

# TRIANGLE



Applications and  
Devices Benchmarking



## **5G Applications and Devices Benchmarking TRIANGLE**

Experiment Agreement Template



## Contents

1	Definitions .....	5
2	Overall responsibilities of the experiment group .....	7
3	Financial support.....	8
4	Provisions in the Grant Agreement to apply to the Experiment Group .....	10
5	Intellectual property rights.....	10
6	Maintenance and support services .....	13
7	Liability .....	13
8	Processing of personal data .....	14
9	Non-disclosure of confidential information .....	15
10	Dissemination & communication.....	17
11	Term and termination.....	18
12	Miscellaneous .....	18
13	Applicable law and venue .....	19
Appendix 1	“Triangle Testbed Description” .....	22
Appendix 2	“Experiment Specifics” .....	24
Appendix 3	“Model for technical Report” .....	25
Appendix 4	“Model for Financial Statements” .....	26
Appendix 5	“GA Flow-Down Obligations” .....	28



## Experiment agreement summary

This is a summary provided in plain language of (and not a substitute for) the Experiment Agreement.

**DISCLAIMER:** This summary highlights only some of the key features and terms of the actual Experiment Agreement. The summary is not an agreement, nor a promise of any kind, and has no legal value. You should carefully review all of the terms and conditions of the Experiment Agreement before submitting your proposal. The summary is in no way a substitute for actual legal advice. The Triangle Partners disclaim any and all liability that may ensue from relying on the summary.

### YOU ARE ENTITLED TO:

- **Financial support** of the size granted to you, if any, as specified in your individual Experiment Agreement.
- **Use the Triangle Testbed** to the extent needed for the implementation of your experiment. This right to use the Triangle Testbed for implementation of your experiment comprises a right for you to create **commercial or noncommercial services** that rely upon or are based upon the Triangle Testbed and make such services available for the public's use free of charge or paid for.

### UNDER THE FOLLOWING KEY TERMS:

- **Reports** – You must submit the financial and technical reports in the form and at the times specified in your individual Experiment Agreement.
- **Rights for others to use your experiments results** – While the experiment results will be owned by you, the Triangle Partners and their affiliates will have a royalty free right
  - to use, and permit use of, your experiment results, that are changes and additions to the Triangle Testbed, for any purpose; and
  - to use, and permit use of, any other of your experiment results, if needed for implementation of the Triangle project.
- **Feedback** – If requested, you will be required to provide your feedback concerning the Triangle Testbed. Such feedback will be owned by you, but the Triangle Partners will be free to use it, and permit use of it, for all purposes, on a royalty free basis.
- **Personal data** – Acting as a data controller in connection with your experiment, you are required to collect and process any personal data in accordance with applicable law.
- **Non-disclosure of confidential information** – You must maintain confidentiality of Triangle Partners' confidential information. Your confidential information is also covered by confidentiality obligations that must be fulfilled by the Triangle Partners.
- **Dissemination & communication** – You have certain obligations for dissemination and communication activities relating to your experiment and its results.

### NOTE IN PARTICULAR:

- **No warranties or representations are given** – For instance you must ensure that your intended use of the Triangle Testbed does not infringe any third parties' rights.
- **No maintenance services or technical support obligations** – This also means that there is no guarantee that the Triangle Testbed will function as intended, or required, or without interruption, or be kept available for any particular period of time. They are provided "as is".
- **Conducting the experiment is at your own risk** – You will bear the full risks in connection with your experiment, including any risk that may arise from using the Triangle Testbed.



## Experiment agreement

relating to the research project entitled “Triangle” under Horizon 2020 – the Framework Programme for Research and Innovation (2014-2020)

This EXPERIMENT AGREEMENT is entered into by and between:

**University College London** (hereinafter referred to as the “**Coordinator**”, a higher education institution governed by Royal Charter (Number RC 000631) whose registered office is at Gower Street, London WC1E 6BT

and

[Official name in full and registration number] (hereinafter referred to as the “**Experiment Lead**”), a legal entity under the laws of [country], having its registered office at [official address in full]

and

[Official name in full and registration number], having registered address at [official address in full]

and

[Official name in full and registration number], having registered address at [official address in full],

(hereinafter together with the Experiment Lead individually referred to as an “**Experimenter**” and collectively referred to as the “**Experiment Group**”)

of the second part

hereinafter, jointly or individually, referred to as “**Parties**” or “**Party**”

relating to the research project under Horizon 2020 – the Framework Programme for Research and Innovation (2014-2020) – entitled “**Triangle**” (hereinafter referred to as the “**Triangle Project**” or just the “**Project**”).



## PREAMBLE:

- WHEREAS the Coordinator participates in the Triangle Project together with Keysight Technologies Belgium (“Keysight”), Keysight Technologies Denmark ApS (“Keysight Technologies ApS”), Universidad De Malaga (“UMA”), Redzinc Services Limited (“Redzinc”), DEKRA Testing and Certification S.A.U. (“DEKRA”) and Quamotion bvba (“Quamotion”) (hereinafter collectively referred to as the “Triangle Partners”);
- WHEREAS the Triangle Partners have entered into a written agreement (with reference 688712) on 10 November 2015 with the European Commission for carrying out the Triangle Project (“**the Grant Agreement**” or “**GA**”) under which the European Commission awards a grant for the Triangle Project;
- WHEREAS the Triangle Partners have among themselves entered into a written agreement detailing their respective rights and obligations towards each other for carrying out the Triangle Project and exploiting the results thereof (“**the Consortium Agreement**” or “**CA**”);
- WHEREAS the Triangle Partners have created certain test-as-a-service infrastructures as more particularly described in Appendix 1 “Triangle Testbed Description” for the purpose of making them and parts or further developments of them available free of charge, during the period of the Triangle Project through open calls to third parties for such third parties to create and make available, for use by the public, services that rely upon such infrastructures or infrastructures based upon them (collectively “**Triangle Testbed**”);
- WHEREAS the Coordinator is the coordinator of the Experiments and extensions in the Triangle Project (not Coordinator of the overall Triangle Project) and leading the overall organization of the experiments and extensions on the Triangle Testbed to be carried out by experimenters and/or extenders under the open calls, through financial support by the Coordinator and/or financed by the Experiment Group through other sources;
- WHEREAS further to an open call announcement, the Experiment Group has been selected by the Triangle Experiment Evaluation Committee to implement the experiment as detailed in Appendix 2 “Experiment Specifics” with the objective to create and make available for use by the public, services that rely upon the Triangle Testbed (the “**Experiment**”); and
- WHEREAS on the basis hereof the Coordinator is willing to make the Triangle Testbed available to the Experiment Group subject to the terms and conditions of this Experiment Agreement.

## IT IS NOW AGREED AS FOLLOWS:



## 1 Definitions

1.1 Words beginning with a capital letter shall have the meaning defined in the preamble or in this Clause 1 or elsewhere in this Agreement.

**“Access Rights”** means rights to use Experiment Results, Feedback or the Triangle Testbed under the terms and conditions laid down in this Agreement, whether for implementing the Experiment or for Exploitation.

**“Action”** means the H2020 Innovation Action call ICT-12-2015.

**“Affiliated Entity”** of a Triangle Partner or an Experimenter means:

- (a) any legal entity directly or indirectly Controlling, Controlled by, or under common Control with that Triangle Partner or Experimenter, for so long as such Control lasts; and
- (b) any other legal entity that is listed in Appendix 2 “Experiment Specifics” to this Agreement as being an Affiliated Entity of that Triangle Partner or Experimenter, where such legal entity is one in which that Triangle Partner or Experimenter (or a legal entity qualifying as an Affiliated Entity of that Triangle Partner or Experimenter under (A) directly above) has a 50 % equity share or is the single largest equity shareholder.

For the above purposes, "Control" of any legal entity shall exist through the direct or indirect:

- (c) ownership of more than 50% of the nominal value of the issued share capital of the legal entity or of more than 50% of the issued share capital entitling the holders to vote for the election of directors or persons performing similar functions, or
- (d) right by any other means to elect or appoint directors of the legal entity (or persons performing similar functions) who have a majority vote.

Common Control through government does not, in itself, create Affiliated Entity status.

**“Agreement”** means this Experiment Agreement including the Appendices hereto.

**“Appendix”** means any appendix to this Agreement.

**“Background IP”** means any and all Intellectual Property Rights which are or have been developed independently of this agreement (whether prior to the Effective Date or otherwise).

**“Confidential Information”** has the meaning given in Clause 9.1 of this Agreement.

**“Data Subjects”** means any identified or reasonably identifiable natural person falling under the definitions of “data subject” and “user” and “subscriber” according to Directives 95/46/EC and 2002/58/EC, including citizens and also workers, employees, researchers and other persons operating on behalf of the Experiment Group and/or of the Coordinator and/or of any Triangle Partners.

**“Disclosing Party”** has the meaning given it in Clause 9.1 of this Agreement.

**“Effective Date”** shall mean the date of the last signature to this Agreement.

**“Eligible Costs”** has the meaning given it in Clause 3.4 of this Agreement.

**“Experiment Results”** means any tangible or intangible outputs of the Experiment including changes or additions to the Triangle Testbed or any other outputs such as (without limitation) data, knowledge and information whatever their form or nature, whether or not they can be



protected, which are generated by or on behalf of the Experimenters in the Experiment, as well as any rights attached to them, including Intellectual Property Rights.

“**Exploitation**” or “**Exploit**” means the direct or indirect use of Experiment Results or Feedback in (a) further research activities other than those covered by the Experiment, or (b) in developing, creating or marketing a product or process, or (c) in creating and providing a service, or (d) in standardisation activities.

“**Fair and Reasonable Conditions**” means appropriate conditions, including possible financial terms or royalty-free conditions, taking into account the specific circumstances of the request for Access Rights, for example the actual or potential value of the Triangle Testbed or Experiment Results to which Access Rights are requested and/or the scope, duration and other characteristics of the Exploitation envisaged. To fall within Fair and Reasonable Conditions, the conditions must also be non-discriminatory.

“**Feedback**” means all forms of feedback from the Experiment Group concerning the Triangle Testbed, including but not limited to suggestions for improvements or modifications thereto, comments, and information about use or performance.

“**Financial Support**” means reimbursement of some or all of the Eligible Costs (as applicable) in accordance with this Agreement.

“**Force Majeure**” means any one or more events beyond the reasonable control of the relevant Party which occur after the date of signing of this Agreement, were not reasonably foreseeable at the time of signing of this Agreement, and the effects of which are not capable of being overcome without unreasonable expense and/or unreasonable loss of time to the Party concerned. Events of Force Majeure shall include (without limitation) war, civil unrest, acts of government, natural disasters, exceptional weather conditions, breakdown or general unavailability of transport facilities, accidents, fire, explosions, and general shortages of energy.

“**Intellectual Property Rights**” means: patents, patent applications and other statutory rights in inventions; copyrights (including without limitation copyrights in the Triangle Testbed Software); registered design rights, applications for registered design rights, unregistered design rights and other statutory rights in designs; and other similar or equivalent forms of statutory protection, wherever in the world arising or available, but excluding rights in Confidential Information and/or trade secrets.

“**Maximum Grant**” means the maximum amount of funding to be made available by the Coordinator to the Experiment Group by way of Financial Support as set out in Appendix 2.

“**Needed**” means in respect of executing or carrying out the Experiment, and/or in respect of Exploitation of Triangle Testbed or Experiment Results, technically essential and:

- (a) where Intellectual Property Rights are concerned, that those Intellectual Property Rights would be infringed without Access Rights being granted under this Agreement;
- (b) where Confidential Information is concerned, only Confidential Information which has been disclosed during and for the purpose of the Experiment may be considered as technically essential, except as otherwise agreed in writing between the Parties.

“**Object Code**” means software in machine-readable compiled and/or executable form including, but not limited to, byte code form and in form of machine-readable libraries used for linking procedures and functions to other software.

“**Triangle Testbed**” means the Triangle Testbed components that are to be made available to the Experiment Group for conduct of the Experiment in accordance with this Agreement, as identified in Appendix 2, and includes reference to such facilities as from time to time improved or otherwise added to or changed.



“**Triangle Testbed Software**” means the software tools included in the Triangle Testbed.

“**Triangle Testbed Hardware**” means the hardware facilities included in the Triangle Testbed.

“**Owning Triangle Partners**” shall have the meaning given it in Clause 9.1 of this Agreement.

“**Personal Data**” has the meaning given it in Clause 8.7 of this Agreement.

“**Recipient**” has the meaning given it in Clause 9.1 of this Agreement.

“**Restricted Triangle Testbed Components**” means the parts of the Triangle Testbed Testbed listed in Appendix 1 as Restricted Triangle Testbed Components, which the Triangle Partners have held before they acceded to the Grant Agreement and have introduced into the Action as “Background” under the terms of the Consortium Agreement.

“**Shared Information**” has the meaning given it in Clause 8.7 of this Agreement.

“**Source Code**” means software in human-readable form normally used to make modifications to it, including but not limited to comments and procedural code such as job control language and scripts to control compilation and installation.

“**Virus**” means any thing or device (including any software, code, file or programme) which may: prevent, impair or otherwise adversely affect the operation of any computer software, hardware or network, any telecommunications service, equipment or network or any other service or device; prevent, impair or otherwise adversely affect access to or the operation of any programme or data, including the reliability of any programme or data (whether by re-arranging, altering or erasing the programme or data in whole or part or otherwise); or adversely affect the user experience, including worms, trojan horses, viruses and other similar things or devices

## 2 Overall responsibilities of the experiment group

- 2.1 The Experiment Group, and each Experimenter, shall perform its tasks in accordance with the Appendix 2, towards the implementation of the Experiment to the best of its ability and in accordance with best practices and any guidelines, including ethical and privacy guidelines, issued by the Coordinator.
- 2.2 The Experiment Lead shall coordinate the Experiment internally in the Experiment Group, and be responsible for the reporting to the Coordinator at the times and in the form required under Clause 3 and Appendix 2 and Appendix 3 hereof.
- 2.3 The Experiment Lead undertakes to notify the Coordinator, in a timely manner, of any significant information, fact, problem or delay likely adversely to affect the implementation of the Experiment.
- 2.4 The Experimenters shall, in a timely manner, provide all information reasonably required by the Coordinator (as notified to the Experiment Lead), e.g. any information required for the Coordinator to comply with its obligations under this Agreement, the CA and the GA.
- 2.5 None of the Experimenters shall, during the course of their use of the Triangle Testbed, access, store, distribute or transmit i) any Viruses, or ii) any material that:
  - 2.5.1 is unlawful, harmful, threatening, defamatory, obscene, infringing, harassing or racially or ethnically offensive;
  - 2.5.2 facilitates illegal activity;
  - 2.5.3 depicts sexually explicit images;

- 2.5.4 promotes unlawful violence;
- 2.5.5 is discriminatory based on race, gender, colour, religious belief, sexual orientation, disability; or
- 2.5.6 in a manner that is otherwise illegal or causes damage or injury to any person or property;

and the Coordinator reserves the right, without liability or prejudice to its other rights to the Experimenters, to disable all or any of the Experimenters' access to any material that breaches the provisions of this clause and/or to the Triangle Testbed as a whole.

- 2.6 The Experimenter shall ensure that neither they nor anyone on their behalf or with their acquiescence cause any damage to i) the Triangle Testbed (including as altered by any extensions carried out by any third party) and/or ii) any experiments being conducted on or using the Triangle Testbed and/or iii) hardware or software used as part of any experiment or extension being conducted on the Triangle Testbed.

### **3 Financial support**

- 3.1 The Coordinator agrees to provide Financial Support to the Experiment Group for the purposes of conducting the Experiment in accordance with this Agreement and as set out in Appendix 2 "Experiment Specifics".
- 3.2 The Coordinator shall give Financial Support for the Experiment executed by the Experiment Group, in the payment form(s), within the Maximum Grant and in accordance with the schedule of payments specified in Appendix 2 "Experiment Specifics".
- 3.3 The Experiment Group shall be entitled to claim Eligible Costs from the Coordinator for the Experiment as described in Appendix 4 of this Agreement. The Financial Support shall take the form of a reimbursement of one hundred percent (100 %) of the Eligible Costs of the Experiment actually incurred up to the Maximum Grant.
- 3.4 For the costs to be eligible for reimbursement from the Coordinator under this Agreement ("Eligible Costs"), they must:
  - 3.4.1 be actually incurred by the Experimenters;
  - 3.4.2 be incurred in the period of the Experiment as set out in Appendix 2, with the exception of costs relating to the submission of the progress report for the last reporting period and the final report;
  - 3.4.3 be identified in the estimated budget set out in Appendix 2;
  - 3.4.4 be incurred in connection with the Experiment as described in Appendix 2 and necessary for its implementation;
  - 3.4.5 be identifiable and verifiable, in particular recorded in each Experimenter's accounts in accordance with the accounting standards applicable in the country(ies) where each Experimenter is established and with each Experimenter's usual cost accounting practices;
  - 3.4.6 comply with the applicable national law on taxes, labour and social security; and
  - 3.4.7 be reasonable, justified and must comply with the principle of sound financial management, in particular regarding economy and efficiency.

- 3.5 As detailed in Appendix 2, the Financial Support will be in the form of one pre-financing payment, one or more interim payments on the basis of valid request(s) for interim payment, and one payment of the balance on the basis of a valid request for payment of the balance.
- 3.6 Any pre-financing payment remains the property of the Coordinator until the payment of the balance. The amount of any pre-financing payment is specified in Appendix 2. The Coordinator will, except if Clause 3.7 or 3.9 applies, make the pre-financing payment to the Experiment Lead within thirty (30) days, either from the Effective Date or from ten (10) days before the starting date of the Experiment as detailed in Appendix 2, whichever is the latest.
- 3.7 Interim payments and payment of the balance is subject to any pre-financing payment having first been legitimately expended on Eligible Costs and the Coordinator's approval of technical and financial reports for the relevant reporting period, in particular an approval of the progress of the Experiment. The reports shall be submitted by the Experiment Lead to the Coordinator together with a request for payment of applicable Financial Support and an invoice for it at the times specified in Appendix 2. The reports shall be drawn up using the formats in Appendix 3 "Model for Technical Report" and Appendix 4 "Model for Financial Statements" or any other formats provided by the Coordinator. The financial report shall at least include the following:
- 3.7.1 Identification of the Experiment;
  - 3.7.2 A financial statement of costs actually incurred (in accordance with Annex 4 "Model for Financial Statements");
  - 3.7.3 Detailed information and documentation documenting the eligibility of the actual costs as Eligible Costs.
- Subject to clause 3.8, the Coordinator will pay to the Experiment Lead the amount due within ninety (90) days from receiving a valid payment request and an accurate invoice together with the technical and financial report, in accordance with the requirements of this Agreement, for the reporting period in question, except if Clauses 3.7 and/or 3.9 and/or 3.10 apply.
- 3.8 Irrespective of the above due date of payments under Clauses 3.5 and/or 3.6 the Coordinator shall only be under an obligation to pay any part of the due amount of Financial Support provided that such amount at its due date is within the financial scope of the funds made available at such time by the European Commission to the Coordinator pursuant to the Grant Agreement.
- 3.9 The Coordinator may at any time suspend a payment if the Coordinator finds that the reporting requirements are not met, that the Experiment is not implemented properly as described in Appendix 2 or to the reasonable satisfaction of the Coordinator, or that any other obligation of the Experimenters under this Agreement is breached. Any failure of the applicable Experimenters to remedy a breach shall entitle the Coordinator, in addition to any other right or remedy available under this Agreement or otherwise, to inform the relevant EU authority thereof, to reduce the maximum amount of Financial Support, or to terminate this Agreement by giving 14 days' written notice of termination to the Experiment Lead.
- 3.10 Ineligible costs (i.e. costs claimed for reimbursement which are not established to be Eligible Costs) will be rejected in full by the Coordinator. In such event the Coordinator shall be entitled to make deductions of the amount rejected from the total Eligible Costs.
- 3.11 The Experimenters shall be responsible and liable for any VAT or other tax applicable to the Experiment and/or Financial Support. The Financial Support is inclusive of any applicable VAT or other tax. Any applicable VAT or tax payments on the amount due to the Experimenters shall be fully borne by the Experimenters.
- 3.12 For the avoidance of doubt, any expenditure (whether Eligible Costs or not) in relation to the Experiment over and above the Maximum Grant shall be borne by the Experiment Group.



- 3.13 All requests for and payments of Financial Support shall be made through the Experiment Lead unless specifically agreed otherwise in writing by the Coordinator.
- 3.14 Without prejudice to any other provision of this agreement, the Coordinator may, on not less than 5 days' written notice to the Experiment Lead, conduct an audit of Eligible Costs incurred by the Experiment Group and each Experimenter shall provide full cooperation and access to the Coordinator in the conduct of such audit (including making available relevant financial information on an open book basis).

## **4 Provisions in the Grant Agreement to apply to the Experiment Group**

- 4.1 Under the Grant Agreement the Triangle Partners are obliged to ensure that the obligations under GA Articles 22, 23, 35, 36, 38 and 46 apply to the Experimenters to the extent that the Experiment Group is a receiver of Financial Support. The obligations in question are reproduced in Appendix 5 "GA Flow-Down Obligations". The Triangle Partners are referred to therein as "beneficiaries".
- 4.2 Each Experimenter hereby agrees to be bound mutatis mutandis by the same GA obligations as set forth in Appendix 5 as the Triangle Partners are towards the European Commission, the European Court of Auditors and the European Anti-fraud Office, respectively referred to in Appendix 5 as "Commission", "ECA" and "OLAF". Each Experimenter acknowledges and agrees that it is only bound by the obligations reproduced in Appendix 5 by virtue of this Agreement and that it is not a party to the GA or the CA.

## **5 Intellectual property rights**

### **5.1 Triangle Testbed**

- 5.1.1 Each Experimenter acknowledges that: (a) the Triangle Testbed (excluding changes or additions to the Triangle Testbed that fall within the Experiment Results), and all Intellectual Property Rights and other rights in and to the Triangle Testbed, are proprietary to and owned by the Triangle Partners or applicable third parties (whether individually or jointly), and that the Triangle Testbed embody certain valuable confidential know-how and other secrets; (b) that the Triangle Partners or such third parties have copyrights of and other Intellectual Property Rights to the Triangle Testbed; and (c) that the Triangle Partners or such third parties' rights extend to both the intellectual ideas and processes and to the actual expressions and articulations of them contained in the Triangle Testbed Software and displayed when using the Triangle Testbed Software, including ideas, functions and graphics. Nothing in this Agreement shall transfer to any Experimenter, or confer on any Experimenter any license or other rights in or to, any such Intellectual Property Rights, confidential know-how and other secrets, ideas and processes and expressions and articulations thereof, except for those limited rights of use expressly granted by way of Access Rights in this Agreement.
- 5.1.2 Access Rights to the Triangle Testbed, in the form from time to time made available by the Triangle Partners, Needed by the Experimenters for the implementation of the Experiment are hereby requested and shall be deemed granted, as of the starting date of the Experiment, on a royalty-free basis by the Coordinator on behalf of all Triangle Partners, and shall either terminate automatically upon completion of the Experiment or upon early termination of this Agreement, whichever is the earliest date. Such Access Rights comprise only a right for the Experimenters to create and make available, free of charge or paid for, for use by the public, services that rely upon or are based upon the Triangle Testbed
- 5.1.3 Access Rights to the Triangle Testbed, in the form from time to time made available by the Triangle Partners, for the Exploitation of the Experiment Results, may be requested by the Experimenters (or any of them) to the owning or controlling Triangle Partner(s). At the owning or controlling Triangle Partners' sole choice and discretion, said Triangle



Partners may grant Access Rights to Triangle Testbed for Exploitation of Experiment Results to the requesting Experimenters on Fair and Reasonable Conditions under a separate agreement to be negotiated in good faith. Such Access Rights, if granted, shall comprise only a right for the Experimenters (or the applicable Experimenters) to create and make available, free of charge or paid for, for use by the public, services that rely upon or are based upon the Triangle Testbed. For the avoidance of doubt nothing in this Agreement constitutes a grant of such Access Rights or an obligation of the owning or controlling Triangle Partners to enter into an agreement with the Experimenters to this effect. Irrespective of any grant of Access Rights under a separate agreement as provided for in this Clause 5.1.3, the Triangle Partners do not provide any express or implied guarantee to keep the Triangle Testbed available for any particular period of time, or at all, or to provide any maintenance services or technical support or undertake any other obligation in relation to the Triangle Testbed.

- 5.1.4 The Experiment Group's Access Rights to the Triangle Testbed Software under Clause 5.1.2 and under any separate agreement under Clause 5.1.3 shall only comprise: a) Access Rights to use the Object Code; and b) where normal use of such Object Code requires an API, Access Rights to use the Object Code and such an API; and c) if both a) and b) (if required as described above) are not available and the Coordinator specifically agrees in advance in writing and if the Experimenters can show that the implementation of their tasks under the Experiment or the Exploitation of their Experiment Results is technically impossible without Access Rights to use the Source Code, Access Rights to the Source Code to the extent Needed.

Notwithstanding the above or anything else in this Agreement: (x) Access Rights to Triangle Testbed Software comprised in Restricted Triangle Testbed Components shall only be provided in Object Code unless otherwise agreed in a separate bilateral agreement between the applicable Experimenters and the owning or controlling Triangle Partner; and (y) Access Rights to Restricted Triangle Testbed Components shall be subject to the terms (if any) relating to them set out in Appendix 1 ("Triangle Testbed Description"). Access Rights to the Restricted Triangle Testbed Components shall further be subject to the specific limitations set forth in Appendix 1.

For the avoidance of doubt the Experimenters' Access Rights to the Triangle Testbed Software shall not include any right for any Experimenter to receive (i) Source Code (except as expressly provided above in this Clause 5.1.4), or (ii) Object Code ported to a certain hardware platform, or (iii) any right to receive Source Code, Object Code or respective APIs in any particular form or detail, but only as made available.

- 5.1.5 Access Rights do not include the right for the Experimenters or any of them to: (a) unless specifically agreed in advance in writing by the Coordinator, make any changes or additions to the Triangle Testbed unless required for the purpose of implementing the Experiment; (b) use the Triangle Testbed for any purpose whatsoever other than creating and making available for use by the public services as referred to in Clauses 5.1.2 and 5.1.3 above; (c) replicate the Triangle Testbed or any part of them; (d) limit the functionality of the Triangle Testbed or limit the possibilities to build upon the Triangle Testbed; or (e) save as permitted by law, decompile or otherwise reverse engineer any Triangle Testbed Software or other part or component of the Triangle Testbed. Accordingly no Experimenter shall do, or permit or allow any other person to do, any of these things.
- 5.1.6 If the Experimenters' actual, proposed or anticipated use of or changes or additions to the Triangle Testbed, cf. Clause 5.1.5 (a) and (b), have or in the Coordinator's sole opinion and discretion would or might have an adverse effect on the use by others of, including Access Rights of others to, the Triangle Testbed, then the Experimenters undertake to fully and timely comply with the Coordinator's reasonable instructions and to take all reasonable measures to stop, prevent or limit such adverse effects at their own cost.



- 5.1.7 Notwithstanding the above terms of this Clause 5.1 (but without prejudice to Clause 5.1.6), in the event that, prior to the time of grant of Access Rights to the Experimenters, any Triangle Testbed Software or other part of the Triangle Testbed is subject to an open source license, then in respect of such part, the terms of the open source license will prevail over this Clause 5.1.

## 5.2 Experiment Results

- 5.2.1 Experiment Results, including changes or additions to the Triangle Testbed, generated by the Experiment Group through use of the Triangle Testbed or otherwise during the Experiment shall be owned by the concerned Experimenter(s) or as the Experimenters may agree; provided that they shall ensure that any such agreement is consistent with the terms of this Agreement and in particular (without limitation) shall be consistent with the obligations of the Experimenters in, and shall not prejudice the Triangle Partners' or the Triangle Partners' Affiliated Entities' rights under, Clauses 5.2.2, 5.2.3 and 5.3. The Experimenters shall be entitled to freely Exploit and otherwise use and to permit use of all Experiment Results generated and owned by the concerned Experimenter(s) (without prejudice to Clauses 5.2.2, 5.2.3 and 5.3).
- 5.2.2 Subject to clause 5.2.4 but notwithstanding anything else in this Agreement, the Triangle Partners and their Affiliated Entities shall be deemed to have requested and shall hereby be deemed granted a licence (a) on a royalty free basis to use for implementation of the Action (including by using and permitting use thereof for other experiments using the Triangle Testbed pursuant to the Action) all Experiment Results which are changes or additions to the Triangle Testbed and (b) to Exploit and otherwise to disclose, use and permit use of such Experiment Results, on a royalty free basis for all purposes without any restriction, without giving notice, obtaining consent from or otherwise accounting to any person.
- 5.2.3 Subject to clause 5.2.4 but notwithstanding anything else in this Agreement, the Triangle Partners and their Affiliated Entities shall be deemed to have requested and shall hereby be deemed granted a licence on a royalty free basis as Needed for implementation of the Action (including by permitting use thereof if and as Needed for other experiments using the Triangle Testbed pursuant to the Action) all Experiment Results other than those which are changes or additions to the Triangle Testbed. A licence to such Experiment Results (which are not changes or additions to the Triangle Testbed) for Exploitation may be requested by the Triangle Partners or their Affiliated Entities (or any of them) to the owning or controlling Experimenter(s). At the owning or controlling Experimenter(s)' sole choice and discretion a licence for Exploitation of such Experiment Results may be granted to the requesting Triangle Partner or Affiliated Entity of a Triangle Partner on Fair and Reasonable Conditions under a separate agreement to be negotiated in good faith. For the avoidance of doubt nothing in this Agreement constitutes a grant of such licence for Exploitation or an obligation of the owning or controlling Experimenter(s) to enter into an agreement to this effect with the entity requesting such a licence.
- 5.2.4 If and to the extent that any of the Triangle Partners and/or their Affiliated Entities require use of any Background IP belonging to the Experimenter(s) or any third party in order to obtain the benefit of clauses 5.2.2 and 5.2.3:
- (a) the Experimenter(s) hereby grants (to the extent that they are free and able to do so) to the Triangle Partners and their Affiliated Entities a non-exclusive, worldwide, irrevocable, perpetual licence to such Background IP to the extent necessary for the Triangle Partners and their Affiliated Entities to obtain the benefit of the provisions of clauses 5.2.2 and 5.2.3;
  - (b) in all other circumstances, the relevant Triangle Partner and/or their Affiliated Entity will need to negotiate a separate licence of such Background IP with the

Experimenter(s) and/or the relevant third party provided that such licence shall be granted on fair, reasonable and non-discriminatory terms.

## 5.3 Feedback

5.3.1 During the Experiment, and for a period of six (6) months after completion of the Experiment or any earlier termination of this Agreement, the Coordinator and/or any other Triangle Partner may request the Experiment Group or any Experimenter(s) to provide Feedback, and the Experiment Group or applicable Experimenter(s) shall use their best endeavours in a timely manner to provide such Feedback. In addition, if under a separate agreement the Experimenters are granted Access Rights to the Triangle Testbed for Exploitation of Experiment Results, cf. Clause 5.1.3, the obligation on the Experiment Group or any Experimenter(s) to provide Feedback shall apply during the term of such separate agreement, and for a period of six (6) months after expiry or any termination of such separate agreement. All rights in and to Feedback shall be owned by the applicable Experimenter(s) who shall be entitled to freely Exploit and otherwise use and to permit use of all Feedback. However, the Experimenters shall comply with the confidentiality obligations on the Feedback as set forth in Clause 9.1 (unless and until such obligations are waived in accordance with such Clause).

5.3.2 Notwithstanding Clauses 5.2, 5.3.1 or anything else in this Agreement, the Triangle Partners and their Affiliated Entities shall be deemed to have requested and shall hereby be deemed granted Access Rights to Exploit and otherwise to disclose, use and permit use of Feedback, on a royalty free basis for all purposes without any restriction, without giving notice, obtaining consent from or otherwise accounting to any person.

## 5.4 No additional Access Rights

5.4.1 For the avoidance of doubt, any grant of Access Rights not expressly made by this Agreement shall be at the absolute discretion of the owning party and subject to such terms and conditions as may be negotiated and ultimately agreed between the owning and recipient party(ies).

## 6 Maintenance and support services

6.1 The Triangle Testbed is provided (whether for the implementation of the Experiment or for Exploitation) “as is” and with no obligation for the Coordinator or the other Triangle Partners to provide maintenance services or technical support services of any kind in respect of the Triangle Testbed. As a consequence the Coordinator and the other Triangle Partners shall have no responsibilities or liabilities for errors to, interruptions or impaired functionality of the Triangle Testbed and they shall have no obligations to maintain or to generate improvements to the Triangle Testbed. However to the extent improvements to the Triangle Testbed are generated by or on behalf of Triangle Partners in the course of implementing the Action they shall be available under Access Rights as provided for under Clause 5.1.

6.2 Should the Triangle Partners or any of them at their sole choice and discretion deliver maintenance and/or technical support services to the Experimenters, any such maintenance and technical support services shall be delivered with no liability or warranties of any kind.

## 7 Liability

7.1 The Experimenters shall be jointly and severally liability under this Agreement.

7.2 The Experimenters shall fully and exclusively bear the risks in connection with the Experiment, including but not limited to any risk arising from use of the Triangle Testbed under the Access Rights provided. The Experimenters shall indemnify and hold the Triangle Partners, including the Coordinator, harmless from and against all repayments, loss, liability, costs, charges, claims or damages which the Triangle Partners or the Coordinator as a result thereof would incur or suffer or have to pay to the European Commission or any third parties. In addition, should the



European Commission have a right of recovery against the Coordinator or another Triangle Partner regarding any or all of the Financial Support granted under this Agreement, the Experimenters shall repay the sums in question in the terms and on the date specified by the Coordinator.

- 7.3 To the extent permissible under applicable law, in no event shall the Coordinator or any of the other Triangle Partners be liable to the Experimenters or any person or entity connected with any of them for loss or damage caused by the Coordinator or any other Triangle Partner, their employees, agents and subcontractors in connection with the Experiment for any of the following, however caused or arising, on any theory of liability, and even if the Coordinator and/or any other Triangle Partners were informed or aware of the possibility thereof:
- 7.3.1 loss of profits, revenue, income, interest, savings, shelf-space, production and business opportunities;
  - 7.3.2 lost contracts, goodwill, and anticipated savings;
  - 7.3.3 loss of or damage to reputation or to data;
  - 7.3.4 costs of recall of products; or
  - 7.3.5 any type of indirect, incidental, punitive, special or consequential loss or damage.
- 7.4 The Coordinator's and other Triangle Partners' liability in aggregate, arising out of or in connection with the Experiment and/or this Agreement, however caused or arising, on any theory of liability, and even if the Coordinator and/or any other Triangle Partners were informed or aware of the possibility thereof, shall in no event exceed the Maximum Grant.
- 7.5 In respect of any information or materials (including the Triangle Testbed and Experiment Results) supplied by one Party to another Party or to or by a Triangle Partner, no warranty or representation of any kind is made, given or implied as to the sufficiency, error-free performance, or fitness for purpose, nor as to the absence of any infringement of any proprietary rights of third parties.
- Therefore, in particular but without limiting the foregoing:
- 7.5.1 the Experimenters shall in all cases be entirely and solely liable for the use to which they put such information and materials, and the consequences of such use, and
  - 7.5.2 neither the Coordinator nor the other Triangle Partners shall be liable vis-à-vis the Experimenters or any of them in case of infringement of proprietary rights of a third party resulting from the Experimenters exercising their Access Rights.
- 7.6 The exclusions and limitations stated in Clauses 7.3, 7.4 and 7.5 above, and any other term of this Agreement that has as its object or effect the exclusion or limitation of liability, shall not apply in respect of any: fraud; death, injury to natural persons or damage to real or immovable property caused by the negligence or wilful act of the Party or Triangle Partner whose liability would otherwise be limited or excluded, its directors, employees, agents and subcontractors; wilful misconduct, gross negligence, wilful breach by such Party or any Triangle Partner of any obligation accepted under the GA, the CA or this Agreement; or otherwise in so far as mandatory applicable law overrides such exclusions and limitations.

## **8 Processing of personal data**

- 8.1 The provisions concerning Personal Data processing set out in this Clause 8 cover the collection and processing of Personal Data in completion of or in connection with the Experiment and/or in connection with the exercise of Access Rights by the Experimenters.



- 8.2 Unless otherwise required by law, the Experimenters jointly - or one or some of them if determining, on a case by case basis and depending on the specific type of Experiment, the purposes and means of the processing of Personal Data as agreed between the Experimenters - shall act as the data controller in respect of Personal Data collected and processed in the completion of or in connection with the Experiment. In this capacity the applicable data controlling Experimenters shall be liable for compliance with all the applicable statutory data protection laws. The applicable data controlling Experimenters, as pertaining to their using the Triangle Testbed, are obliged to protect Personal Data against loss, damage, unauthorized access, alteration and distribution or other unauthorised processing: for this purpose, the applicable data controlling Experimenters shall take appropriate technical, organisational and personnel measures adequate to the manner of the processing of Personal Data.
- 8.3 Acting as data controller the applicable data controlling Experimenter(s) shall be responsible for obtaining, if required by applicable law, any statutory written approvals from the applicable competent data protection authority before commencing the Experiment with or in any manner involving any Data Subjects. The Experiment Lead shall provide the Coordinator with a copy of all such written approvals so that they can be provided to the European Commission.
- 8.4 The applicable data controlling Experimenters undertake to bind any and all of their data processors, including if necessary the Coordinator and/or any other Triangle Partners and their sub-contractors, to a data processing agreement in compliance with the applicable statutory data protection laws and pursuant to article 17 of Directive 95/46/EC. A copy of any such data processing agreements shall be provided to the Coordinator. As part of such agreement the applicable data controlling Experimenters shall ensure that no Personal Data are processed for any other purpose than that of the Experiment and that processed data are pertinent and not redundant insofar as concerns the purposes for which they were collected and subsequently processed.
- 8.5 With the sole exception of those cases in which the preservation of data is required by law, the Personal Data will be erased or at least anonymized by the data controllers and/or processors, from wherever they are stored, as soon as the Personal Data are no longer necessary for the specific Experiment purposes; such erasure mechanisms being either destruction, demagnetisation or overwriting. In the event of termination of this Agreement for any cause, the Experimenters will no longer be permitted to process Personal Data through the Triangle Testbed.
- 8.6 The Experiment Group acknowledges that the Triangle Testbed comply with the required standard data security measures according to any laws as applicable to the Experiment Group. The Experiment Group, moreover, acknowledges that the Coordinator and any other Triangle Partners, if appointed as data processors, are not responsible for compliance with any data protection or privacy law applicable to the Experiment Group and not directly, explicitly and specifically applicable to data processors.
- 8.7 Notwithstanding the above, the Parties agree that any Triangle Testbed, Experiment Results, Feedback, Confidential Information and/or any and all data and/or information that is possibly, disclosed or otherwise made available between the Parties during the implementation of the Experiment and/or for any Exploitation activities ("Shared Information"), shall not include – if not strictly necessary for the purposes of the Experiment and in full compliance with applicable data protection laws – personal data as defined by Article 2, Clause (a) of the Data Protection Directive (95/46/EEC) (hereinafter referred to as "Personal Data"). Accordingly the Parties agree that they will take all necessary steps to ensure that all Personal Data is removed from the Shared Information, made illegible, or otherwise made inaccessible (i.e. de-identify) to the other Parties prior to providing the Shared Information to such other Parties.

## 9 Non-disclosure of confidential information

- 9.1 All information of whatever nature and in whatever form or mode of communication, which is disclosed by a Party (the "Disclosing Party") to another Party (the "Recipient") in connection with the Experiment during its implementation and which has been explicitly marked as



“confidential” or “secret” at the time of disclosure, or when disclosed orally has been identified as confidential at the time of disclosure and has been confirmed and designated in writing within thirty (30) calendar days from oral disclosure at the latest as Confidential Information by the Disclosing Party, or is Feedback, is “Confidential Information”. However, notwithstanding the foregoing or anything else in this Agreement, Feedback shall be considered Confidential Information of the Coordinator and/or the other Triangle Partners or, in the case that the Feedback relates to a particular part(s) or component(s) of the Triangle Testbed, shall be considered the Confidential Information of the Triangle Partners who, or whose Affiliated Entities, provided, developed, own or control such part(s) or component(s) (the “Owning Triangle Partners”); and (to avoid doubt) Feedback shall not be considered Confidential Information of the Experimenters or any of them. Accordingly, the Experimenters shall in respect of Feedback comply with the confidentiality obligations as a Recipient in this Clause 9. However, in the case that, in the unanimous opinion and full discretion of the Owning Triangle Partners, having taken into account the advice of the Coordinator, the Feedback, if made public, would not constitute adverse publicity for the Experiment and/or the Action, and/or any of the Triangle Partners and/or their Affiliated Entities, and would not reveal confidential aspects of the Triangle Testbed, then the Owning Triangle Partners shall, following written request from the Experimenters or any of them, without undue delay in writing waive the confidentiality obligations in relation to the applicable Feedback.

9.2 Each Recipient hereby undertakes for the duration of the Experiment and a period of four (4) years after the end date of the Experiment as detailed in Appendix 2 (“Experiment Specifics”) or earlier termination of this Agreement:

9.2.1 not to use Confidential Information otherwise than for the purpose for which it was disclosed;

9.2.2 not to disclose Confidential Information to any third party including Affiliated Entities without the prior written consent by the Disclosing Party, wherein the Recipient must ensure that an arrangement is in place prior to such disclosure that subjects the Affiliated Entities or applicable third party to provisions at least as strict as provided in this Clause 9;

9.2.3 to apply for the security of Confidential Information at least the same degree of care as it applies for the security of its own Confidential Information (but in any case shall apply not less than reasonable care); and

9.2.4 to ensure that internal distribution of Confidential Information by such Recipient and its Affiliated Entities shall take place on a need-to-know basis.

9.3 The above shall not apply for disclosure or use of Confidential Information, if and in so far as the Recipient can show that:

9.3.1 the Confidential Information becomes publicly available by means other than a breach of the Recipient’s confidentiality obligations;

9.3.2 the Disclosing Party subsequently informs the Recipient that the Confidential Information is no longer confidential;

9.3.3 the Confidential Information is communicated to the Recipient without any obligation of confidence by a third party who is to the best knowledge of the Recipient in lawful possession thereof and under no obligation of confidence to the Disclosing Party;

9.3.4 the disclosure or communication of the Confidential Information is foreseen by provisions of the Grant Agreement;

9.3.5 the Confidential Information, at any time, was developed by the Recipient completely independently of any such disclosure by the Disclosing Party; or



- 9.3.6 the Confidential Information was already known to the Recipient prior to disclosure; or
- 9.3.7 the Recipient is required to disclose the Confidential Information in order to comply with applicable laws or regulations or with a court or administrative order subject to Clause 9.5 hereunder.
- 9.4 Each Recipient shall promptly advise the corresponding Disclosing Party in writing of any unauthorized disclosure, misappropriation or misuse of Confidential Information after it becomes aware of such unauthorized disclosure, misappropriation or misuse.
- 9.5 If a Recipient becomes aware that it will be required to disclose Confidential Information in order to comply with applicable laws or regulations or with a court or administrative order, it shall, to the extent it is lawfully able to do so, prior to any such disclosure:
  - 9.5.1 promptly notify the Disclosing Party of said request, and
  - 9.5.2 use reasonable efforts to protect the confidentiality of the information at the Disclosing Party's expense, and make such disclosure only to the extent it is compelled.
- 9.6 The Coordinator's disclosure of Confidential Information to the European Commission shall be governed exclusively by the terms of the Grant Agreement. Accordingly nothing in this Agreement shall prevent the Coordinator from complying with its obligations, including its reporting obligations, towards the European Commission, and any such disclosures shall be subject to the terms of the Grant Agreement.

## 10 Dissemination & communication

- 10.1 The Experimenters through the Experiment Lead shall ensure that the Coordinator is fully and systematically informed, in a timely manner and in writing, of any expected dissemination or communication activities relating to the Experiment and its Experiment Results, and that the Triangle Partners are actively invited to dissemination/ communication events and to dissemination/communication possibilities. All dissemination/ communication activities must be conducted so as not to breach obligations under Clause 9 (Non-Disclosure of Confidential Information).
- 10.2 Any such dissemination or communication activity (including publications, presentations, contributions to any standard's organization or marketing materials) by the Experiment Group shall:
  - 10.2.1 be done in a reasonable and consistent manner using both the Triangle name/ logo and in accordance with the requirements of GA Article 38 as reproduced in Appendix 5 ("GA Flow-Down Obligations");
  - 10.2.2 indicate that it reflects only the Experiment Group's view and that neither the Triangle Partners nor the European Commission are responsible for any use that may be made of the information it contains;
  - 10.2.3 be conducted in an open and inclusive manner providing open access (free of charge online access for any user) to the authorized publications/presentations and data, however, always in accordance with the applicable statutory data protection laws; and
  - 10.2.4 comply with the guidelines for communication and engagement provided to the Experiment Group by the Coordinator at any time.
- 10.3 Nothing in this Agreement shall be construed as conferring rights to use in advertising, publicity or otherwise the name of any of the Triangle Partners or any of their logos or trademarks without their prior written approval.



- 10.4 The Coordinator and the other Triangle Partners shall be entitled to include the main issues and information regarding the Experiment in their reporting towards the European Commission.

## 11 Term and termination

- 11.1 The term of this Agreement is from the Effective Date until the end date of the Experiment as detailed in Appendix 2. At that time this Agreement shall automatically terminate notwithstanding that the Experimenters may not have completed their use of the Triangle Testbed in accordance with Appendix 2.
- 11.2 This Agreement may be terminated by the Coordinator by written notice having immediate effect, and without prejudice to any other rights of the Coordinator and the other Triangle Partners under this Agreement if:
- 11.2.1 the Experimenters or any of them are in material breach of any of their obligations, representations or warranties hereunder and have failed to effect any remedy in due time after a written notice requiring such remedy has been given by the Coordinator specifying a time of not more than thirty (30) days within which the remedy is to be effected;
  - 11.2.2 any Experimenter breaches clause 2.5 or otherwise cause any damage to the Triangle Testbed;
  - 11.2.3 any Experimenter is subjected to receivership, bankruptcy, suspension of payments or insolvency, or makes an assignment for the benefit of creditors, or goes out of business, or is subject to any similar event or proceeding;
  - 11.2.4 the Grant Agreement and/or Consortium Agreement is terminated; or
  - 11.2.5 the European Commission calls for reimbursement of funding in accordance with the Grant Agreement.
- 11.3 Access Rights granted to the Experimenters shall cease immediately upon the effective date of termination, without prejudice to Clause 5.1.3 or any separate agreement entered into pursuant thereto.
- 11.4 In case of early termination of this Agreement under Clause 11.2 the Experimenters shall refund all Financial Support payments they have received except the amount of any Financial Support contribution accepted by the Coordinator to be not refundable. Other costs incurred after the termination (i.e. after the notified date on which termination takes effect) are not Eligible Costs.
- 11.5 Irrespective of the automatic termination hereof under Clause 11.1, or any other termination hereof, Clauses 4 to 13 shall remain in effect. However, in case this Agreement is terminated by the Coordinator under Clause 11.2, the Experimenters' Access Rights, and rights to request or be granted Access Rights, under Clause 5.1 shall terminate as of the time of the termination of this Agreement.

## 12 Miscellaneous

- 12.1 No Party ("**Affected Party**") shall be liable to the other ("**Unaffected Party**") for any delay or failure in performing the Affected Party's obligations under this Agreement to the extent that such delay or failure is caused by an event or circumstance that is beyond the reasonable control of the Affected Party, and which by its nature could not have been foreseen by the Affected Party or, if it could have been foreseen, was unavoidable, provided that the Affected Party shall use all reasonable endeavours to cure any such events or circumstances and resume performance under this Agreement. If any events or circumstances prevent the Affected Party from carrying out its obligations under this Agreement for a continuous period of more than 3 months, the following shall apply:



- 12.1.1 Where the Affected Party is the Coordinator, the Experiment Lead may terminate this Agreement immediately by giving written notice to the Coordinator;
- 12.1.2 Where the Affected Party is one or more Experimenters, the Coordinator may terminate the relevant Experimenters involvement in this Agreement by giving written notice to the relevant Experimenter provided that if there are no Experimenters left this Agreement shall terminate.
- 12.2 Should any provision of this Agreement be or become invalid, illegal or unenforceable, it shall not affect the validity of the remaining provisions of this Agreement. In such a case, the Parties concerned shall be entitled to request that a valid, legal, enforceable and practicable replacement provision be negotiated which fulfils the purpose of the original provision.
- 12.3 No Experimenter shall be entitled to act or to make legally binding declarations on behalf of the Coordinator or any other Triangle Partner, and nothing in this Agreement shall be deemed to constitute a joint venture, agency, partnership, interest grouping or any other kind of formal business grouping or entity between the Parties or between the Experimenters or any of them and any Triangle Partner.
- 12.4 No rights or obligations of the Experimenters or any of them arising from this Agreement may be assigned or transferred, in whole or in part, and no obligations of the Experimenters or any of them may be sub-contracted, without the Coordinator's prior formal written approval; and such approval shall not exempt the Experimenters or any of them from any of their obligations hereunder. The Experimenters shall ensure that any permitted sub- contractor is bound by the same obligations as provided hereunder, including the GA flow- down obligations set forth in Appendix 5.
- 12.5 Although (with the exception of the Coordinator) the Triangle Partners and their Affiliated Entities are not Parties to this Agreement, they are intended by the Parties to be third party beneficiaries under this Agreement and accordingly shall be entitled to enforce the terms of this Agreement against the Experimenters and in particular (without limitation) shall be entitled to the benefit of, and to enforce, Clause 5.2, Clause 5.3, Clause 9.1, any exclusion or limitation of liability of the Triangle Partners contained in this Agreement and any indemnity in favour of the Triangle Partners contained in this Agreement. The Parties also acknowledge and agree that the European Commission may enforce any terms of the Grant Agreement that are incorporated into this Agreement pursuant to clause 4 against the Experimenters.
- 12.6 All obligations of the Experimenters under this Agreement apply to the Experimenters jointly and severally and accordingly each such obligation may be enforced in full against the Experimenters collectively and each of them individually.
- 12.7 Amendments and modifications to the text of this Agreement require a separate written agreement to be signed between all Parties.
- 12.8 This Agreement is drawn up in English, which language shall govern all documents, notices, reports, court/arbitral proceedings and processes relating thereto. Notices, reports, invoices and other forms of communication regarding this Agreement shall be forwarded to the other Party using the contact details listed in Appendix 2. Any change of the listed contact details shall be communicated in writing to the other Party to become effective.
- 12.9 In case of any inconsistencies between Appendix 2 ("Experiment Specifics") on one part and the remainder of this Agreement (i.e. the body of it and Appendix 1, Appendix 3, Appendix 4 and Appendix 5) on the other part, then the latter shall prevail.

## 13 Applicable law and venue

- 13.1 This Agreement shall be construed in accordance with and governed by the laws of England and Wales excluding its conflict of law provisions. However, nothing in this Agreement shall be



deemed to require a Party to breach any mandatory statutory law under which the Party is operating.

- 13.2 All disputes directly arising under this Agreement (other than disputes relating to the infringement and/or validity of Intellectual Property Rights which shall be the exclusive jurisdiction of the competent court), which cannot be settled amicably, shall be subject to the jurisdiction of the competent court in England and Wales. The foregoing shall be without prejudice to the right of any Party to seek injunctive relief or other equitable compensation before any court in any place where any unauthorized use of its Intellectual Property Rights or Confidential Information occurs or threatens to occur.



## SIGNATURES

**For an on behalf of the Coordinator:**

Date and place:

.....

Name

***For an on behalf of [Official name in full of Experimenter]:***

Date and place:

.....

Name

***For an on behalf of [Official name in full of Experimenter]:***

Date and place:

.....

Name

***For an on behalf of [Official name in full of Experimenter]:***

Date and place:

.....

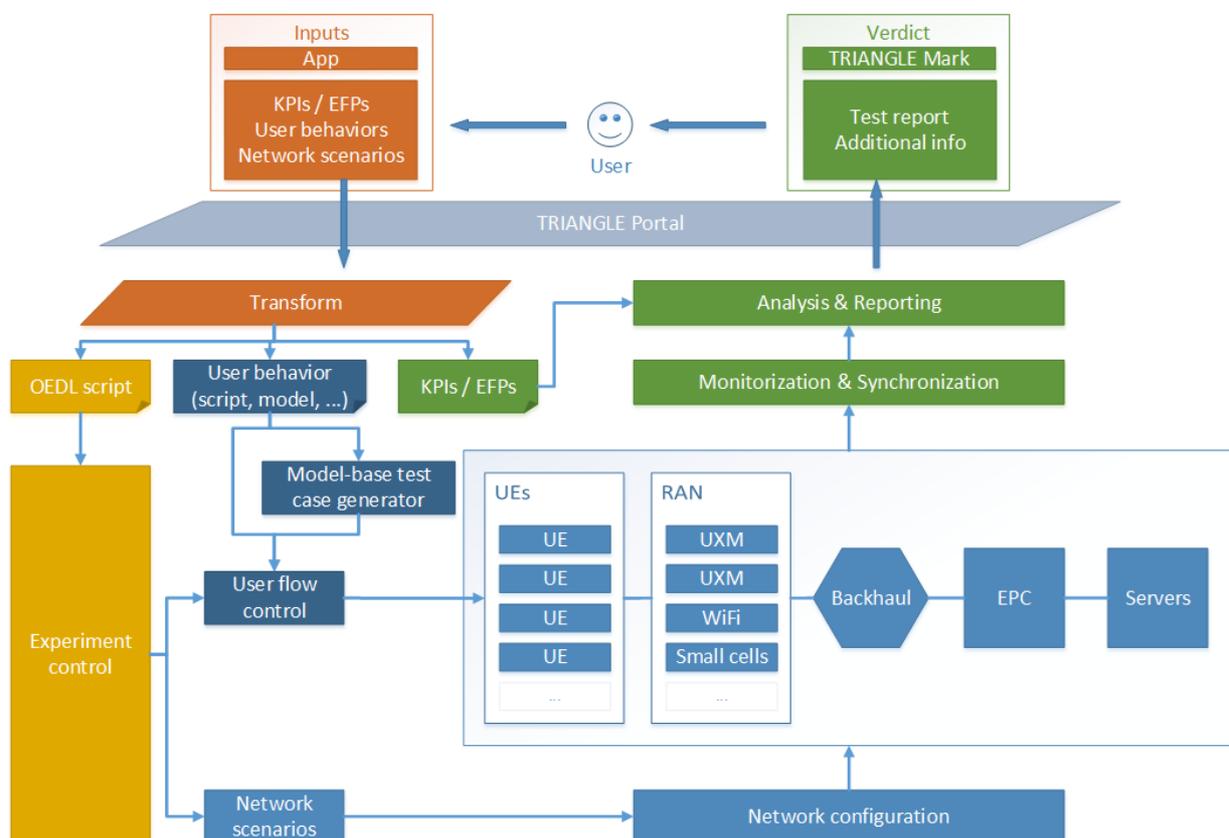
Name

## Appendix 1 “Triangle Testbed Description”

For more information on the Triangle Testbed components visit the website at <http://www.triangle-project.eu/tools/>

The TRIANGLE testbed is an extension of the current PerformNetworks FIRE testbed, which is part of FIRE project FP7-Fed4FIRE and FP7-FLEX. The description and components of the initial testbed components can be found at <http://performnetworks.morse.uma.es/>.

The following figure represents the main components of the new TRIANGLE testbed, including the execution flow from the user inputs (for instance the app and additional parameters) and the final verdict (the TRIANGLE Mark and additional detailed reports). The figure focuses on applications, but the same approach is valid for benchmarking devices.



The TRIANGLE portal is a user-friendly interface for remote interaction with the testbed. Above the portal there are four main groups of components:

- The transformation of the input (app, desired KPIs, etc.) into internal logic to produce the user behaviour and the information to create of the networking scenario
- The automation part, represented as experiment control, which orchestrate the whole experiment calling to the rest of components



- The network part, that makes a realistic emulation of the 5G networking scenarios (including the UEs, RAN Backhaul, EPC, Servers and any additional component)
- The monitoring and processing part, which includes the analysis of all metrics to produce the TRIANGLE Mark

The TRIANGLE testbed provides the following tools to test and benchmark applications in different usage scenarios.

<b>Tool</b>	<b>What it is used for</b>
<b>TAP</b>	Experiment Controller
<b>Triangle Web Portal</b>	User interface
<b>UXM</b>	eNodeB emulator
<b>LTE Small Cells</b>	RAN testing
<b>Wi-Fi APs</b>	WLAN coverage
<b>Polaris EPC</b>	LTE Core Network
<b>SMU</b>	Power analyzer
<b>TestelDroid</b>	Android monitoring tool
<b>DEKRA Performance Tool</b>	Traffic generator and sink; data KPI calculator
<b>Webdriver</b>	Mobile UI automation
<b>Android UEs</b>	Recent smartphones
<b>LTE modems</b>	RAN connectivity



## Appendix 2 “Experiment Specifics”

### 1. Description of the Experiment:

- 1.1. Acronym:
- 1.2. Experiment full title:
- 1.3. Call ID:
- 1.4. Proposal date:
- 1.5. Selection date:
- 1.6. Starting date:
- 1.7. End date:

### 2. Expected Experiment Outcome:

- 2.1. Expected impact:
- 2.2. Expected Experiment Results:

### 3. Experiment Implementation:

- 3.1. Scope of work:
- 3.2. Milestones, deliverables and tasks:
- 3.3. Ethical and privacy guidelines:
4. Plan for Exploitation and dissemination of Experiment Results

### 5. Financial conditions

- 5.1. Maximum amount of Financial Support:
- 5.2. Reporting and payment schedule:
- 5.3. Estimated budget for the Experiment:
6. Affiliated Entity pursuant to Clause 1’s definition of Affiliated Entity:

### Triangle Partners:

- University College London, a higher education institution governed by Royal Charter (Number RC 000631)

### Experimenters:

### 7. Contact details:

- **Coordinator:** [name of contact person, address, e-mail]
- **Experimenter Lead:** [name of contact person, address, e-mail]

## Appendix 3 “Model for technical Report”

- a) Explanation of the work carried out by the Experiment Group;
  - i. An overview of the progress towards the objectives of the Experiment, including any milestones and deliverables identified in Annex 2.
  - ii. Explanations justifying the differences between work expected to be carried out in accordance with Annex 2 and that actually carried out.
  - iii. Detail the exploitation and dissemination of the Experiment Results and — if required in Annex 2 — an updated “Plan for the Exploitation and dissemination of the Experiment Results”.
- b) A summary for publication by the Coordinator and/or European Commission.
- c) Answers to the ‘questionnaire’, covering issues related to the Experiment
- d) implementation and the economic and societal impact, notably in the context of the Horizon 2020 key performance indicators and the Horizon 2020 monitoring requirements.
- e) Detailed results of the experiment
- f) The final report must include a ‘final technical report’ with a summary for publication containing:
  - i. an overview of the Experiment Results and their Exploitation and dissemination;
  - ii. the conclusions on the Experiment, and
  - iii. the socio-economic impact of the Experiment.
- g) Overview of the results of the trial, including:
  - i. technical challenges encountered and overcome
  - ii. QoE evaluation for the application
  - iii. impact of QoE based on different network conditions
  - iv. key KPIs are to be measured
  - v. Service levels identified
  - vi. How the app/device adapts to different network conditions
- h) TestBed specific Feedback:
  - i. Key Testbed components utilised
  - ii. Improvements and observations identified from using the Testbed
  - iii. recommendations on improvements to the Testbed

## Appendix 4 “Model for Financial Statements”

Project

Triangle -688712

Ref. H2020 - ICT- 2015

### Financial reporting

*Please fill in the white cells only*

<b>Organization name</b>	
<b>Experiment title</b>	

*This table will be completed automatically*

*All amounts are expressed in Euro*

	<b>Research and technology development (RTD)</b>	<b>Management (MGT)</b>	<b>OTHER</b>	<b>Total costs</b>
<i>Personnel costs</i>	0.00	0.00	0.00	0.00
<i>Other direct costs</i>	0.00	0.00	0.00	0.00
<i>Total direct costs</i>	0.00	0.00	0.00	0.00
<i>Indirect costs(25%)</i>	0.00	0.00	0.00	0.00
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

*Fill in parts 1 and 2*

### Calculation of personnel

#### 1 costs

*Please fill in the fields - add more rows as required*

For confidentiality reasons we do not request employee names, only the employee role should be specified

#### 1A **RTD**

	<b>Employee role</b>	<b>hours reported</b>	<b>Rate per hour</b>	<b>Total costs</b>
1	<i>(e.g. Research engineer)</i>			0.00
2				0.00
3				0.00
	<b>Total</b>	<b>0</b>		<b>0.00</b>

#### 1B **MGT**

	<b>Employee role</b>	<b>hours reported</b>	<b>Rate per hour</b>	<b>Total costs</b>
1				0.00
2				0.00
3				0.00
	<b>Total</b>	<b>0</b>		<b>0.00</b>

## 1C OTHER

	Employee role	hours reported	Rate per hour	Total costs
1				0.00
2				0.00
3				0.00
	Total	0		0.00

## 2 Calculation of Other costs

Please fill in the fields - add more fields as required

### 2A RTD

Cost category	Description	Cost
(e.g. Travel)	Project review	
		0.00

### 2B MGT

Cost category	Description	Cost
(e.g. Travel)	Project review	
		0.00

### 2C OTHER

Cost category	Description	Cost
(e.g. Travel)	Project review	
		0.00

#### Notes:

*The hours reported must be supported by timesheets*

*Travel and other project expenses must be supported by receipts and must be verifiable*

*Expenses must be in line with budget. Minor deviations within budget are acceptable.*

*Please discuss any potential deviation with the Triangle consortium*

*All costs reported must be 100% related to the experiment*

*RTD: Research and technology development (RTD), scientific, research and technical activities only.*

*MGT: Non-scientific management - administrative, legal, financial management of activity*

*OTHER: Any specific activities not covered by RTD or MGT –*

*e.g. training, coordination, networking and dissemination*

## Appendix 5 “GA Flow-Down Obligations”

### ARTICLE 22 — CHECKS, REVIEWS, AUDITS AND INVESTIGATIONS — EXTENSION OF FINDINGS

#### 22.1 Checks, reviews and audits by the Commission

##### 22.1.1 Right to carry out checks

The Commission will — during the implementation of the action or afterwards — check the proper implementation of the action and compliance with the obligations under the Agreement, including assessing deliverables and reports. For this purpose the Commission may be assisted by external persons or bodies. The Commission may also request additional information in accordance with Article 17. The Commission may request beneficiaries to provide such information to it directly. Information provided must be accurate, precise and complete and in the format requested, including electronic format.

##### 22.1.2 Right to carry out reviews

The Commission may — during the implementation of the action or afterwards — carry out reviews on the proper implementation of the action (including assessment of deliverables and reports), compliance with the obligations under the Agreement and continued scientific or technological relevance of the action.

**Reviews may be started up to two years after the payment of the balance. They will be** formally notified to the coordinator or beneficiary concerned and will be considered to have started on the date of the formal notification. If the review is carried out on a third party (see Articles 10 to 16), the beneficiary concerned must inform the third party.

The Commission may carry out reviews directly (using its own staff) or indirectly (using external persons or bodies appointed to do so). It will inform the coordinator or beneficiary concerned of the identity of the external persons or bodies. They have the right to object to the appointment on grounds of commercial confidentiality.

The coordinator or beneficiary concerned must provide — within the deadline requested — any information and data in addition to deliverables and reports already submitted (including information on the use of resources). The Commission may request beneficiaries to provide such information to it directly. The coordinator or beneficiary concerned may be requested to participate in meetings, including with external experts.

For on-the-spot reviews, the beneficiaries must allow access to their sites and premises, including to external persons or bodies, and must ensure that information requested is readily available.

Information provided must be accurate, precise and complete and in the format requested, including electronic format. On the basis of the review findings, a ‘review report’ will be drawn up.

The Commission will formally notify the review report to the coordinator or beneficiary concerned, which has 30 days to formally notify observations (‘contradictory review **procedure**’).

Reviews (including review reports) are in the language of the Agreement.

##### 22.1.3 Right to carry out audits

The Commission may — during the implementation of the action or afterwards — carry out audits on the proper implementation of the action and compliance with the obligations under the Agreement.

**Audits may be started up to two years after the payment of the balance. They will be** formally notified to the coordinator or beneficiary concerned and will be considered to have started on the date of the formal notification.

If the audit is carried out on a third party (see Articles 10 to 16), the beneficiary concerned must inform the third party.

The Commission may carry out audits directly (using its own staff) or indirectly (using external persons or bodies appointed to do so). It will inform the coordinator or beneficiary concerned of the identity of the external persons or bodies. They have the right to object to the appointment on grounds of commercial confidentiality.

The coordinator or beneficiary concerned must provide — within the deadline requested — any

information (including complete accounts, individual salary statements or other personal data) to verify compliance with the Agreement. The Commission may request beneficiaries to provide such information to it directly.

For on-the-spot audits, the beneficiaries must allow access to their sites and premises, including to external persons or bodies, and must ensure that information requested is readily available. Information provided must be accurate, precise and complete and in the format requested, including electronic format. On the basis of the audit findings, a 'draft audit report' will be drawn up. The Commission will formally notify the draft audit report to the coordinator or beneficiary concerned, which has 30 days to formally notify observations ('contradictory audit procedure'). This period may be extended by the Commission in justified cases.

The 'final audit report' will take into account observations by the coordinator or beneficiary concerned. The report will be formally notified to it. Audits (including audit reports) are in the language of the Agreement.

The Commission may also access the beneficiaries' statutory records for the periodical assessment of unit costs or flat-rate amounts.

## 22.2 Investigations by the European Anti-Fraud Office (OLAF)

Under Regulations No 883/2013<sup>15</sup> and No 2185/96<sup>16</sup> (and in accordance with their 1<sup>2</sup> provisions and procedures), the European Anti-Fraud Office (OLAF) may — at any moment during implementation of the action or afterwards — carry out investigations, including on- the-spot checks and inspections, to establish whether, concerning the action funded under the Agreement, there has been fraud, corruption or any other illegal activity affecting the financial interests of the EU.

## 22.3 Checks and audits by the European Court of Auditors (ECA)

Regulation (EU, Euratom) No 883/2013 of the European Parliament and of the Council of 11 September 2013<sup>17</sup> concerning investigations conducted by the European Anti-Fraud Office (OLAF) and repealing Regulation (EC) No 1073/1999 of the European Parliament and of the Council and Council Regulation (Euratom) No 1074/1999 (OJL 248, 18.09.2013, p. 1).

Council Regulation (Euratom, EC) No 2185/1996 of 11 November 1996 concerning on-the-spot checks and 2 inspections carried out by the Commission in order to protect the European Communities' financial interests against fraud and other irregularities (OJ L 292, 15.11.1996, p. 2).

Under Article 287 of the Treaty on the Functioning of the European Union (TFEU) and Article 161 of the *Financial Regulation No 966/2012*<sup>18</sup>, the *European Court of Auditors (ECA) may 3* — at any moment during implementation of the action or afterwards — carry out audits. The ECA has the right of access for the purpose of checks and audits.

## 22.4 Checks, reviews, audits and investigations for international organisations

*not applicable*

## 22.5 Consequences of findings in checks, reviews, audits and investigations — Extension of findings

### 22.5.1 Findings in this grant

Findings in checks, reviews, audits or investigations carried out in the context of this grant may lead to the rejection of ineligible costs (see Article 42), reduction of the grant (see Article 43), recovery of undue amounts (see Article 44) or to any of the other measures described in Chapter 6.

Rejection of costs or reduction of the grant after the payment of the balance will lead to a revised final grant amount (see Article 5.4). Findings in checks, reviews, audits or investigations may lead to a request for amendment for the modification of Annex 1 (see Article 55).

Checks, reviews, audits or investigations that find systemic or recurrent errors, irregularities, fraud or breach of obligations may also lead to consequences in other EU or Euratom grants awarded under similar conditions ('extension of findings from this grant to **other grants**').

Moreover, findings arising from an OLAF investigation may lead to criminal prosecution under national law.

### 22.5.2 Findings in other grants



The Commission may extend findings from other grants to this grant ('extension of findings **from other grants to this grant**'), if: Regulation (EU, EURATOM) No 966/2012 of the European Parliament and of the Council of 25 October 2012 on the 3 financial rules applicable to the general budget of the Union and repealing Council Regulation (EC, EURATOM) No 1605/2002 (OJ L 298, 26.10.2012, p. 1).

(a) the beneficiary concerned is found, in other EU or Euratom grants awarded under similar conditions, to have committed systemic or recurrent errors, irregularities, fraud or breach of obligations that have a material impact on this grant and

(b) those findings are formally notified to the beneficiary concerned — together with the list of grants affected by the findings — no later than two years after the payment of the balance of this grant.

The extension of findings may lead to the rejection of costs (see Article 42), reduction of the grant (see Article 43), recovery of undue amounts (see Article 44), suspension of payments (see Article 48), suspension of the action implementation (see Article 49) or termination (see Article 50).

### 22.5.3 Procedure

The Commission will formally notify the beneficiary concerned the systemic or recurrent errors, together with the list of grants affected by the findings.

22.5.3.1 If the findings concern eligibility of costs: the formal notification will include: (a) an invitation to submit observations on the list of grants affected by the findings;

(b) the request to submit revised financial statements for all grants affected;

(c) the correction rate for extrapolation established by the Commission on the basis of the systemic or recurrent errors, to calculate the amounts to be rejected if the beneficiary concerned:

(i) considers that the submission of revised financial statements is not possible or practicable or

(ii) does not submit revised financial statements.

The beneficiary concerned has 90 days from receiving notification to submit observations, revised financial statements or to propose a duly substantiated alternative correction method. This period may be extended by the Commission in justified cases. The Commission will determine the amounts to be rejected on the basis of the revised financial statements, subject to their approval. If the Commission does not receive any observations or revised financial statements, does not accept the observations or the proposed alternative correction method or does not approve the revised financial statements, it will formally notify the beneficiary concerned the application of the initially notified correction rate for extrapolation.

If the Commission accepts the alternative correction method proposed by the beneficiary concerned, it will formally notify the application of the accepted alternative correction method.

**22.5.3.2 If the findings concern improper implementation or a breach of another obligation:** the formal notification will include:

(a) an invitation to submit observations on the list of grants affected by the findings and

(b) the flat-rate the Commission intends to apply according to the principle of proportionality.

The beneficiary concerned has 90 days from receiving notification to submit observations or to propose a duly substantiated alternative flat-rate.

If the Commission does not receive any observations or does not accept the observations or the proposed alternative flat-rate, it will formally notify the beneficiary concerned the application of the initially notified flat-rate. If the Commission accepts the alternative flat-rate proposed by the beneficiary concerned, it will formally notify the application of the accepted alternative flat-rate.

### 22.6 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, any insufficiently substantiated costs will be ineligible (see Article 6) and will be rejected (see Article 42). Such breaches may also lead to any of the other measures described in Chapter 6.

## ARTICLE 23 — EVALUATION OF THE IMPACT OF THE ACTION

### 23.1 Right to evaluate the impact of the action

The Commission may carry out interim and final evaluations of the impact of the action measured against the objective of the EU programme. Evaluations may be started during implementation of the action and up to five years after the payment of the balance. The evaluation is considered to start on the date of the formal notification to the coordinator or beneficiaries. The Commission may make these evaluations directly (using its own staff) or indirectly (using external bodies or persons it has authorised to do so). The coordinator or beneficiaries must provide any information relevant to evaluate the impact of the action, including information in electronic format.

### 23.2 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the Commission may apply the measures described in Chapter 6.

## ARTICLE 35 — CONFLICT OF INTERESTS

### 35.1 Obligation to avoid a conflict of interests

The beneficiaries must take all measures to prevent any situation where the impartial and objective implementation of the action is compromised for reasons involving economic interest, political or national affinity, family or emotional ties or any other shared interest (**'conflict of interests'**).

They must formally notify to the Commission without delay any situation constituting or likely to lead to a conflict of interests and immediately take all the necessary steps to rectify this situation.

The Commission may verify that the measures taken are appropriate and may require additional measures to be taken by a specified deadline.

### 35.2 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 43) and the Agreement or participation of the beneficiary may be terminated (see Article 50). Such breaches may also lead to any of the other measures described in Chapter 6.

## ARTICLE 36 — CONFIDENTIALITY

### 36.1 General obligation to maintain confidentiality

During implementation of the action and for four years after the period set out in Article 3, the parties must keep confidential any data, documents or other material (in any form) that is identified as confidential at the time it is disclosed ('confidential information'). If a beneficiary requests, the Commission may agree to keep such information confidential for an additional period beyond the initial four years. If information has been identified as confidential only orally, it will be considered to be confidential only if this is confirmed in writing within 15 days of the oral disclosure. Unless otherwise agreed between the parties, they may use confidential information only to implement the Agreement.

The beneficiaries may disclose confidential information to their personnel or third parties involved in the action only if they:

- (a) need to know to implement the Agreement and
- (b) are bound by an obligation of confidentiality.

This does not change the security obligations in Article 37, which still apply.

The Commission may disclose confidential information to its staff, other EU institutions and bodies or third parties, if:

- (a) this is necessary to implement the Agreement or safeguard the EU's financial interests and
- (b) the recipients of the information are bound by an obligation of confidentiality.

Under the conditions set out in Article 4 of the Rules for participation Regulation No 1290/201324, the Commission must moreover make available information on the results to other EU institutions, bodies, offices or agencies as well as Member States or associated countries. The confidentiality obligations no



longer apply if:

(a) the disclosing party agrees to release the other party;

Regulation (EU) No 1290/2013 of the European Parliament and of the Council of 11 December 2013 laying down the 4 rules for participation and dissemination in "Horizon 2020 -- the Framework Programme for Research and Innovation (2014--2020)" (OJ L 347, 20.12.2013 p.81).

(b) the information was already known by the recipient or is given to him without obligation of confidentiality by a third party that was not bound by any obligation of confidentiality;

(c) the recipient proves that the information was developed without the use of confidential information;

(d) the information becomes generally and publicly available, without breaching any confidentiality obligation, or

(e) the disclosure of the information is required by EU or national law.

## 36.2 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 43). Such breaches may also lead to any of the other measures described in Chapter 6.

## ARTICLE 38 — PROMOTING THE ACTION — VISIBILITY OF EU FUNDING

### 38.1 Communication activities by beneficiaries

#### 38.1.1 General obligation to promote the action and its results

The beneficiaries must promote the action and its results, by providing targeted information to multiple audiences (including the media and the public) in a strategic and effective manner. This does not change the dissemination obligations in Article 29, the confidentiality obligations in Article 36 or the security obligations in Article 37, all of which still apply. Before engaging in a communication activity expected to have a major media impact, the beneficiaries must inform the Commission (see Article 52).

#### 38.1.2 Information on EU funding — Obligation and right to use the EU emblem

Unless the Commission requests or agrees otherwise or unless it is impossible, any communication activity related to the action (including in electronic form, via social media, etc.) and any infrastructure funded by the grant must:

(a) display the EU emblem and

(b) include the following text:

"This project has received funding from the European Union's Horizon 2020 *research and innovation programme under grant agreement No 645198*". When displayed together with another logo, the EU emblem must have appropriate prominence.

For the purposes of their obligations under this Article, the beneficiaries may use the EU emblem without first obtaining approval from the Commission. This does not, however, give them the right to exclusive use. Moreover, they may not appropriate the EU emblem or any similar trademark or logo, either by registration or by any other means.

#### 38.1.3 Disclaimer excluding Commission responsibility

Any communication activity related to the action must indicate that it reflects only the author's view and that the Commission is not responsible for any use that may be made of the information it contains.

### 38.2 Communication activities by the Commission

#### 38.2.1 Right to use beneficiaries' materials, documents or information

The Commission may use, for its communication and publicising activities, information relating to the action, documents notably summaries for publication and public deliverables as well as any other material, such as pictures or audio-visual material that it receives from any beneficiary (including in electronic form).

This does not change the confidentiality obligations in Article 36 and the security obligations in Article 37, all of which still apply. However, if the Commission's use of these materials, documents or information would risk compromising legitimate interests, the beneficiary concerned may request the Commission not to use it (see Article 52). The right to use a beneficiary's materials, documents and information includes:

- (a) use for its own purposes (in particular, making them available to persons working for the Commission or any other EU institution, body, office or agency or body or institutions in EU Member States; and copying or reproducing them in whole or in part, in unlimited numbers);
- (b) distribution to the public (in particular, publication as hard copies and in electronic or digital format, publication on the internet, as a downloadable or non-downloadable file, broadcasting by any channel, public display or presentation, communicating through press information services, or inclusion in widely accessible databases or indexes);
- (c) editing or redrafting for communication and publicising activities (including shortening, summarising, inserting other elements (such as meta-data, legends, other graphic, visual, audio or text elements), extracting parts (e.g. audio or video files), dividing into parts, use in a compilation);
- (d) translation;**
- (e) giving access in response to individual requests under Regulation No 1049/2001**, without the right to reproduce or exploit; 5
- (f) storage in paper, electronic or other form;
- (g) archiving, in line with applicable document-management rules, and
- (h) the right to authorise third parties to act on its behalf or sub-license the modes of use set out in Points (b),(c),(d) and (f) to third parties if needed for the communication and publicizing activities of the Commission. If the right of use is subject to rights of a third party (including personnel of the beneficiary), the beneficiary must ensure that it complies with its obligations under this Agreement (in particular, by obtaining the necessary approval from the third parties concerned). Where applicable (and if provided by the beneficiaries), the Commission will insert the following information:  
 "© – [year] – [name of the copyright owner]. All rights reserved. Licensed to the *European Union (EU)* under conditions."

### 38.3 Consequences of non-compliance

If a beneficiary breaches any of its obligations under this Article, the grant may be reduced (see Article 43). Regulation (EC) No 1049/2001 of the European Parliament and of the Council of 30 May 2001 regarding public access to European Parliament, Council and Commission documents, OJ L 145, 31.5.2001, p. 43.

Such breaches may also lead to any of the other measures described in Chapter 6.

## ARTICLE 46 — LIABILITY FOR DAMAGES

### 46.1 Liability of the Commission

The Commission cannot be held liable for any damage caused to the beneficiaries or to third parties as a consequence of implementing the Agreement, including for gross negligence. The Commission cannot be held liable for any damage caused by any of the beneficiaries or third parties involved in the action, as a consequence on implementing the Agreement.

### 46.2 Liability of the beneficiaries

#### 46.2.1 Conditions

Except in case of force majeure (see Article 51), the beneficiaries must compensate the Commission for any damage it sustains as a result of the implementation of the action or because the action was not implemented in full compliance with the Agreement. Each beneficiary is responsible for paying the damages claimed from it.

#### 46.2.2 Amount of damages - Calculation

The amount the Commission can claim from a beneficiary will correspond to the damage caused by that beneficiary.

#### 46.2.3 Procedure



Before claiming damages, the Commission will formally notify the beneficiary concerned:

- informing it of its intention to claim damages, the amount and the reasons why and
- inviting it to submit observations within 30 days.

If the Commission does not receive any observations or decides to claim damages despite the observations it has received, it will formally notify confirmation of the claim for damages and a debit note, specifying the amount to be recovered, the terms and the date for payment. If payment is not made by the date specified in the debit note, the Commission may recover the amount:

(a) by offsetting it — without the beneficiary's consent — against any amounts *owed to the beneficiary concerned by the Commission or an executive agency (from the EU or Euratom budget)*. In exceptional circumstances, to safeguard the EU's financial interests, the Commission may offset before the payment date specified in the debit note;

**(b) by taking legal action or by adopting an enforceable decision under Article 299**

of the Treaty on the Functioning of the EU (TFEU) (see Article 57). If payment is not made by the date in the debit note, the amount to be recovered (see above) will be increased by late-payment interest at the rate set out in Article 21.11, from the day following the payment date in the debit note, up to and including the date the Commission receives full payment of the amount. Partial payments will be first credited against expenses, charges and late-payment interest and then against the principal. Bank charges incurred in the recovery process will be borne by the beneficiary, unless Directive 2007/64/EC applies.

TRIANGLE



# 5G Application and Devices Benchmarking - TRIANGLE



Applications and  
Devices Benchmarking

Project partners:



# TRIANGLE



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 688712