European Cooperation in the field of Scientific and Technical Research (COST)

A Networking Programme to enhance European Research

Dr Thierry Goger

Science Officer for Domain “Transport & Urban Development (DC_TUD)”
Strengthen Europe in scientific and technical research for peaceful purposes through the support of cooperation and interaction between European researchers
COST Characteristics

- Co-ordination through networking
- Pan-European
- Multi-disciplinary
- “Non-competitive” (pre-normative; public utility)
- National financing of researchers and projects - national responsibility
- Bottom-up - no fixed programme
- Flexible participation - join in if you are interested (... when you are interested and for how long you can)
- “Interdisciplinary Exploratoria”
- Enabling agent: focus on younger researchers
- Open to wider cooperation
The 27 EU Member States

EFTA Member States
- Iceland
- Norway
- Switzerland

Acceding & Candidate Countries
- Croatia
- FYR of Macedonia (FYROM)*
- Turkey

Other Countries
- Bosnia and Herzegovina
- Republic of Serbia *

COST Co-operating States
- Israel

* not associated with FP
COST Actions: Global participation

251 participations in 103 Actions (36 countries)
Participation from non-COST countries based on mutual benefit

Normally the COST Office does not reimburse participants from non-COST country institutions
COST Office reimburse participants from:

- Institutions from Near Neighbour countries (Balkan countries; Mediterranean countries; European NIS)
- Special budget line in the COST system to facilitate collaborations (100,000 €)
- Participants from formally approved institutions from Near Neighbour countries are eligible to undertake a STSM to a COST country participating in the Action and for reimbursement of their travel and subsistence costs when attending a COST Action (focus on Early Stage Researchers)
- Institutions from countries which have a reciprocal agreement with the COST Office [Australia (Australian Academy of Science), New Zealand (the Royal Society of New Zealand) and South Africa (the European South African Science and Technology Advancement Programme)]

- At present, the COST side of the Reciprocal Agreements is implemented as a special kind of STSMs (Reciprocal STSM or "RSTSM") funded in addition to the Action’s normal budget (Max 3000 € for AU & NZ; 2500 € for ZA)
- The implementing agent in the Reciprocal Agreement country supports the visit of that country’s participant to a COST country
Selection process

Top-Down

Bottom-Up

FP

COST
The Domain

“Transport & Urban Development (TUD”)
Objective

Provide a platform for researchers who wish to develop integrated research based on inter and trans-disciplinary cooperation.
- Basic & applied research
- Policies & programmes
- 4 main scientific areas
- Around 20 running Actions
- Around 1000 organisations involved
- Around 4000 researchers involved
- High involvement of Early-stage researchers
- High complementarities with FP7

- Several links with other COST domains (ISCH, ESSEM, ICT, MPNS, FPS)
- Several links with international organisations (OECD, UNESCO, JRC, TRB, ECTRI, FERHL...)
- Participation in major international events
- Organisation of Exploratory/Strategic workshops
- Scientific & socio-economic impacts
  - Contribution to scientific «breakthroughs»
  - Contribution to standards
  - Contribution to economic benefits
Nature of Research

Basic Research

COST

Applied Research

Innovation/Exploitation
Coordination of Research

COST

Projects
Programmes
Policies
Scientifics areas

5 Actions

8 Actions

8 Actions
5 Actions

- Buses with high level of services
- Real-time monitoring, surveillance & control of road networks under adverse weather conditions
- Survey harmonisation with new technologies improvement
- Methods & tools for supporting the use, calibration & validation of traffic simulation models
- Public Private Partnership in Transport: Trends & Theory
Urban Land Use & development

9 Actions

- Improving the quality of suburban building stocks
- Integrated Assessment technologies to support the sustainable development of urban areas
- Land management for urban dynamics
- Sustainable development policies for minor deprived urban communities
- Fostering knowledge on regeneration strategies in shrinking European cities
- Semantic enrichment of 3D City models
- Soundscape Cities & landscapes
8 Actions

- Analysis & design of innovative systems for low-exergy in the built environment
- Urban habitat under catastrophic events
- Robustness of structures
- Next generation cost effective phase change materials for increase energy efficiency in renewable systems in buildings
- Integrated Fire Engineering & Response
- Novel Designed Methods & Next Generation Products (Structural Glass)
- Integrating & harmonising sound insulation aspects in urban housing constructions
- Integrated approach to life-time structural engineering
- ~ 25% Early Stage Scientists in COST Actions
  - 358: 35%
  - C25: 30%
- 20% of TUD COST Actions managed by scientists under 40 years old.
- Last Collection date (Open call):
  - 50% of pre-proposals = Early stage researchers
  - 65% of full proposals = Early stage researchers
- Early Stage scientist network (of 10 participants)
  - C20
  - TU0602
Complementarities with FP7

- COST: thanks to research networks (Actions)
  - Dissemination of research projects
  - Synergy between on-going research projects
  - Development of news ideas and proposals to FP

- 40 % of COST_TUD Actions submit a FP proposal
- COST 357 « Multi-experimental head model for ergonomics of transport » (Call on Safety)
Complementarities with FP7

- **FP**
  - PROHITECH - COST C26

- **Networks of Excellence**
  - HUMANIST - COST 352

- **Joint Technology Initiatives (JTIs)**
  - Hydrogen and fuel cells
    - COST 346 at origin of a JTI
Links with other Domains

- **ISCH**
  - Public transport (TU0803)
  - Road traffic safety (357)
  - Housing (TU0701)
  - Land properties & urban dynamics (TU0602, TU0803)
  - Noise (TD0804, TU0901)

- **ESSEM**
  - Environmental impacts of transport systems (356)
  - Environmental impacts of buildings (C23, C24, C25)
  - Flood management (C22)
  - Water management (C18)
Links with other Domains

- **ICT**
  - Intelligent transport (352)
  - Transport real-time monitoring (TU0702, TU0804, TU0903)
  - Urban management technologies (TU0902)

- **MPNS**
  - Phase change materials (TU0802)
    (Co-rapporteur from DC-MPNS)

- **FPS**
  - Robustness of timber structures (C26, TU0701)
    (Co-rapporteur from DC-FPS)
    (common steering group & common activities between C26, TU0701, E55)
Links with international organisations

- European organisations
  - JRC
  - FERHL
  - ECTRI
  - ERTRAC

- International organisations
  - OECD
  - UNESCO
  - TRB
- Transport
  - TRA biannual conference
  - TRB annual conference

- Urban development
  - PROHITEC conference

- Multidisciplinary
  - Energy & Climate Change conferences (COP15)
Environment & Transport in different contexts
- Ghardaïa (Algeria), February 2009
- Exchange of best practices between North & South countries

Foresight 2030
- Spring & June 2009
- Integration in different workshops (ICT, Energy, Natural Resources Management, Society)
The Future of Cities - Towards a sustainable urban environment & mobility
- 24-25/11/2010
- to map the problems and challenges regarding the (built) urban environment and urban mobility;
- to reach a shared vision (s) of the future and be able to derive an action plan and (issues for) a strategic research agenda

Europe & vertical farms
- 2nd half of 2011
- Explore impacts & feasibility of vertical farm concept in Europe
Take the opportunity to submit a proposal for the Next Collection date

25/03/2011
Transport and Urban Development Domain (TUD)

- Thierry GOGER; Science Officer; tgoger@cost.esf.org
- Carmencita Malimban; Administrative Officer; cmalimban@cost.esf.org
- Cristina Pronello; Domain Committee Chair; cristina.pronello@polito.it

COST Office
149 avenue Louise, 1050 Brussels, Belgium
E-mail: tud@cost.esf.org
Home page: http://www.cost.esf.org
Fax: +32 (0)2 533 38 90