



# **COST Action IC0906 WiNeMO: Wireless Networking for Moving Objects**

Prof. Yevgeni Koucheryavy  
Tampere University of Technology  
FINLAND



# COST IC0906: WiNeMO

COST Action IC0906

WiNeMO: Wireless Networking for Moving Objects

June 2010 – May 2014

Kick-off meeting around April 2010

MoU

[http://w3.cost.esf.org/typo3conf/ext/bzb\\_securelink/pushFile.php?cuid=253&file=fileadmin/domain\\_files/ICT/Action\\_IC0906/mou/IC0906-e.pdf](http://w3.cost.esf.org/typo3conf/ext/bzb_securelink/pushFile.php?cuid=253&file=fileadmin/domain_files/ICT/Action_IC0906/mou/IC0906-e.pdf)



#### Action details

CSO Approval date : 02/12/2009  
Entry into force : 21/01/2010  
End of Action : 01/12/2013

#### Parties

Country	Date	Status
Germany	21/01/2010	Confirmed
Ireland	21/01/2010	Confirmed
Netherlands	26/01/2010	Confirmed
Portugal	21/01/2010	Confirmed
Spain	21/01/2010	Confirmed
Switzerland	21/01/2010	Confirmed
United Kingdom	21/01/2010	Confirmed
Total	7	

#### Intentions to accept the MoU

Country	Status
Finland	Intention
Latvia	Intention
Serbia	Intention
Total	3



## Management Committee of Action IC0906

Email list

Chair	Vice Chair

### COST Participants

Country	MC Member
Finland (MC Member)	Mr Timo LEHIKOINEN
Finland (MC Member)	Dr Yevgeni KOUCHERYAVY (Pending)
Finland (MC Substitute Member)	Dr Dmitri MOLTCHANOV
Germany (MC Member)	Dr Dirk STAEHLE
Germany (MC Member)	Mr Fabian WOLFF
Ireland (MC Member)	Dr Lukasz BUDZISZ
Ireland (MC Member)	Dr Hamid NAFAA (Pending)
Latvia (MC Member)	Dr Manfreds SNEPS-SNEPE
Netherlands (MC Member)	Dr Georgios KARAGIANNIS
Netherlands (MC Member)	Dr Geert HEIJENK
Portugal (MC Member)	Dr Paulo MENDES
Portugal (MC Member)	Professor Edmundo MONTEIRO
Serbia (MC Member)	Professor Dragana BAJIC
Spain (MC Member)	Dr Boris BELLALTA JIMENEZ
Spain (MC Member)	Dr Francisco BARCELO ARROYO
Spain (MC Substitute Member)	Dr Israel MARTIN-ESCALONA
Spain (MC Substitute Member)	Dr Miquel OLIVER RIERA
Switzerland (MC Member)	Professor Torsten BRAUN
United Kingdom (MC Member)	Dr Veselin RAKOCEVIC
United Kingdom (MC Member)	Dr Johnathan ISHMAEL (Pending)
United Kingdom (MC Substitute Member)	Dr Nicholas RACE



# WiNeMO WGs

## **WG1: Network architectures.**

- Architectures for WiNeMO, in particular the incentive-driven architectures for autonomous environment;
- Architectures for disruptive-tolerant networks;
- Role-based architectures. Modular architectures based on atomic networking functions and general interfaces between them to allow an effective cross-layering;
- Seamless content-based services and applications;
- Handling of user's requirements in terms of QoS, security/privacy, etc.
- Mobility and interoperability between different network domains;
- Security and privacy;
- Addressing and tracking of roaming WiNeMO objects;
- Novel routing algorithms and protocols (e.g., opportunistic, named-based, declarative, location-based etc.); content-service based routing;
- Description language: ontologies, categorization and meta data / meta information;
- Reliable communication;
- Control/Data/Management planes.



# WiNeMO WGs

## **WG2: Protocol engineering, cross-layering and cooperation.**

- A cooperative MIMO architecture for wireless networkable objects;
- Algorithms and techniques to coordinate multiple transmissions from different objects in order to improve the communication range and reliability with lower power consumption (cooperative MIMO, network coding);
- Optimization of resource management, seamless transmission, intelligent information filtering and joint energy conservation;
- A joint MAC/routing approaches for event-based WiNeMO networks;
- Medium Access Control protocols for cognitive spectrum solutions;
- Delay tolerant routing protocols for moving objects with sporadic connectivity;
- Novel realistic mobility models for relevant application scenarios to support evaluation of the developed algorithms, protocols, techniques and mechanisms;
- Mobility scenarios under dynamic and agile requirements;
- Performance evaluation and protocol stack optimization;
- Cross layer solutions.



# WiNeMO WGs

## **WG3: Applications and services.**

- Seamless content-based services and applications;
- Assessment of the Quality of Experience for different types of traffic in heterogeneous environments;
- Communication interfaces between application and the network stack within the service oriented architecture vision;
- Protocols ensuring application, session and network mobility in an integrated way.
- Methods for synchronized processing of heterogeneous data traffic within compound real time interactive applications and services;
- Dynamic adaptation of audio-video codecs depending on the context information;
- Assessment of the quality of experience for different types of traffic in heterogeneous environments.



# WiNeMO WGs

## **WG4: Testbeds, use-cases, societal and economical aspects.**

- Design and evaluation of stand-alone and joint testbeds, and living labs;
- Concept, functional description and analysis of realistic use-cases;
- Economic and societal impact;
- Pricing mechanisms and business models for novel applications and services.





WiNeMO

**You're welcome to join us!**



TAMPERE UNIVERSITY OF TECHNOLOGY  
Department of Communications Engineering