行政院所屬各機關因供出國人員出國報告書
(出國類別：考察)

出席「科技資訊國際聯盟（ICSTI）2001年會並參訪歐美資訊機構之運作機制」暨參訪「歐洲科技政策機構之資訊分析及服務方式」

服務機關：行政院國家科學委員會科學技術資料中心

出國人姓名職稱：孟憲鈺　科資中心主任
羅於陵　科資中心組長
張小玫　科資中心助理研究員

出國地點：德國、瑞士、比利時、荷蘭

出國期間：民國九十年五月二日至五月十三日

報告日期：民國九十年八月七日

系統識別號：C09003053

行政院所屬各機關因供出國人員出國報告提要

頁數：14　　含附件：否

報告名稱：出席「科技資訊國際聯盟（ICSTI）2001 年會並參訪歐美資訊機構之運作機制」暨參訪「歐洲科技政策機構之資訊分析及服務方式」

主辦機關：行政院國家科學委員會科學技術資料中心

聯絡人/電話：張小玫 / 02-27377660

出國人員：

孟憲鈺　行政院國家科學委員會科學技術資料中心主任

羅於陵　行政院國家科學委員會科學技術資料中心組長

張小玫　行政院國家科學委員會科學技術資料中心助理研究員

出國類別：考察

出國地點：德國、瑞士、比利時、荷蘭

出國期間：民國九十年五月二日至五月十三日

報告日期：民國九十年八月七日

分類號/目：I8/資訊科學

關鍵詞：科技資訊國際聯盟；ICSTI；歐盟科技政策機構；CEST；CTA; White paper on European Governance

內容摘要：出席科技資訊國際聯盟（ICSTI）2001 年會，於德國慕尼黑歐洲專利局舉行，本次會議議題是：科技資訊與智慧財產：問題與機會（Scientific Information and Intellectual Property: Problems and Opportunities）。主要目的在探討智慧財產權制度的建立與科技資訊獲取的關係，及探討如何改善科技資訊流通問題。科技政策研究與前瞻計畫係本中心新增重要業務，藉由參訪學習並建立與國外合作關係，以提升決策品質及效益，強化科技與政經之整合，並以提昇國家的整體競爭力。瑞士是小國寡民的國家，在科技政策研究方面有其特色，瞭解各參訪機構所扮演之角色功能及其發展現況，參訪 The Swiss Science and Technology Council 其下的機構包括 Center for Science & Technology Studies (CEST) 、Centre for Technology Assessment (CTA) 、The Science Policy Library。順道訪問 EU 位於比利時布魯塞爾之科技政策單位，學習並尋求合作之可能性。訪問荷蘭科學技術研究中心（CWTS）瞭解並討論雙方合作計畫進行情形。

本文電子檔已上傳至出國報告資訊網

摘要

出席科技資訊國際聯盟（ICSTI）2001 年會，於德國慕尼黑歐洲專利局舉行，本次會議議題是：科技資訊與智慧財產：問題與機會（ Scientific Information and Intellectual Property: Problems and Opportunities）。主要目的在探討智慧財產權制度的建立與科技資訊獲取的關係，及探討如何改善科技資訊流通問題。該主題爲本中心提供科技資訊服務所關切的課題，參加本次會議已吸取各先進資訊服務機構之經驗。

科技政策研究與前瞻計畫係本中心新增重要業務，藉由參訪學習並建立與國外合作關係，以提升決策品質及效益，強化科技與政經之整合，並以提昇國家的整體競爭力。瑞士是小國寡民的國家，在科技政策研究方面有其特色，瞭解各參訪機構所扮演之角色功能及其發展現況，參訪 The Swiss Science and Technology Council 其下的機構包括 Center for Science & Technology Studies (CEST) 、Centre for Technology Assessment (CTA) 、The Science Policy Library。順道訪問 EU 位於比利時布魯塞爾之科技政策單位，學習並尋求合作之可能性，推廣本中心業務並讓歐洲科技政策機構充分認識科資中心。訪問荷蘭科學技術研究中心（CWTS）瞭解並討論雙方合作計畫預計進行情形。

重要活動日程

日期	參訪機構	接待人員
5/2 (三)	啓程抵達德國 Munich	路程
5/3 (四)	出席 ICSTI 年會	開會
5/4 (五)	出席 ICSTI 年會	開會
5/5 (六)	出席 ICSTI 年會	開會
5/6 (日)	出席 ICSTI 年會	開會
5/7 (一)	出席 ICSTI 年會；轉往瑞士 Bern	開會
5/8 (二)	參訪瑞士 Centre for Technology Assessment (CTA)	Dr. Danielle Butschi Haberlin
5/9 (三)	參訪瑞士 Center for Science and Technology Studies(CSTS)、The Science Policy Library	Dr. Francois Da Pozzo Ms. Edith Imhof Ms. Janna Menz
5/10 (四)	參訪比利時 EU 之 Secreatariat-General 機構 EU-JRC, Interinstitutional and International Relations Unit	Dr. Wolfgang Pape Dr. Notis Lebessis Dr. Stefaan De Rynck Dr. Vera Calenbuhr
5/11 (五)	參訪荷蘭 CWTS	Dr. Robert J.W Tijssen Dr. Anthony F.J. Van Raan
5/12 (六)	Amsterdam → 台北	路程
5/13 (日)	抵台北	

目次

壹、目的 ----------1

貳、過程 ----------2

參、心得與建議----------9

肆、附錄 ----------10

壹、目的

(一) 出席科技資訊國際聯盟（The International Council for Scientific and Technical Information: ICSTI）2001 年會，於德國慕尼黑歐洲專利局舉行，本次會議議題是：科技資訊與智慧財產：問題與機會（Scientific Information and Intellectual Property: Problems and Opportunities）。主要目的在探討智慧財產權制度的建立與科技資訊獲取的關係，及探討如何改善科技資訊流通問題。

(二) 科技政策研究與前瞻計畫係本中心新增重要業務，藉由參訪學習並建立與國外合作關係，以提升決策品質及效益，強化科技與政經之整合，並以提昇國家的整體競爭力。

(三) 瑞士是小國寡民的國家，在科技政策研究方面有其特色，瞭解各參訪機構所扮演之角色功能及其發展現況，預計參訪 The Swiss Science and Technology Council 至下的機構包括 Center for Science & Technology Studies (CEST) 、Centre for Technology Assessment (CTA) 、The Science Policy Library。

(四) 順道訪問 EU 位於比利時布魯塞爾之 DGXII 科技政策單位，學習並尋求合作之可能性，推廣本中心業務並讓歐洲科技政策機構充分認識科資中心。

(五) 順道訪問荷蘭科學技術研究中心（CWTS）瞭解並討論雙方合作計畫進行情形。

貳、過程

一、出席科技資訊國際聯盟（ICSTI）2001 年會

(一) 科技資訊國際聯盟（The International Council for Scientific and Technical Information: ICSTI）簡介

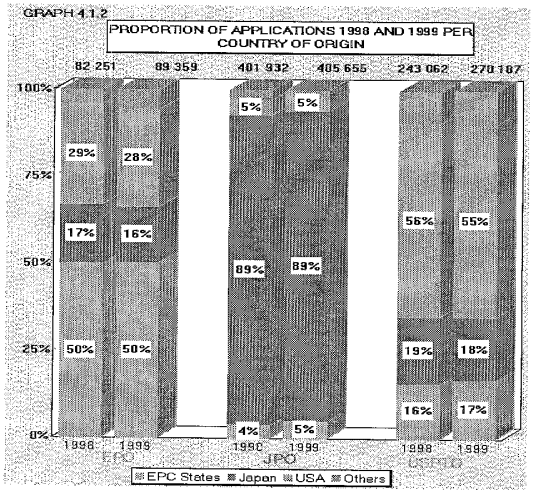
成立於 1953 年，係一個具有國際性之科技資訊服務的組織，其主要任務爲：(1) 加強科技資訊服務以提升學術研究、經濟及社會進步。(2) 促進國際科技資訊服務機構間之認識與經驗分享。目前約有 50 個機關團體會員，涵蓋歐洲、北美及亞洲重要科技資訊機構、資料庫製作單位及知名的商業資訊服務公司，亞洲國家目前有中華民國、日本及韓國加入。

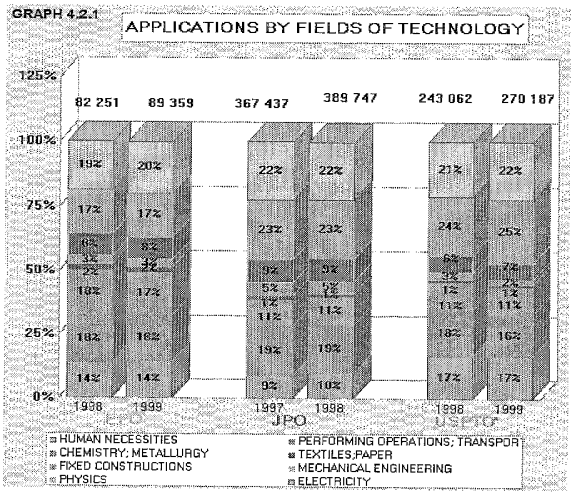
(二) 出席 2001 年科技資訊國際聯盟（ICSTI）年會

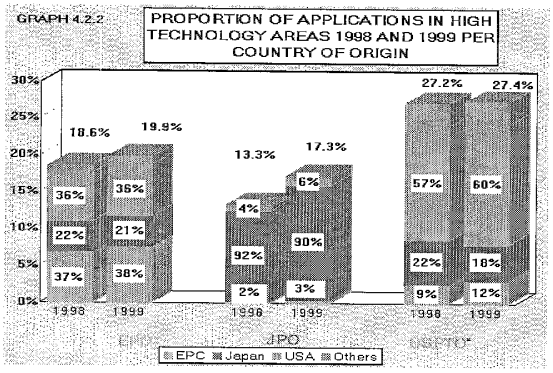
本年於 2001 年 5 月 3 日至 5 月 7 日在德國慕尼黑歐洲專利局舉行，本次會議議題是：科技資訊與智慧財產：問題與機會（Scientific Information and Intellectual Property: Problems and Opportunities）。主要目的在探討智慧財產權制度的建立與科技資訊獲取的關係，及探討如何改善科技資訊流通問題。此次因舉辦期間剛巧係歐美之勞工節假期以致參加者不甚熱烈，以下係研討報告內容重點：

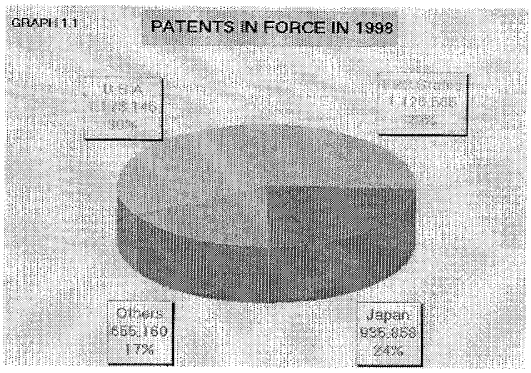
1. The Challenge facing the patent system in Europe and in the world
(Jacques Michel / Vice-President, EPO)

全球現在所面對挑戰的專利資訊服務系統，有：(1)申請件成長快速的挑戰 (2) 改善專利相關的法令規章 (3) 專利使用的工具之精進 (4)三大專利機構三邊合作資源整合 (EPO, JPO, USPTO)問題。



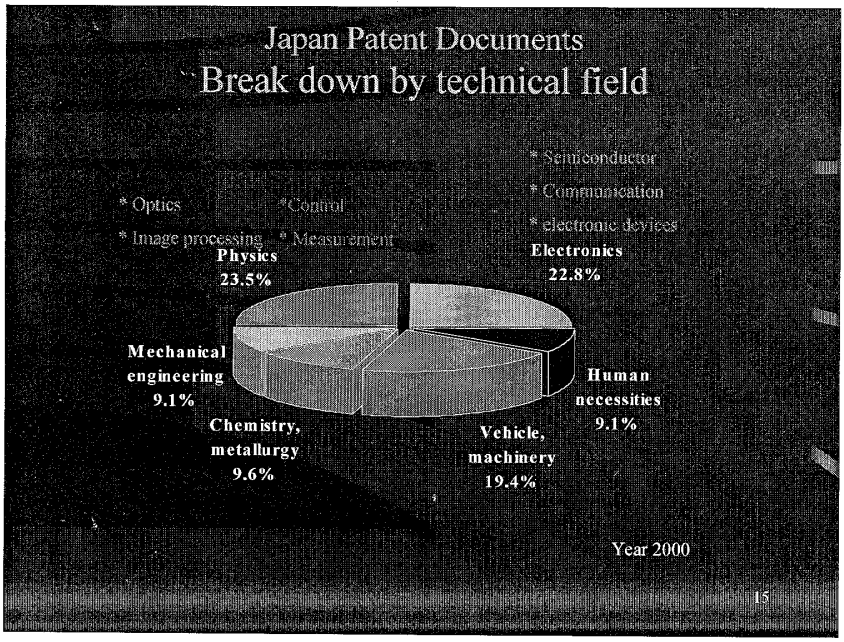


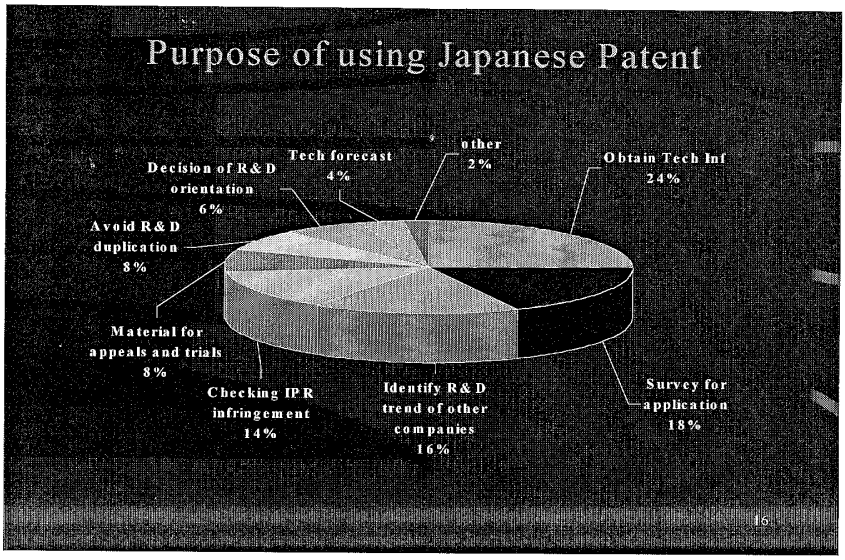




2. Scientific Information in Japan: the patent office perspective
(Yoshitaka Hirabayashi / JPO)

日本因採先公開後審查制，專利申請案件數量相當多，使得專利機構在處理這些申請相當耗費人力及財力。依據日本專利公報統計2000年專利申請案件，約有37萬件。日本專利局(JPO)爲因應大量申請件，於1984年開始進行一項 Paperless System 計畫， 至1990年已將日本公開Patents 及Utility專利完全電子化儲存，到了2000年開始更是將日本各種所有的專利及商標全部電子化。PAJ (Patent Abstracts of Japan) 自1976開始爲將日本專利研發讓外國知曉，特將日本專利申請英文化公開翻譯部分重要項目供外界便於查詢，同於也便於與epo及uspto三邊專利合作建檔之用。





3. Access to biotechnology information

(Graham Cameron / European Bioinformatics Institute)

在全球科學家帶領下(EBI、NCBI、NIG三個生技機構)，人體基因體計畫 (The Human Genome)， 已於2001完全公開人類基因體序列結果。生物技術方面的技術研發對將來產業界將產生重要的變化。

4. Access to and exploitation of public sector information in the context of the Europe Action Plan (歐洲公共部門情報開發之行動方案)

(Yvo Volman / Administrator of Info Soc, EC)

強調公共部門情報對一般人民的重要性，提供加值的公共部門情報資訊服務將是十分值得開發的資訊服產業。歐盟將於2001年開始進行eContent Programme，歷時4年，將投入1億歐元，將改善及加強人民對公共部門情報的使用，將以多種語文及多元文化方式呈現，並將增強民間對公共部門情報資訊服務產業的附加價值服務。

5. Scientific and patent Publications

(Michael J. Tansey / Thomson Scientific & Healthcare)

現在民間產業以Derwent公司所投入全球專利資訊服務業爲例，Derwent's Patent Information market，專利資訊全年營業額80%來自製造業，10%來自專利機構。可見專利資訊對產業界十分重要。

二、參訪過程

(一) 瑞士技術評估研究中心 (Center for Technology Assessment, CTA)

CTA隸屬於瑞士科學與技術委員會（Swiss Science & Technology Council ; SSTC），編制7名研究人員，經費50萬SFR/年 （約1000萬台幣），工作執掌以評

估技術創新促進社會經濟的繁榮與發展。站在國家宏觀的角色，從全面考量來評估技術創新的活動對環境、經濟、政治與健康的衝擊，它的研究不僅供研究人員或決策者參考，也提供一般大眾瞭解。工作執掌：站在國家宏觀的角色，從全面考量來評估技術創新活動對環境、經濟、政治與健康的衝擊。CTA主要分兩大部門：

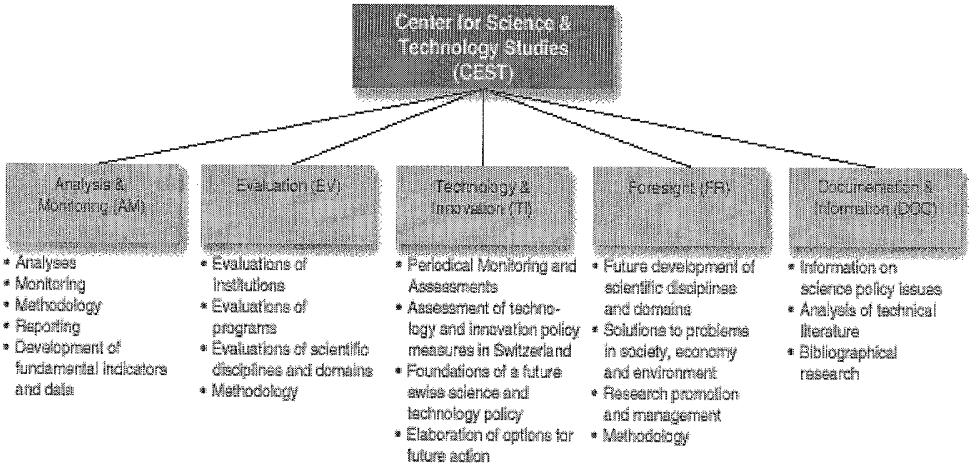
TA-Management Committee (技術評估管理委員會)，由 SSTC 委員會決定此 Committee 成員，掌管策略管理：定義 TA 的有興趣主要主題、選擇評估主題、及報告結果發表。

TA-Secretariat ，掌管活動規劃：財務管理、活動設計，除此之外，於大學、企業與聯邦政府內有協力合作單位。

除了研究技術評估外，也經常討論大眾所關心的議題，有：生命科學、資訊社會及能源與變遷。CTA 接受政府與議會委託從事四年一期的計畫，預計 2000-2003 年達到全面提升教育、研究與技術。

(二)科學與技術研究中心 (Center for Science and Technology Studies, CEST)

CEST 隸屬於瑞士科學與技術委員會（SSTC），接受 SSTC 兩年一次的委託工作。編制 10 名研究人員，經費 50 萬 SFR/年 （約 1000 萬台幣），工作執掌是蒐集與分析資訊提供政府部門、高等教育機構與技術政策決策參考，評估科技領域與聯邦經費補助之科技研究，以及代表 SSTC、聯邦機關及其他科技單位執行科技政策研究。除此之外，CEST 也研究技術分析與監督，技術評估、技術與創新、技術前瞻。



可於此網頁察看CEST研究成果報告，Directory and the Results of Science & Technology Policy Analysishttp://www.cest.ch/frameset_e.htm

(三) 瑞士科技政策圖書館 (The Science Policy Library, Swiss)

瑞士科技政策圖書館隸屬於瑞士CEST，蒐集與提供豐富科技政策書刊供CEST研究人員進行研究，同時亦開放一般大眾與科技政策研究專家使用。1972年成立，編制2人，購書經費3萬SFR/年（約90萬台幣），館藏內容：與科技政策研究相關資料爲主，圖書13,000冊，期刊230種，叢書（年鑑、年報）750冊，期刊文獻 2120篇。服務對象：CEST研究人員及一般大眾，所有服務皆免費。服務內容：圖書借閱、書刊管理、協助網路資源搜尋。

（四）歐盟之Joint Research Center 下之 Interinstitutional and International Relations Unit

以 Dr. Vera Calenbuhr 多年熟悉與歐盟或國際機構從事國際科技研究合作經驗，提供下列重要S＆T Foresight研究單位，作爲STIC踏入國際合作之參考：

＊IPTS (Institute for Prospective Technological Studies);
http://www.jrc.es/welcome.html 屬於EC－JRC之下，位於西班牙Seville. 主要任務是提供技術-經濟 (techno-economic) 分析資訊供EC決策者參考，IPTS在EC扮演一個顧問諮詢角色。監督與分析：S＆T相關發展、對科技相關領域的衝擊、未來政策發展方向。與歐聯議會之STAO (Scientific and Technological Assessment Office) 建立良好合作，協助規劃從短期至長期政策研究，供 European Parliament Committees 決策者參考。

＊ESTO (the European Science and Technology Observatory) ; http://esto.jrc.es/
由IPTS所開發運作的網路，藉網路以協助S＆T研究人員們資訊流通的平台，提供EC決策者來自全球即時高品質的科技研究報告 (IPTS Report、Techno-Economic Analysis Report 、Prospective projects)。目前有來自歐洲３0多個主要研究機構與智庫參加ESTO會員，還有來自其他地區的機構，鼓勵參與共同合作研究。ESTO最近正Review已完成三個主要計畫：Technology Foresight, Technology Forecasting and Technology Assessment。

＊Observatoire des Sciences et des Techniques （OST，France; Http://www.ibs-ost.fr）
1990成立，法國的一個 Public Interest Group。主要任務: 提供S＆T的指標給政府或企業決策者。法國S＆T科技指標，出版兩年一版的Science & Technologie Indicateurs，提供法國與歐美主要國家科技之活動與指標。

＊其他機構，尚有：

- World Business Council for Sustainable Development
- Institute for Technology Assessment and Systems Analysis (ITAS)

- United Nations Industrial Development Organization (UNIDO)
- Interdisciplinary Center for Technological Analysis and Forecasting (ICTAF, Israel)

(五) 歐盟之秘書總部 White paper on European Governance

拜訪歐盟之秘書總部Secretariat-General, EC，正進行中的重要計畫 "歐洲共治白皮書 (White paper on European Governance)"，這是由14位人員組成的coordinating team，來自the Forward Studies Unit, the think-tank of the EU的專家。預計於2001年夏天，彙總各方建議後向歐盟議會及人民提出歐洲共治白皮書之建言，促進歐洲的民主及加強歐盟各機構間對法令規章的認同感。制訂歐洲共治白皮書不以中央集權由上而下方式做政策決策，而是以共同參與共治的理念。歐洲共治白皮書制訂共分 6 個主題，12個工作群 (working Groups)：

- I. a. European public space
  b. European scientific references
- II. a. Participation of civil society
  b. Evaluation
  c. Better regulation
- III a. Decentralisation through agencies
  b. Vertical Decentralisation
- IV.a. Convergence of national policies
  b. Trans-European networks
  c. Multi-level governance
- V. EU and world governance
- VI. Future of EU policies

制訂歐洲共治白皮書之成員，主要由EC-DG 總部官員約 60人 組成，內部討論階段：分析EU人民所期待改善的事情，提出實際有效的解決方法。整合內部意見階段：針對不同國家或區域，找出大眾可以接受的決策後進入諮詢階段。徵詢階段外部專家學者的建言，開放討論階段：開放民眾公聽會。利用Internet當成與民眾溝通橋樑，有網上問卷，email，資訊透過網路傳遞與公開討論方式。爲能順利完成"歐洲共治白皮書 (White paper on European Governance)"，於2001年出版 "*Governance in the European Union*" ，這是集結1996-2000年間相關的討

論文獻，主要供歐盟議會代表及參與此案之專業人士，作爲撰寫"歐洲共治白皮書 (White paper on European Governance)"共同規範之參考。"*Governance in the European Union*"，共分爲：

Part I: Theoretical Developments

Part II: The National Context

Part III: Governance in the European Union

Part IV: Conclusions

另外一書"Scenarios Europe 2010: five possible futures for Europe" 提供給歐洲人民，讓他們可以具體瞭解未來的歐洲，也勾勒出歐洲的美麗新世界：

Scenario No 1 Triumphant Markets

Scenario No 2 the Hundred Flowers

Scenario No 3 Shared Responsibilities

Scenario No 4 Creative Societies

Scenario No 5 Turbulent Neighbourhoods

(六) 荷蘭科學技術研究中心（CWTS）

瞭解並討論雙方合作計畫進行情形，CWTS 係歐洲數一數二科技研究指標研究機構，曾協助歐洲許多政府部門從事科技指標研究計畫，本中心將委託 CWTS 進行國內學校及研究機構科技指標研究，以瞭解國內科技研發能力。

參、 心得與建議

一、翻譯並推介EC的經驗於台灣科技政策決策者

此次參訪機會受贈許多科技政策之重要參考書籍，十分值得推薦給國內相關單位參考，例如：*Scenarios Europe 2010: five possible futures for Europe*及*Governance in the European Union*，代表歐盟單位從事政策決策的經驗成果，值得翻譯後供做國內相關單位參考與學習。

二、多加強與瑞士CEST單位及EC-DG共同合作計畫

國科會曾代表我國與瑞士Swiss National Science foundation (SNSF)簽訂中瑞雙邊科技合作協議，根據此合作協議可進行雙方舉辦科技研討會、合作研究及人員互訪的計畫。瑞士CEST及CTA皆是從事科技政策研究計畫重要機構，藉由此次參訪所建立人際關係，擴充並建立未來合作之橋樑。歐盟之政策研究單位，更是具實際實務經驗，更值得我國借鏡。

三、應更積極參與ICST活動

ICST國際組織，提供最新的科技資訊服務觀念，對於本中心從事科技資訊服務業務，吸取外界最新的服務訊息及技術十分助益。本中心日後應更積極參與其活動，讓外國更瞭解我國科技資訊服務的努力成果。

四、鼓勵同仁歐語系語文學習

歐語系語文的學習，對於歐洲的文化與科技研究的了解是十分重要的。雖然英語是世界語文，但是在歐洲，許多研究資料仍以歐語系語文（德、法、義）爲主，便於研讀這些文獻，宜鼓勵同仁歐語系語文學習，方能真正更直接吸取歐洲經驗。

肆、附錄

The challenge facing the Patent System in Europe and in the World

Jacques MICHEL
European Patent Office

1

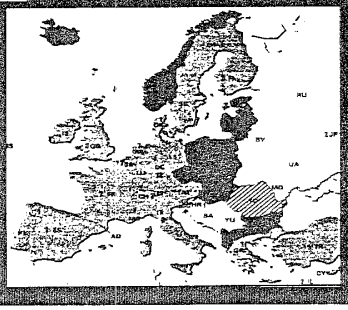
Growth

of the European Patent Office

of the number of applications

2

Enlargement of the EPO

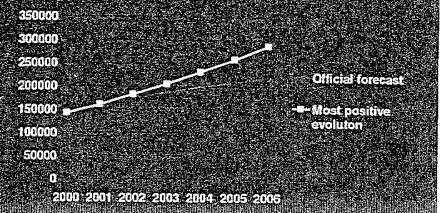


Future Member states

Future Member states

3

Growth of the applications



4

Growth of the applications

Reasons

1) Globalisation – TRIPS agreement

5

TRIPS agreement : consequences

Compulsory from 2000 onwards
=> developing countries with no infrastructure need to rely on Patent Offices with expertise

On a world level, 3 Offices are able to play a leading role :
- EPO with the PCT Partnership
- USPTO : US Patent and Trademark Office
- JPO : Japanese Patent Office

6

Growth of the applications

Reasons:

1) Globalisation – TRIPS agreement

2) Patent portfolio and stock market

7

Patent portfolio and stock market

Dematerialisation of economy - the source of production & wealth is no longer land or capital but Intellectual Property

- e.g. the ratio capitalisation value / turnover of some knowledge based companies

Growing importance of a patent portfolio in the financial evaluation of a company

8

Growth of the applications

Reasons:

1) Globalisation – TRIPS agreement
2) Patent portfolio and stock market
3) Evolution in the IP strategies

9

Evolution in the IP strategies

Extension of geographical industrial protection

- growth of the PCT applications
- growth in the number of designations

Less selectivity in the filing of applications

Aggressive Offensive	Evolution of strategies →	Filing everything To be able to react
Defensive		In case of...

Growth will continue - 15% per year

10

Growth of the applications

Reasons:

1) Globalisation – TRIPS agreement
2) Patent portfolio and stock market
3) Evolution in the IP strategies

4) New actors & New fields

11

New Actors – New Fields

New technological fields :

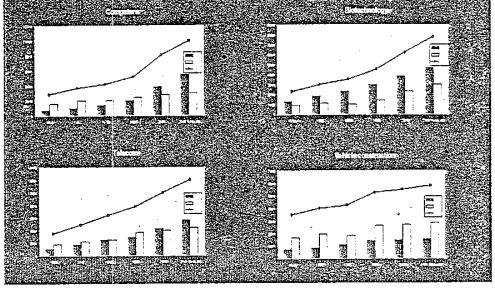
- Biotechnology
- Software
- Business methods

New Actors :

- Banks
- Insurance companies

12

Some growth figures



13

Heterogenity of the legislation and practice

14

Heterogenity of the legislation and practice (1)

- First to invent <-> First to file
- Fields of patentability
- Concept of inventive step
- Procedure – Type of interactions
  - Time
  - Pendency time

15

Heterogenity of the legislation and practice (2)

- No possibility of recognition
- Lack of trust
- Exchange of examiners

16

Working Tools

Documentation

17

Documentation – Patents: BNS

- 37,4 Mio documents
  - Coverage : EP,WO,EPC Member states, 12 future EPC Member states, US, IP,KR,RU,AU,CN.
  - Complete for EP,WO,EPC member states, US (at the end of 2001)
  - JP: as from 1976, KR: as from 1979
  - Recent years for future EPC states, RU,AU & CN
- 5,2 Mio documents available in full-text
  - Coverage : CH,DE,EP,FR,GB,US,WO
  - Complete since 1970 – older documents added according to priorities set in the different technical fields

18

Database constitution

Indexing and classification systems :
- IPC-ECLA-F terms-EP terms-UCLA
- 520000 documents (re)classified in 2000
- 260000 keywords allotted in 2000

Language issues (3 working languages) :
- First page of 65 Mio documents (CH-DE-EP-FR-GB-JP-US-WO)
- PAJ database containing English abstracts of JP patents
- Tests with on the fly translation systems

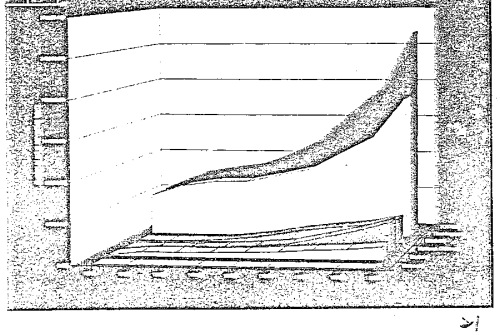
19

Search tool developments

- Implementation of MOSAIC for accessing drawing pages in BNS
- Tests with Figurelink to search figures
- Advanced Sequence searching tools
- Improved systems for ranking search results
- Extended pilot test for automatically preclassifying incoming documents
- On-line translation of Japanese documents

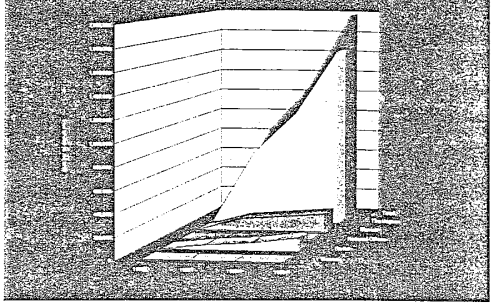
20

EPOQUE retrieval - Connection hours



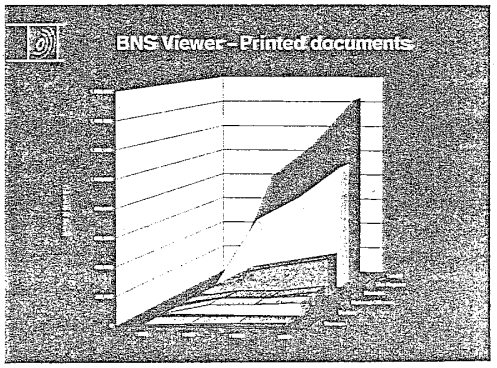
21

BNS Viewer - Displayed documents



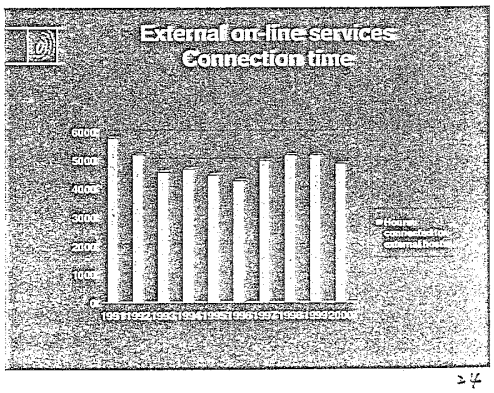
22

BNS Viewer - Printed documents



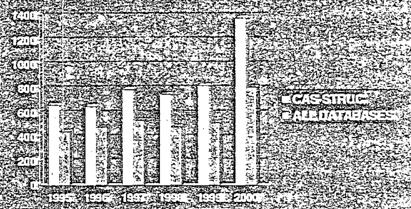
23

External on-line services - Connection time



24

External hosts : average cost per on-line hour



25

Non Patent Literature (NPL)

- Emphasis on number of NPL documents covered rather than on the time coverage:
  - 1260000 records in NPL database
  - 1000 technical & 300 non technical journals subscribed
- EVL (EPO Virtual Library) :
  - catelogue of free internet links to 487 journals (i.a. 120 from IEE/IEEE)
- Development of NPL full text databases
- Improved ordering system for NPL documents by using the Internet and e-mail (45600 orders in 2000)

26

Automation

27

Automation priorities

- Integration of all the existing information systems and examiner tools
- Updating of the technical infrastructure (using best current practice in industry as benchmark)
- Set up of internal Service Level Agreements
- Installation of a new LAN throughout the EPO
- Improved change management procedures
- Set up of a separate testing environment for all major applications

28

Challenges

29

Challenges in the near future

- Globalisation issues : Coexistence with National patent systems
- Integration of new nationalities in the EPO
- Language issues
- Jurisdictional issues
- Community Patent (CPC)
- Shift towards a full paperless Office
- Mastering the increase of workload & staff

30

JPO
Patent Information Dissemination Policy

Yoshitaka HIRABAYASHI
Director-General
Second Patent Examination Division
Japan Patent Office

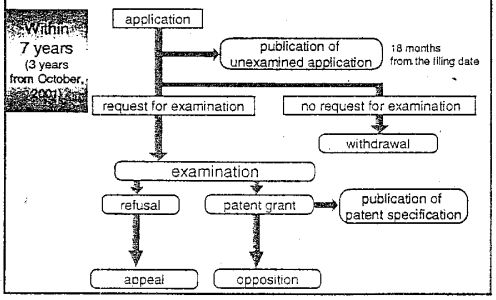
1

CONTENTS

1. Patent System in JAPAN
2. Paperless System in JPO
3. Dissemination of Patent Information in JAPAN
4. Further Development of Patent Information Service

2

1. Introduction
1-1, The Patent System in Japan



3

1-2, Publication 18 Months after Filing

- Introduced in Japan in 1971,

Purpose of laying open of applications

- Avoid duplication of R&D and patent applications
- Early offer of technical information

Effects of laying open of applications

- Right to demand compensation

4

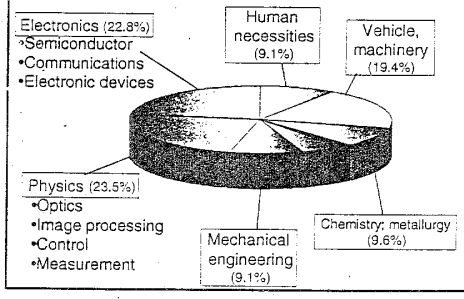
1-3, Main Gazettes in Japan

Number of issued gazettes

Year	*2000*
Patent unexamined	376,000
Patent patent	125,000
Utility model	15,000
Design	38,000
Trademark	240,000
Appeal/trial	17,000
Total	811,000

5

1-4, Japanese Patent Documents Break down by technical field

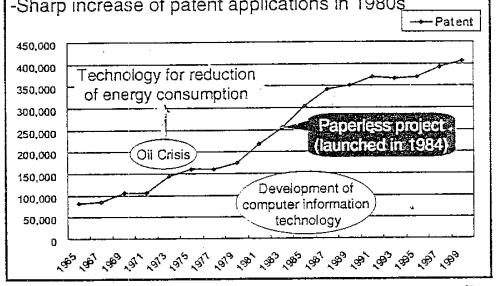


6

2. Paperless System

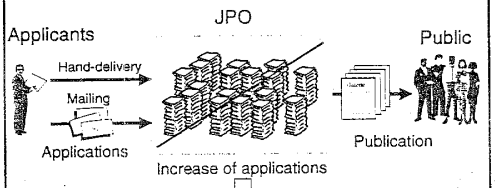
2-1, Background

-Sharp increase of patent applications in 1980s



7

2-2, Background - before December 1990 -



- Increasing difficulty of management of application documents and office processing
- Increasing difficulty of examination & search

Examination delay

8

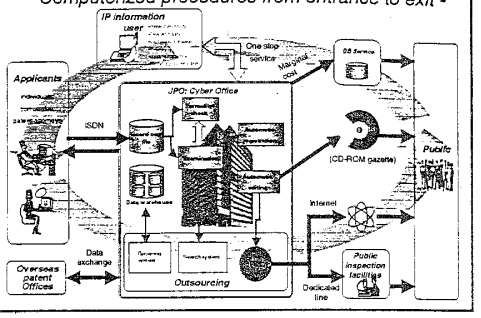
2-3, History of the Paperless System

1984	Launch the Paperless Project
1990	Electronic filing (patents and utility models)
1993	Publication of CD-ROM gazette
1998	Electronic filing via personal computer
2000	Electronic filing (designs, trademarks, PCT-DO and appeals)

9

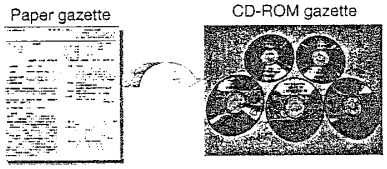
2-4, Current Paperless System

- Computerized procedures from entrance to exit -



10

2-5, Paper to CD-ROM

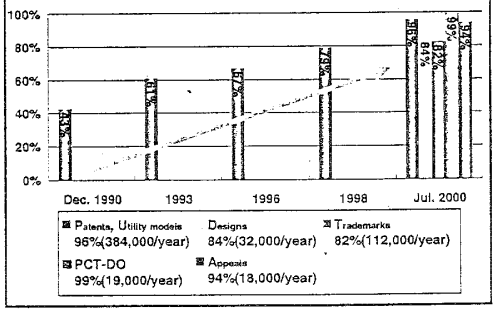


(Start of publication)
Patent,utility model - Jan. 1993
Designs,trademarks, appeal decisions - Jan. 2000

Paper to CD-ROM
1)COST: 60yen/gazette→1yen/gazette
2)SPACE: 150m/year → 1m/year
3)Computerization of IP environment

11

2-6, Trends in the Ratio of e-Filings



12

3. Dissemination of Patent Information in Japan

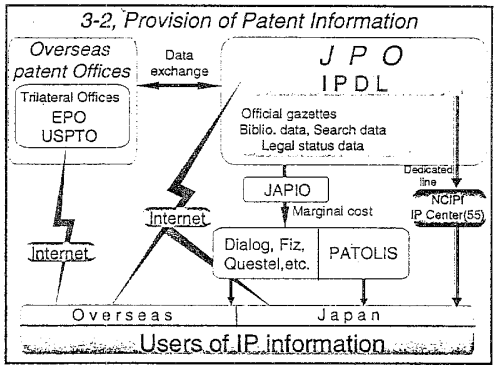
3-1, Dissemination policy

contribute to promotion of R&D by providing the JPO database captured through PL system to the public

- Providing JPO data at marginal cost
- Provision of information via the Internet
- Promoting information cooperation with foreign countries

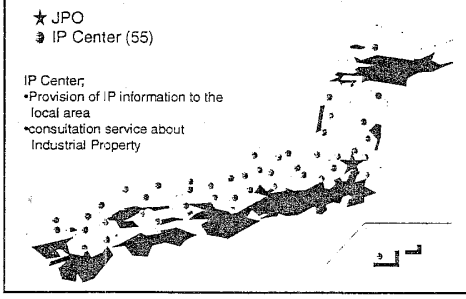
13

3-2, Provision of Patent Information



14

3-3, Provision of IP information to Local area



15

3-4, Restructuring of Patent Information Provision System

-Based on Central Government Reform in Japan

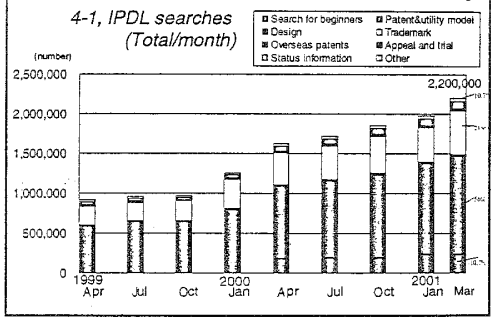
Reform of patent information provision as of since April, 2001

- NCIPI (National Center for Industrial Property Information) → Independent administrative institutions
- JAPIO (Japan Patent Information Organization) → JAPIO ; Non-profit corporation -Data processing and whole sale-
- JAPIO (Japan Patent Information Organization) → PATOLIS ; Private company -Online service-

16

4. Industrial Property Digital Library

4-1, IPDL searches (Total/month)



17

4-2, Information provided on Internet by IPDL

Patent, utility model	23.3 million
PAJ (Patent Abstracts of Japan)	5.7 million
Design	2 million
Trademark	6 million
Overseas (US,EP,GB,DE,FR,CH,WO)	8 million
Total	About 45 million

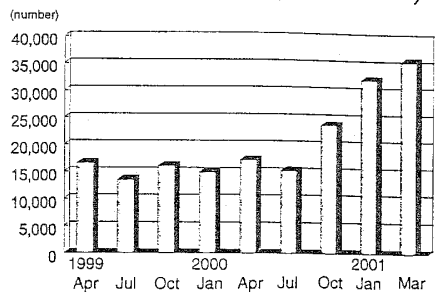
18

4-3, PAJ (Patent Abstracts of Japan)

- English abstracts of unexamined patent applications
  -Bibliographic data, abstract, representative drawing, legal status-
- Issued since 1976 by JPO
- Purpose of publication
  - -Dissemination of Japanese technological information
    - -Contribution to overseas technological development
    - -Transfer of Japanese technology to foreign countries
  - -Use of Japanese patent documents at overseas Offices
    - -Prevent granting of patent rights for publicly known technology in Japan
- About 350,000 documents issued every year
  Total of 5.7million (~2000)
- Delivery of PAJ/CD-ROM to about 100 countries and organizations worldwide; also available via the Internet

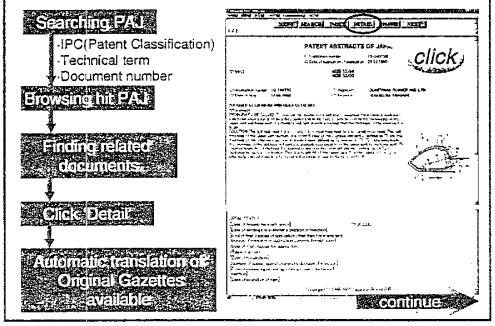
19

4-5, PAJ Searches (total/month)



22

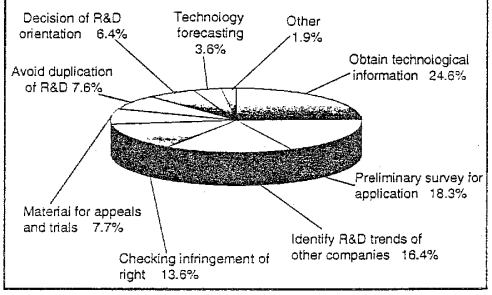
4-4, Effective usage of PAJ in the IPDL



20

5. Further Development of Patent Information Service

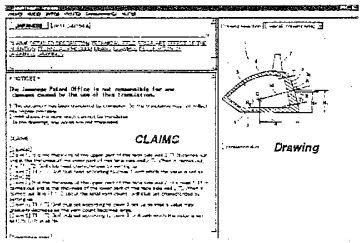
5-1, Purpose of using IPDL



23

Automatic Translation : IPDL

Translated original Japanese gazettes

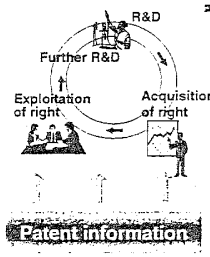


This translated version is prepared based on Japanese electronic gazettes (1993-).

21

5-2, Further Development of Patent Information Dissemination

Activation of intellectual creation cycle

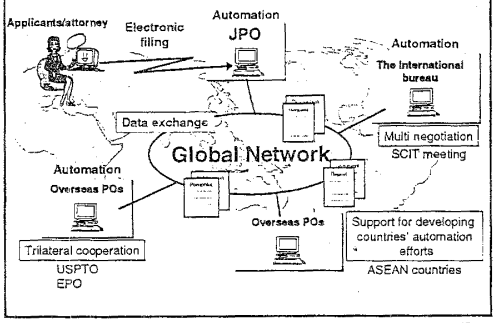


⟹ Promotion of R & D

- Provision at lower cost as much as possible
- Provision as wider as possible using more convenient media such as internet
- Improvement of search facilities of IPDL

24

5-3, International Cooperation



25

Thank you.

26

Scientific and Patent Publications

ICSTI Conference

4 May 2001

Agenda

- Derwent's Patent Information Market
- ISI's Scientific Information Market
- Customer Characteristics
- Future Developments

2

Derwent's Patent Information Market

- Derwent supplies value added indexing and abstracting to patent publications from 40 issuing authorities.
- All technologies are indexed and the database is delivered in English.
- Specialized indexing is applied to chemical patents and polymer patents.
- Selective targeted indexing of journal literature and presentations at scientific meetings.
- The focus of Derwent's indexing and analysis is the scientific content of the patent.

3

Derwent's Patent Information Market

- Derwent's customers are **global** manufacturing businesses and intellectual property support providers.
- Manufacturing Segments
  - Chemistry (Petro, Agri, Specialty)
  - Life Science (Pharma, Biotech)
  - Engineering (Automotive, Aerospace, Telecom, Semi Conductor)
- Support Segments
  - Patent Offices
  - Legal Practitioners

4

Derwent's Patent Information Market

- Revenues are generated as follows:
  - Manufacturing 80%
  - Patent Offices 10%
  - Law Offices 7%
  - Other 3%
- Geographic source of revenue:
  - Europe 46%
  - U.S. 31%
  - Japan 19%
  - Other 4%

5

Derwent's Patent Information Market

- The legal nature of the document prevents wide spread use of the full text specification as a tool to aid discovery.
- A specification is not written to communicate scientific discovery but to establish the legal boundaries around a claim.
- Value added patent information has, historically, been used exclusively by commercial enterprises.

6

ISI's Scientific Information Market

- The ISI database covers bibliographic and citation information from 5,500 scientific journals. (Another 3,000 social science and arts and humanities journals.)
- The highest impact journals in all disciplines of science are covered.
- Specialized indexing of chemical formulae and reactions is performed.
- Increasing volumes of proceedings literature and editorially selected web sites are indexed.

ISI's Scientific Information Market

- Journal articles represent the medium for communicating discovery in the Academic world.
- Journal articles published by the corporate world have a promotional message.
- Proceedings literature and scientific meetings are growing in importance.
- Web publishing initiatives have yet to reach critical mass.

10

ISI's Scientific Information Market

- ISI's customers are global institutions/enterprises engaged in basic research.
- Worldwide academic research community. Primarily institutions granting PhD's in multiple scientific specialties.
- Manufacturing enterprises conducting basic research.
- Commercial enterprises overlap with the Derwent customer base.

8

Customer Characteristics

Academic Markets

- Committed to providing end user access to information.
- Require simple interfaces to minimize patron training.
- Reference librarians are primarily generalists rather than subject specialists.
- Need multidisciplinary sources of information.
- Internet solutions are preferred.
- Security of research activity is not a concern.

11

ISI's Scientific Information Market

- Revenues are generated as follows:
  - Academic Institutions 76%
  - Corporate Enterprises 24%
- Geographic source of revenue:
  - U.S. 48%
  - Europe 35%
  - Asia Pacific 14%
  - Other 3%

9

Customer Characteristics

Corporate Markets

- Expanding use of end user information products.
- Continuing heavy reliance on subject expertise of information specialists.
- Willing to accept more complex retrieval tools if they provide precision.
- Require focused information products.
- Prefer Intranet solutions or traditional online services.
- Security surrounding information use of researchers is critically important.

12

Future Developments

- Scientific communication is an end user activity.
- Patent information must be analysed to explain its scientific content.
- Simple "browser" based retrieval tools are needed to access the data.
- Linking patent and journal information is an important priority for Thomson Scientific.
- The Derwent Innovation Index available on the *Web of Science* platform is one approach to this problem.
  - Linked Citations
  - Cross Database Concept Searching
- Subject / technology specific versions with standardized indexing are under development.

Thank You.

Mike Tansey
President and CEO
Thomson Scientific & Healthcare

Access to and exploitation of public sector information

in the context of the eEurope action-plan

Yvo Volman
European Commission. DG INFSO D

Information Society

Agenda

1. The importance of public sector information
2. The *e*Europe action-plan
3. *e*Government
4. *e*Content

Information Society

2

Important for citizens and business

Important for citizens:

- Bringing citizens closer to administrations
- Important in the democratic process

Important for business:

- Essential to make business strategies
- Crucial for taking advantage of the internal market rights

And in particular for the content industries:

- Source for new information products (aggregation)

PIRA study (sept. 2000) confirms the importance

Information Society

3

Importance of public sector information

What is at stake?

- Public Sector Information is a prime content resource
- Barriers at European level limit possibility for exploitation
- Strong competitive disadvantages vis-à-vis the US
  - Public sector information: important basis for the American digital industries
  - A clear and comprehensive policy on exploitation

PIRA study (sept. 2000) confirms the importance

Information Society

Why eEurope?

Europe's potential

- Mobile telephony
  - GSM, the leading world standard
  - Number of subscribers 50% higher than US
- Digital Television
  - rapid expansion in several EU-countries
  - European standards prevail
- Rich content base
  - Public sector information
  - Cultural heritage

Building on Europe's strengths

Information Society

5

Why eEurope?

Europe lags in several areas

- Internet penetration low
  - access costs remain high
- American sites dominate the Web
  - 94 of 100 most visited web sites in US
- Few European start-ups
  - limited access to capital
- eGovernment
  - access to information
  - electronic transactions

Action is needed NOW

Information Society

6

The eEurope action-plan

The political initiatives

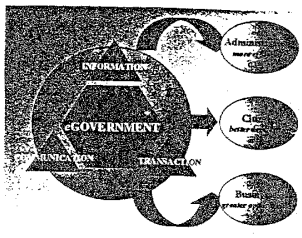
- *e*Europe initiative (December '99)
  - Helsinki summit 10-11 December 1999
  - Lisbon special summit 23-24 March 2000 (dot.com summit)
- *e*Europe action plan
  - Feira summit 19-20 June 2000
- *e*Europe progress report
  - Stockholm summit 23-24 March 2001

A new and open method of co-ordination

Information Society

7

eGovernment



A necessity, not a matter of choice !

Information Society

10

The eEurope action-plan

*e*Europe

- Main message:
  - Europe must fully benefit from the Information Society
- Main goals:
  - every citizen online
  - a digitally literate Europe
  - a socially inclusive process
  - to become the most competitive and dynamic economy in the world

3 main pillars. 11 priority areas

Information Society

8

eGovernment Action Plan

Key characteristics

- Inclusive
  - Making information easily accessible for all
    - Special attention for disabled people
  - Public access points
- Interactive
  - Online interaction between citizens and Government
- Multilingual
  - Cross-border use of the information
- Entrepreneurial
  - Facilitating transactions for business
  - Electronic public procurement

Information Society

11

The eEurope action plan

- A cheaper, faster and secure Internet
  - Cheaper and faster Internet access
  - Faster Internet for researchers and students
  - Secure networks and smartcards
- Investing in people and skills
  - European youth into the digital age
  - Working in the knowledge-based economy
  - Participation for all in the knowledge-based economy
- Stimulate the use of the Internet
  - Accelerating eCommerce
  - Government online: electronic access to public services
  - Health online
  - Digital Content for the Global Networks
  - Intelligent transport systems

Information Society

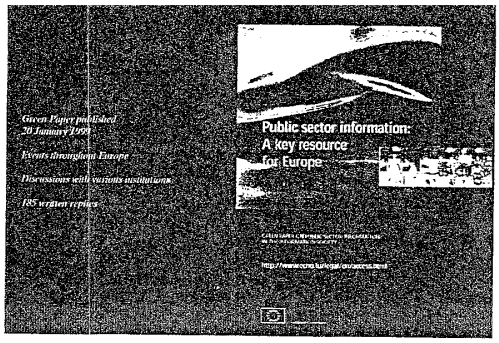
eGovernment Action Plan

Action plan, main targets for *e*Government:

- Essential public data online (2002)
- Simplified online administrative procedures for business (2002)
- Member States to ensure generalised electronic access to main basic public services (2002/2003)
- Develop a co-ordinated approach for public sector information (2000)
- Pan-European portals of interactive public services (mid 2001)
- All basic transactions with the European Commission online (2001)

Information Society

12



13

The market barriers

The problem

- Public Sector Information is hardly exploited in the EU
  - No common legal framework for re-using the information
  - No experience of public-private collaboration
  - No common principles for storing the information
  - No common meta-data
  - Different languages
- Strong competitive disadvantages vis-à-vis the US

Information Society

16

Follow-on to the Green Paper on public sector information

- Follow-on Communication to be published around summer
- Discussions on role public/private sector
  - example: S&T information
- What financing models can work?
- Member States have chosen different ways and speeds

Can we find a European way?

Information Society

14

The eContent programme

Action line 1 of *e*Content

- Encourage partnerships between the public and private sector
- Support early experimentation
  - Experimental projects - expand INFO2000 early trial and preparatory actions
  - Pan - European Data Collections
  - Strong link with the political actions

Expanding the information supply

Information Society

17

eContent programme

Basics

- Programme effective start: 18 Jan 2001
- Duration: 4 years
- Total budget: 100 M€
- Three action lines addressing market barriers and opportunities:
  - Improving access to and expanding use of public sector information
  - Enhancing content production in a multilingual and multicultural environment
  - Increasing dynamism of the digital content market

Information Society

15

The eContent programme

Action line 1.1

- Experimental projects
  - legal/administrative data,
  - financial/economic data,
  - culture, archives, entertainment information material,
  - geographic data (including land and property, traffic information, environmental data, meteo, and oceanographic data),
  - services at the local level (education, health etc.),
  - scientific and technical information
- Bigger) projects
- Links with other action lines (in particular action line 2)

Attention for new Member States and mobile applications

Information Society

18

The eContent programme

Action line 1.2

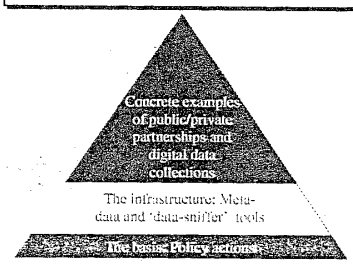
- Pan - European Data Collections
  - Establishing common agreed meta-data in key public sector information areas.
  - Setting up "data sniffer" tools
  - Providing pilot examples of European digital data collections
- Opening up access to data rather than digitisation
- New Member States

Overcoming barriers at European level

Information Society

19

Action line 1, overview



Information Society

20

Conclusion

- Several policy developments that touch upon the Scientific and Technical information area
- Funding opportunities in *e*Content

  www.cordis.lu/econtent
- Goal: Public sector information for added-value information products and services

Information Society

21