



UNIVERSITY OF TARTU

# Combining quantitative and qualitative metrics in research assessment: Screening for potential ERC applicants in the University of Tartu



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Who am I?

# Introduction

The performance in ERC calls for proposals varies widely. The number of proposals from the so-called “widening countries” is approximately eight times lower than from other countries, and their success rates remain below average.<sup>1</sup>

While the data from Web of Science shows that original research from some of the widening countries (Estonia, Cyprus and Portugal) have a above or near average impact when normalized by category or compared to world average.

How to tackle the question of discovering researchers that could and should apply for an ERC, while not relying only on quantitative data?

<sup>1</sup> <https://erc.europa.eu/news-events/magazine-article/why-do-some-countries-face-problems-obtaining-erc-grants>

# What are we doing at the University of Tartu?

## Yearly overview

### University of Tartu

Once a year the Grant Office employees produce a comprehensive analysis of all the academic employees of the university. This analysis combines information from different sources (Scopus, Estonian Research Information System and internal sources) and the information is not only bibliometrical, but also looks at projects (both international and internal funding) and supervised doctoral studies.

### The Laiden Manifesto principles

- 4) Keep data collection and analytical processes open, transparent and simple.
- 6) Account for variation by field in publication and citation practices.
- 7) Base assessment of individual researchers on a qualitative judgement of their portfolio.

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## Yearly overview

### University of Tartu

After the data is collected, the top most impactful (top 10%) researchers are highlighted to get a better understanding of who are the top performers in the faculties. After this the data is sent to the heads of faculties for validation.

### The Laiden Manifesto principles

- 1) Quantitative evaluation should support qualitative, expert assessment.
- 2) Measure performance against the research missions of the institution, group or researcher.
- 3) Protect excellence in locally relevant research.
- 4) Keep data collection and analytical processes open, transparent and simple.
- 5) Allow those evaluated to verify data and analysis.
- 6) Account for variation by field in publication and citation practices.
- 7) Base assessment of individual researchers on a qualitative judgement of their portfolio.
- 10) Scrutinize indicators regularly and update them.

# What are we doing at the University of Tartu?

## The ERC Matching Application

University of Tartu

For the ERC application we collect the data about all the researchers who got ERC funding the previous year.

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# What are we doing at the University of Tartu?

## The ERC Matching Application

### University of Tartu

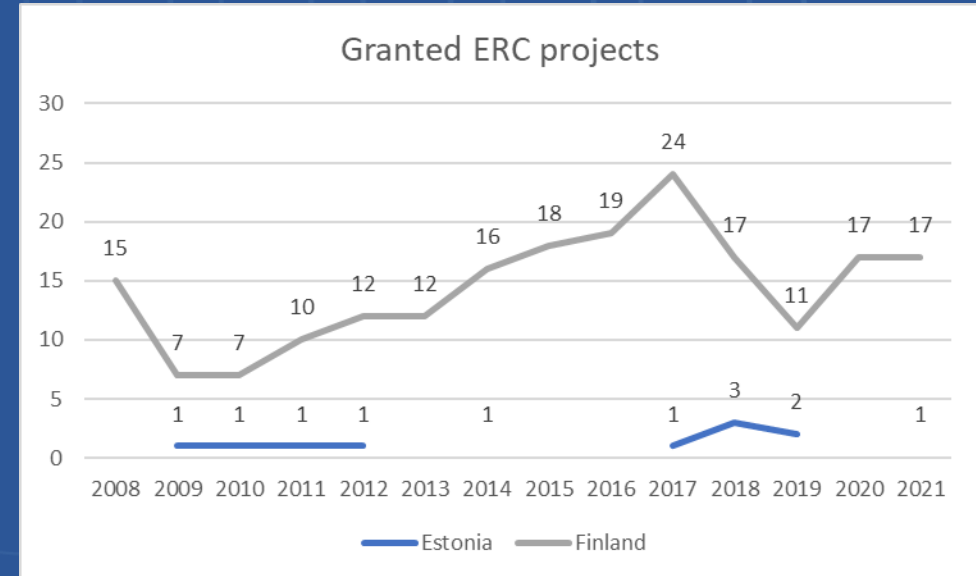
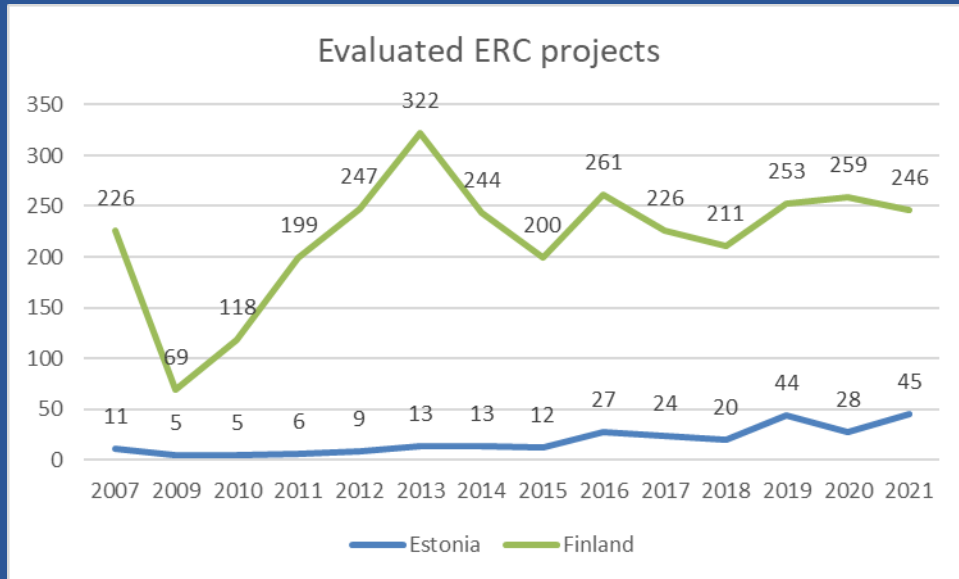
In the application itself users can add:

- the year they finished their doctorate (calculates ERC type),
- How many scholarly publications have they published in the last 5 years (preferably based on Scopus)?
- What is their h-index for the scholarly publications in the last 5 years (preferably based on Scopus)?

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# What are we doing at the University of Tartu? Effect - Estonia





# What are we doing at the University of Tartu? Effect – University of Tartu



Natural Sciences

## European research grant helps to map behavioural causes of weight change variability with genetic lottery

Uku Vainik, Associate Professor of Behavioural Genetics at the University of Tartu, has been awarded a Starting Grant from the European Research Council (ERC) to study the behavioural and genetic links to obesity and to identify possible new interventions to combat obesity.

06.09.2023 | Mirjam Savioja



Natural Sciences

## University of Tartu researcher received Europe's most prestigious research grant to study the formation, cycle and effect of laughing gas emitted from peat soils

Nitrous oxide (N<sub>2</sub>O), commonly known as the laughing gas, is one of the most dangerous greenhouse gases. Ülo Mander, Professor of Physical Geography and Landscape Ecology at the University of Tartu, received an ERC Advanced Grant to study the cycle of N<sub>2</sub>O in fens and peatlands, its links to global climate change, and possible land-use practices that could help curb the production of this greenhouse gas in the future.

06.07.2023 | Mirjam Savioja



Natural Sciences

## University of Tartu researcher receives prestigious ERC Starting Grant to study the arms race between bacteria and viruses

The two-way defence mechanisms of bacteria and phages, viruses of the bacteria, can offer a solution to antibiotic resistance problems. Hedvig Tamman, Associate Professor of Genetics at the Institute of Molecular and Cell Biology, University of Tartu, received the Starting Grant from the European Research Council (ERC) to study the microbial arms race.

06.09.2023 | Mirjam Savioja

# Conclusion

Quantitative metrics used at the University of Tartu give vital information about the research done at the university.

Combined with qualitative methods of identifying potential ERC applicants, and with sufficient support, these metrics and methods have provided results that suggest that combining quantitative and qualitative metrics in research assessment could lead to notable rise in ERC funding.

THANK YOU!  
QUESTIONS?

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