

PATENT REQUIREMENTS: NOVELTY & INVENTIVE STEP



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Remark:

Some contents and examples used in the following slides were taken from "*Patent teaching kit*" of the *European Patent Academy* and from tutorials and guidelines provided by the *European Patent Office*

WHAT CAN BE PATENTED

Patents protect inventions "in all fields of technology"

Invention can be defined as a new and inventive solution (product, process or use) to a "technical" problem, needed to be solved.

For the granting of the patent, the invention has to be

- **new** to the public (no previous public notice)
- **inventive** (i.e. not an "obvious" solution)
- susceptible to **industrial application**
- sufficiently **clear** and well described -- > patentability examination, knowledge dissemination!

See Articles 52, 53, 83 EPC: <http://www.epo.org/patents/law/legal-texts/epc.html>



NOVELTY

Article 54 EPC - "Novelty"

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

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.

NOVELTY is destroyed by:

-  Prior art documents (worldwide)
-  Disclosures (intentional or involuntary)

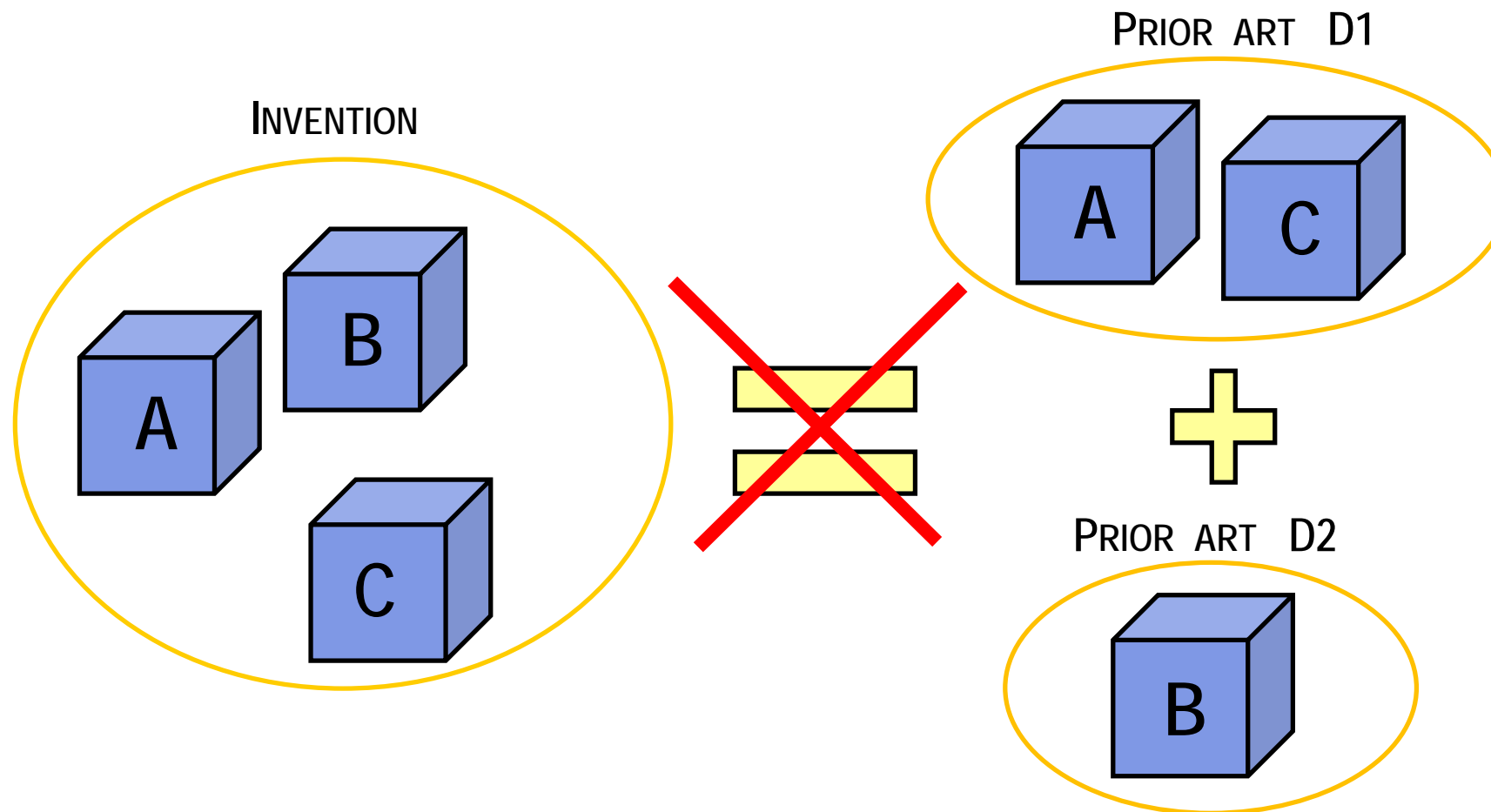


Publications in academic journals or oral presentations at conferences are part of the state of the art !

Be aware of academic thesis and contents on webpages !!

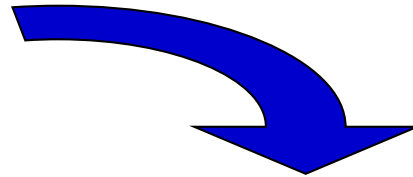
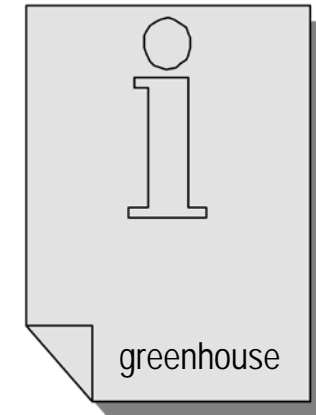
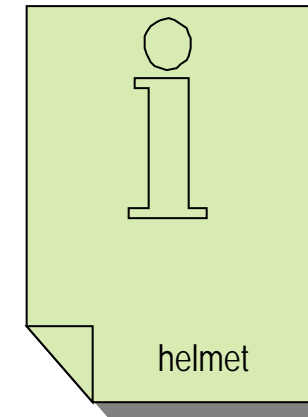
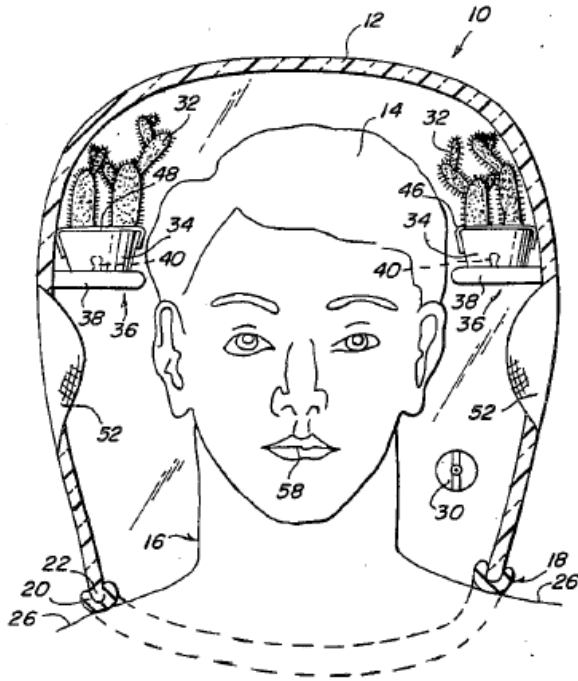
From the technical point of view...

AN INVENTION CAN BE REGARDED AS A NEW AND INVENTIVE ORDER OF PRE-EXISTING ELEMENTS



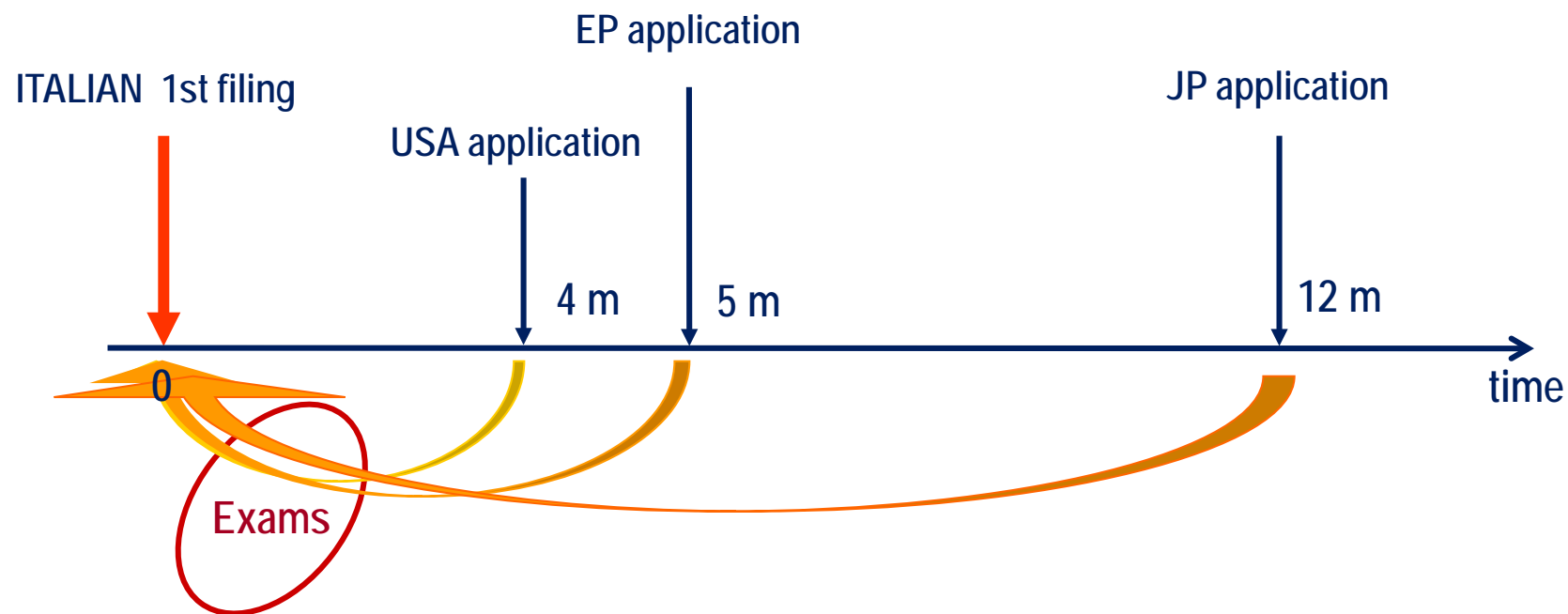
an example of assessment of Novelty....

Application



TECHINCAL FEATURES	D1	D2
1) transparent cover	X	X
2) fixing element to the person	X	
3) Air filter	X	
4) shelves for plants		X

PRIORITY RIGHT



Paris Convention for the Protection of Industrial Property, 1883

The Priority right guarantees that an applicant shall be able to use its first filing date as the effective filing date for the patent requirement examination in any another country, on condition that the applicant will file a subsequent patent application within 12 months from the first filing date (within 6 months for industrial designs and trademarks).

an exercise on the State of the Art....

Let's take the case of the XI century document written in Chinese.

The only one copy of this document is located in a Buddhist monastery in Tibet

Is this document part of the state of the art?

YES / NO



STATE-OF-THE-ART SEARCH

PATENT OFFICE DATABASES:

EPO - Espacenet:

<http://worldwide.espacenet.com>

<https://e-learning.epo.org>



WIPO – Patentscope:

<http://patentscope.wipo.int/search>

USPTO – Patent Full-text Database:

<http://patft.uspto.gov/>



Free Online Databases:

Google Patents:

<http://www.google.com/patents>



Free Patents On Line:

<http://www.freepatentsonline.com>



Patent Lens:

<http://www.lens.org/lens/>

<http://www.lens.org/lens/bio/species>



Commercial Databases:

Questel-ORBIT: <http://www.orbit.com>

Thompson: <http://www.delphion.com>

STN: <http://www.stn-international.de>

INVENTIVE STEP

Article 56 EPC - "Inventive step"

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.*

The **INVENTIVE STEP** requirement refers to the **selection** of those novel solutions that qualifying differ from the state art.

The assessment of inventive step is unavoidably **subjective** because obviousness is something relative, as is the concept of the "skilled person". As time passes, it becomes harder assess the presence of inventiveness.

When any invention is conceived, it becomes obvious as a new logic order of pre-existing elements, just like in case of mathematical problems: **as soon as we find the solution, there is no more problem!**

THE «SKILLED PERSON»

The person skilled in the art refers to a R&D ordinary practitioner, or in some fields a team of practitioners, and has access to everything in the state of the art.

He/she has:

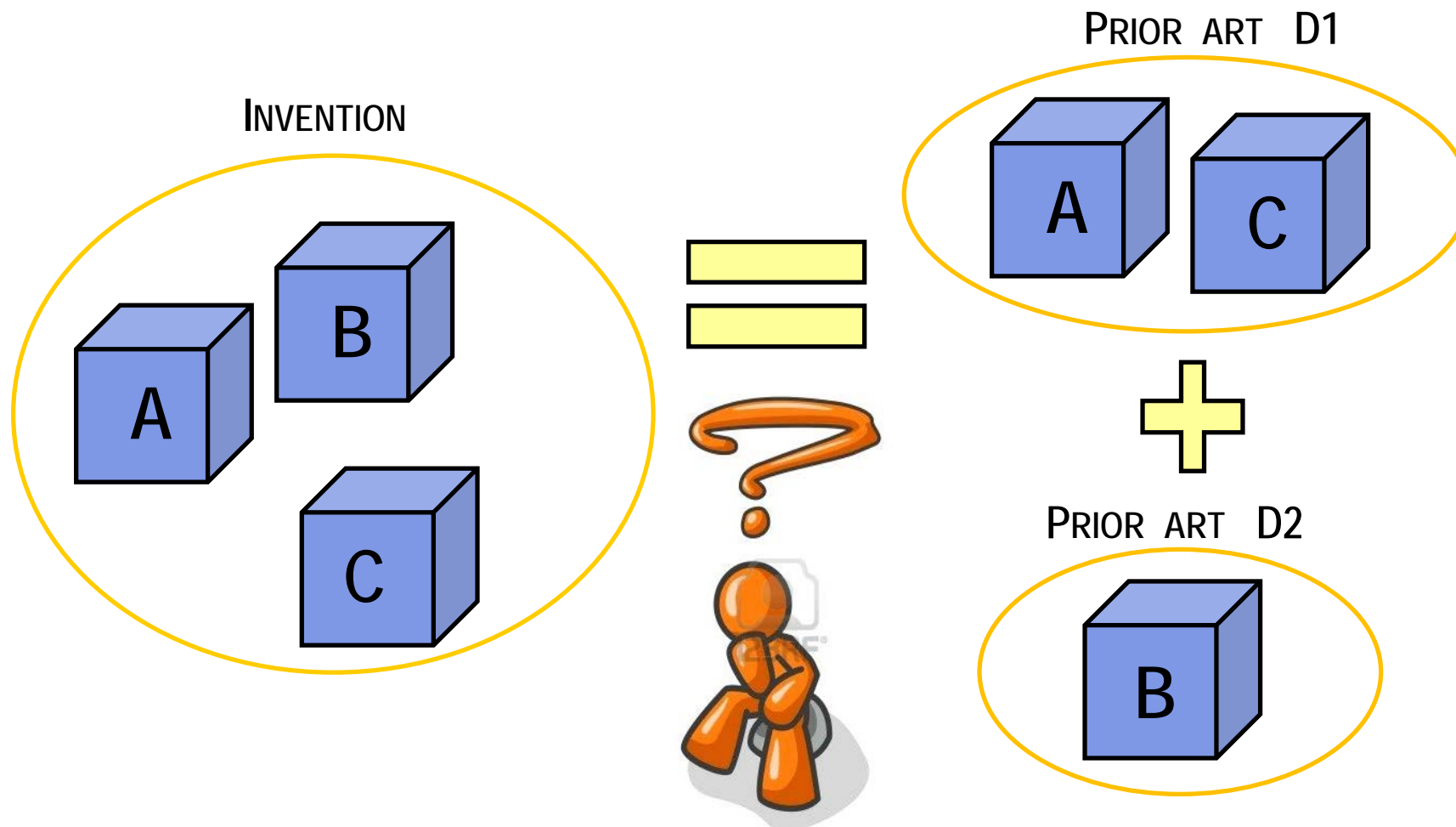
- awareness about prior knowledge in a particular technical field at the relevant date (*common general knowledge, enhanced knowledge* and also false information and prejudices in that field)
- normal capacity for routine work and good logic skills, but...
- no inventive skills



NOT A REAL PERSON !!

From the technical point of view...

AN INVENTION CAN BE REGARDED AS A NEW AND INVENTIVE ORDER OF PRE-EXISTING ELEMENTS



SKILLED PERSON

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THE «PROBLEM-SOLUTION APPROACH»

The European Patent Office has developed an objective method, called the “PROBLEM-SOLUTION APPROACH”, for assessing the obviousness of invention, comprising 3 stages:

STAGE 1 IDENTIFYING THE CLOSEST PRIOR ART

- directed toward the same problem
- most feature(s) in common with the invention

STAGE 2 DEFINING THE OBJECTIVE TECHNICAL PROBLEM TO BE SOLVED

- in view of difference between the closest prior art and the invention

STAGE 3 EXAMINING OBVIOUSNESS - THE “COULD-WOULD APPROACH”

- obvious **only** if the skilled person **would** have made it;
- whether he **could** have made the invention is **irrelevant**

an example of assessment of Obviousness....

STAGE 1

Our invention claims a teapot comprising:

- a compartment for liquids (1),
- a lid and
- two spouts (5) extending from the compartment (1), whereby the two spouts are arranged at the same height



The search into the prior art revealed these 4 documents:

Document D1:
a teapot with
one spout.



Document D2:

a sprayer for the treatment of fruit trees. The sprayer has a plastic tank with two spouts for delivering an mixture of air and a chemical.



Document D3:
a filter handle with two
spouts to be used with
a coffee maker.



Document D4:

an oil and vinegar bottle which reveals a second
bottle inside. The two spouts are cleverly
arranged to ensure the second never drips while
the first is in use.



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an example of assessment of Obviousness....

STAGE 1

IDENTIFY THE CLOSEST PRIOR ART

D1: teapot with one spout



STAGE 2

DEFINE THE OBJECTIVE TECHNICAL PROBLEM

- a) Differences over D1:
 - two spouts instead of one spout
 - particular arrangement of the spouts
- b) Drawback of prior art:
 - time-consuming
- c) Advantage of the invention:
 - the time needed to fill multiple cups is reduced
- d) Objective problem to solve:
 - how to modify the teapot of D1 to reduce the filling time?



Fig. 1.



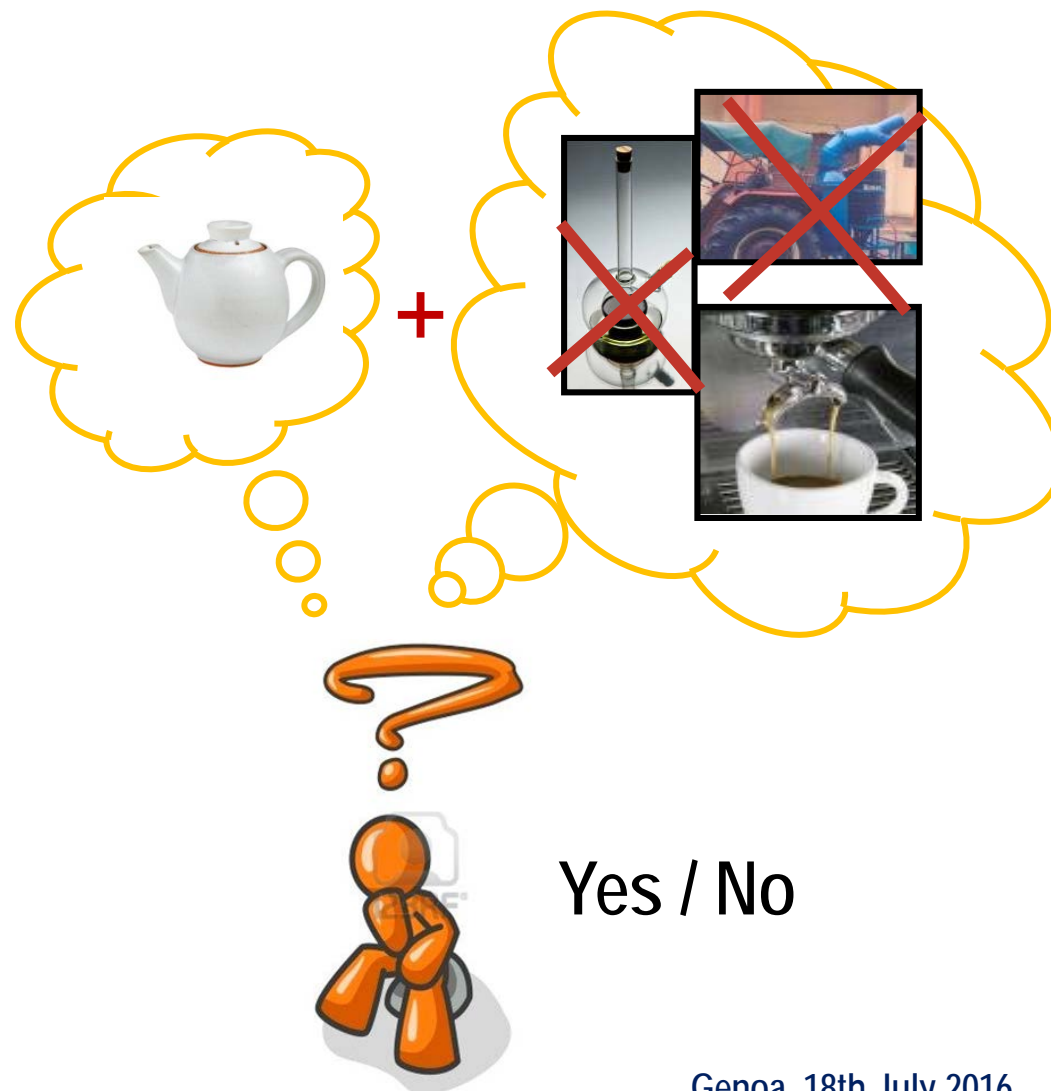
an example of assessment of Obviousness....

STAGE 3

ASSESS OBVIOUSNESS
by "could-would approach"



OBJECTIVE PROBLEM:
how to modify the teapot of D1 in order
to reduce the filling time?



WHEN CONSIDERING FILING A PATENT APPLICATION



DON'T PUBLISH before filing

e.g. no article, press release, conference presentation/ poster / proceedings or web entry



DON'T SALE products incorporating the invention before filing



DON'T DISCLOSE information before filing except the case of using a **NDA** (non-disclosure agreement)

e.g. lectures, presentations, disseminations

KEEP IT CONFIDENTIAL !!!!!

GRACE PERIOD: some countries foresee a “grace period”, i.e. if an applicant files a patent application within a certain period after publishing contents on his/her invention, then this earlier disclosure doesn't constitute prior art.

Thanks' for your attention!



... any questions?