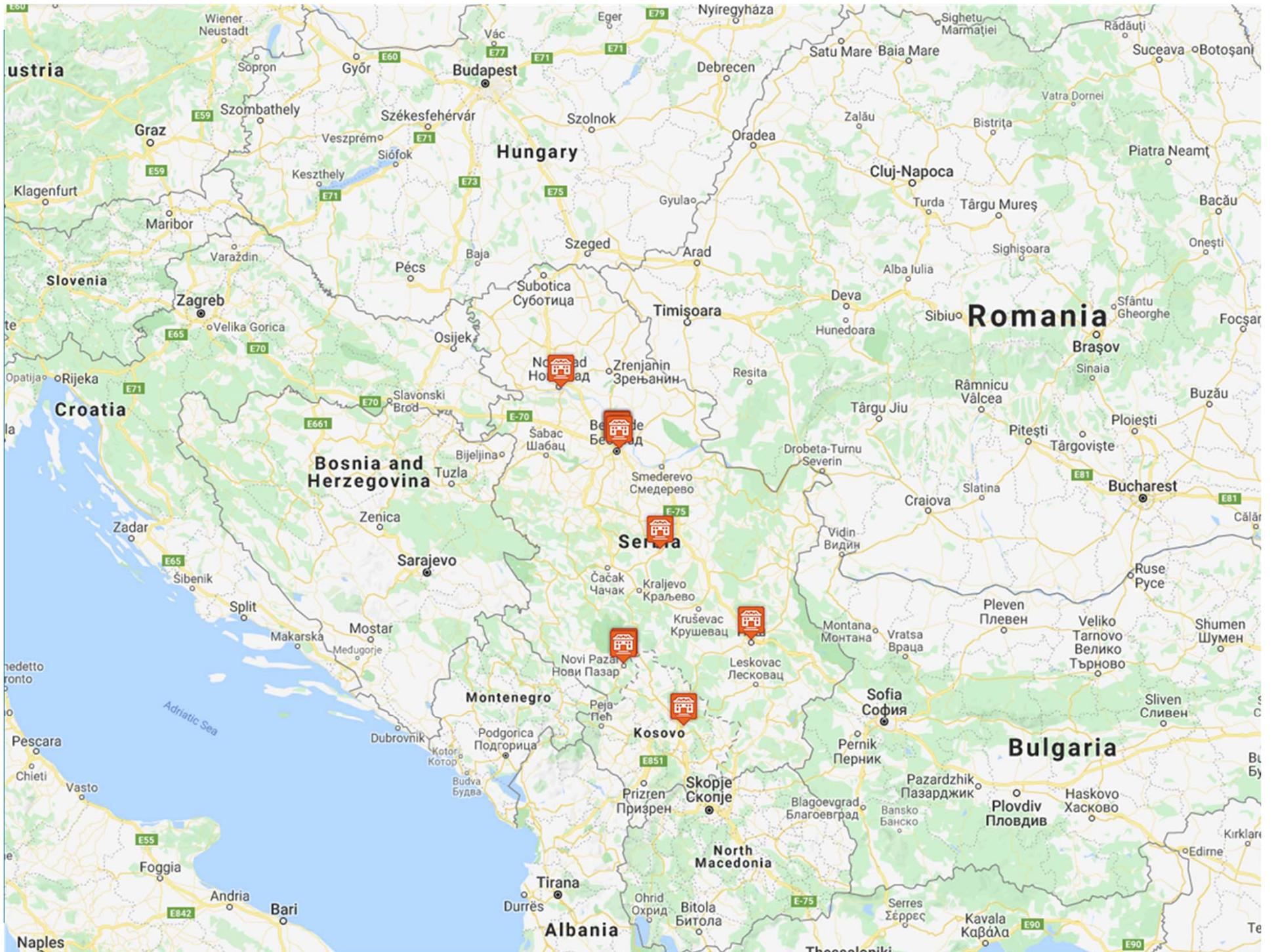


Analysis of Gender Gap in Number of Physicists and Their Positions in the Republic of Serbia

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Introduction

- The total product of scientific research in Serbia is above average in terms of quantity, excellence and relevance in comparison with countries of similar size and economic strength
- Despite the modest resources in Serbia - investment of 0.4% GDP in scientific research (while around 2% GDP is considered as standard in developed countries in the EU), results are very good
- The academic part of higher education achieves far lower educational than scientific results

Introduction

- Serbia is ranked:
 - 78th in the world in **GDP per capita** (the purchasing power parity) (according to MMF, 2018)
 - 99th in the world in terms of **population** (according to UN, 2019)
 - approximately 50th in the world according to scientific publications as measured by **the number of scientific publications**
 - 70th in the world when it comes to **the quality of education at academic institutions**
- Number of scientific publications is **above the average** of countries with similar economic and demographic strengths

Introduction

- Gender equality is achieved when women and men have “equal conditions, treatment and opportunities for realizing their full potential, human rights and dignity, and for contributing to (and benefitting from) economic, social, cultural and political development”

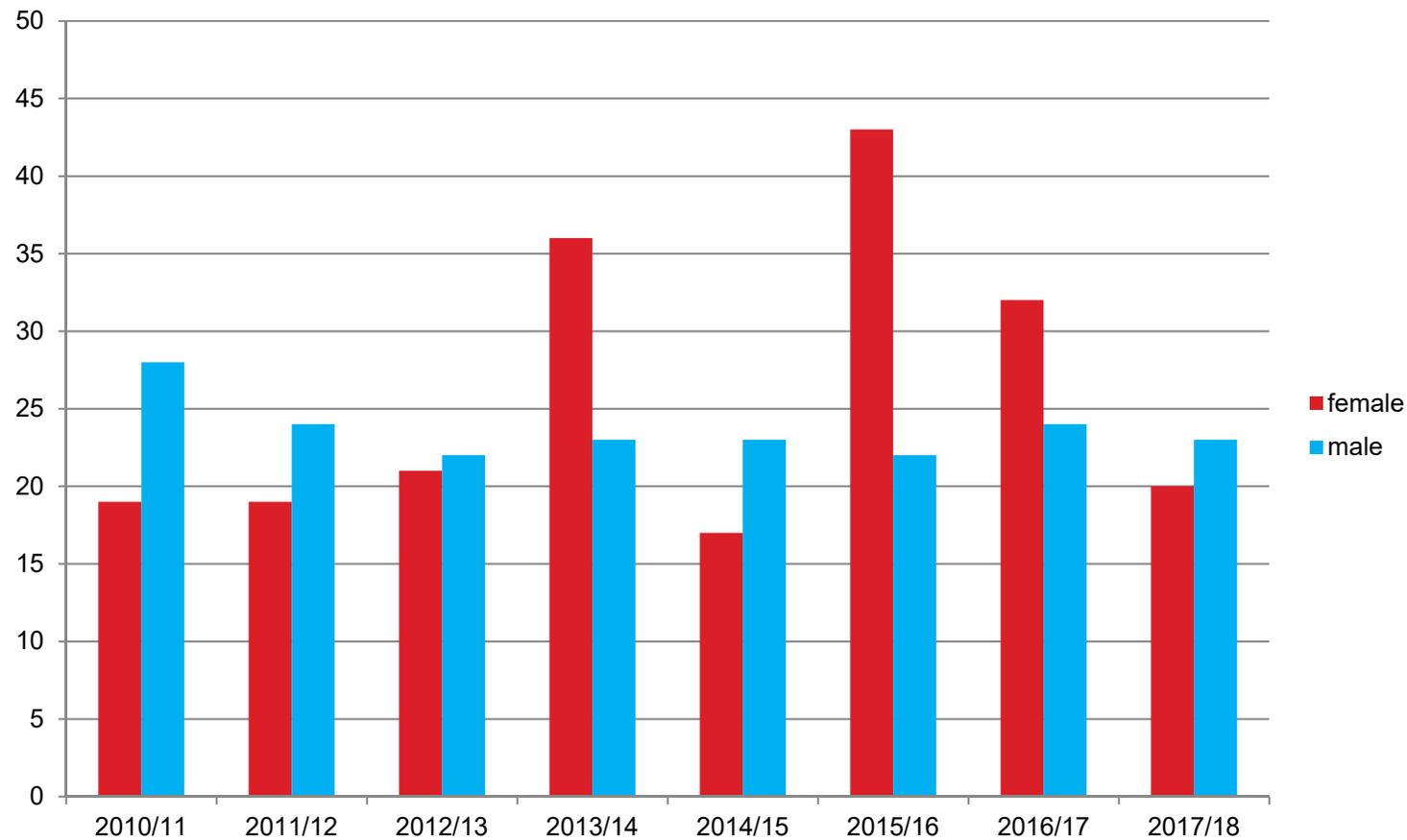
Introduction

- The Gender Equality Index showed that there is obvious improvement in Republic of Serbia in past years (in 2018 amounting to 55.8 points, while in 2016 it was at 52.4 points)
- “These results clearly indicate that we are dedicated to the improvement of the status of women in Serbia, but also that we need to work even more, through coordinated activities of state institutions and the civil sector, with the support of international partners”

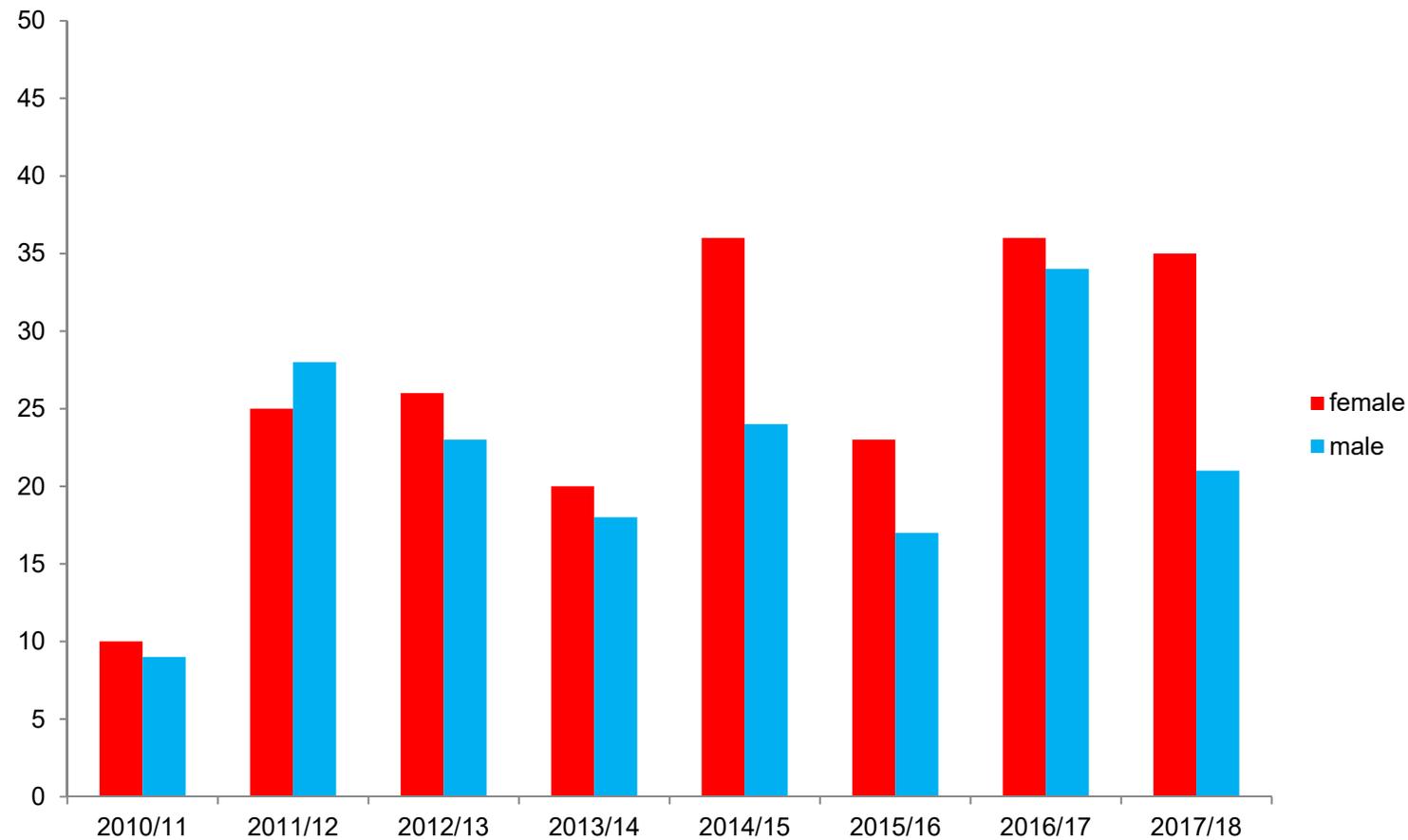
Introduction

- Gender balance means “equal participation of women and men in all areas of work (international and national staff at all levels, including at senior positions) and in programmes that agencies initiate or support (e.g. food distribution programmes); and creating a working environment that is conducive to a diverse workforce”
- Men and women have equal access to higher education and professional employment in the Republic of Serbia but this equality is not always realized and gender balance is not achieved in number of physicists and their positions → gender gap exists

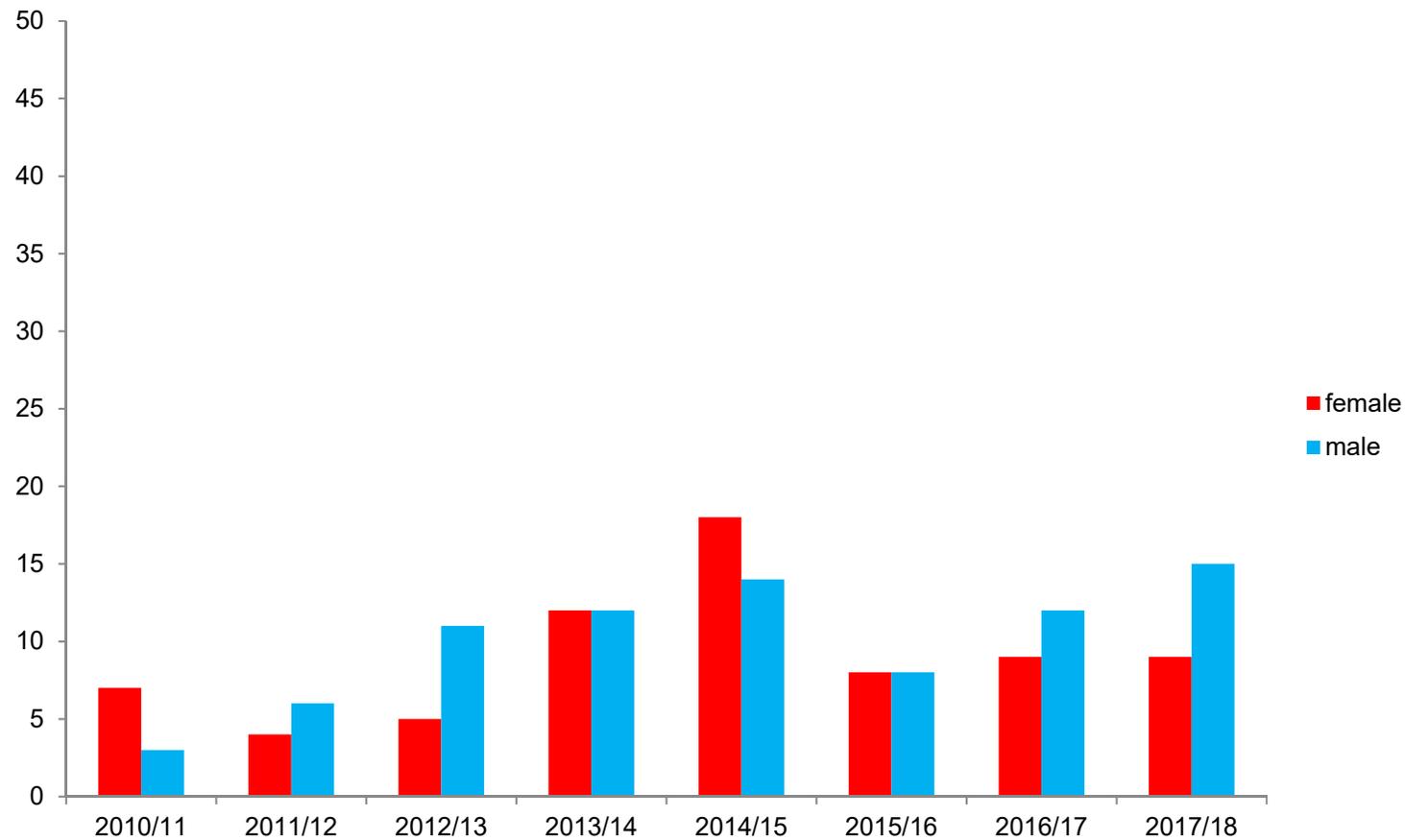
Physics Students – BS level



Physics Students – MSc level



Physics Students – PhD level



Physics Teachers in Schools

- After completing physics studies, number of students become physics teachers in primary and secondary schools
- There is no significant difference in the ratio of male and female physics teachers to previous years. In both, primary and secondary schools, **about 55% of physics teachers are female teachers, and about 45% are male teachers**

Employees at Faculties

- Faculty of Physics, University of Belgrade

	Male
Full Pr	16
Assoc	13
Assist	11
Assist	1



Employees at Faculties

- Faculty of Sciences, Department of Physics, University of Novi Sad

	Male
Full Pr	9
Associ	5
Assista	3
Assista	1



Employees at Faculties

- Faculty of Science and Mathematics, University of Nis

	Male
Full Pr	7
Assoc	3
Assist	4
Assist	3



Employees at Faculties

- Faculty of Science, University of Kragujevac

	Male
Full Pr	6
Assoc	2
Assist	5
Assist	2



Employees at Faculties and the Institute of Physics

- Employees with scientific titles at different Universities

University		Belgrade	Novi Sad	Nis	Kragujevac
Number of employees	Female	15	7	2	3
	Male	18	9	3	1

- The Institute of Physics at the University of Belgrade employs number of physicists. During past years it can be noticed that there is more male than female employees at Institute of Physics, for example **in 2015 there was 79 females from total 206** (with slight oscillations over years)

Other Positions

- Besides, there is small number of female physicists who advanced to other public positions. They are employees at:
 - Institute for the Advancement of Education (Federal agency for improvement of education – ZUOV), Belgrade: **one Advisor Coordinator** in the Sector for the subject Science
 - National Assembly of the Republic of Serbia: **one Vice President**
 - Ministry of Education, Science and Technological Development: **one Head of Group** for general secondary and art school
 - Provincial Secretary for Education: **one Assistant Secretary** for Education

Female Physicists in Research

- When taking into account the data that were available to us (provided in this paper), it can be stated that **little below 40%** of total number of physicists who participate in research (employees at universities with both, teaching and scientific titles, and researchers at Institute of Physics), in the Republic of Serbia, are women

CWTS Leiden Ranking for 2019

- CWTS Leiden Ranking for 2019 included the world's 963 best universities from 56 countries. These are universities that have published at least 1000 scientific papers indexed within the Web of Science, from 2014 to 2017 (taking into account only the core journals). The overall result of this ranking showed that women make up, on average, about 30% of the world's authors of scientific papers, while the first few top-ranked universities have about 50% of the papers authored by women
- Among the highest ranked are: **University of Belgrade, ranked third, with 53.5% share of women's authorship in the total number of published papers, and University of Novi Sad in sixth place in the global rankings, with 51.1% share**

Conclusion

- Although gender gap in number of physicists and their positions in the Republic of Serbia is obvious, female Serbian physicists are relatively numerous and they are successful (have number of papers published)
- Intelligent and talented female physicists should not have current, relatively slow, promotion rates and the low probability of gaining high decision-making position

Conclusion

- In the Republic of Serbia significant progress in the gender equality is achieved in some domains, while there is future attempt to achieve gender equality in all domains and in general
- Gender equality is issued by the Constitution, and women and men in the Republic of Serbia should have equal opportunities. Moreover, the Constitution promotes antidiscrimination laws; number of strategies, action plans, and protocols should further improve the situation of women

Thank you for your attention

