Preparing Patents for EP Examination and European Court Scrutiny from the Perspective of a US Entity

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Rather, it is merely intended to be informational and to be used as a resource.

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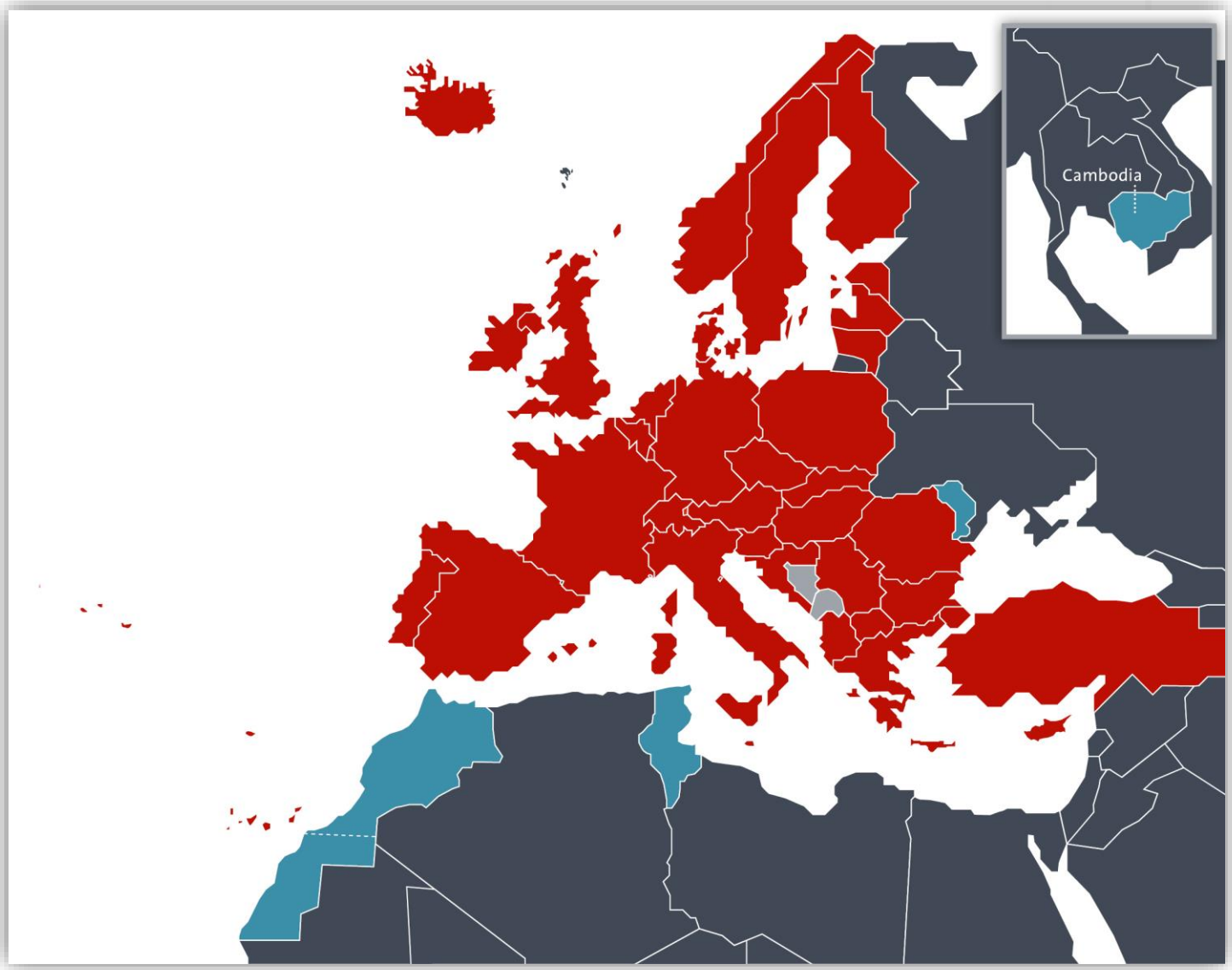
Agenda

- ✓ **Motivation** – Benefits beyond patent protection in Europe
- ✓ **Art. 123(2)** and the “Gold Standard” in Europe
- ✓ **Priority** in Europe
- ✓ **Art. 84** Clarity
- ✓ **Oppositions** in Europe
- ✓ **Q&A**

Benefits of European Patents Beyond Just Patent Protection

Provides Companies with Options and Flexibility	Advantages in Different Jurisdictions	Tax Benefits	Synergy of Using Both Systems
▪ National courts in Europe (DE, UK, FR) ▪ Central granting systems at the EPO ▪ Unified Patent Court (UPC) (in the future)	▪ Germany is fast and patent plaintiff friendly ▪ UK is defendant friendly ▪ France has strong search and seizure laws ▪ UPC is central	▪ Patent boxes in many EU and non-EU countries ▪ Reduce tax burden related to revenue for patented products (including designs and even narrowly drafted patent claims)	▪ Different claim scope possible and different types of claims can be litigated with success in the US and Europe ▪ Preparing a US application for EP examination and having advantages in the US and vice versa ▪ EPO has the best search quality and can add search results to IDS

Map of EPC Related Countries



Comparison of US Patent Law to Art. 123(2) EPC with the European "Gold Standard"

- US Law Related to Claim Amendments
  - US patent application shall have a written description of the invention in full, clear, concise, and exact terms as to enable any person skilled in the art to make and use the same (35 U.S.C. § 112)
  - When an application is rejected, the applicant can offer amendments, **but** no amendment shall introduce new matter into the disclosure of the invention (35 U.S.C. § 132)

Bottomline: It is relatively easy to amend a pending claim in the US as compared to Europe because the US has flexible requirements and a skilled person in the US can easily combine elements and features of different embodiments based on the specification

Art 123(2) EPC – Strict Standard, *But* Some Hope

- A claim amendment is permissible under Art. 123 (2) EPC if **the skilled person** can derive it **directly and unambiguously** from the application as filed
- **Common general knowledge** is to be considered for any implicit disclosure (*i.e.*, the clear and unambiguous consequence of what is explicitly disclosed)
- **Literal support** is not required, but best practice constitutes having literal support for amendments to avoid problems (*e.g.*, "the processor generates" may be replaced by "the processor calculates" because anything a processor does is type of calculation)

Art. 123(2)

➢ Original Application as Filed

- FDMA communication system

➢ Proposed amendment to claim

- **Claim 1:** CDMA ~~FDMA~~ communication system
  - This amendment might be supported by original application since a skilled person may understand that invention works with any kind of communication system and hence also with a CDMA system
  - But change is not directly and unambiguously derivable: no hint in original disclosure that especially CDMA works with the invention
  - ✘ **Not** okay to amend under Art. 123(2)

➢ Allowable Amended Claim

- **Claim 1:** ~~FDMA~~ communication system
  - **Allowable:** If skilled person understands that invention works with any kind of communication system. It is then supported ***and*** directly and unambiguously derivable
  - ✓ Okay to amend under Art. 123(2)

Take-Away: Broader amendment may be allowable, despite narrower amendment not allowable!

Art. 123(2) *(cont'd)*

- Looking closer into that example shows that a certain feature was simply left out (here FDMA)
- This is generally allowable when the "essential element" test below is satisfied:
  1) The feature was not explained as essential in the original disclosure
  2) The feature is not indispensable for the function of the invention
  3) The removal requires no real modification of the other features to compensate for the change

Art. 123(2) (*cont'd*)

- The most common scenario for an amendment is picking a feature from an embodiment and adding it to the independent claim
- If the feature is literally picked, it is by default supported by the original disclosure; ***But*** the feature is disclosed within a group of features (together) forming this embodiment
- The question of whether picking out a feature in isolation (without the other disclosed features from the group) may be answered by the test:

The other features from the group may be suppressed if they are not themselves essential features, not indispensable for the function of the invention (= claim 1 + picked feature) and the isolated use of the single picked feature in claim 1 does not require modifications of the other features from claim 1

- If the test fails, the examiner will call the failed attempt of amending an "intermediate generalization"

Note: The essential element test also plays a role for clarity, Art. 84 EPC, but in opposite direction. The examiner may require additional features to be included into the independent claim if they are essential to the respective technical teaching

Best Practices for US-Applicants Thinking of Art. 123(2)

If you can survive Art. 123(2) EPC, you will also survive national court scrutiny for added subject matter in Europe (*e.g.*, UK, DE, FR, etc.)

Draft a high-quality specification where each embodiment is fully described in detail (if embodiments are likely to be combined in the claims, include sentences in spec to support such combinations)

Make full use of multiple dependencies (free of charge) and consider multiple independent claims in advance (see also comments below in relation to Art. 84 EPC, clarity)

Use terms in a consistent manner throughout the description, claims, and drawings (consistency problem); use different levels of detail (abstract terms to achieve broad scope, detailed terms to have maximum flexibility to combat close prior art and an “intermediate level” (textbook level) – terms, which may allow to distinguish from prior art in broadest possible manner)

Claims preferred for Europe or other jurisdictions (*e.g.*, having multiple dependencies, different styles of independent claims, more emphasis to technical subject matter) may be saved by specification or annexed to US preferred claims (no claim fees for PCTs) for later use

Background on Priority

- Paris Convention (PC) defines Priority in Article 4A (US and practically all European countries are members)

> **Any person** who has duly filed an application for a patent, or for the registration of a utility model, or of an industrial design, or of a trademark, in one of the countries of the Union, or **his successor in title**, shall enjoy, for the purpose of filing in the other countries, **a right of priority during the periods hereinafter fixed**

- European Patent Office (EPO)
  - EPO implement's European Patent Convention (EPC), which contains regulations on priority that are aligned with those of the PC
- A priority claim is made from a later-filed application to an earlier-filed patent application (within a 12-month period)
- **Result of Valid Priority Claim:** Any prior art, including public use, that occurred between the filing of the later-filed application and the filing of the earlier-filed patent application(s) (priority application(s)) shall ***not*** have any effect on the later-filed application

Background on Priority – US

- An inventor can claim priority in a later-filed patent application to earlier-filed US provisional applications, US non-provisional applications, PCT applications, and/or foreign applications
- For a priority claim to be effective, certain conditions must be met
  - 35 U.S.C. § 119(e) and 37 C.F.R. § 1.78(a) for a priority claim to earlier-filed provisional applications
  - 35 U.S.C. § 120 and 37 C.F.R. § 1.78(d) for a priority claim to earlier-filed nonprovisional applications or PCT applications
  - 35 U.S.C. §§ 119(a)–(d) and 37 C.F.R. § 1.55 for a priority claim to earlier-filed foreign applications

Key Requirement for Today's Discussion

> names an inventor or joint inventor in the previously filed application (35 U.S.C. § 120)

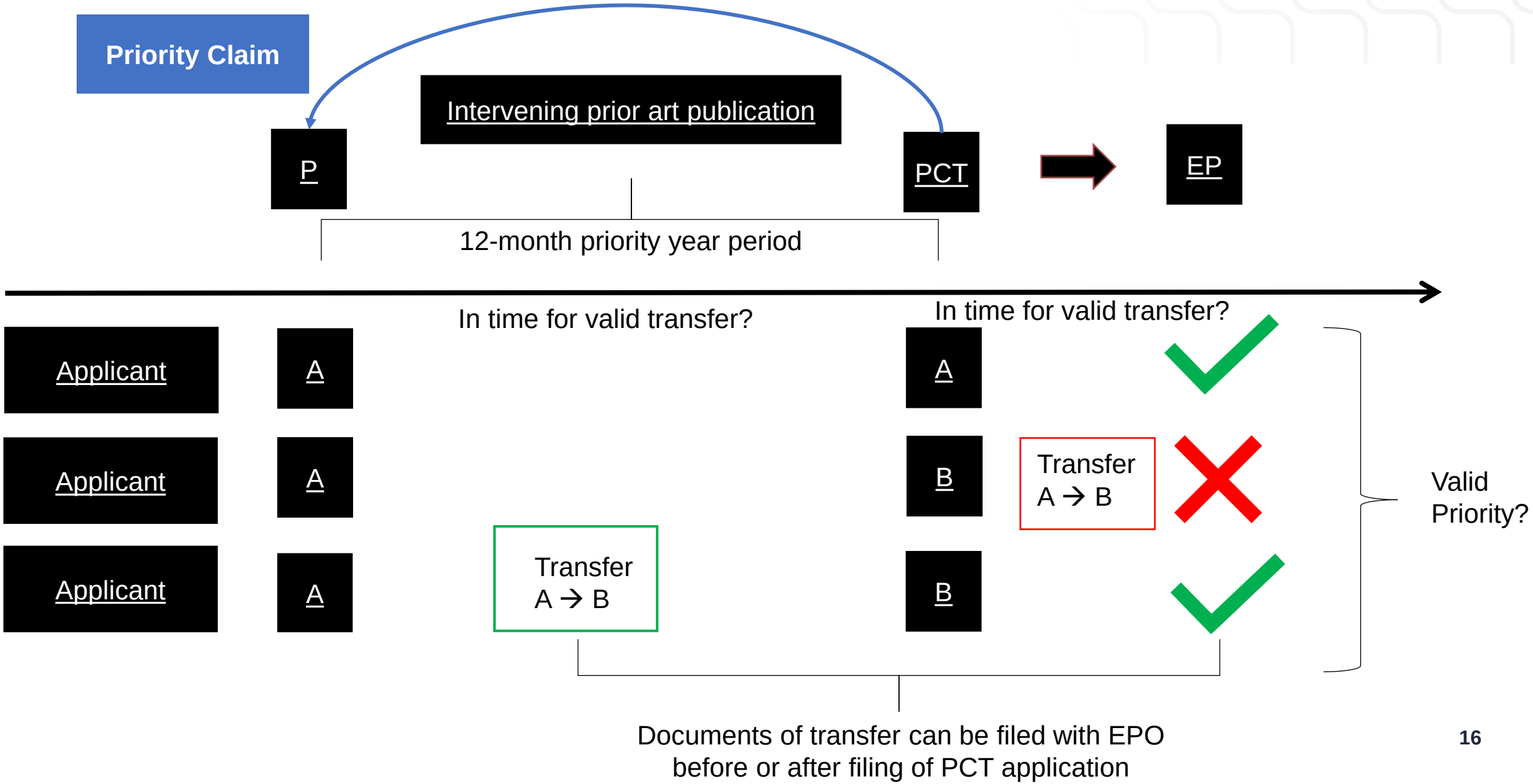
Background on Priority – EPC at the EPO

- **Article 87(1) EPC**

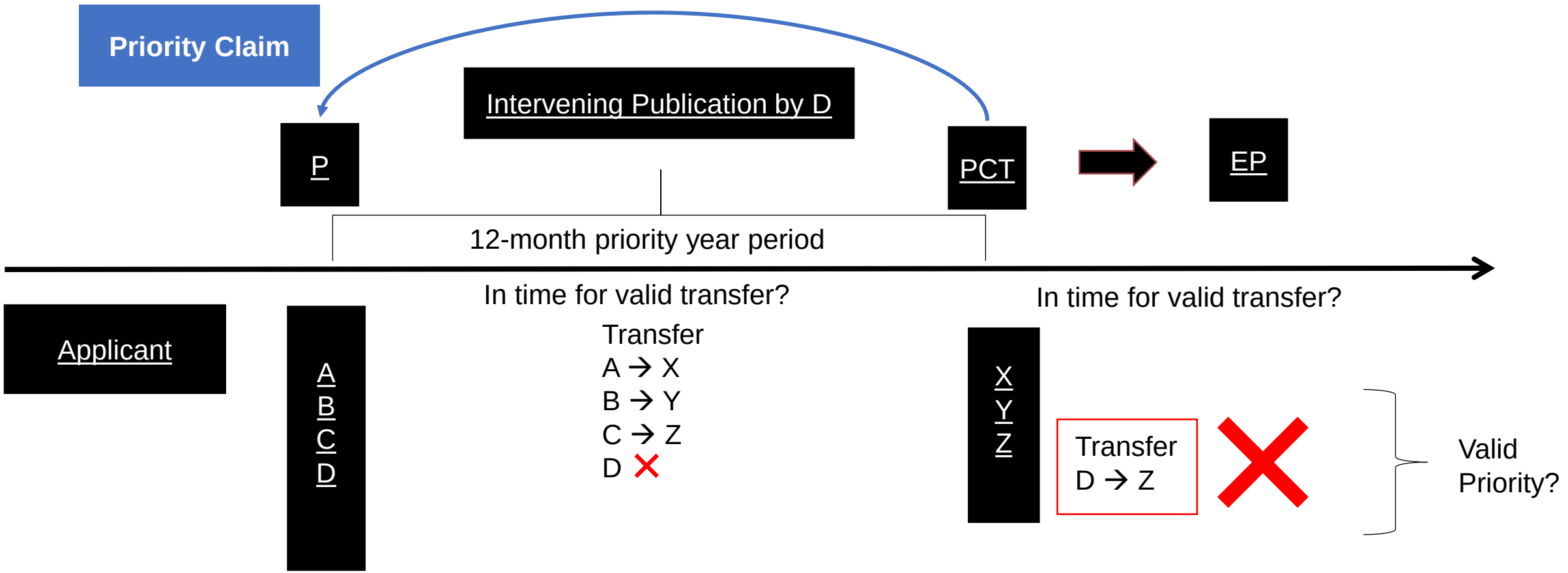
> **Any person** who has duly filed, in or for any State party to the Paris Convention for the Protection of Industrial Property or
>
> (b) any Member of the World Trade Organization,
>
> an application for a patent, a utility model or a utility certificate, or **his successor in title**, shall enjoy, **for the purpose of filing** a European patent application in respect of the same invention, **a right of priority** during a period of twelve months from the date of filing of the first application.

- **Key Elements under the EPC**
  - It is the applicant (*i.e.*, person, legal entity) who filed the application that has the right of priority, not the inventors
  - There is also the requirement that the same applicant or applicants (or successor in title) file(s) the subsequent application in their names or else priority can also be invalid
  - Before you file the subsequent application, you **must** have the priority right for the earlier-filed application (*e.g.*, either by being the same applicant or successor in title)
  - The right of priority is owned in a “legal unity” by joint applicants

Examples Regarding Timing and Transfer of Priority Right in EP



Legal Unity for Priority, a Danger for US-Thinking Applicants, CRISPR



Too late to transfer applicant status for a valid priority claim; therefore, intervening prior art was novelty destroying

Best Practices for Priority (EP, PCT, and Europe)

If there is a "successor in title" – any transfer of right of priority must be made before the later filing (*e.g.*, before filing PCT or EP application); Respective evidence may be furnished after the filing has been made (typically 4 months)

Written assignment

- Signed by assignor and assignee
- Priority application identified
- Explicitly lists the "right to priority" that is being transferred (avoid generic "transfer of IP" rights)

Acceptable to add new applicants to priority-claiming application by assignment without compromising priority claim (to be safe – add all applicants when filing)

Right of priority tracks with applicant status

- No bifurcation of priority rights if multiple inventions disclosed

If priority application lists two or more joint applicants: All the same applicants must be listed on the later, priority-claiming application or their successors in title (need "unity")

For US litigation, ask European inventors/employer of inventors about signing of assignments before the non-provisional application was filed

Clarity – US versus EP

- The requisites of providing an adequate description and notice of the metes and bounds of the claimed invention are framed in the US as separate requirements (written description and definiteness, respectively) with different legal bases (35 U.S.C. 112(a) for written description and 35 U.S.C. 112(b) for definiteness, respectively)
- Those requisites are instead intertwined in the clarity requirement of Art. 84 EPC which indicates that “the claims shall …be clear and concise and be supported by the description”

Bottomline: US examiners are okay with broad or ambiguous claim language; the EP examiners usually reject such broad or ambiguous language based on grounds of clarity. However, still in Europe, keeping claims broad is helpful for litigation in Europe (*e.g.*, Germany)

Clarity (Art. 84) under the EPC

- Clarity is a very common objection during examination
- It is not a ground for revocation during a later opposition procedure
- European examiners aim to allow claim sets that ideally give no rise to doubts about claim scope during later opposition or litigation procedures
- ***But:*** Unfortunately different examiners have different preferences about what is a clear claim, making it unpredictable during drafting
- **Moreover:** During national litigation procedures claims are interpreted by judges according their national standards and regardless of EPO clarity efforts, the final claims will give rise to discussions about correct interpretation during litigation
- ***But:*** To get EP patent allowed, clarity objections must be overcome according to the EPO standards, as EP examiners are trained that way.

Conciseness and Allowable Number of Independent Claims

- **Art. 84 EPC:**

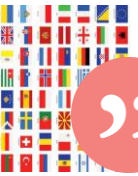
> The claims shall define the matter for which protection is sought. They shall be **clear** and **concise** and be supported by the description

- Concise requirement (Rule 43(2) EPC) restricts number of independent claims:
  - Typically, only **one** apparatus (device, system) claim and one method claim allowed
  - More claims in same category possible if:
    1. products are **interrelated** (*e.g.*, plug and socket / transmitter – receiver / cell phone – base station / unit – subunit / intermediate(s) and final chemical product etc. = different objects that complement each other or work together)
    2. different inventive **uses** of a product or apparatus (*e.g.*, claims directed to further medical uses when a first medical use is known)
    3. **alternative** solutions to a particular problem if it is not possible to combine into a single claim
  - These three exceptions typically allow for the drafting of single actor claims; computer readable medium claims; claims directed to the final product as well as to the smallest unit incorporating the invention, etc., achieving possible advantages during later enforcement

EP v. US – Obviousness and Inventive Step

US – 35 U.S.C. § 103; *Graham v. John Deere Co.*, 383 U.S. 1 (1966)

> A patent for a claimed invention may not be obtained…if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been **obvious** before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains.



Europe – Art. 56 EPC

> An invention shall be considered as involving an inventive step if, having regard to the state of the art, it is not **obvious** to a person skilled in the art.

- **Main Difference:** Europe has a test, the so-called PSA, problem-solution approach, for determining whether something is "inventive", while the US does not have such a test. Rather, the US requires creative arguments based on motivation, teachings, what a person with skill in the art would think/do, case law examples, and MPEP examples.

Take-Away: Europe is more procedural for obviousness, which means you can increase your chances of allowance if you follow the procedure well, because European Examiners are bound to this procedure and convinced only in the frame of this procedure

The Problem-Solution Approach Applied by the EPO

In the **problem-and-solution approach**, there are three main stages:

1) Determining the Closest Prior Art
2) Establishing the "Objective Technical Problem" to be solved
   - Based on the technical feature differences between the closest prior art and the claim
   - Based on the technical effect of these distinguishing features
3) Considering whether the claimed invention, when starting from the closest prior art and having regard to the objective technical problem, would have been obvious to a skilled person (or not)

Key Difference Often Missing from US Applications

- The "technical effect" is the crux of inventive step arguments in Europe
- It is important to focus on this technical effect achieved and respective advantages over the prior art to be successful
- Including these technical effects and advantages in the description can help, especially when describing the technical features that are in the claim

Note for Software Applications: When assessing inventive step only technical features are considered for distinguishing features (COMVIK). The EPO ignores non-technical elements, which is reason why typical business methods cannot be granted in Europe.

What Has Technical Character?

Technical Feature, Technical Effect, and Further Technical
Cell phone, communication, faster
Data, transmission, more secure (*e.g.*, encryption of data)
Operating system, resource allocation, improve resources availability
Brake control, controlling break, increased safety

No Technical Effect
Aesthetical effects of music or video or graphical user interface
New rules for an auction scheme
Selling and booking sailing cruise packages
Calculation of pension contributions

Best Practices for Problem Solution Approach

When it comes to drafting patent applications with the EPO and European national courts in mind, it is good practice to ensure that the technical effects and advantages of the core features are explicitly stated because this will help later when arguing that those features have “technical character” and for inventive step

Beware that European Examiners are only interested in technical features and disregard non-technical features when it comes to inventive step

IPR at the USPTO versus Oppositions at the EPO

- ***Inter partes review*** (IPR) is a trial proceeding conducted at the USPTO to review the patentability of claims in a patent only on a ground that could be raised under § 102 or § 103
- An **opposition** is a proceeding conducted at the EPO to review the patentability of claims in a patent on many grounds:
  - Novelty (Art. 54 EPC or § 102)
  - Inventive step (Art. 56 EPC or § 103)
  - Insufficient disclosure (enablement)
  - Added subject matter
- Opposition total cost is **$20,000-$60,000**, but IPRs total cost is **$150,000-$500,000**
- Defending an opposition is **$15,000-$50,000** and defending an IPR can be **$100,000-350,000**
- Generally, parties do not use experts at oppositions
- Overall, oppositions are significantly less expensive than IPRs
- Oppositions must be filed within 9 months of the EP patent granting, but IPRs can be filed any time after grant of patent

IPR at the USPTO versus Oppositions at the EPO

- Oppositions can be filed anonymously, but IPRs cannot be filed anonymously
- Rather, all real parties in interest must be named
- IPRs can include estoppel at the federal court, but oppositions do not necessarily cause an estoppel issue in the national courts
- Oppositions are slow (2-4 years, including an appeal), and IPRs can be fast (18 months, not including appeal to the federal)
- In some countries including Germany, no national attack possible as long as an opposition is pending
- No institution decision for EPO oppositions; the opposition division reviews all validly filed oppositions; whereas the USPTO decided on institution before proceeding

IPR versus EPO Oppositions

- Opposition statistics at **EPO** (last 10 years):
  - **37.4%** of patents revoked
  - **24.6%** patent maintained as granted
  - **38%** patent maintained in amended form
- **IPR** statistics (last 8 years):
  - **33%** institution denied (all claims survive that IPR)
  - **62%** of all claims in final written decision are unpatentable
  - **20%** of all claims in final written decision are all patentable
  - **18%** of all claims in final written decision are a mix of patentable and unpatentable

IPR versus EPO Oppositions

- Generally, parties can settle an IPR before a final written decision
- In contrast, oppositions generally cannot be settled and continue to final written decision regardless of settlement between the parties
- Still difficult for patent owner to successfully amend claims at the PTAB

Bottomline: Oppositions are early in the life of a patent, but they can be a useful tool and filed anonymously for those US applicants concerned about business or cross-border litigation issues. The EPO revokes all claims for an opposed patent at a similar rate to the PTAB's canceling all claims for a challenged patent. However, it is easier for patent owners to successfully amend a patent claim at the EPO as compared to during an IPR proceeding.

Summary

Amending in Europe

- Think about dependent claims and fallback positions well before filing
- Describe each embodiment fully (incorporation by reference is not sufficient at the EPO)
- Think about drafting multiple dependent claims
- Remember the opportunity to have more than one independent claim per claim category
- Check with a European attorney before filing

Priority

- Priority in Europe can be deadly for US applicants
- Be careful with priority claims, especially when the application is filed in the inventors' names or the name of a company as part of a merger/acquisition/joint-venture
- Make sure to have assignment signed in-time (i.e., before filing subsequent application)

Clarity

- Consider drafting claims that meet the EPC clarity requirements when drafting the application in the US for later use in Europe

Problem-Solution Approach

- Include technical features in your claim, but explicitly describe the technical effect of those features in your specification

Opposition

- Consider filing an opposition in Europe because it is inexpensive compared to US litigation, can be filed anonymously


Questões
Domande
Des question
Questions
Preguntas
Fragen

Goodbye

Arrivederci

Au revoir

Adiós

Auf Wiedersehen

Tschüß