

Requirements and Technologies for The Next Generation of Mobile Communications

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Workshop Programme

1545	Introduction and welcome	Jose Costa
1555	WWRF Introduction and vision	Nigel Jefferies
1610	Machine-to-machine communications	Mischa Dohler
1640	Next-generation radio communication technologies	Angela Alexiou
1710	Spectrum sharing using authorized shared access	Marja Matinmikko
1710	Next-generation communication architectures and technologies	Panagiotis Demestichas
1740	Requirements for the next generation of mobile services and applications	Jari Porras
1810	Panel Discussion	
1900	Reception	

What is WWRF's role?

- Develop future vision of the wireless world
- Inform and educate on trends and developments
- Enable and facilitate the translation of the vision into reality
- Bring a wide range of parties together to identify and overcome significant roadblocks to the vision



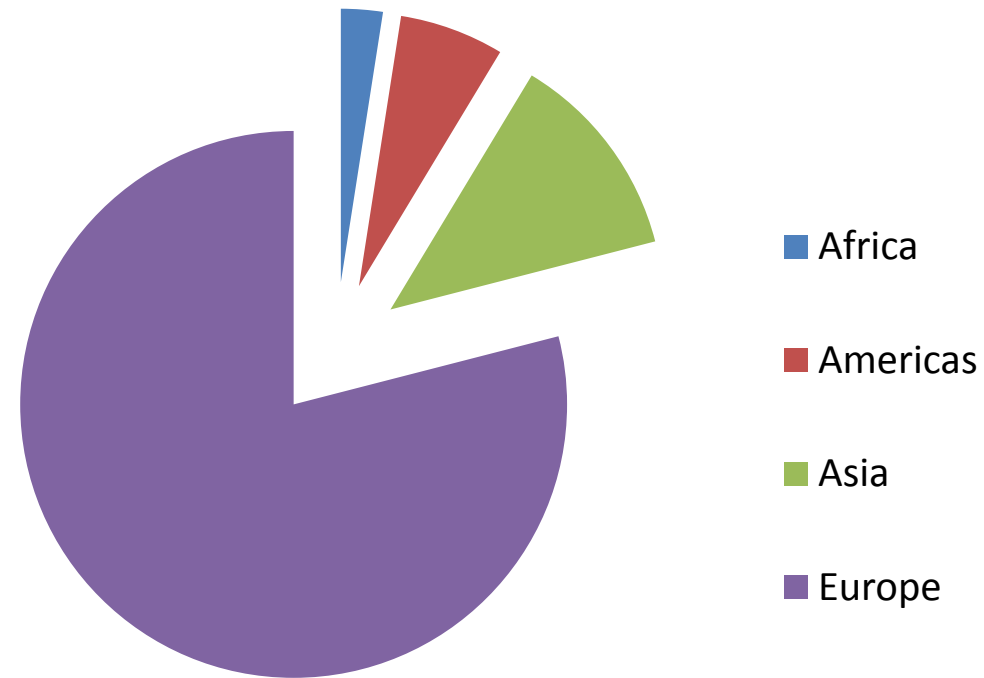
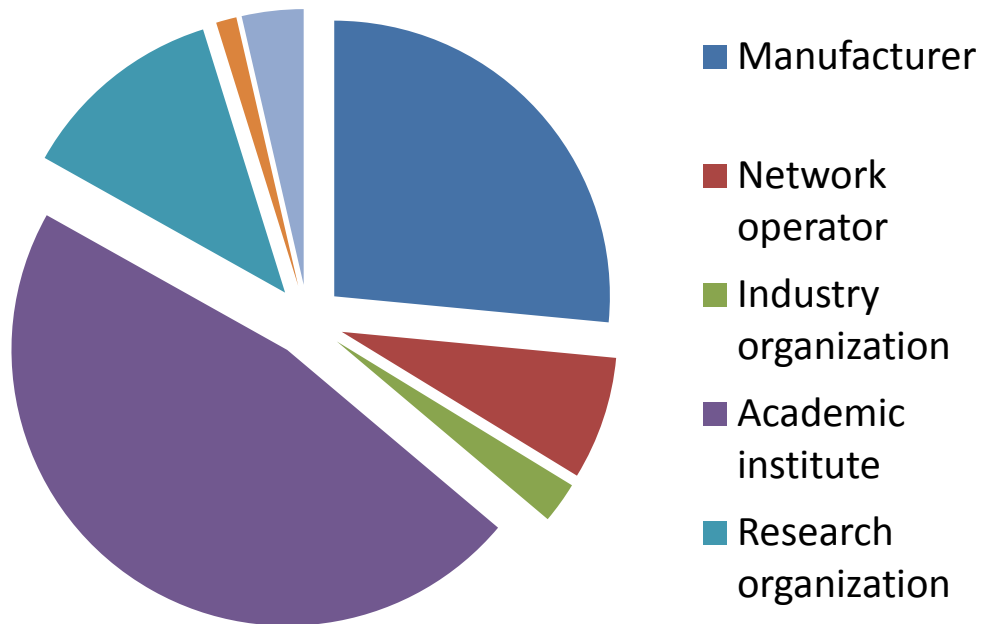
Principles of Operation

- Global
- Open to all
- Not
 - standards body
 - research funding body
 - A typical research conference
- Based on membership
- All can attend meetings and make contributions



Membership

Over 80 member organisations



Current Sponsor Members



DOCOMO Euro-Labs



The Wireless World

WWRF's goal is to encourage research that will achieve unbounded communications to address key societal challenges for the future

We are using the term “Wireless World” in this broad sense to address

- *the support of innovation and business,*
- *social inclusion and*
- *infrastructural challenges*

This will be achieved by creating a range of new technological capabilities from wide-area networks to short-range communications, machine-to-machine communications, sensor networks, wireless broadband access technologies and optical networking, along with increasing intelligence and virtualization in networks

This will support a dependable future Internet of people, knowledge and things and the development of a service universe

Current Working Groups

A User Needs & Requirements in a Secure Environment in different Socio-Economic settings

B Services, devices and service architectures

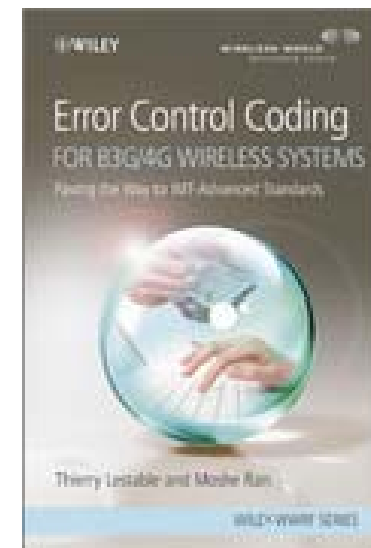
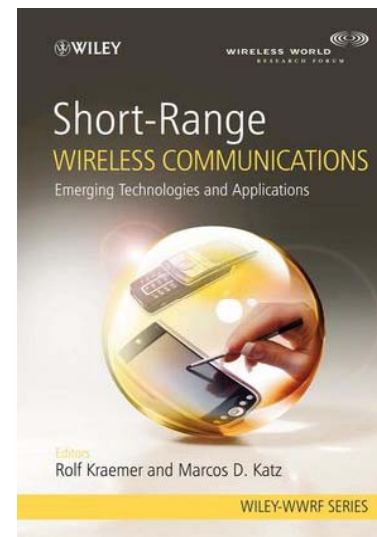
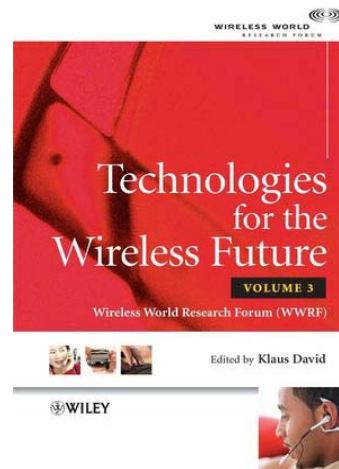
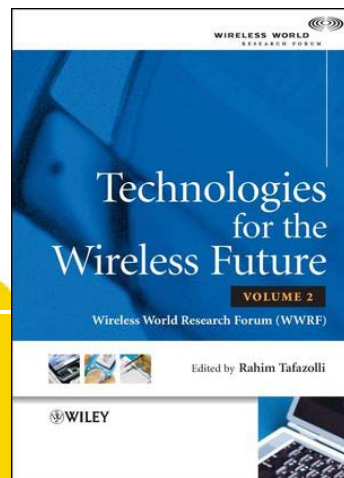
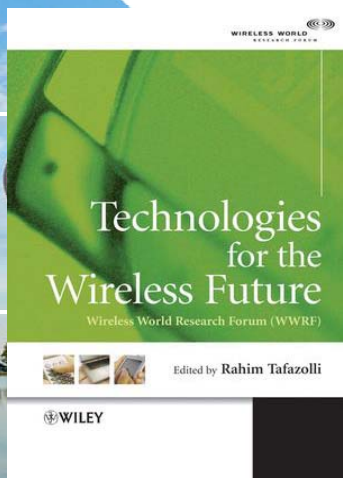
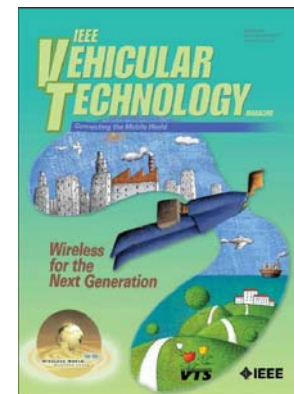
C Communication architectures and technologies

D Radio Communication Technologies



WWRF outputs

- WWRF Outlook – published version of White Paper
- WWRF Library – proceedings of each meeting
- WWRF – Wiley Book series (5 published, 3 in prep.)
- WWRF – IEEE Journal Series (IEEE VT Magazine)



7 trillion wireless devices serving 7 billion people by 2020

- All people will be served with wireless devices
- Affordable to purchase and operate
- Calm computing: technology invisible to users
- Machine to machine communications
 - Sensors and tags: e.g. in transport and weather systems, infrastructure, to provide ambient intelligence and context sensitivity
- All devices are part of the (mobile) internet



At a second glance

- Wireless device(s) becomes **our** interface to the digital world
- **An ambient life style where**
 - ... our mobile device becomes the key enabler to interact with smart environments and users
 - ... our mobile guides and supports us against “digital threats”
- Has to be charged once a month only – green technology
- Untethered and connected user experience
- Ubiquitous service delivery with a consistent user experience
- In Other Words:

Wireless – The Way to Future



14 WWRF Fellows



Martin Cooper
USA



Dr João da Silva
Spain



Prof Ashok Jhunjunwala
India



MrHåkan Eriksson
Sweden



Dr Young Kyun Kim
Korea



Madame Li Mofeng
China



Prof Mérouane Debbah
France



Prof. Hamid Aghvami
UK



Prof. Michael Walker
UK



Dr Kohei Satoh
Japan



Prof. Gerhard Fettweis
Germany



Prof. Sureswaran Ramadass
Malaysia



Dr Zhou Hong
China



Prof. Rahim Tafazolli
UK

Industry
Academia
Regulators

Next WWRF Meetings

WWRF31 Vancouver, Canada
22-24 October 2013
Hosted by University of British Columbia



WWRF32 Marrakech, Morocco
13-15 May 2014
Hosted by Kings College London



WWRF33 Guildford, UK
October 2014
Hosted by University of Surrey



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