



# PATENTS: A VITAL SOURCE OF SCIENTIFIC AND TECHNOLOGICAL (S&T) INFORMATION

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DLIS Trends and Developments in  
Caribbean Libraries Workshop, June 25-  
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# OVERVIEW

- ◆ Introduction
- ◆ Patent System
- ◆ Criteria for Patent Protection
- ◆ Type of Information in Patent Document
- ◆ Some Advantages of Patent Documents
- ◆ Contribution of Patent System to Tech Dev.
- ◆ Limitations of Patent System
- ◆ Access to and Exploitation of Patent Information
- ◆ Obstacles/Challenges
- ◆ Summary
- ◆ Way Forward



# INTRODUCTION

- ◆ S&T as a strategic resource underpinning national social and economic development
- ◆ Need for sound technological base for industrial strategy and competitive edge
  - indigenous technological capabilities
  - acquisition of selected imported technologies which complement national R&D efforts and the growth of locally created technologies



# INTRODUCTION CONT'D

- ◆ Sachs (2001) – “ 50-70% of the economic growth of the developed countries over the past 70 years was due to technical change... countries that do not keep up with global technology often collapse, unable to maintain their standards of living, much less increase it”



# INTRODUCTION CONT'D

- ◆ Challenges
  - Knowledge-based Economy
  - Globalization



# PATENT SYSTEM

- ◆ Industrial branch of Intellectual Property
- ◆ One of oldest instrument for technological development

Two elements

- protection for inventions( new solutions to technical problems relating to products and processes)
- and as a source of technology



# PATENT SYSTEM

- ◆ Definition of Patent

“rights granted by Governments and confer to the Inventor or Patentee exclusive use of the invention for a limited period of time in the country or territory, subject to the existing law”

- Duration of protection - 14 to 20 years.  
(Jamaica 14 + possible extension of 7 years)



# PATENT SYSTEM

- ◆ Other Related Forms of Patent Protection
  - Inventor's certificate – same requirements as for patents but 2 beneficiaries - the state and inventor with the State having the exclusive right of exploitation (Bulgaria, Soviet Union, Czechoslovakia)
  - Utility Model-inventions related to intermediate technology e.g Japan, Fed Republic of Germany not UK or USA



# PATENT SYSTEM

- Industrial designs – novel representations of the ornamental or aesthetic aspect of a useful article protected against unauthorized copying or imitation Protection for 5- 15 years.



# CRITERIA FOR PATENT PROTECTION

- ◆ Invention must be new – except Greek
- ◆ Involve an inventive step - ( not obvious to a person with ordinary skills in the art)
- ◆ Industrially applicable



# TYPE OF INFORMATION CONTAINED IN PATENTS

- ◆ All branches of technology except national security
- ◆ Product and processes
- ◆ Industrial applicability



# WHAT IS TECHNOLOGY?

## TECHNOLOGY -definition

“ knowledge requisite to the production of goods and services”



## SOME ADVANTAGES OF PATENT DOCUMENTS AS A SOURCE OF TECHNOLOGY

- ◆ Patents convey the most recent information
- ◆ Patent once granted is published with full disclosure of invention (novel solution to a specific problem in the field of technology)
- ◆ Sources of information not only of what is new but also on what is already known
- ◆ Cover all branches of technological advances - national security may be patented but not published



## ADVANTAGES CONT'D

- ◆ Contains industrial technology – condition that invention be workable with industrial application
- ◆ Uniform Structure provides quick access to information
- ◆ Contents prescribed by Patent Law of Country
  - Contact Information pertaining to Applicant – technology transfer



## ADVANTAGES CONT'D

- The Description – gives the existing background and knowledge (i.e the prior art) on which the invention is based and contribution that invention will make to that background knowledge. Where necessary contains illustrations
- The Claims – a brief and precise indication of what the applicant asserts to be his/her invention



# ADVANTAGES CONT'D

- Abstracts – provide insights into the contents of the documents
- ◆ Document bears a date – status of protection
- ◆ Disclose not only concepts concerning the general utility of the invention but industrial application



# ADVANTAGES

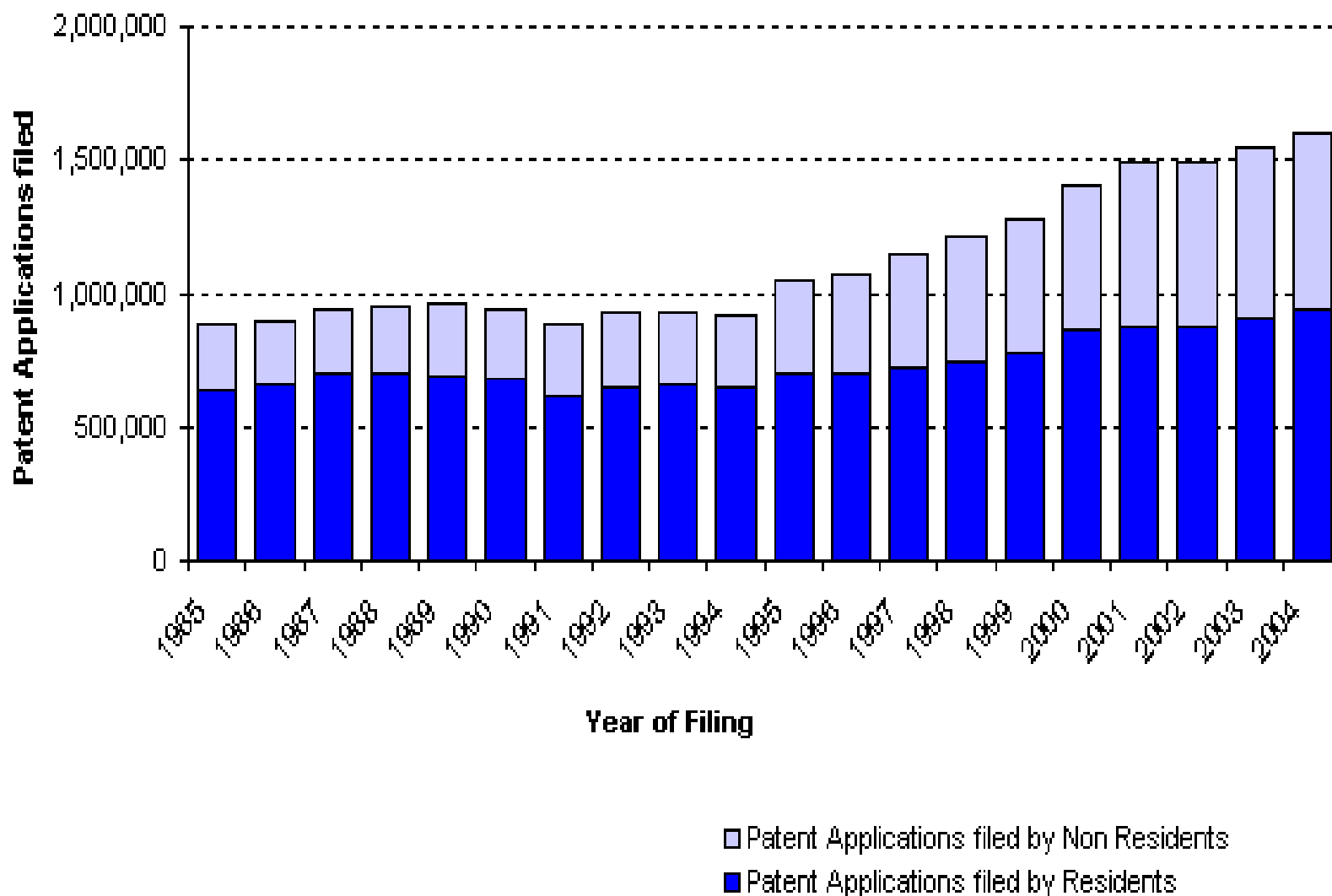
- ◆ Information not divulged in any other form of literature - only 10% of patent information retrievable from non- patent literature
- ◆ High Volume of Patent Documents



# ADVANTAGES CONT'D

- ◆ World Intellectual Property Organization (WIPO) Patent Report 2006
  - 5.4 million patents worldwide in 2004
  - Patent filing grown at average 4.75% over past 10 years
  - 1.6 million patent filings in 2004
  - 600,000 patents granted in 2004

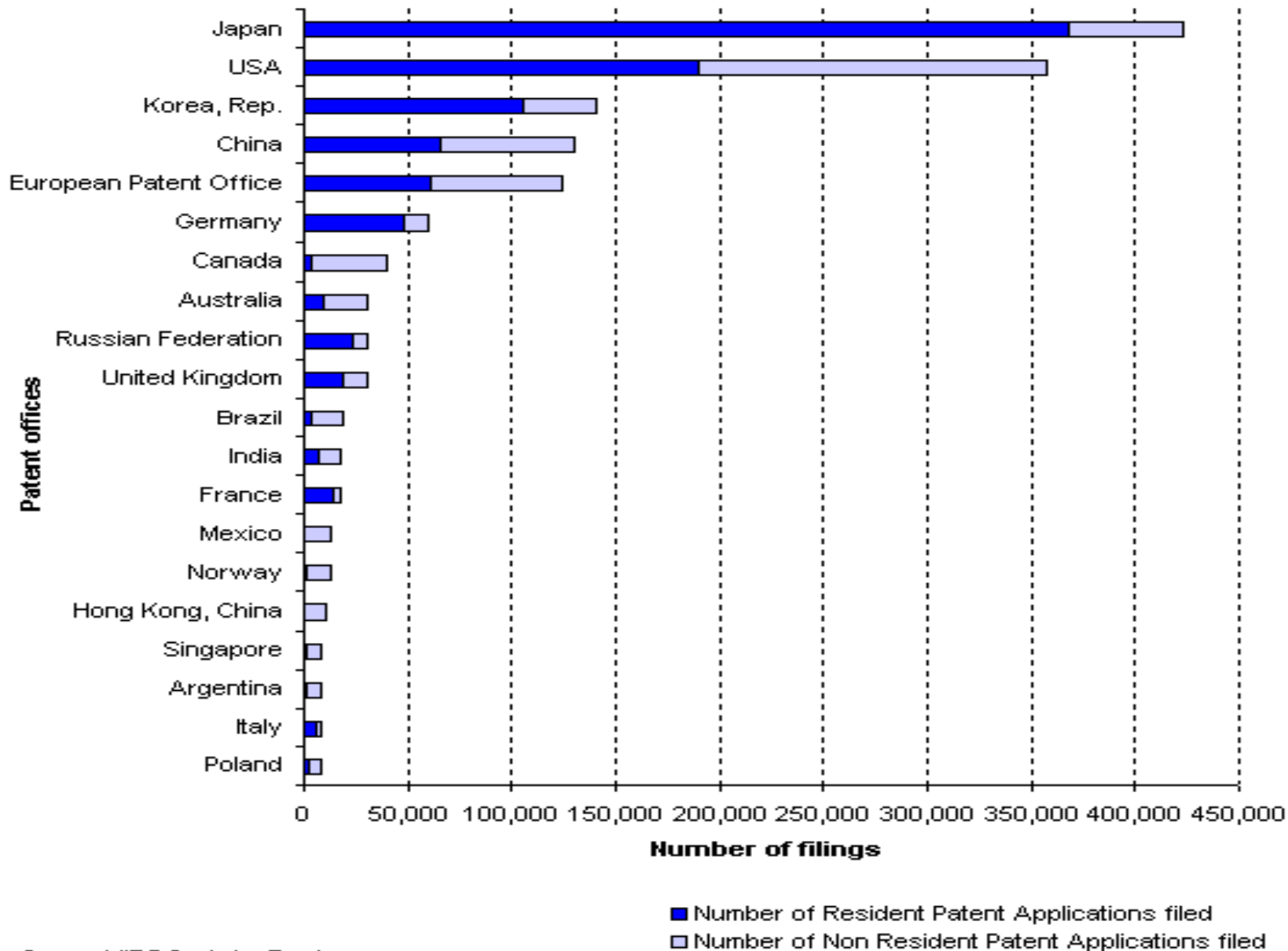
# WORLDWIDE PATENT FILINGS



Source: WIPO Statistics Database

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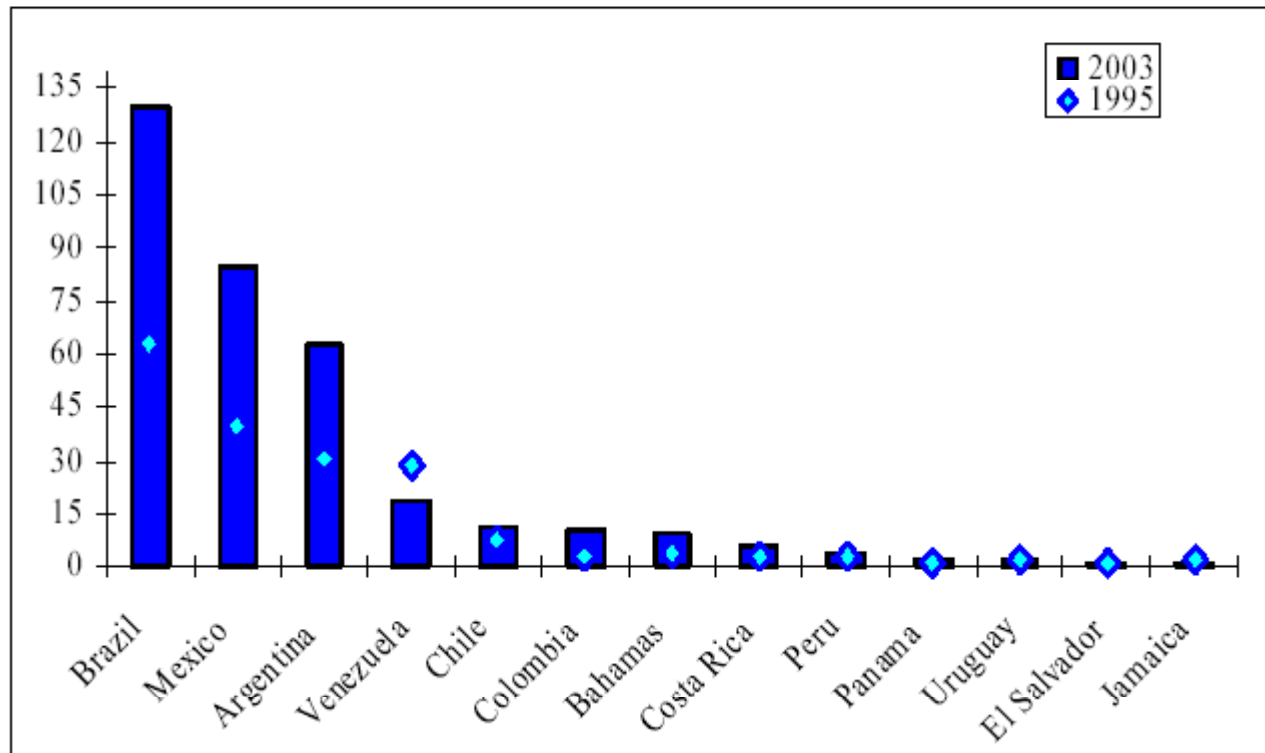
# Top 20 Offices According to Patent Filing in 2004.



Source: WIPO Statistics Database



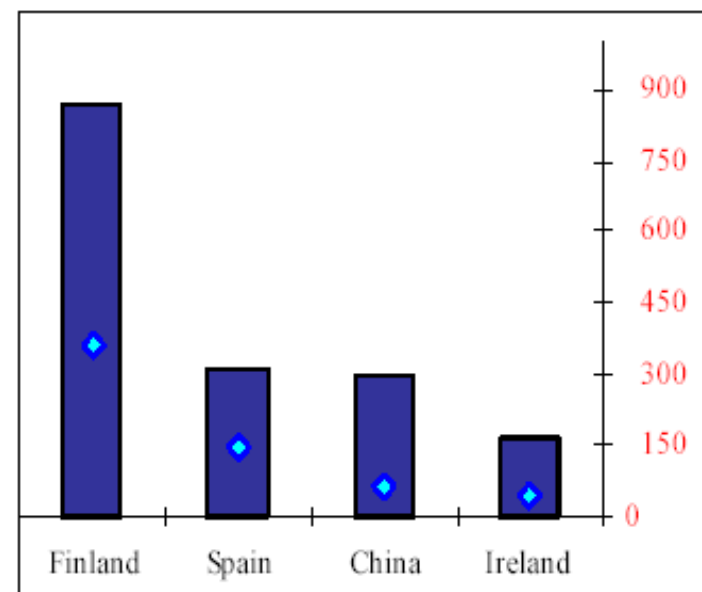
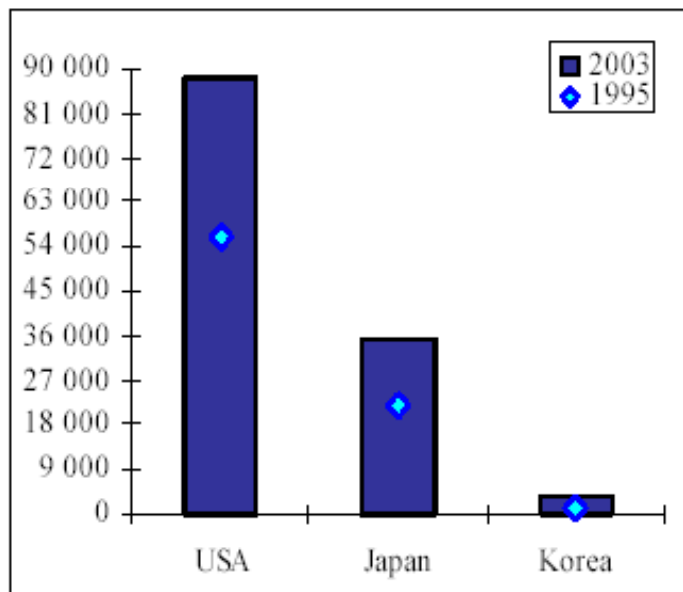
## Patents Granted by the USPTO to LAC countries



M.Cehelsky, 5/3/07



## Patents Granted by USPTO to OECD Countries (1995 and 2003)



M.Cehelsky, 5/3/07



## ADVANTAGES CONT'D

- ◆ Technological information can be freely used to support further research and development
- ◆ Invention not protected in the country of the user can be put to industrial application but products of application cannot be exported to the country where the invention is protected



# CONTRIBUTION OF PATENT SYSTEM TO TECHNOLOGICAL DEVELOPMEENT

- ◆ Incentive to the creation of new technology
- ◆ Provides environment which facilitates the successful industrial application of new technology
- ◆ Facilitates technology transfer
- ◆ Instrument of technological planning and strategy
- ◆ Provides institutional framework for foreign investment



# LIMITATIONS OF THE PATENT SYSTEM

- ◆ Some new technologies are not sufficiently inventive to be patentable and so are not included in the pool of patented information
- ◆ Where national laws do not ensure examination for patentability (i.e novelty, inventive step industrial applicability) then the contained information might not be as useful as anticipated.
- ◆ Information sometimes not disclosed in a manner which allows for execution without the acquisition of know-how from the inventor



# LIMITATIONS CONT'D

- ◆ Pure technological information in patent documents often needs to be complemented by other kinds of information (commercial or economic)
- ◆ Oftentimes no information service dealing with this information. Information cannot be exploited without acquisition of know-how and blueprints from inventor
- ◆ Even though patent granted no guarantee that the invention is absolutely new



# ACCESS TO PATENT INFORMATION

- ◆ Patent Documents classified – International Patent Classification (IPC) -over 60 countries; US Classification etc.
- ◆ Free of Charge Databases e.g US Patent and Trademark Office (USPTO), Ep.espacenet.com
- ◆ Private companies with Commercial databases e.g Derwent, Dialog, Questel, Orbit, Micropatent – enhanced or value added patent information based on the actual requirements of particular end users



# ACCESS CONT'D

- ◆ National, regional and international patent offices e.g. European, Japan, China
- ◆ Secondary sources such as gazettes, abstract services databases
- ◆ National information services, professional search services e.g Scientific Research Council (SRC)
- ◆ WIPO - International Cooperation in the Search & Examination of Inventions (ICSEI) - information provided within 14 days of receipt of request –state-of-the-art report with patent and non-patent literature



# ACCESS - CARIBBEAN

- ◆ Patent Information and Documentation Unit (PIDU)
- ◆ Caribbean Patent Database
- ◆ National Patent Office e.g Trinidad and Tobago – does state – of – the arts searches
- ◆ Jamaica – Scientific Research Council – searches through WIPO
  - Publication in gazette and newspaper



# EXPLOITATION OF INFORMATION IN PATENT DOCUMENTS

- ◆ Expiration of patents – public domain
- ◆ Licensing - permission to perform acts covered by exclusive rights
- ◆ Know-How – technical know-how, documentation, demonstration , training, consultancy



# EXPLOITATION

- ◆ Sale and Import of Machinery, Equipment and other Capital Goods embodying Technology and Related Literature
- ◆ Compulsory License – public interest by or on behalf of Government without authorization. Remuneration for patentee



# OBSTACLES/CHALLENGES

- ◆ Ignorance of the type of information contained in patent documents
- ◆ High number of patent documents published each year
- ◆ Patent documents in unfamiliar language
- ◆ Physical location of public patent libraries and their organization may complicate the use of the relevant literature



# SUMMARY

- ◆ Patents are vital sources of information on a wide range of technologies
- ◆ In a knowledge-based economy effective use of patent information is a contributor to the success of enterprises given the practical business, legal and technical information



# SUMMARY

- ◆ Patent information is critical for industrial development but needs to be promoted
- ◆ Special effort should be made to establish systems at the national levels in the Caribbean to access and disseminate the information contained in patents to relevant stakeholders



# SUMMARY

- ◆ Researchers should be targeted to use patent information as springboard to R&D as well as encouraged to patent their technological findings
- ◆ Informational professionals have a major role in ensuring greater utilization of the information in patent documents



# WAY FORWARD

- ◆ Information Professionals should become familiar with the pros and cons of the patent system and provide guidance to clientele accordingly
- ◆ Information Professionals should include patent in filling requests



# WAY FORWARD

- ◆ Development of aggressive information systems with capabilities to interact with regional and international sources for access and provision of such information
- ◆ Sensitize nationals on the importance and limitations of the information in patent documentation

# THANK YOU

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