PUBLIC TENDER NOTICE INVITATION TO EXPRESS INTEREST IN IDENTIFYING BUSINESS INITIATIVES DIRECTED AT PROMOTING A PERFECTED TRUE RANDOM NUMBER GENERATOR – TRNG

Whereas:

- a) the resolution of the Director of the University and Scientific Research Department no. 21 of 16 May 2013, provided for funding of the project entitled "On silicon chip quantum optics for quantum computing and secure communications" acronym "SiQuro", from funds for the "MAJOR PROJECTS 2012" tender notice, approved with provincial council resolution no. 2641 of 14 December 2011;
- b) the project, lasting three years from 1 September 2013 to 31 August 2016, proposed to produce a compact quantum random number generator entirely in silicon, taking the quantum world into integrated photonics using a silicon platform, thus allowing natural integration of quantum photonics and electronics. The long-term objective of the "SiQuro" project was also to achieve a leap in terms of models from photonics to quantum photonics in integrated lightwave circuits, in order to allow widespread diffusion of quantum communications, quantum calculations and quantum light technology;
- c) in the context of the "SiQuro" project, an initial industrial invention entitled "*True Random Number Generator*" was developed, leading to filing of a patent by Trentino Sviluppo S.p.A (application VI2014A000200 of 30 July 2014 and application PCT/IB2015/054077 of 25 May 2015);
- d) subsequently, again in the context of the "SiQuro" project, <u>a further invention</u> was developed by researchers from the University of Trento and the Fondazione Bruno Kessler in Trento, entitled "SPAD (Single Photon Avalanche Diode) based architectures for QRNG", deriving from the patent already filed and regarding different methods and architectures for implementing the quantum random number generator;
- e) with resolution no. 2203 of 3 December 2015 the Provincial Council, acknowledging the Autonomous Province of Trento's 100% ownership of all intellectual property rights related to the invention "*SPAD based architectures for QRNG*" (except for the inventors' right to be recognised as the authors), provided for provision through the "Patents Fund", set up according to article 25 of the Provincial Law of 2 August 2005, with the acquiring of relative ownership in favour of Trentino Sviluppo S.p.A, also giving the latter a mandate in relation to the relative safeguarding and management activities;
- f) in point 24, the "MAJOR PROJECTS 2012" tender notice indeed states that "The results of the project, understood as patents and intellectual property rights obtainable for relative possible economic utilisation shall belong to the Province, with the exception of the researchers' right to be recognised as the authors and without prejudice to the provisions of provincial council resolution no. 3107 of 30 December 2010;
- g) on 21 October 2016 Trentino Sviluppo S.p.A therefore filed an application for a national patent;
- h) according to provincial council resolution no. 3107 of 30 December 2010, and respecting the criteria and regulations established by the agreement signed on 4 October 2013, archive no. 42608, Trentino Sviluppo S.p.A. has the task of promoting the results of the research, through publicly notified procedures.
 This having been stated, the following notice is issued:

PUBLIC TENDER NOTICE

Article 1

Nature of the notice and validity

It is specified that this notice does not constitute a public offer according to article 1336 of the Italian Civil Code, nor an invitation to negotiate, but rather a straightforward invitation to express interest, in order to receive proposals aimed at promoting patent application no. 102016000106164, filed on 21 October 2016, proposals that will be evaluated by Trentino Sviluppo S.p.A during the course of this procedure, without therefore giving rise to any obligation on its part to award and stipulate a licence agreement.

Article 2

Object of the notice

Trentino Sviluppo S.p.A invites all interested parties – having the requirements established in this notice – to express in writing their interest in stipulating a licence agreement in relation to patent rights, the certification obtained and technical documentation, including any material regarding trials and tests carried out, as regards

the invention "*SPAD based architectures for QRNG*" developed in the context of the "SiQuro" project (referred to overall as the "Technology"), concisely described in the technical annex included with this public notice (Annex A), according to the methods indicated in article 5.

As stated in section g) of the recitals, the Technology has been safeguarded through the filing of a patent application in Italy (application no. 102016000106164 of 21 October 2016). Trentino Sviluppo S.p.A is also interested in starting up the PCT extension procedure for the Italian patent application.

Subject to signing of a specific confidentiality or *Non-Disclosure Agreement* (hereafter referred to as the "**NDA**" – Annex B), Trentino Sviluppo S.p.A will also allow access to supplementary documentation containing information about the patent to those making a written application up to and no later than 10 days following the date of publication of the tender notice, by sending a certified e-mail to the following address: acquisti@pec.trentinosviluppo.it

Article 3

Object of the licence

In the expression of interest, each interested party must express its interest in stipulating a licence agreement with the following minimum characteristics:

- licence for commercial exploitation of the Technology for the purposes of its promotion, "promotion" being taken to mean all the development, industrialisation, production and commercialisation activities necessary in order to make the product usable by the market;
- geographical area defined;
- minimum duration of 3 years;
- prohibition of contract transfer;
- prohibition of sub-licensing;
- type of payment required: fixed amount plus variable amount;
- obligation of the licensee to respect Trentino Sviluppo S.p.A.'s Organisation, Management and Control Model according to Legislative Decree no. 231/2001 – supplemented according to Law 190/2012 - as well as its Code of Ethics and Code of Conduct for administrators, employees and contract workers;
- Exclusive court of jurisdiction for any disputes: Trento.

The licence will be granted **<u>exclusively for the specific field of application</u>** specified by the interested party in its expression of interest, chosen from the following:

- Secure communications (telecommunications, data communications, data centres, radio);
- Domotics;
- Automotive;
- Avionics;
- Aerospace;
- IOT (internet of things) namely consumer products providing for a flow of data either internally or to a control system (mobile phone, automation system, control system, theft prevention system);
- Banking;
- E-commerce;
- Surveillance systems, video surveillance;
- Military;
- Smart cities (for example, intelligent mobility based on remotely controlled transport).

Trentino Sviluppo S.p.A shall therefore have the faculty to proceed with awarding licences to different parties for different fields of application. It is however specified that the licence will grant exclusive rights in the relative field of application.

At all events, Trentino Sviluppo S.p.A reserves the right to grant the aforementioned licence for exploitation of the Technology <u>exclusively</u> – without limitations in terms of the field of application – in the event that a single contracting party should be selected as a result of this procedure, if this party so desires.

It is hereby specified that Trentino Sviluppo S.p.A. reserves the right to grant third parties, other than the successful bidder, who shall however have pre-emption rights, licences for commercial exploitation of the Technology in any nations covered by the patent and in which the successful bidder has not indicated a commercial interest.

It is also specified that all costs linked to maintaining the validity of patents in the various designated nations and representing the geographical area of reference for exclusive licensing rights will be at the expense of the successful bidder.

In the event that Trentino Sviluppo S.p.A intends to undertake the PCT extension procedure in relation to the Italian patent application, the parties will select the national and regional phase entry times linked to the PCT application within 30 months of the priority date claimed in the PCT application, by mutual agreement. In this case the parties agree that in any case all and any costs and/or liabilities due in connection to the national phase of the PCT application, and therefore linked to the individual national (and/or regional) phases, and maintenance of the relative national and/or regional patents shall be entirely at the exclusive expense of the licensee. The licence shall extend to each individual designated nation or regional entity for which the patent object of the PCT application is granted, in a completely automatic manner.

The conditions of the licence for use of the Technology can be seen in the specimen licence agreement between Trentino Sviluppo S.p.A. and the successful bidder, which represents Annex C. <u>It is specified that presentation</u> of the expression of interest in the context of this notice provides for automatic acceptance of the clauses of the aforementioned specimen contract.

Article 4

Requirements for presenting the expression of interest

Partnerships, corporations, consortia between businesses and other consortia and cooperatives carrying out business activities in sectors linked to the Technology and similar areas may present an expression of interest in order to obtain rights linked to industrial and commercial exploitation, through licensing of the Technology, according to the criteria and methods established in this public tender notice.

This public tender notice is <u>not</u> directed at organisations acting as intermediaries and brokers in the field of technology transfer and parties that are interested in acquiring the licence with the intention of granting the invention to so-called patent funds and portfolios aimed at the creation of a dominant position, or similar organisations.

Article 5

Presentation

Interested parties must submit their expression of interest to Trentino Sviluppo S.p.A – on penalty of being excluded from consideration – by 12.00 on 30 November 2016. The bid must reach Trentino Sviluppo S.p.A. by registered mail with notice of receipt or certified e-mail to the address segreteria@pec.trentinosviluppo.it, or be delivered by hand to the registered offices in Via F. Zeni, 8 – 38068 Rovereto (Trento).

The expression of interest – drawn up in accordance with Annex D – must be placed in a sealed envelope marked with the wording "DO NOT OPEN – expression of interest in the Technology related to "SPAD based architectures for QRNG". The expression of interest should be considered as a statement in lieu of notary deed, provided together with a photocopy of the identity document of the declarant, according to articles 38, 46 and 47 of D.P.R. no. 445/2000), and must contain the following elements:

- name/company name, registered offices, taxpayer's code, VAT number and date, details of the person with representative powers (and also of the partners, in the case of partnerships) with relative powers;
- a statement that the company, legal representatives (and also partners, in the case of partnerships, or the owner in the case of individual companies) are not affected by the impediments provided for by the provisions of Italian law in relation to anti-Mafia measures;
- a statement by the signatory that s/he is the owner of the company or the legal representative of the corporation, firm or institution and is authorised to bind the company;
- a statement confirming that the party is not in one of the positions stated in article 24 of L.P. 2/2016 and article 80 of D. Lgs. 50/2016 and is not in the process of winding-up, bankruptcy or composition with creditors;
- o a commitment to accept the clauses of the draft licence agreement provided in Annex C;
- if the party does not have registered or operational premises within the territory of the Autonomous Province of Trento, a statement undertaking to open an operational centre dedicated to promoting the Technology in the territory of the Autonomous Province of Trento within 120 consecutive calendar days of the date of any successful bid accepted. <u>This statement is optional and not essential, although it may represent a preferential condition for the party expressing interest, as provided for in subsequent article 8;</u>
- a description regarding the company's activities and the reasons why it is interested in using the Technology for possible strategies integrating the Technology within the company's current activities;

• the field of application of the licence, from those listed in Annex D).

According to article 23 of LP 2/2016, in the event of absence, incompleteness and any other significant irregularities in terms of the elements and statements requested according to this section, Trentino Sviluppo shall ask the tenderer for the presentation, integration or regularisation of the statements necessary, indicating the content and subjects that must be provided, within a mandatory deadline of no more than ten days from the request, <u>ON PENALTY OF EXCLUSION</u> from the procedure.

Recourse to rectification procedures shall not give rise to any penalty.

The rectification procedure stated above shall be provided for in the following cases:

1. incompleteness or typing errors in the form making it impossible to correctly ascertain compliance with the requests made, bearing in mind the full documentation presented by the tenderer.

Article 6 Technical-informative meeting

Tenderers <u>may</u> request the holding of a consultative technical-informative meeting at the headquarters of Trentino Sviluppo S.p.A. or at another place to be agreed, in order to obtain further preparatory elements for evaluation of participation in this tender procedure.

The visit must be made by the legal representative of the company (or other person <u>specifically delegated with</u> <u>the task</u>) having made an appointment, to be agreed with the contact Romina Falagiarda.

The appointment can be made by telephoning the following number: 0464-443111.

Tenderers are invited to make this request <u>no more than 10 days</u> before the deadline for presentation of the expression of interest. Once the meeting has taken place, the representative of the administration will issue a certificate that must be conserved by the company for the purposes of possible future checks.

In the case of a temporary association of companies or consortium of tenderers, both already established and not yet set up, the meeting can take place with any of the companies in the association or consortium.

Article 7 Questions and clarification

Questions of a technical and procedural nature, or regarding content, method, the tender notice and documentation must arrive via certified electronic mail at the address <u>acquisti@pec.trentinosviluppo.it</u> by and no later than 10 days before expiry of the tender notice.

The administration will promptly provide answers to these questions in anonymous form at the site <u>http://www.trentinosviluppo.it</u> in the section Notices and Tenders, and in any case by no less than 5 days before the tender notice expires. Answers to questions arriving after the deadline indicated cannot be guaranteed. Any questions must be formulated exclusively in Italian.

Article 8 Method of assessment

Expressions of interest arriving in the context of this tender notice will be evaluated with the <u>criterion of the</u> <u>most economically advantageous bid</u>, according to criteria that will be established in a specific subsequent communication to those expressing an interest, and in any case concerning:

- the size of the company; the markets of reference; the products/services and relative turnover in the 2013-2015 period, or in the case of start-up companies the company business and financial plan for the period 2016-2018; the marketing and commercial strategies adopted;
- the financial bid, as a "lump sum" on entry and annual royalties to be applied to the turnover generated by commercialisation of the Technology.

In the event of equal scores, the fact that tenderers have a registered office or operations centre in the territory of the Autonomous Province of Trento or undertake to open an operations centre dedicated to promoting the Technology in the area, within 120 consecutive calendar days from the date of any successful bid, <u>shall</u>

<u>represent a preferential condition.</u> "Promotion" is intended to mean all research, development, industrialisation, production and commercialisation activities necessary to make the product usable by the market.

Tenderers are advised in advance – and accept without reserve – the fact that the Autonomous Province of Trento and its autonomous bodies and/or companies it controls (public in-house companies) reserve the right to provide the technology directly or indirectly of the successful bidder, at particularly advantageous conditions as compared to standard market rates. These conditions are better defined in the draft licence agreement enclosed and/or through specific agreements directly with the licensee, which may also be drawn up when commercialisation is underway.

Rovereto, 26 October 2016

TRENTINO SVILUPPO S.p.A. The Chairman Flavio Tosi