6th Management Committee Meeting

Nicosia, Cyprus
Jan 29-31, 2018
2. Adoption of the Agenda

1. Welcome to participants
2. Adoption of agenda
3. Approval of minutes and matters arising of last meeting (MCM5, Graz)
4. Status of the Action
5. Review of action deliverables
6. Financial Reporting
7. Report from Dissemination Manager

8. Presentation and Discussion of Technical Documents

9. Report from Training Manager (STSMs, Training Schools and Tutorials)
10. Future MCMs and Workshops
11. Reports from Working Group Chairs
12. Liaisons with International Bodies and Projects
13. AOB
14. Close of Meeting
2. Adoption of the Agenda

Any change to the agenda?

ATTENDANCE LISTS

Please sign the attendance list for **the day(s) you are present**

AND

**ONE** attendance list for **EACH** WG/EWG you attend

*No reimbursement* of travel expenses (for those entitled to)
if attendance lists are not duly signed

NEWSLETTER MEETING

Who? Members of the steering committee
When? 29 Jan 2018, 17:30
Where? Alpha room
3. Approval of MCM 5 minutes

Any comment on the minutes (sent by email/posted on the website)?
4. Status of the Action

Partners

- Number of signatory countries: **35** (out of 36)
- Number of MC Members: **66** (+ Chair)
- Near Neighbour Country Institutions: 2 approved, 1 in submission
  
  National Research Tomsk Polytechnic University  
  YK State University of Grodno  
  RUDN University  

- International Partner Country Institutions:
  
  ✓ **12** approved and activated, 1 pending COST approval
  
  Beijing Jiaotong University  
  Tokyo Institute of Technology  
  Comsearch  
  NIST  
  Samsung Electronics Co.  
  Japan Advanced Institute of Science and Technology  
  Motorola Mobility LLC  
  Universidad Icesi  
  Niigata University  
  Northeastern University  
  University of Prishtina  
  CSIR  
  Huawei Device Company  
  "National Research Tomsk Polytechnic University"  
  "YK State University of Grodno"  
  "RUDN University"  
  "Beijing Jiaotong University"  
  "Tokyo Institute of Technology"  
  "Comsearch"  
  "NIST"  
  "Samsung Electronics Co."  
  "Japan Advanced Institute of Science and Technology"  
  "Motorola Mobility LLC"  
  "Universidad Icesi"  
  "Niigata University"  
  "Northeastern University"  
  "University of Prishtina"  
  "CSIR"  
  "Huawei Device Company"  
  Russian Federation  
  Belarus  
  United States of America  
  Korea, Republic of  
  Japan  
  United States of America  
  Colombia  
  Japan  
  United States of America  
  Kosovo  
  South Africa  
  China
4. Status of the Action

- 198 registered experts
- 132 MC Members (+chair)
- 105 participants per meeting (average)
- 72 presented TD/workshop papers (average)
- 458 participants registered
- 38 research infrastructures
- 3% Small and medium enterprises
- 3 meetings per grant year
- 1 training school per grant year
- 11 STSM completed

- 14% women
- 36% ECI
- 14% Research
- 75% university
- 8% industry
4. Status of the Action

Partners (1)

• COST Country institutions
  ✓ Commitment to have contributions (TD, tutorial, etc.) at least at ONE meeting/training school per year
  ✓ Deregistration from the internal website access if not fulfilled

• Near Neighbour Country institutions
  ✓ Commitment to have contributions (TD, tutorial, etc.) at least at ONE meeting/training school per year
  ✓ Deregistration from the internal website access if not fulfilled
4. Status of the Action

Partners (2)

- International Partner Country Institutions

When should we accept applications from NCIs?

COST rules: mutual benefit

Other criteria: scientific excellence (Universities) role in industrial context (Industries) technical topics and WGs addressed geographic balance

✓ Commitment to have contributions (TDs, tutorial, etc.) at TWO meetings/training schools per year

✓ Deregistration from the internal website access if not fulfilled
4. Status of the Action

Pending approvals

- Huawei (CN)
  ✓ Representative: Dr Wu Xingfeng
  ✓ Status: pre-approved by IRACON MC, needs COST EB approval

- RUDN University (RU)
  ✓ Letter of motivation received
  ✓ Status: needs SO validation
4. Status of the Action

Dormant partners

• Some 20 partners have not been active since the start of the Action

• After The Graz meeting
  ✓ we have contacted those who are inactive
  ✓ these partners were deregistered from the website (access is regained through any activity)
4. Status of the Action

Important Reminders: Reimbursement Eligibility

• MC meetings
  ✓ Up to two MC members per COST Country
  ✓ MC members can be replaced by officially nominated MC substitute, if the Chairman and GH receive request by given deadline
  ✓ Eligibility priority for MC meetings
  1. All MC members who apply, or MC official substitutes, Action Chair, Secretary, invited speakers and ECI representative
  2. WG/EWG/SWG Chairs (while budget is available*)
  3. Non-MC members, presenting a TD, when replacing an MC member (while budget is available*)
  4. Other experts, one per country (while budget is available*)

• Technical meetings
  ✓ Eligibility priority
  1. Action Chair, invited speakers
  2. WG/EWG/SWG Chairs (while budget is available*) in combination with COST policy priorities (inclusiveness/gender)
  3. Core Group members, Secretary (while budget is available*)
4. Status of the Action

Important Reminders: Deadlines and Procedures

- TD submission
  - Request a TD number (20 days before the meeting)
  - Send to the secretary a full TD (10 days before the meeting) using the cover page available on the website

  These deadlines are set to enable the StC to prepare the meeting schedule

- Meeting registration: two actions are required
  - Register on IRACON website (20 days before the meeting)
  - Accept the e-cost invitation
4. Status of the Action

Important Reminders: Deadlines and Procedures

• Reimbursement (for those entitled to)
  ✓ Accept the e-cost invitation
  ✓ Fill the the e-cost and submit the claim (after the meeting)

  The reimbursement procedure MUST take place on e-cost

✓ If you cannot attend but are replaced by an eligible substitute
  • Send a request to the Chair and GH (cc: secretary) at least 20 days
    prior to the event to enable the reimbursement of your official substitute
Important Reminders: e-Mailing and Acknowledgment

- Usage of global reflector
  - From this meeting on, the global reflector (all_ca15104@iracon.org, moderated) should not be used to advertise events (outside those of the Action itself)
  - Ask Lucia (lucia.vitiello@unibo.it) to include your announcement on the IRACON Web Page

- WG reflectors have been created

- Acknowledge COST CA15104 IRACON on all joint publications
  - This work was carried out in the framework of COST Action CA15104 IRACON
4. Status of the Action

September 2017
3rd workshop and 5th MCM (Graz, 12-14 Sep 2017)
15 workshop papers and 53 TDs → 68 presentations
2 Invited Speakers

September 2017
COST Connect on “Next Generation Internet” (Brussels, 12-13 Sep 2017)
IRACON to be represented by Laurent Schumacher (MC substitute, Belgium)
IRACON invited speaker: Jean Herveg (CRIDS, Belgium)
  • Decentralized internet governance scenarios
  • Human rights and the surveillance society
  • Social and Health care and the digital welfare state
  • Education and the development of critical minds
4. Status of the Action

November 2017
COST Connect on “The relevance of impact in R&I policy – What role for networks?” (Brussels, 24 Nov 2017)
   IRACON represented by Claude Oestges

January 2018
6th MCM (Nicosia, 29-31 2018)
   Software Defined Radio Training tutorial
   48 TDs
   2 Invited Speakers

February 2018
COST Academy Training on Using social media to communicate your research
(Brussels, 6 Feb 2018)
   IRACON represented by Luis Correia
4. Status of the Action

March 2018
3rd IRACON Training School (Lisbon, 5-9 March 2018)
   Beyond 5G Networks operating in the Millimetre Wavebands enabled by Joint Analogue-digital Signal Processing

April 2018
COST Connect on “How to shape a Sustainable Urban Mobility for all?” (Bucharest, 25-26 April 2018)
   IRACON represented by Vasos Vassiliou (MC Cyprus)

May 2018
7th MCM (Cartagena, 30 May-1 Jun 2018)
   Organized by Jose Molina-Garcia-Pardo
   Training seminar on "RF Localisation Techniques" (jointly organized with ITN WIBEC)
Dissemination Actions: Special Sessions

- EuCAP 2018, London, April 9-13, 2018
  → 4 IRACON special sessions
  ✓ Beamforming techniques for information and power transmission – a joint COST IRACON and COST WiPE session
  ✓ COST CA15104 (IRACON): Frequency dependency modelling of radio channels
  ✓ COST CA15104 (IRACON): Measurements and simulations in channel modelling in wireless body area networks
  ✓ COST CA15104 IRACON: Mm wave and THz channel modelling

- IEEE WCNC 2018: IRACON Special Session on Localization in Current and Emerging Networks, Barcelona, 15-18 April 2018
  ✓ Organizers: UAB, Chalmers, DLR
4. Status of the Action

Dissemination Actions: Workshops

• IEEE WCNC 2018: IRACON Workshop on IoT Enabling Technologies in Healthcare, Barcelona, 15 April 2018
  ✓ Workshop organizers: Kamran Sayrafian, Hamed Ahmadi, Konstantinos Katzis, Slawomir J. Ambroziak

• EuCNC 2018: Joint IRACON-Clear5G-5Gcar Workshop on Vertical Industries & Applications for 5G (VIA5G), Lubljana, 18-21 June 2018
  ✓ Workshop organizers: Haibin Zhang, Klaus Moessner, Woon Hau Chin, Erik Ström, Chiara Buratti, …

• PIMRC 2018, Bologna, 9-12 Sep 2018
  ✓ Proposals for Special Sessions and Workshops → March 2, 2018
  ✓ Proposals for Tutorials → April 20, 2018
**M25 Monitoring Report**

At month 25 of the Action’s lifetime, the Action Chair on behalf of the Action MC submits the Action Progress Report, which includes information on the activities of the Action up to month 24 of the Action’s lifetime. The Action Rapporteur submits a Progress Review remotely, after receiving the Action Progress Report.

The main objective of the external monitoring is to provide an assessment of the progress of the COST Action with relation to the:

- implementation of networking activities;
- development of S&T activities towards the Action’s MoU objectives;
- achievement of MoU deliverables,
- achievement of additional outputs / achievements, including projects resulting from Action activities and co-authored Action publications by at least two Action participants from two countries participating in the Action, that are on the topic of the Action and for which the networking was necessary;
- impacts of the Action (the short- to long-term scientific, technological and / or socioeconomic changes produced by the Action, directly or indirectly, intended or unintended);
- dissemination and exploitation of Action results;

In addition, information is collected on Action success(es), and where necessary, corrective measures / recommendations are suggested by the Action Rapporteur.

Monitoring of the implementation of COST Excellence and Inclusiveness Policy (Section 5) may be repeated as requested by the assessment of Progress Report at 12 months.

In case the COST Action fails to comply with their reporting obligation or does not take the necessary measures to address issues identified by the Rapporteur, the COST Association may delay the signing of the Action Grant Agreement for the following Grant Period, and / or notify the CNC of the Action Chair.
## 4. Status of the Action

### M25 Monitoring Report

<table>
<thead>
<tr>
<th>NO</th>
<th>Bibliographic data (including: Title, Authors, Title of the periodical or the series, Issue number or volume, Publisher, Year of publication, Relevant pages)</th>
<th>Main author</th>
<th>Number of authors</th>
<th>Action participants listed among the authors (Name, country and role)</th>
<th>WGs involved in publication</th>
<th>Date of submission (must be after Action start date)</th>
<th>Expected date of publication (if not already published)</th>
<th>Persistent link to publicly available version of the paper (if available) or the abstract</th>
<th>Is/Will open access be provided to this publication?</th>
<th>Is/Will COST be cited/acknowledged in this publication?</th>
<th>Are/Will COST funds (be) implicated in this publication?</th>
<th>Relevance to H2020 Societal Challenges?</th>
<th>Is it peer-reviewed?</th>
<th>Was the added value of the Action Networking necessary for the publication?</th>
<th>Impact Factor (if applicable)</th>
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</table>

### FP7/ H2020 Proposals and projects

This table contains FP7/ H2020 proposals/ projects spinning off from Action activities and including in the proposing consortium at least three Action participants from at least three different countries participating in the Action.

<table>
<thead>
<tr>
<th>NO</th>
<th>Title</th>
<th>Name and country of main proposer</th>
<th>Number of proposers</th>
<th>Action participants listed among the proposers (Name, country, role) in the Action</th>
<th>Funding agency submitted to</th>
<th>Date submitted</th>
<th>Date results expected</th>
<th>Result</th>
<th>Call identifier</th>
<th>Relevance to H2020 Societal Challenges?</th>
<th>Was the added value of the Action Networking necessary for the proposal / project?</th>
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<tbody>
<tr>
<td>Projects</td>
<td>List FP7/ H2020 projects resulting from the Action in this section of the table</td>
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<td>Proposals</td>
<td>List FP7/ H2020 proposals submitted as a result of the Action in this section of the table</td>
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</table>
5. Deliverables

Technical deliverables for the first two years

• **Deliverable 1** (M14, May 2017): Working Groups first year term annual report summarising the achievements of every WG → all WGs

• **Deliverable 2** (M20, November 2017): Overview of IRACON Reference Scenarios and assessment of 5G radio access techniques through experimental platforms → WG3, EWG-RA

• **Deliverable 3** (M24, March 2018): Submission to international bodies of contributions about concerted 5G radio channel models → WG1

• **Deliverable 4** (M24, March 2018): Collaborative white paper on new localization techniques suitable for 5G and the Internet of Things → EWG-LT+IoT

• **Deliverable 5** (M26, May 2018): Working Groups second year term annual report summarising the achievements of every WG → all WGs
5. Deliverables

Technical deliverables for the last two years

- **Deliverable 6** (M36, March 2019): Collaborative white paper on future architecture and protocols for the Internet of Things → EWG-IoT
- **Deliverable 7** (M38, May 2019): Working Group third year term annual report summarising the achievements of every WG → all WGs
- **Deliverable 8** (M42, September 2019): Technical inputs and liaison statements to Standardisation Groups on metrics for Over the Air (OTA) testing → EWG-OTA
- **Deliverable 9** (M42, September 2019): IRACON concerted radio channel models for 5G and beyond (draft book chapter) → WG1
- **Deliverable 10** (M26, May 2018): Working Group final report summarising the achievements of every WG in the overall Action (draft book) → all WGs
5. Deliverables

Deliverable 3

• **Edition**
  ✓ WG1 chairs are the editors

• **Content**
  ✓ Channel models submitted to ITU-R
  ✓ Scientific results and dissemination activities (no equations !)

• **Schedule**
  ✓ Draft version by March 1, 2018
  ✓ Review by Chair/Vice-Chair by March 15, 2018
  ✓ Delivery by March 31, 2018
Deliverable 4

- **Edition**
  - ✓ E-WG LT chairs are the editors

- **Content**
  - ✓ Based on Graz workshop
  - ✓ Scientific results and dissemination activities (no equations !)

- **Schedule**
  - ✓ Draft version by March 1, 2018
  - ✓ Review by Chair/Vice-Chair by March 15, 2018
  - ✓ Delivery by March 31, 2018
## Grant Holder

**cnit**

## Secretary

Miss Lucia Vitiello

### Budget for Y1

<table>
<thead>
<tr>
<th>Networking Tool</th>
<th>Description</th>
<th>Budget</th>
<th>Actual expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meetings</td>
<td>2 MCMs, 1 TM, 1 workshop</td>
<td>97 910.00 EUR</td>
<td>92 173.63 EUR</td>
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<tr>
<td>Training Schools</td>
<td>1 TS</td>
<td>12 500.00 EUR</td>
<td>11 164.00 EUR</td>
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<tr>
<td>STSMs</td>
<td>6 STSMs</td>
<td>7 200.00 EUR</td>
<td>7 851.59 EUR</td>
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<tr>
<td>Dissemination</td>
<td>1 (website set-up)</td>
<td>4 500.00 EUR</td>
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<tr>
<td>Other Expenses Related to</td>
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<td>498.65 EUR</td>
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<td>Scientific Activities</td>
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<td><strong>Total Science Expenditure</strong></td>
<td></td>
<td><strong>122 608.65 EUR</strong></td>
<td><strong>116 252.02 EUR</strong></td>
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<tr>
<td>Financial and Scientific</td>
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<tr>
<td>Administration and</td>
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<td>18 391.30 EUR</td>
<td>17 437.80 EUR</td>
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<td>Coordination (MAX. 15%)</td>
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<td><strong>Total Grant</strong></td>
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<td><strong>140 999.95 EUR</strong></td>
<td><strong>133 689.82 EUR</strong></td>
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## 6. Financial Reporting

### Grant Holder

**cnit**

### Secretary

Miss Lucia Vitiello

**Budget for Y2: we are on the right track!**

<table>
<thead>
<tr>
<th>Networking Tool</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Meetings</td>
<td>2 MCMs, 1 TM, 1 workshop</td>
<td>126 000.00 EUR</td>
<td>84 303.85 EUR</td>
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<tr>
<td>Training Schools</td>
<td>1 TS</td>
<td>15 000.00 EUR</td>
<td>3 200.00 EUR</td>
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<tr>
<td>STSMs</td>
<td>6 STSMs</td>
<td>12 700.00 EUR</td>
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<td>ITC Conference Grants</td>
<td>New tool</td>
<td>6020.00 EUR</td>
<td>750.00 EUR</td>
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<td>Other Expenses Related to</td>
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<td>Scientific Activities</td>
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<td>Total Science Expenditure</td>
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<td>160 670.03 EUR</td>
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<td>Financial and Scientific</td>
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<td>15 %</td>
<td>24 100.50 EUR</td>
<td>15 018.19 EUR</td>
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<td>Total Grant</td>
<td></td>
<td>184 770.03 EUR</td>
<td>115 139.44 EUR</td>
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</table>
ITC conference grants

**What?** Grant to *partially* cover expenses for attending a conference (preferably in Europe) related to IRACON

**Whom?** ECIs from Inclusiveness Target Countries* presenting a paper/poster

**How?** Apply on e-cost at least 45 days before the conference but after the paper is accepted (as a proof of acceptance is needed)

Still open on Y2 budget for conferences taking place between March 15 and April 31

**Criteria (evaluated by Action Chair and ECI Rep)**

- IRACON special sessions and workshops at international conferences
- Other flagship international conferences related to IRACON objectives
- CV and IRACON involvement of the applicant
- Quality of the paper

* Bosnia-Herzegovina, Bulgaria, Cyprus, Czech Republic, Estonia, Croatia, Hungary, Lithuania, Latvia, Luxembourg, Malta, Montenegro, Poland, Portugal, Romania, Slovenia, Slovakia, the former Yugoslav Republic of Macedonia, Republic of Serbia and Turkey
# 6. Financial Reporting

## Grant Holder

**cnit**

## Secretary

Miss Lucia Vitiello

## New Work and Budget Plan for Y3

<table>
<thead>
<tr>
<th>Networking Tool</th>
<th>Description</th>
<th>Budget</th>
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</thead>
<tbody>
<tr>
<td>Meetings</td>
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<tr>
<td>Training Schools</td>
<td>2 TS</td>
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<tr>
<td>STSMs</td>
<td>At least 12 STSMs</td>
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<tr>
<td>ITC Conference Grants</td>
<td>Conference grants</td>
<td>4000.00 EUR</td>
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<tr>
<td>Other Expenses Related to Scientific Activities</td>
<td>Bank fees</td>
<td>1000.00 EUR</td>
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</table>

## Total Science Expenditure

166 087.00 EUR

## Financial and Scientific Administration and Coordination (MAX. 15%)

15 %

## Total Grant

191 000.00 EUR
In what follows, one presents the status on the Dissemination and Exploitation actions that we’ve presented in the Action proposal, and that we’re required in general.

The following Colour Code is used for status:

- Still to be done
- On-going
- Done
- Not depending on us
- No longer valid
- General Statements
Dissemination in IRACON (1)

- Organisation of Training Schools, with IRACON lecturers, which are open to the community at large. [Laurent C]

- Joint organisation of Training Schools, with lecturers from IRACON and from other Actions and H2020 R&D projects, open to the scientific community at large. [Laurent C]

- Establishment of strategic liaisons and joint activities (e.g., joint meetings and workshops) with other COST Actions and H2020 R&D projects in this area. [Claude O / Luis C]

- Organisation of topic specific Special Sessions and Workshops in conferences, namely EuCNC, but extending to key IEEE ones, such as ICC, GLOBECOM, PIMRC, and WCNC, and URSI GA. [Luis C]
Dissemination in IRACON (2)

- Presentation of IRACON in EC Coordination Meetings, reaching projects in the same area. [Claude O]

- Active participation in COST supervised and organised activities and events (COST CONNECT). [Claude O]

- Issue of an Action Leaflet, by the beginning of activity, explaining the key aspects of IRACON, to be distributed to stakeholders. [Margot D / Luca F]
Dissemination in IRACON (2)

• Issue of:

  • a Quarterly Newsletter, with key news from IRACON, addressing major technical and scientific developments, and announcing future activities and events; [Margot D / Luca F]

  • White Papers, with the views of IRACON on the future development and research challenges in wireless communications, focusing on its specific areas. [Claude O]
Exploitation in IRACON (1)

- To set up consortia with some of its members for the proposal of projects within H2020. [Luis C]

- To develop models and methods coming from the joint work developed within the Action, to be published in the proper means (e.g., scientific journals, but not exclusively). [Claude O]

- To foster the conditions to submit contributions on models and methods to standardisation bodies, jointly with industry, towards the conclusion of the Action. [Claude O]

- To foster the creation of a confederation of experimental environments in research labs, so that experimentation can be made available to other research groups (in both academia and industry) as well as SMEs (e.g., to evaluate solutions before reaching the market) within the Action. [Claude O]
Exploitation in IRACON (2)

• To use the knowledge created in the Action by many of its members in teaching at graduate and post-graduate levels. [Luis C]

• To edit a book at the end of the Action, with its main results, to be published by a commercial company in the area of R&D. [Claude O]
The Plan (1)

- “Dissemination and training will be supervised by the Dissemination Manager and the Training School Coordinator,”
- “Each WG will deliver one annual report on achievements” [Claude O]
- “Each WG will be responsible for the organisation of one tutorial (tutorials will be organised in conjunction with MC meetings)” [Claude O]
- “Each WG will be responsible for the organisation of one training school” [Laurent C]
- “All WGs will also organise workshops and special sessions in international conferences and contribute to WG- and Action-level white papers.” [Luis C]
## 7. Report from Dissemination Manager

### The Plan (2)

<table>
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<tr>
<th>WG / Task</th>
<th>Project Year</th>
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<td>B.1</td>
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</table>
Other Actions (1)

• To establish liaisons to other Bodies (Actions, Projects, Working Groups, etc.), and to report on it both ways. [Claude O]

• To organise joint activities with other Actions, Projects, Working Groups, etc. [Claude O / Luis C]

• To invite Keynote Speakers from relevant projects, industries, and so on, to our meetings. [Claude O]

• To promote the publication of joint papers within ourselves, in journals, conferences, workshops, etc. [Claude O]

• To circulate the Newsletter among the liaisons, within our organisations, etc. [Margot D / Luca F]
Other Actions (2)

- To send the Newsletter to our Scientific Officer (and Rapporteurs!) and to provide him with further news. [Margot D / Luca F]

- To have the website always update, and to include frequent updates in it. [Roberto V / Lucia V]

- To use Social Media (LinkedIn Group, Facebook, Instagram, Twitter, etc.) in order to foster international visibility. [Roberto V / Lucia V]
7. Report from Dissemination Manager

Still Other Actions

• To make available several platforms on specific topics that will allow testing new solutions in real conditions. [Roberto V]

• A list of the research groups in Europe with activity in the area of the Action will be established, and invited. [Luis C]

• A list of the Graduate Schools (i.e., universities awarding a Ph.D. degree) in Europe with activity in the area of the Action will be established, so that the Action can reach Ph.D. students for its Training Schools. [Luis C]

• The Action will be presented to the Networld2020 ETP and the 5G-PPP. [Claude O]
## Status on information regarding the **List of Research Groups:**

<table>
<thead>
<tr>
<th>Austria</th>
<th>Ireland</th>
<th>Spain</th>
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</thead>
<tbody>
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<td>Israel</td>
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<tr>
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<tr>
<td>Iceland</td>
<td>Slovenia</td>
<td>No inputs</td>
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</table>
Leaflet

- Goal: high-level introduction of the Action
  - Explains the key aspects of our activities
- Updated after each meeting
- Available at [www.iracon.org](http://www.iracon.org) under “Publications”

Newsletters

- All issues available at [www.iracon.org](http://www.iracon.org) under “Publications”
- Next issue to be expected after this meeting

Blog

- To launch discussions and/or express views on matters dealt with within the Action
  - Possible blog posts include, but are not limited to: a short survey, a technical overview, a small tutorial, etc.
- Schedule ensuring (at least) a bi-monthly contribution
- Contributors: members of Steering Committee
- If you have an interesting contribution for the blog, contact Luca Feltrin
7. Report from Dissemination Manager

Fell free to send entries to our blog

TELECOMS IN 2050?
I would like to launch a competition on what telecoms will be in year 2050, i.e., in roughly 30 years from now. If you look at the last decades, we witnessed the emergence of two technologies, i.e.,...

ONE YEAR BACK (22ND OF MARCH)
The kick off of the action took place exactly one year ago today. I remember this date not really for this kick off but because in Brussels, that day, terrible terrorist attacks took place – s...

SUCCESS OF MOBILE RADIO COMMS. IN COST
Have you ever wondered why we (the COST mobile radio communications community, currently, IRACON) are so successful? What I mean is that, if you look into the many communities that have been active ...

THE LIQUID NETWORK.
The recent releases of 3GPP for LTE have introduced the notion of D2D (Device to Device), a revolutionary step from the viewpoint of network topology and operation: direct communication between device...

THE DISAPPEARANCE OF TELECOMMUNICATIONS AND MASLOW'S PYRAMID
Seventeen years ago Roberto Saracco wrote a book preconizing the disappearance of telecommunications. According to his vision, our discipline would have soon disappeared, as asphalt did many times bef...

Read More
8. Presentation and Discussion of TDs

There are 48 TDs to be presented

Working Groups discussions should include

- Next deliverables
- Training School proposals/topics for 2019 and beyond
- Workshop and special session proposals for 2018 (eg PIMRC) and beyond
- Joint activities with H2020 projects
- Tutorial offers for upcoming meetings

- Joint activities (experiments, papers, etc.)
- Short Term Scientific Missions among participant institutions

- Any other idea to foster the dissemination of the Action?
## 8. Presentation and Discussion of TDs

### Nicosia (CY) Jan 29-31, 2018

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<th>Day Two</th>
<th>Day Three</th>
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### Start time

- **9:00 to 10:30**
- **9:00 to 10:15**
- **9:00 to 10:15**

### Sessions

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### TDs

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### Sessions

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<th>WG3 (+IoT)</th>
<th>(groups of interest)</th>
<th>OSA</th>
<th>WG3</th>
<th>IoT (+cRA)</th>
<th>(groups of interest)</th>
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### Lunch

- **13:00-14:00**
- **14:00-15:30**
- **12:00-14:00**
- **14:00-15:30**
- **14:00-17:00**

### Coffee Break

- **10:30-11:00**
- **10:45-12:00**
- **10:45-12:00**

### End time

- **City-tour**
- **Dinner**
- **20:30-end**
Management Committee Meeting resumes on Wednesday at 10:45

Transport to the airport: how many taxis?
9. Report from Training Manager

Training Schools – Open call for participation/grants

IEEE VTS Portugal Chapter/COST-IRACON Joint Winter School on Beyond 5G Networks operating in the Millimetre Wavebands enabled by Joint Analogue-digital Signal Processing

Contact: Fernando J. Velez

Dates – 5-9 of March 2018
Host – Instituto de Telecomunicações, Lisbon site, Portugal

- Recent advances in antennas, RF, signal and multi antenna processing to achieve implementable Massive Antenna Array Systems (MAAS) technologies at mmW frequencies
- Business aspects, cost/revenue trade-off, standardization, public policies for spectrum sharing, entrepreneurship and IPR protection …
Training Schools – Open call for participation/grants

IEEE VTS Portugal Chapter/COST-IRACON Joint Winter School on Beyond 5G Networks operating in the Millimetre Wavebands enabled by Joint Analogue-digital Signal Processing

Contact: Fernando J. Velez

Dates – 5-9 of March 2018
Host – Instituto de Telecomunicações, Lisbon site, Portugal

Budget – MC decision required to lower the flat rate for speakers to 75 EUR/day
9. Report from Training Manager

Training Schools – Upcoming (?)

Joint IRACON & Met5G Training School
Tim Brown

Working Title – Massive MIMO and Massive Interference – Identifying and Quantifying for Future 5G Networks

Proposed dates – April 2018

Host – University of Surrey, Guildford, UK. Easily accessible from London Heathrow and Gatwick Airports

1. Massive MIMO Systems and their purpose
2. Structural function of Massive MIMO and issues around interference including non linearity
3. The necessity to characterize SINR in supporting future 5G systems
4. Traceable metrology solutions for characterizing/predicting SINR
Trainig Schools – Next Grant period

IRACON Training School

Working Title – Transmission of small information quantities in dense networks, from theory to practice
Jean-Marie Gorce, Laurent Clavier

Proposed dates – around Oct 2018
Host – Lyon, France.

1. **Theoretical fundations** – Inf. Theory, small packets, stochastic geometry, interference… Cooperation – Network coding.
2. **Connected things** - Energy harvesting / RF / Hardware / OS and embedded software
3. **Standardization and access networks** - (802.15.4, LP-WAN, Lifi...) → SigFox / LoRa / NB-IoT
4. **Experimentation** - 1/2 day cortex-lab or NB-IoT ; 1/2 day FIT-Senslab, MAC & NET
STSMs for GP1

Spain (x2), Austria, Danemark (x2), Croatia, Belgium, Italy (x3), Germany (x2), France (x3), Finland (x2), Portugal, Bosnia and Herzegovina (x2)

1. Multi-bands MIMO dual-Pol measurements and characterization of Radio Propagation for future 5G and B5G Wireless systems
2. Spatial Consistency in 5G Radio Channel Propagation mm-wave Spectrum
3. Characterization and Modeling of the MIMO Radio channel in the W-band
4. Concealed, Chassis Integrated, Pattern Reconfigurable, Automotive Antenna
5. Over-the-air performance evaluation of massive MIMO antenna systems in anechoic chambers
6. Implementation and measurement of 5G waveform candidate using OpenAirInterface
7. Introducing Multiple UAV Trajectories in UAV-Aided B5G Networks
8. Impact of Radio Channel on the Performance of ALOHA-based Medium Access Control Schemes
9. Experimental Characterization of Joint Scheduling and Routing algorithm over 6TiSCH
10. Performance Evaluation of MCF (minimum cost forwarding) and SRMCF (source routing MCF) routing protocols over 6TiSCH (IPv6 over the TSCH mode of IEEE 802.15.4e)
9. Report from Training Manager

STSMs for GP2

9 accepted already – 2 rejected – 1 cancelled
Sweden (x5), Belgium, Austria (x2), UK, Finland, Spain (x2), Poland (x2), Portugal (x2), Italy, Russia

2. Characterization and design of mm-wave antennas for 5G
3. Polarised Off-body Channel Measurements with Dynamic User
4. Simulations of the radio channel in off-body communications in a passenger ferry environment
5. 5th Generation (5G) Communications: Parameterizing COST2100 at 60 GHz for the establishment of simplified user scheduling for Massive MIMO
6. Power-efficient and reliable mm-wave communications in dynamic environments
7. Design RF devices in millimetres with glide-symmetry structures
8. Tactile internet enabled Drone Control over LTE for Ultra-Dense Cloud Drone Networks
9. Elaboration and description of multipath propagation for mmW
Upcoming Meetings

• **7th MC and technical meeting**
  - Cartagena (ES), **30 May – 1 June 2018**
  - Organizer: Jose Molina-Garcia-Pardo

• **8th MC and technical meeting**
  - Podgorica (MT), **1-3 October 2018**
  - Organizer: Milica Pejanovic-Djurisic
10. Future Meetings

Future Meetings

- 9th MC and technical meeting
  - Jan 2019 (week 3 or 4)
  - Offer from DCU Dubin (EI)

- 10th MC and technical meeting
  - Spring 2019
  - Offers from CEA-LETI Grenoble (FR), UGent (BE), U Oulu/Keysight (FI), CTTC Barcelona (ES)

- 11th MC and technical meeting
  - Fall 2019
  - Offer from Gdansk University (PL)
11. Reports from WG Chairs

DWGs
1. WG-1 (radio channels): Sana Salous and Katsuyuki Haneda
2. WG-2 (PHY-MAC): Hanna Bogucka and Jan Sykora
3. WG-3 (NET): Silvia Ruiz and Hamed Ahmadi

EWGs
1. WG-OTA: Wim Kotterman and Moray Rumney
2. WG-IoT: Erik Ström and Chiara Buratti
   ✓ SWG IoT-Health: Slawomir J. Ambroziak and Kamran Sayrafian
3. WG-LT: Carles Anton and Klaus Witrisal
4. WG-RA: Florian Kaltenberger and Mark Beach
12. Liaisons

List of liaisons with international bodies, standards and projects

- **3GPP** – Aki Hekkala
- **URSI** – Sana Salous
- **ITU-R** – Sana Salous and Belen Montenegro
- **H2020 5G-XCAST** – Narcis Cardona
- **H2020 5G X-haul** – Mark Beach
- **CommNet (EPSRC network)** – Mark Beach
- **IEEE 1900.6** – Kostas Katzis
- **EurAAP** – Claude Oestges
- **EURACON** – Roberto Verdone
- **WiBEC** – Narcis Cardona
- **5G initiative** – Fernando Velez
- **Met5G** – Tim Brown
- **Clear5G** – Haibin Zhang
13. AOB

Deadlines

The dates for Cartagena (ES) meeting are fixed
   → Book your flight and hotel early

Submit
• EuCNC SS/Workshop proposals by Feb 12, 2018
• PIRMC SS/Workshop proposals by March 2, 2018
## Action points

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<th>WHO</th>
<th>WHOM</th>
<th>WHEN</th>
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<td>7/1</td>
<td>Submit reimbursement forms</td>
<td>Those entitled to</td>
<td>e-cost</td>
<td>Feb 15</td>
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<tr>
<td>7/2</td>
<td>Send Minutes of Group Meetings</td>
<td>Group Chairs</td>
<td>Chair + Secretary</td>
<td>Feb 15</td>
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<tr>
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<td>Send STSM Applic.</td>
<td>Those interested</td>
<td>e-cost +Training Chair</td>
<td>Open call</td>
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<tr>
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<td>e-cost +Action Chair</td>
<td>Open call</td>
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<td>Send list of joint publications/projects</td>
<td>All</td>
<td>Secretary</td>
<td>Feb 15</td>
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### Action points

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<tr>
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<td>Send drafts for D3 et D4</td>
<td>WG1 &amp; EWG-LT chairs</td>
<td>Chair, Vice-Chair</td>
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Thank you!

See you in Cartagena, Spain
May 30 June 1, 2018

Claude Oestges
ICTEAM
Université catholique de Louvain