



NECTAR XIV International Conference

NECTAR XIV International Conference Transport in a Networked Society

<http://eventos.ucm.es/go/nectar2017conference>

May 31st - June 2nd, 2017

Civil Engineering School; Polytechnic University of Madrid (UPM)

Madrid, 19th June 2017

Dear Participant,

On behalf of the Local Organizing Committee, we want to thank you for your active participation and scientific contribution to *NECTAR XIV International Conference: Transport in a Networked Society*, held in Madrid from May 31st to June 2nd, 2017. We appreciate you for taking the time and effort to be here. Your presence helped to make this event a great success, and your enthusiasm and positive spirit helped make our time both productive and fun.

We certainly hope that the conference could provide new research insights, as well as worthwhile ideas for further activities within the scientific community. One of the main objectives was to create the opportunity to develop networks and promote the exchange of experiences between decisions makers, practitioners and researchers engaged with NECTAR Network. We hope you have taken advantage of that fruitful atmosphere.

We wish you all the best and look forward to your participation on future NECTAR events. Stay tuned for upcoming activities by visiting <http://www.nectar-eu.eu/>.

As a reminder, if you wish to view photos from the event please visit the conference website, <http://eventos.ucm.es/go/nectar2017conference>.

Sincerely,

Local Organizing Committee

Andrés Monzón
Universidad Politécnica de Madrid

Javier Gutiérrez
Universidad Complutense de Madrid





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NECTAR XIV International Conference

NECTAR XIV International Conference NECTAR IN NUMBERS

Participants

Almost **150 participants from 23 countries** took part in the *NECTAR XIV International Conference* in Madrid from May 31st to June 2nd, 2017. Hosted by the Universidad Politécnica de Madrid and the Universidad Complutense de Madrid, the conference constitutes one of the periodical activities organized by NECTAR-Network on European Communications and Transport Activities Research.

Titled *Transport in a Networked Society*, the international conference was designed as a platform to understand the deployment of ICTs on transport, their potential for better public transport services, their implications for spatial and economic developments, and equity issues in a digital society. Active participation of companies and institutions, looking for new type of economic activities in the transport sector, were foreseen in the Conference.

121 PRESENTING AUTHORS

Of which **39** were **YOUNG RESEARCHERS**

2 EU INSTITUTIONS



ferrovial



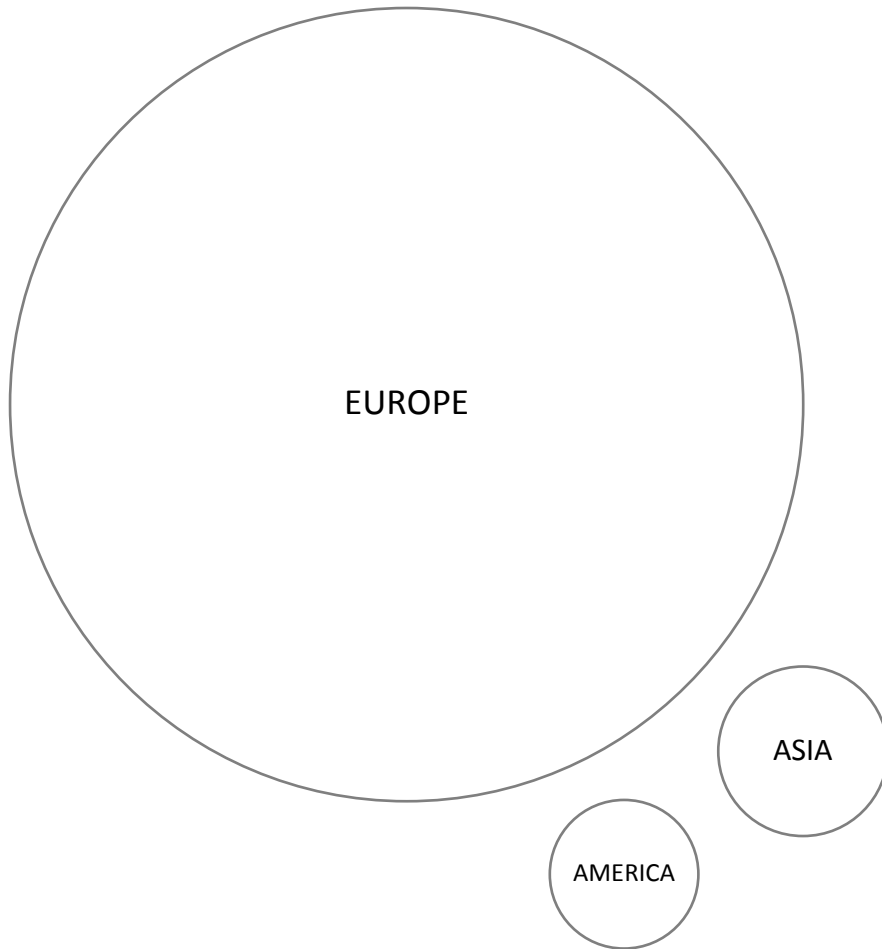
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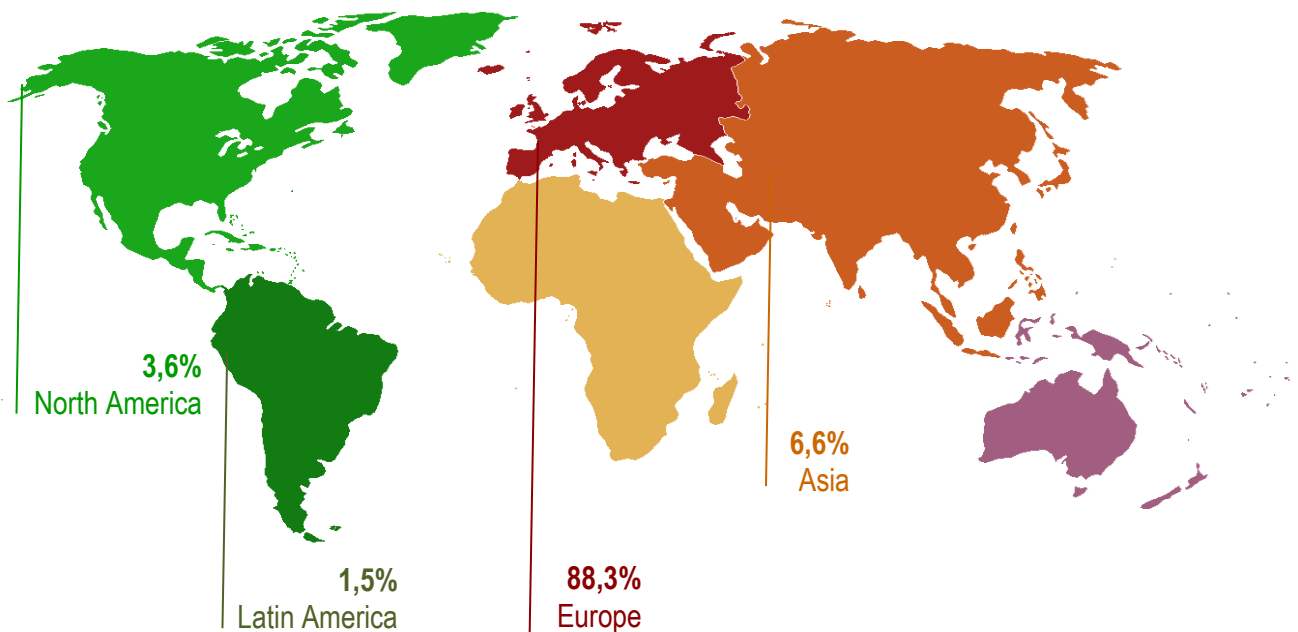
EMT



8 COMPANIES



23 COUNTRIES
Spain
Netherlands
Belgium
Italy
Sweden
Israel
UK
Portugal
Germany
EU (JRC + BEI)
Norway
France
Poland
Canada
USA
Turkey
México
Chile
Estonia
Denmark
Finland
Japan
Malta
Philippines





NECTAR XIV International Conference Round Table Report: Thursday, June 1st 2017

Round Table. *Transport in a Networked Society: The way ahead.*

Rapporter: Prof. Cathy Macharis (Vrije Universiteit Brussel)

Round Table Members: NECTAR Founders

Prof. Peter Nijkamp (Vrije University); Prof. Michael Wegener (S&W); Prof. Aura Reggiani (University of Bologna); Prof. Marina van Geenhuizen (TU Delft); Prof. David Banister (University of Oxford). *Chaired by Prof. Cathy Macharis (Vrije Universiteit Brussel).*

Round Table Report

During the Nectar conference in Madrid, a panel discussion was organized with the founders of NECTAR and moderated by Prof. Cathy Macharis, vice chair of Nectar. On the stage: Prof. Aura Reggiani, Prof. David Banister, Prof. Marina Van Geenhuizen and Prof. Michael Wegener. Prof. Peter Nijkamp, who played a crucial role in the start and further development of Nectar, was unfortunately not able to attend in the end but was anyway very much present in the talks.

In a first round, the panel members looked back to 1992 and reflected on what NECTAR meant to them and which themes were back then very important. It became clear that NECTAR has been very instrumental in the career of many people as it combines research on emerging topics with friendship and that results in a very productive cocktail that lead to many publications, projects and books. In terms of themes, it is clear that NECTAR, was very much inspired in those early days by the Maastricht treaty, which opened so many new research questions in how this European Union will allow cross border transport, create new networks, etc. This is also quite clear coming out of the initial five cluster themes: (1) Travel Behavior, Lifestyles and the Techno-Policy Environment, (2) Networks, (3) Transport, Communications and Spatial Evolution, (4) Transport, Spatial Opportunities and Borders, and (5) Economic Analysis and Transport Policies.

In the next round, we looked at the future. How should NECTAR look like in 2042? The basic concepts of NECTAR will be still alive: we will still need strategic research, looking at new trends and network cooperation. Of course we need to be resilient (in the light of NECTAR's objectives) and focus on new trends, Aura told us. And the key terms for the future are: sustainability, health, focus on humans and users with attention for ageing and immigration and then in the end also the role of technology (as servant or master?). Many voiced also the importance to keep connected with other continents, while keeping our European character as a network. What we could not decide upon: will we still meet physically for the Nectar conferences or should we save our carbon credits? The future will tell...



NECTAR XIV International Conference Round Table Report: Friday, June 2nd 2017

Round Table. *Transfer transport innovations into business.*

Rapporteur: Juan Gómez Sánchez (Universidad Politécnica de Madrid)

Round Table Members

Carlos Acha (ALSA); Ricardo Herranz (Nommon); Tomás Melero (CRTM); Mauro Gil (INDRA); Ian Paterson (Respiro); Gabriel Cuervo (Ferrovial); Sergio Fernández (EMT); Josep Aymami (Aimsun). Chaired by Stephane Petti (EIB).

Round Table Report

The session was initiated by the chair, **Stephane Petti (EIB)**, who underlined the potential of transport for encouraging growth and employment but also the challenges that still need to be faced, such as promoting inclusive growth and, what more related to the topic of the session, transferring innovation to industries and business.

Mr. de Paula (EIB) pointed out the efforts made by the EIB to promote a safer and more efficient transport throughout Europe, mainly through the provision of funds to different type of projects related to public transport, high speed rail, etc.

The round table was opened to the rest of the participants in the session, coming from public and private institutions. They were asked by Mr. Petti to provide a definition of innovation from the industrial viewpoint, and point out the efforts conducted in their respective institutions to promote innovation.

Mr. Cuervo (Ferrovial), representing the point of view of infrastructure and construction companies, expressed the relevance of innovation for improving current solutions on traffic management control, traffic jam protocols, water management, etc. From the side of a public company, **Mr. Fernández (EMT)** underlined the importance of innovation for anticipating citizen needs, and cited some of the actions promoted by the Madrid public transport company in the fields of providing free wifi to public transport users, testing new schemes on urban freight or promoting open data portals, among others. In the same context, **Mr. Melero (CRTM)** illustrated the challenges faced by a public poli-transport authority to truly integrate different public transport modes in terms of administrative, fare and technological issues, to better respond to the user needs, i.e. by creating services for real-time information.

Mr. Sacha (ALSA) provided the point of view of a private long-distance bus company, underlined the need to evolve from a traditional transport company to a full mobility company, but also to make the best use of resources available by promoting new ideas and new business models. Furthermore, **Mr. Gil (INDRA)** mentioned that, within a consulting and technological company, they identified the implementation of a transversal R&D area within the corporation as a key issue to involve each department in the innovation process and come up with innovative ideas. **Mr. Peterson (Respiro)** reminded the theory of the “creative



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destruction” coming from innovative solutions, and underlined their importance in different aspects such as making citizens lives easier or promoting transport environmental efficiency. Finally, two final participants provided the point of view of spin-offs. **Mr. Aymami (Aimsum)** and **Mr. Herranz (Nommon)** pointed out the difficulties to put innovation into the market, and wondered about the challenges and weaknesses that all stakeholders involved need to overcome: public administration, private operators, academia, etc.



NECTAR XIV International Conference PhD Award Ceremony Report: Friday, June 2nd 2017

Closing Session. *PhD Award Ceremony*

by Karst Geurs

In Madrid, the 2nd NECTAR PhD Award was awarded for best recent PhD thesis work in the NECTAR field. Fourteen excellent theses (defended between June 2015 and May 2017) had been nominated by their PhD supervisors. The PhD Committee chaired by Erik Verhoef and comprising cluster chairs Moshe Givoni, Andy Goetz, Maria Attard, Edoardo Marcucci, Luca Zamparini and NECTAR chair Karst Geurs, had a very difficult task selecting the winner. At the conference, Karst Geurs awarded the award (a sculpture visualizing a network) to **Cyrille Médard de Chardon** for his thesis *A Geographical Analysis of Bicycle Sharing Systems*.

The Jury was in the first place very much impressed by the scientific quality and academic rigor of the work presented in the paper. The author has already published in journals as prestigious as *Transportation Research Parts A and B*, and *Journal of Transport Geography*, which can be taken as objective signs of the academic quality of his work, confirming the Jury's impression. Furthermore, the scope of methods and the broadness of the work is very impressive. The thesis work covers data collection and preparation, trip estimation, an evaluation of rebalancing strategies (getting used bicycles at the best location for the next user), an evaluation of the determinants of success of bicycle sharing systems, and finally offers a critical perspective on bicycle sharing systems from the viewpoints of politics, business and society. With its focus on bicycle sharing systems, often hoped to help addressing urban transportation challenges by offering a more attractive, healthy and sustainable alternative to car use, the thesis addresses a theme of great societal relevance. It is even the more remarkable and admirable that the author clearly positions himself as an independent academic thinker, by offering a critical reflection on the potential of bicycle sharing schemes in playing that role in urban transport policies, and in identifying the limitations. The Jury congratulates Cyrille with his impressive work, and hopes it will be a nice stimulus to keeping up the excellent work he has been doing.



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Clusters Report: Wednesday, May 31st - Friday, June 2nd, 2017

Cluster 1. *Transport Infrastructure Impacts and Evaluation*

by Moshe Givoni and Robin Hickman

During the Madrid conference, Cluster 1 on *Transport Infrastructure Impacts and Evaluation* held two special sessions under the theme of *Transport Network's Planning and Social Impacts*. The papers focused largely on methodological aspects related to measuring social impacts from transport (infrastructure) and evidence for such impacts from across the globe. A Cluster meeting was also held during the conference to discuss potential themes for future Cluster meetings and to discuss past and future activities. Potential themes for the Cluster's future workshops included the need for new evaluation tools and accounting for 'Risk'. Past activities discussed included Cluster 1 meeting organized by Svein Brathen and his team at Molde University College (Molde, Norway) on the *The Wider Economic and Social Impacts of Transport Networks* (May, 2016) and a joint meeting with Cluster 6 organized by Marcin Stępniaik in Warsaw, Poland, on *Transport Infrastructures for Better Accessibility, Equity and Territorial Cohesion* (October, 2016).

In terms of publications, a special issue co-edited by Svein Brathen and Moshe Givoni based on Cluster 1 meeting in Molde and with the title *The Wider Economic and Social Impacts of Transport Networks – looking for the empirics* has been completed and will be published in *Research in Transport Economics*. A co-edited book by Robin Hickman, Beatriz Mella-Lira, Moshe Givoni and Karst Geurs with the title *Transport and Socio-Spatial Impacts* which will be based on papers presented at the Madrid conference is now in preparation (Edward Elgar). Lastly, plans for two Cluster meetings in 2018 were discussed (autumn and spring) possibly in Denver, USA and London, UK. Details to be confirmed.

Cluster 2. *Policy and Environment*

by Maria Attard, Wafa Elias and Edoardo Marcucci

At the Madrid Conference, cluster 2 (*Policy and Environment*) co-chairs Maria Attard, Wafa Elias, Edoardo Marcucci organized two successful sessions with eight papers on the theme *Sustainable Transport Policy*. A special issue titled *Modal Shift, Emission Reductions and Behavioral Change: Transport Policies and Innovations to Tackle Climate Change* with papers from the Madrid cluster sessions will be organized, hosted by *Research of Transportation Economics*.

Furthermore, at the cluster meeting the group discussed plans for the next two years. The Special Issue from the NECTAR Cluster 2 and 3 meeting in Brno, Czech Republic, (May 2016) on *The role of planning towards sustainable urban mobility*, coordinated by Hana Bruhova, Maria Attard and Sandra Melo in the *Journal European Transport Research Review (ETRR)*, is expected to be published in 2017. There was an agreement for a Cluster workshop for 2018 entitled *Me and the Universe: Sharing and Innovation in*



Transport Policies and Services. The Cluster also had offers to hold meetings in Porto and Venice, the latter to be organized in March/April 2018.

Cluster 3. Logistics and Freights

by Cathy Macharis and Sandra Melo

During the NECTAR Conference in Madrid, two panel sessions were carried out by the Cluster *Logistics and Freight*. One session was focused on sharing within the freight transport sector, covering papers on how to use spare capacity, crowd logistics and share parking spots between different users. The other session concentrated more on the use of ICT within the freight sector, covering topics like real time simulation and revenue management.

Cluster 3 came together in May 2016 in Brno together with cluster 2, and co-editing the ETRR special issue (see report above). Cluster 3 is now planning for a meeting in Venice on the topic of *Freight transport of the future* and this future will be electric, sharing, and synchro-modal. A date and call for papers will be send soon.

Cluster 4. Travel, Migration, Housing and Labor Markets

by Liv Osland and Annette Haas

The NECTAR Cluster 4 *Travel, Migration, Housing, and Labor Markets* had 19 submitted papers of high quality for the Madrid conference. Many of these papers were presented at general sessions. Two Cluster 4 sessions were arranged. They were well attended and we thank the participants who contributed to good discussions. The research topics of the cluster sessions were concentrated on commuting on the one hand and on issues related to residential and labor markets on the other.

At the cluster meeting we discussed several future activities, two of which are mentioned here. A Special Issue in the *Regional Studies* journal is in progress. This Special Issue is based on the papers presented at a Cluster 4 meeting in Toledo and has the following working title: *Travel, migration, housing and labor market in a context of crisis: Lessons for the future*. Finally, it is evident from the discussions that the topic of the Cluster has become even more relevant, particularly due to the current and future phenomenon on migration and refugees that strongly influence travel behavior, as well spatial interactions of labor and housing markets.

Finally, John Östh from Uppsala University in Sweden was appointed as a new and vital cluster coordinator. He is warmly welcomed. He also offered to explore to organize a cluster workshop in December 2017. John is replacing Jos von Ommeren who has been a Cluster 4 coordinator for many years. The cluster is very grateful for the substantial scientific contributions that Jos have made to the cluster during this period.



Cluster 5. *Tourism, Leisure and Recreation*

by João Romão and Luca Zamparini

The Cluster *Tourism, Leisure and Recreation* was created in 2016, with a workshop organized in the Swiss city of Lugano. During the NECTAR Conference in Madrid, two panel sessions were carried out. They involved 8 papers, presented by researchers from 6 different countries, including Japan. The presentations covered different fields of the relationships between transport and travel behaviors related to tourism, recreation and leisure activities, including inter-modalities, road traffic, cruises, pedestrianism, the interface between accessibility and tourism attractiveness or product development and, in more general terms, the economic valuation of leisure time and its implications for travel patterns.

These two panel sessions were complemented by a Cluster Meeting involving 13 participants. After a general presentation of the aims and scope of the Cluster by the co-chairs (Luca Zamparini and João Romão), the discussion was oriented to the definition of a more specific thematic orientation for future activities. In that framework, a workshop has been envisaged for 2018, under the tentative title *Smart Transport for Sustainable Tourism*. This workshop will be hosted by the University of Salento (Lecce, Italy) in May 2018. It aims at gathering further researchers interested in its topic and at the publication of a special issue for a journal in the field of transportation. In order to enhance the communication between the researchers who have expressed their intention to participate in the Cluster activities, an online platform for communication will be created soon.

Cluster 6. *Accessibility*

by Juan Carlos Martín and Aura Reggiani

The Accessibility Cluster organized 2 sessions of 4 papers at the Madrid Conference on the theme of *Accessibility: territorial and socio-economic disparities*. The presentations covered different topics regarding: (1) some theoretical issues like the effects of the spatial aggregation; (2) complementary topics like resilience, territorial cohesion, border effects, among others; (3) activity focused on health and job. The sections were chaired by Aura Reggiani and Karst Geurs.

At the cluster meeting the activities and outputs from Cluster 6 have been discussed. Cluster 6 just has published in 2017 a special issue on Accessibility and Policy Making in the European Transport Research Review, with Ana Condeço Melhorado and Karst Geurs as editors, based on a 2014 workshop. Two other special issues are in preparation. First, a special Issue in Networks and Spatial Economics on *New Data and Methods in Accessibility Analysis*, edited by Ana Condeço Melhorado, Javier Gutierrez and Aura Reggiani, based on NECTAR-ERSA Special Session in 2015. Secondly, a special issue in Transportation on *Territorial accessibility, resilience and vulnerability* with Jean Claude Thill, Aura Reggiani and Juan Carlos Martin as editors, based on NECTAR Special Session in Ann Arbor in 2015.

New topics for the future discussed at the cluster meeting included accessibility theoretical foundation, accessibility in EU-eastern countries and developing countries, accessibility and wellbeing, accessibility and big data and the construction of open data bases and software, accessibility and time use



(different dynamics), perceived accessibility, individual and group accessibility (millennials vs. seniors), public transport accessibility (level of service, safety and environmental), and accessibility and sharing economy.

Future plans of cluster meetings include a cluster workshop in Lyon in 2018, organized by the University of Lyon, and a 10th anniversary workshop at the University of Las Palmas in 2018, organized by Juan Carlos Martin. These clusters are open to be organized as joint clusters with other Nectar clusters, so be prepared to participate in these future events.

Cluster 6 is also developing a dedicated cluster mailing list. Please write to Ouassim Manout ouassim.manout@entpe.fr if you like to be included in this list.

Cluster 7. *Social and Health Issues*

by Karen Lucas and Dick Ettema

At the Madrid conference, the new *Cluster 7 Social and Health Issues* had its first meeting with over 20 participants. The opportunity was taken to discuss the cluster aim and develop a strategy for the years to come. There was a general agreement on the cluster aim, i.e. to bring together researchers from different scientific disciplines (e.g. engineering, geography, planning, psychology, political sciences and sociology, to name a few) with an interest in the social and health-related impacts of transport). A roundtable identified concrete issues for research brings to the fore the following potential topics of interest, including social and health issues for specific groups (e.g. migrants), the role of safety and security for travel and participation, the option to use big data but also qualitative studies, living labs in urban areas, social and health issues in rural areas, the role of ICTs, and the night time economy partly, residential self-selection and spatial sorting mechanisms and the involvement of citizens in decision making. As follow up actions, the cluster chairs will work on refinement of the cluster aim and scope of the cluster, and draft a research agenda. A dedicated cluster workshop, probably focusing on social and health issues related to walkability, will be organized in the spring of 2018, probably in Utrecht. A second workshop in 2018 will be organized in Oslo.

Cluster 8. *ICT*

by Luc Wismans and Rein Ahas

During the conference the *ICT* Cluster organized two interesting sessions, organized by cluster co-chairs Luc Wismans and Rein Ahas. One session focusing on the development and deployment of smart apps to acquire trip data and one session focusing on data handling and analysis. Furthermore there was a related general session on big data analysis. At the cluster meeting in Madrid the cluster aims, activities and plans for the next years were discussed. Two special issues are currently organized by the cluster. Emmanouil Tranos, Elizabeth Mack and Nicolas Ibanez are organizing a special issue *Big Data: a new opportunity for Transport Geography?* in the *Journal of Transport Geography*, based on papers from the 2016 Cluster workshop in Seville. Rein Ahas, Luc Wismans and Karst Geurs are editing a special issue on *Space-Time Tracking Data in*



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Urban Traffic Management: Methods and Applications in the *Journal of Urban Technology*, drawing on papers from the Mobile Tartu 2016 special sessions.

Specific topics formulated to be discussed during upcoming cluster meetings included ethics of deployment of ICT (e.g. use of (big) data sources), statistics and data science techniques needed, interaction with technology/ICT researchers and researchers using derived data, embracement of new technology by stakeholders (mainly authorities versus private companies and universities), and the impact of ICT on accessibility. At the cluster meeting plans new meetings have also been discussed. A special session will be organized during the Mobile Tartu conference June 27-29 in Tartu, Estonia. A call for paper will be distributed in October. Other ideas on cluster workshops and conference special sessions in 2018 will be developed.



NECTAR XIV International Conference

The 2019 NECTAR International Conference June 5th – June 7th, 2017

University of Helsinki and Aalto University Finland

The next NECTAR conference venue will be Helsinki. The conference will be organised by the University of Helsinki and Aalto University Finland, June 5th -7th 2019. Tuuli Toivonen, who is leading the multidisciplinary Digital Geography Lab at the University of Helsinki, announced the conference venue at the closing session of the Madrid conference. Helsinki is a leader in open urban data and open science, top-ranked in public transport, an interesting combination of a remote and accessible location. Tuuli Toivonen warmly welcomes you to Helsinki.