Conference on

Academic and Industrial Cooperation in Space Research

Vienna, Austria
4-6 November 1998

Organised by the European Space Agency
in cooperation with
the Bundesministerium für Wissenschaft und Verkehr (Austria)

European Space Agency
Agence spatiale européenne
PROGRAMME & CONTENTS

Wednesday 4 November 1998

08:00 Registration

09:30 Opening Session

Welcome Addresses

W. Welzig  President, Austrian Academy of Sciences
R. Rozsenich  Director General, Industry and Technology Directorate, Austrian Federal Ministry of Science and Transport
H. Kappler  Director, Industrial Matters and Technology Programmes Directorate, European Space Agency

Conference Objectives and Logistics

D. Raitt  Systems Studies Division, Industrial Matters and Technology Programmes Directorate, ESA

10:30-11:00 Coffee

11:00-12:30 The Process of Cooperation

Chairman: E.-M. Schmitzer, BMWV, Austria

Cross fertilization between industry and university for space programmes
P. Kamoun & J. Levant, Aerospatiale, France

Selected university and industry partnerships in aerospace: a work in progress
E. Ward, NASA, USA

A modelling approach for university-industry relations
K. Janschek, & D. Meißner, Technical University of Dresden, Germany
W. Göhler, HTS GmbH, Germany
D. Mercer, JRA Aerospace & Technology, United Kingdom

Advanced communications applied to aerospace development
F. Galan, CASA, Spain

12:30-14:00 Lunch

14:00-15:00 Space Research Cooperation: Case Studies 1

Chairman: G. Vernazza, University of Genova, Italy

Near Earth asteroid prospector: an immediate opportunity for academic and industrial cooperation
J. Benson, SpaceDev Inc, USA
Cooperation of research institutes and space industry in Austria within the projects ALP-SAT and FESTIP
K. Langensteiner & K. Brunnhofer, Steyr-Daimler-Puch, Austria

LunarSat: a European cooperation aiming at the moon
P. Eckart, M. Kesselmann, W. Seefelder & K. Pauly, Munich Technical University, Germany

15:00-15:30 Coffee

15:30-17:00 Technology Transfer
Chairman: P. Brisson, ESA-ESTEC, The Netherlands

The technology transfer gap: a case study of academic-industrial technology transfer
J. Smith, P. Wright & J. McDermid, University of York, United Kingdom
T. Cockram, Rolls-Royce MAEL, United Kingdom

Space technology transfer as a stimulus for academic and industrial cooperation
G. Kraft, DLR, Germany

University-SME technology transfers in the space domain
J. Rootes, D. Mercer & D. Flynn, JRA Aerospace & Technology Ltd, United Kingdom

From astronomy to biology: a case study in technology transfer
G. Fraser & J. Lees, University of Leicester, England

Thursday 5 November

09:00-10:30 Collaborative Space Projects and Programmes
Chairman: G. Caprioglio, EACRO, Belgium

The ESA PRODEX programme
B. Zufferey, ESA-ESTEC, The Netherlands

Cooperation between science and industry – an essential impulse for space research in Austria
W. Riedler, M. Steller & K. Torkar, Austrian Academy of Sciences, Austria
F. Kried & G. Zeynard, Austrian Aerospace, Austria
F. Rüdenauer, Austrian Research Centre Seibersdorf, Austria

Partnership projects at the Institute for Space Studies of Catalonia
J. Isern & A. Accensi, Institute for Space Studies of Catalonia, Spain

The Seibersdorf Testhouse on aerospace materials technology: a link between ESA and EU programmes
E. Semerad, Austrian Research Centre Seibersdorf, Austria

10:30-11:00 Coffee
11:00-12:30  Universities: Working with Industry
Chairman: G. Haskell, ISU, France

NASA programs with university and industry components
J. Dasch & E. Ward, NASA, USA

Surrey Space Centre (SSTL) - the symbiosis of academe and industry (abstract)
M. Sweeting, Surrey Space Centre, England

Building a virtual college to serve an industry
B. Montgomery, Michigan Virtual Automotive College, USA

Setting up your own enterprise: a methodological guide for researchers and students
J. Cochard, Centre Européen d'Entreprise et d'Innovation, France

12:30-14:00 Lunch

14:00-15:00  Space Research Cooperation: Case Studies 2
Chairman: N. Jensen, ESA-ESTEC, The Netherlands

Data-fusion experience: from industrial visual inspection to space remote-sensing applications
L. Bruzzone, D. Fernández Prieto & G. Vernazza, University of Genova, Italy

Development of radiofrequency-ion-thrusters at Giessen University: progress in space propulsion by cooperation between industry and university
H. Bassner, Dasa AG, Germany
H. J. Leiter, H. W. Loeb & K.-H. Schartner, 1st Institute of Physics, Germany

Virtual reality applied to mission control systems: a joint academic-industrial research project
F. Verhaeghe, Logica SA/NV, Belgium
M. Gervautz, Technical University of Vienna, Austria
R. Lüttgens, ESA-ESOC, Germany

15:00-15:30 Coffee

15:30-17:00  Cooperative Roles for Universities
Chairman: M. Sweeting, Surrey Space Centre, England

University roles in university-industry cooperation
P. Malinen, Turku School of Economics and Business Administration, Finland

Responding to the needs of industry in a changing world
G. Haskell, International Space University, France

Promoting university-industry links by a new type of PhD education: the AIM Graduate School
R. Boström, Swedish Institute of Space Physics, Sweden
E. Brändas & S. Kullander, Uppsala University, Sweden

The University of Florence's consortium ISU-IACSA activity in space manned systems and its spin-off in terrestrial extreme environments
D. Bedini, University of Florence, Italy
**Friday, 6 November**

09:00-10:30  **Increasing the Role of SMEs**  
*Chairman: F. Doblas, ESA HQ, France*

- Outsourcing of industrial R&D opportunities for space research and innovation  
  *G. Caprioglio, EACRO, Belgium*

- The increasing role of SMEs in the present expanding economy: a creative occasion for academia and space agencies  
  *P. Santoli, International Nanobiological Testbed Ltd, Italy*

- The role of high tech marketing within the context of SME participation in the satellite data marketplace  
  *R. Hasenauer & W. Aigner, University of Economics and Business Administration, Austria*
  *M. Gervautz, Vienna University of Technology, Austria*

10:30-11:00  **Coffee**

11:00-12:30  **Closing Session and Round Table**  
*Chairman: H. Stoewer, Delft University of Technology/Space Associates GmbH, The Netherlands*

**Closing Address**  
*Dr. K. Pseiner, Managing Director, Austrian Space Agency*