

COST Exploratory Workshop

The Futures of the Cities: Towards a sustainable built environment and mobility

**Amsterdam, The Netherlands
24-25 November 2010**

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Science Officer**



Workshop – Aim and Objectives

To map major challenges regarding the (built) urban environment and mobility

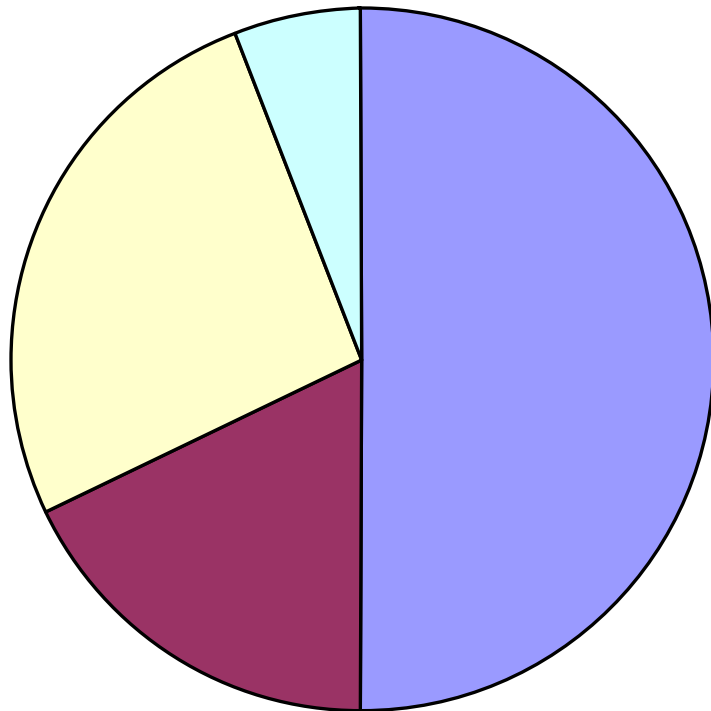
To share different visions of the potential and different futures of the City

To identify roles of Research, Development and Innovation (RD&I) instruments (within the European Research Area)



Participants

People's profile:



- Academia
- Local, Regional, Central Administration
- European Platform
- Private Sector

Programme Outline

Workshop's Schedule

24 November 2010

12:00	0) Briefing: -Moderators - Rapporteurs
13:00	Lunch
14:00	1) Opening & Introduction to the Workshop
14:30	2) Presentations & Discussion- Global Challenges
16:00	Coffee Break
16:30	3) Presentations & Discussion- Functions of the City
18:00	End of Sessions

25 November 2010

9:00	4) Presentations & Discussion- Shaping the future: contribution from Research
10:30	Coffee Break
11:00	5) Presentations & Discussion- Solutions from Science and Technology to societal challenges
12:30	Lunch
14:00	6a) Backcasting 6b) Backcasting 6c) Backcasting
15:30	Coffee Break
16:40	7) Wrap-up
18:00	8) Conclusions & closing
18:00	End of Sessions

Methodological Framework

Session 1 – Opening & Introduction to COST Workshop

- **Chair:** T. Goger
- **Rapporteur:** F. Boscolo
- **Duration:** 30 mins
- **Format:** Plenary Session
- **Methodology:**
 - Presentations
 - Opening & welcome (C. Pronello) [10 mins]
 - Introduction to the COST Workshop (W. Diddens) [10 mins]
 - Round of self-introductions [10 mins]
- **Purpose:**
 - To welcome the participants
 - To present briefly COST
 - To set the scene by providing an historical perspective about metropolitan areas and a future outlook
 - To introduce the COST Workshop framework
 - To specify the Aims & Objectives of the Workshop (inc. Outputs)
 - To remind people it is ‘their time’, so let’s make the best use of it
 - To provide practical information (e.g. no cell phones)
 - To convince and motivate the people to think European City in 2020 and beyond

Session 2 – Global challenges

- **Chair:** T. Kleven
- **Rapporteur:** F. Boscolo
- **Duration:** 90 mins
- **Format:** Plenary Session
- **Scope:**
 - urban sprawl and congestion
 - social deprivation and segregation
 - environmental degradation including impacts of climate change
 - ...
- **Purpose:** To map major challenges regarding the (built) urban environment and mobility with a view to outline mega-trends to be linked with the corresponding R&D challenges, drivers and impacts in the following sessions
- **Methodology:**
 - 3 Presentations of 20 mins each by leading experts [60 mins]
 - Discussion [30 mins]
- **Input:** Executive Summary of the Position papers provided by speakers
- **Output:**
 - List and description of major challenges of European metropolitan areas
 - Interaction between major challenges of European metropolitan areas
 - Positioning of major challenges from present to 2020

Session 3 – Functions of the City

- **Chair:** H. Van der Kamp
- **Rapporteur:** F. Boscolo
- **Duration:** 90 mins
- **Format:** Plenary Session
- **Scope:**
 - Economical dimension
 - Social/societal/human dimension
 - Political dimension
- **Purpose:** To identify major opportunities offered by European metropolitan areas and to share different visions of potential futures for the City
- **Methodology:**
 - 3 Presentations of 20 mins each by leading experts [60 mins]
 - Discussion [30 mins]
- **Input:** Executive Summary of the Position papers provided by speakers
- **Output:**
 - List and description of major opportunities of European metropolitan areas
 - Interaction between major opportunities of European metropolitan areas
 - Positioning of major opportunities from present to 2020
 - Sharing different visions of potential futures for cities

Session 4 – Shaping the future: contribution from Research

- **Moderator:** J. Spousta
- **Rapporteur:** F. Boscolo
- **Duration:** 90 mins
- **Format:** Plenary Session
- **Scope:**
 - Research organisation
 - Strategic research agenda
 - Standardisation
 - ...
- **Purpose:** To provide an outline of RD&I challenges, drivers and impacts (to be linked with challenges & opportunities of the City identifies in sessions 1 & 2)
- **Methodology:**
 - 3 Presentations of 20 mins each by leading experts [60 mins]
 - Discussion [30 mins]
- **Input:** Executive Summary of the Position papers provided by speakers
- **Output:**
 - List and description of RD&I challenges and drivers (e.g. applications/market/policy) emerging from present to 2020
 - List and description the corresponding impact (technological, economical, societal)
 - Map of the roles of European RD&I-instruments
 - Elements for an action plan and/or a strategic research agenda

Session 5 – Solutions from Science and Technology to societal challenges

- **Moderator:** G. Grimm
- **Rapporteur:** F. Boscolo
- **Duration:** 90 mins
- **Format:** Plenary Session
- **Scope:**
 - Green City
 - Smart City
 - Sustainable Architecture, Construction and Materials
 - ...
- **Purpose:** To map major emerging solutions from science and technology
- **Methodology:**
 - 3 Presentations of 20 mins each by leading experts [60 mins]
 - Discussion [30 mins]
- **Input:** Executive Summary of the Position papers provided by speakers
- **Output:**
 - List and description of current and potential disruption/breakthrough emerging from S&T from now to 2020
 - Description of links between the drivers (e.g. applications/market), research challenges and solutions for metropolitan areas
 - List and description of the corresponding impact (economical, societal, environmental)
 - Map of the roles of European RD&I-instruments

Session 6a) – Brainstorming Group 1

- **Moderator:** H. Van der Kamp
- **Rapporteur:** M. Sitar
- **Duration:** 90 mins
- **Format:** Working Group Session
- **Scope:**
 - Metropolitan challenges
 - Solutions from Research Development & Innovation
 - Role and contribution of the different European RD&I-instruments
- **Purpose:** To map research challenges and S&T solutions in respect to urban challenges and opportunities, drivers (e.g. applications/market/policy/standardisation) and role of the European RD&I-instruments
- **Methodology:**
 - Brainstorming
- **Input:** Executive Summary of the Position papers provided by speakers and output from previous sessions
- **Output:**
 - List and description of current and potential disruption/breakthrough emerging from S&T from now to 2020
 - Description of links between the drivers (e.g. applications/market), research challenges and solutions for metropolitan areas
 - List and description of the corresponding impact (economical, societal, environmental)
 - Map of the roles of European RD&I-instruments

Session 6b) – Brainstorming Group 1

- **Moderator:** T. Kleven
- **Rapporteur:** J. Spousta
- **Duration:** 90 mins
- **Format:** Working Group Session
- **Scope:**
 - Metropolitan challenges
 - Solutions from Research Development & Innovation
 - Role and contribution of the different European RD&I-instruments
- **Purpose:** To map research challenges and S&T solutions in respect to urban challenges and opportunities, drivers (e.g. applications/market/policy/standardisation) and role of the European RD&I-instruments
- **Methodology:**
 - Brainstorming
- **Input:** Executive Summary of the Position papers provided by speakers and output from previous sessions
- **Output:**
 - List and description of current and potential disruption/breakthrough emerging from S&T from now to 2020
 - Description of links between the drivers (e.g. applications/market), research challenges and solutions for metropolitan areas
 - List and description of the corresponding impact (economical, societal, environmental)
 - Map of the roles of European RD&I-instruments

Session 6c) – Brainstorming Group 1

- **Moderator:** W. Diddens
- **Rapporteur:** G. Grimm
- **Duration:** 90 mins
- **Format:** Working Group Session
- **Scope:**
 - Metropolitan challenges
 - Solutions from Research Development & Innovation
 - Role and contribution of the different European RD&I-instruments
- **Purpose:** To map research challenges and S&T solutions in respect to urban challenges and opportunities, drivers (e.g. applications/market/policy/standardisation) and role of the European RD&I-instruments
- **Methodology:**
 - Brainstorming
- **Input:** Executive Summary of the Position papers provided by speakers and output from previous sessions
- **Output:**
 - List and description of current and potential disruption/breakthrough emerging from S&T from now to 2020
 - Description of links between the drivers (e.g. applications/market), research challenges and solutions for metropolitan areas
 - List and description of the corresponding impact (economical, societal, environmental)
 - Map of the roles of European RD&I-instruments

Sessions 6 – Practical Steps (1/7)

- **Schedule:**
 - Welcome & introduction (Moderator) **[1 min]**
 - Scoping of the exercise—List of Thematic Areas (Moderator) **[3 mins]**
 - Presentation of background information—Optional (Moderator) **[2 mins]**
 - Highlights from Position Papers—(Moderator) **[4 mins]**
 - Experts writing on Post-Its list of 5 Metropolitan Challenges/Opportunities (one per Post-It) **[5 mins]**
 - Experts writing on Post-Its list of 5 RD&I Solutions (one per Post-It) **[5 mins]**
 - Experts writing on Post-Its list of 5 Drivers (one per Post-It) (e.g. application/market/policy/standards) **[5 mins]**
 - Experts writing on Post-Its list of 5 roles of European RD&I-instruments (one per Post-It) and examples of instruments for each role **[5 mins]**
 - Positioning of the Post-Its on a synthetic chart: Experts need to illustrate and agree, with the support by the Moderator, where to stick the Post-Its on] **[30 mins]**
 - Identification of possible inter-dependencies with other S&T **[10 mins]**
 - Prioritisation of RD&I solutions: A mark is given by the Moderator in such a way to identify about 6 key Research challenges and S&T solutions **[10 mins]** (optional)
 - Discussion of the results & wrap-up **[15 mins]**

Sessions 6 – Practical Steps (2/7)

- **Post-It format:**

Please write your (readable!) name on the back of the Post-It



Year

Please specify when metropolitan challenge may arise

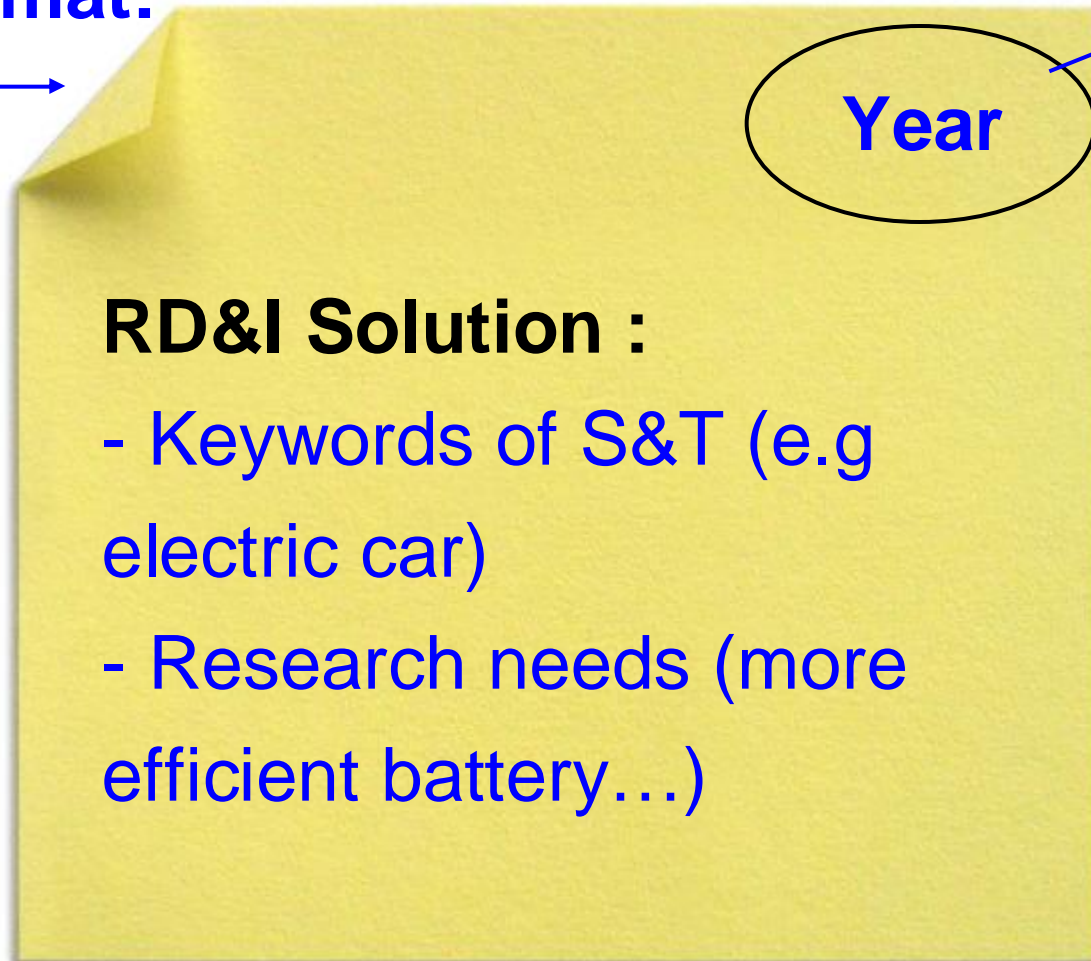
Metropolitan Challenge:

- Name (e.g. emission of air pollutants)
- Category
- (E=Economical/S=Societal/En=Environment)

Sessions 6 – Practical Steps (3/7)

- **Post-It format:**

Please write your (readable!) name on the back of the Post-It



Year

Please specify when RD&I solution available

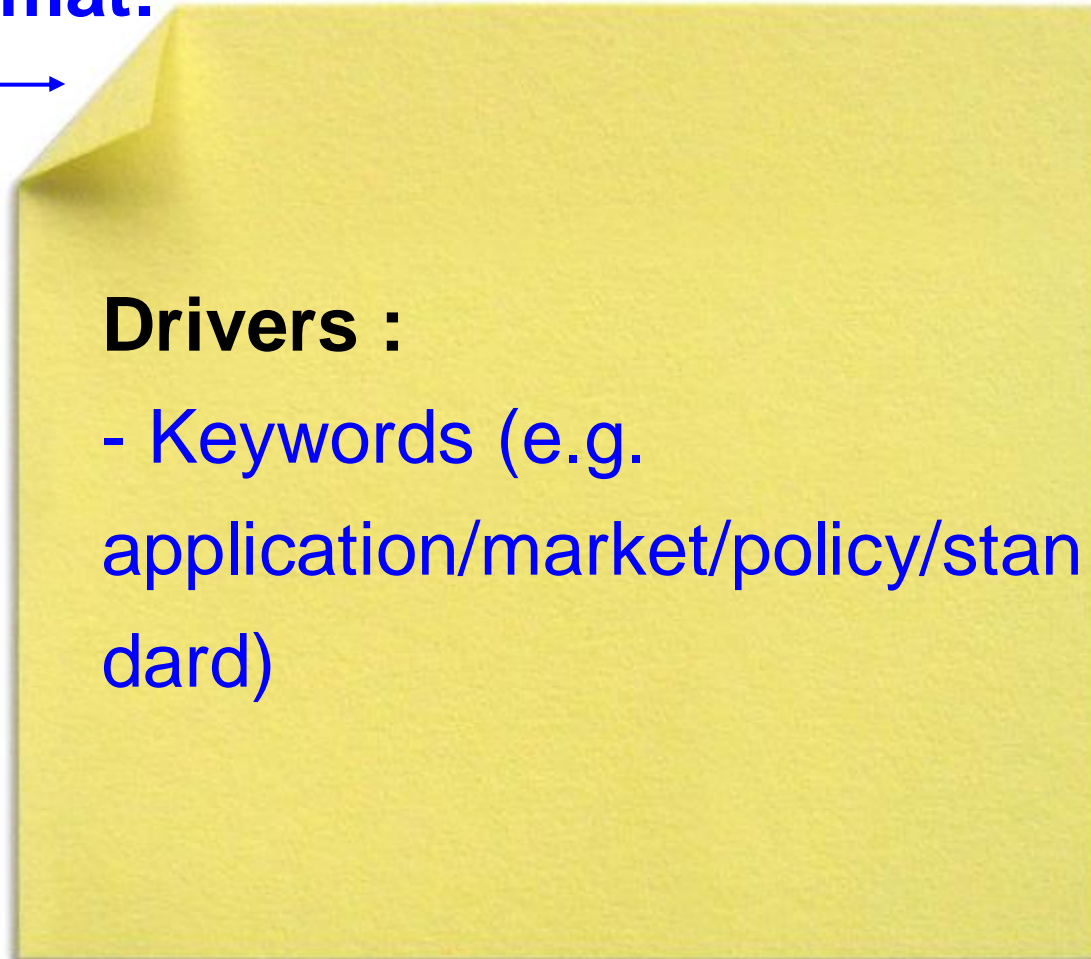
RD&I Solution :

- Keywords of S&T (e.g electric car)
- Research needs (more efficient battery...)

Sessions 6 – Practical Steps (4/7)

- **Post-It format:**

Please write your
(readable!) name
on the back of
the Post-It



Sessions 6 – Practical Steps (5/7)

- **Post-It format:**

Please write your
(readable!) name
on the back of
the Post-It

European RD&I Instrument :

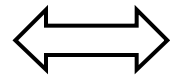
- Keywords (specify

F=Funding/N=Networking/L=Lobbying)

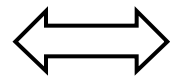
- Examples of Instruments
(e.g FP)

Sessions 4 – Practical Steps (6/7)

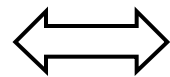
- **Color Codes:**



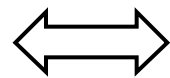
Metropolitan Challenges



RD&I Solutions



Drivers



European RD&I Instruments

Sessions 4 – Practical Steps (6/7)

Year	Metropolitan Challenges/Opportunities	RD&I Solutions	Drivers		European Instruments	
≤2030	Name	S&T solution and Research Challenges	Application/market/Policy/Standard	Funding	Networking	Lobbying
2010	Congestion	S&T: Electric Car RN: efficient batteries...	Market	FP	COST	
2011						
2012						
2012						
2013						
2014						
2015						
2016						
2017						
2018						
2019						
2020						
2021						
2022						
2023						
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2025						
2026						
2027						
2028						
2029						



Session 7 – Wrap-up

- **Moderator:** L. Bragança
- **Rapporteur:** F. Boscolo
- **Duration:** 40 mins
- **Format:** Plenary Session
- **Purpose:** To summarize the discussion taking place in the WGs, presenting the main findings and outcomes in terms of mapping research challenges and S&T solutions in respect to urban challenges and opportunities, drivers (e.g. applications/market/policy/standardisation) and roles of the European RD&I-instruments
- **Methodology:**
 - 3 Presentations of 10 mins each by rapporteur of brainstorming session [30 mins]
 - Discussion [10 mins]
- **Input:** Notes from brainstorming activity (sessions 6a, b,c)
- **Output:**
 - 3 different visions of the mapping of RD&I solutions in respect to urban challenges and opportunities, drivers (e.g. applications/market/policy/standardisation) and roles of European RD&I-instruments
 - 1 potential common vision from 3 developed visions if possible

Session 8 – Conclusion & Closing

- **Moderator:** C. Pronello
- **Rapporteur:** F. Boscolo
- **Duration:** 40 mins
- **Format:** Plenary Session
- **Purpose:** To summarize the discussion taking place in the workshop, to present the main findings and outcomes, and to identify potential follow-up activities
- **Methodology:**
 - Synthetic Presentation of the key findings of the workshop [10 mins]
 - Proposal of contribution from COST [5 mins]
 - Discussion [25 mins]
- **Input:** Wrap-up session
- **Output:**
 - Wrap-up & Conclusions
 - Explanation about the next steps
 - How to remain involved in the COST activities
 - Acknowledgments & Goodbye

Outputs

Outputs – List of Deliverables

1. Collection of Position Papers/Presentations by leading experts European wide
2. List and description of emerging RD&I solutions and their corresponding drivers and metropolitan challenges
3. Set of recommendations regarding future research priorities for Europe in the field of Metropolitan management (Research Agenda)
4. Mapping of the roles of European RD&I-Instruments
5. Indications of potential roles for COST in the following areas: **Transport, Planning, Engineering, Architecture & Design**