**Body of European Regulators
for Electronic Communications**

BEREC

BEREC MACHINE-2-MACHINE WORKSHOP

19 November 2013

Hotel Silken Berlaymont,
Boulevard Charlemagne 11, 1000 Brussels, Belgium

Registration		09.00-09.30

Opening of the workshop	*Welcome and Introductory Remarks*
	    Antonello De Tommaso, Chairman, BEREC Framework Implementation EWG
	    Ritva Suurnäkki, Head of Programme Management, BEREC Office
		09.30-10.00

Session A	***Why do we think there is a significant (potential) demand for M2M/IoT and Smart cities?***
	Speakers:
	    Ian Pannell, Chief Architect, GSMA
	    Oliver Bossert, Senior Expert, McKinsey
	    Luis Muñoz Gutiérrez, Professor of Telecommunications Engineering, University of Cantabría
	    Paul Egan (tbc), VP Business Development, Neul
	Moderator:
	    Aldo Milan, AGCOM
		10.00-10.45

	Worldwide, the forecasts are that several billion devices will be connected by 2020 (up to a few tens of billions). Although the above forecasts shall still be verified, it is widely recognized that the anticipated development of M2M and neighbouring services collectively designated as the Internet of Things (IoT), should enable many different applications, including smart grids, smart meters, connected cars, eHealth or real time telemetry etc. The evolution towards the M2M/ IoT holds the promise of making significant progress in addressing global and societal challenges, helping Europe become a smart, sustainable and inclusive economy and thereby helping to 'reboot the EU economy and enable Europe's citizens and businesses to get the most out of digital technologies'. By interconnecting and enhancing functionalities of physical objects, Machine to Machine communications has the potential to affect every operational and product delivery process across the full range of economic activity. Regarding the actual usage, the methodologies for the accurate measurement should be more detailed and agreed. Moreover, detailed information on usage is necessary to check the M2M/IoT forecasts and substantiate the urgency of the regulatory intervention. This session will provide a chance to discuss opportunities offered by the new technologies, the forecasts, market trends, and usage typologies.	
	Q&A	10.45-11.00
Coffee Break		11.00-11.20

Session B	***Trends – Should we believe the forecasts?***
	Speakers:
	    Rudolf Van der Berg, Policy Analyst, OECD
	    Mischa Dohler, Chair Professor in Wireless Communications, King's College London
		11.20-12.05

	Alessandro Bassi, Technical Co-ordinator, IoT-A	
	Moderator: **Vassilis Andronikidis, EETT**	
	Over the past few years, predictions about the prospects of M2M technologies have sometimes been so bullish that they might look tainted by wishful thinking or overemphatic marketing intents. To the sceptic, studies depicting billions or even trillions of connected objects by 2020 or 2040 will tend to invoke past images of flying cars. Has the discourse around M2M and IoT turned into a futurist litany, a science fiction fairy tale dressed up as promising? This session will discuss whether there an established demand launched by real customer needs or whether the optimistic forecasts rather aim to persuade investors of an upcoming gold rush. The panellists are experts in the analysis of emerging trends on telecommunications markets, who will present their views about the market potential of the different the M2M technologies and applications, their expectations and some pragmatic targets for the development the M2M market in Europe. The session will be an opportunity to confront educated views from different corners of the M2M community, and to get original insights on the sector's dynamics.	
	Q&A	12.05-12.20
Lunch Break		12.20-13.20
Session C	***What are the obstacles to adoption and what are we doing to address them?*** *Speakers:* **Gwendal Le Grand**, Head of IT expertise, Commission Nationale de l'Informatique et des Libertés **Andrea Bodova** (tbc), DG CNECT, European Commission **Giovanni Miragliotta**, Assistant professor of logistics and member of the IoT Observatory, Politecnico di Milano School of Management *Moderator:* **Louis-Philippe Carrier**, **OFCOM**	13.20-14.05
	As M2M technologies and applications get closer to maturity, policy makers are confronted with the dilemma of intervention. Europe does not want to miss the opportunity to be at the forefront of an expected M2M revolution, and therefore places high hopes on a rapid adoption by European businesses and consumers. A debate is emerging between those who believe that market forces will spontaneously deliver this and those who think that adoption is being delayed by some fundamental obstacles, including market failures. This session will be an opportunity to discuss what would constitute a favourable environment for the development of M2M, what could improve the current environment and whether it implies public intervention. In particular, the session will cover some key determinants of the demand for M2M services, such as the preoccupations around security and privacy. The M2M markets' dynamics will also be analysed, to identify potential issues around the achievement of a critical mass of M2M solutions, and related issues in relation to concentration and competition. This will also clarify respective roles of various institutions in the public and private sectors.	
	Q&A	14.05-14.20
Session D	***Are the resources available? Spectrum, IP addresses, phone numbers, standards.*** *Speakers:* **Thierry Lestable**, Technology & Innovation Manager, SagemCom and adjunct faculty, Supélec **Raymond Forbes**, Manager Utilities - Smart Grids, ETSI **Jonathan Cave**, Senior Research Fellow and **Helen Rebecca Schindler**, Senior	14.20-15.05

	Analyst, RAND Europe	
	Moderator:	
	Marìa Boloqui, CMT	
	It is often assumed that the expansion of M2M will lead to a significant increase in the consumption of certain scarce public resources. As technical constraints limit the availability for M2M communications of telephone numbers, of radio spectrum, of IPv4 addresses, the industry may find itself hindered by capacity bottlenecks, pushing its costs up. In addition, questions around interoperability and other service guarantees may inhibit the demand for M2M services and devices, until consensual standards emerge to bring more visibility to the industry.	
	This session will help clarify which of these public resources might generate the most difficult challenges. The panellists will comment the findings of a recent report on the Internet of Things by RAND Europe for the Commission, as well as the current state of M2M standardisation, at the European and global levels. This will also nurture reflections on the relative importance of the resource issue, on the existing tools to ensure that the right resources are provided, and on the policies already in place in Europe and beyond.	
	Q&A	15.05-15.20
Coffee Break		15.20-15.40
Session E	***What sort of public intervention and by whom? How can a BEREC intervention create value for the M2M/IoT businesses and consumers?*** *Speakers:* **Thibaut Kleiner**, Advisor to VP Neelie Kroes, European Commission **Francesco Sacco**, prof. Università dell'Insubria - SDA Bocconi , Digital Agenda Steering Board, Government of Italy **Omar Elloumi,** OneM2M chairman of the architectural group *Moderator:* **Aldo Milan, AGCOM**	15.40-16.25
	It is difficult to assess the evolution and potential regulatory impact of M2M services in Europe, as well as the existing differences between countries: whereas some pursue a proactive policy in areas such as spectrum, numbering or registry, others are still pondering the appropriateness of characterising M2M as an electronic communication service per se.	
	With regard to the scope of M2M and to the question as to whether M2M services are covered by the EU Regulatory Framework, the discussion is open. There is no common formal definition of M2M services neither at the EU level nor in most Member States. Some features, however, are common to M2M, namely: (i) the automatic exchange of data between devices and/or applications; (ii) no or minimal human intervention; (iii) encompassing fixed and/or mobile networks; (iv) currently, M2M regulation can generally not rely on legally binding provisions. In the context of fixed communications, services such as fax or modem have not been categorised as an electronic communication service (ECS) as such, but rather related to the exploitation of the underlying network which supported the service. The question as to whether this principle could also apply in M2M services is open, and the response entails the inclusion or exclusion of the EU regulatory framework application.	
	This session will provide an opportunity to complete the discussion on the regulation perspectives including the Policy and standardization issues. The discussion should involve a range of non-legislative activities (soft law) such as: procurement, participation in standardisation and governance bodies, international negotiations, research and innovation support, financial support (e.g. for infrastructure, research and innovation (R&I) and economic development), monitoring and data analysis and dissemination, recommendations and support for self- and co-regulatory initiatives including e.g. certification.	
	Q&A	16.25-16.40
Closing remarks	**Follow up. M2M topics in BEREC Work Programme 2014**	16.40-17.00