⁵³.

9.7 Contents of the search report of the Patent Office. (Question 76)

The contents of the search report provided by the patent office should include at least:

- list and details of prior arts identified during the search, date of first publication/availability to the public, weblink when available;
- scope of the patent search;
- databases used;
- classification (IPC);
- summary of the search;
- relevance of prior art(s) to the claim(s);
- comments or written opinion from the examiner on patentability.

¹⁴⁹ PCT ISPE GL, Chapter 15 “The International Search”, Paragraph 15-52 “Conducting the Search”

¹⁵⁰ PCT ISPE GL, Chapter 15 “The International Search”, Paragraph 15-53 “Conducting the Search”

¹⁵¹ PCT ISPE GL, Chapter 15 “The International Search”, Paragraph 15-54 “Conducting the Search”

¹⁵² PCT ISPE GL, Chapter 15 “The International Search”, Paragraph 15-55 “Conducting the Search”

¹⁵³ PCT ISPE GL, Chapter 15 “The International Search”, Paragraph 15-63 “Evaluating the Prior Art”

9.8 Possibility of a partial search and/or a "no search" option

Options for a partial search and/or a "no search" are available in AMS. For example, in Malaysia, a partial search option is available when the examiner issues a "lack of unity" objection, while the Philippines, Singapore and Thailand allow both partial and "no search" options.

The aim of searching authorities should be to issue search reports that are as complete as possible. Nevertheless, there are certain situations in which no search report is issued, or in which the search report, written opinion or examination report covers only a part of the subject-matter that a report would usually cover. This may be either because the application includes subject-matter which the authority is not required to handle, or because the description, claims or drawings fail to meet a requirement, such as clarity or support of the claims by the description, to such an extent that no meaningful search can be made of all or some of the claims. The term "meaningful search" should be read to include a search that, within reason, is complete enough to determine whether the claimed invention complies with the substantive requirements, that is, the novelty, inventive step, and industrial applicability requirements, and/or the sufficiency, support and clarity requirements. Accordingly, a finding of "no meaningful search" should be limited to exceptional situations in which no search at all is possible for a particular claim, for example, where the description, the claims, or the drawings are totally unclear. To the extent that the description, the claims, or the drawings can be sufficiently understood, even though parts of the application are not in compliance with the prescribed requirements, a search should be performed, recognising that the non-compliance may have to be taken into account for determining the extent of the search¹⁵⁴.

¹⁵⁴ PCT ISPE GL, Chapter 9 "Exclusions from, and Limitations of, International Search and International Preliminary Examination", Paragraph 9-01 "Introduction"

Chapter 10 - Novelty requirement

10.1 Definition of “Novelty”

“Novelty” is one of the primary requirements of patentability.

A claim in a patent application is said to be novel if it is not anticipated by prior art.

Legislation in all the ASEAN member states (AMS) generally defines a new invention as an invention that does not form part of the state of the art. The PCT Guidelines state that “The invention, as defined by a claim, lacks novelty if every element or step is explicitly or inherently disclosed within the prior art including any features implicit to a person skilled in the art”.¹⁵⁵

The state of the art includes everything made available to the public – usually anywhere in the world – through one of the following: written disclosure (including drawings and other illustrations) use, oral disclosure, or any other way before the relevant date, which can be the national filing date or the international filing date or, where the national or international application contains a valid claim to priority, that date of priority.

The concept of novelty may be applied in different ways, depending on the legislation and on interpretation by patent offices and courts. This is particularly true, where national policies and examination guidelines determine the scope of what has been disclosed and what is therefore part of the “prior art”.

10.2 Determining the scope of the claimed invention

To determine whether an invention is new, the examiner shall compare the claimed invention to the identified prior art, through the lens of a hypothetical person known as the “Person Skilled In the Art” (PSIA).

The examiner should apply the following successive steps¹⁵⁶:

- (i) Evaluate the elements of the claimed invention. The scope of the patent right is based on the statements of the claim(s). The description together with the drawing(s) can be used for interpreting the claim(s).
- (ii) Determine if a prior art under consideration forms part of the “state of the art”; and
- (iii) Assess whether each and every element or step of the claimed invention was explicitly or inherently disclosed in combination by the prior art, to a PSIA, on the date of publication or first use of the prior art.

¹⁵⁵ PCT ISPE GL, Chapter 12 “Novelty”, Paragraph 12.01 “Meaning of Novelty”.

¹⁵⁶ PCT International search and preliminary examination guidelines (PCT ISPE GL) examiner considerations common to both the international searching authority and the international preliminary examining authority, Chapter 12 “Novelty”, Paragraph 12.03 “Methodology”.

Where there is a difference between the claimed invention and the identified prior art, the examiner would conclude that the claimed invention is novel. On the contrary, where there is no difference, the examiner would conclude that the claimed invention lacks novelty.

In interpreting claims for the consideration of novelty, the examiner should also have regard to the purpose or intended use of the invention to determine whether the recited purpose or intended use results in a structural difference (or in the case of process claims, a difference in the process steps) between the claimed invention and the prior art. Non-distinctive characteristics of a particular intended use should be disregarded¹⁵⁷.

For example, a claim to a substance X for use as a catalyst would not be considered to be novel over the same substance known as a dye, unless the use referred to implies a particular form of the substance (for example, the presence of certain additives) which distinguishes it from the known form of the substance¹⁵⁸.

Characteristics not explicitly stated but implied by the particular use should also be taken into account.

For example, if a claim refers to a "mould for molten steel", this implies certain limitations for the mould. Therefore, a plastic ice cube tray with a melting point much lower than that of steel would not be considered to be within the scope of the claim which would thereby be considered as being novel¹⁵⁹.

For further aspects relating to product-by-process claims, please refer to **Chapter 7** "Clarity", **Section 7.8** "Product-by-process claims"¹⁶⁰.

10.3 Novelty test

10.3.1 Absolute novelty

Generally, universal or absolute novelty is required for a valid patent. This means that the claims have to be novel compared to any piece of prior art published or used anywhere in the world. All AMS except Thailand (local use requirement, *pending for amendment to universal novelty under the draft patent amendment*) apply the "absolute novelty" test. There is a strong consensus internationally and within AMS that there should be no restrictions whatsoever as to the geographical location, language, or manner (e.g. by means of a written or oral description, by use, or in any other way) in which the relevant information was made available to the public.

¹⁵⁷ PCT ISPE GL, Chapter 12 "Novelty", Paragraph 12.05 "Interpretation of Claims".

¹⁵⁸ Supra.

¹⁵⁹ PCT ISPE GL, Chapter 5 "General", Paragraph 5.23 "Interpretation of Claims".

¹⁶⁰ EPO Guidelines for Search and Examination at the EPO as PCT Authority, Paragraph 4.12 "Product-by-process claim".

Furthermore, all the AMSs provide a grace period which prevents some disclosures from becoming prior art against a patent application (**please refer to Chapter 1 of the Guidelines for Formality Examination**).

There should also be no restrictions as to the age of the prior art document (i.e. it could be 100 years old or published one day prior to the “relevant date”) so long as the document was made available to the public before the “relevant date.” If the applicant makes an admission, the subject matter mentioned in the admission (for example, a figure in an international application labeled as “prior art”) may constitute prior art. The presumption that the admission constitutes prior art may be rebutted by the applicant¹⁶¹.

10.3.2 Matters which are part of the State of the Art

For the purposes of assessing the novelty of an invention, the prior art is defined as everything made available to the public anywhere in the world before the “relevant date”. The term “*everything*” includes not only written disclosure but also “*oral disclosure*” as indicated in the patent legislations of Indonesia, Cambodia, Malaysia, Myanmar, Philippines and Singapore and “*prior use*” as stated in all AMS legislations.

A written disclosure is regarded as made available to the public if, at the relevant date it was possible for members of the public to gain access to the content of the document and to acquire possession of the content of the document, and there was no bar of confidentiality restricting the use or dissemination of knowledge gained thereby.

Prior art disclosure on the internet or in an on-line database is considered in the same manner as other forms of written disclosure. Information disclosed on the internet or in an on-line database is considered to be publicly available as of the date the disclosure was publicly posted.

Neither restricting access to a limited circle of people (e.g., by password protection) nor requiring payment for access prevent a web page from forming part of the state of the art. It is sufficient if the web page is in principle available without any bar of confidentiality. Establishing a publication date has two aspects. It must be assessed separately whether a given date is indicated correctly and whether the content in question was indeed made available to the public as of that date. The nature of the internet can make it difficult to establish the actual date on which information was made available to the public: for instance, not all web pages mention when they were published.

In view of the sheer size and redundancy of the content available on the internet, it is considered very unlikely that an internet disclosure discovered by an examiner has

¹⁶¹ PCT ISPE GL Chapter 11 “Prior Art”, Paragraph 11.01 “Prior Art Generally”.

been manipulated. Consequently, unless there are specific indications to the contrary, the date can be accepted as being correct. In many cases, internet disclosures contain an explicit publication date which is generally considered reliable. Such dates are accepted at face value, and the burden of proof will be on the applicant to show otherwise. If an applicant provides reasons for questioning the alleged publication date of an internet disclosure, the examiner will have to take these reasons into account. If the examiner is no longer convinced that the disclosure forms part of the state of the art, this disclosure will not be used further as prior art against the application unless the examiner is able to present further evidence to maintain the disputed publication date. While the dates and content of internet disclosures can be taken at face value, there are of course differing degrees of reliability. The more reliable a disclosure, the harder it will be for the applicant to prove that it is incorrect¹⁶².

Where an oral description (for example, public lecture) or a prior use or sale (for example, display at a public exhibition) was publicly available before the relevant date of an application but the document reproducing the oral description or giving an account of the prior use or sale, was published on or after the relevant date of the application, that post-published document may still call attention to the oral description or prior use later described therein¹⁶³.

The disclosure of an invention in the prior art may not have been made explicit but may be implicit in a prior art document¹⁶⁴. Implicit teachings can be considered part of the prior art, hence destroying the novelty of an invention (**please refer to Paragraph 10.3.9.2 below**).

10.3.3 Technical equivalents

The provision of novelty involves the consideration of whether the prior art discloses each and every feature specified in that claim. If the claim contains technically equivalent or additional features, then, according to those AMS which have legislation and/or examination guidelines on this issue, objection of obviousness would be more appropriate (Indonesia, Malaysia, Philippines, Singapore, Thailand) and this is a recommendable approach.

10.3.4 Non prejudicial disclosure or matters which do not form part of the state of the art

Disclosures of the invention are not taken into account as state of the art if:

- The disclosure occurred within a specific period prescribed in **Section 1.10 of Chapter 1 of the CSR**, preceding the date of the patent application and if such disclosure was by reasons or in consequence of acts committed by the inventor/applicant or their predecessor in title;

¹⁶² EPO Guidelines for Search and Examination, Paragraph 7.5 "Internet disclosures".

¹⁶³ PCT ISPE GL, Chapter 11 "Prior Art", Paragraph 11.21 "Documents Reproducing an Earlier Oral Description".

¹⁶⁴ PCT ISPE GL, Chapter 12 "Novelty", Paragraph 12.04 "Inherent or Implicit Disclosure".

- The disclosure occurred within a specific period prescribed in **Section 1.10 of Chapter 1 of the CSR**, preceding the date of the patent application and if such disclosure was by reasons or in consequence of abuse of rights of the inventor/applicant or their predecessor in title;
- Information was contained in an application disclosed mistakenly by the Patent Office.

10.3.5 Alternatives

Where a claim contains alternatives, for example Markush claims (P1, P2, P3 ...Pn), any alternatives disclosed in the prior art are anticipated.

10.3.6 Relevant date to assess prior art

A prior art document is to be read and considered as it would have been read and understood by a PSIA on the relevant date.

The “*relevant date*” for the purpose of considering prior art, should mean the national filing date or the international filing date or, where the national or international application contains a valid claim to priority, that date of priority.

Different claims, or different alternatives claimed in one claim, may have different relevant dates depending on whether the mentioned subject matter is disclosed in the priority application and enjoys priority or not. Questions of novelty must be considered against each claim (or part of a claim where a claim specifies a number of alternatives)

10.3.7 Person Skilled In the Art

The prior art disclosure must enable a PSIA to carry out the claimed invention. The PSIA should be presumed to be a hypothetical person having ordinary skill in the art and being aware of what was common general knowledge in the art at the relevant or effective date.

The PSIA should also be presumed to have had access to everything in the “prior art”, in particular, the documents cited in the search report, and to have had at their disposal the normal means and capacity for routine experimentation.

There may be instances where it is more appropriate to think in terms of a group of persons, for example, a research or production team rather than a single person. This may apply, for example, in certain advanced technologies such as artificial intelligence and in highly specialized processes such as the commercial production of integrated circuits or of complex chemical substances.

10.3.8 Enabling disclosure

The prior art disclosure must enable a person skilled in the art to carry out the claimed invention¹⁶⁵.

In other words, the prior art disclosure must be an enabling disclosure.

For example, a chemical compound, the name or formula of which was mentioned in a document, is not considered as known unless the information in the document, together, where appropriate, with knowledge generally available on the effective date of the document, enable it to be prepared and separated or, for instance in the case of a product of nature, only to be separated¹⁶⁶.

Ordinarily, enablement may be inferred by the examiner when considering patent documents (published applications and issued patents) within the prior art¹⁶⁷.

When considering non-patent literature that on face value raises a question as to enablement, the examiner should determine that the prior art would have enabled a PSIA to carry out the claimed invention. When determining whether a particular document is enabling and therefore novelty-destroying, knowledge from outside the prior art document may be considered where appropriate¹⁶⁸.

A prior art document that does not destroy novelty because it is not enabling for the claimed invention may nonetheless be relied upon to determine whether the claimed invention lacks inventive step¹⁶⁹.

10.3.9 Single and combination of prior arts to destroy the novelty of a patent

The number of documents that the examiner may consider in determining whether novelty is lacking is an important question. As a rule, a single prior art is to be considered. However, in specific cases patent law and examination practice do not rule out the possibility of considering more than one prior art. If a document (the “primary” document) refers explicitly to a second document (for example, one that provides more detailed information on certain features), the teachings of the second document may be regarded as incorporated into the primary document to the extent indicated in the primary document if the document referred to was available to the public on the publication date of the primary document (Lao PDR, Singapore, Indonesia, Philippines, Viet Nam). It is also permissible to rely on additional

¹⁶⁵ PCT ISPE GL, Chapter 12 “Novelty”, Paragraph 12.02 “Meaning of Novelty”.

¹⁶⁶ PCT ISPE GL, Chapter 12 “Novelty”, Paragraph 12.02 “Meaning of Novelty”.

¹⁶⁷ PCT ISPE GL, Chapter 12 “Novelty”, Paragraph 12.02 “Meaning of Novelty”.

¹⁶⁸ PCT ISPE GL, Chapter 12 “Novelty”, Paragraph 12.02 “Meaning of Novelty”.

¹⁶⁹ PCT ISPE GL, Chapter 12 “Novelty”, Paragraph 12.02 “Meaning of Novelty”.

documents as evidence to show that the disclosure of the primary document was sufficient (for example, for a chemical compound to be prepared and separated or, in the case of a product of nature, to be separated)¹⁷⁰.

It is also not permissible to combine separate items belonging to different embodiments described in one and the same document unless such combination has specifically been suggested.

10.3.10 Specific types of anticipation

10.3.10.1 Generic disclosure

In considering novelty, a generic disclosure does not usually take away the novelty of any specific example falling within the terms of that disclosure (Indonesia, Malaysia, Philippines, Singapore, Thailand, Viet Nam). On the contrary, a specific disclosure does take away the novelty of any generic claim embracing that disclosure.

For example, a disclosure of copper takes away the novelty of metal as a generic concept, but not the novelty of any metal other than copper, and one of rivets takes away the novelty of fastening means as a generic concept, but not the novelty of any fastening other than rivets¹⁷¹.

10.3.10.2 Implicit/inherent disclosure

The disclosure of an invention in the prior art may not have been made explicit but may be implicit/inherent in a prior art document. Implicit/inherent teachings can be considered part of the prior art, hence destroying the novelty of an invention. This approach is preferable to the ‘photographic’ approach to novelty, which is based on explicitly disclosed information only. The photographic approach entails a rigid and formalistic assessment of novelty, which may lead to the unwarranted grant of patent rights. Lack of novelty based on implicit/inherent teaching should be raised by the examiner only where there can be no reasonable doubt as to the practical effect of the prior teaching. In other words, the teaching may be apparent from an implicit/inherent teaching of the document in the sense that, in carrying out the teaching of the prior document, the PSIA would inevitably arrive at a result falling within the terms of the claim. Otherwise, it should be considered in respect of inventive step.

For example, where the elastic properties of rubber are relied upon in a document that does not explicitly state that rubber is an “elastic material”, a claim to an “elastic material” is anticipated because the rubber taught in the prior art inherently or implicitly is an “elastic material”¹⁷².

¹⁷⁰ PCT ISPE GL, Chapter 12 “Novelty”, Paragraph 12.06 “Combining Documents”.

¹⁷¹ PCT ISPE GL, Chapter 12 “Novelty”, Paragraph 12.08 “Generic vs. Specific Disclosures”.

¹⁷² PCT ISPE GL, Chapter 12 “Novelty”, Paragraph 12.04 “Inherent or Implicit Disclosure”.

This approach is found in the Examination Guidelines and Manual of Indonesia, Philippines, Malaysia, Singapore, Thailand and Viet Nam whereby a document takes away the novelty of any claimed subject-matter if that subject-matter is derivable from that document either explicitly or implicitly.

10.3.10.3 Range

Often patent claims recite ranges in order to seek a broad scope of protection, as opposed to protection that may be sought by reciting a specific value. Patent examiners of most AMS follow guiding principles when examining whether ranges are anticipated by prior art. The guiding principles from Examination Guidelines and Manuals are summarized below¹⁷³:

1. A specific example in the prior art which is within a claimed range anticipates the range;
 2. Prior art which teaches a range overlapping or touching the claimed range anticipates if the prior art range discloses the claimed range with "sufficient specificity";
 3. The prior art teaches a broader range whereas the claim defines a narrow range which falls within said broader range; and
 4. Prior art which teaches a value or range that is very close to, but does not overlap or touch, the claimed range does not anticipate the claimed range.
- 1. A specific example in the item of prior art which is within a claimed range anticipates the range claimed.**

A claim directed at a range is held to be anticipated if a prior art discloses a specific value which is within the claimed range. In order to anticipate the claim, the claimed subject matter should be disclosed with sufficient specificity in the item of prior art. A specific example in the item of prior art which is within a claimed range anticipates the range claimed. Therefore, where, as by a recitation of ranges or otherwise, a claim covers several compositions, the claim is anticipated if one of them is described in the item of prior art.

- The Examination Guidelines of Indonesia read: "*A specific value mentioned in the prior art invalidates the novelty of selection inventions where this specific range falls. However, a range ("from.... to....") only expresses specifically the upper and lower limits (...), but not all values in between*".
- The Examination Guidelines of Singapore read: "*A claimed range will lack novelty if a single example falling within the range, or at its end-points, is already known*".

¹⁷³ PCT ISPE GL, Chapter 12 "Novelty", Paragraph 12.10 "Ranges".

- The Examination Guidelines of Viet Nam state: *“If the number or numerical range disclosed in the prior-art document are completely in the numerical range of the claimed subject matter, the claimed subject matter does not involve novelty”*

For example, a claim to titanium (Ti) alloy with 0.6 to 0.7% nickel (Ni) and 0.2 to 0.4% Molybdenum (Mo) would be anticipated by an item of prior art that describes a Ti alloy containing 0.65% Ni and 0.3% Mo¹⁷⁴.

2. Where an item of prior art discloses a range which touches, overlaps or is within the claimed range, but does not disclose a specific example falling within the claimed range, the novelty of the claim has to be decided on a case by case basis. In order to anticipate the claim, the claimed subject matter should be disclosed with sufficient specificity in the item of prior art.

- The Examination Guidelines of Singapore read: *“A claimed invention may also be characterized by the selection of a narrower sub-range of numerical values within a broader known range, where said narrower sub-range has not been explicitly mentioned in the prior art. To establish the novelty of the sub-range, the selected sub-range should be narrow and sufficiently specific from the known broader range, illustrated by means of examples”*.
- The Examination Guidelines of Viet Nam state: *“If the numerical range disclosed in the prior-art document and the numerical range in the claimed subject matter are overlapping or at least have the same one border, the claimed subject matter does not involve novelty (include the case wherein the numerical range of the claimed subject matter is only “close” to the numerical range disclosed in the prior-art document”*.

“The two borders of the numerical range disclosed in the prior-art document will destroy novelty of the claimed subject matter wherein the technical features of the claimed subject matter have discontinuous numbers and contain one of the two borders, but do not destroy novelty of the claimed subject matter wherein the technical features are any numbers between the two borders.

The interpretation of the phrase "sufficient specificity" is the key to judge whether a prior art reference anticipates a range. The interpretation of the phrase may vary based on the facts of the case.

3. If the claim is directed to a narrow range, the item of prior art discloses a broad range, and the claimed narrow range is not merely one way of carrying out the teaching of the item of prior art (for example, there is evidence that

¹⁷⁴ PCT ISPE GL, Chapter 12 “Novelty”, Paragraph 12.10 “Ranges”.

the effect of the selection (for example, unexpected results) occurred in all probability only within the claimed narrow range), depending on the other facts of the case, it may be reasonable to conclude that the narrow range is not disclosed with sufficient specificity in the prior art in order to anticipate the claims (a selection invention). The unexpected results may also render the claims unobvious.

4. **Prior art which teaches a value or range that is very close to, but does not overlap or touch, the claimed range** does not anticipate the claimed range and therefore the subject matter of the claim is novel. Inventive step would still need to be determined.

The Examination Guidelines of Viet Nam state: *The numerical range in the claimed subject matter is “close” to a specific number disclosed in the prior-art document, for example, drying temperature in the claimed subject matter is 90 to 100°C, while the prior-art document disclosed drying temperature of 105°C, in this case, numerical range in the claimed subject matter meets the novelty requirements if the following criteria are satisfied:*

(a) the numerical range in the claimed subject matter is sufficiently far removed from any specific number disclosed

(b) the numerical range in the claimed subject matter is narrow compared to the specific number disclosed in the prior-art document

(c) the numerical range in the claimed subject matter provides effect that makes the claimed subject matter “special”

10.3.11 Second medical use

In all the AMS, patents are granted for inventions, whether products or processes. However, in the case of pharmaceuticals, product patents have been excluded in some countries (Cambodia, Lao PDR, Myanmar).

Claims over a new medical use of a known medicine (often called ‘second use claims’) account for a good part of pharmaceutical patents in countries allowing the patentability of pharmaceutical products. They are used to define the scope of an invention by way of a specified medical use.

The question is whether second medical uses are new inventions or not. It has been argued that claims relating to the new use of a known drug can be rejected on various grounds including the lack of novelty, as the compound and its process of manufacture are known.

Those AMS which allow the protection of pharmaceutical patents allow second medical use through the following examination guidelines (Exception: Viet Nam):

- A claim in the form "**Use of substance or composition X for the treatment of disease Y...**" will be regarded as relating to a method for treatment explicitly excluded from patentability by AMS.
- A claim in the form of "**Product X for use in the treatment of disease Y**" is patentable, even if "X" is a known substance, but its use in medicine is unknown (Exception: Philippines which allows only the first medical use indication in this form. Second or further medical use claims are allowable but must be in a Swiss-type claim format (QUAMA 5.2.3¹⁷⁵)).

*"In the case of an invention consisting of a substance or composition for use in a method of treatment of the human or animal body by surgery or therapy or of diagnosis practiced on the human or animal body, the fact that the substance or composition forms part of the state of the art **shall not prevent the invention from being taken to be new if the use of the substance or composition in any such method does not form part of the state of the art.**"¹⁷⁶ (Brunei).*

"Use of a substance or composition X for the manufacture of a medicament for therapeutic application Z" is allowable for either a first or "subsequent" (second or further) such application, if this application is new and inventive"¹⁷⁷ (Malaysia).

*"In assessing applications pertaining to second medical use claims, the claims will be examined within the context of the QUAMA (Quality Medicines Act) provision of the Philippines¹⁷⁸. Second medical use, drafted in a Swiss-type claim format, **may be accepted if the therapeutic application to be construed as a further medical use involves a new technical effect of the known substance and is construed as a truly new therapeutic application, which is the treatment of a different pathology**"¹⁷⁹ (Philippines).*

The Philippines requires enhanced efficacy for composition of matter where compounds are known, such as when claiming further developments around novel salts, solvates, polymorphs, metabolites, pure form, particle size, isomers, complexes, and combinations. This is assessed relating to both eligibility and inventive step.

¹⁷⁵ Revised Guidelines On The Examination Of Pharmaceutical Applications Involving Known Substances (QUAMA Guide) January 2018, Section 5.2.2.- 5.3

¹⁷⁶ Article 14 of the Patents (Amendment) Order, 2011.

¹⁷⁷ Section 3.5, pages 22-23 of the Guidelines for Patent Examination in the Intellectual Property Corporation of Malaysia, 2011.

¹⁷⁸ Republic Act 9502; An Act Providing for Cheaper and Quality Medicines, Amending RA 8293 and other Purposes

¹⁷⁹ Republic Act 9502; An Act Providing for Cheaper and Quality Medicines, Amending RA 8293 and other Purposes, 2008 and Section 5.2.2.- 5.3 of the Revised Guidelines on the Examination of Pharmaceutical Applications Involving Known Substances (QUAMA Guide)

*“A claim for a new method of using a known apparatus may be regarded as novel: **Second medical use claims can only derive novelty from their intended use if the use is in a method of treatment excluded under Section 16(2). The specified medical use is new and inventive:** The following are examples of suitably drafted second medical use claims: Use of compound X in the manufacture of a medicament for the treatment of disease Y. Use of compound X in the manufacture of a pharmaceutical composition for treating disease Y.”¹⁸⁰ (Singapore).*

*“Second medical use claims of Swiss type claims are not accepted. Medical use claims which are acceptable must not involve dosage, or efficacy and they must not involve applying the product into a subject’s body. **Example of an acceptable claim is “Use of compound, or composition X in manufacturing drug X for treating XX”**¹⁸¹ (Thailand).*

Article 4(f) of the amended Indonesian Patent Law of 2016 stipulates that: a) a new use of a known product or b) a new form of a known product that does not offer significant increase in efficiency of that product is not patentable. However, the recently issued new Patent Examination Guidelines appear to introduce a wider scope of patentable subject matter than the Patent Law of 2016 by allowing medical use claims.

According to the new Guidelines, **first medical use claims (medical use claims directed to a novel product, i.e. both the product and the use are new) should be written in Swiss-type format, or in the format of "Substance X used as medicament for Disease Y", or "Use of Substance X for treating Disease Y (Indonesia)**¹⁸².

¹⁸⁰ Section 8.144, page 319 of the Examination Guidelines for Patent Applications at IPOS, 2020.

¹⁸¹ Division 5 “Examination of Chemical and Pharmaceutical Patent and Petty Patent Application” of the Thai Examination guideline for invention patent and petty patent, 2019.

¹⁸² PCT ISPE GL, Chapter 12 “Novelty”, Paragraph 12.07 “Alternatives”

Chapter 11 - Inventive step requirement

The policy underlying the requirement of inventive step in patent law relates to the obligation to show inventive merit by reaching a level of innovative activity which is sufficiently high for an applicant to deserve a patent monopoly.

Inventive step is alternatively referred to as “non-obvious”. All patent laws of AMS provide that a patent will not be granted for an invention which would have been obvious to a Person Skilled in the Art (PSIA).

Novelty (**Chapter 10**) and inventive step are different patentability criteria. The question of whether there is inventive step only arises if the invention is novel.

During the substantive examination of an application for a patent, examiners consider whether an invention contains an "inventive step" in relation to the prior art base. The condition of inventive step involves a consideration of whether the invention would have been obvious to a PSIA when compared to the prior art at the relevant date (the relevant date is the filing date of the patent application concerned or, where priority is claimed, the priority date) of the application. In contrast to the criterion of novelty, when dealing with obviousness it is permissible to make a “mosaic” out of the prior arts, but it must be a mosaic which can be put together by an unimaginative PSIA with no inventive capacity.

This chapter describes the determination of inventive step for an invention for which a patent is sought.

11.1 Definition of invention

"Invention" in this context means that which is specified in the claim(s) of a patent.

In most AMS, invention is defined as a solution to a technical problem, such solution having a technical effect. Invention can be a product, process, or product-by-process. In some AMS, an improvement of a known product or process may also be an invention. The term “improvement” should not necessarily imply that the technical solution is an improvement over the prior art. The problem could simply be to seek an alternative to a known device or process which provides the same or similar effect(s)¹⁸³.

11.2 Definition of inventive step

Although all AMS determine how inventive step is assessed, few countries define it. Overall, there are no meaningful differences between AMS regarding the definition and assessment of inventive step. A claimed invention is considered to involve an inventive step if, having regard to the prior art, it is not, at the relevant date, obvious

¹⁸³ PCT ISPE GL, Chapter 13 “Inventive Step”, Paragraph 13.08/9 “Problem-Solution Approach”

to a PSIA. Most AMSs define ‘inventive step’ as ‘non-obvious’ or ‘not obvious’, while few of them define “inventive step” as a progress compared to prior arts. The term “obvious” means that it does not go beyond the normal progress of technology but merely follows plainly or logically from the prior art, that is, something which does not involve the exercise of any skill or ability beyond that to be expected of the PSIA.

Myanmar defines inventive step as an invention which “is not understood easily by an expert in the respective technical field”¹⁸⁴. In Indonesia, an invention lacks inventive step if “it can be obtained logically from prior art and it does not involve the exercise of certain skill beyond that to be normally expected of a person skilled in the art”¹⁸⁵. In Viet Nam, inventive step constitutes an “inventive progress and cannot be easily created by a person with average knowledge in the art”¹⁸⁶.

The patent laws of Malaysia¹⁸⁷ and Philippines¹⁸⁸ apply the definition of inventive step provided by the Guidelines for the Processing by International Searching and Preliminary Examining Authorities of International Applications Under the Patent Cooperation Treaty where the subject matter does not include an inventive step if one can define it as :

“that which does not go beyond the normal progress of technology but merely follows plainly or logically from the prior art, that is, something which does not involve the exercise of any skill or ability beyond that to be expected of the person skilled in the art”¹⁸⁹.

This is also the definition of “obvious” given in the PCT Guidelines at 13.03.

11.2.1 Prior Art

For the purposes of assessing the inventive step of a claimed invention, the prior art is defined as being everything made available to the public anywhere in the world before the relevant date.

The term “*everything*” includes not only written disclosure but also “*oral disclosure*”, as indicated in the patent legislations of Cambodia, Indonesia, Malaysia, Myanmar, Philippines and Singapore, and “*prior use*”, as stated in all AMS legislations.

There are no restrictions whatsoever as to the geographical location where, or the language or manner (including written disclosure posted on the Internet or an online database) in which, the relevant information contained in the written disclosure was made available to the public. There are no restrictions as to the age of the prior art

¹⁸⁴ Article 13 of the Patent Law of 2019, No. 7.

¹⁸⁵ Section 4.2.4 page 50 of the Indonesia’s Guidelines for Substantive Examination of Patent, 2019.

¹⁸⁶ Article 61 of the Law on Intellectual Property No. 50/2005/QH11.

¹⁸⁷ Section 15 of the Patent Act 291 of 1983 as amended by Act A1264 of 2006.

¹⁸⁸ Section 26 of the Intellectual Property Code of Philippines, Republic Act. No.8293, as amended.

¹⁸⁹ PCT ISPE GL, Chapter 13 “Inventive Step”, Paragraph 13.03 “Considerations in Determining Inventive Step”

document (whether it is 100 years old or was published one day prior to the “relevant date”), as long as the document was made available to the public before the relevant date.¹⁹⁰

A written disclosure is regarded as having been made available to the public if, on the relevant date, it was possible for the PSIA to gain access to the content of the document and to acquire possession of the content of the document, and if there was no bar of confidentiality restricting the use or dissemination of knowledge gained thereby¹⁹¹.

Prior art disclosure on the internet or in an online database is considered in the same manner as other forms of written disclosure. Information disclosed on the internet or in an online database is considered to be publicly available as of the date on which the disclosure was publicly posted.

A website forms part of the prior art even if access to it is restricted to a limited circle of people (e.g. by means of password protection) or if payment is required to access it. It is sufficient if the website is in principle available without any bar of confidentiality. Establishing a publication date of internet disclosures has two aspects. It must be assessed separately whether a given date is indicated correctly and whether the content in question was indeed made available to the public as of that date. The nature of the internet can make it difficult to establish the actual date on which information was made available to the public; for instance, the publishing date is not stated on all websites.

In view of the sheer size and redundancy of the content available on the internet, it is considered very unlikely that an internet disclosure discovered by an examiner has been manipulated. Consequently, unless there are specific indications to the contrary, the date can be accepted as being correct. In many cases, internet disclosures contain an explicit publication date which is generally considered to be reliable. Such dates are accepted at face value, and the burden of proof will be on the applicant to show otherwise. If an applicant provides reasons for questioning the alleged publication date of an internet disclosure, the examiner is obliged to take these reasons into account. If the examiner is no longer convinced that the disclosure forms part of the prior art, this disclosure will not be used further as prior art against the application unless the examiner is able to present further evidence which maintains the disputed publication date. Although the dates and content of internet disclosures can be taken at face value, there are of course differing degrees of reliability depending on the source of the disclosure. The more reliable a disclosure, the harder it will be for the applicant to prove that it is incorrect. In this context online technical journals from scientific publishers are very reliable. Online publications of newspapers or periodicals, academic institutions (such as academic societies or universities), international organisations, public organisations or standardisation bodies are also

¹⁹⁰ PCT ISPE GL, Chapter 11 “Prior Art”, Paragraph 11.01 “Prior Art Generally”.

¹⁹¹ PCT ISPE GL, Chapter 11 “Prior Art”, Paragraph 11.12 “Availability of Written Disclosures to the Public”.

considered to be as reliable as print publications.¹⁹² Entries in discussion groups, blogs or wiki pages also constitute prior art, although it may be more involved to establish their publication dates. Computer generated timestamps can be considered as reliable publication dates. While such dates could have been generated by an imprecise computer clock, this should be weighed against the fact that in general many internet services rely on accurate timing and will often stop functioning if time and date are incorrect. In the absence of indications to the contrary, the frequently used “last modified” date can be treated as publication date. For disclosures which have no date or an unreliable date, further information can be used¹⁹³.

If the applicant contests the public availability or assumed date of publication of the cited document, the examiner needs to consider whether to investigate the matter further. If the applicant shows sound reasons for doubting whether the document forms part of the "state of the art" in relation to the application and any further investigation does not produce evidence sufficient to remove that doubt, the examiner does not pursue the matter further.

Where an oral description (for example, public lecture) or a prior use or sale (for example, display at a public exhibition) was publicly available before the relevant date of an application but the document reproducing the oral description or giving an account of the prior use or sale was published on or after the relevant date of the application, this post-published document may still draw attention to the oral description or prior use later described therein¹⁹⁴.

The disclosure of an invention in the prior art may not have been made explicitly but may instead be implicit in a prior art document¹⁹⁵. Implicit teachings can be considered part of the prior art, hence destroying the inventive step of an invention.

The prior art for the analysis of obviousness is not unlike that of novelty; a notable difference is that unpublished patent applications with a priority date which is earlier than that of the invention are to be disregarded.

11.2.2 Test for inventive step

In relation to any claim defining subject-matter for which protection is sought, it is necessary to consider whether, at the relevant date of that claim, it would have been obvious to a PSIA to arrive at something falling within the terms of the claim starting from the prior art known at that time. If so, the claim is considered to lack inventive step.

¹⁹² EPO Guidelines for Examination, Part G, Chapter IV, Paragraph 7.5 “Internet disclosures”.

¹⁹³ EPO Guidelines for Examination, Part G, Chapter IV, Paragraph 7.5.4 “Disclosures which have no date or an unreliable date”

¹⁹⁴ PCT ISPE GL, Chapter 11 “Prior Art”, Paragraph 11.21 “Documents Reproducing an Earlier Oral Description”.

¹⁹⁵ PCT ISPE GL, Chapter 12 “Novelty”, Paragraph 12.04 “Inherent or Implicit Disclosure”.

The following are the basic considerations for assessing the inventive step of an invention:

(i) The claimed invention must be considered as a whole.

In determining the differences between the prior art and the claims, the question is not whether the differences themselves would have been obvious but whether the claimed invention as a whole would have been obvious. Thus, it is not correct as a general rule, in the case of a combination claim, 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 (i.e. where the interactions of the individual features produce a synergistic effect), it is enough to show that the individual features are obvious in order to prove that the aggregation of features does not involve an inventive step¹⁹⁶.

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 there are various ways in which a person skilled in the art may arrive at an invention. In identifying the contribution any particular invention makes to the art in order to determine whether there is an inventive step, account should be taken first of what the applicant itself acknowledges in its description and claims to be known; any such acknowledgment of known art should be regarded by the examiner as being correct unless the applicant states that it has made a mistake¹⁹⁷.

(ii) The prior arts must be considered as a whole.

The PSIA must be motivated or prompted into combining the teaching of the prior arts so as to arrive at the subject-matter as claimed, including the consideration of a reasonable expectation or likelihood of success.

(iii) The prior arts must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention.

An invention which at first sight appears obvious may 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, in a series of apparently easy steps.

¹⁹⁶ EPO Guidelines for Examination, Part G, Chapter VII “Inventive Step”, Paragraph 7 “Combination vs. juxtaposition or aggregation”; as well as ISPE GL, chapter 13.05; Guidelines for examination in the EPO G-VII, 7

¹⁹⁷PCT ISPE GL, Chapter 13 “Prior Art”, Paragraph 13.07 “invention as a Whole; Combination of Known or Obvious Elements”

Examiners should be wary of *ex post facto* analysis of this kind. When combining documents cited in the search report, they should always bear in mind that the documents produced in the search have, of necessity, been obtained with foreknowledge of what subject-matter constitutes the alleged invention. In all cases they should attempt to visualise the overall prior art confronting the PSIA before the applicant's contribution, and should seek to make a "real-life" assessment of this and other relevant factors. They 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, without the benefit of hindsight¹⁹⁸.

(iv) The criterion for an inventive step relates to a person with ordinary skill in the art to which the invention pertains.

In considering inventive step, prior art is construed in the light of field-specific knowledge and common knowledge generally available to the PSIA up to and including the day before the relevant date for the claimed invention. There are also certain features in science which are so obviously self-evident that they do not need to be specified but can be taken to be present within the intellectual arsenal of the skilled person.

The above steps (i) to (iv) appear to be consistent across all AMS, with (i) to (iii) being part of the PCT GLs. The actual test to be used to determine inventive step differs between two groups within the AMS (Problem-solution approach or Windsurfer test), but still appear to include the following two common steps :

- (i) The differences and similarities between the relevant item(s) of prior art and the claimed invention are identified.**
- (ii) Assessment is undertaken as to whether the claimed invention as a whole would have been obvious to a PSIA having regard to the relevant item(s) of prior art and the general knowledge of a PSIA at the relevant date ¹⁹⁹.**

The invention as a whole is obvious if any item(s) of prior art or general knowledge on the part of the PSIA would have motivated or prompted the PSIA on the relevant date to reach the claimed invention by substituting, combining or modifying one or more of these items of prior art with a reasonable likelihood of success.

11.2.2.1 Methods of determining inventive step

Methods of determining inventive step vary between AMS. While most AMS have adopted the "problem-solution approach", two countries apply another test known

¹⁹⁸ EPO Guidelines for Examination, Part G, Chapter VII "Inventive Step", Paragraph 8 "Ex Post facto analysis"

¹⁹⁹ PCT ISPE GL, Chapter 13 "Prior Art", Paragraph 13.08 "Assessing the Contribution Against the Prior Art"

as the “windsurfing test” in order to reach a conclusion as to whether any claim includes an inventive step.

a. Problem-solution approach

The “problem-solution approach” is based on the question as to whether the claimed invention would have been obvious to a person skilled in the relevant art when faced with a particular problem.

The “problem-solution” test is divided into the following three steps²⁰⁰:

- (i) determining the closest prior art
- (ii) establishing the objective technical problem to be solved; and
- (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 PSIA.

(i) Determining the closest prior art:

The closest prior art is that which in one single reference discloses the combination of features which constitutes the most promising starting point for a development leading to the invention. The closest prior art is the prior art that relates to the same field as the claimed invention or the same technical problem as the claimed invention and/or has the most features in common with the claimed invention, in that order of preference.

In practice, the closest prior art is generally that which corresponds to a similar use and requires the fewest structural and functional modifications to arrive at the claimed invention²⁰¹.

The problem-solution approach incorporates the idea that the best starting point for an inventive step analysis is a disclosure from the same field as the invention in preference to a document from a different field. This approach gives weight to the question as to whether a PSIA would be motivated to seek out documents from a different field in order to solve a problem²⁰².

It is necessary to determine the difference between the subject-matter of a claim as a whole and the prior art as a whole. In considering this matter, the examiner should not proceed solely from the point of view suggested by the form of the claim (prior art plus characterising portion). The examiner should identify the closest prior art as the basis for the assessment of inventive step.

The critical time for the determination of such disclosure is the priority date of the application concerned.

²⁰⁰ PCT ISPE GL, Chapter 13 “Inventive Step”, Paragraph 13.08.1 “Problem-Solution Approach”

²⁰¹ EPO Guidelines for Examination, Part G, Chapter VII “Inventive Step”, Paragraph 5.1 “Determination of the closest prior art”

²⁰² EPO Guidelines for Examination, Part G, Chapter VII “Inventive Step”, Paragraph 5 “Problem Solution Approach”

The closest prior art may be, for example:

- (i) a known combination in the technical field concerned that discloses technical effects, purpose or intended use, most similar to the claimed invention; or
- (ii) the combination which has the greatest number of technical features in common with the invention and is capable of performing the function of the invention²⁰³.

(ii) Objective technical problem

In the second stage, one establishes in an objective manner the technical problem to be solved. The technical problem means the aim and task of modifying or adapting the closest prior art to provide the technical effect(s) that the claimed invention provides over the closest prior art.

The technical problem is often referred to as the "objective technical problem". To do this, one studies the claimed invention, the closest prior art, and the difference in terms of features (structural and functional) between the claimed invention and the closest prior art, and then formulates the technical problem²⁰⁴. The expression "technical problem" should be interpreted broadly; it does not necessarily imply that the 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 which is more cost-effective²⁰⁵.

Sometimes the features of a claim provide more than one technical effect, so one can speak of the technical problem as having more than one part or aspect, each corresponding to one of the technical effects. In such cases, each part or aspect must generally be considered in turn²⁰⁶.

A close similarity of a problem to be solved can be a strong ground for arguing that a PSIA would be led to a claimed invention by applying or combining cited inventions.

The objective technical problem derived in this way may not be what the applicant presented as "the problem" in the application. The latter may require reformulation, since the objective technical problem is based on objectively established facts which appear particularly in the prior art revealed in the course of the proceedings and which may be different from the prior art of which the applicant was actually aware at the time at which the application was filed. Reformulation may lead to the objective technical problem being less ambitious than originally envisaged by the application. The extent to which such reformulation of the technical problem is possible has to be

²⁰³ PCT ISPE GL, Chapter 13 "Inventive Step", Paragraph 13.08.1 "Problem-Solution Approach"

²⁰⁴ PCT ISPE GL, Chapter 13 "Inventive Step", Paragraph 13.08.3 "Problem-Solution Approach"

²⁰⁵ PCT ISPE GL, Chapter 13 "Inventive Step", Paragraph 13.08.1 "Problem-Solution Approach"

²⁰⁶ PCT ISPE GL, Chapter 13 "Inventive Step", Paragraph 13.08.7 "Problem-Solution Approach"

assessed with regard to the merits of each particular case. As a matter of principle, any effect provided by the invention may be used as a basis for the reformulation of the technical problem, as long as said effect can be derived from the application as filed²⁰⁷. 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 instead a plurality of partial problems is independently solved by different sets of distinguishing features²⁰⁸.

- (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 PSIA.

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 PSIA, 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.

b. Windsurfing test

The four-step formulation to testing obviousness was articulated in the Windsurfing decision²⁰⁹.

The *Windsurfing/Pozzoli* test does not require a PSIA to identify "the closest prior art", unlike in the case of the problem-solution approach. The test merely requires the examiner to identify the "prior art", which is understood to be the most relevant prior art.

The test consists of a four-step approach:

- i) Identify the claimed inventive concept
- ii) Assume the mantle of the PSIA on the relevant date and impute to him what was, at that date, common general knowledge of the art in question.
- iii) Identify what, if any, differences exist between the matter cited as the prior art and the alleged invention.
- iv) Decide, without any knowledge of the alleged invention, whether these differences constitute steps which would have been obvious to the PSIA or whether they require any degree of invention.

²⁰⁷ EPO Guidelines for Examination, Part G, Chapter VII "Inventive Step", Paragraph 5.2 "Formulation of the Objective Technical Problem"

²⁰⁸ EPO Guidelines for Examination, Part G, Chapter VII "Inventive Step", Paragraph 5.2 "Formulation of the Objective Technical Problem"

²⁰⁹ *Windsurfing International Inc. v Tabur Marine (Great Britain) Ltd* [1985] RPC 59

The four-step formulation in *Windsurfing* was subsequently reviewed by the Court of Appeal in *Pozzoli Spa v. BDMO SA "Pozzoli"*²¹⁰ and restated thus:

- 1) (a) Identify the notional PSIA (b) Identify the relevant common general knowledge of that person;
- 2) Identify the inventive concept of the claim in question or, if that cannot readily be done, construe it;
- 3) Identify what, if any, differences exist between the matter cited as forming part of the "prior art" and the inventive concept of the claim or the claim as construed;
- 4) Viewed without any knowledge of the alleged invention as claimed, do these differences constitute steps which would have been obvious to the PSIA or do they require any degree of invention?

11.3 Definition of the Person Skilled in the Art

The criterion for an inventive step relates to a person skilled in the art to which the invention pertains.

There is no meaningful difference in the definition and scope of the PSIA among AMS. Most AMS' laws define the PSIA as having "average" or "ordinary" skills. This standard sets a floor for inventive step and a ceiling for how rigorous the standard can be.

By requiring obviousness to be determined from the perspective of those persons ordinarily skilled in the art, the PSIA standard deliberately excludes those of extraordinary skill.

A PSIA refers to a hypothetical person who, at the relevant date, has common general knowledge in the art to which the claimed invention pertains and the ability to use ordinary technical means for research and development (including experiment, analysis, manufacture, etc.); who has the ability to exercise ordinary creativity in selecting materials and changing designs, optimising numerical ranges and replacing elements with equivalent parts; and who is able to comprehend, based on their own knowledge, all technical matters regarding the prior art in the field to which a claimed invention pertains at the time of filing a patent application.

In most cases, there is field-specific knowledge to consider in the determination of inventive step, and the PSIA draws on this. Common general knowledge, by contrast, is a feature of the prior art that is not necessarily field-specific²¹¹. There are also certain features in science which are so obviously self-evident that they do not need to be specified but can be taken to be present within the intellectual arsenal of the skilled person.

²¹⁰ *Pozzoli SPA v BDMO SA* [2007] EWCA Civ 588

²¹¹ EPO Guidelines for Examination, Part G, Chapter VII "Inventive Step", Paragraph 3.1 "Common general knowledge of the skilled person"

If the problem on which the invention is based and which arises from the closest prior art prompts the person skilled in the art to seek its solution in another technical field, the person skilled in the art in that field is the person qualified to solve the problem.

There may be instances where it is more appropriate to think in terms of a group of persons, for example, a research or production team, than a single person. This may apply, for example, in certain advanced technologies such as computers or telephone systems and in highly specialised processes such as the commercial production of integrated circuits or of complex chemical substances²¹².

The core of the inventive step evaluation is a question directed to the PSIA to find out whether they would arrive at the alleged invention as the applicant did, without the exercise of inventive skills.

The word “ordinary” also reminds patent examiners that those working in the art at the time of an invention could not necessarily predict future developments in the art that in hindsight may appear to have been inevitable.

In summary, the PSIA can be defined as follows:

- Hypothetical person: A PSIA is a hypothetical person whose knowledge and skill provide a basis for assessing whether the claimed invention involves an inventive step. It is not the inventor of the invention. The exact level of knowledge and skill of this fictitious character needs to be defined for each concrete individual case, depending on the nature of the claimed invention;
- The level of skill in the relevant art: A PSIA is deemed to have ordinary or average skill in the relevant art on the relevant date. This person has average knowledge, not specialised knowledge, and thus the level of the PSIA’s knowledge, skill and abilities is considered higher than those of the general public but does not exceed the level expected from a normally qualified person;
- Limited capability of the PSIA: The PSIA is not an automaton, nor do they have full inventive capacity or inventive skill. The PSIA is proficient in the details of the relevant field but does not have inventive capabilities. While a combination or “mosaic” of the relevant prior art documents is permitted for the assessment of inventive step, it must be a combination or mosaic which can be put together by an unimaginative person with no inventive capability.

²¹² PCT ISPE GL, Chapter 13 “Inventive Step”, Paragraph 13.11 “Person Skilled in the Art”

11.4 Scope of knowledge of the Person Skilled in the Art

Possession of the common general knowledge in the art is one of the most significant aspects of the hypothetical PSIA since it characterises that fictitious person. In a purposive construction, it is this knowledge that the PSIA uses to construe the specification of a patent, and it is against such a background and context that the PSIA reads and understands prior arts. The scope of common knowledge of the PSIA is relatively constant amongst AMS. There are common elements that characterise the level of skill of the PSIA among the AMS. These elements may be summarised as follows:

- I. The PSIA is presumed to have had access to all publicly available prior art information.
- II. The PSIA is able to comprehend all technical matters in the relevant art.
- III. The PSIA is capable of applying the conventional experimental methods available before that date but has no capacity of creativity.
- IV. The PSIA should be aware of what was common general knowledge and field-specific knowledge in the art at the relevant date. There are also certain features in science which are so obviously self-evident that they do not need to be specified but can be taken to be present within the intellectual arsenal of the skilled person.

Common general knowledge is made from various sources including but not limited to publication of a specific document in a particular field and on a specific date. An assertion that something is common general knowledge need only be backed by documentary evidence such as a textbook, handbooks, monographs, encyclopedias, textbooks and reference books²¹³.

Further details on national common practices are outlined in the CSR at Chapter 11, Section 11.1.4.

11.5 Combining prior arts

In considering whether there is inventive step, it is permissible to combine or mosaic the teachings of two or more prior art references, for example, different published patents, or several teachings contained in the same prior art reference, such as one particular book, but only where such combination would be obvious to the PSIA. There is a consensus among AMS in determining whether it would be obvious to combine the teachings of two or more distinct prior arts. AMS' examination practices usually apply the following conditions when combining prior arts or teachings²¹⁴:

²¹³ EPO Guidelines for Examination, Part G, Chapter VII "Inventive Step", Paragraph 3,1 "Common General Knowledge of the Skilled Person"

²¹⁴ PCT ISPE GL, Chapter 13 "Inventive Step", Paragraph 13.12 "Combining teachings"

- (i) whether the nature and content of the prior arts are such as to make it likely or unlikely that the person skilled in the art would combine them;
- (ii) whether the prior arts come from similar or neighbouring technical fields and, if not, whether the documents are reasonably pertinent to the particular problem with which the invention was concerned.

The combination, substitution or modification of the teachings of one or more items of prior art may lead to a lack of inventive step/obviousness only where a PSIA would have been motivated by the prior art or their general knowledge, with a reasonable likelihood, to combine, substitute or modify one or more items of prior art. Conversely, where such combination could not have been expected from a PSIA, the requirement of inventive step (non-obviousness) would be met even if each single item would have been obvious if taken individually.

The combining of two or more parts of the same document would be obvious if there is a reasonable basis for the person skilled in the art to associate these parts with one another. It would normally be obvious to combine with other prior art documents 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 the teachings of two documents, one of which contains a clear and unmistakable reference to the other. It should be noted that the motivation to modify the prior art teachings need not be the same as the applicant's. It is not necessary for the prior art to suggest the combination in order to achieve the same advantage or result discovered by the applicant. The prior art may suggest the claimed invention, but for a different purpose or to solve a different problem. In some instances, the content of a single item of prior art may lead to a finding of lack of inventive step.

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 indications exist which lead the PSIA to the selection, then an inventive step is accepted (this technical effect occurring within the selected range may also be the same effect as is attained with the broader known range, but to an unexpected degree). It has to be considered whether the PSIA 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 step²¹⁵.

²¹⁵ PCT ISPE GL, Chapter 13 "Inventive Step", Paragraph 13.13 "Examples in which a single document calls into question the inventive step"

11.6 Secondary considerations

In order to establish the positive assertion that the claimed invention involves an inventive step (non-obviousness), the following factors should also be taken into account as secondary considerations: (i) whether the claimed invention fulfils a long-felt need; (ii) whether the claimed invention overcomes a scientific prejudice; (iii) whether others have previously attempted, but failed to achieve what the claimed invention achieves; (iv) whether the claimed invention involves an unexpected result; and (v) whether the claimed invention has a particular commercial success.

11.6.1 Secondary considerations in support of the existence of an inventive step

Most AMS apply technical and commercial considerations as persuasive pointers towards "non-obviousness" of the invention. A summary is given below. More details on AMS national practices are listed in the CSR Chapter 11, section 11.1.6.1.

Technical factors

Overcoming a scientific prejudice: The examiner should be hesitant in raising a negative determination that a claim lacks inventive step where the claimed invention solves a technical problem which workers in the art have been attempting to solve for a long time, otherwise fulfils a long-felt need, or overcomes a scientific prejudice²¹⁶.

Teaching away: As a general rule, there is an inventive step if the prior art leads the person skilled in the art away from the procedure proposed by the claimed invention. This applies in particular when the person skilled in the art would not even consider carrying out experiments to determine whether these were alternatives to the known way of overcoming a real or imagined technical obstacle²¹⁷.

Unexpected technical progress or technical advance:

An unexpected technical effect may be regarded as an indication of inventive step. It must, however, derive from the subject-matter as claimed, not merely from some additional features which are mentioned only in the description. The unexpected effect must be based on the characterising features of the invention, in combination with the known features of the claim. It cannot be based merely on features which are, in combination, already comprised in the prior art.

The unexpected property or effect must be described in precise terms. A vague statement such as "The new compounds have shown unexpectedly good

²¹⁶ PCT ISPE GL, Chapter 13 "Inventive Step", Paragraph 13.16 "Technical Value, Long-Felt Needs"

²¹⁷ PCT ISPE GL, Chapter 13 "Inventive Step", Paragraph 13.16 "Technical Value, Long-Felt Needs"

pharmaceutical properties" cannot support the presence of an inventive step. However, the product or process does not have to be "better" than known products or processes. It is sufficient that the property or effect would not have been expected²¹⁸.

Foreseeable disadvantageous modification

If an invention is the result of a foreseeable disadvantageous modification of the 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. 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 may 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.

Claimed invention fulfils a long-felt need

A long-felt need should also be taken into account as a secondary consideration²¹⁹.

Commercial factors

Commercial or economic success: 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 need is of relevance, provided the examiner is satisfied that the success derives from the technical features of the claimed invention and not from other influences (for example, selling techniques or advertising) and is commensurate in scope with the claimed invention²²⁰.

11.6.1.1 The relevance to the claim in question of the problem the inventor was trying to solve, as indicated in the description, when assessing inventive step (Question 105)

The invention as claimed should be disclosed in such a way that the technical problem, or problems, with which it deals can be appreciated and the solution can be understood. To meet this requirement, only such details should be included as are necessary for elucidating the invention. However, when there is doubt as to whether certain details are necessary, the examiner should not require their excision. It is not

²¹⁸ PCT ISPE GL, Chapter 13 "Inventive Step", Paragraph 13.14 (G) "Overcoming a technical prejudice"

²¹⁹ PCT ISPE GL, Chapter 13 "Inventive Step", Paragraph 13.16 "Technical Value, Long-Felt Needs"

²²⁰ PCT ISPE GL, Chapter 13 "Inventive Step", Paragraph 13.18 "Commercial Success"

necessary, moreover, for the invention to be presented explicitly in problem-and-solution form²²¹.

11.6.1.2 The importance of the technical problem to be solved in determining inventive step or non-obviousness (Question 106)

The importance of the technical problem to be solved in determining inventive step or non-obviousness can be categorised as follows.

- High importance (problem-solution approach test) in Indonesia, the Philippines, Thailand and Viet Nam. The “problem-solution approach” is divided into the following three steps (i) determining the closest prior art (ii) establishing the objective technical problem to be solved; and (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 PSIA.
- Medium importance (Windsurfing test) in Malaysia and Singapore. The Windsurfing/Pozzoli test, in contrast to the problem-solution approach, requires the PSIA to consider the inventive concept instead. The test merely requires the inquisitor to identify the "prior art", which is understood to be the most relevant prior art.

11.6.1.3 The degree of required disclosure of the technical problem in the specification for assessing inventive step (Question 107)

Please refer to **Paragraph 11.6.1.1.** above.

11.6.1.4 The role of advantageous effects in determining inventive step or non-obviousness (Question 108)

As shown above (**Section 11.6.1**), in order to establish the positive assertion that the claimed invention involves an inventive step (non-obviousness), the following factors should also be taken into account as secondary considerations: (i) whether the claimed invention fulfils a long-felt need; (ii) whether the claimed invention overcomes a scientific prejudice; (iii) whether others have previously attempted, but failed to achieve what the claimed invention achieves; (iv) whether the claimed invention involves an unexpected result; and (v) whether the claimed invention has a particular commercial success²²².

²²¹ PCT ISPE GL, Chapter 4 “Content of the International Application (Other Than the Claims)” Paragraph 4.07 “Disclosure of Invention”

²²² PCT ISPE GL, Chapter 13 “Inventive Step”, Paragraph 13.16 “Technical Value, Long-Felt Needs”

11.6.1.5 Necessity to disclose the advantageous effects in the patent application as filed (Question 109)

Some AMS require that the description of a patent specifically states the advantageous effects of the claimed invention, while others are silent on this issue.

Any advantageous effects which the applicant considers the invention to have in relation to the prior art should be stated, but this must not be done in such a way as to disparage any particular prior product or process²²³.

Neither the prior art nor the applicant's invention is to be referred to in a manner likely to mislead. This might be done, for example, by an ambiguous presentation which gives the impression that the prior art had solved less of the problem than was actually the case²²⁴.

1.6.1.6 Possibility of having later-submitted data considered by the examiner when assessing inventive step (Question 110)

Later-submitted data will be considered by the examiner only if the submission is made in response to an office action. The data must not go beyond the scope of the application as originally filed or provide a new teaching.

11.6.1.7 Reality of the advantageous effects (Question 111)

Paper or hypothetical examples of advantageous effects may not be sufficient if there is contrary evidence. The advantageous effects should be described in the form of analysis of structural features of the invention in combination with theoretical explanation or experiential data.

11.6.2 Secondary considerations in support of the non-existence of an inventive step

If an 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 step²²⁵. More details on AMS national practices are listed in the CSR Chapter 11, section 11.1.62.

²²³ PCT ISPE GL, Chapter 4 "Content of the International Application (Other Than the Claims)" Paragraph 4.07 "Disclosure of Invention"

²²⁴ PCT ISPE GL, Chapter 4 "Content of the International Application (Other Than the Claims)" Paragraph 4.07 "Disclosure of Invention"

²²⁵ EPO Guidelines for Examination, Part G, Chapter VII "Inventive Step", Paragraph 10.1 "Predictable disadvantage; non-functional modification; arbitrary choice"

11.7 Claims dependency and inventive step

When considering whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), and to be industrially applicable, the examiner should bear in mind that a dependent claim is regarded as limited by all the features of the claim on which it depends. Therefore, if the statement concerning inventive step of the independent claim is positive, it should normally be positive for the dependent claims²²⁶. On the contrary, if an independent claim does not have an inventive step, the assessment of inventive step should be made for each dependent claim.

The PCT International Search And Preliminary Examination Guidelines comprise examples providing guidance, as to circumstances where a claimed invention should be regarded as obvious or where it involves a positive determination of an inventive step (non-obviousness). It is to be stressed that these examples are only guides for the examiners and that the applicable principle in each case is “was it obvious to a person skilled in the art?” Examiners should avoid attempts to fit a particular case into one of these examples where the latter is not clearly applicable. Also the list is not exhaustive²²⁷.

The EPO Guidelines for Examination give examples of circumstances where an invention may be regarded as obvious or where it may involve an inventive step²²⁸.

The EPO Guidelines for Examination further provide examples of how to apply the problem-solution-approach for claims comprising technical and non-technical features²²⁹.

²²⁶ PCT ISPE GL, Chapter 13 “Inventive Step”, Paragraph 13.19 “Dependent Claims”

²²⁷ PCT ISPE GL, Chapter 13 “Inventive Step”, Paragraph 13.14 “Examples”

²²⁸ EPO Guidelines for Examination, part G, chapter VII, paragraph 15, “Examples 1-4”

²²⁹ EPO Guidelines for Examination, part G, chapter VII, paragraph 5.4.2, “Examples 1-5”

Chapter 12 - Industrial applicability requirement

12.1 Definition of “Industrial Applicability”

In all AMS industrial applicability or industrial application is a patentability requirement according to which a patent can only be granted for an invention which is susceptible of industrial application, i.e. for an invention which can be made or used in some kind of industry.

“Susceptibility of industrial application” is not a requirement that overrides the restrictions on patentable subject-matter, e.g. a method for treatment of the human body by surgery is not patentable even though it could be applied in the healthcare industry. For more details on patentable subject-matter, please refer to **Chapter 5**.

A claimed invention is considered industrially applicable if, according to its nature, it can be made or used (in the technological sense) in any kind of industry. “Industry” is understood in its broadest sense, as in the Paris Convention for the Protection of Industrial Property. In this context, the concept of “industry” is far-reaching and includes sectors such as agriculture and even handicraft.

“Industry” includes any physical activity of a technical character, that is, an activity which belongs to the useful or practical arts as distinct from the aesthetic arts. The requirement of “industrial application” does not necessarily imply the use of a machine or the manufacture of an article and could cover, for example, a process for converting energy from one form to another²³⁰.

An invention that is inoperative, for example an invention which is clearly non-operable in view of well-established laws of nature, does not comply with either of the industrial applicability requirements (Industrial applicability Test defined below) and is considered as having no application in industry²³¹.

If any product or process is alleged to operate in a manner clearly contrary to well-established physical laws and thus the invention cannot be carried out by a Person Skilled in the Art (“PSIA”), the claim does not have industrial applicability and the applicant should be so notified²³².

For the assessment of industrial applicability, the following steps are applied:

- determine what the applicant has claimed, and
- determine whether a PSIA would recognise the claimed invention to have industrial applicability²³³.

²³⁰ PCT ISPE GL, Chapter 14 “Industrial Applicability”, Paragraph 14.02 “Meaning of Industrial Applicability”.

²³¹ PCT ISPE GL, Chapter 14 “Industrial Applicability”, Paragraph 14.02 “Meaning of Industrial Applicability”.

²³² PCT ISPE GL, Chapter 14 “Industrial Applicability”, Paragraph 14.06 “Methodology”.

²³³ PCT ISPE GL, Chapter 14 “Industrial Applicability”, Paragraph 14.04 “Methodology”.

In most cases, industrial applicability will be self-evident and no more explicit description on this point will be required²³⁴.

The PCT International Search and Preliminary Examination provide the following test used by the AMS to assess whether an invention meets the requirement of industrial applicability.

1. Industrial applicability test

The industrial applicability test requires a patent application to meet the following three conditions:

1. The application must indicate the way in which the invention is capable of exploitation in industry (its intended function, special purpose or specific use).
2. The application must disclose the invention in a manner sufficiently clear and complete (defining means and ways) for the invention to be carried out by a PSIA. In the absence of such information it is permissible that the manner for carrying out the invention is disclosed in a source that was available to the public before the date of priority of the invention.
3. It must actually be possible while carrying out any claim (or claims) by a PSIA to realise the indicated special purpose (specific use) of the invention²³⁵.

a) Special purpose

The special purpose should be readily apparent from the subject-matter as defined in a claim (or claims) or from the nature of the invention.

For example:

When defining the subject-matter of the invention as “computer”, no question would arise of whether it is possible to use it in industry, that is, this first requirement would be considered to be complied with.

On the other hand, if the subject-matter of the invention refers to a novel chemical compound or a process for producing a novel compound, the invention would not be considered as complying with the first requirement if the indication of its specific use is lacking in the application²³⁶.

²³⁴ PCT ISPE GL, Chapter 14 “Industrial Applicability”, Paragraph 14.05 “Methodology”.

²³⁵ PCT ISPE GL, Chapter 14 “Industrial Applicability”, Paragraph 14.01[2].1 “Appendix to Chapter 14”, “Industrial Applicability”.

²³⁶ PCT ISPE GL, Chapter 14 “Industrial Applicability”, Paragraph 14.01[2].2 “Appendix to Chapter 14”, “Special Purpose”.

b) Clear and complete disclosure

The application describes the invention in a manner complying with this second requirement if the information contained in the application, together with information available from a source that was available to the public before the priority date of the application, is sufficient for the claimed subject-matter to be carried out by a PSIA.

The information provided by the application is assessed not only from the point of view of its use for carrying out the invention but also from the point of view of its use for finding the required information in the prior art²³⁷.

For example:

An independent claim defines a technical feature as follows: “heat expansion ratio for material from which a unit Q of a mechanism is made is in the range from A to B”; the material having a heat expansion ratio in the range is known from the prior art. In view of this, the application is deemed to disclose the invention in a manner complying with the second requirement regardless of whether the material is identified in the application or not²³⁸.

Where such material is not known from the prior art, but the application contains information that is sufficient to manufacture the material, the second requirement is also deemed to be satisfied. However, the second requirement would not be deemed to have been complied with where a material having a heat expansion ratio in said range is neither known from the prior art nor can be manufactured because the application as filed does not contain any information relating to its composition or its method of manufacture²³⁹.

c) Possibility of realising the special purpose

Verification of compliance with this third requirement is a verification of the technical correctness of the invention as defined in each claim. A positive result of such verification means that the implementation of the invention in accordance with the purported technical features as set forth in the claim will result in an embodiment capable of being used for the indicated special purpose.

²³⁷ PCT ISPE GL, Chapter 14 “Industrial Applicability”, Paragraph 14.01[2].3 “Appendix to Chapter 14”, “Clear and Complete Disclosure”.

²³⁸ PCT ISPE GL, Chapter 14 “Industrial Applicability”, Paragraph A14.01[2].3 “Appendix to Chapter 14”, “Clear and Complete Disclosure”.

²³⁹ PCT ISPE GL, Chapter 14 “Industrial Applicability”, Paragraphs A14.01[2].3 and 4 “Appendix to Chapter 14”, “Clear and Complete Disclosure”.

For example:

When the subject-matter of the claim is “perpetuum mobile” it would not be recognised as complying with the third requirement even where the application complies with the second requirement (clear and complete disclosure), since it operates contrary to the well-established physical laws.

The third requirement is also deemed not to have been complied with in cases of technical errors which are not necessarily linked with basic laws of nature but nevertheless result in a failure of the claimed subject-matter to be usable for the special purpose indicated by the applicant²⁴⁰.

2. Date at which requirements must be met for the two tests

Verification of compliance with the above three requirements is carried out as of the priority date of the invention.

Accordingly, if no prior disclosure made before the priority date provided the information required to carry out the claimed invention and the earlier application on the basis of which priority of the application concerned was claimed did not contain such information, incorporation of the information into the application under review would not be sufficient to establish the invention as having industrial applicability as of the priority date and would be considered as adding new matter²⁴¹.

12.2 Grounds for appealing the rejection of a patent application based on lack of industrial applicability (Question 124)

If a patent office issues an objection against a patent application for lack of industrial applicability, the applicant should be allowed to file a response and submit an explanation, data or evidence to address the objections raised by the examiner. Whether the response will be admitted depends on the individual case. Usually, as long as support can be found in the original disclosure, the examiner may consider the submitted data or evidence. If the examiner upholds the rejection, the possibility of appeal against the examiner’s decision before an upper administrative body or a competent court are available to the applicant.

²⁴⁰ PCT ISPE GL, Chapter 14 “Industrial Applicability”, Paragraphs A14.01[2].5 and 6 “Appendix to Chapter 14”, “Possibility of Realizing the Special Purpose”.

²⁴¹ PCT ISPE GL, Chapter 14 “Industrial Applicability”, Paragraph A14.01[2].8 “Appendix to Chapter 14”, “Date at Which Requirements Must Be Met”.

Chapter 13 - Amendment of patents

Amendments are a normal part of the patent application procedure, and the vast majority of applications will be amended in some way before grant. Post-grant amendment is less common, but does provide the flexibility to retain a valid patent when relevant prior art comes to light later. Usually, an amendment must not add technical subject-matter, and so it is vital that full disclosure, including of optional features and combinations of alternatives, is provided at the time of filing.

All AMS allow pre-grant amendment of patent applications, while some also allow post-grant amendment. All AMS allow the correction of obvious mistakes both pre- and post-grant.

Generally, any change in the application, claims, description or drawings, other than a rectification of obvious mistakes, or the furnishing of missing parts, should be considered an amendment. Unless withdrawn or superseded by later amendments, any pre-grant change must be taken into consideration for the purpose of search and examination unless filed after the search has been carried out and, e.g., in the Philippines the amendment relates to unsearched subject matter.

Pre- and post-grant amendments must be formally and substantially allowable, which means that they must not add subject-matter to the application which was not disclosed in the application as originally filed and must not introduce other deficiencies (such as a lack of clarity in the claims or a lack of unity of invention). Practices as to what constitutes added matter are consistent at all AMS patent offices.

13.1 Pre-grant amendments (Question 126)

Pre-grant amendments can be filed in two ways:

- The applicant may voluntarily amend the application or the specification before filing the search and examination request.

The applicant is not entitled to amend the application or specification unless it has made a request to do so to the Registrar in the prescribed manner and within the prescribed period and the request is accompanied by the prescribed documents and official fees, if any. If the applicant fails to comply with any requirement, the Registrar may refuse the request and will inform the applicant accordingly.

- The applicant may amend the specification when responding to the examiner's written opinion or an objection from the examiner.

The applicant must submit a response to the Registrar in the prescribed manner and within the prescribed period and the response should be accompanied by the prescribed documents and official fees, if any. If the applicant fails to comply with any requirement, the Registrar may refuse the applicant's response and will inform the applicant accordingly.

Apart from when filing the response to the examiner's written opinion, there is no other opportunity for the applicant to voluntarily make amendments to the application during the period after the filing of the search request and before payment of the fee for the grant of a patent.

Regardless of how the application is amended, the applicant is obliged to indicate the basis in the application as originally filed for any amendments filed.

A pre-grant amendment, once accepted, takes effect from the date the amendment was filed.

1. Allowable amendments and test

An amendment must fulfil two conditions to be acceptable:

- the proposed amendment must not introduce additional subject-matter; and
- the proposed amendment must not extend the provisional protection conferred by the patent application (Exception: Singapore, where this is allowed, and the restriction applies for post-grant amendments only).

These conditions may be verified by applying a novelty test, i.e., no new subject-matter must be generated by the amendment.

Alteration or excision of text, and not just the addition of further text, may introduce new subject-matter.

The examiner must make sure that amendments filed do not add to the content of the application as filed. The examiner should consider the following to be acceptable: restriction of the scope of the claims; amendments that improve the clarity of the description; and amendments to the claims in a manner clearly desirable, without changing their subject-matter or scope. An amended application must, of course, satisfy all the other filing requirements, including the matters listed in these Guidelines.

Especially when the claims have been amended, the examiner should bear in mind that the following questions may require special consideration at the amendment stage:

- (i) Do the amended claims satisfy the requirement of unity of invention?
- (ii) If the claims have been amended, will the description require corresponding amendment to remove serious inconsistency between the two?²⁴²
- (iii) Are all of the amended claims supported by the description?

In addition, if the categories of claims have been altered, the examiner may draw this to the attention of the applicant if it means that the title and/or abstract is no longer appropriate²⁴³.

2. Additional subject-matter

When an applicant seeks to amend the description (other than references to the prior art), the abstract, title, drawings or the claims in such a way that subject-matter which extends beyond the content of the application as filed is thereby introduced, the search and examination report must be established as if such amendment had not been made²⁴⁴.

An amendment should be regarded as introducing subject-matter which extends beyond the content of the application as filed, and therefore as unallowable, if the overall change in the content of the application (whether by way of addition, alteration or excision) results in the Person Skilled in the Art (PSIA) being presented with information which was not expressly or inherently presented in the application as filed, even when taking into account matter which is implicit to a PSIA in what has been expressly mentioned.

The term “inherently” requires that the missing descriptive matter is necessarily present in the disclosure, and that it would be recognised by the PSIA. Inherency may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient to qualify as “inherent”²⁴⁵.

For example:

If an application relates to a rubber composition comprising several ingredients and the applicant seeks to introduce the information that a further ingredient may be added, then this amendment is normally objected to²⁴⁶.

In other words, amendments are permitted within the limits of what the PSIA would derive directly and unambiguously, using common general knowledge, from the

²⁴² PCT ISPE GL, Chapter 20 “Amendments”, Paragraphs 5.29 and 5.30, “Inconsistency Between Claims and Description”.

²⁴³ PCT ISPE GL, Chapter 20 “Amendments”, Paragraph 20.09 “Appraisal of Amendments”.

²⁴⁴ PCT ISPE GL, Chapter 20 “Amendments”, Paragraph 20.10 “Additional Subject Matter”.

²⁴⁵ PCT ISPE GL, Chapter 20 “Amendments”, Paragraph 20.12 “Additional Subject Matter”.

²⁴⁶ PCT ISPE GL, Chapter 20 “Amendments”, Paragraph 20.13 “Additional Subject Matter”.

application as filed. The underlying idea is that an applicant is not allowed to improve its position by adding subject-matter not disclosed in the application as filed.

For example:

- In the case of a disclosure of both a general and a preferred range, a combination of the preferred disclosed narrower range and one of the part-ranges lying within the disclosed overall range on either side of the narrower range may be derivable from the original disclosure of the application²⁴⁷.
- If in an application which describes and claims apparatus “mounted on resilient supports”, without disclosing any particular kind of resilient support, the applicant seeks to add specific information that the supports are, or could be, for example, helical springs, then the amendment should normally be regarded as going beyond the disclosure in the application as originally filed. If, however, the applicant can show convincingly that the subject-matter in question would, in the context of the claimed invention, be so well known to the PSIA that its introduction could be regarded as an obvious clarification and, therefore, as not extending the content of the application, it is permissible²⁴⁸.
- In addition, if in this case of the resilient supports the applicant were able to demonstrate that drawings, as interpreted by the PSIA, showed helical springs, or that the PSIA would naturally use helical springs for the mounting in question, then specific reference to helical springs should be regarded as permissible²⁴⁹.

Where a technical feature was clearly disclosed in the original application but its effect was not mentioned or not mentioned fully, yet it can be deduced without difficulty by a PSIA from the application as filed, subsequent clarification of that effect in the description might be allowed²⁵⁰.

Amendment by the introduction of further examples, for example, in the chemical field, should always be looked at very carefully, since *prima facie* any further example to illustrate a claimed invention may extend the disclosure of the application as originally filed.²⁵¹

However, later-filed examples or statements of advantage, even if not allowed into the application, may nevertheless be taken into account by the examiner as evidence in support of the allowability of the claims in the application.

²⁴⁷ Guidelines for Examination at the EPO, Part H “Amendments and Corrections”, Chapter IV “Allowability of amendments – Art. 123(2) and (3)”, section 2.4 “Assessment of ‘added subject-matter’ – examples”.

²⁴⁸ PCT ISPE GL, Chapter 20 “Amendments”, Paragraphs 20.13 and 20.14 “Additional Subject Matter”.

²⁴⁹ PCT ISPE GL, Chapter 20 “Amendments”, Paragraph 20.14 “Additional Subject Matter”.

²⁵⁰ PCT ISPE GL, Chapter 20 “Amendments”, Paragraph 20.15 “Additional Subject Matter”.

²⁵¹ PCT ISPE GL, Chapter 20 “Amendments”, Paragraph 20.16 “Additional Subject Matter”.

For example:

An additional example may be accepted as evidence that the invention can be readily applied, based on the information given in the originally filed application, over the whole field claimed; or an additional statement of advantage may be accepted as evidence in support of inventive step. When such evidence is used by the examiner to support a positive conclusion on inventive step, a mention of this evidence should be made in the examination report²⁵².

Care must also be taken to ensure that any amendment to, or subsequent insertion of, a statement of the technical problem solved by the invention does not add subject-matter to the application which was not disclosed in the application as originally filed.

For example:

It may happen that, following restriction of the claims to meet an objection of lack of inventive step, it is desired to revise the stated problem to emphasise an effect attainable by the thus restricted invention but not by the prior art. It must be remembered that such revision is only permissible if the effect emphasised is one deducible by a PSIA without difficulty from the application as filed²⁵³.

Alteration or excision of text, as well as the addition of further text, may introduce new subject-matter.

For example:

Suppose a claimed invention related to a multi-layer laminated panel and the description included several examples of different layered arrangements, one of these having an outer layer of polyethylene. Amendment either to alter the outer layer to polypropylene or to omit this layer altogether would not normally be regarded as permissible. In each case, the panel disclosed by the amended example would be quite different from that originally disclosed and hence the amendment would be considered to introduce new subject-matter²⁵⁴.

Missing parts of the description or missing drawings filed after the date of filing

The applicant may file missing drawings or parts of the description subsequently and rely on the priority document to avoid the re-dating of the application to the date of filing of the missing parts. Re-dating should only be avoided where the missing parts were filed within a prescribed period (if applicable) and were "completely contained"

²⁵² PCT ISPE GL, Chapter 20 "Amendments", Paragraph 20.17 "Additional Subject Matter".

²⁵³ PCT ISPE GL, Chapter 20 "Amendments", Paragraph 20.18 "Additional Subject Matter".

²⁵⁴ PCT ISPE GL, Chapter 20 "Amendments", Paragraph 20.19 "Additional Subject Matter".

in the priority document. Said missing parts of the description and/or missing drawings should always be considered to be part of the application documents "as originally filed".

Citation of prior art in the description after the filing date

There is normally no objection to an applicant introducing, by amendment, further information regarding prior art which is relevant²⁵⁵. However, if the amendment changes the way in which the PSIA would understand the invention from what was originally indicated or changes the nature of the problem to be solved, then it may not be allowable.

For example:

Inclusion of prior art which shows the invention possesses certain advantages will be allowable only if the advantage would have been apparent to a PSIA in possession of that prior art.

Data or evidence submitted after the filing date

The applicant may submit data or evidence after the date of filing to address objections raised by the examiner. Whether the data or evidence will be admitted depends on the technological field and the individual case. As long as support can be found in the original disclosure (i.e. there is no new teaching), the examiner may consider the submitted data. This is not an amendment to the application but may be part of the procedure. However, if the data or evidence submitted after the filing date provides a new teaching, e.g., a selection invention for which support cannot be found in the application as filed, then it would not be admissible. For example, it would not be allowable to claim a specific compound or composition by merely providing its advantages at a later stage.

Clarifications

The removal of a lack of clarity will normally not be objected to, provided that the change does not extend beyond the disclosure of the application as originally filed.

Trade marks

If an amendment is made to clarify the meaning of a trade mark or to replace a registered trade mark with a corresponding technical term, the examiner needs to be particularly careful that the amendment does not add subject-matter to the application which was not disclosed in the application as originally filed. The composition of a trade-marked product may have changed over time.

²⁵⁵ PCT ISPE GL, Chapter 20 "Amendments", Paragraph 20.10 "Additional Subject Matter"

International applications

The documents as originally filed are those originally filed in the PCT phase (normally published as a WO publication), a copy of which can always be obtained from the International Bureau. Therefore amendments made during the PCT phase (including amended, substitute or rectified sheets, even if attached to the WO publication) or upon entry into the regional phase before the deadline must, if maintained in the national phase, must not add subject-matter to the application which was not disclosed in the application as originally filed, and all such amendments must be carefully considered.

Divisional applications

The subject-matter of a divisional application may not extend beyond the content of the parent application as originally filed. Furthermore, amendments made to the divisional application subsequent to its filing may not extend beyond the content of the divisional application as originally filed.

Broadening claims

There is no pre-grant restriction on the applicant broadening the scope of its claims provided the amendment does not include matter extending beyond that disclosed in the application as filed. That is, if the disclosure in the application as filed is broader than the claims as filed, the applicant may make amendments before grant to bring the claims into line with the specification. Compared with pre-grant amendments, post-grant amendments have the further restriction that the scope of the claims cannot be broadened.

3. Lack of support

Where subject-matter is disclosed in a claim of the application as filed, but is not mentioned anywhere in the description, it is permissible to amend the description so that it includes this subject-matter as disclosed in that claim. However, consideration would still need to be given to whether the description as amended provides the required support for the claims. If there is a contradiction or inconsistency between the claims and the description, this will have to be resolved by amendment of either the claims or the description. In some occasional circumstances, there may be a question of whether the claims provide sufficient disclosure to allow amendment of the description without adding matter that goes beyond the disclosure as filed or to provide full support.

An amendment to include a negative limitation to overcome prior art may raise an issue of lack of support.

An amendment to the claims or the addition of a new claim must be supported by the description of the invention as originally filed, and each claim limitation must be

explicitly or inherently supported in the originally filed disclosure. Where such an amendment introduces a negative limitation, exclusion or disclaimer, the amendment should be examined to determine whether it may raise an issue of new matter²⁵⁶.

4. Burden of proof

The applicant has the initial burden of establishing that the requirements for amendment have been met, even assuming that the applicant has already cited portions of the application supporting the amendments.

13.2 Post-grant amendments (Question 127)

Post-grant amendments are allowed in most AMS. An amendment of the specification of a patent post-grant, once allowed, has effect and is deemed always to have had effect from the date of grant of the patent. The test and considerations for added subject-matter are the same as for pre-grant amendment. Compared with pre-grant amendments, post-grant amendments have the further restriction that the scope of the claims cannot be broadened.

13.3 Scope of allowable amendments (Question 127a)

Please refer to **Sections 13.1** and **13.2** above.

13.4 Amendments versus corrections (Question 127b)

All AMS allow an applicant to request authorisation to rectify obvious mistakes pre- and post-grant.

The mistake must be “obvious” in the sense that it is obvious to the competent authority e.g. the patent examiner and the PSIA: (i) that something else was intended than what appears in the document concerned; and (ii) that nothing else could have been intended than the proposed rectification²⁵⁷.

The test for the rectification of an obvious mistake is a two-fold test: (i) the recognition that there was indeed a mistake; and (ii) an assessment as to whether the proposed rectification was the only meaning which could have been intended. In other words, it first must be apparent that a mistake has been made. Then it must be clear that nothing else could have been intended other than the proposed rectification²⁵⁸.

²⁵⁶ PCT ISPE GL, Chapter 20 “Amendments”, Paragraph 20.20 “Lack of Support”.

²⁵⁷ PCT ISPE GL, Chapter 8 “Obvious Mistakes in Documents”, Paragraph 8.01.

²⁵⁸ PCT ISPE GL, Chapter 8 “Obvious Mistakes in Documents”, Paragraph 8.04.

Examples of obvious mistakes that are rectifiable include linguistic errors, spelling errors and grammatical errors, so long as the meaning of the disclosure would not change if the rectification was made. An obvious mistake is not solely limited to such kinds of mistakes, but for a correction to the description, claims or drawings, the finding by the competent authority/patent examiner as to whether an alleged mistake is obvious must be made only on the basis of the description, claims and drawings. The contents of priority documents should not be taken into account for the purposes of considering whether mistakes in the description, claims or drawings are obvious and thus rectifiable. Mistakes in a chemical or mathematical formula would not generally be rectifiable unless the correct formula was common knowledge²⁵⁹.

Correction is authorised on condition that the mistake is obvious to the PSIA, i.e. that something else was obviously intended from the beginning, and that the correction is obvious to the PSIA too, i.e. that nothing else could have been intended than the proposed correction.

Once it has been established that the change is indeed a correction, the question of whether subject-matter is added, or the protection conferred is extended, is not a relevant consideration.

A correction, once accepted, takes effect from the date of filing, as if the error had never been made in the first place.

Depending on the circumstances of the case, the applicant may need to provide evidence to address some of the threshold questions. This may include evidence as to why it would be obvious to the PSIA that there is an error and why the correction would be understood to be the original intention.

In the absence of clear evidence to the contrary, the examiner should generally assume that the translation of the application and amendments are accurate. However, if there are obvious errors or omissions in the translated document (e.g., missing pages or text), the applicant may request to correct the error.

²⁵⁹ PCT ISPE GL, Chapter 8 “Obvious Mistakes in Documents”, Paragraph 8.05.

Chapter 14 - Work products sharing

14.1 Provisions governing or facilitating work-sharing (Question 128)

For patent offices that have chosen to conduct search and substantive examination (S&E), international, regional, or bilateral cooperation may be available to assist them in conducting S&E more effectively and efficiently.

A number of patent offices are using S&E expertise and re-using work products from other offices and are working together in various ways. Work-product-sharing between AMS patent offices is facilitated via various formal programmes including the ASEAN Patent Examination Co-operation (ASPEC) which is the first regional patent work-sharing programme among the nine participating AMS patent offices of Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam.

The purpose of work-product-sharing is to share search and examination results between all 9 AMS participating offices, in order to allow applicants in participating countries to obtain corresponding patents faster and more efficiently in several participating states.

ASPEC also helps to reduce unnecessary duplication in the S&E work, thereby saving time and effort. Additionally, S&E work carried out on a corresponding application serves as a useful reference when producing quality reports. There are three ASEAN regional work sharing programmes in operation which allow work-product-sharing, as well as the bilateral and validation programmes summarised below:

➤ ASPEC Prosecution Highway

Launched on 15 June 2009, ASPEC is a regional patent work sharing programme within the same 9 AMS as in PCT-ASPEC. The purpose of this programme is to share S&E results between the 9 AMS' patent offices, in order to allow applicants to obtain corresponding patents faster in the respective other states.

Although it is not mandatory for AMS' patent offices to follow the S&E results received from another AMS' patent office, the allowance rate of ASPEC based examination is reported at nearly 95 % as of January 2022.

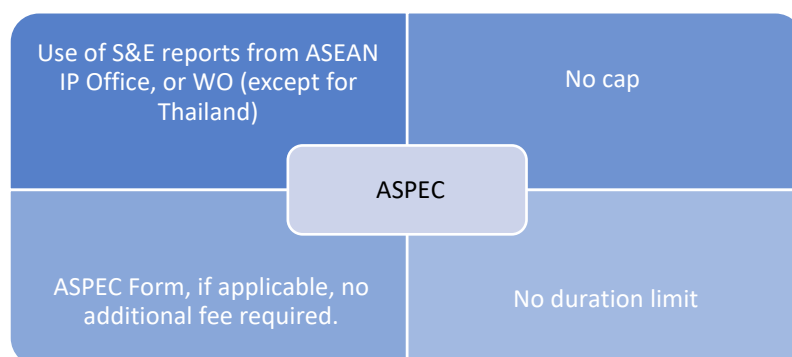
Also as of January 2022, the total number of ASPEC requests was over 1000. Please refer to the following for the latest statistics:

		2 nd AMS								
		BN	KH	ID	LA	MY	PH	SG	TH	VN
1 st AMS	BN									
	KH									
	ID					10			13	8
	LA									
	MY			8			2		32	13
	PH			4		8			15	5
	SG	1		72		342	110		190	231
	TH					1				
	VN								6	

Source: ASEAN IP Portal

<https://www.aseanip.org/Statistics/ASEAN-Patent-Examination-Cooperation-ASPEC-Statistics>

Since 15 June 2021, applicants can use written opinion (“WO”) established by the first AMS’ patent office to request ASPEC before a second AMS’ patent office, as long as the WO acknowledges at least one allowable claim. There is no longer any requirement to provide a final S&E report, except when filing a request for ASPEC in Thailand.

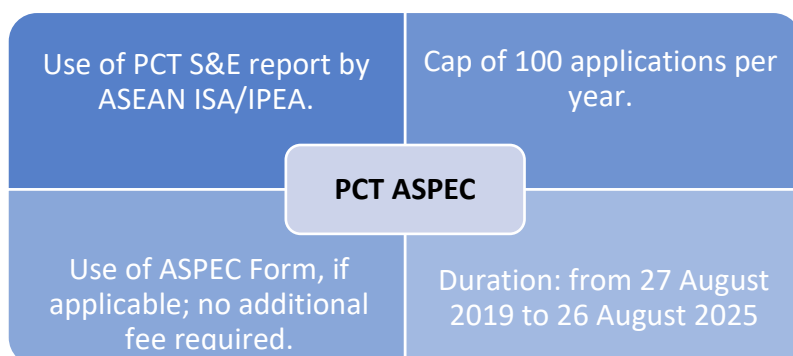


➤ PCT-ASPEC programme

The Patent Cooperation Treaty-ASEAN Patent Examination Cooperation (**PCT-ASPEC**) was launched on August 27, 2019. It allows applicants to use a PCT search and examination report (“S&E”) to expedite the examination and grant of a national phase application in any of the 9 ASEAN Member States (“AMS”) patent offices participating in the programme²⁶⁰. The S&E report is prepared by an ASEAN International Searching Authority (“ISA”) or Preliminary Examining Authority (IPEA), in this case the Intellectual Property Office of the Philippines or the Intellectual Property Office of Singapore. The ASEAN Secretariat has recently extended the PCT-ASPEC pilot

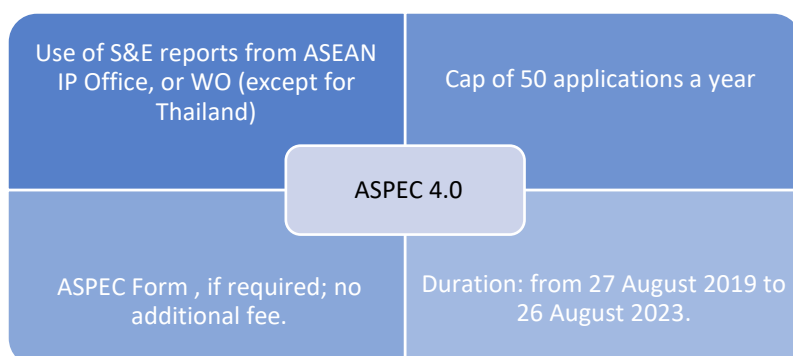
²⁶⁰ Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Philippines, Singapore, Thailand and Viet Nam

programme for three years until 26 August 2025. An annual cap of 100 applications has been agreed for the whole region.



➤ ASPEC for Industry 4.0 Infrastructure and Manufacturing

ASPEC Acceleration for Industry 4.0 Infrastructure and Manufacturing (“**ASPEC AIM**”) was launched at the same time as the PCT-ASPEC on 27 August 2019 and is limited to 50 Industry 4.0 related applications a year. and the programme has been extended for a 2-year term till August 26, 2023. There is a committed turnaround time of six months to receive the first office action if an ASPEC request is made.



ASEAN bilateral and national patent prosecution highway programmes

In addition to ASEAN regional programmes, there are bilateral and national PPH programmes allowing the expedition of the examination of patent applications. They can be paired with ASPEC programmes to further expedite the examination and grant of patents.

In addition to the ASEAN-based regional work-product-sharing programme, there are bilateral mechanisms allowing work-product sharing

➤ Bilateral programmes for work-product sharing

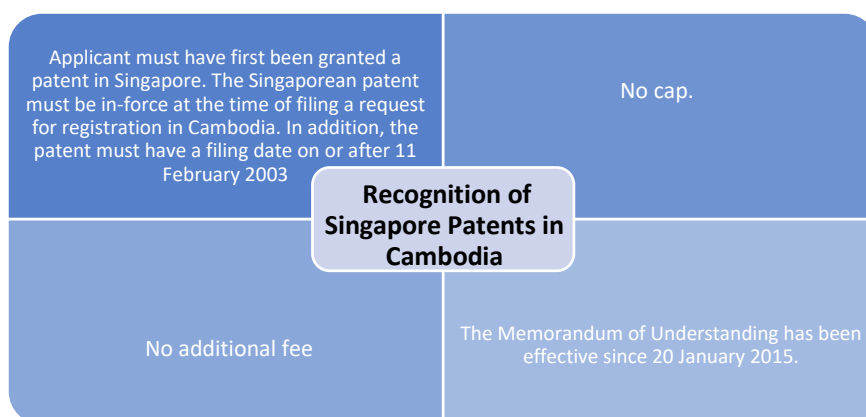
AMS have entered the following national and regional PPH programmes with various patent offices around the world.

Japanese Patent Office PPH programs	European Patent Office PPH programs	Korean Intellectual Property Office-PPH programs	China National Intellectual Property Administration	US Patent & Trade Mark Office	IP office of Singapore Validation programs	Other PPH programmes
Cambodia (CPG) Lao PDR (CPG)	Cambodia Malaysia Philippines Singapore	Cambodia Malaysia Philippines Viet Nam Lao PDR (CPG)	Cambodia Lao PDR (CPG) Malaysia Singapore	Cambodia Malaysia Philippines	Cambodia Lao PDR (re-registration)	Global PPH program: Singapore INPI of Brazil: Singapore IMPI of the United States: Mexico Singapore

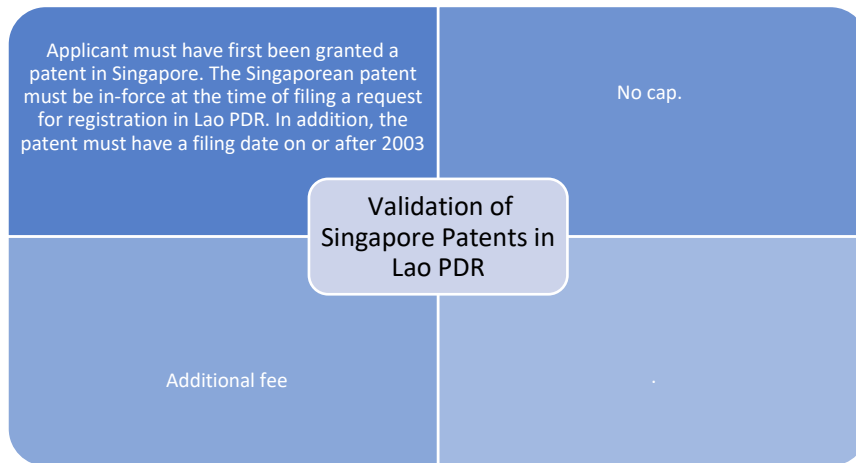
➤ Recognition or Validation of patents

Singapore -> Cambodia & Lao PDR

The IPOS and Cambodia’s Ministry of Industry and Handicrafts concluded a Memorandum of Understanding on January 20, 2015, permitting for the filing of Cambodian patents through IPOS. Patent rights received under this declaration may not be enforced against any prior rights which already existed before the date of filing a request for registration of a Singaporean patent in Cambodia. The procedure is simple and inexpensive.

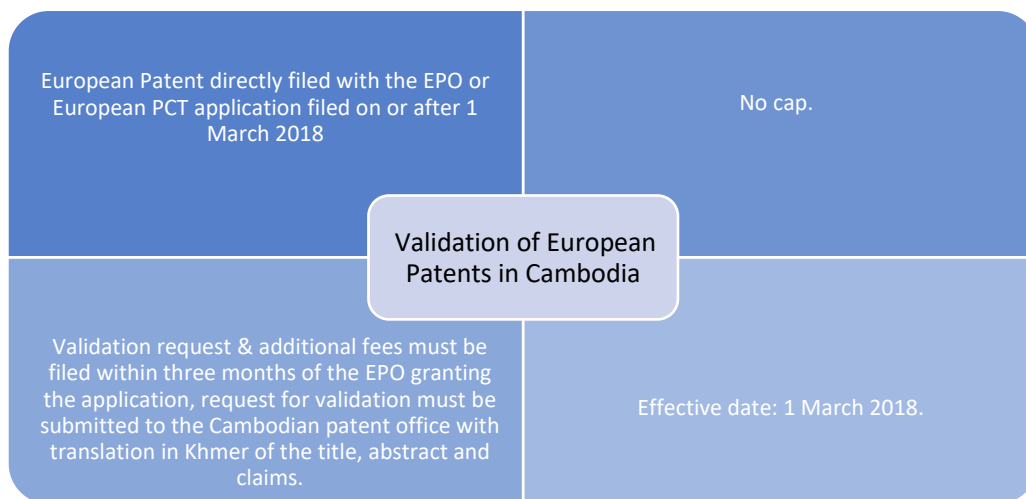


The Intellectual Property Office of Lao PDR signed a Memorandum of Cooperation (MoC) with IPOS on 27 November 2019 which enables Singaporean granted patents to be recognised in Lao PDR. The procedure is simple and inexpensive.



Europe -> Cambodia

The European Patent Office and the Cambodian Ministry of Industry and Handicrafts (now the Ministry of Industry, Science, Technology and Innovation MISTI) entered into an agreement on 23 January 2017 which allows the validation of EP patents in Cambodia. Following successful validation, the patent owner will be issued an official patent certificate from MISTI. The validation procedure is unexpensive and straightforward and there are beginning to be a growing number of validation requests.



Reinforced Partnership agreements with EPO

Since October 2019, and November 2019 respectively, the Malaysian and Indonesian patent offices respectively have concluded Memorandums of Understanding for an enhanced "Reinforced Partnership" (RP) co-operation. The RP programme is an

“office-driven” scheme for the standardised reuse of EPO search and examination results with a view to enabling partner offices agree to systematically reuse EPO work products in their patent grant processes with a view to enhancing and expediting the search and examination of national/regional patent applications claiming the same priority.

Although RP does not require any legislative amendments to the legal frameworks of the partner countries, the closer the alignment of the national/regional patent laws with the European Patent Convention, the greater the benefits of reusing EPO work products.

The RP programme may function in parallel with and be complementary to the PPH programmes.

14.2 Obligation to provide available work results from the priority application(s) (Question 129)

To best assist examiners in conducting substantive examination, some AMS (e.g., Malaysia, Thailand) require that an applicant submit to the office information about available work results in relation to priority applications that are known to the applicant. Depending on the applicable national law, such information must be furnished by the applicant automatically, or it must be submitted to the patent office upon request. This is a best practice to help the Office of Second Filing (OSF) in identifying the relevant prior arts while maintaining the autonomy of the patent office to make a final decision on grant of a patent.

14.3 ASPEC Work sharing (Question 130)

The ASPEC Programme is the first regional patent cooperation project. The participating AMS patent office may consider the S&E documents it receives under the ASPEC programme. It is not obliged to adopt any of the findings or conclusions reached by the other patent office. It will proceed with and conclude its S&E work, as well as deciding whether to grant the patent, in a manner in accordance with its national laws.

When an ASPEC request is filed at a participating AMS patent office in accordance with the requirements at that office, the patent applicant will be able to benefit from expedited processes from the time of filing the ASPEC request until grant.

A patent application in a participating AMS patent office where the ASPEC request form is filed (“second IP Office”) must be a corresponding patent application of the other participating AMS IP Office (“first IP Office”). The ASPEC Request must be supported by S&E documents of the corresponding application from the first IP Office.

All claims filed in subsequent patent offices must correspond to a sufficient extent to allowable/patentable claims referred to in the S&E documents from the first IP Office.

The ASEAN Comparative Study Report (CSR) is an ideal tool to support the re-use of S&E work products from one or more other ASEAN POs, as it provides an ideal overview of the practices across the ASEAN POs indicating whether or not the patent prosecution practices are the same, and whether therefore the S&E results from one ASEAN PO may be compatible with those of another.

To qualify for PCT-ASPEC and ASPEC AIM, the following eligibility criteria are required:

- PCT-ASPEC: The basis to be relied upon for examination should be an international preliminary examination report or a written opinion issued by an ASEAN ISA/IPEA as the first IP Office.
- ASPEC AIM: The first IP Office indicates that the patent application contains at least one IPC code which qualify for acceleration under ASPEC- AIM.

A patent application in the first IP Office is a corresponding application if: it is linked by a Paris Convention priority claim to the patent application in the second IP Office, and vice-versa, or the patent applications in both the first IP Office and second IP Office have the same priority claim from another member of Paris Convention or World Trade Organisation, or the patent applications in both the first IP Office and second IP Office are national phase entry applications from the same Patent Cooperation Treaty application.

Requesting ASPEC & ASPEC AIM

The applicant is required to file a duly completed ASPEC request form in the second IP Office, if applicable.

The ASPEC request form must be accompanied by the following documents:

- a copy of the written opinion or the examination report (“minimum documents”) of a corresponding application from the first IP Office;
- a copy of the claims referred to in the minimum documents submitted, with at least one claim determined by the first IP Office to be allowable/patentable;
- the submission by the applicant of the S&E results issued by an AMS for an unpublished application to another AMS Office is consent for the other AMS to use the S&E results;
- for an ASPEC AIM request, applicants should indicate in the ASPEC form that the request is for ASPEC AIM;
- in addition, applicants are also required to email the monitoring authority and respective ASPEC AIM focal point.

- information that needs to be provided to the monitoring authority and respective ASPEC AIM focal point:
 - i. application no. from the first IP Office;
 - ii. desired second IP Office and application no. in the second IP Office;
 - iii. date of request;
 - iv. reliance on written opinion or examination report; and
 - v. applicant details.

For an ASPEC request which relies on a written opinion or written opinions, applicants are required to email the monitoring authority and respective ASPEC focal point. Information that needs to be provided includes:

- i. application no. from the first IP Office;
- ii. desired second IP Office and application no. in the second IP Office;
- iii. date of request;
- iv. reliance on written opinion or written opinions; and
- v. applicant details.

Requesting PCT-ASPEC

For PCT ASPEC requests, applicants should indicate in the ASPEC form under “Remarks” that the request is for PCT ASPEC.

For AMS IP offices where submission of an ASPEC request form is not mandatory, a cover letter indicating the request for PCT-ASPEC with the second IP Office should be submitted. The duly completed ASPEC request form must be submitted together with the following documents:

1. a copy of the written opinion/international preliminary examination report (“WO/ISA, WO/IPEA or IPER”) established by an ASEAN International Searching Authority/International Preliminary Examining Authority (ASEAN ISA/IPEA) (“minimum documents”) relating to a corresponding application from the first IP Office; and
2. a copy of the claims referred to in the minimum documents submitted, with at least one claim determined by the first IP Office to be allowable/patentable.

For PCT-ASPEC requests, applicants must indicate in the ASPEC form that it is a PCT-ASPEC request. In addition, applicants are also required to email the monitoring authority and respective PCT-ASPEC focal point listed.

Information that needs to be provided includes:

- i. PCT application no;
- ii. desired second IP Office and application no. in the second IP Office;
- iii. date of request; and
- iv. applicant details.

It is possible to make a PCT-ASPEC request at the second IP Office even if the second IP Office is also an ASEAN ISA/IPEA.

It is also possible to make a PCT-ASPEC request and an ASPEC AIM request simultaneously at the second IP Office. There can be a written opinion/international preliminary examination report established by an ASEAN ISA/IPEA and the patent application contains at least one IPC code that matches with the relevant IPC codes. Applicants must indicate in the ASPEC form that this is a PCT-ASPEC and ASPEC AIM request.

All documents for the purposes of ASPEC must be in English. An English translation of documents submitted does not need to be verified by a translator or by the patent agent unless this is requested by the AMS IP Office.

The ASPEC request form and the documents referred to above may be filed at any time before the final decision of grant or refusal.

Subject to the requirements of the AMS IP Office (“second IP Office”), an e-ASPEC request made on the ASEAN IP Portal may replace the need for a separate ASPEC request form.

Mandatory requirements for filing an ASPEC application are summarised in the table below. ASPEC acceleration and work-product-sharing begins only when all requisite documents are submitted to the AMS IP Office (“second IP Office”).

AMS (Second IP Office)	Is the usage of local registered agent mandatory for ASPEC request?	Must the Written opinion ⁴ , Search and Examination or Examination Report from the 1 st AMS IP Office be enclosed for the ASPEC request to be valid?	Must a Claims Correspondence Table be enclosed for the ASPEC request to be valid?	Is a hardcopy of the ASPEC Request Form Required?	Can an E-ASPEC request via ASEAN IP Portal be made?
Brunei Darussalam	Yes, must be filed by a local agent	Yes	Yes	Yes	Not at the moment
Cambodia	Yes, the ASPEC request can only be filed by the agent or representatives on behalf of the applicant in case the applicant has no local contact in Cambodia	Yes	Yes	Yes	Yes, the request shall be made by local agents or representatives
Indonesia	Yes, must be filed by a local agent	Yes	Yes	Yes	Not yet

Lao PDR	Yes	Yes	Yes	Yes	Yes, requester must be local agent
Malaysia	Yes, an ASPEC request can be filed by the agent on behalf of the applicant if the applicant has neither domicile nor residence in Malaysia. Nevertheless, the applicant himself can file an ASPEC request if the applicant is the national of Malaysia	Yes	Yes	Yes, no indication for ASPEC/PPH request in the patents' forms	Yes, the request should be made by local agent
Philippines	Yes	Yes	No The basis for this is the ASPEC request form for Philippines, we have this in the footnote "Documents submitted should include a copy of (i) a search report, (ii) an examination report and (iii) claims referred to in the examination report. A claim correspondence table is optional	Yes	Yes, provided that the request is filed by the local agent/representative
Singapore	Yes. Alternatively, the ASPEC request could also be made by the applicant with a valid local address for service	Yes	Yes	No. The applicant could select the ASPEC/PPH request checkbox in the Patents Form 11 or 12	Yes
Thailand	Yes, according to Ministerial Regulation No. 21 Clause 13, the applicant has not domicile nor residence in Thailand shall appoint registered attorney (Who has registered by DIP Director General registration) for filing application	Yes, according to DIP Notification Re. request for utilize ASEAN Patent Search and Examination Results on substantive examination clause 3	Yes, according to DIP Notification Re. request for utilize ASEAN Patent Search and Examination Results on substantive examination clause 2	Yes, according to DIP Notification Re. request for utilize ASEAN Patent Search and Examination Results on substantive examination clause 2	No, because every e-filing system shall comply with Regulation and Method of Government Electronic Transactions Decree
Viet Nam	Yes. The ASPEC request could also be filed by applicants themselves if there is no patent agent on behalf of them	Yes	Yes	No	Yes, but the request must be filed by a patent agent or applicants themselves if there is no patent agent on behalf of them

14.4 Additional requests for information or documents apart from documents/information required under ASPEC (Question 131)

No additional information or document apart from the documents/information required under ASPEC needs to be provided. However, some AMS may request:

- the requirement for an English translation of the non-English ASPEC documents to be verified by the translator or the patent agent (Cambodia).
- a copy of notice of publication of the application and payment receipt of substantive examination request (Indonesia).
- translation in Thai of the search and examination report of a corresponding application by any AMS' Patent Offices (Thailand).

14.5 Re-use of search and examination results of other offices (Question 133)

All AMS patent offices in operation use S&E expertise and work products of other patent offices in various ways under (i) modified examination (ii) unilateral use of work product from other patent offices (iii) regional and bilateral patent prosecution highways systems (iv) validation of patents as covered in Chapter 4 of the Guidelines.

Even in the absence of formal or informal agreements between patent offices, many patent examiners use, where appropriate, search and examination reports as well as other useful information issued by other offices in order to facilitate the examination of corresponding national applications. The use of the results of the search carried out by other offices can also be a strategy to address backlog.

Some patent offices publish on the Internet certain information relating to S&E of patent applications (for example, legal status, S&E reports), accessible by examiners at other offices around the world, which is a best practice. For example, the European Patent Register contains procedural information on all European patent applications from the moment they are published. It includes links to the patent registers of many of the EPO member states, showing the status of European patents after grant, when the national patent offices take over responsibility for them, and is available at <https://www.epo.org/searching-for-patents/legal/register.html>

The main origin of the incoming applications, i.e., whether applications are filed by residents, by non-residents using the Patent Cooperation Treaty (PCT) system or by non-residents who file national applications directly with the office, is a factor to be considered for future work-product-sharing developments and best examination practices in AMS. Currently, the majority of applications in AMS are filed by non-residents, allowing the use of search and examination work products prepared by other offices on the same invention when available, and consequently bilateral, regional and international cooperation is beneficial. It should also be noted there is a growing number of applications filed by AMS residents via conventional and PCT applications. This increase in demand is likely to shape what constitutes an optimised examination system in the future and develop examination capabilities within AMS, employing qualified substantive examiners across key and fast-developing fields of technology such as mobility, artificial intelligence and green technologies.

Additional international support for work sharing

The IP5 Global Dossier, and WIPO CASE (Centralized Access to Search and Examination) are designed to support work sharing. Both the Global Dossier, and the WIPO CASE system enable patent offices to securely share search and examination documentation related to patent applications in order to facilitate work sharing programs. The two systems are interlinked so that also IP5 offices may access the documentation of participating WIPO CASE offices, and visa versa.

For offices which participate directly in WIPO CASE, there are two different levels of participation²⁶¹:

- Accessing Office - Examiners at the accessing office have access to the WIPO CASE web portal and can use the system to search for patent applications at other participating offices and to retrieve the documents that are made available by those offices;
- Providing Office - The providing office makes available the search and examination documentation for patent applications filed at that office. Technically, this may be done by uploading the documents into the WIPO CASE system hosted by WIPO, or by making the documents available to the WIPO CASE system via secure web services.

The WIPO CASE system currently includes 17 Providing Offices, and 39 in total (22 Accessing Offices only), including the IP5 Offices themselves (EPO, JPO, KIPO, CNIPA, USPTO).

IP5 Common Citation Document (CCD)²⁶²

The Common Citation Document (CCD) application aims to provide single point access to up-to-date citation data relating to the patent applications of the IP5 Offices. It consolidates the prior art cited by all participating offices for the family members of a patent application, thus enabling the search results for the same invention produced by several offices to be visualised on a single page.

It also provides a useful timeline, indicating when each citation document was added by each patent office for a particular patent family.

The EPO hosts a central repository of all citation data received from patent offices around the world, including the IP5 offices, which supplies the CCD.

Both the Global Dossier /WIPO CASE, and the IP5 CCD, enable all patent offices around the world to participate in a global work sharing system free of charge.

²⁶¹ WIPO CASE - Centralized Access to Search and Examination (<https://www.wipo.int/case/en/>)

²⁶² IP5 Common Citation Document (CCD)
[https://www.fiveipoffices.org/activities/globaldossier/ccd#:~:text=The%20Common%20Citation%20Document%20\(CCD,applications%20of%20the%20IP5%20Offices.](https://www.fiveipoffices.org/activities/globaldossier/ccd#:~:text=The%20Common%20Citation%20Document%20(CCD,applications%20of%20the%20IP5%20Offices.)

Conclusion

As part of the ASEAN IPR Action Plan 2016-2025, Strategic goal 1 defines achieving “A more robust ASEAN IP System is developed by strengthening IP Offices and building IP infrastructures in the region”, and under this, Initiative 2 defines “Promote improvement of IP services in terms of timeliness and quality of output” through activities:

- “2.2 Update or draft national patent substantive examination manuals [Country Champions: - Malaysia and Viet Nam]”, and
- “2.4 Develop ASEAN Common Guidelines on Patent Examination [Country Champion: Malaysia]”.

In operational terms, the ACG-PE may act as a guide for AMS IPO patent examiners wishing to re-use the search and examination results from another AMS, especially under the ASPEC work-sharing scheme; and as a guide for patent applicants, filing a patent application at multiple AMS IPOs.

In strategic terms, the ACG-PE can also provide a basis for harmonization of the laws and practices between the AMS, and may serve:

- To guide AMS updating their guidelines towards ASEAN and international convergence
- To provide a foundation for AMS IPOs drafting initial guidelines
- To provide a foundation for future guidelines for a Common ASEAN Patent System

Under the 2014 EPO-ASEAN Memorandum of Co-operation, the EPO agreed to complete the ASEAN Common Guidelines on Patent Examination (ACG-PE) in collaboration with the IP Key SEA project and the main tasks were contracted out to Rouse *The chapters of the ACG-PE have been completed over 2021-2022 with full consultation of AMS throughout.*

In the initial phase of the project, a questionnaire approach was used to gather information on existing laws and practices to be completed by “Local Experts” in each of the AMS, together with the nominated contact persons at each of the AMS POs. Rouse and EPO then drafted the “Comparative Study on the National Patent Laws and Procedures of the Southeast Asian Countries (CSR)” which was endorsed by the AWGIPC in May 2021.

Concerning the “Formalities” chapters – Filing, Formalities examination, Publication - only those aspects most relevant to substantive patent examination were included,

whereas the full scope of substantive examination is covered, including “work sharing”.

The structure or “taxonomy” of the CSR was designed to represent a generic procedure for patent prosecution which is followed in essence by every patent office in the world, which was also required for the ACG-PE. The CSR included the information essential to draft the ACG-PE. The CSR includes around 250 pages and 1000 references to national patent laws, regulations and Guidelines etc. which are not repeated in the ACG-PE and as such the two documents must be considered together.

The Comparative Study Report is believed to provide the best basis for “work sharing” between the AMS, as it clearly summarises the different practices across the 10 AMS, mostly in table form. A patent examiner dealing with a 2nd filing at one AMS PO with a priority from another AMS PO may clearly identify any differences in practices between these two POs and thus judge whether or not the search and examination results may be re-used.

For the second phase of the project, namely the drafting of the ACG-PE themselves, the Terms of Reference were agreed with the AWGIPC. The scope of the ACG-PE is defined by the CSR, and the structure is the same to enable easy cross-reference between the two documents. One addition in the ACG-PE is information relating to “Prior art” as in Chapter 11 of the PCT Guidelines.

According to the Terms of Reference, the ACG-PE are based on the PCT Guidelines, while also including:

- Further refined practices where common amongst AMS (e.g. as in the Grace Period and prejudicial disclosures);
- Where different options are presented in the PCT Guidelines, choosing that most representative of the AMS practices (e.g. the test for Industrial Application); and
- Some references to European practices where complementary (e.g. internet citations)

Disclaimer

The guideline is not to be taken as a legal authority and the applicant should still refer to the national legislation.

References

Comparative Study on the National Patent Laws and Procedures of the Southeast Asian Countries, May 2021

Authors

Gerard Owens, Britta Kley, Falk Giemsa and Florian Förster (EPO)
Fabrice Mattei (Rouse)

Contributors

IP Key SEA
(Comparative Study on the National Patent Laws and Procedures of the Southeast Asian Countries, May 2021)

The ASEAN Member States and their IPR offices have contributed throughout

ASEAN: A Community of Opportunities for All

 **ASEAN**

 **@ASEAN**

 **@asean**

 **www.asean.org**