

# Eurodoc and impact of ECRs on society

- President Eva Hnátková
- EUA-CDE Annual Meeting
- University of Brescia, Italy
- 12-14 June 2019



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The European Council of Doctoral  
Candidates and Junior Researchers

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# Eurodoc = early-career researchers



O'Neill & Krūmiņa (2018)

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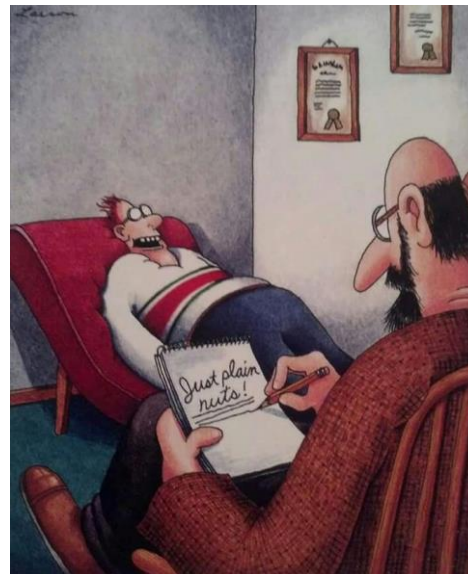
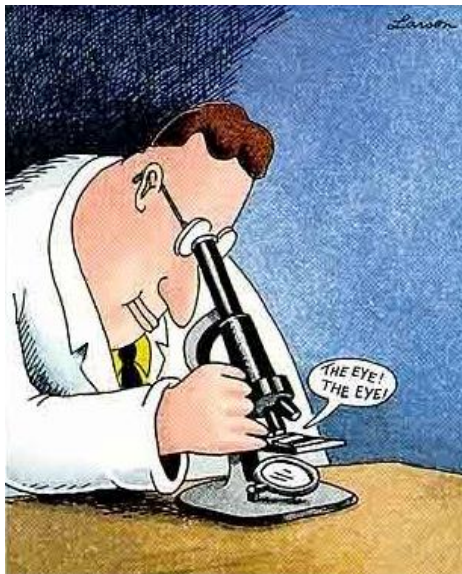
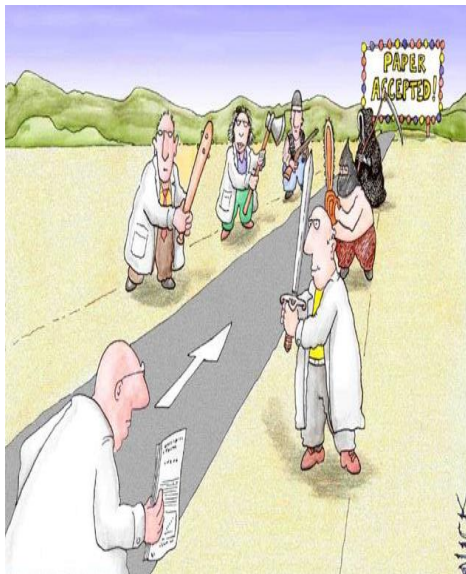
The European Council of Doctoral  
Candidates and Junior Researchers

- non-profit organisation
- based in Brussels (2002)
- 28 national associations
- funded by member fees
- supported by volunteers
- develop & inform policy
- run workgroups & events

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# Issues for early-career researchers



[O'Neill & Storti \(2018\)](#) | [O'Neill & Hnátková \(2018\)](#) | [O'Neill & Schroijsen \(2018\)](#)

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# Rapid changes in society



## OCCUPATIONAL STRUCTURE

- *in society, classified according to skill level, economic function, or social status.*

## WORK AND ORGANIZATIONAL BEHAVIOUR



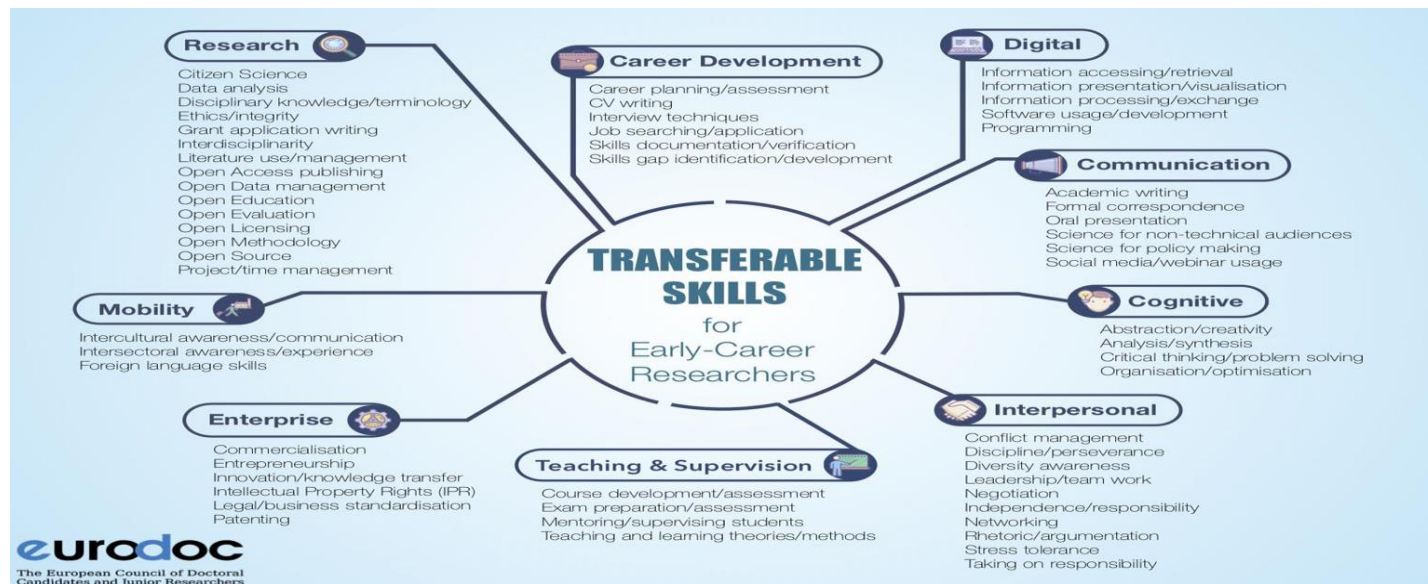
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# Development of transferable skills



[Eurodoc \(2018\)](#) | [Eurodoc-infographic \(2018\)](#)

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# Training and support for Open Science

## Impact Outlook

- 'Open Science will be the new way of conducting research by opening up access to research data and results via new digital technologies and collaborative tools'
- 'A main question for us is to what extent will early-career researchers need to be trained for these practices and what is the role of early-career researchers in the shift to Open Science?'

## Open science for early-career researchers

Gareth O'Neill, President, and Eva Hnátková, General Board Member/Coordinator WG Doctoral Training, explain why Open Science is a strategic priority within the European Council of Doctoral Candidates and Junior Researchers (ECDC)

From your perspective, in order to maintain Europe's position as a global research hub, it is essential to support and foster open access to science and research?

GO: The implementation of Open Science is fundamental to the 'New Vision for Europe' proposed by the European Commission (EC). Open Science will be the new way of conducting research by opening up access to research data and results via new digital technologies and collaborative tools. Open Science is actually just one policy initiative of a thoughtful strategy to fundamentally open up research and innovation in Europe. Open Innovation will bring new ideas into the innovation process, creating new products, methods and entrepreneurship. Open to the World will develop more international cooperation and science diplomacy, as well as address core societal issues. These initiatives together will indeed position Europe as a global and innovative research hub. Opening up access to research is important for all researchers who rely on the research data and results from other researchers to confirm new developments and discoveries and build upon previous research. This is especially true for academic institutions in lesser developed countries, which may not be able to afford the often high costs for access to research through commercial publishers.

What are the goals of Eurodoc in relation to Open Science and the role it plays? Which Eurodoc Working Groups (WGs) are working on Open Science and what are their main tasks?

GO: Eurodoc supports the concept of Open Science and will ensure that the needs and wishes of early-career researchers (ECRs) are taken into account in the development of Open Science policies. 'Development' is the key word here because what already Open Science is and how to do it are still being figured out by all major stakeholders. 'Open Science' is essentially an umbrella term for various practices such as Open Access, Open Data, Open Methodology, Open Source, Open Peer Review, Open Education, Alternative Metrics and Citizen Science. A main question for us is to what extent ECRs need to be trained for these practices and what is the role of ECRs in the shift to Open Science? Our WG on Open Science and on Doctoral Training will address these issues.

EH: Our WGs are one of the driving forces behind Eurodoc. WG members are mostly ECRs from our national associations and as parts interested in the topic of the WG. Open Science is a relatively new concept that needs to be further refined and adopted by ECRs. The main goals of WG Open Science are to raise awareness, share information, encourage debate and develop policies on Open Science for ECRs. Doctoral training, on the other hand, is an established academic concept that forms the backbone of the doctoral programme and prepares future researchers for science. The main goals of WG Doctoral Training are to monitor and improve the training of doctoral candidates at institutions in Europe. These two WGs are working closely together to train ECRs for Open Science.

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Gareth O'Neill

Eva Hnátková

What does research need to be the key to Open Science for European and international research communities? What new skills are needed to overcome these barriers?

GO: We recently conducted a survey together with the EC on Open Science for researchers, with a focus on Open Access and Open Data. We identified key issues for all researchers and especially for ECRs across Europe. Researchers are generally unaware of what Open Science is and how to do it. Most have not followed training courses on Open Science or used Data Management Plans or metadata in their research. Most are also not being adequately supported at their institutions, with researchers saying that there are no institutional/funding guidelines as well as no general specialist support for Open Science. Our results show that institutions have not implemented a clear Open Science policy and need to more proactively support the shift to Open Science. Lack of coherent policy on Open Science is not reserved to institutions, but is also apparent at national levels. Most countries in Europe have not yet developed strategic plans to implement Open Science and may not yet consider Open Science as a strategic priority. For the open scientific community, Open Science must be encouraged and supported at all levels: by the EC, national governments, academic institutions and the researchers themselves.

EH: Open Science consists of a mix of different practices and we cannot expect that ECRs can and should be trained in all of these practices. Some essential skills that are the most important are general knowledge of Open Science and specific knowledge of research bringing Open Access publishing, research data management and FAIR (Findable Accessible Interoperable Reusable) Open Data, the use of Data Management Plans and metadata, Open Education, and Citizen Science. Such skills training should be offered within an optional Open Science track of courses that is embedded in the (mandatory) training programme of ECRs. These courses should furthermore be tied to actual Open Science practice whereby ECRs can learn by training and learn by doing. At a European level, skills training for Open Science should also be embedded in the Innovation

Doctoral Training Principles and in the European Framework for Research Careers. Skills training, however, is not enough. As Gareth says, there also needs to be comprehensive awareness raising, encouragement, planning and support for Open Science and ECRs.

How does Eurodoc contribute to the debate on Open Science? Do Eurodoc members advocate specifically for Open Science and Open Data?

GO: Open Science is one of Eurodoc's strategic priorities. The concept of Open Science is new and we aim to contribute to the development and implementation of Open Science from the perspective of ECRs. We naturally do this in collaboration with our main partners such as the Directorate General for Research and Innovation of the EC, the European University Association, and Science Europe. We also inform Open Science initiatives by taking part in advisory boards such as for the FOSTER Plus project, which aims to develop advanced local and discipline-specific training materials for Open Science. We further organise conferences and workshops for ECRs on Open Science. Indeed, the very Eurodoc Conference was titled 'Open Science: Challenges and Opportunities for Early Career Researchers'. And we raise awareness on Open Science for ECRs and contribute to the public debate via social media and the higher education and science press.

EH: Eurodoc is a federation of national associations representing ECRs from 30 countries in Europe. Our members are active in Open Science and are developing their own national policies. This is especially the case for Open Access and Open Data, which is a way from the core of Open Science, and which researchers know the most about according to our survey. Our members are involved in national advocacy campaigns, take part in conferences and workshops such as the OpenSciCon conference, and use the specialists to give lectures on Open Science at local events for ECRs. As you can see, we aim for a high level of engagement at all levels and do our best to not only open up science but to open up science policy.

O'Neill & Hnátková (2018)



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# Training and support for Open science

|                                                                       |                                                                       |                                                                               |
|-----------------------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <b>OPEN ACCESS</b><br>Green Route Publishing<br>Gold Route Publishing | <b>OPEN DATA</b><br>Findable   Accessible<br>Interoperable   Reusable | <b>OPEN EDUCATION</b><br>Student materials<br>Teacher materials               |
| <b>CITIZEN SCIENCE</b><br>Citizen Engagement<br>Science Communication | <b>OPEN SCIENCE</b>                                                   | <b>OPEN EVALUATION</b><br>Open Peer Review<br>Alternate Metrics               |
| <b>OPEN SOURCE</b><br>Open Hardware<br>Open Software                  | <b>OPEN METHODOLOGY</b><br>Preregistration<br>Open Notebook           | <b>OPEN LICENSING</b><br>Attribution   Share-Alike<br>Commercial   Derivative |



Masuzzo & Martens (2017) | FOSTER Taxonomy of Open Science

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# Stakeholder and partner engagement



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# Eurodoc joint statements



## Declaration on Sustainable Researcher Careers

### Joint Statement on Open Access for Researchers via Plan S

[Plan S](#) calls for all scientific publications on the results of research funded by national and European research councils and funding bodies to be published in compliant [Open Access](#) journals or on compliant Open Access platforms by 01 January 2020. The plan was initiated by the Open Access Envoy of the European Commission and Science Europe and will be implemented by cOAlition S. The coalition currently includes [11 national funders](#) and is supported by the European Commission and European Research Council. Plan S consists of [10 principles](#) to be enacted by coalition members. We, representatives of early-career and senior researchers in Europe, commend cOAlition S for taking this bold and ambitious step towards Open Access and offer our support as well as comments on implementing Plan S.



[Eurodoc \(2018\)](#) | [Eurodoc \(2019\)](#) | [Eurodoc \(2019\)](#) | [MCAA \(2019\)](#)



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# First Eurodoc conference on Citizen Science: Scientist with and for society



[Eurodoc at EP \(Strasbourg, 2018\)](#)



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# Eurodoc Annual Conference



[Eurodoc Conference & AGM \(Brussels, 2019\)](#)

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Eurodoc Annual Conference 2019  
**Employability of PhDs: Valorise Your  
Skills and Reach Your Full Potential!**

1 & 2 April 2019  
Palais des Académies - Brussels  
Registration is free but mandatory

[Eurodoc Annual Conference 2019 –  
The Aftermovie](#)



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