



# Network of Excellence

# **NEWCOM#**

Network of Excellence in Wireless Communications#

FP7 Contract Number: 318306



# WP 3.4 - Industry Liaison and Dissemination

# D3.4.3 Second Dissemination Report

| Contractual Delivery Date:      | October 31, 2014  |
|---------------------------------|-------------------|
| Actual Delivery Date:           | November 19, 2014 |
| Responsible Beneficiary:        | CNRS/SUPELEC      |
| Contributing Beneficiaries:     | INOV              |
| <b>Estimated Person Months:</b> | 6                 |
| Dissemination Level:            | Public            |
| Nature:                         | Report            |
| Version:                        | 1.0               |



#### **Document Information**

| Document ID:           | D34.3   |  |
|------------------------|---|--|
| Version Date:          | November 19, 2014   |  |
| Total Number of Pages: | 20  |  |
| Abstract:              | This report summarizes the second-year dissemination events |  |
|                        | and the planning for the third year.                        |  |
| Keywords:              | Dissemination, industry                                     |  |

### **Authors**

**IMPORTANT**: The information in the following two tables will be directly used for the MPA (Monitoring Partner Activity) procedure. Upon finalization of the deliverable, please, ensure it is accurate. Use multiple pages if needed. Besides, please, adhere to the following rules:

- <u>Beneficiary/Organization</u>: For multi-party beneficiaries (CNIT) and beneficiaries with Third Parties (CNRS and CTTC), please, indicate beneficiary *and* organization (e.g., CNIT/Pisa, CNRS/Supelec).
- Role: Please, specify: Overall Editor / Section Editor / Contributor.

| Full Name   | Beneficiary /<br>Organization | e-mail                 | Role           |
|-------------|-------------------------------|------------------------|----------------|
| Hikmet Sari | CNRS/SUPELEC                  | Hikmet.sari@supelec.fr | Overall Editor |

#### **Reviewers**

| Full Name         | Beneficiary /<br>Organization | e-mail               | Date       |
|-------------------|-------------------------------|----------------------|------------|
| Luis M. Correia   | INOV                          | luis.correia@inov.pt | 24/09/2014 |
| Carles Antón-Haro | CTTC                          | carles.anton@cttc.es | 2/11/2014  |

### **Version history**

| Issue | Date of Issue | Comments                 |
|-------|---------------|--------------------------|
| 0.1   | 21/09/2014    | Creation of the document |
| 0.2   | 24/09/2014    | Revision                 |
| 0.3   | 10/09/2014    | Final version            |
| 1.0   | 2/11/2014     | Revised version          |

Distribution Level: Public Page 2



## **Executive Summary**

The second year of NEWCOM# was very rich in terms of Dissemination Events: First, a dissemination event took place at Portugal Telecom on 23 January 2014. Although this event took place during the second year of the project, we count it as the second event of the first year, because we were supposed to hold two dissemination events during the first year of the project, and the only event which was effectively organized during that year was the event held at Orange Labs, Issy les Moulineaux, near Paris on 17 June 2013.

Next, during the period of February – April 2014, three additional dissemination events were organized. The list is as follows:

- NEC Labs, Heidelberg, Germany, 19 February 2014
- Alcatel-Lucent Bell Labs, Stuttgart, Germany, 20 March 2014
- Avea Labs, Istanbul, Turkey, 4 April 2014

This deliverable will report on the organization of these events giving their programs, lists of participants, and highlights. We will also report on the initiatives taken and the preparation of the next event to be held at Nokia Networks in Munich on 29 October 2014.

Distribution Level: Public Page 3



# **Table of Contents**

| 1.  | Introduction  | 5    |
|-----|---|------|
| 2.  | Dissemination Event in Lisbon                       | 6    |
| 3.  | Dissemination Event in Heidelberg                   | 7    |
| 4.  | Dissemination Event in Stuttgart                    | 8    |
| 5.  | Dissemination Event in Istanbul                     | 9    |
| 6.  | Planning for Next Events                            | .10  |
| 7.  | Conclusions   | . 11 |
| 8.  | Annex A – Program of the Lisbon Event               | .12  |
| 9.  | Annex B – Program of the Heidelberg Event           | . 13 |
| 10. | Annex C – Participants List of the Heidelberg Event | .15  |
| 11. | Annex D – Program of the Stuttgart Event            | .16  |
| 12. | Annex E – Participants List of the Stuttgart Event  | . 18 |
| 13. | Annex F – Program of the Istanbul Event             | . 19 |
| 14. | Annex G – Participants List of the Istanbul Event   | .21  |



#### 1. Introduction

NEWCOM# places a strong effort to disseminate to European industry the research results of the network of excellence. In order to increase the efficiency in this task, it was decided to organize the dissemination events directly at the premises of the Associate partners from industry. In this way, the interested personnel from the host institution can participate without any traveling, and people from other companies in the same geographical region can attend provided that they have no conflict of interest with the host institution. The plans of the project were to organize 2 events during the first year, 4 events during the second year, and 4 events during the third year.

The first dissemination event took place on 17 June 2013 at Orange Labs, Issy les Moulineaux, near Paris, and the previous deliverable issued at the end of the first year of the project (D3.4.2) reported on this event. As indicated in that deliverable, dissemination took a slow start and no other dissemination event was organized during the first year. To catch up and keep on track with our initial plans, a second event was organized on 23 January 2014 at Portugal Telecom in Lisbon. This counts for the second event of the first year. Immediately after this, organization of events accelerated, and three consecutive events were organized during the period of February – April 2014. The locations and dates of these three events were as follows:

- NEC Labs, Heidelberg, Germany, 19 February 2014
- Alcatel-Lucent Bell Labs, Stuttgart, Germany, 20 March 2014
- Avea Labs, Istanbul, Turkey, 4 April 2014

After these events, it was decided to take a break until the end of the summer and organize an additional event in October. Contacts were made with Nokia Networks in Munich during the period of May – June and it was decided to hold an event in their premises on 29 October 2014. This event is currently under preparation. It will be reported in the third-year deliverable.



### 2. Dissemination Event in Lisbon

This half-day event was organized at Portugal Telecom on 23 January 2014. The organizer was, Luis Correia, Chair of Track 3. The program of the event is given in Annex A. The list of NEWCOM# participants is composed of the presenters which appear in the program. The three cellular operators in Portugal sent a representative or two to this event. Their list is as follows:

- Marco Serrazina, Vodafone
- Alvaro Gomes, Portugal Telecom
- · Luis Sano, ZonOptimus
- Ricardo Silva, ZonOptimus

The number of participants from the Portuguese operators was not very high, but those representatives hold high positions in their companies, and as such they can effectively disseminate the information to their teams.



## 3. Dissemination Event in Heidelberg

This dissemination event took place on 19 February 2014 at the premises of NEC Labs Europe in Heidelberg. The technical program of this event is shown in Annex B. Before establishing this program, the list of NEWCOM# Joint Research Activities (JRAs) was sent to our partner NEC Labs Europe to determine the topics that are of highest interest to them. NEWCOM# presentations were then determined taking into account the availability of the presenters. NEC Labs Europe managers were also asked to make technical presentations giving us their vision on the future of wireless communications and networking. As shown in Annex B, their Vice-President, Heinrich Stuttgen, gave a presentation on software defined networking, and the Manager of the Wireless and Backhaul Research Group Manager presented the research activity of his group.

The participants list to this event is given in Annex C. As can be seen from this annex, 18 people attended the Heidelberg event, and 12 of those were from NEC Labs Europe. This is a very good number, given the size of these labs. Interesting technical discussions took place during and after the presentations. NEC Labs Europe being more active in networking than in communications problems, they were more interested in Track 2 presentations and demos.

The Heidelberg Dissemination Event can be considered as the most successful dissemination event to date, because the partner showed a strong interest in EuWIn activities and subsequently they asked the CNIT/Bologna to make measurements for them. More specifically, EuWIn@UniBo performed for NEC Laboratories a series of experimental tests during June and July 2014. The experiments were targeted at measuring the impact of WiFi access points on Zigbee networks in indoor environments. Measurements of packet success probability, round trip time, and power levels were performed using three different WiFi APs, and multiple Zigbee nodes available at EuWIn. The EuWIn FLEXTOP facility was used to this aim. The activity was finalized with a report summarizing hundreds of measurements, which were first approved by NEC, then presented by them to the steering board of HGI (the European Home Gateway Initiative) that includes many companies. The HGI steering board approved the document. The results of the measurements were also been included in a paper submitted to an IEEE conference (paper already accepted).



## 4. Dissemination Event in Stuttgart

This dissemination event took place on 20 March 2014 at the premises of Alcatel-Lucent Bell Labs in Stuttgart. The technical program of this event, shown in Annex D, is very similar to that of Heidelberg. In addition to Track 1 and Track 2 presentations from NEWCOM# participants, two presentations were made from Alcatel-Lucent Bell Labs. The first gave their vision on 5G. The second presentation was on a new waveform, called UFMC, which Alcatel is pushing in the standards. Alcatel-Lucent Bell Labs in Stuttgart being active in air interface technologies, they showed significant interest in both Track 1 and Track 2 activities of N#.

The participants list is given in Annex E. Interestingly, the number of participants was the same as in Heidelberg: The total number was 18, and 12 of them were from the host Alcatel-Lucent Bell Labs. In fact, Alcatel-Lucent was not an Associate partner at the time of the dissemination event. Subsequently, they agreed to join and they are now listed on the NEWCOM# website.



### 5. Dissemination Event in Istanbul

This dissemination event in Istanbul was organized in conjunction with WCNC 2014, which was held there on 6-9 April 2014. A number of NEWCOM# researchers were going anyway to Istanbul either to attend the conference itself or one of its workshops. The dissemination event took place on 4 April 2014 at the premises of Avea Labs located on the Asian side of the city. Transportation was organized by our host to take the NEWCOM# participants to their location. The technical program of this event is shown in Annex F. Again, it included presentations from Track 1 and Track 2 in accordance with the interest expressed by the host company. A tour was organized by our host, Dr. Salih Ergut, to show N# participants their facility. It was clear that Avea Labs are much more focused on applications and software development than on basic or applied research. It was very disappointing to see in the meeting room only 2-3 people from Avea Labs, but quite a bit of interaction and discussion took place during and after the presentations. The participants list is given in Annex G. Total attendance was 9.



## 6. Planning for Next Events

After the organization of four dissemination events in a short period of time from January to April 2014, we were approached with Nokia Networks in Munich. The contact was established by Dresden University of Technology. E-mail exchanges were followed by two conference calls to explain to them the spirit and the requirements of the NEWCOM# Dissemination Events. It was then agreed to hold an event at their premises in Munich on 29 October 2014. We are currently in the organization phase of that event. The list of N# JRAs were sent to Nokia Networks and they expressed their main interests. The program will be finalized during the first week of October and posted on the N# website. Compared to previous dissemination events, a large attendance is expected from Nokia Networks, because they intend to invite a large number of people and they have reserved an auditorium instead of a meeting room with a U-shaped seating.

For the third year of the project, we plan four additional dissemination events. The Associate Partners to be approached for those events will be discussed at the next Executive Board Meeting, which will be held in Barcelona on 9 – 10 October.



#### 7. Conclusions

After a slow start during the first year of the project, the dissemination activity of NEWCOM# accelerated during the second year with 4 events to date, in Lisbon, Heidelberg, Stuttgart, and Istanbul, respectively. Particularly, the events in Heidelberg (NEC Labs Europe) and Stuttgart (Alcatel-Lucent Bell Labs) were successful events with large attendance from the host associate partners. The one at NEC Labs Europe has already had some follow-up with EuWIn Labs in Bologna. As for the two events held in Lisbon and Istanbul, they were small events with few attendees from the host partners.

The final second-year event to be held at the premises of Nokia Networks promises to be a large event judging from the information we had from this associate partner during the conference calls. With Telefonica, Telecom Italia, and Thales interested in organizing additional events, there is no doubt that NEWCOM# will meet its target in terms of the number of events planned in the Description of Work (DOW) document. But as pointed out by the Reviewers and Project Officers during the first-year project review, success of the dissemination events should also be measured through the follow-up actions with the associate partners from industry. A particular effort will be made during the coming months to stimulate industrial partners for this type of actions.



### 8. Annex A - Program of the Lisbon Event







# **NEWCOM# Workshop**

## The Future of Wireless Communications

Thursday, 23rd January 2014,14h30

## Centro de Congressos, Pavilhão de Civil, IST, Lisboa

14h30: Opening - Luis M. Correia (IST/INOV-INESC - Univ. Lisbon, Portugal)

14h35: Theoretical Research - Pierre Duhamel (CNRS, France)

14h45: Performance Limits of Wireless Communications - Erdal Arikan (Bilkent Univ., Turkey)

15h00: Opportunistic and Cooperative Communications - Sergio Palazzo (CNIT, Italy)

15h15: Energy- and Bandwidth-Efficient Communications and Networking - Pierre Duhamel (CNRS, France) (on behalf of Andreas Polydoros (Univ. Athens, Greece))

15h30: Break

15h50: EuWIn - The European Laboratory of Wireless Communications for the Future Internet - Roberto Verdone(CNIT, Italy)

16h05: EuWIn@CTTC: Radio Interfaces and Localisation - Miquel Payaro (CTTC, Spain)

16h20: EuWIn@UniBO: Internet of Things and Smart Cities - Davide Dardari (CNIT, Italy)

16h35: EuWIn@EURECOM: Flexible Radio Technologies - Raymond Knopp (EURECOM, France)

16h50: Discussion

17h00: Close of meeting







## 9. Annex B - Program of the Heidelberg Event



# NEWCOM# Dissemination Event NEC Labs Europe

Date: 19 February 2014

Venue: NEC Labs Europe

Kurfürsten-Anlage 36

D-69115 Heidelberg, Germany

http://www.newcom-project.eu

Organizer: Hikmet Sari, SUPELEC

Leader of WP3.4 – Industry Liaison and Dissemination

## **PROGRAM**

09:00 - 09:15

Opening and Welcome Addresses by Hikmet Sari (SUPELEC) and Heiner Stüttgen/Peter Rost (NEC Labs Europe)

09:15 - 10:45

**Track 1 Presentations** 

Session Chair: Pierre Duhamel

Performance Analysis and Design of Heterogeneous Networks using Stochastic Geometry Marios Kountouris, CNRS/SUPELEC, France

Distributed Compressed Sensing and Reconstruction in Sensor Networks

Enrico Magli, CNIT/Politecnico di Torino, Italy

Self-configuration and Optimization of a Hybrid LTE Femto - M2M Network for Smart City Applications

Roberto Verdone, CNIT/University of Bologna, Italy

Coffee Break (10:45 – 11:15)



11:15 - 12:30

**Track 2 Presentations** 

Session Chair: Roberto Verdone

The European Laboratory of Wireless Communications for the Future Internet

Roberto Verdone, CNIT/University of Bologna, Italy

EuWIn@CTTC: Radio Interfaces

Roberto Verdone, CNIT/University of Bologna, Italy

EuWIn@UniBO: IoT and Smart City Applications

The Internet of Humans and 5G

Roberto Verdone, CNIT/University of Bologna, Italy

Testing IP-based Wireless Sensor Networks for the Internet of Things

Chiara Buratti, CNIT/University of Bologna, Italy

Lunch (12:30 - 13:30)

13:30 - 14:30

Track 2 Presentations and Demos

EuWIn@Eurecom: Flexible Radio Technologies

Cloud RAN Architecture and Platform Florian Kaltenberger, EURECOM, France

Demo - Testing IP-based Wireless Sensor Networks for the Internet of Things through the FLEXTOP

Facility

Chiara Buratti, CNIT/University of Bologna, Italy

Coffee Break (14:30 – 15:00)

15:00 - 16:00

Presentations from NEC Labs Europe

NEC Labs Europe Research in Software Defined Networking

Dr. Heiner Stüttgen, Vice President, NEC Laboratories Europe

Wireless and Backhaul Network Research Activities

Dr. Xavier Perez Costa, Manager, Wireless and Backhaul Networks Group

16:00 - 16:30

Discussion and Conclusions



# 10. Annex C – Participants List of the Heidelberg Event

| N# Dissemination Day, | NEC Labs Europe, Heidelberg | 19 February 2014                |
|-----------------------|-----------------------------|---------------------------------|
| Participants' List    |                             |                                 |
| Name                  | Affiliation                 | E-mail                          |
|                       |                             |                                 |
| Chiara Buratti        | CNIT/BOLOGNA                | c.buratti@unibo.it              |
| Yong Cheng            | NEC Labs Europe             | yong.cheng@neclab.eu            |
| Xavier Costa Perez    | NEC Labs Europe             | xavier.costa@neclab.eu          |
| Lindsay Frost         | NEC Labs Europe             | lindsay.frost@neclab.eu         |
| Florian Kaltenberger  | CNRS/EURECOM                | florian.kaltenberger@eurecom.fr |
| Marios Kountouris     | CNRS/SUPELEC                | marios.kountouris@supelec.fr    |
| Fang-Chun Kuo         | NEC Labs Europe             | fangchun.kuo@neclab.eu          |
| Enrico Magli          | CNIT/TORINO                 | enrico.magli@polito.it          |
| Andreas Maodor        | NEC Labs Europe             | andreas.maodor@neclab.eu        |
| Sofia Nikitaki        | NEC Labs Europe             | sofia.nikitaki@neclab.eu        |
| Athul Prasad          | NEC Labs Europe             | athul.prasad@neclab.eu          |
| Peter Rost            | NEC Labs Europe             | peter.rost@neclab.eu            |
| Costas Samdanis       | NEC Labs Europe             | samdanis@neclab.eu              |
| Hikmet Sari           | CNRS/SUPELEC                | hikmet.sari@supelec.fr          |
| Rudraksh Shrivastava  | NEC Labs Europe             | rudraksh.shrivastava@neclab.eu  |
| Heinrich Stuettgen    | NEC Labs Europe             | stuttgen@neclab.eu              |
| Roberto Verdone       | CNIT/BOLOGNA                | roberto.verdone@unibo.it        |
| Zarrar Yousaf         | NEC Labs Europe             | zarrar.yousaf@neclab.eu         |



## 11. Annex D - Program of the Stuttgart Event



# NEWCOM# Dissemination Event Alcatel-Lucent Bell Labs

Date: 20 March 2014

Venue: Alcatel-Lucent Bell Labs

Lorenzstrasse 10 D-70435 Stuttgart, Germany

http://www.newcom-project.eu

Organizer: Hikmet Sari, SUPELEC

Leader of WP3.4 - Industry Liaison and Dissemination

## **PROGRAM**

09:00 - 09:15

Opening and Welcome Addresses by Hikmet Sari (SUPELEC) and Andreas Leven (Alcatel-Lucent Bell Labs)

09:15 - 10:30

**Track 1 Presentations** 

Session Chair: Pierre Duhamel

Radio Access Management Techniques for Heterogeneous Networks Jordi Perez-Romero, UPC, Spain

Distributed Compressed Sensing and Reconstruction in Sensor Networks Enrico Magli, CNIT/Politecnico di Torino, Italy (presentation by Pierre Duhamel)

Coffee Break (10:30 - 11:00)

11:00 - 12:30

Presentations from Alcatel-Lucent Bell Labs



Overview on 5G

Hans Peter Mayer, Alcatel-Lucent Bell Labs

UFMC: A Candidate Waveform for 5G Wireless Systems Frank Schaich and/or Thorsten Wild, Alcatel-Lucent Bell Labs

Lunch (12:30 – 13:30)

13:30 - 15:00

**Track 2 Presentations** 

Session Chair: Hikmet Sari

EuWIn@UniBO: IoT and Smart City Applications Davide Dardari, CNIT/University of Bologna, Italy

EuWIn@CTTC: Spectrum Occupation Measurements and Database Exploitation/Practical

Implementation of Polar Codes Miquel Payaro, CTTC, Spain

Coffee Break (15:00 - 15:30)

15:30 - 16:30

**Track 2 Presentations** 

EuWIn@Eurecom: Flexible Radio Technologies - Cloud RAN Architecture and Platform

Florian Kaltenberger, EURECOM, France

**Discussion and Conclusions** 



# 12. Annex E – Participants List of the Stuttgart Event

| N# Dissemination Day | Alcatel-Lucent, Stuttgart | 20 March 2014                          |
|----------------------|---------------------------|--|
| Participants' List   |                           |  |
| Name                 | Affiliation               | E-mail                                 |
|                      |                           |  |
| Osman Aydin          | ALU Bell Labs             | osman.aydin@alcatel-lucent.com         |
| Danish Aziz          | ALU Bell Labs             | danish.aziz@alcatel-lucent.com         |
| Oliver Blume         | ALU Bell Labs             | oliver.blume@alcatel-lucent.com        |
| Davide Dardari       | CNIT/BOLOGNA              | davide.dardari@unibo.it                |
| Pierre Duhamel       | CNRS                      | pierre.duhamel@lss.supelec.fr          |
| Hardy Halbauer       | ALU Bell Labs             | hardy.halbauer@alcatel-lucent.com      |
| Cornelis Hoek        | ALU Bell Labs             | cornelis.hoek@alcatel-lucent.com       |
| Florian Kaltenberger | CNRS/EURECOM              | florian.kaltenberger@eurecom.fr        |
| Johannes Koppenburg  | ALU Bell Labs             | johannes.koppenburg@alcatel-lucent.com |
| Andreas Leven        | ALU Bell Labs             | andreas.leven@alcatel-lucent.com       |
| Hans-Peter Mayer     | ALU Bell Labs             | hans-peter.mayer@alcatel-lucent.com    |
| Le Hang Nguyen       | ALU Bell Labs             | lehang.nguyen@alcatel-lucent.com       |
| Jordi Perez-Romero   | UPC                       | jorperez@tsc.upc.edu                   |
| Miquel Payaro        | сттс                      | miquel.payaro@cttc.es                  |
| Werner Rehm          | ALU Bell Labs             | werner.rehm@alcatel-lucent.com         |
| Hikmet Sari          | CNRS/SUPELEC              | hikmet.sari@supelec.fr                 |
| Stephan Saur         | ALU Bell Labs             | stephan.saur@alcatel-lucent.com        |
| Joerg Schaepperle    | ALU Bell Labs             | Joerq.Schaepperle@alcatel-lucent.com   |



## 13. Annex F - Program of the Istanbul Event



# NEWCOM# Dissemination Event Avea Labs

Date: 4 April 2014

Venue: Avea Umraniye Technology Center

Çakmak Mah., Balkan Caddesi No. 49

Umraniye, Istanbul, Turkey

http://www.newcom-project.eu

**Organizer: Hikmet Sari, SUPELEC** 

Leader of WP3.4 – Industry Liaison and Dissemination

## **PROGRAM**

09:15 - 09:30

Opening and Welcome Addresses by Hikmet Sari (SUPELEC) and Salih Ergut (Avea Labs)

09:30 - 10:45

Track 1 Presentations

Session Chair: Pierre Duhamel

Optimal Design of Energy-Efficient Multi-User MIMO Systems

Luca Sanguinetti, CNIT/University of Pisa, Italy

Radio Access Management Techniques for Heterogeneous Networks

Jordi Perez-Romero, UPC, Spain

Coffee Break (10:45 – 11:15)

11:15 - 12:30

Presentations from Avea Labs



Changing Paradigms in the Mobile Operator Sector

Salih Ergut, Avea Labs, Istanbul, Turkey

Problems and Trends in Radio Networks

Akin Ozozlu, Avea Labs, Istanbul, Turkey

Lunch (12:30 – 13:30)

13:30 - 14:45

Track 2 Presentations

Session Chair: Roberto Verdone

The European Laboratory of Wireless Communications for the Future Internet

Roberto Verdone, CNIT/University of Bologna, Italy

EuWIn@CTTC: Radio Interfaces

Roberto Verdone, CNIT/University of Bologna, Italy

EuWIn@UniBO: IoT and Smart City Applications

The Internet of Humans and 5G

Roberto Verdone, CNIT/University of Bologna, Italy

Coffee Break (14:45 – 15:15)

15:15 - 16:30

Track 2 Presentations

Session Chair: Roberto Verdone

Testing IP-based Wireless Sensor Networks for the Internet of Things

Chiara Buratti, CNIT/University of Bologna, Italy

EuWIn@Eurecom: Flexible Radio Technologies

Cloud RAN Architecture and Platform Raymond Knopp, EURECOM, France

Demo – Testing IP-based Wireless Sensor Networks for the Internet of Things through the FLEXTOP

Facility

Chiara Buratti, CNIT/University of Bologna, Italy

16:30 - 17:00

Discussion and Conclusions



# 14. Annex G – Participants List of the Istanbul Event

| NEWCOM# Dissemination Day, | Avea Labs, Istanbul        | 4 April 2014                  |
|----------------------------|----------------------------|-------------------------------|
| Participants' List         |                            |                               |
| Name                       | Affiliation                | E-mail                        |
|                            |                            |                               |
| Chiara Buratti             | CNIT/University of Bologna | c.buratti@unibo.it            |
| Salih Ergut                | Avea Labs                  | salih.erqut@avea.com.tr       |
| Raymond Knopp              | CNRS/EURECOM               | raymond.knopp@eurecom.fr      |
| Jordi Perez-Romero         | UPC                        | jorperez@tsc.upc.edu          |
| Luca Sanguinetti           | CNIT/University of Pisa    | luca.sanguinetti@iet.unipi.it |
| Hikmet Sari                | CNRS/SUPELEC               | hikmet.sari@supelec.fr        |
| Songul Sozen               | Avea Labs                  | songul.sozen@avea.com.tr      |
| Roberto Verdone            | CNIT/University of Bologna | roberto.verdone@unibo.it      |
| Engin Zeydan               | Avea Labs                  | engin.zeydan@avea.com.tr      |



Comments and suggestions for the improvement of this document are most welcome and should be sent to:

project\_office@newcom-project.eu



http://www.newcom-project.eu