NATIONAL SECURITY AND NATIONAL COMPETITIVENESS: OPEN SOURCE SOLUTIONS NASA REQUIREMENTS AND CAPABILITIES

225

First Annual Open Source Symposium

1-3 December, 1992

Gladys A. Cotter

Director

NASA STI Program

NASA STI PROGRAM SCIENTIFIC & TECHNICAL INFORMATION

Importance of Access to Foreign R&D

- **Foreign competitors are increasingly challenging U.S. leadership in critical technologies**

- **Budget pressures have increased necessity for international cooperative science projects**

- **It is critical to know what potential partners or competitors really have to offer from their technology base**

NASA STI PROGRAM SCIENTIFIC & TECHNICAL INFORMATION

The NASA STI Program Information Acquisition and Management

- Provide the widest practicable and appropriate dissemination of information concerning its activities and the results thereof

- Develop a knowledge base of foreign R&D intelligence to contribute to

  - International cooperation in science and technology

  - R&D results from abroad as input to domestic program objectives

NASA STI PROGRAM SCIENTIFIC & TECHNICAL INFORMATION

Today's Relevant Economic and Social Conditions

- **The U.S. high technology industries have lost world market share in most areas**
- **American productivity has been surpassed by many other industrialized nations**
- **The aerospace industry continues as the leading positive contributor to the U.S. balance of trade**
- **This industry is in the midst of major changes and significantly more challenging competition**
  - **"With mounting anxiety, U.S. commercial aircraft builders have been looking over their shoulder as foreign competitors erode their traditional lead in the global aviation market."**

[Science magazine (October 16, 1992)]

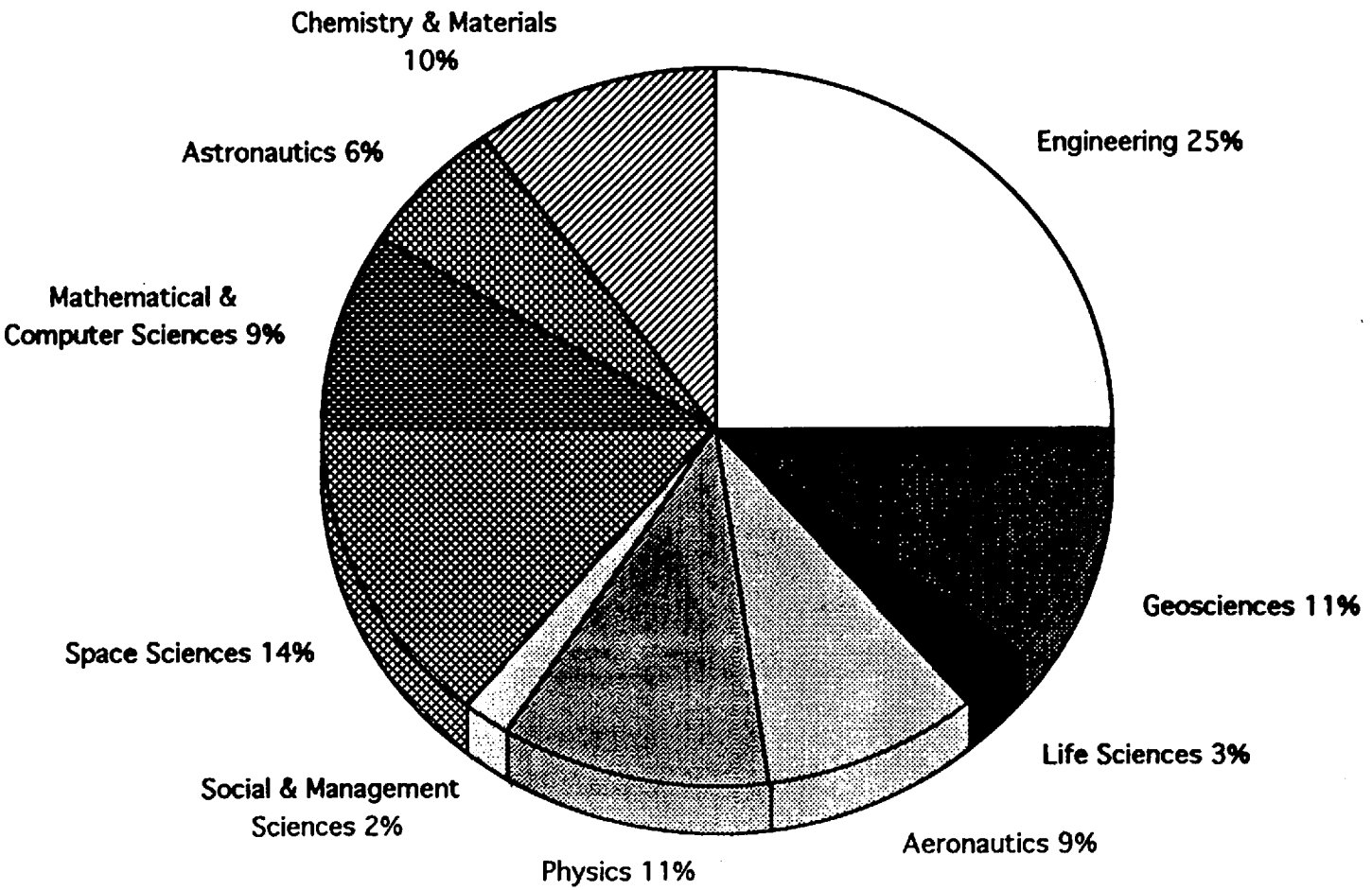
NASA STI PROGRAM SCIENTIFIC & TECHNICAL INFORMATION

NASA De Facto International Aerospace Database

- Database contains over 2.3 million summaries of worldwide research
- Journals, technical reports, conference proceedings, books, etc.
- Subject scope is aerospace science and technology and other subjects related to NASA's mission
- Input from 60 international organizations annually
- 15% in non-English languages

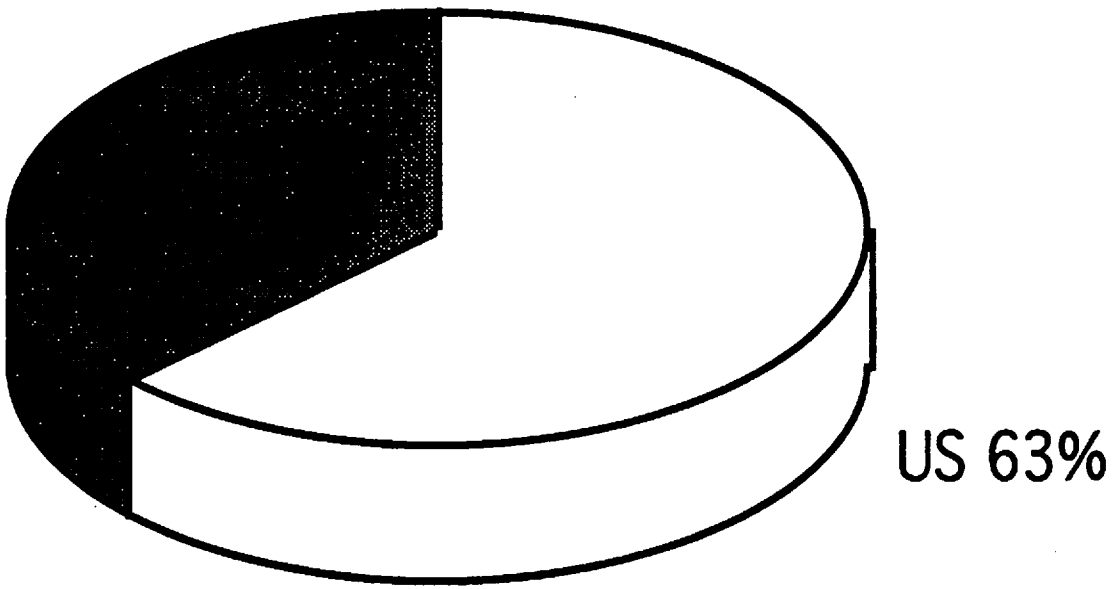
NASA STI PROGRAM SCIENTIFIC & TECHNICAL INFORMATION

Subjects 1991



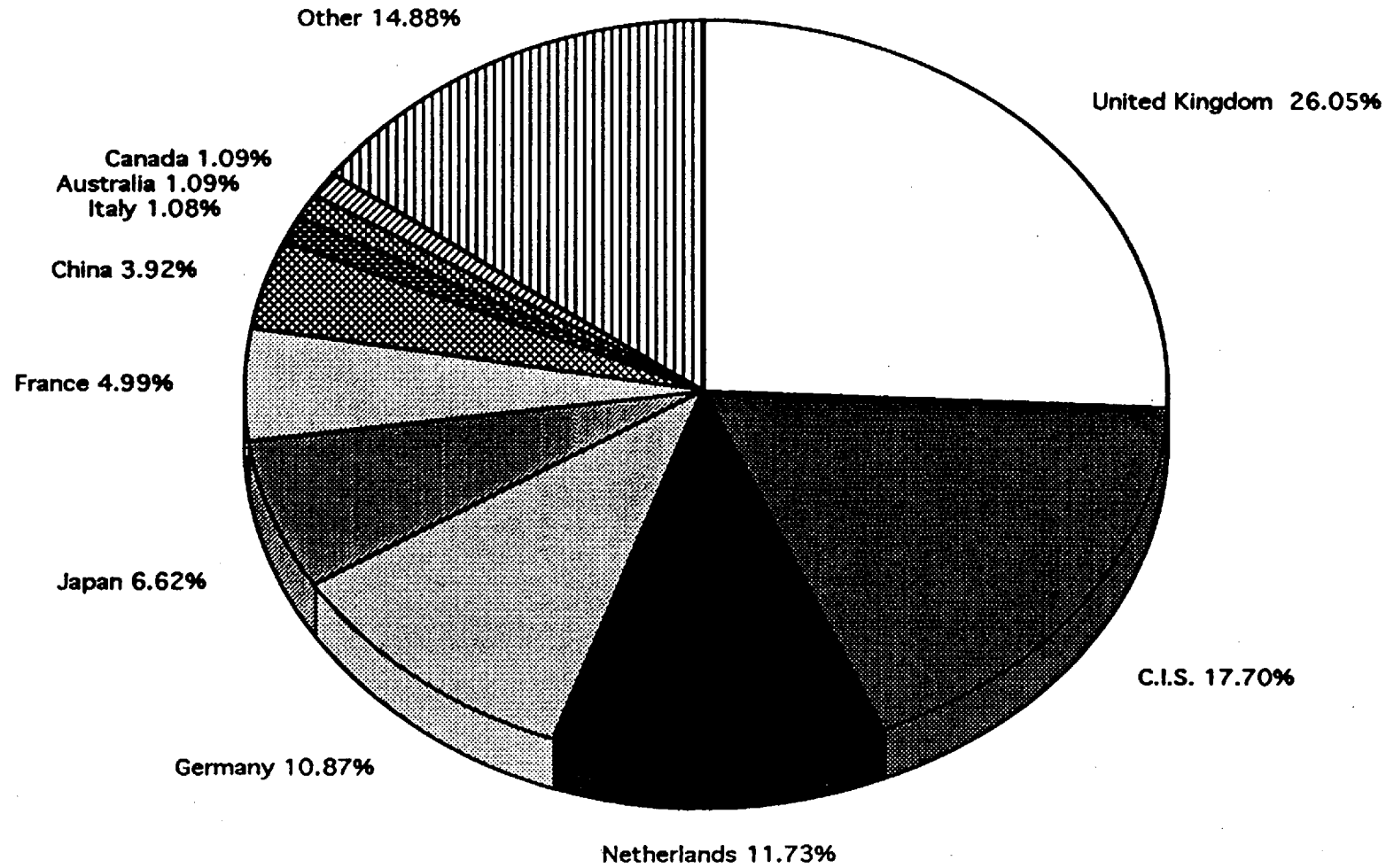
NASA STI PROGRAM SCIENTIFIC & TECHNICAL INFORMATION

US vs. Foreign Input 1991



NASA STI PROGRAM SCIENTIFIC & TECHNICAL INFORMATION

Top Foreign Countries - 1991



NASA STI PROGRAM SCIENTIFIC & TECHNICAL INFORMATION

Major Sources

- **NASA funded R&D results**
- **International exchanges of information**
- **Purchase of information and documentation analysis**

NASA STI PROGRAM SCIENTIFIC & TECHNICAL INFORMATION

Models for International Exchange

- **Nation to nation agreements**
- **Tripartite agreements - NASA, ESA, ESA member organizations**
- **Bilateral agreements with specific institutions**

NASA STI PROGRAM SCIENTIFIC & TECHNICAL INFORMATION

Key Coordinating Groups

- **NATO Advisory Group on Aerospace Research and Development/Technical Information Panel (AGARD/TIP)**
- **Commerce, Energy, NASA, National Library of Medicine, Defense Information Managers (CENDI)**
- **International Council of Scientific Unions/International Council on Scientific and Technical Information (ICSU/ICSTI) and Committee on Data (CODATA)**
- **U.S. Japan Committee on STI**

NASA STI PROGRAM SCIENTIFIC & TECHNICAL INFORMATION

Major New Impacts on the Way of Doing Business

- **STI Council foreign acquisitions focus**
- **Aggressive international information collection**
  - **European Aerospace Database being built by ESA**
  - **German national database (DELURA) by FIZ Karlsruhe**
- **Changing political environment opened opportunities for the STI and open source intelligence communities to cooperate**
- **STI program technology infrastructure modernization**
- **Budget constraints**

Significant NASA STI Responses Relevant to Symposium Theme

- **Two interagency foreign acquisitions workshops**
- **Working with international partners more cooperatively and more aggressively**
- **Targeted areas for interagency cooperation**
- **Working closely with the Air Force FASTC program**

NASA STI PROGRAM SCIENTIFIC & TECHNICAL INFORMATION

Expectations for the Future in the Open Source Area

- **Change in the composition of the NASA Aerospace Database**
- **NAD 1962 to 1990 was 27% foreign**
- **1991 - 37% foreign**

NASA STI PROGRAM SCIENTIFIC & TECHNICAL INFORMATION

Information Technologies

- **Print products, microforms, and electronic information systems.**

- **The pace of technology development and change increasing more rapidly.**

  - **Profoundly changed both user expectations and producers methods.**
  - **Only fifteen years since introduction of the personal computer has**
  - **Shifting paradigm with the telecommunications and networking revolution.**

NASA STI PROGRAM SCIENTIFIC & TECHNICAL INFORMATION

NASA Modernization Program

- Short term - low cost upgrades
- Long term - multimedia, global "information center without walls"
  - Streamlining access to sources of STI by using advanced computer networking
  - Creating and disseminating information in various electronic media including optical disks, video and full text

NASA STI PROGRAM SCIENTIFIC & TECHNICAL INFORMATION

The STI Community has Many Interests in Common with the Open Source Intelligence Community

- **Issues of national security and national competitiveness become increasingly intertwined**

- **Discussion and closer cooperation**

- **This meeting is an excellent step in this process**

FIRST INTERNATIONAL SYMPOSIUM: NATIONAL SECURITY & NATIONAL COMPETITIVENESS: OPEN SOURCE SOLUTIONS Proceedings, 1992 Volume II - Link Page

Previous	OSS '92 Gladys A. Cotter, NASA Open Source Intelligence Requirements & Capabilities (Text),
Next	OSS '92 Don Johnson, National Technical Information Service (NTIS) Open Source Intelligence Requirements & Capabilities,

Return to Electronic Index Page