行政院所屬各機關因公出國人員出國報告書

（出國類別：考察）

參訪俄羅斯科學研究與統計分析中心(CSRS)及德國資訊及政策研究等相關機構

服務機關：行政院國家科學委員會科學技術資料中心
出國人職稱姓名：孟憲鈺　科資中心主任
　　　　　　　　羅於陵　科資中心組長
　　　　　　　　蔡智華　科資中心合約人員
出國地區：俄羅斯、德國
出國期間：民國九十一年六月九日至六月十八日
報告日期：民國九十一年八月五日

I8/
C09102352

頁數：26　　含附件：是

出國報告名稱：參訪俄羅斯科學研究與統計分析中心(CSRS)及德國資訊及政策研究等相關機構

出國計畫主辦機關：行政院國家科學委員會科學技術資料中心
聯絡人/電話：蔡智華/02-2737-7649
出國人員姓名/服務機關/單位/職稱：
　　　　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
　　　　蔡智華　行政院國家科學委員會科學技術資料中心合約人員

出國類別：考察
出國期間：民國九十一年六月九日至六月十八日
出國地區：俄羅斯、德國
報告日期：民國九十一年八月五日
分類號/目：I8/資訊科學
關鍵詞：俄羅斯科學研究暨統計中心 CSRS，俄羅斯聯邦產業科技部 MIST，德國聯邦教育研究部 BMBF，德國產學聯合中心 AiF，國會執政黨綠黨黨團 The Green Parliamentary Group，德國多特蒙大學 (University of Dortmund)，科技政策，資訊機構。

內容摘要：
本次出國計畫由孟主任憲鈺率領羅組長於陵及合約人員蔡智華於九十一年六月九日至六月十八日執行，參訪俄羅斯科學研究暨統計中心(CSRS), 德國教育研究部(BMBF)，德國產學聯合中心(AiF)等及其他相關資訊機構。主要參訪單位與目的分述如下。

1 俄羅斯科學研究暨統計中心 CSRS（The Center for Science Research and Statistics）成立於 1991 年，經費主要由俄羅斯聯邦科學研究院 RAS（Russian Academy of Sciences）下之聯邦產業科技部 MIST(Ministry of Industry, Science and Technology of the Russian Federation）贊助，以科技政策、統計研究報告及有關之專題計畫為主。科資中心於民國 90 年（2001 年）10 月與 CSRS 簽訂雙邊合作協議，簽訂內容包括舉辦研討會、人員互訪、合作研究計畫及資訊交流等相關事宜。此次參訪的重點是瞭解 CSRS 之組織架構及其運作機制和尋求如何進一步研擬雙邊合作計畫之議題及相關內容。

2 德國聯邦教育研究部 BMBF (Federal Ministry of Education and Research)

為負責德國教育與研究政策及科技政策之主要機構。成立的最大宗旨是讓德國年輕一代的 1500 萬人能有更完備的教育機會，並增強德國在國際間科學技術之研究發展與創新上的競爭力。本次參訪目的是想瞭解聯邦教育研究部如何促進科技資訊之流通等的相關事宜。

3 德國產學聯合中心 AiF (The German Federal of Industrial Cooperative Research Associations)成立於 1954 年，成立宗旨是致力於德國產業界與學術界共同進行研發等合作事宜，並藉由促進中小企業之應用研發與創新技術來增進德國工業/企業在國際間的競爭優勢。此次參訪重點是瞭解如何運用產業界與學術界密切配合以進行創新技術的合作，以提供國內政府部門促進中小企業與學術間之互動頻率。

本文電子檔已上傳至出國報告資訊網

摘　　要

本次出國計畫由孟主任憲鈺率領羅組長於陵及合約人員蔡智華於九十一年六月九日至六月十八日執行，參訪俄羅斯科學研究暨統計中心(CSRS), 德國教育研究部(BMBF)，德國產學聯合中心(AiF)等及其他相關資訊機構。主要參訪單位與目的分述如下。

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2 德國聯邦教育研究部 BMBF (Federal Ministry of Education and Research) 為負責德國教育與研究政策及科技政策之主要機構。成立的最大宗旨是讓德國年輕一代的 1500 萬人能有更完備的教育機會，並增強德國在國際間科學技術之研究發展與創新上的競爭力。本次參訪目的是想瞭解聯邦教育研究部如何促進科技資訊之流通等的相關事宜。

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重要活動日程

日　　期	行　程　說　明	接　待　人　員
6月9日（日）	抵俄羅斯莫斯科	黃亨通組長
6月10日（一）	參訪俄羅斯科學研究暨統計中心 CSRS (Center for Science Research and Statistics)	Dr. Alexander Sokolov Dr. Leonid Gokhberg
6月11日（二）	參訪俄羅斯聯邦產業科技部 MIST (Ministry of Industry, Science and Technology of the Russian Federation) 及 參訪台北-莫斯科經濟文化協調委員會駐莫斯科代表處	Dr. Kirpichnikov Michael Petrovich 黃亨通組長
6月12日（三）	起程前往德國柏林(俄羅斯→德國)	路程
6月13日（四）	參訪德國聯邦教育研究 BMBF (Federal Ministry of Education and Research)	Dr. Wolfgang Mönikes Ms. Andrea Herdegen
6月14日（五）	參訪國會執政黨綠黨黨團(Member of the German Bundestag, The Green Parliamentary Group) 及 參訪德國產學聯合中心 AiF (The German Federal of Industrial Cooperative Research Associations)	Mr. Hans-Josef Fell Dr. Michael Maurer
6月15日（六）	拜訪中華民國駐德國台北代表處	唐小莉組長
6月16日（日）	驅車前往德國多特蒙(Dortmund) 並整理資料	路程
6月17日（一）	參訪德國多特蒙大學(University of Dortmund)及 驅車前往德國法蘭克福	Dr. Rolf Reinert
6月18日（二）	抵台北	路程

目　　　次

壹、 目 的

1 俄羅斯科學研究暨統計中心 CSRS (Center for Science Research and Statistics)成立於 1991 年，經費主要由俄羅斯聯邦科學研究院 RAS（Russian Academy of Sciences）下之聯邦產業科技部 MIST（Ministry of Industry, Science and Technology of the Russian Federation）贊助，以科技政策、統計研究報告及有關之專題計畫為主。科資中心於民國 90 年（2001 年）10 月與 CSRS 簽訂雙邊合作協議，簽訂內容包括舉辦研討會、人員互訪、合作研究計畫及資訊交流等相關事宜。此次參訪的重點是瞭解 CSRS 之組織架構及其運作機制及尋求如何進一步研擬雙邊合作計畫之議題及相關內容。

2 俄羅斯聯邦產業科技部 MIST (Ministry of Science and Technology of the Russian Federation)成立於 2000 年 5 月，它是由前俄羅斯聯邦科技部轉型，再結合前俄羅斯聯邦經濟部(Ministry of Economy of the Russian Federation)及貿易部(Ministry of Trade of the Russian Federation)的一些角色功能演變而來。產業科技部主要負責促進俄羅斯聯邦的工業發展及升級、主導科技政策及國家產業創新政策之研擬，並與其他聯邦政府部會協調合作科技方面相關議題以整合社會經濟之發展。此次參訪的重點是想瞭解產業科技部 MIST 如何研擬科技政策以增加國家總體之競爭力。

3 德國聯邦教育研究部 BMBF (Federal Ministry of Education and Research) 為負責德國教育與研究政策及科技政策之主要機構。成立的最大宗旨是讓德國年輕一代的 1500 萬人能有更完備的教育機會，並增強德國在國際間科學技術之研究發展與創新上的競爭力。本次參訪目的是想瞭解聯邦教育研究部如何促進科技資訊之流通等的相關事宜。

4 國會執政黨綠黨黨團(The Green Parliamentary Group)一向以環保議題為問政重點。我們所拜訪的是綠黨國會議員 Mr. Hans-Josef Fell 而所希望瞭解的議題則是德國聯邦政府再生能源相關政策之發展方向及其執行情況。

5 德國產學聯合中心 AiF (The German Federal of Industrial Cooperative Research Associations)成立於 1954 年，成立宗旨是致力於德國產業界與學術界共同進行研發等合作事宜，並藉由促進中小

企業之應用研發與創新技術來增進德國工業/企業在國際間的競爭優勢。此次參訪重點是瞭解如何運用產業界與學術界密切配合來進行創新技術的合作，以提供國內政府部門促進中小企業與學術間之互動頻率。

6 德國多特蒙大學 (University of Dortmund)公共事務與知識轉移諮詢處。本處為多特蒙大學與外界重要的產官學界的協調界面組織，其主要任務有下列三點：負責多特蒙大學公關行銷與公共事務和新聞傳播；負責關於多特蒙大學各學院與外界的經濟、技術性合作計畫協調事宜；負責關於多特蒙大學各學術機構科研成果的商界價值評估。此次參訪重點是希望瞭解多特蒙大學公共事務與知識轉移諮詢處評估科研成果之運作模式以提供國內政府部門在促進中小企業與學術間之互動頻率時作為參考。

貳、 過 程

一、參訪俄羅斯科學研究暨統計中心 CSRS（Certer for Science Research and Statistics）

(一) 俄羅斯科學研究暨統計中心 CSRS 簡介

俄羅斯科學研究暨統計中心 CSRS 成立於 1991 年，經費主要由俄羅斯聯邦科學研究院 RAS（Russian Academy of Sciences）下之聯邦產業科技部 MIST（Ministry of Industry, Science and Technology of the Russian Federation）贊助。草創之初，它的研究團隊是由前蘇聯時代一些隸屬政府部門的學研單位所組成，研究重點為：蒐集及分析研發相關之統計資料、科技政策研究、科技發展預測以及其他相關學術領域。

俄羅斯科學研究暨統計中心 CSRS 的組織架構分為三個部分: 分別是 "科技創新發展部(Department of S&T and Innovation Development)"，"資訊研究部 (Department of Information Studies)" 及 "研發創新統計部 (Department of R&D and Innovation Statistics)"。人力配置為 190 人，80 位研究員中即有 35 位為博士，研發人員素質極高。今日，它已成為俄羅斯聯邦境內重要的科學研究單位，主要工作重點為：

1 蒐集並發展俄羅斯聯邦境內研發相關之統計資料以提供綜合性的、最新的資料給該國決策體系參考；
2 分析及預測科技發展趨勢；
3 對該國科技政策之發展及推動給予建議；
4 出版及散播有關俄羅斯聯邦科學統計方面的相關資料、分析報告及政策研究成果給其境內及其他國家的相關單位參考。

CSRS 高水準的科學研究使它在俄羅斯科學技術及統計相關之研究領域佔有一席之地。例如，在統計數據之取得及應用方面，CSRS 發展出新指標來衡量評估俄羅斯聯邦在研發、創新、先進科技、教育，以及統計調查方法等幾項領域的成果與國際水準之間的差異，以進一步調整該國在這些領域中的研究步伐。在分析科技創新方面，從高科技人力資源之流動、科技相關機構組織架構之編設、政府部門研發經費之比例，到新科技產品之研發及引進、國家創新科技之研發經費、

工業界研發密集度以及如何促進工業界先進工業之產生等議題之研究，都是該中心所涵蓋的重點。此外該中心亦對一些例行性的社會學科及科學技術教育系統相關之事務，有指導及贊助的義務。

(二) 國科會科學技術資料中心 STIC 與俄羅斯科學研究暨統計中心 CSRS 之聯合研討會

與會者 10 人，來自 3 個單位，除本中心及俄羅斯科學研究暨統計中心人員外，台北--莫斯科經濟文化協調委員會駐莫斯科代表處科學組黃組長也與會其中。討論議題廣泛，主要涉及本中心及科學研究暨統計中心雙方各自研究的重點及成果的分享，以及雙方如何在未來短期內加快合作腳步。

研討會結論有 5 點，分述如下：

1 雙方一致同意，經由人員互訪，輪流主辦研討會或類似活動，交換科學技術資料及現有的出版品，鼓勵並促進科學技術資訊發展以加強合作關係；
2 雙方一致同意建立一個共享的資料庫，生物科技、奈米科技及資訊科技相關資料應為優先主題；
3 俄羅斯科學研究暨統計中心同意為本中心尋找俄籍博士後研究員；
4 俄羅斯科學研究暨統計中心同意為本中心推薦俄籍奈米科技專家來華指導並在今年 9 月底本中心所舉辦的奈米高峰論壇中發表演說；
5 雙方一致同意讓駐莫斯科代表處科學組成為雙方聯絡的窗口。

二、俄羅斯聯邦產業科技部 MIST(Ministry of Industry, Science and Technology of the Russian Federation)

俄羅斯聯邦產業科技部成立於 2000 年 5 月，它是由前俄羅斯聯邦科技部 (Ministry of Science and Technology of the Russian Federation)轉型，再結合前俄羅斯聯邦經濟部(Ministry of Economy of the Russian Federation) 及貿易部(Ministry of Trade of the Russian Federation)的一些角色功能演變而來。產業科技部主要負責促進俄羅斯聯邦的工業發展及升級、主導科技政策及國家產業創新政策之研擬，並與其他聯邦政府部會協調合作科技方面相關議題以整合社會經濟之發展，且期許將俄羅斯發展成為全世界工業最發達的國

家。

目前俄羅斯產業科技部部長 Klebanov I. I.為俄羅斯聯邦前副首相，他領導之產業科技部組織架構及主要負責業務主要為：

1 改革營建業相關制度及法規;
2 主導工業發展政策及國家創新政策之研擬;
3 監督並預測社會經濟發展;
4 財務、投資、借貸及會計;
5 區域政策;
6 國際關係;
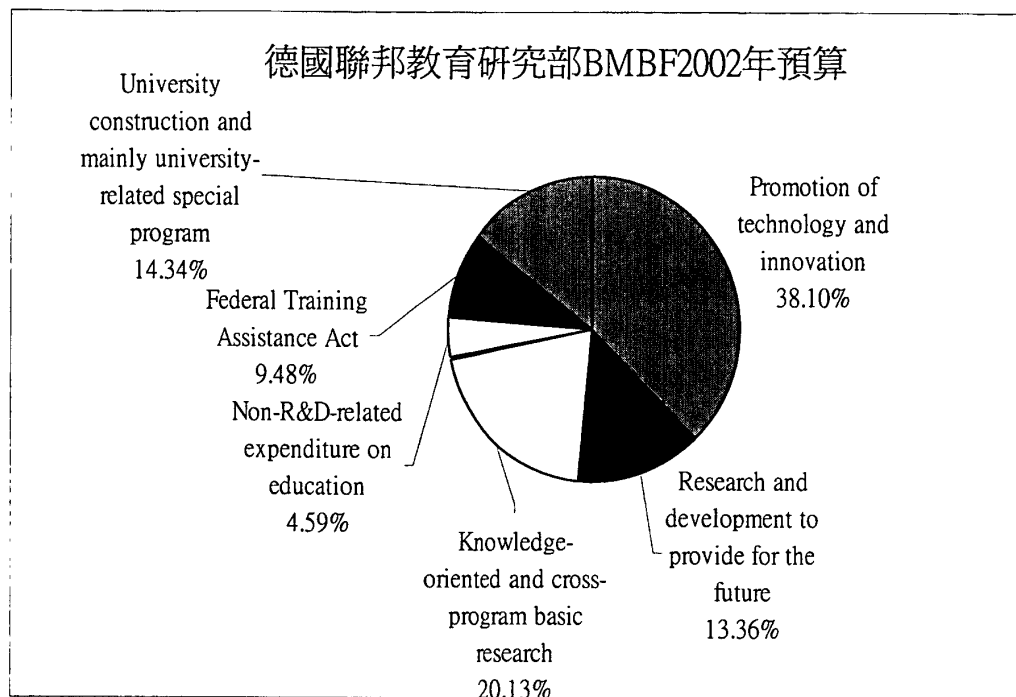7 科技方面產品行銷及相關服務;
8 土木工程及營建業相關綜合設施。

產業科技部負責擬訂俄羅斯工業發展政策以增進國家競爭力，為了達成此一目標，產業科技部建議向不同的國家學習其特有的發展策略（例如：委內瑞拉, 印尼及沙烏地阿拉伯的發展自然資源政策; 南韓及中國大陸善用廉價人力資源的政策; 還有美國, 日本及德國的國家創新政策）。尤其在創新政策方面，產業科技部希望將俄羅斯在軍事工業上的先進技術及研發成果利用並轉移至其他與國計民生較為相關的工業以及其他設定為重點工業的領域上。

三、德國聯邦教育研究部 BMBF (Federal Ministry of Education and Research)

德國屬於聯邦制，對教育及科學研究的管理沒有高度集中化，沒有類似科資中心的中央資訊機構，資訊機構機相當分散於各邦。在 1994 年，德國聯邦合併 "聯邦教育科學部" 及 "聯邦研究技術部" 成為 "聯邦教育科學研究技術部" ，1998 年再更改名稱為聯邦教育研究部 BMBF，總部設在波昂。

今日，德國的教育與研究策略及科技政策是由其聯邦教育研究部 BMBF 負責擬訂的，其在波昂及柏林的辦事處，可運用之人力約為 1000 人。2002 年的總預算為 8 千 3 百 90 億歐元，約折合新台幣 2 千 8 百億(見圖一)，佔整個德國聯邦政府預算 3.3%，且預算逐年增加中。它成立的最主要宗旨是讓德國年輕一代的 1500 萬人能有更完

備的教育機會，並增強德國在國際間科學技術之研究發展與創新上的
競爭力。

德國聯邦教育研究部BMBF2002年預算

University construction and mainly university-related special program 14.34%

Federal Training Assistance Act 9.48%

Non-R&D-related expenditure on education 4.59%

Knowledge-oriented and cross-program basic research 20.13%

Promotion of technology and innovation 38.10%

Research and development to provide for the future 13.36%

圖一

聯邦教育研究部 BMBF 負責的業務相當廣泛，代表性的業務分述如
下：

* 提供跨各學科及各研究領域的相關資訊；
* 提供職業訓練、一般教育、留學及高等教育之獎學金；
* 出版跟德國聯邦教育與研究相關的統計數據與資料供國內外學者
了解；
* 推廣科技創新；
* 推廣以知識為主導並跨越各個學科的基礎研究。

聯邦教育研究部是德國聯邦一些重要科學與技術相關之學術研究單
位例如 DFG/DAAD 等的資金來源。科資中心人員參訪 BMBF 時，接
待的 Dr. Wolfgang Mönikes 特別介紹了聯邦教育研究部支援學研單
位之方式。Ms. Adrea Hergeten 也介紹該部會如何廣泛的蒐集教育、
科學研究或研發之相關數據及資料。

四、國會執政黨綠黨黨團 (The Green Parliamentary Group)

德國綠黨黨團一向以環保議題為問政重點。我們所拜訪的是綠黨國會議員 Mr. Hans-Josef Fell，而所討論的議題則是德國聯邦政府再生能源相關政策之發展方向與執行情況。

德國聯邦政府環保意識高，在其能源相關政策即可看出一斑。德國早在 1950 年代就開始評估核能發電對國家整體發展所產生之正面及負面影響力，1990 年代在做全國性科技評估衡量時，更明確的指出德國在追求永續成長與發展時，在策略上應全面減少核能發電量而改用其他可再生能源替代的方向。

德國政府前瞻性的鑑定出能源議題與永續發展之間的相互影響關係後，訂定出一些相關法案鼓勵德國公民配合政府政策改使用可再生能源。例如：使用再生能源的汽車不必負擔汽車燃料稅。另外，聯邦政府積極推廣使用可再生能源也創造大量的就業機會及公共投資金額。例如，在 1997 年，聯邦政府即創造了 3 萬個工作機會；在 2002 年更高達 12 萬個工作機會。投資金額也從 1997 年的 30 億歐元（約新台幣 1,001 億元）增至 2000 年的 60 億歐元（約新台幣 2,003 億元）。

近十年來，德國政府能源相關政策鼓勵以風力，日光能，生質能等來替代核能發電並且成效卓著。十年間，風力發電成長 2 倍，日光能發電成長 8 倍，生質能發電成長 10 倍。在 1997 年，再生能源佔全德國總發電量的 4％，到了 2002 年 6 月份則已攀升至 8％，Mr. Hans-Josef Fell 認為以此發展速度來看，德國聯邦有望在 2020 年全面使用可再生能源，這是該國重視永續成長的政府環保政策高度配合國家總體發展所需的預期結果。

五、德國產學聯合中心 AiF (The German Federal of Industrial Cooperative Research Associations)

德國產學聯合中心 AiF 成立於 1954 年，是一個百分之百由德國工業界支助的非營利性質機構。成立宗旨是致力於推動德國產業界與學術界共同進行研發等合作事宜，並藉由促進中小企業之應用研發與創新技術來增進德國在國際間的競爭優勢。產學聯合中心 AiF 近年來同時

也是德國聯邦政府重要的研究伙伴，尤其是聯邦經濟科技部 BMWi (Federal Ministry of Economics and Technology)及聯邦教育研究部 BMBF(Federal Ministry of Education and Research)的一些跟科技研發相關的業務及計畫，經常需要產學聯合中心 AiF 來配合支持與共同推動。

目前德國產學聯合中心 AiF 已建立起連結超過 100 家工業研究協會/機構的網路，經由此網路可再連結其他約 5 萬家中小企業(約佔德國 90%以上的中小企業)及 800 家左右的研究機構。德國產學聯合中心 AiF 主要的功能有二：一是可以讓工業界的中小企業在尚未累積足夠的競爭力之前，能與學術間有密切互動，以蓄積科技研發實力; 二是讓科學技術研發相關之學研單位或一些獨立的企業經由它這個管道申請獲得聯邦政府的研發經費。基本上，每年 AiF 可從德國聯邦政府可獲得約 250 萬歐元的預算，用以支持並增進德國工業界與學研單位的合作互動關係。

國際合作也是德國產學聯合中心 AiF 的重點業務，目前 AiF 在中歐及歐亞大陸共設有 10 個據點，分別為：Warsaw, Prague, Bratislava, Budapest, Moscow, Yekaterinburg, Kiev, Minsk, Tbilisi 及 Tashkent。

六、多特蒙大學 (University of Dortmund)

科資中心人員於行程之最後一天參訪多特蒙大學 (University of Dortmund)公共事務與知識轉移諮詢處，本處為多特蒙大學與外界重要的產官學界的協調界面組織，其主要任務有下列三點：
1 負責多特蒙大學公關行銷與公共事務和新聞傳播的角色；
2 擔負關於多特蒙大學各學院與外界的經濟、技術性合作計畫協調事宜；
3 負責多特蒙大學各學術機構科研成果的商業價值評估。

本處共分為四個次級單位，包括：
1 新聞與公共事務中心；
2 知識移轉中心；
3 大學行銷中心；
4 活動規劃與對外服務中心。

第一，新聞與公共事務中心提供多特蒙大學與外界的溝通管道，並透

過每日新聞報導，提供有關外界與多特蒙大學進行科研之成果與發展中之計畫。

第二，有關知識移轉事宜，本諮詢處之重點工作為：
1 提供多特蒙大學科研成果轉為有商業價值的運用；
2 輔導多特蒙大學相關學術機構與外界/商業界合作的管道；
3 提供多特蒙大學科研學者工作及從事產品商業的設計者行銷相關工作；
4 本處輔導外界廠商與多特蒙大學有關單位的合作，並提供有關產品專利保護權的問題之諮詢。

第三，大學行銷中心。有關大學行銷部門的工作，是由 Competo 這個單位負責行銷，它是一個大學事務策略性行銷的中心，它由 Dortmund, Dresden 科技大學，Hamburg-Harburg 科技大學跟 Postdan 技術學院所組成，本單位擔起諮詢服務並提供有關科技方面的專業顧問事宜，透過此大學行銷工作可吸引優秀人材為此處之研發單位工作或為其提供優渥的獎學金。

第四，活動規劃與對外服務中心。此單位負責提供外界有關多特蒙大學科研活動的消息，並設有專業諮詢師資，大約 80-100 人，提供外界直接與多特蒙大學溝通與諮詢的管道。

參、 心得與建議

一、加強拓展與 CSRS、MIST、BMBF 以及 AiF 等機構之國際交流合作的範圍與機會，以尋求與參訪單位在未來有進一步良性的互動。

二、了解並翻譯俄國及德國被參訪單位科學技術之推展與科技政策之研究的心得給國內相關單位作參考。

三、應該藉由與參訪單位之往來，尋求協助以幫助我國更多的參與 OECD 等國際組織所辦的活動。

四、鼓勵同仁學習歐語系語文，這是了解歐洲文化與科技研究的重要管道。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)為主，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。

MINUTES OF JOINT SEMINAR
Between

And

Date: 10th June 2002

Time: 10:40AM ~ 11:40AM & 1:00PM ~ 2:00PM

Venue: CSRS, 11, Tverskaya str. Moscow, GSP-9, K-9, 101999, Russia

Present: *Prof. Levan E. MINDELI* – Director, CSRS **(LM)**

Dr. Leonid GOKHBERG – Deputy Director, CSRS **(LG)**

Dr. Alesander SOKOLOV – Deputy Director, CSRS **(AS)**

Dr. Natalia GORODNIKOVA, CSRS **(NG)**

Mrs. Anna G. PIKALOVA – Senior Researcher, CSRS **(AP)**

Prof. Dr. Hsien-Chun MENG – Director General, STIC **(HM)**

Dr. Yu-Ling LUO– Division Director, STIC **(YL)**

Ms. Chih-Hua TSAI – Assistant Researcher, STIC **(CT)**

Dr. Henton HUANG – Division Director, Taipei Representative Office

In Moscow **(HH)**

Mrs. Ivanova ARGUNA – Secretary, Taipei Representative Office in Moscow

(IA)

Chaired by: Prof. Levan E. MINDELI – Director, CSRS

ISSUES DISCUSSED	ACTION
1. LG, on behalf of CSRS, gave a presentation on the backgrounds, organization structures, prospective projects, and main publications.	Noted
2. AS gave the second presentation to further explained sci-tech activities CSRS has undertaken with EU in the issue of information interface.	Noted
3. HM, on behalf of STIC, gave a presentation on the backgrounds, current operation situation, major tasks and publications to the present.	Noted
4. LG encouraged both sides to hold joint seminars, workshops and sci-tech related activities to strengthen cooperation between the two organizations	CSRS & STIC
5. LG mentioned that CSRS had launched its pilot projects in HR research and asked whether STIC had this kind of	Noted

project. HM answered that STIC was involved in the OECD context for HR mobility research projects.

6. LG asked whether STIC had conducted innovation studies. HM answered yes but we had not reached a very mature stage yet.	Noted
7. LG proposed to make Internet linkage between CSRS and STIC and establish a database in which both parties could share more sci-tech information. HM agreed and further proposed to hyperlink CSRS's homepage to STIC's website.	Noted
8. HM requested CSRS to recommend one Russian post doctoral research fellow to Taiwan to enhance STIC's research competence.	CSRS
9. HM proposed that both CSRS and STIC should dispatch two personnel to visit each other to help establish database and conduct joint projects.	Noted
10. YL considered that Russia was good at sci-tech research and forecasting sci-tech development while Taiwan was good at marketing and trading. Therefore, she suggested that it would be a good idea to combine both sides' strengths and create a win-win situation.	Noted
11. HM announced to the present that STIC would host "NanoFuture 2010 – Commercialization of Nanotechnology Summit Forum" in late September and would like to request assistance from CSRS to recommend a Russian nanotechnology expert to deliver a speech at this forum.	CSRS

CONCLUSION	ACTION
1. Both CSRS and STIC agreed to host joint sci-tech seminars, workshops, sci-tech related activities, and exchange publications as well as visiting personnel in order to strengthen collaboration between the two organizations.	CSRS & STIC
2. Both CSRS and STIC agreed to dispatch personnel to the other side to facilitate to establish a shared database (or a virtual center) and the priority information to be shared would be biotechnology, nanotechnology and information technology.	CSRS & STIC
3. LG agreed to assist STIC to look for one Russian post	CSRS

doctoral research fellow.

4. LG and AS agreed to recommend Russian nanotechnology experts to come to Taipei to deliver speeches at "NanoFuture 2010 – Commercialization of Nanotechnology Summit Forum" which would take place in late September.	CSRS
5. Both CSRS and STIC agreed to make Taipei Economic and Cultural Representative Office in Moscow as the liaison office for further cooperation between CSRS and STIC.	Taipei Representative Office in Moscow

APPENDIX:

SESSION 1 (10:40AM ~ 11:40AM): GREETINGS & PRESENTATIONS

1. Prof. Mindeli first welcomed STIC delegation to visit CSRS and Moscow, and then introduced CSRS staffs to visitors from STIC. Prof. Dr. Meng introduced STIC delegates and staffs from Taipei Representative Office in Moscow to CSRS staffs. Prof. Mindeli expressed CSRS's wishes to treat each other on an equal basis and exchange more sci-tech related information on the basis of mutual benefits in this seminar.

2. Dr. Gokhberg, on behalf of CSRS, gave a presentation of the background information about CSRS. The presentation indicated CSRS's organisation structure, objectives, completed projects recently conducted between 1998 and 2001, on-going and prospective projects which would be carried out between 2002 and 2003, and its analytical reports, periodicals and statistical data books. He also showed that CSRS's clients mainly consisted of public sectors within Russian Federation though it had been active in some important int'l organisations such as OECD, EC and UNESCO etc.

3. Dr. Sokolov continued the meeting by giving the second briefing. He focused on the cooperative partnership between Russia and EU in the issue of information interface. Russia had been actively involved with multilateral international programmes such as EU framework programmes (i.e. FP5 and FP6) and other initiatives. However, Dr. Sokolov in the meanwhile identified several problems which Russia encountered when engaging in int'l sci-tech cooperation, e.g. narrow coverage of FP5, lack of funding and balance between basic and applied research etc. Besides, CSRS would like to devote itself to offering more assistance to Russian scientists in participating in EU RTD programmes.

4. Afterwards, Prof. Dr. Meng, introduced some background information about STIC. He outlined STIC's organisation structure, operating concept and mechanism, some major completed and on-going projects, the established partnerships with other int'l sci-tech organisations/institutes, our contract services, information services, some publications and analytical research reports, and how we envisioned ourselves in the future development.

5. CSRS and STIC's attendees shortly exchanged what they had learned from the presentations about each other's development in sci-tech research. CSRS staffs soon suggested that detailed discussion could be continued after lunch.

1. Dr. Gokhberg firstly encouraged both sides to hold joint sci-tech seminars, workshops or relevant activities etc., in order to pursue CSRS-STIC shared interest in strengthening cooperation on sci-tech information and. Prof. Dr. Meng expressed that this idea was also what STIC delegation wished to reach in this joint seminar.

CSRS
&
STIC

2. Dr. Gokhberg mentioned that CSRS had launched its pilot project in HR research for int'l survey or migration studies.   Prof. Dr. Meng supplemented that STIC was also actively involved in the OECD context for HR mobility research projects.   Both sides agreed that mobility of high quality sci-tech manpower was an important issue for developing and upgrading a society.

Noted

3. Dr. Gokhberg was deeply concerned about the earthquake disaster in Taiwan and expressed that CSRS would like to share its research method for earthquake with Taiwan.   Prof. Dr. Meng expressed his gratitude for CSRS's kindness.

Noted

4. Dr. Gokhberg would like to know whether STIC had researched into innovation studies.   Prof. Dr. Meng answered that we did conduct research in national innovation system but it had not reached a very mature stage.   We wanted to learn more from CSRS in this field.

Noted

5. Dr. Gokhberg proposed that CSRS and STIC should make Internet links and establish a database in which both parties could share more sci-tech information.   Prof. Dr. Meng agreed with him and further expressed that STIC would like to hyperlink CSRS's homepage to STIC's website "Sci-Tech Policy Think Tank" which was especially for policy research and policy making.

Noted

6. Dr. Gokhberg expressed that information technology was important for Russia and Russia was good at software side as well.   Prof. Dr. Meng added that Taiwan was good at hardware equipment and had been one of the main producers around the world.

Noted

7. Prof. Dr. Meng continued the discussion by requesting assistance in recommending one post doctoral research fellow from Russia to STIC to contribute his/her expertise and strengthen STIC's research competence. CSRS would help to disseminate this vacancy information.

CSRS

8. Prof. Dr. Meng proposed that both CSRS and STIC should dispatch personnel to visit each other in the coming years for implementing joint projects.   CSRS supported the proposal.

Noted

9. Dr. Luo asked whether CSRS had any division responsible for evaluating projects.   Dr. Gokhberg answered CSRS could forecast sci-tech development but there was not a specific division for evaluation.

Noted

10. Dr. Luo proposed that CSRS and STIC could collaborate to establish a virtual centre so both organisations could share more sci-tech information about each other's strengths in specific research fields.   Prof. Dr. Meng considered that biotechnology, nanotechnology and information technology could be the priorities/highlights of such kind of virtual information sharing center.

Noted

11. Dr. Luo further suggested that she thought Russia was on a solid basis in terms of sci-tech research and forecasting of sci-tech development while Taiwan was good at marketing and trading.   If we could think more about

Noted

combining Russia's research competence and Taiwan's marketing capability, it would be possible to increase more opportunities for economic development and create a win-win situation for both of us.

12. Prof. Dr. Meng announced that STIC would host a "NanoFuture 2010 - Commercialization of Nanotechnology Summit Forum" in late September (24-25/09) this year and would like to invite Russia's nanotechnology expert to attend it and deliver a speech in this Forum in Taipei. CSRS was willing to seek such kind of candidates for STIC.

CSRS

13. Dr. Gokhberg realised that STIC was keen on participating in int'l research projects and programmes though Taiwan had encountered difficulties in entering most int'l organisations. He referred several names of some key officials working for int'l organisations such as OECD to STIC delegation and suggested that we could contact them for more opportunities to join int'l projects and programmes.

Noted

14. Both CSRS and STIC agreed Taipei Representative Office in Moscow (for the Taipei-Moscow Economic and Cultural Coordination Commission) to be the liaison office for further cooperation between CSRS and STIC.

Taipei Representative Office in Moscow

Centre for Science Research and Statistics

INFORMATION INTERFACE FOR

EU-RUSSIA CO-OPERATION

Dr. Alexander Sokolov

sokolov@csrs.ru

Multilateral international programmes

EU framework programmes (INCO-Copernicus and INTAS),
FP6 – 2002-2006 (16 billion Euro)
TACIS assistance programme,
ISTC, EUREKA, COST, and other initiatives.

Legal basis for international S&T co-operation

•Doctrine on Development of Russian Science,
•Law on Science and State Science and Technology Policy
•Concept on State Policy of the Russian Federation in International S&T Co-operation
•Russia-EU Agreement on Partnership and Co-operation
•Agreement between the Russian Government and the EU on Co-operation in Science and Technology

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Major obstacles hampering co-operation

Planning of FP5/INCO official procedures
Narrow coverage of FP5
Balance between:
• needs and national competence in different S&T
• basic and applied research
Lack of funding for cost-shared projects

What to do

•Co-ordination of priorities

•Information support

•Evaluation of FP5 projects and analysis of overall programme results

•Matching bilateral and multilateral programmes

Improving infrastructure for S&T co-operation

•More information and consultancies on the EU RTD programmes in Russian

•Broader access of the EU scientists to information on Russian S&T

Relevant information

well-targeted

properly channelled

is a critical success factors of EU-Russia RTD co-operation

Major stakeholders

European Commission EU Delegation in Moscow INTAS	Ministry of Industry, S&T Russian Foundation for Basic Research

INFORMATION INTERFACE Centre for Science Research and Statistics

RTD COMMUNITY			
RTD networks	Research units	Universities	Industry

Objectives

♦ To facilitate participation of Russian scientists in the EU RTD programmes

♦ To provide information on EU RTD-related policies and activities to Russian:
  - policy-makers
  - research community
  - innovative enterprises

♦ To assist EU RTD organisations in the search for Russian partners and consortium building

♦ To identify and integrate existing public and private RTD networks in Russia

♦ To disseminate information on FP5 news, events and developments

Methodology

♦ Establishing basis for a sustainable interface system
  - now – a national gateway for a two-way flow of FP5-related information
  - in the future – a Russian node for CORDIS

♦ Major components:
  - information
  - dissemination channels
  - operating mechanisms

First Steps

Series of FP5 presentations in Russia (June 1999)
    Moscow, Nizhni Novgorod, Rostov, Obninsk
   Over 500 participants

Consultancies on FP5 project submission and implementation (1999-2000)

Issuing and disseminating regular (fortnight) information reviews on EU RTD activities in Russian (since February 2000)

International Workshop on Policies and Practices: Dialogue on S&T between the EU and Russia (September 2000), BIT/CSRS, Austria

http://fp5.csrs.ru – a Russian web-site on FP5
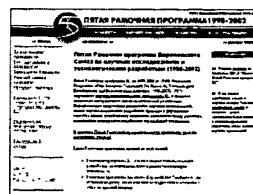
Russian part

FP5 highlights

News on EU RTD activities

Consultancies

Frequently asked questions

Interactive databases

http://fp5.csrs.ru – a Russian web-site on FP5

English part

Partner search service

Database on Russian RTD units by FP5 thematic areas

Directory of networks - contact organisations/persons for dissemination of information

Database on leading experts in medicine and health on Internet

Potential follow-up

- Analysis of overall results of Russian researchers participation in FP5 projects and recommendations for future RTD co-operation
- Adaptation of the existing interface system to FP6, development of specialized web-site devoted to FP6
- Conferences, workshops, information days and presentations of FP6 and the emerging European Research Area
- English-language databases on Russian researchers and RTD units by FP6 thematic priorities
- Publication of information, reference and analytical materials on the EU–Russia S&T collaboration
- Preparation of guidelines on intellectual property rights with respect to participation of Russian researchers in EU RTD programmes
- Creation of a CORDIS-connected information system for co-ordination of EU-Russia RTD co-operation

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CENTRE FOR SCIENCE RESEARCH AND STATISTICS

RECENT CSRS ACTIVITIES

Dr. Leonid Gokhberg
Gokhberg@csrs.ru

Centre for Science Research and Statistics

- Established in 1991

- Functions under the auspices of the Ministry of Industry, Science and Technology of the Russian Federation and Russian Academy of Sciences

- Total personnel - 190, of which 80 researchers, 35 Ph.D.

- Modern computer, telecommunication and printing facilities. Broadband access to the Internet

- CSRS publishes annually a wide range of information materials: statistical data books, analytical reviews, publications of research results, regular information bulletins, express-information releases, and Russian translations of foreign editions

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Objectives

- To develop statistics on R&D and innovation in the Russian Federation and to supply policy makers and the general public with comprehensive, up-to-date, and internationally compatible information

- To provide analyses and forecasts of trends in science and technology

- To draw recommendations on the development and implementation of national S&T and innovation policies

- To publish and disseminate statistical data, analytical reviews, policy studies, and other relevant information to inform Russian and international communities about the national S&T system in Russia

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Recent projects 1998–2001

- Development of R&D and innovation statistics in Russia in line with the international standards
- Reforming Russian S&T: analysis and problems
- Forecast of S&T development in Russia till 2010
- Assessment of national critical technologies
- Strategy of competitiveness and S&T policy issues
- Elaboration of R&D funding mechanisms in transition economy
- Analysis of S&T, innovation and education trends in Russian regions
- Recommendations and tools for international S&T co-operation

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On-going and prospective projects (2002–2003)

- Inventory of R&D units
- Technology Foresight
- Priorities of national S&T policy
- Statistics and analysis of the Information Society
- Technological innovation in industry and services
- Inventory of R&D network
- Public awareness and opinion on S&T
- Education and training
- White book of the Russian Academy of Sciences
- Monitoring intellectual property rights: information system, statistical, analytical, and legal issues
- S&T legislation
- National innovation system

CSRS regular publications

Statistical data books

Analytical publications
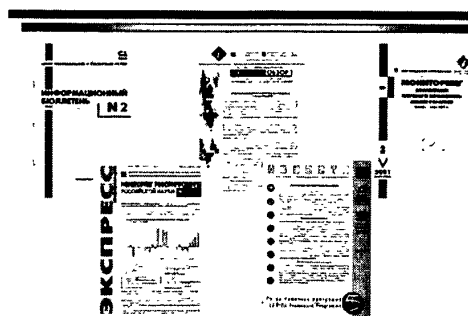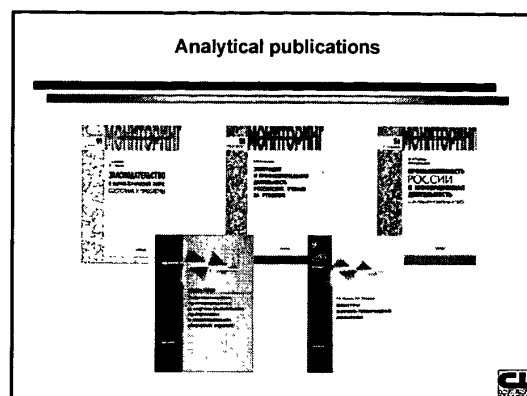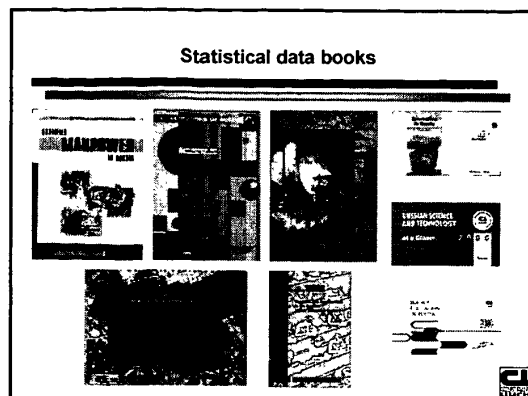
Clientele

Major CSRS clients
* President's Administration, Government, Federal Assembly
* Ministry of Industry, Science and Technology
* Russian Academy of Science

Other clients and partners
* The State Committee on Statistics, Ministry of Finance, Ministry of Education, Ministry of Labour, Ministry of Economic Development and Trade
* Russian Foundation for Basic Research and other public S&T foundations
* Governments of Moscow and St.-Petersburg, regional authorities
* Moscow State University, Moscow State University of Economics, Statistics and Informatics, Higher School of Economics and other major universities

International co-operation

* International organisations:
  OECD, EC, UNESCO, Eurostat, APEC, IIASA
* Foreign organisations from many countries (EU Member States, US, Japan, Canada, Korea, etc.):
  governmental agencies and statistical offices
  research centres and universities
* Contributions to major international publications
* CSRS scholars extensively publish in domestic and international journals, and participate in conferences and workshops world-wide

FP5 INCO - Copernicus-2 Programme