

# GUIDE FOR APPLICANTS



**QUSTEC**  
Quantum Science and Technologies  
at the European Campus



The QUSTEC programme has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement number 847471. 

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## CHANGE LOG

What/version	Where	When
Guide / version 1.0	Page 1-10	15.5.2019

## Questions?

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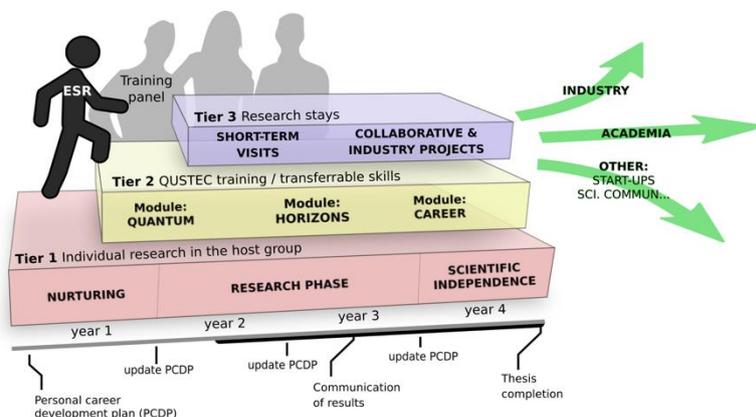
## GENERAL INFORMATION

QUSTEC is a doctoral fellowship programme set up by the European Grouping of Territorial Cooperation (EGTC) Eucor – The European Campus. We offer 39 fellowship positions for doctoral candidates with outstanding training opportunities within the field of Quantum Science and Technology, in an international, interdisciplinary and intersectoral setting. The fellowships last 48 months.

The doctoral fellowships will be implemented at one of the following institutions:

- University of Freiburg im Breisgau, Germany
- Karlsruhe Institute of Technology, Germany
- University of Strasbourg, France
- University of Basel, Switzerland
- IBM-Research, Switzerland

## Training programme



For each doctoral researcher, QUSTEC will implement a 3-tiered training structure. This training is built towards gearing ESR's top employability after the fellowship and enables them to become future responsible research leaders. It builds on the seven principles for innovative doctoral training<sup>1</sup>. The training

of QUSTEC is overseen and monitored by an individualised Training Panel consisting of supervisor, co-supervisor and mentor. All fellowships comprise a secondment to an industrial partner of 2 to 6 months. We are aiming at the following training objectives for each ESR over the course of 4 years:

- Four transferrable skills trainings (also as part of the respective graduate programmes)
- (At least) one high level publication and 2 other dissemination activities (such as conference contributions)
- Three outreach/public engagement/citizen science/science education activity (such as workshops in schools, press interviews etc.)

<sup>1</sup> <https://euraxess.ec.europa.eu/belgium/jobs-funding/doctoral-training-principles>

<b>Tier 1</b> Local training Counts for 50%	Nurturing
	Research
	Scientific Independence
<b>Tier 2</b> Interdisciplinarity Counts for 20%	Quantum Horizons Career
<b>Tier 3</b> Intersectorality/ Internationality Counts for 30%	Secondments
	Short Visits

### Key dates

- Wednesday 15th May 2019: Call opening
- Monday 19th August 2019 (5pm Brussels time): Call closed.
- Monday August 26th 2019: Information to applicants whether they are eligible or not.
- Monday August 26th 2019 – Sunday September 15th 2019: Written evaluation
- Tuesday 17th September 2019: Information to applicants whether continue to the second selection step.
- Monday 7th October 2019 – Friday 25th October 2019: Interview phase
- From Wednesday 30th October 2019 on: Information to applicants about the outcome of the second selection phase.
- Start of fellowship: First quarter 2020.

## ELIGIBILITY CRITERIA AND SELECTION PROCESS

### Eligibility criteria

QUSTEC has **two** eligibility criteria:

- 1) **Level of Experience is 'Early Stage Researcher'**, according to the definition in the work programme of the 2018-2020 *Marie Skłodowska-Curie actions*<sup>2</sup>: Applicants must be, at the date of **the respective call deadline** of QUSTEC, in the first four years (full-time equivalent research experience) of their research careers and not yet have been awarded a doctoral degree.
- 2) **Mobility criterion**: The applicants must not have resided or carried out their main activity (work, studies, etc.) in the country of the future host organisation for more than 12 months in the 3 years immediately before the call deadline of QUSTEC. Short stays such as holidays are not taken into account. For refugees under the Geneva Convention, the refugee procedure (i.e. before refugee status is conferred) will not be counted as period of residence/activity in the country of the host organisation.

QUSTEC's programme manager will check the eligibility of submitted applications after the submission deadline (see *timeline*).

**There are no exceptions to these rules.  
 The call deadline is August 19<sup>th</sup> 2019, 17.00 Brussels time.**

<sup>2</sup> [http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-msca\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-msca_en.pdf)

## Selection process

The selection and evaluation process of QUSTEC follows the principles of the *H2020 Grants Manual*<sup>3</sup> regarding Excellence, Transparency, Fairness and Impartiality, Efficiency, Speed, Ethics and Security. The participating member universities of the EGTC Eucor – The European Campus and the partner institutions also adhere to the European Charter and Code for the recruitment and employment of researchers and have extensive experience in recruiting researchers<sup>4</sup>.

The **written evaluation** will be carried out by two independent external evaluators. Each application will be reviewed by two independent evaluators.

Once a candidate has passed the 70% threshold of the written evaluation, an **oral evaluation (interview)** will be carried out by a panel of the future potential supervisor, one independent expert who previously assessed the CV, and one partner organisation representative. At least one member of the selection panel will be female. Interviews will be carried out either via Skype or in person.

In case of the **same scores**, priority will be given to 'Degree and Skills' (written application) and the match with and contribution to the proposed topic (oral application).

The **ethics assessment** will be done a) via the ethics self-assessment and b) via the local ethics experts at the partner organisation.

The **redress committee** will consist of one senior researcher of one of QUSTEC's partner institutions and two members of the integrity offices of Eucor member universities. At least one member of the committee will be female.

**Report:** Each candidate will receive a report by the project manager based on the external experts' evaluations after each evaluation step.

**Reserve list placing:** Candidates on the reserve list will be notified about their status and, after 2 months, the fellowship will either be declined definitely or offered, depending on the state of acceptance/rejection of the candidates on the main list.

## Redress

The candidate has the possibility to apply for redress after receiving the written evaluation result and the interview result by writing a one page letter stating their case to the redress committee (per email, via the project manager who will immediately transfer it to the redress committee). The redress committee will, within 2 weeks after receiving the letter, evaluate the case and inform the candidate of the outcome. The redress procedure will only evaluate the evaluation procedure and perceived incorrect application of the eligibility criteria and not the scientific judgement of the evaluation and selection committee members. In case the redress is deemed justified, the application will again be evaluated and/or an interview will be carried out.

The redress committee consists of one senior researcher of one of QUSTEC's partner institutions and two members of the integrity offices of Eucor member universities.

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<sup>3</sup> [https://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/from-evaluation-to-grant-signature/evaluation-of-proposals\\_en.htm](https://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/from-evaluation-to-grant-signature/evaluation-of-proposals_en.htm)

<sup>4</sup> <https://euraxess.ec.europa.eu/jobs/charter>

## Peer review of the written application

The written application consists of a letter of motivation, a CV, and the ethical self-assessment. The ethics self-assessment will not count towards the evaluation score. Letters of recommendation are not required. One letter of recommendation may be optionally added to the application file.

Application Element	Content	Weight
Degree and skills	Excellent MSc degree or equivalent qualification, within top 15% of respective grading system Excellent skills and knowledge in quantum science and technology, as shown by a Master & Bachelor degree in relevant scientific fields of physics, chemistry, materials or computation	50%
Motivation letter (2 pages)	Explanation why candidates see themselves as excellent match for the topic/s and what special skills they can contribute towards the topic's success	30%
Working experience	Proven by internships and/or results (e.g. publications, patents, etc.) in a relevant area of research	20%

The candidate must pass the threshold of 70% to continue with the evaluation process.

## Evaluation of the pre-selected candidates

Written application	Oral application
60%	40%

### Score Description

- |   |  |
|---|--|
| 0 | Application fails to address the criterion or cannot be assessed owing to missing or incomplete information.     |
| 1 | Poor. The criterion is inadequately addressed, or there are serious inherent weaknesses.                         |
| 2 | Fair. The criterion is broadly assessed, but there are significant weaknesses.                                   |
| 3 | Good. Application addresses the criterion well, but a number of shortcomings are present.                        |
| 4 | Very Good. Application addresses the criterion well, but a small number of shortcomings are present.             |
| 5 | Excellent. Application successfully addresses all relevant aspects of the criterion. Any shortcomings are minor. |

## Interview

The oral application will be in the form of a 40-minute interview with the following criteria:

Presentation of CV and previous achievement (15 minutes)	Match with and contribution to the proposed topic/s (15 minutes)	General scientific culture (10 minutes)
<ul style="list-style-type: none"> <li>- Clarity and consistency of presentation</li> <li>- Ability to answer CV related questions</li> </ul>	<ul style="list-style-type: none"> <li>- Match of topic/s with CV and further skills</li> <li>- Motivation and initiative to contribute to the topics</li> </ul>	<ul style="list-style-type: none"> <li>- Ability to take part in a scientific discussion</li> <li>- Oral English expression</li> <li>- Team skills</li> </ul>
15%	15%	10%

## Ethics

All applicants must fill in the ethics self-assessment for the respective topic/s they apply for. In case of questions, they can contact the respective potential supervisor or project manager. The ethics assessment will not influence the evaluation of the application, but projects may only start upon clearance by the respective local ethics committee of the partner organisation hosting the fellow.

## FURTHER INFORMATION FOR THE APPLICANTS

### Appointment conditions

All fellows researchers will obtain a 4-year full time equivalent working contract allowing them to dedicate 100% of their time to their research and training. Each fellow will have a working contract with full social benefits and attractive conditions with one of the academic partner institutions (University of Basel, University of Freiburg, Karlsruhe Institute of Technology, University of Strasbourg) within the EGTC Eucor and/or the industry partner (IBM Research - Zurich). All fellows will receive competitive salaries with respect to regional living costs in each of the participating countries. All countries additionally offer, for researchers with children, an additional family allowance. All fellows will be offered parental leave according to their national legislation. For further information, refer to the respective host institution's website.

### Information to the applicants

- From Monday August 26<sup>th</sup> 2019 on: **Information to applicants** whether they are eligible or not.
- From Tuesday 17<sup>th</sup> September 2019 on: **Information to applicants** whether they passed the 70% threshold and continue to the second selection step.
- From Wednesday 30<sup>th</sup> October 2019 on: **Information to applicants about the outcome of the second selection phase.**

## SUBMISSION

- All applications<sup>5</sup> must be submitted via the submission form on <https://www.eucor-uni.org/en/qustec/application-information/apply/>
- Only applications which have been submitted until **19<sup>th</sup> August 2019, 17.00 (Brussels time)** will be accepted for the evaluation process.
- Only application files submitted as pdf file are valid.
- All applications must consist of
  - a) Motivation letter
  - b) CV
  - c) Ethics self-assessment (see below)

Letters of recommendation are not required. One letter of recommendation may be optionally added to the application file.

**Additional documents (e.g. references, publications, etc.) are not needed and will not be taken into account by the evaluation committee.**

<sup>5</sup> Exceptions for researchers at risk whose applications may be submitted via post, see website information. The QUSTEC programme has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement number 847471. 

An application is only valid if submitted via our online submission system. In exceptional cases and only if agreed upon beforehand with the project manager, applications (e.g. from researchers at risk) can be submitted via post. It must be postmarked before or on the date of the deadline (August 19th 2019 17.00 Brussels time).

## WRITING GUIDANCE

### ➤ Letter of motivation (counts for 30%)

**Please do not write more than 2 pages. Excess pages will be disregarded.  
Use Arial 11 pt as font.**

*Please outline in this letter*

- Which topic/s you apply for (the same topics you indicated in your CV)
- Why you are an excellent match for the topic/s you apply for

*Specify in how far your education and scientific skills are matching the topic/s you apply for.*

- Which special skills you can contribute towards the topic's success.

*Describe in how far your education and skill set can contribute to the topic's success. If you have any previous experience or transferable skills which you can apply to this topic describe in how far they can contribute to a successful research project.*

- Any additional information you think the selection committee will find useful to assess your motivation for the fellowship position

*Explain what makes you the best match for the fellowship position.*

### ➤ CV (Degree and skills count for 50%; working experience for 20%)

**Please do not write more than 4 pages. Excess pages will be disregarded.  
Use Arial 11 pt as font and respect the page margins of the template.**

### ❖ RESEARCH TOPIC/s you apply for

*Briefly state **exactly** what topics you are applying for, in descending order of priority. You may apply up to three topics. Please consider the eligibility rules (mobility rule).*

- **Degree and skills (50%)**

## EDUCATION and DEGREES

*Write in **reverse chronological order**, the institutions where you studied, when you studied and which degrees you obtained.*

## SKILLS

*Describe the skill set you hold, both research-related and transferable skills set; and how you obtained them.*

- **Working experience (20%)**

## EMPLOYMENT

Write in reverse chronological order, job title, organisation and dates (only month and year necessary). Include jobs you did as a student only if they are relevant to your application. You can add any positions of responsibility such as membership of committees or boards, inside and outside of the academic environment.

## PUBLICATIONS, PRESENTATIONS, PATENTS

- List any publications, posters, patents or similar achievements

## FUNDING and ACADEMIC AWARDS

- List any bursaries, scholarships, travel grants or other sources of funding that you were awarded for research projects or to attend meetings or conferences.

## PROFESSIONAL MEMBERSHIPS

- List any memberships you may have relevant to your research or other life activities.

## FURTHER INFORMATION

- Add any further information you may think important for the selection committee.

### ➤ Ethics

**(not counting towards the evaluation score, but must be submitted together with the letter of motivation and the CV)**

<b>1. Human Embryos/Foetus</b>	
Does your research involve Human Embryonic Stem Cells (hESCs)?	YES <input type="checkbox"/> / NO <input type="checkbox"/>
Does your research involve the use of human embryos?	YES <input type="checkbox"/> / NO <input type="checkbox"/>
Does your research involve the use of human foetal tissues / cells?	YES <input type="checkbox"/> / NO <input type="checkbox"/>
<b>2. Humans</b>	
Does your research involve human participants?	YES <input type="checkbox"/> / NO <input type="checkbox"/>
Does your research involve physical interventions on the study participants?	YES <input type="checkbox"/> / NO <input type="checkbox"/>
<b>3. Human Cells /Tissues</b>	
Does your research involve human cells or tissues (other than from Human Embryos/ Foetuses, i.e. section 1)?	YES <input type="checkbox"/> / NO <input type="checkbox"/>
<b>4. Personal Data</b>	
Does your research involve personal data collection and/or processing?	YES <input type="checkbox"/> / NO <input type="checkbox"/>
Does your research involve further processing of previously collected personal data (secondary use)?	YES <input type="checkbox"/> / NO <input type="checkbox"/>
<b>5. Animals</b>	
Does your research involve animals?	YES <input type="checkbox"/> / NO <input type="checkbox"/>

<b>6. Third Countries</b>	
In case non-EU countries are involved, do the research related activities undertaken in these countries raise potential ethics issues?	YES <input type="checkbox"/> / NO <input type="checkbox"/>
Do you plan to use local resources (e.g. animal and/or human tissue samples, genetic material, live animals, human remains, materials of historical value, endangered fauna or flora samples, etc.)?	YES <input type="checkbox"/> / NO <input type="checkbox"/>
Do you plan to import any material - including personal data - from non-EU countries into the EU?	YES <input type="checkbox"/> / NO <input type="checkbox"/>
Do you plan to export any material - including personal data - from the EU to non-EU countries?	YES <input type="checkbox"/> / NO <input type="checkbox"/>
In case your research involves low and/or lower middle income countries, are any benefits-sharing actions planned? List available here: <a href="https://datahelpdesk.worldbank.org/knowledgebase/articles/906519">https://datahelpdesk.worldbank.org/knowledgebase/articles/906519</a>	YES <input type="checkbox"/> / NO <input type="checkbox"/>
Could the situation in the country put the individuals taking part in the research at risk?	YES <input type="checkbox"/> / NO <input type="checkbox"/>
<b>7. Environment &amp; Health and Safety</b>	
Does your research involve the use of elements that may cause harm to the Environment, to animals or plants?	YES <input type="checkbox"/> / NO <input type="checkbox"/>
Does your research deal with endangered fauna and/or flora and/or protected areas?	YES <input type="checkbox"/> / NO <input type="checkbox"/>
Does your research involve the use of elements that may cause harm to humans, including research staff?	YES <input type="checkbox"/> / NO <input type="checkbox"/>
<b>8. Dual Use</b>	
Does the research have potential for military applications?	YES <input type="checkbox"/> / NO <input type="checkbox"/>
<b>10. Misuse</b>	
Does this research have the potential for malevolent/criminal/terrorist abuse?	YES <input type="checkbox"/> / NO <input type="checkbox"/>
<b>11. Other Ethics Issues</b>	
Are there any other ethics issues that should be taken into consideration? If yes, please specify in your ethics statement (see below)	YES <input type="checkbox"/> / NO <input type="checkbox"/>
<p>If you answer YES to any of the questions above, please provide additional information about how these issues will be addressed in your research by uploading an <b>ethics statement</b> with your proposal (max 2 pages).</p> <p>You may consult the Horizon 2020 Programme Guidance “How to complete your ethics self-assessment” for further information on how to address ethical issues in your research proposal.</p>	

Please find ample information on how to fill in this form

[http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/ethics/h2020\\_hi\\_ethics-self-assess\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/ethics/h2020_hi_ethics-self-assess_en.pdf)

For questions, turn to the potential supervisor of the respective topic or the project manager.