

# COST ACTION 724

## *Developing the Scientific Basis for Monitoring, Modelling and Predicting Space Weather*

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and the COST 724 MANAGEMENT COMMITTEE

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19-20 Feb. 2007

IHY Kick-off Meeting, Vienne



# European **C**Ooperation in the field of **S**cientific and **T**echnical research

19-20 Feb. 2007  
IHY Kick-off Meeting, Vienne



## Mission:

«Strengthen Europe in scientific and technical research for peaceful purposes through the support of cooperation and interaction between European researchers»



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# What is COST?

- European COoperation in the field of Scientific and Technical research
  - 1971 - Ministerial Conference, Brussels: launching of COST, a Framework for coordinating nationally funded research in Europe
  
- Participation
  - 34 COST Member States and 1 cooperating state
  - International organisations and research institutions from non-COST countries
  - The European Commission through the Framework Programme
  
- COST Actions
  - Networked research projects



# COST characteristics

- Co-ordination through networking
- Pan-European
- “Non-competitive”  
(pre-normative, public utility)
- Bottom-up and flexible  
“a la carte” participation
- Wide range of disciplines
- “Interdisciplinary Exploratoria”
- Enabling agent: focus on younger researchers
- Open to wider cooperation

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# 9 Scientific and Technical Domains

**The CSO has decided to restructure the scientific and technical Domains in COST in November 2005. Presently the nomination procedure for the Domain committee members is under way. This new committee structure will be in place 1 June 2006.**

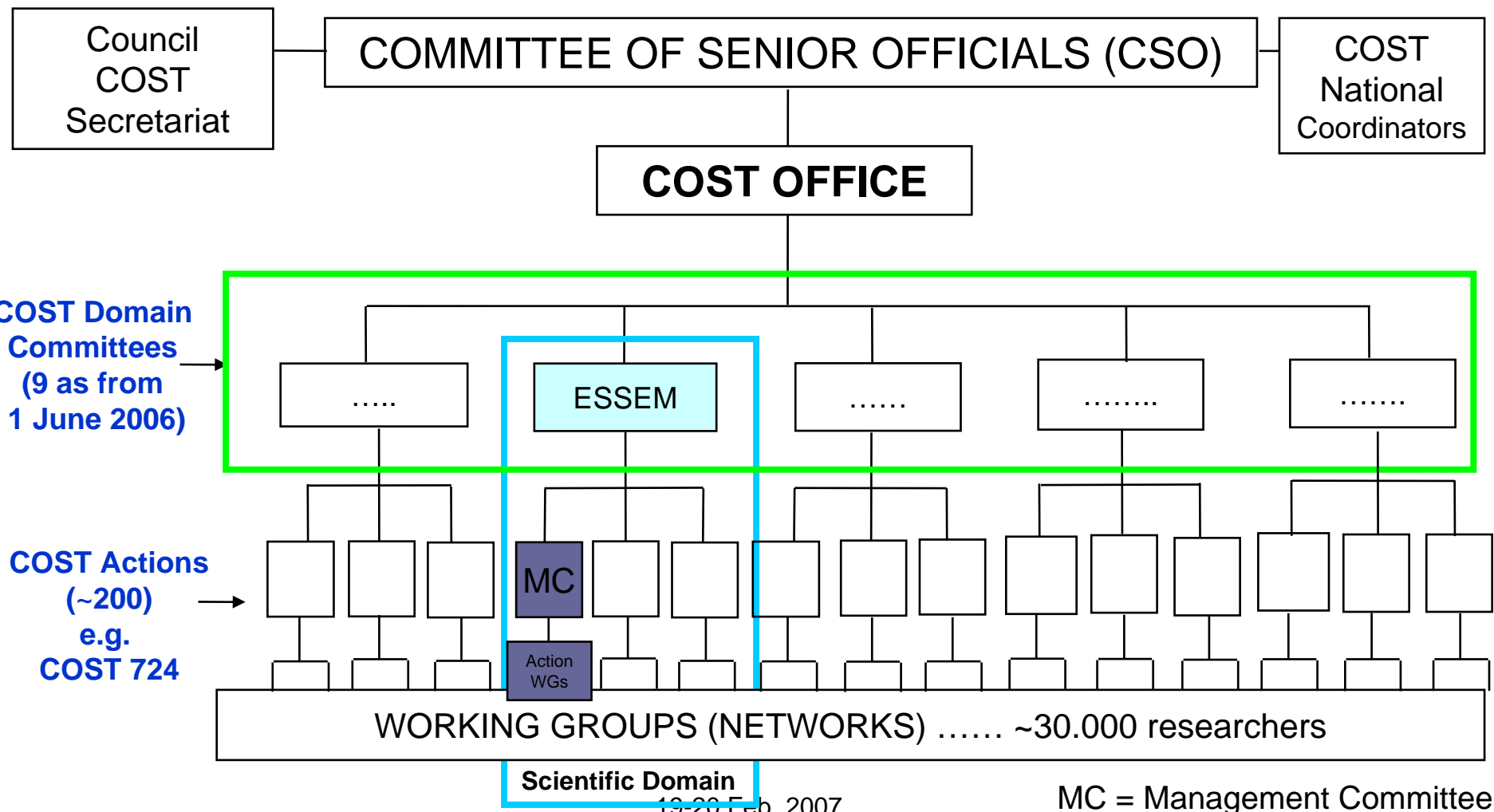
1. Biomedicine and Molecular Biosciences (BMBS)
2. Food and Agriculture (FA)
3. Forests, their Products and Services (FPS)
4. Materials, Physical & Nanosciences (MPNS)
5. Chemistry and Molecular Sciences & Technologies (CMST)
- 6. Earth System Science & Environmental Management (ESSEM)**
7. Information & Communication Technologies (ICT)
8. Transport & Urban Development (TUD)
9. Individuals, Society, Culture & Health (ISCH)

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# What is a COST Action?



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MC = Management Committee



# COST Actions – what is supported?

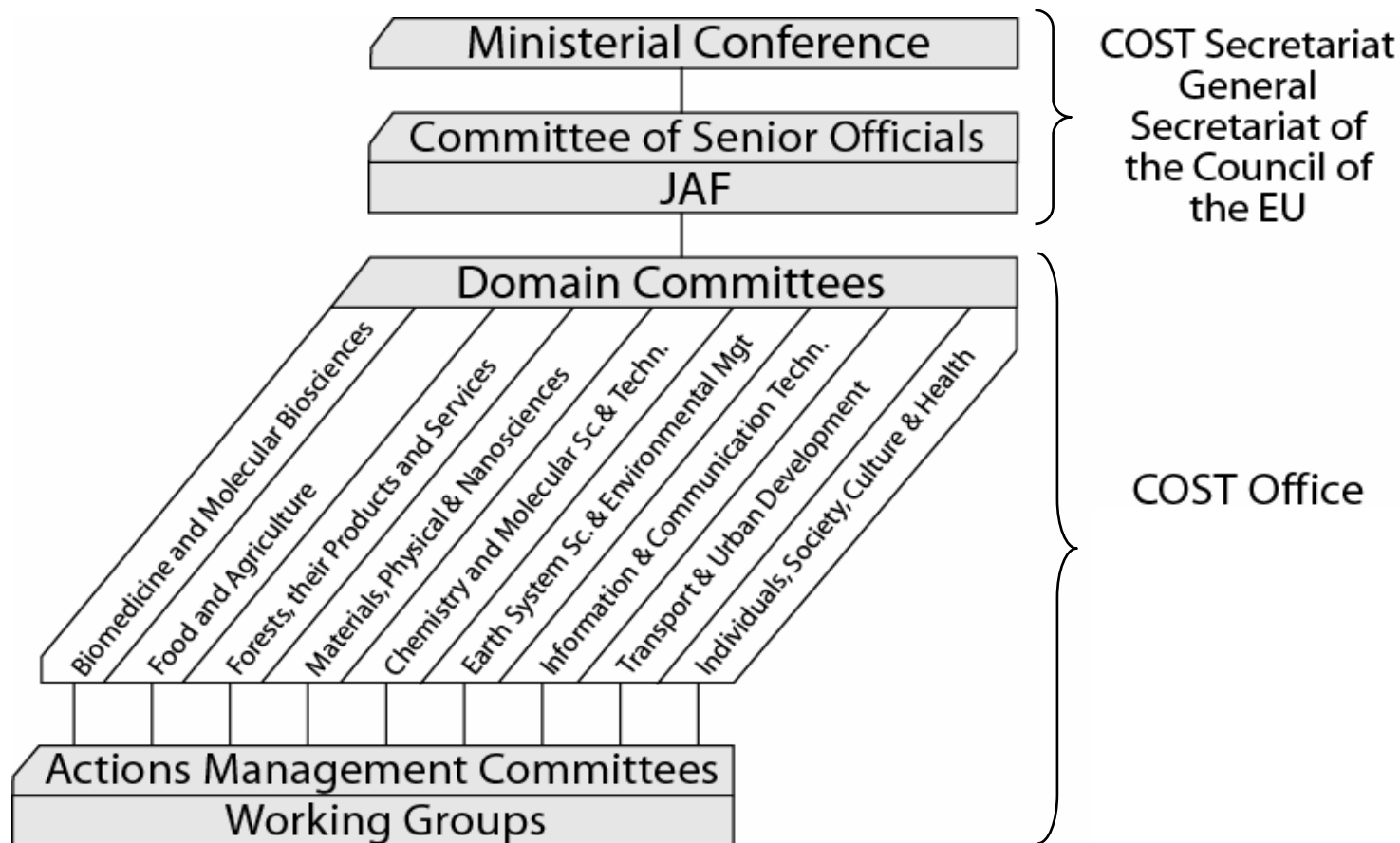
**Nationally funded projects networked around a joint work programme supporting:**

- Science management meetings (MC and WG)
- Scientific workshops and seminars
- Short Term Scientific Missions (STSMs)
- Training Schools and Research Conferences
- Dissemination



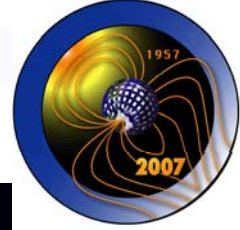


# COST Governance



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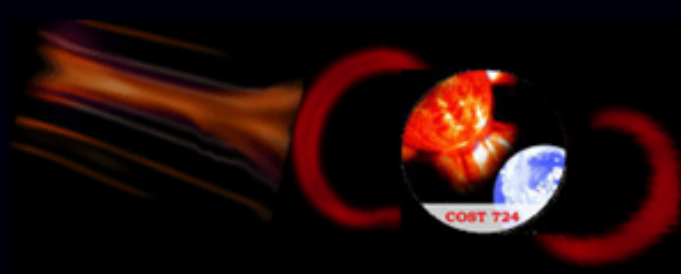
Cost 724 action  
Developing the Scientific Basis for Monitoring,  
Modelling and Predicting Space Weather



- Welcome
- Description
- Working Groups
- National Representatives
- Products
- Useful Doc
- Misc
- Links
- Meetings
- Private

News  
10<sup>th</sup> Management Committee Meeting (2007)  
Some pictures of the total solar eclipse (2006)

New  
The European Space Weather Portal



This site is financially supported by a grant from CNES and PNST



# COST Action on Space Weather: Action 724

Inaugural Meeting : 24<sup>th</sup> of Nov. 2003

Chair : Jean Lilensten

Vice – chair : Anna Belehaki

Duration : 4 years

# COST 724 Members



The COST 724 action presently has 28 participating countries and 6 participating institutions.

COUNTRY	REPRESENTATIVE	STATUS
Armenia	Ashot A. Chilingarian	<i>associate institute</i>
Austria	Arnold Hanslmeier Rumi Nakamura	
Belgium	Daniel Heynderickx Stefaan Poedts René Warnant	WG2 co-leader WG3 co-leader
Bulgaria	Ivan Kutiev Tsevetan.P.Dachev	
Canada	David Boteler	<i>associate institute</i>
Czech Republic	Pavel Hejda Frantisek Spurny	
Denmark	Jurgen Watermann	WG3 leader



# COST 724 Members

<b>COUNTRY</b>	<b>REPRESENTATIVE</b>	<b>STATUS</b>
Finland	Rami Vainio Risto Pirjola	WG2 leader
France	Thierry Dudok de Wit Monique Pick	
Germany	Frank Jansen Norbert Jakowski	
Greece	Anna Belehaki Polyxeni Nicolopoulou	vice-chairwoman
Hungary	Viktor Wesztergom Karoly Kecskeméty	
Ireland	Susan McKenna-Lawlor Peter Gallagher	
Israel	Lev I. Dorman, Colin Price	<i>associate country</i>



# COST 724 Members

COUNTRY	REPRESENTATIVE	STATUS
Italy	Maurizio Candidi Mauro Messerotti	WG4 co-leader WG1 leader
Norway	Patrick Guio	
Poland	Iwona Stanislawska Hania Rothkaehl	
Romania	Magdalena Stavinschi Cristiana Dumitrache	
Russia	S.V.Avakyan Anatoli Petrukovich Mikhail Panasyuk	<i>associate institute</i>
Serbia	Maja Mitic Davorka Grubor	
Slovakia	Karel Kudela Fridrich Valach	



# COST 724 Members

COUNTRY	REPRESENTATIVE	STATUS
Slovenia	Vida Zigman	
Spain	Blai Sanahuja Consuelo Cid	
Sweden	Henrik Lundstedt	
Switzerland	Werner Schmutz Erwin.O.Flueckiger	WG1 co-leader
Turkey	Yurdanur Tulunay Ersin Tulunay	
Ukraine	Valery Korepanov	
United Kingdom	Alan.D.Aylward Alan Thomson	associate institute



## Objectives of COST 724 (1):

- To coordinate research into improving modeling and prediction of space weather,
- To promote where necessary the deployment of new instrumentation to satisfy data requirements, and the development of new models,
- To educate potential users of space weather data,





## Objectives of COST 724 (2):

- To gather feedback from users which may be used to improve services,
- To develop a forum for exchanging “best practice” among users and providers of space weather services,
- To set standards on data exchange.



# COST 724: *Working Groups (1)*

## ■ **WG1:** Monitoring and predicting solar activity for Space Weather

*Leader* : Mauro Messerotti ([messerotti@ts.astro.it](mailto:messerotti@ts.astro.it))  
*Co-leader* : Werner Schmutz ([w.schmutz@pmodwrc.ch](mailto:w.schmutz@pmodwrc.ch))  
*Web site* : <http://ca724wg1.ts.astro.it/>

## ■ **WG2:** The radiation environment of the Earth

*Leader* : Rami Vainio ([rami.vainio@helsinki.fi](mailto:rami.vainio@helsinki.fi))  
*Co-leader* : Daniel Heynderickx ([D.Heynderickx@oma.be](mailto:D.Heynderickx@oma.be))  
*Web site* : <http://theory.physics.helsinki.fi/~space/cost724/>



## COST 724: *Working Groups (2)*

- **WG3:** Interaction of solar wind disturbances with the Earth

*Leader* : Jorgen Watermann ([jfw@dmi.dk](mailto:jfw@dmi.dk))

*Co-leader* : Stefaan Poedts ([stefaan.poedts@wis.kuleuven.ac.be](mailto:stefaan.poedts@wis.kuleuven.ac.be))

*Web site* : [http://www.dmi.dk/projects/COST724\\_WG3/home.htm](http://www.dmi.dk/projects/COST724_WG3/home.htm)

- **WG4:** Space Weather Observations and Services

*Leader* : Jean Lilensten ([jean.lilensten@obs.ujf-grenoble.fr](mailto:jean.lilensten@obs.ujf-grenoble.fr))

*Co-leader* : Maurizio Candidi ([Maurizio.Candidi@ifsi.rm.cnr.it](mailto:Maurizio.Candidi@ifsi.rm.cnr.it))

*Web site* : <http://gauss.oma.be/COST724/WG4/>



# COST Action on Space Weather: **Action 724**

## **WG1; WG2; WG3**

- research modeling and forecasting
- to promote where necessary deployment of new instrumentation to satisfy data requirements, and development of new models
- set up data bases of measured effects
- match outputs to user requirements

## **WG 4**

- to develop coordination, promote services, advertise SW, education, outreach ...



## COST Action on Space Weather: **Action 724**

The main outcomes of the action after 3 ½ years

- 2 special issues of *Annales Geophysicae*
- 2 books devoted to space weather
- About 300 scientific papers
- Lots of outreach activities (books, CDs, classroom experiences...)



## COST Action on Space Weather: **Action 724**

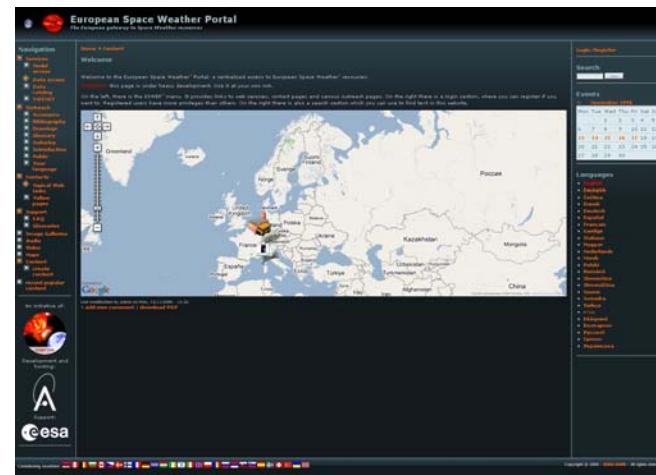
- An international space weather school (with UNESCO, NSF, ICTP )
- 15 short term scientific missions
- 8 international meetings
- At the origin of the annual European Space Weather Week (ESWW4 in Brussels from 12th – 16th Nov., 2007)



# COST Action on Space Weather: **Action 724**

- At the origin of the European Space Weather Web Portal, multilanguage

[www.spaceweather.eu](http://www.spaceweather.eu)





## COST Action on Space Weather : **Action 724**

This ambition has been reached  
only on the basis of  
partnerships, especially ESA

COST 724 is an official member  
of the European IHY board