



## Topic 3: Patent Families

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**Hanoi**  
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# Agenda

- Families – why
- Families – which
  - Types
  - Unity of patents
- Families – implications for examination
  - External results, worksharing
  - Prior art
- Families – where

# Resources

- WIPO Handbook:

<http://www.wipo.int/standards/en/pdf/08-01-01.pdf>

- EPO:

<http://www.epo.org/searching/essentials/patent-families.html>

- PIUG:

<http://wiki.piug.org/display/PIUG/Patent+Families>

- Landon IP:

[http://www.intellogist.com/wiki/Patent\\_Families](http://www.intellogist.com/wiki/Patent_Families)

# Origin of patent families

- Patent protection for particular invention is territorial, i.e. inventors have to seek protection in different countries
  - **Office of first filing (OFF)** is usually in country of residence of inventor or applicant
  - Subsequent filings of improvements at OFF
- Applicants seek protection abroad (“extensions”)
  - **Office(s) of second filing (OSF)**
    - Parallel with OFF (cost), or
    - Deferred, delayed
- All filings/applications for “same invention” constitute a **patent family**

# Origin of patent families

- Patent applications can claim priorities of earlier applications (filed in same or other IPOs)
- Priorities create (legal) family relations between respective earlier and later filings
- Family relations may exist also without claiming priorities (e.g., technical families)

# Types of patent families

## Priorities are claimed

- National families
- Filings abroad: Paris convention (&TRIPS) family
- Filings abroad: PCT system family

## Without priorities

- Technical families
- Domestic families
- PCT

# Families on national level

# National second filings

## Patent of addition

- Improvement of original invention of parent patent
- **Unity** with parent patent to be given; i.e. as if further independent claim of parent patent
- Depends on validity of parent patent
- Request possible up to 18 months after filing of parent patent



# National second filings

## Division

- E.g. for healing a lack of unity
- Possible usually anytime until grant enters into force

## „Continuation in part“

- New national application claiming priority of one or several previous national application
- Up to 12 months after filing date of claimed priority

# National and domestic families

## National family

- Any national patent applications having at least one priority in common, e.g. additions, divisions, continuations

## Domestic family

- Subsequent publications of same application, i.e. with same number but with different **kind codes**, e.g.
  - A1: Publication of application (18 months after filing date)
  - B1: Publication of granted patent
  - Various national publication policies
  - see WIPO Standard ST.16 for kind codes:

<http://wipo.int/export/sites/www/standards/en/pdf/03-16-01.pdf>

# Second filings abroad

# Paris Convention of 1883

- Covers patents, designs, trademarks,...
- Equal protection to nationals and foreigners
  - Foreigners: nationals and residents of Union country
- Mutual recognition of (Paris Convention) **priority rights**:
  - at OSF: Treatment of application as if filed on date of first filing, i.e. same prior art
  - 12 month period to claim priority
- Permits combination of **multiple priority rights** (same or different countries)
- As long as national definition of **unity** is met

# TRIPS agreement

- Agreement on Trade Related Intellectual Property Rights
- Provides for “derived” Paris Convention priority, termed “convention priority”
- Members to TRIPS agreement need not sign Paris Convention but need to apply respective paragraphs on priority rights

# Patent Cooperation Treaty - PCT

- „One-stop shop“ for parallel filing in several states
- Filing with „receiving office“
- Paris priority may be claimed or not
- **International phase** administered by WIPO: preliminary search and examination by selected ISAs (International Searching Authority; eg EP, AT, SE, US, JP)
- **National phase** administered by national IPOs:
  - Decision on entry into national phase at the latest 30 months after filing/priority date
  - National granting procedures
- Total of national patents/publications constitute **family**

# Summary: Filing patents abroad

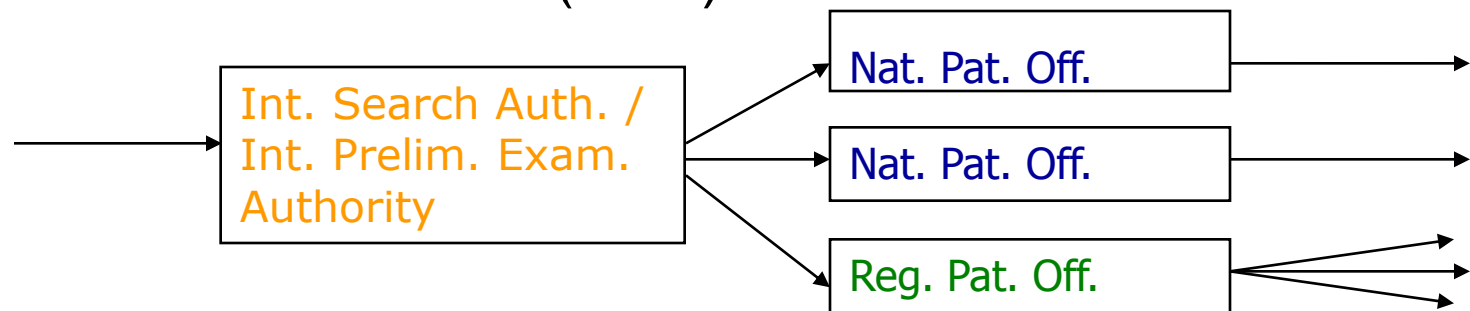
## 1. National Routes



## 2. Regional Route



## 3. International Route (PCT)



[International phase]

[National phase]

# Timelines to be observed for OSF filing

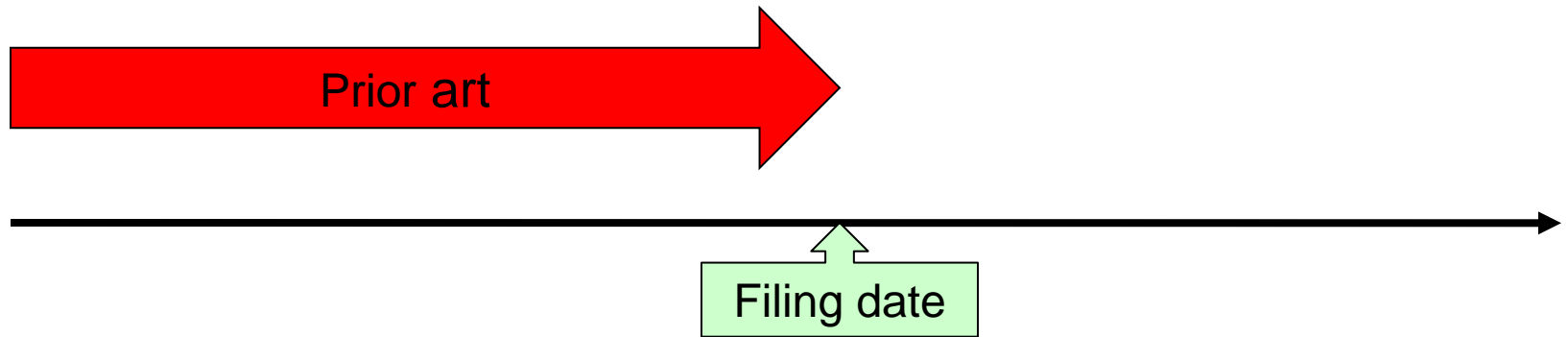
Options for extension to other jurisdiction, i.e. to Offices of Second Filing (OSF):

- Paris convention & TRIPS : 12 months
- PCT : 30 months
- Without priority claim : anytime,  
but effectively impossible after first publication of OFF  
since published **first filing becomes prior art**  
(e.g. 18 month where OFF publishes applications)

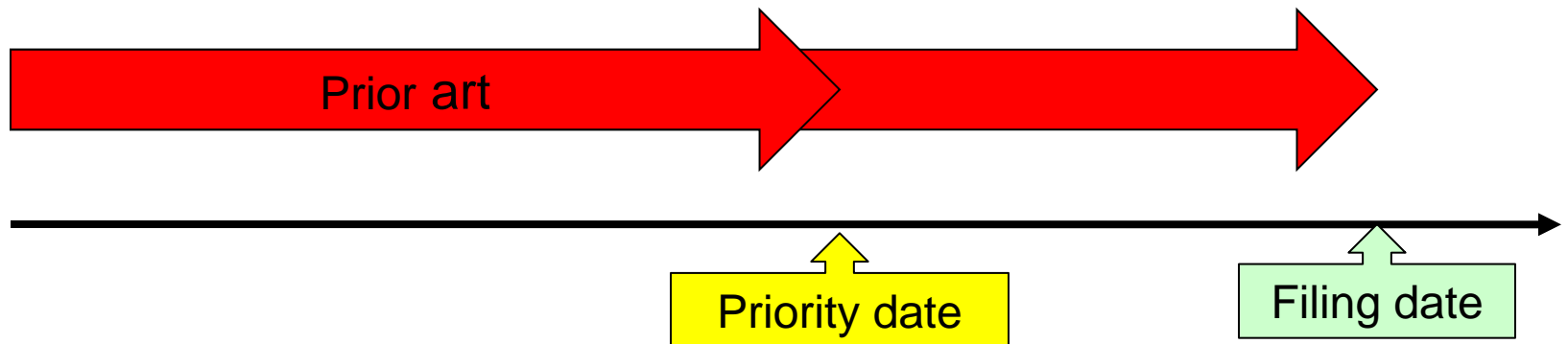


# Difficulties with later second filings

## ■ OFF



## ■ OSF



# Technical families

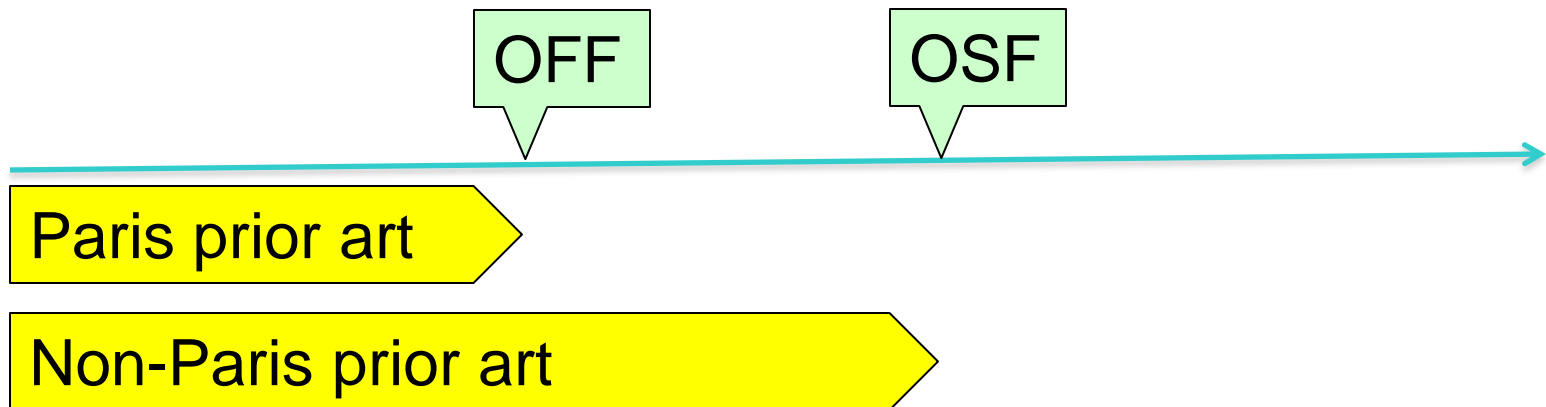
- Applications for the same invention filed in different countries **without claiming priority** constitute a technical family
- Indicators:
  - Inventor name (should be the same)
  - Drawings
  - Title
  - (Claims)

# Technical/artificial/intellectual family

- No priorities claimed explicitly but still same or similar invention, e.g. filings abroad after 12 months Paris period
- Has to be determined intellectually:
  - Same inventor
  - (Same applicant)
  - Same or similar title, abstract
  - Same drawings
- Is therefore usually not recorded in any database (Inpadoc to some extent if detected by EPO examiner)

# Technical families

- Risk of not claiming Paris priority:  
Later filing date implies different prior art, i.e. publications between OFF and OSF filing date are included



- Supplementary to-up searches may reveal more prior art than other search reports obtained for family members using the priority

# Family concepts

- Claiming multiple and different priorities in and from different countries may lead to complex family structures, e.g.:

OFF: two applications, e.g. JP-xx, JP-yy

OSF: single application claiming priorities of JP-xx+ JP-yy

- Various concepts / rules exist for constructing families
- Largely built on the principle of shared priorities
- See WIPO Handbook definitions

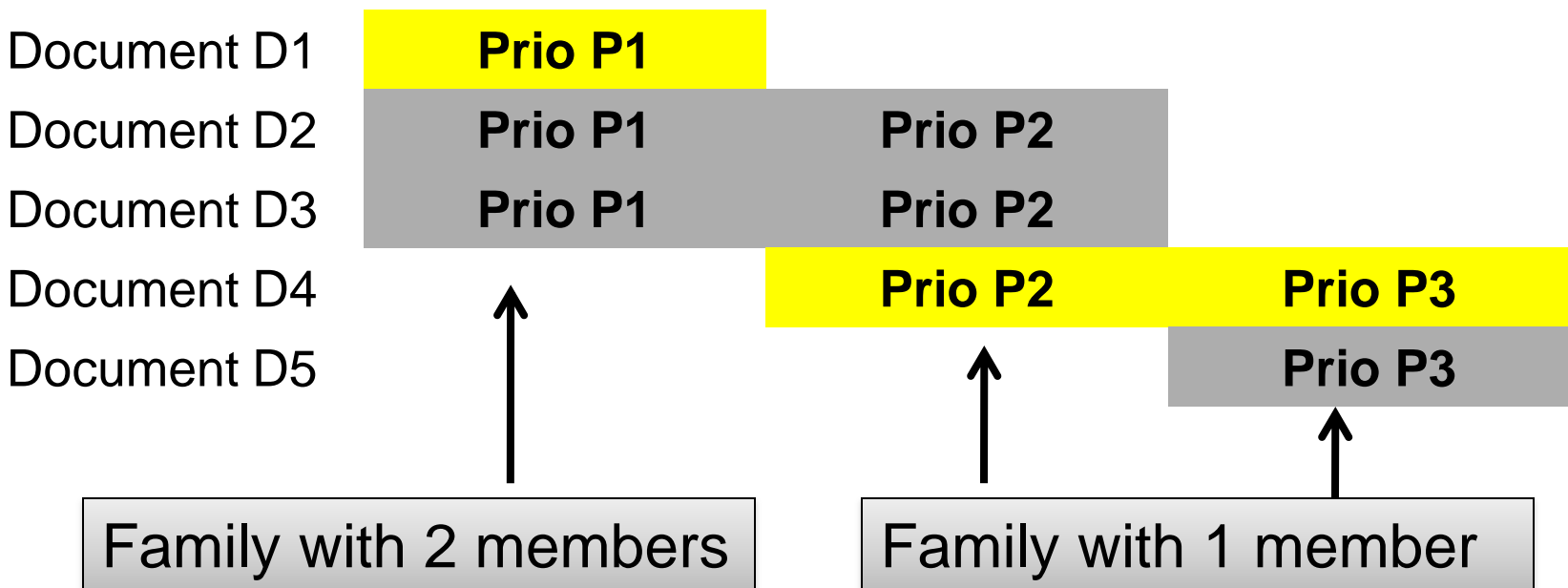
# Samples

Document D1	<b>Prio P1</b>		
Document D2	<b>Prio P1</b>	<b>Prio P2</b>	
Document D3	<b>Prio P1</b>	<b>Prio P2</b>	
Document D4		<b>Prio P2</b>	<b>Prio P3</b>
Document D5			<b>Prio P3</b>

# Simple family

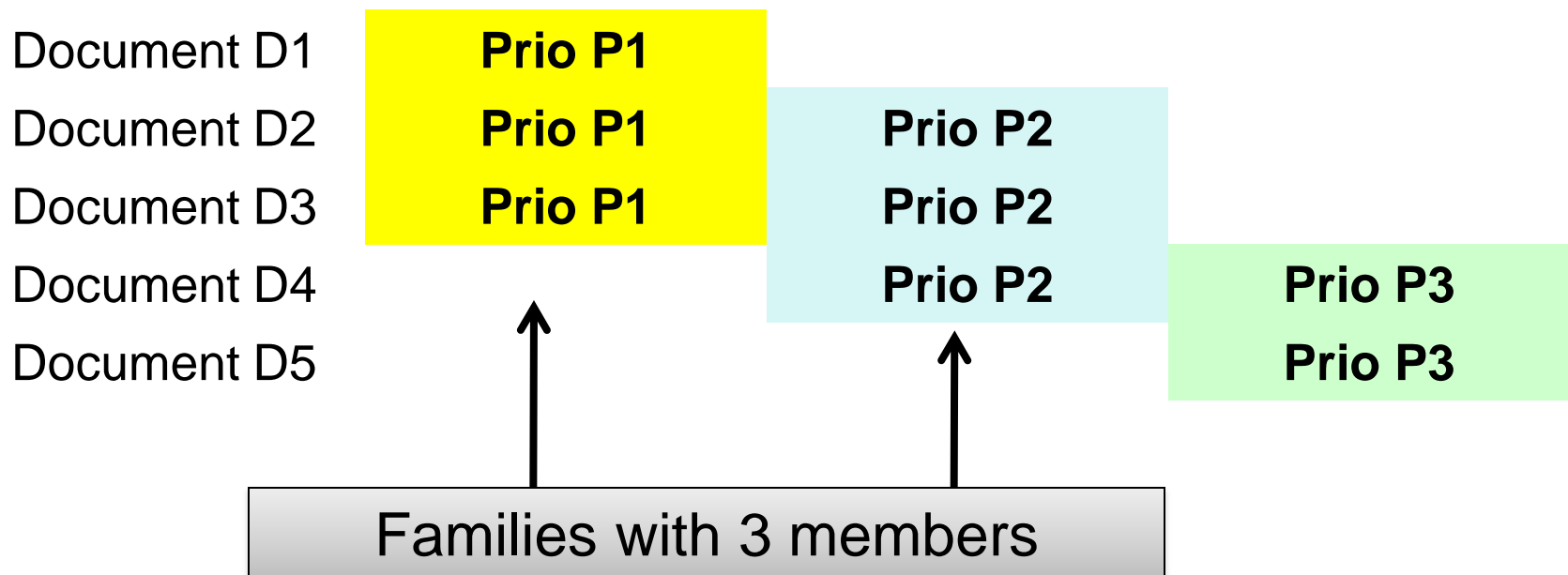
All members of a family have same priority or priorities

→ “Equivalents”



# Complex family

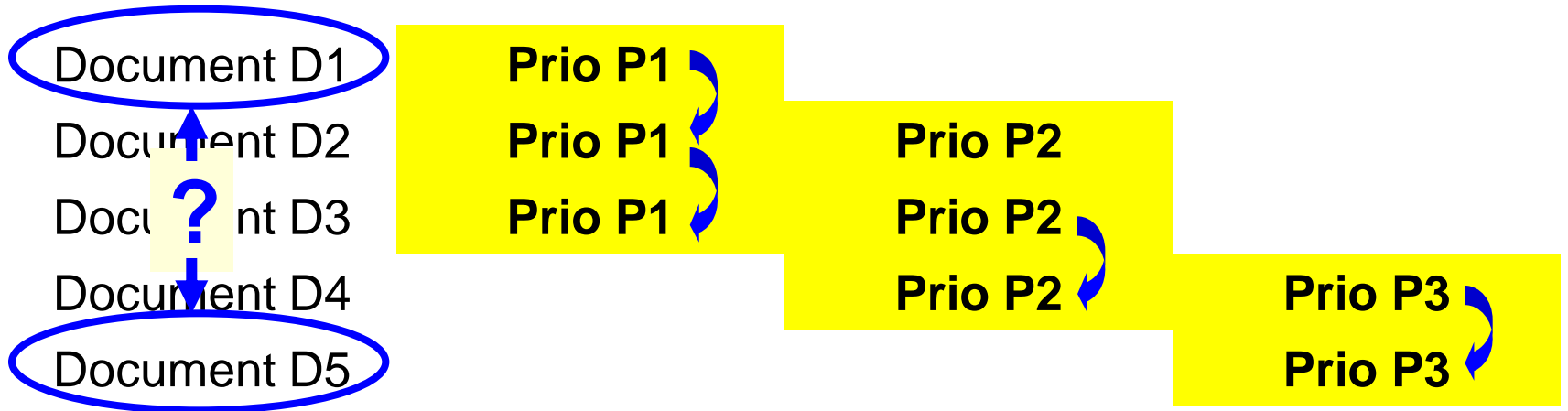
All members of a family share at least one priority





# Extended family

Any member shares at least one priority with at least one other member



All documents in same family

# Summary

- Application may belong at the same time to
  - Domestic family
  - National family
  - Simple family
  - Extended family
  
- An extended family may include
  - Several simple families
  - Several domestic families
  - Several national families

# Content of family members

- Claiming the priority of another application for a second filing does not necessarily imply that the content, e.g. descriptions, are identical
- In case for 2<sup>nd</sup> filings abroad identity is very likely
- In general, only parts may be identical, other parts may be added to the 2<sup>nd</sup> filing, or parts of the 1<sup>st</sup> filing may be omitted (e.g. in case of continuations)
- If several priorities are claimed the content is definitively different

# Similarity for simple – extended families ?


- Simple family: family members include basically same inventive subject matter
- Extended family: family members are in similar technical area; but potentially larger diversity because two family members with different priorities may cover different inventions
- Patent laws usually stipulate unity of invention for any patent application, ie for any claimed invention (not for description)

# Sources of family information

- Family information has to be constructed from priority data
- EPO's INPADOC database is major source of such family information, retrievable through:
- EPO's CCD & Espacenet (simple and extended families)
- Other free patent information databases, like Depatis
- Commercial database, e.g.
  - Thomson/Derwent: WPI family
  - Questel/Orbit: Fampat family
  - CAS

Using widely INPADOC data, additional sources, and applying proprietary family construction rules

# Sources of family information



Europäisches Patentamt  
 European Patent Office  
 Office européen des brevets

## Espacenet

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WO2011074782 (A2)

**Bibliographic data**

Description

Claims

Mosaics

Original document

Cited documents

Citing documents

INPADOC legal status

INPADOC patent family

### Bibliographic data: WO2011074782 (A2) — 2011-06-23

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**LIPOSOME COMPOSITION, PREPARATION METHOD THEREOF, AND USAGE OF THE COMPOSITION AS PNEUMONIA VACCINE**

**Page bookmark** [WO2011074782 \(A2\) - LIPOSOME COMPOSITION, PREPARATION METHOD THEREOF, AND USAGE OF THE COMPOSITION AS PNEUMONIA VACCINE](#)

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**Applicant(s):** JEONNAM BIOWINDUSTRY FOUNDATION [KR]; JEONGPIL CORP [KR]; PARK SIN JEONG [KR]; HAN SANG IN [KR]; SEO KOOK HEON [KR]; KIM YANG JIN [KR]; KIM JIN NAM [KR]; CHOI MYEONG JUN [KR] ±

**Classification:**

- international: [A61K47/30](#); [A61K47/48](#); [A61K9/127](#); [A61P31/04](#)
- Euro: [A61K39/09A](#); [A61K39/116](#)

**Application number:** WO2010KR07762 201011104

**Priority number(s):** KR20090125698 20091216; KR20100106035 201001035

**Also published as:** WO2011074782 (A3) ← **Simple family (equivalents)**

**Abstract of WO2011074782 (A2)**

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Danish

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patenttranslate

powered by EPO and Google

The present invention relates to a liposome composition including liposomes encapsulated with a pneumococcal capsular polysaccharide antigen, a method of preparing the composition, and a usage of the composition as a pneumonia vaccine, wherein the liposome composition comprises: a phospholipid selected from phosphatidylcholine and phosphatidylethanolamine; and a cholesterol...



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# Family information in Espacenet

- INPADOC family data
  - extended families
  - 80+ countries
  - Update weekly but depending on data supply from IPOs
- Simple families
  - “also published as” **equivalents**
  - Used for document reclassification after IPC revisions
- DE19830566 > 2 members, is national, domestic, simple
- DE19833712

# Use of family information for examination

- ▶ **Passive outsourcing/worksharing:**
- Using external results of family members:
  - Final result, i.e. granted claims, rejections
  - Temporary results, i.e. search/examination reports, in particular prior art
- Planning/scheduling of active worksharing between IPOs, e.g. to avoid duplication of work
  - INPADOC data comprises family information and legal status of family members
  - Legal status data permits the assessment of examination status and an estimate for availability of final results

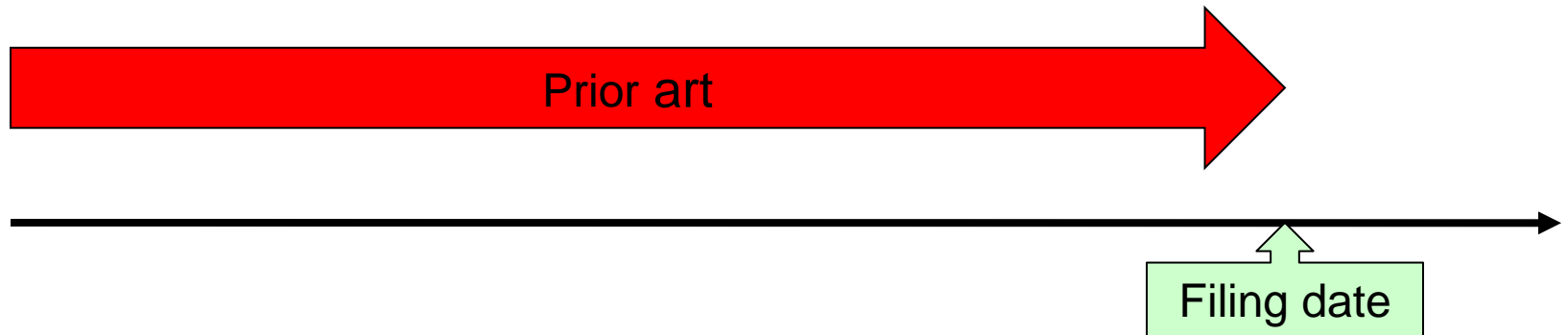


# Use of priority information for examination

- ▶ Filing or priority date (s) determine relevant prior art (own or external search results):
  - Multiple priorities may imply multiple priority dates
  - Requires application of different dates for assessing relevant prior art
  - Examiner to determine which of the dates has to be applied for the technical features of each claim
  - To be stated in examination report if different dates apply

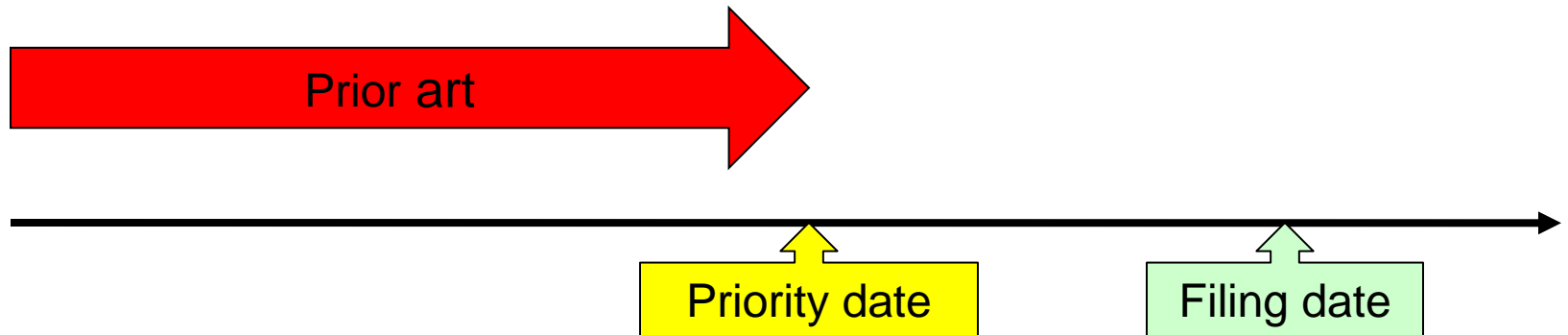
# Difficulties with multiple priorities

- No priority, OFF



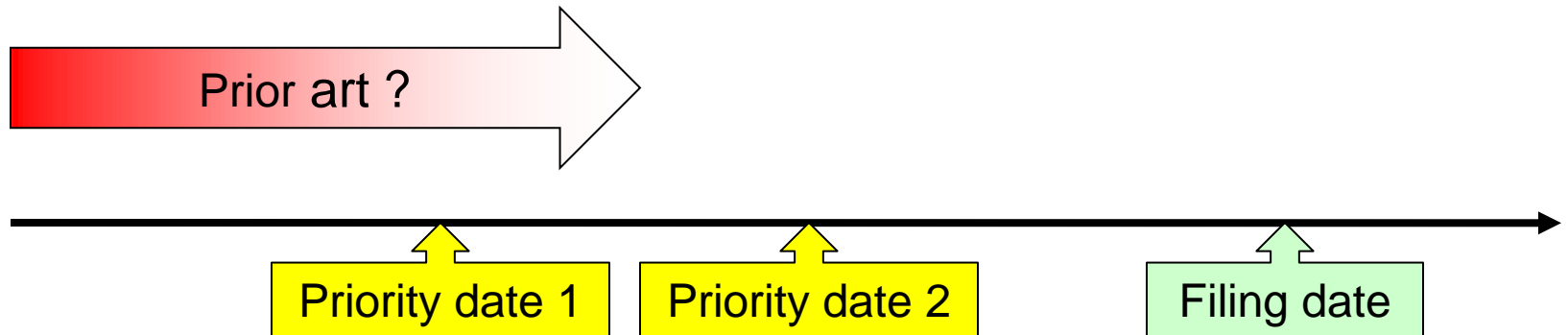
# Difficulties with multiple priorities

- Single priority



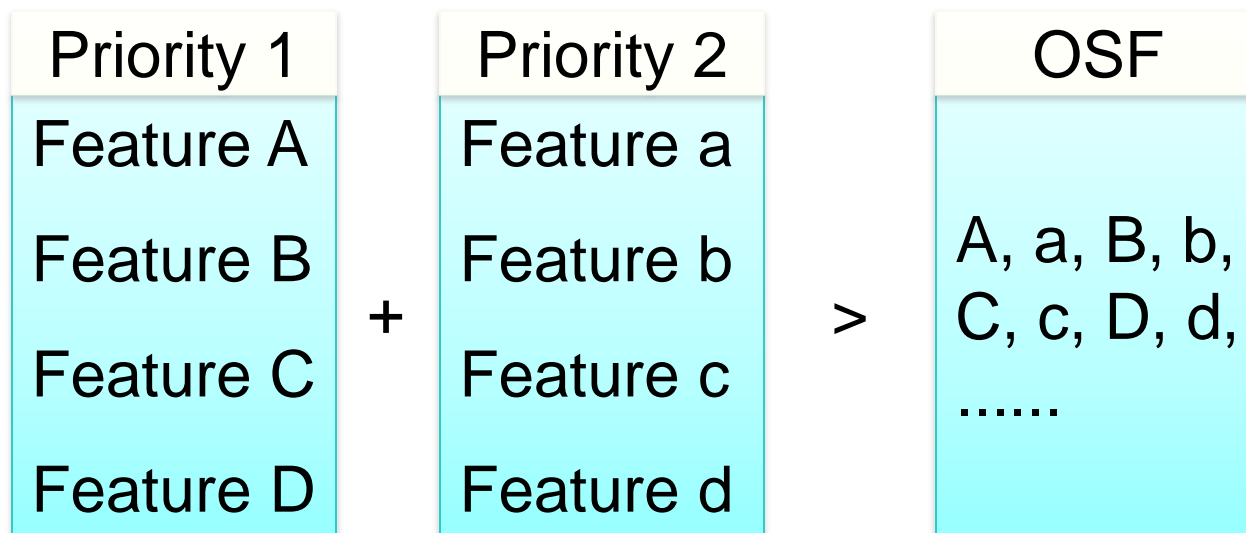
# Difficulties with multiple priorities

- Different priority dates > different prior art



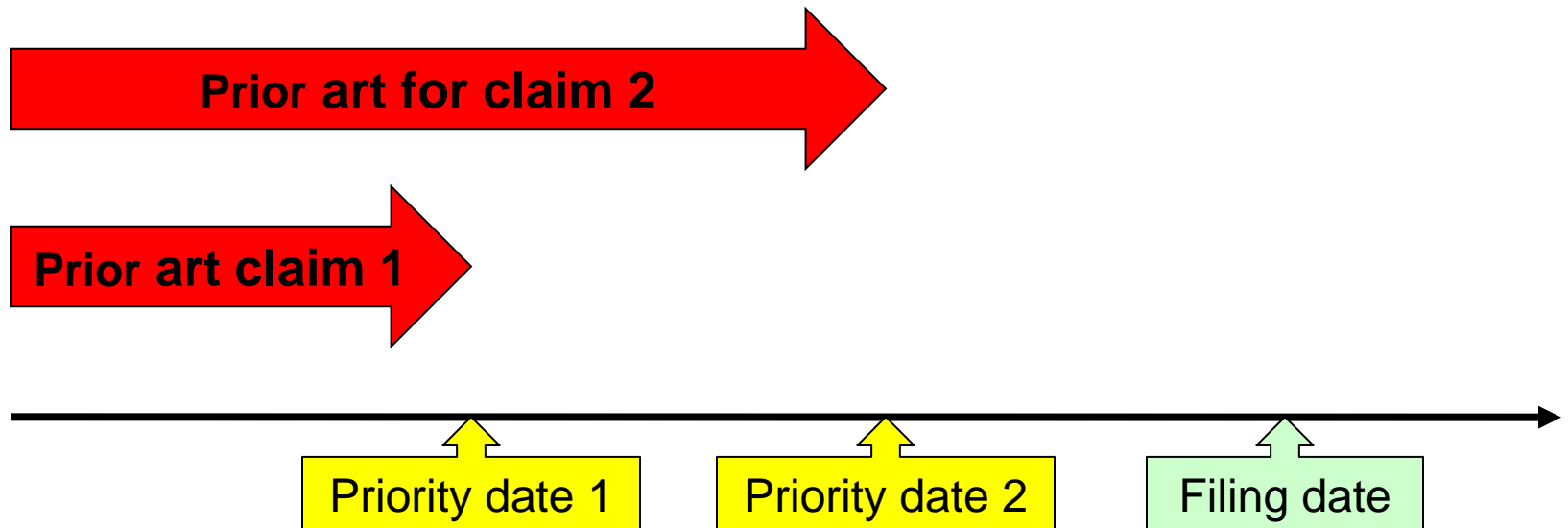
# Difficulties with multiple priorities

- Combining different priority documents implies combination of different technical features



# Difficulties with multiple priorities

- For each claim check which claim subject matter is disclosed in which priority ?
- If claims derive from different priority documents, different respective priority dates apply for prior art



# Summary

- Various family concepts: simple extended technical
- Depending on priorities
- Relevant prior art depends on applicable dates

Thank you