

Fact Sheet

Evaluation of applications for a doctorate - security screening

Applications from countries that have been placed on the sanctions list by the United Nations Security Council (UN) and adopted by UN member states, such as Switzerland, in their national legislation are considered for the security screening. This list also includes countries that are categorised by Switzerland as high-risk countries in terms of proliferation¹ or are sanctioned by the EU and the USA (see enclosure).

In addition, the legally applicable provisions² regarding the export of goods, technologies and services to other countries must be complied with to be admitted to a doctorate at ETH Zürich, as failure to do so may result in criminal consequences. ETH is obliged to assess and minimise the risk of misuse of acquired knowledge and skills.

Admitted doctoral students have access to the resources of their research group, both in terms of the knowledge available at and the research infrastructure.

If sanctions are issued by foreign states, these must also be complied with by their nationals if they are abroad, e.g. in Switzerland. Non-compliance with such sanctions can lead to serious disadvantages for these nationals. ETH must therefore protect its employees from the risk and consequences of violations of foreign or international sanctions (duty of care).

For this reason, applications for the doctorate from the above-mentioned countries are subjected to a security screening. In addition to the applicant's nationality, educational background and place of residence, the research topic for the doctorate is also screened, as applied research at Technology Readiness Level (TRL) 4 and above could potentially be misused for military purposes in certain areas. The dual use of the technologies includes the following areas:

Areas of dual-use technologies and emerging technologies³

- Additive manufacturing
- Applied Chemistry, Biochemistry and Chemical Engineering
- Applied physics
- Blockchain
- Biotechnologies
- Chemical technology
- Cyber surveillance
- Nuclear technologies
- Digital technologies
- Electrical and mechanical engineering
- Advanced and intelligent materials
- Engineering and manufacturing
- Artificial intelligence
- Aerospace technology
- Measurement technology and sensors
- Nanotechnology
- Photonics and lighting technology
- Production and process engineering
- Quantum technologies
- Telecommunications and information technology

The **financing** of the doctorate is also the subject of the security screening. Scholarships programmes of sanctioned countries as well as scholarship programmes that are based on discriminatory selection criteria and impose rules on scholarship holders that violate fundamental values of ETH Zürich, such as academic and intellectual freedom or the protection of intellectual property are also subject to review.

¹ Proliferation: Prevention of unwanted further processing of armaments and weapons of mass destruction.

² Such as goods control legislation (export control) or applicable embargo laws (sanctions).

³ Manual on Export Controls and Academia, BAFA Federal Office of Economic Affairs and Export Control, Art. 1.3, page 15

Security Screening

Applications for a doctorate at ETH Zürich are mainly submitted directly to the professors. They carry out the initial triage according to the assessment criteria listed below.

The basic prerequisites for admission to the doctorate are the formal and qualitative standards of ETH Zürich: a university (Master's) degree that qualifies for admission, fulfilment of the excellence criteria, secured funding for the duration of the doctorate and the diverse composition of the research group (in particular regarding origin).

In addition, the professor evaluates enquiries from interested students (case-by-case examination) according to the following criteria for safety-relevant aspects.

Evaluation criteria:

1) Previous education relevant to admission at an institution with a security risk (see sanction search ⁴ or at a military-related organisation from countries that require a security screening (see above). The most important relevant institutions of origin are listed in the appendix).	YES	NO
2) Country of origin (nationality, place of residence) against which an embargo law (sanctions) is in force or Export Control Acts are applicable.	YES	NO
3) Funding through a scholarship from a sanctioned state, through a critical scholarship or exchange programme, or from improper or questionable sources.	YES	NO
4) Subject area in applied research (from TRL 4) ⁵ is subject to increased official supervision (embargo), falls under applicable export control regulations for dual-use goods or the topic of the doctoral thesis falls into the category of critical research areas or uses critical technologies (see page 1).	YES	NO

If there are more than one **YES**, it is recommended rejecting the application.

If the professorship still wishes to accept a top application, she or he will compile the following documents for the in-depth security check:

- Complete CV
- Project description of the doctoral project
- Completed export control questionnaire⁶

The dossier is forwarded to the Export Control Office (exportkontrolle@ethz.ch) for examination. If necessary, the Export Control Office will also request the form for consent to the forwarding of the applicant's personal data. The Export Control Office informs the professorship of the outcome of its evaluation, with a copy to the Doctoral Administration in the Academic Services.

If the application is cleared as unobjectionable after the security screening of the dossier, the professorship can invite the applicant to register with the [Doctoral Administration](#).

The Doctoral Administration checks the application documents. If the assessment is positive, the admission process is initiated in accordance with the ETH Zürich's Doctoral Degree Ordinance.

If the professorship does not agree with a recommendation for rejection, it can apply to the Vice-Rector Doctorate for reconsideration.

The Fact Sheet applies with immediate effect. Persons already authorised are not affected.

Enclosures:

- List of countries of origin that require a security screening (embargo and risk countries)
- List of the most important universities of origin that require a security screening

⁴ www.sanctionsearch.ethz.ch/app/en

⁵ TRL = Technology Readiness Level

⁶ [Questionnaire for the employment of academic staff](#)