S U R V E Y
GUIDE FOR AN OVERVIEW DESCRIPTION (2-3 pages)
Of your COUNTRY'S DOCTORAL EDUCATION

In preparation of the workshop, please send us a 2-3 page overview description of your country's doctoral education to be shared with the other invited experts. The overview can be provided in table format or text.
Below you find the topics to be addressed and the related questions. [Please note we use PhD and doctorate research degree interchangeable.]
As a starting point it might be useful to take a look at the conclusion of book, *Towards a Global PhD?* (2008) and Appendix A resulting from the first workshop in 2005 of the series of international CIRGE workshops. This book covers doctoral education in14 countries: Australasia (Australia, Japan, India), Africa & Latin America (South Africa, Brazil, Mexico), Eu-rope (Bologna Process, Germany, UK, Nordic Countries), North America (Canada US). In the conclusion we highlight past changes and characteristics of the future doctorate. Appendix A lists past differences current commonalities, and future trends on doctoral education in selected countries. With your help we will update trends and predictions from 20 years ago.

Part I: Context
Which data and information are available on your country's doctoral education? There is no need to provide details, a reference to the source suffices:

1. **History**: Who were/are the drivers of doctoral training over time (state/regional, federal government, religious institutions? Do all institutions of higher education in your country award PhD/doctorate degrees? What types of doctoral degrees (professional doctorate, industrial doctorate) exist?

Since 2005, in the U.S., economic and political factors have led to changes in doctoral preparation. First, stagnation in tenured and tenure-track faculty positions have led to increased attention to non-academic careers. This has generated new interest among graduate programs and students in documenting the career outcomes of doctoral recipients, as well as the development of more expanded professional development opportunities for graduate students. (Denecke et al. 2017. *Professional Development: Shaping Effective Programs for STEM Graduate student; cgsnet.org/understanding-career-pathways.)* The emergence of what has been called "the project economy" means that doctoral recipients will change jobs and careers multiple times and this also calls for different type of preparation. Finally, increasing technical requirements in all fields, but especially in the health professionals, has led to significant increases in master's and professional doctorate enrollment. On the political front, the rise of nationalism and the current administration's anti-immigrant rhetoric is making it more difficult for universities to continue to attract talented scholars and students from abroad.

2. **Size and Demography of Doctorate Pool**: Data on the number of doctorate degrees awarded annually in 2005, 2010, 2015, (current, if available). The distribution of PhDs among your country's universities? The demographic characteristics? (% international students, women & men, major fields of study)

While graduate enrollment and degrees continue to increase, over the last several years the growth rate has slowed; first time enrollment of international students has shown a slight decrease over the past 2 years. African American, Hispanic, and American Indian students remain significantly under-represented, although the growth rate in Hispanic enrollment has been increasing

https://cgsnet.org/graduate-enrollment-and-degrees

3. **Time-to-degree and Completion of Degree**: Data on expected time to completion and actual average time-to-degree? Does the time include the master's degree time? The average completion/attrition rate? Any major disciplinary differences?

The references listed below remain the best sources of information on doctoral completion rates. Results indicate variation by field of study in both time to degrees and probability of completing the degree. Time to degree does not include time to master's degree, unless a person enrolls directly in a doctoral program but gets the masters along the way.

https://cgsnet.org/phd-completion-and-attrition-analysis-baseline-demographic-data-phd-completion-project-0

https://cgsnet.org/ckfinder/userfiles/files/Doctoral_Initiative_on_Minority_Attrition_and_Completion_2015.pdf

4. **Purpose and Goals of Doctoral Education**: If your country offers research (PhD) and professional doctorates, what is the purpose of each type of doctorate? Has the purpose changed in the last 20 years?

Professional doctorates primarily exist in the health-related fields, such as nursing, occupational and physical therapy, audiology, psychology, etc. Recently, the Doctor of Business also appears to be gaining some "traction." In many of these fields, it is also possible to earn a PhD. Those completing the professional doctorate plan to be practitioners, using evidence-based practice principles, whereas those with the PhD intend to conduct basic or applied research as a primary work responsibility, irrespective of the occupational sector/industry within which they will work.

Part II: Structure of Doctoral Education

Please provide brief information on the **structure of doctoral education** and ***weblinks to National Policies and QA frameworks***: What is the predominant model of doctorate education (structured with courses and thesis; in a cohort; only dissertation; only apprentice-ship model working with the adviser)?

What are admission and degree requirements?

Do your institutions have central campus units that are advocating for and providing ser-vices to doctoral students? i.e. a central graduate school, training centers, etc.

a. **Main National Policies/Reforms Affecting Doctoral Education**: Is policy for doc-toral education developed by a Ministry or others?

No. Higher education associations and reports such as the one recently released by the National Academies provide a vehicle for advancing doctoral education and establishing agreement about standards and best practices. (https://www.nap.edu/read/25038/chapter/1)

b. **Funding**: What is the relative support for PhD candidates through various kind of support mechanisms (individual fellowships, project funding, structured PhD funded programs/Doctoral Schools, Industry PhD's, Inter Institutional Collaborative doctoral program, etc)

All of the mechanisms are used by students and programs, with significant variation by field. In the arts and humanities, for example, a teaching assistantship is the modal type of support. In the "bench" sciences, project funding is the major source of support, through a research assistantship.

c. **Quality Assurance/control**: Are there national guidelines? What role do the universities and possibly funding agencies play in the setting and monitoring of quality?

Aside from university-, and in some instances program-level accreditation, there is not national quality guideline for master's and doctoral education. Quality assurance is the responsibility of individual institutions. Quality is often "inferred" based on reputation, peer review processes, and selectivity.

d. **Career paths of doctorate recipients**: Who collects data doctoral recipients' career path? data website? What level of career support for doctoral candidates is available in universities?

See references listed in question 1, above, and also the Council of Graduate Schools website

Part III: Trends

1. **International Collaboration:** Is collaboration in PhD training encouraged? What are the trends? (intersectoral - industry/government/non-profit collaboration; inter-institutional collaboration within the country). Are joint degrees and co-supervision with other universities encouraged?

Employers of graduate students want individuals prepared to work on research teams. However, collaborative research and pedagogical practices have lagged. In some fields, US students will do field research outside of the US and/or will works with scientists at major research labs or centers in Europe and elsewhere but US graduate students are less "international" than their peers in many other parts of the world. Join degrees and co-supervision are possible but probably the exception not the rule.

2. **Equal Opportunities:** Are there policies in your country aiming at diversity and inclusion in doctoral education focusing on overcoming inequalities in the larger social structure?

Universities almost all have a strong commitment to diversity and inclusion, however, the mechanism for advancing both vary the state context and the public/private university distinction.

3. **Digital Transformation:** How has digital transformation influenced the process of doctoral education and training (e.g. MOOCs, life streaming of dissertation defense, new forms of digital dissertations, open science policy)?

New thesis and dissertation formats/types are emerging as a result of new digital technologies. All fields are affected, but perhaps most significantly, among the humanities. An important, and as yet largely unaddressed, related need is for students to understand the professional and ethical responsibilities associated with big data.

4. **Most Important Aspects for Your Country:** Currently what are the most burning issues in doctoral education in your country? For example, working conditions, job insecurity, and other pressures on doctoral students? Which issues in doctoral education does your country plan and/or need to address in policies for the future?

Among CGS member universities and deans, one of the most burning issues is graduate student health and wellness, with a real concern about stress and mental health. This also is highlighted in the National Academies report listed above. This is one of the major changes since 2005.