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## Workshop Paper

# Innovative Visualisation and Cartographic Language

### I. Purpose and Context of the ESPON Workshop

*“New tools to help with information overload – Visualisation is becoming important because of our desire to understand what’s happening in the world at a time when it’s becoming harder and harder to do so.”*

(The Global Edition of The New York Times, 8 December 2008)

Communication of European territorial dynamics and policy orientations requires visualisation and easily understandable cartographic languages. The political interest in the territorial dimension of development and the aim of territorial cohesion makes the quality of communication more and more crucial. In parallel, technological developments related to the use of computing provide new tools for taking a further step in innovating visualisation and cartography. The ESPON 2013 Programme faces this challenge.

The purpose of the workshop is three-fold:

- To present the current state of the art and good practice in cartography in terms of presenting facts, evidence and policy orientations as maps and other cartographic illustrations;
- To display possible new avenues that today are open in terms of computer supported cartography being related to complex messages among which are 3 D illustrations, animations and dynamic maps;
- To debate possibilities for developing and innovating visualisation and cartographic languages in support of the presentation of key messages related to European territorial dynamics and cohesion.

The workshop welcomes a mix of cartographers, artists, media people, scientists, practitioners and policy makers in a first exploration and dialogue on possibilities for innovating visualisation tools and cartographic language related to the development and cohesion of the European territory.



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The ESPON 2013 Programme may – based on the workshop results – consider a possible project on "Cartographic Language: Visualising Territorial Dynamics and Trends" which can contribute to a creative and innovative improvement of the cartographic tool box available for the ESPON 2013 Programme.

## **II. Main Questions for the Afternoon Discussion of the ESPON Workshop**

The discussion in the afternoon should focus on questions and constraints being useful in support to policy development related to territorial cohesion. It will start with a short summary on the presentations of the two morning sessions. Two input statements will then be given to nourish the discussion about questions and constraints. The one input derives from the current ESPON 2013 Database Project which also addresses cartographic representation. The other input presents the viewpoint of a practitioner working at the interface between research and policy support.

Main questions that will structure the dialogue with workshop participants include the following:

- **Which content could best be visualised in an innovative manner?**
  - Which sort of key messages related to territorial dynamics and cohesion (e.g. policy concepts, facts, trends and dynamics, scenarios, etc.) can be visualised with a high level of impact?
  - Which are the most appropriate geographical levels (e.g. the World, Europe of 27 + 4, regions, cities)?
- **Towards which target groups could innovative visualisation and cartography be a promising option?**
  - Which target groups are the most receptive to address?
  - Can policy makers at all absorb new innovative visualisations and cartography?
  - When and at which occasions could new visualisations best go "online"?
- **What tools for visualisation and cartographic language could be developed in an innovative way?**
  - Is it mapping (e.g. print / virtual, 2 D, deformation / cartograms, online map making tool, etc.) which the support to policy development should go for?
  - Or do moving pictures displaying cartographic animations in 3 D (e.g. films, blogs, etc.) in some situations serve better the purpose to visualise key observations?
  - Which are the most promising sources for data and picture delivery and of which kind are they (e.g. satellite, cyberspace, data blocks, data flows, etc.)?
  - Which typography (e.g. symbols, colours, logos, sketches, etc.) referring to functionality, atmosphere and proportion should be applied?
  - Which writing style, in the sense of "catchy phrases", should be used in the visualisation process?
  - Which technical equipment, particularly in terms of processing data and pictures, is necessary?

- **Which media should be considered for the communication and dissemination?**
  - Is it the web which is most appropriate for making visualisations available?
  - Is printed material (e.g. documents, atlases, etc.) more suitable of visualising territorial evidence, fact and trends?
  - Or is the future a smart mix of both places and manners (web and print material)?

All presentations given during the ESPON Workshop on Innovative Visualisation and Cartographic Language as well as a Workshop Report will be made available at [www.espon.eu](http://www.espon.eu).

### **III. CV of Speakers and Facilitators**

#### **John Counsell**

John Counsell is an architect with some 35 years experience, starting in planning and conservation, and most recently, for the last decade, in teaching and research. He has run an architectural practice, and worked on major projects in the UK and abroad. He is now a Principal Lecturer and Head of the Department of Architectural Studies in the Cardiff School of Art and Design, UWIC, Cardiff. Previously at UWE, Bristol, in 2003 he co-wrote with the Environment Agency for England and Wales the successful Interreg IIIB bid for the Virtual Environmental Planning system(s) project, 'VEPs' ([www.veps3d.org](http://www.veps3d.org)). This ran from 2003 to 2008 with a budget of some 4.7 million Euros. Other project partners that joined included the Manchester City Digital Development Agency, Groundwork UK, the Universities of Salford, Freiburg and the Technical University in Stuttgart, and not least CSTB in France. He holds a BArch MSc and is Architect RIBA.

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#### **Stefanie Dühr**

Dr Stefanie Dühr is Associate Professor in the Department of Spatial Planning, Radboud University Nijmegen. Her main research interests are comparative planning systems, European territorial cooperation and the use of cartographic representations in European planning traditions. She is part of the consortium that is currently undertaking the Ex-post evaluation of the INTERREG III 2000-2006 Community Initiative for DG Regio. Stefanie is the author of *The Visual Language of Spatial Planning* (Routledge, 2007), and editor of the policy debates section of the journal *Regional Studies*.

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### **Mikael Jern**

From 1970 to 1976, Professor Mikael Jern worked with Professor Hertz at the University of Lund. Together they invented the Colour Graphics System based on the first ink jet plotter for raster based visualisation software in the world. 1980, he founded UNIRAS addressing industry with a more general-purpose raster graphics approach. UNIRAS became a world leading supplier of Visual Data Analysis. Jern coordinated several EC projects in the domain of knowledge-based information visualization and also consulted with the EC Commission as a technical expert. He has published more than 200 technical papers and books in visual computing and visualization application areas. SIGGRAPH 1993, he was elected "pioneer of computer graphics" based on his breaking new ground research together with Hertz in raster graphics. 1999, he was appointed professor in information visualization at Linkoping University. His latest research interest includes cutting-edge geovisual analytics methods for Internet. 2008, he founded Swedish National Centre for Visual Analytics. 2009, invited as an associate partner to the global project Wiki4progress on “measuring the progress of society”.

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### **Laura Kurgan**

Laura Kurgan teaches architecture at Columbia University’s Graduate School of Architecture, Planning and Preservation, where she is Director of Visual Studies and the Director of the Spatial Information Design Lab (SIDL). SIDL is currently collaborating with the Justice Mapping Center on a project called “Graphical Innovations in Justice Mapping” in selected states – Arizona, Kansas, Los Angeles County, Louisiana, New York, and Rhode Island. She has followed the declassification of satellite imagery and GPS technology in a series of research projects across the significant political events of the last decade. This work, which has been exhibited internationally, is collected in *You Are Here: Post-Military Technology and the New Landscape of Satellite Images*, forthcoming from Zone Books. She was a collaborator on the project “Terre Natale, Exits: Parts 2” as part of the exhibition “Terre Natale. Ailleurs commence ici” presented at the Fondation Cartier in Paris in 2008-2009.

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**Nicolas Lambert**

Nicolas Lambert is engineer at UMS 2414 RIATE / CNRS France. His specialisation covers cartography, remote sensing, GIS, European databases and Web Mapping. He participated in different European projects, in particular “ESPON Project 3.2 on Scenarios”, “ESPON Project 3.4.1 on Europe in the World”, “ESPON Project 3.4.3 on MAUP”, “ESPON 2013 Database Project (in progress)”, “Regional disparities and cohesion: What strategies for the future (Policy department, Structural and cohesions policies) 2007”, “Shrinking regions: A paradigm shift in demography and territorial development (policy department, structural and cohesions policies) 2008”.

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**Peter Mehlbye**

Peter Mehlbye worked for more than 10 years in a Danish Ministry as Head of Unit for national spatial development and planning, regional policy and international cooperation. He was for most of this period in the ministry attached to the cabinet of the Minister. He then worked as an Expert to the European Commission, DG Regional Policy, where he was involved in the conceptual development of EU regional policy. He has since 2002 been Director of the Coordination Unit for the ESPON Programme, a European observation network on territorial development and cohesion carrying through applied research providing new evidence and knowledge on territorial structures, trends, perspectives and impacts of EU policies within the European territory. The mission of the ESPON Programme is to support policy development related to European territorial development and cohesion. New evidence and comparable information on all regions and cities of Europe will normally cover 27 EU Member States as well as Iceland, Liechtenstein, Norway and Switzerland. By education Peter holds a master degree in Economics and a master degree in Architecture, specialised in regional development and spatial planning.

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**André Mueller**

André Mueller is currently Cluster Coordinator / Project Expert for “Capitalisation, Analysis and Publication” at the ESPON Coordination Unit. He has been working as Senior Project Coordinator of the Federal Office for Building and Regional Planning (BBR) in Bonn and he was Senior Adviser at the Federal Ministry of Transport, Building and Urban Affairs (BMVBS) in Berlin. Holding a MSc in Engineering he

interdisciplinarily studied architecture / urbanism, engineering, economics and arts at, amongst others, the IDEA League / RWTH Aachen. Work and applied research residencies brought him to almost all European countries and beyond, resulting in interdisciplinary publications.

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### **Tony Quinlan**

Tony Quinlan is a business alchemist, combining ideas from varied disciplines into a uniquely effective fusion of techniques and tools for communications. He has spent 18 years shaping communications and change programmes for blue chip companies, international aid organisations and the public sector. Founding Narrate in 2000, he's developed powerful frameworks that generate more shared understanding and hence greater engagement than traditional communication methods. Most recently, he has been involved in the design of a global project encompassing oral histories, cultural mapping and landscape visualisations. The author of the narrative tools chapter of the recent Melcrum Employee Engagement guide, he writes regularly on branding, culture, change, communications and leadership. Today he is a keynote speaker, expert facilitator and international consultant. But he has also been a radio presenter, actor, software programmer, TV tuner, radar designer and lift attendant. Needless to say, he's got stories about all of them.

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### **Volker Schmidt-Seiwert**

Volker Schmidt-Seiwert, holding a diploma of applied geography, works as project coordinator in the field of European spatial and urban development in the Bundesinstitut für Bau- Stadt- und Raumforschung (Federal Institute for Research on Building, Urban Affairs and Spatial Development – BBSR), the scientific part of the Bundesamt für Bauwesen und Raumordnung (BBR – Federal Office of Building and Regional Planning). His main focus are activities related to the spatial monitoring system of Europe of the BBR and covers GIS based and statistical regional analysis of European spatial structures and developments. One special interest in this context is the regional competitiveness and regional development. He is also engaged in the cartographic representations and visualisation concepts of spatial phenomena. He studied Applied Geography at the University of Trier. During the last years he was involved in several projects of the ESPON 2006 Programme.

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### **Manfred Sinz**

Manfred Sinz is as Head of the Spatial Planning Group a senior official at the Federal Ministry for Transport, Building and Urban Affairs in Germany. He is currently in charge with territorial development and spatial planning at the Federal level. Prior to that he was Head of the Berlin Branch of the Joint Regional Planning Authority of Berlin and Brandenburg. Between 1975 and 1996 he worked as a researcher at the Federal Research Institute for Regional Geography and Spatial Planning in Bonn. His publications include articles on regional demography, transportation planning and European spatial development. He studied regional and urban planning at the University of Dortmund and has been lecturer at the universities of Munich, Bonn and Berlin.

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Christine Tobelem Zanin is Assistant Professor at University Paris 7 Diderot and Assistant Director at UMS RIATE, UMR 8504 Géographie-cités CNRS, Universities Paris I Panthéon-Sorbonne / Paris 7 Diderot. Her research specialization covers cartography (graphic semiology, interactive and dynamic cartography) and quantitative analysis. She is member of the Cartomouv Research Group. She took part in numerous European projects, in particular “Regional disparities and cohesion: What strategies for the future (Policy department, Structural and cohesions policies) 2008”, “Shrinking regions: A paradigm shift in demography and territorial development (policy department, structural and cohesions policies) 2008”, “ESPON 3.4.1 Europe in the World ESPON 2006”, and “ESPON 2013 Database” (in progress).

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