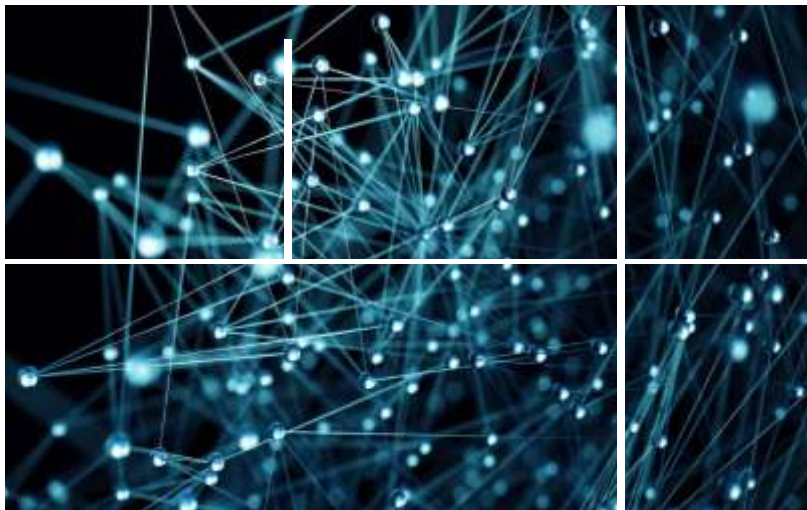


1 February 2021 – CIPA Foundations Lecture



Novelty and Inventive Step

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Requirements for Patentability – UK Patents Act 1977



(1) A patent may be granted only for an invention in respect of which the following conditions are satisfied, that is to say –

- (a) the invention is new;
 - (b) it involves an inventive step;
 - (c) it is capable of industrial application;
 - (d) the grant of a patent for it is not excluded by subsections (2) and (3) or section 4A below;
- and references in this Act to a patentable invention shall be construed accordingly.

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Requirements for Patentability – Article 52 EPC

(1) European patents shall be granted for any inventions, in all fields of technology, provided that they are new, involve an inventive step and are susceptible of industrial application.

(2) The following in particular shall not be regarded as inventions within the meaning of paragraph 1:

- (a) discoveries, scientific theories and mathematical methods;
- (b) aesthetic creations;
- (c) schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers;
- (d) presentations of information.

(3) Paragraph 2 shall exclude the patentability of the subject-matter or activities referred to therein only to the extent to which a European patent application or European patent relates to such subject-matter or activities as such.

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1 Novelty

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Novelty - UK Patents Act 1977

s2. (1) An invention shall be taken to be new if it **does not form part** of the **state of the art**.

s2. (2) The state of the art in the case of an invention shall be taken to comprise **all matter** (whether a product, a process, information about either, or anything else) which has at any time before the priority date of that invention been **made available to the public** (whether in the **United Kingdom or elsewhere**) by **written or oral** description, by **use** or in **any other way**.

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Novelty –EPC

Art. 54

(1) An invention shall be considered to be new if it **does not form part** of the **state of the art**.

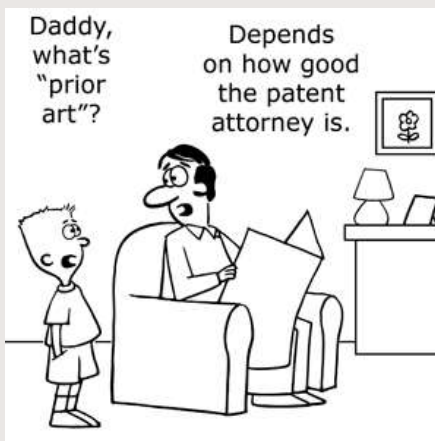
(2) The state of the art shall be held to comprise **everything made available to the public** by means of a **written or oral** description, by **use**, or in **any other way**, before the date of filing of the European patent application.

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Novelty

- **What?**
- **How?**
- **When?**



*www.stus.com

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Novelty – What? How? When?

- What was actually disclosed?
 - explicit vs. implicit
 - claim features in combination
 - "two lists"
- How was it disclosed?
 - Standard of Proof, e.g. Oral Disclosure and Prior Use
 - The less certain the disclosure, the higher the standard of proof
- When was it disclosed?
 - Relevant date of publication
 - Normally straightforward
 - E.g. library, lecture, demonstration, sale



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'Secret Prior Art' –EPC

Art.54

(3) Additionally, the content of **European** patent applications as filed, the dates of filing of which are prior to the date referred to in [paragraph 2](#) and which were published on or after that date, shall be considered as comprised in the state of the art.



- Novelty only
- Applies to EP or PCT designating EP

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'Secret Prior Art'- UK Patents Act 1977

s2.(3) The state of the art in the case of an invention to which an application for a patent or a patent relates shall be taken also to comprise matter contained in an **application for another patent** which was **published on or after the priority date** of that invention, if the following conditions are satisfied, that is to say –

- (a) that matter was contained in the application for that other patent both as filed and as published; and
- (b) the priority date of that matter is earlier than that of the invention.

- UK or PCT/EP designating UK

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Novelty – Exceptions (1) – UK Patents Act 1977

s2.(4) Disclosure will be disregarded if made less than 6 months before the filing date and:

- the disclosure was due to the matter having been obtained unlawfully or in breach of confidence; or
- the disclosure was made in breach of confidence; or
- the inventor displaying the invention at an International exhibition



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Novelty – Exceptions (2) – EPC

Art. 55(1) Disclosure will be disregarded if it occurred no earlier than **six months** preceding the filing of the European patent application and if due to, or in consequence of:

- a) an **evident abuse** in relation to the applicant, or
- b) the applicant displayed the invention at an official, or officially recognised, international exhibition falling within the terms of the Convention on international exhibitions signed at Paris on 22 November 1928 and last revised on 30 November 1972.
- c) paragraph 1(b), paragraph 1 shall apply only if the applicant states, when filing the European patent application, that the invention has been so displayed and files a supporting certificate within the time limit and under the conditions laid down in the Implementing Regulations.

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Novelty – Exceptions (3) Medical use claims

S4A (3)

Disclosure of a substance or composition does not prevent you from claiming the use of that substance or composition in medical treatment/diagnosis if the use is not part of the state of the art.

- i.e. **first medical use**

Equivalent in **Article 54(4) EPC**

S4A (4)

Disclosure of the use of a substance or composition in a method of treatment/diagnosis does not prevent you from claiming the use in a further medical treatment/diagnosis if the new use is not part of the state of the art.

- i.e. **second medical use**

Equivalent in **Article 54(5) EPC**



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Novelty - Anticipation

- Must be **single** document, unless document specifically refers to a disclosure in a second document in which case they may be read together.
- **Clear description** or **clear instructions** to do or make something that would infringe the claims.
- Direction not to do X because it will have adverse consequences, is not equivalent to a direction to do X (**c.f. Union Carbide v. BP [1998]**).



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Novelty – What? – Specific and generic

Specific disclosure is sufficient to take away the novelty of a generic disclosure but not the other way around.

Q: Would the disclosure of a Christmas pudding take away the novelty of desserts as a generic concept?

YES!

What about the other way around?

NO!



Q: Would the disclosure of gin take away the novelty of beverages as a generic concept?

YES!

What about the other way around?

NO!

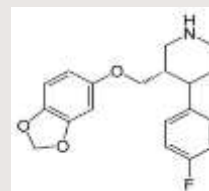


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Novelty – Anticipation – Enabling disclosure

**Synthon v. SmithKline Beecham [2005] UKHL 59
(Paroxetine methanesulfonate salt)**



- **Disclosure:**

Prior art must disclose subject-matter which if performed would necessarily result in infringement of the patent.

- **Enablement:**

The ordinary skilled person must be able to perform the invention which satisfies the requirement of disclosure.

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Novelty of Purpose

- Both the UK and the EPO allow novelty of purpose in the medical field:
 - Substance X for use as a medicament [s. 4A(3) and A54(4)]; &
 - Substance X for use in the treatment of asthma [s. 4A(4) and A54(5)].

However...

- New use of an old article is patentable, but claiming the article "for new use Y", when the article is already known for use X is not patentable (**Adhesive Dry Mounting v. Trapp [1910]**).
- Situation is different (to some extent) in the EPO where novelty can be conferred by including a statement of novel technical purpose (G 2/88, *Mobil*) – 2nd non-medical use

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2 Inventive step

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Inventive Step – UK Patents Act 1977 and EPC

S3.

An invention shall be taken to involve an inventive step if it is **not obvious to a person skilled in the art**, having regard to any matter which forms part of the state of the art by virtue only of section 2(2) above (and **disregarding** section 2(3) above).

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**. If the state of the art also includes documents within the meaning of Article 54, paragraph 3, these documents shall **not** be considered in deciding whether there has been an inventive step.

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Inventive Step - The Skilled Person

- Legal creation
- One person or a team
- No imagination
- Can follow instructions
- Can correct obvious errors
- Not able to exercise any inventive ingenuity
- Knows all the prior art (more so at the EPO)



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Inventive Step – EPO Test – Problem and Solution approach (1)



- (i) determine the "closest prior art"
- (ii) establish the "objective technical problem" to be solved
- (iii) starting from the closest prior art, would the skilled person consider the claim to be an obvious to the objective technical problem?

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Inventive Step – EPO Test – Problem and Solution approach (2)



- (i) determine the "closest prior art"
 - *"In practice, the closest prior art is generally that which corresponds to a similar use and requires the minimum of structural and functional modifications to arrive at the claimed invention (see T 609/89)."*

Exam. Guideline G-VII-5.1

- Hierarchy of factors:
 - Same purpose or effect (Exam. Guideline G-VII-5.1)
 - Number of features in common
 - Similarity of technical problem, not necessarily the objective technical problem
 - most promising springboard (really just a tie-breaker)
 - age of document (rare)
- How many starting points?

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Inventive Step – EPO Test – Problem and Solution approach (3)



- (ii) establish the "objective technical problem" to be solved
- (1) identify the technical effects of novel features:
 - *there is always an effect, though not always an advantage*
 - *effect credible? data?*
 - *effect achieved across the full scope of the claim?*
 - *effect derivable from the application?*
 - *synergy between 2+ novel features vs. partial problems*
 - *only "technical" features taken into account (Exam Guidelines G-VII, 5.4)*
- (2) formulate objective technical problem based upon these effects.
 - *exactly those features distinguishing the claim from the prior art*
 - *as specific as possible*
 - *without containing elements or pointers to the solution.*

T 1019/99, Reason 3.3 Case Law Book I-D-4.3, I-D-4.3.1

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Inventive Step – EPO Test – Problem and Solution approach (4)



- (iii) consider whether or not the claimed invention, starting from the closest prior art and the objective technical problem, **would have been obvious** to the **skilled person**
 - *could vs. would*
 - *2nd doc. disclosing novel feature as solution to the problem?*
 - *common general knowledge?*
 - *mere automation or optimisation?*
 - *small improvement in commercial setting*

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Inventive Step – EPO

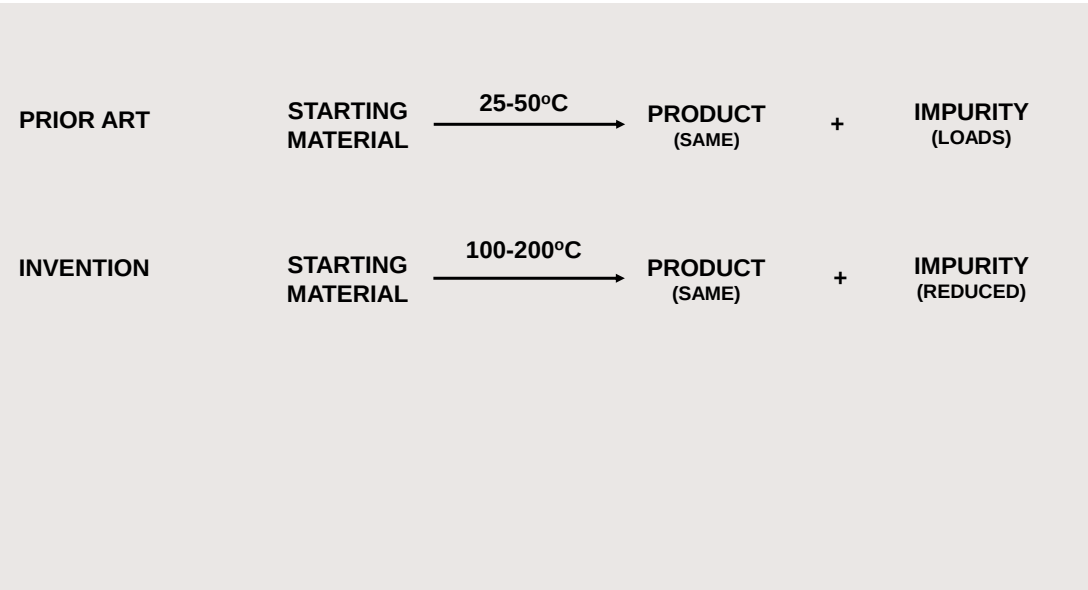


Beware of “ex post facto analysis”

- “Partial problems” and “inventive step creep” – ignoring synergistic effect
- Combining documents:
 - unlikely to combine teachings of two documents, e.g., incompatibilities
 - proximity of fields
 - common general knowledge (CGK)
- Arguments must always relate to the features of the claimed invention
- Mix-type inventions – do the “non-technical features” contribute to the technical character of the invention when taken in the context of the invention as a whole

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Inventive Step – EPO Test – Example



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Inventive Step – EPO Test – Example



PRIOR ART	STARTING MATERIAL	$\xrightarrow{25-50^{\circ}\text{C}}$	PRODUCT (SAME)	+	IMPURITY (LOADS)
INVENTION	STARTING MATERIAL	$\xrightarrow{100-200^{\circ}\text{C}}$	PRODUCT (SAME)	+	IMPURITY (REDUCED)

1. novel feature = reaction temperature
2. effect = reduced amount of impurity
3. problem = e.g. to reduce amount of impurity produced vs. prior art
4. obvious = would the skilled person obviously increase temperature to reduce amount of impurity?

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Inventive Step – UK



- Two important cases:
 - Windsurfing International Inc. v Tabur Marine (GB) Ltd, [1985] RPC 59
 - Pozzoli SPA v BDMO SA [2007] EWCA Civ 588



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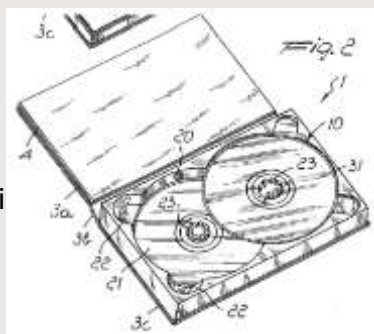
Inventive Step – UK



Pozzoli v. BDMO & Others [2007]

Identify:

- (1a) The relevant skilled person
- (1b) Their common general knowledge
- (2) The inventive concept, or construed invention
- (3) Differences between (2) and the 'state of the art'

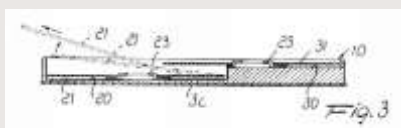


Then ask:

- (4) Without any knowledge of the invention claimed, **are the differences obvious?**

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Inventive Step – UK



Identify:

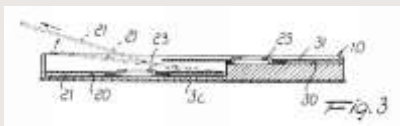
- (1a) skilled person = someone interested in CD boxes
- (1b) cgk = commonplace CD boxes (e.g. the 'brilliant box')
- (2) inventive concept = case for 2 CDs fits into racks built for regular, 1CD boxes and enables both CDs to be extracted individually
- (3) Differences between (2) and the 'state of the art' = CDs overlapping, don't touch and axially offset

Then ask:

- (4) Without any knowledge of the invention claimed, **are the differences obvious?**

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Inventive Step – UK



- (1a) skilled person = someone interested in CD boxes
- (1b) cgk = commonplace CD boxes (e.g. the 'brilliant box')
- (2) inventive concept = case for 2 CDs fits into racks built for regular, 1CD boxes and enables both CDs to be extracted individually
- (3) Differences between (2) and the 'state of the art' = CDs overlapping, don't touch and axially offset
- (4) Differences obvious. E.g. because the brilliant box showed that overlapping CDs without causing them damage was possible. Axially offsetting them is then simply a routine option.

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Inventive Step – Common General Knowledge



- Mental tools of the trade
- Generally known and generally accepted
- Knowledge with which to read the prior art
- Individual patent specifications are not generally held to be CGK
- Textbooks



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Inventive Step – Other considerations

- It’s an inventive step, not an inventive leap
- Obvious to try with a reasonable expectation of success
- Trivial differences
- Obvious collocation of features
- Obvious selection
 - e.g. Selecting from equally likely alternatives, normal procedures, simple extrapolation
- Ex post facto analysis* – hindsight
- Problem invention



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Inventive Step – EPO vs. UKIPO

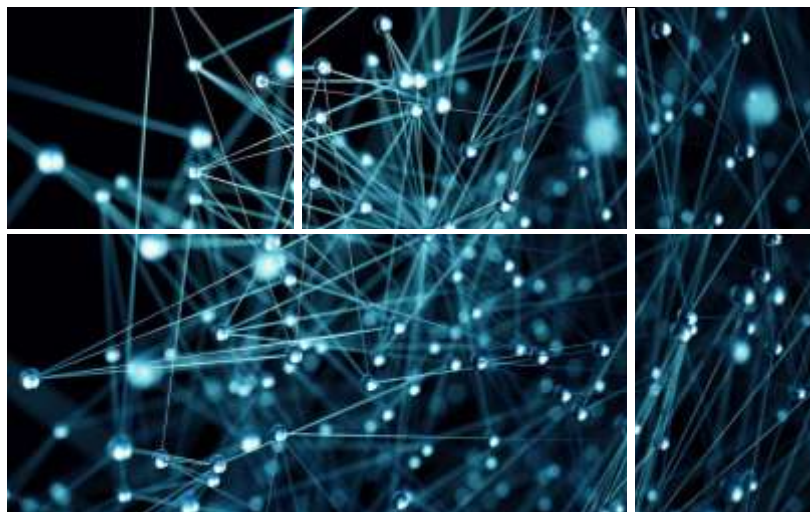
- Similarities: – use the same state of the art
– skilled person/addressee
- Differences:

Feature		
Primary Document	Anything	CPAD
Secondary Document	Only exceptionally, usually CGK	Can be combined with CPAD if it addresses the same problem
Inventive 'Step'	Are differences obvious over prior art?	Is the solution to the objective technical problem obvious?

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Thank you for listening! **Any questions?**



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