



# Intellectual Property Fundamentals of Patents

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## Why IP has become Important?

- Development of Global Technological capability
- Reverse Engineering feasible in developing countries
- Follow-up of General Agreement on Trade and Tariffs (GATT)
- Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS Agreement)



## WHAT IS A PATENT ?

A RIGHT GRANTED TO INVENTORS TO ***PREVENT*** UNAUTHORIZED USE OF AN INVENTION, WITHIN A ***PARTICULAR TERRITORY***, FOR A ***LIMITED TIME***. DOES NOT GUARANTEE THE ***FREEDOM TO EXPLOIT*** THE INVENTION.



## Patent-Explanation

- Negative Right
- Patents are territorial  
e.g., an Indian patent has **no force in other countries** , just as a foreign patent has **no force in this country**.
- Limited Time: 20 years from Date of application.
- Positive right restricted by previous patents  
-Freedom to operate/market/practice



## Why do Patent Rights matter?

- Provide incentive towards various creative endeavors of the mind by offering protections;
- Give such creators official recognition;
- Create repositories of vital information;
- Facilitate the growth of both domestic industry and
- Promote international trade, through the treaties offering multi-lateral protection.



# **REQUIREMENTS OF PATENTABILITY**

## **SUBSTANTIVE REQUIREMENTS**

- **SUBJECT MATTER**
- **NOVELTY**
- **NON-OBVIOUSNESS**
- **UTILITY**

## **PROCEDURAL REQUIREMENTS**

- **ENABLEMENT**
- **DEFINITENESS**
- **BEST MODE**

**IDEAS/CONCEPTS CANNOT BE PATENTED**



# REQUIREMENTS OF PATENTABILITY **URDIP**

## **SUBJECT MATTER**

- MANUFACTURE
- MACHINE
- COMPOSITION OF MATTER
- PROCESS

e.g. GENETICALLY MODIFIED BACTERIA  
HUMAN ENGINEERED MICE

## **UTILITY**

MINIMUM DEMONSTRATION

## **NOVELTY**

NOT ANTICIPATED IN "PRIOR ART"

"PRIOR ART"- ANYTHING PREVIOUSLY  
PUBLISHED,PATENTED,KNOWN,USED,SOLD



# REQUIREMENTS OF PATENTABILITY

## OBVIOUSNESS

KNOWLEDGE AT THE TIME OF INVENTION MUST NOT BE OBVIOUS TO ONE OF ORDINARY SKILL IN THAT AREA

## DETERMINED BY

SCOPE / CONTENT OF PRIOR ART

AS LEVEL OF ORDINARY SKILL IN TECHNOLOGY INCREASES, SO DOES THE OBVIOUSNESS OF ADVANCES





# REQUIREMENTS OF PATENTABILITY **URDIP**

## **ENABLEMENT**

ABILITY TO USE THE INVENTION WITHOUT  
“UNDUE EXPERIMENTATION” (SPECIFICATION)

## **DEFINITENESS INQUIRY**

UNDERSTANDING LIMITS OF INVENTION  
BASED ON CLAIM LANGUAGE

## **BEST MODE**

BEST WAY KNOWN TO HIM/HER TO CARRY  
OUT THE CLAIMED INVENTION. DISCLOSURE  
MUST ALLOW A PERSON OF “ORDINARY SKILL  
IN THE ART “TO PRACTICE THE INVENTION.  
CONCEALMENT OF BEST MODE RESULTS IN  
REJECTION.



# DEFINITIONS

URDIP

- INVENTIONS

- “Invention” means a new product or process involving an inventive step and capable of industrial application

- INVENTIVE STEP

- “Inventive step” means a feature that makes the inventions not obvious to a person skilled in the art

- CAPABLE OF INDUSTRIAL APPLICATION

- In relation to an invention means that the invention is capable of being used in an industry

(Industry here does not mean manufacturing sector alone. It is an all encompassing definition for the purpose of utility).



# EXCEPTIONS TO PATENTABILITY OF INVENTIONS

- An invention which is frivolous or which claims anything obviously contrary to the well established natural laws
- An invention the primary or intended use or commercial exploitation of which would be contrary to public order or morality or which causes serious prejudice to human, animal or plant life or health or to the environment, law, morality or injurious to public health.
- The mere discovery of a scientific principle or the formulation of an abstract theory or discovery of any living thing or non-living thing in nature



# PATENTABILITY OF INVENTIONS

URDIP

....Continued

- The mere discovery of a new property or new use for a known substance or of the mere use of a known process, machine or apparatus unless such known process results in a new product or employs at least one new reactant
- A substance obtained by a mere admixture resulting only in the aggregation of the properties of the components thereof or a process for producing such substances
- The mere arrangement or rearrangement or duplication of known devices each functioning independently of one another in a known way



# PATENTABILITY OF INVENTIONS

....Continued

- A method of agriculture or horticulture
- Any process for the medicinal, surgical, curative, prophylactic, diagnostic, therapeutic or other treatment of human beings or any process for a similar treatment of an animal or plants to render them free of disease or to increase their economic value or that of their products



# EXCEPTIONS TO THE INVENTIONS

- Plants and animals in whole or part thereof other than micro organism but including seeds, varieties and species and essentially biological processes for production or propagation of plants and animals
- A mathematical or business method or a computer programme per se or algorithms
- A literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever including cinematographic works and television productions



# EXCEPTIONS TO THE INVENTIONS

- A mere scheme or rule or method of performing mental act or method of playing games
- A presentation of information
- Topography of integrated circuits
- An invention which, in effect , is traditional knowledge or which is an aggregation or duplication of known properties of traditionally known component or components



# PATENTABILITY UNDER US SYSTEM

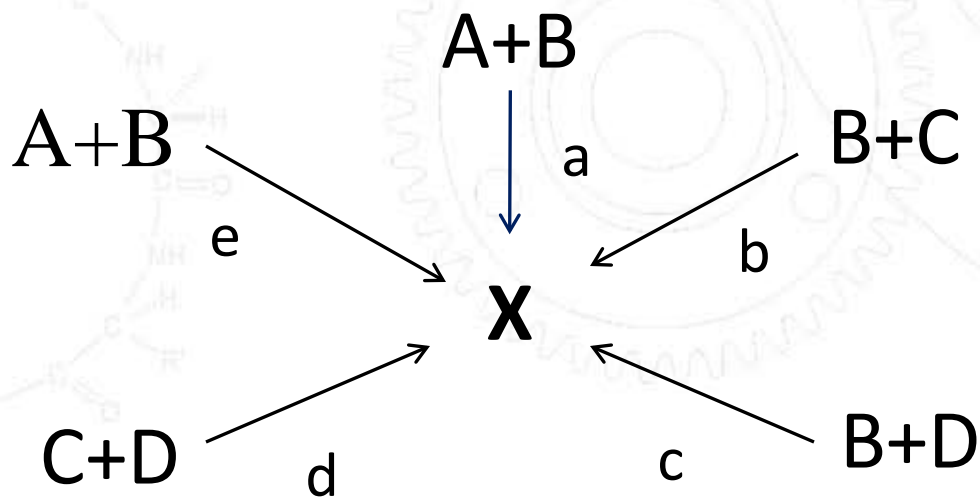
ANYTHING THAT INVOLVES HUMAN INTERFERENCE CAN BE PATENTED

PLANTS, BUISNESS METHODS, SOFTWARE (ALL TECHNOLOGY AREAS)





# Process Vs Product Patent



X – Product

a, b, c, d, e - Processes

A,B,C,D – Raw materials



# IMPORTANT CHANGES IN RESPECT OF CHEMICAL PROCESS

Patents to the products capable of being used as food, agrochemicals, drug and medicines and those of chemical process.

Chemical processes to include biochemical, biotechnological and microbiological processes



# COMMUNICATIONS THAT COUNT AGAINST AN INVENTOR

- PRINTED PUBLICATIONS
  - MICROFILM
  - SLIDES AND DRAWINGS
  - PHOTOGRAPHS
  - SPEECHES AND HANDOUTS
  - LIBRARY CATALOGUING (THESIS)
  - GOVERNMENT RESEARCH GRANT PROPOSAL
- EMPHASIS ON 'ACCESSIBILITY AND DISSEMINATION OF THE WORK'
- INVENTION ON SALE
- INVENTION AVAILABLE FOR PUBLIC USE.
- USA- ONE YEAR GRACE AFTER PUBLICATION



## **WHO CAN QUALIFY AS INVENTORS**

- PROVIDER OF THE IDEA/CONCEPT
- MEMBERS OF TEAM WHO MADE SIGNIFICANT CONCEPTUAL CONTRIBUTIONS
- EVERY TEAM MEMBERS SHOULD HAVE HIS OWN NOTEBOOK OR DOCUMENT TO RECORD HIS CONTRIBUTION, DATED, SIGNED AND WITNESSED
- IF YOU DESIGN AN EXPERIMENT FOR SOMEONE ELSE TO PERFORM ENTER YOUR INSTRUCTIONS INTO YOUR NOTEBOOK



## R&D Alerts for Patent Protection

- Record the date of conception of an idea
- Record the date when the Conception was first "Reduced to Practice"
- Show "Due Diligence" in reducing the invention to practice sign and witness all entries in
- Notebook. The laboratory notebook is a legal record. A System for lab record keeping should be evolved.



# INVENTORSHIP Vs. OWNERSHIP

- ORGANISATIONAL IPR POLICIES (WORK FOR HIRE)
- COMMERCIAL WORK OF NON-EMPLOYEES

ARTISTIC WORKS

ARCHITECTURAL OR ENGINEERING DRAWINGS

COMPUTER SOFTWARE

REPORTS BY CONSULTANTS OR

SUBCONTRACTORS

SPONSORSHIPS /GRANTS – ASSIGNMENTS /

MARCH IN RIGHTS / SHOP RIGHTS



# Types of Patents

- Utility Patents
- Design Patents
- Plant Patents
- Innovation Patents
- Provisional Patents



## PROVISIONAL PATENT

- In India, the United States and some other countries, a temporary patent application, to protect invention while work is in progress termed as provisional application, may be filed.
- Must be “completed” within 12 months by the filing of a complete application.
- The legal requirements for a provisional application may be less than those for a complete application, for example, it is not necessary to include claims in a provisional.





## Compulsory Licensing

- In certain cases, in fact, the use of the patented invention may be authorized to a third party either by the competent court or by a Patent Office (depending on the law of the country)
- Prevents the abuses which might result from the exclusive rights conferred by a patent. This regime may also be applied in case of non-use of the patented invention within a prescribed period (generally four years from the filing date of application for patent, or three years from the issue of patent).