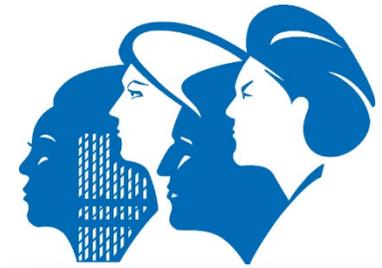


Trends of Career Development for Women in Physics and STEM in Belarus



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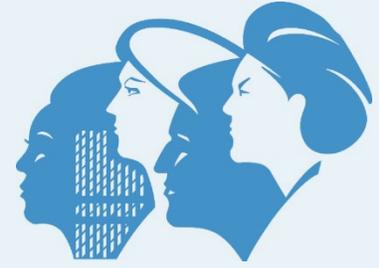


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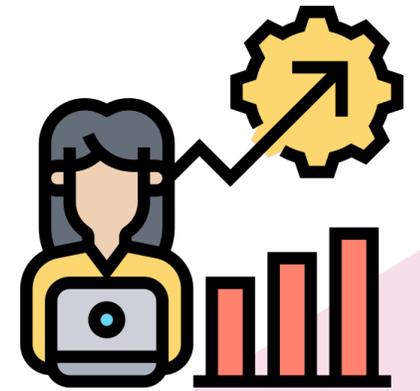
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Our objective



Consider the ways and approaches needed to overcome revealed challenges and negative trends of career development for women in Physics/STEM in Belarus



2

Background



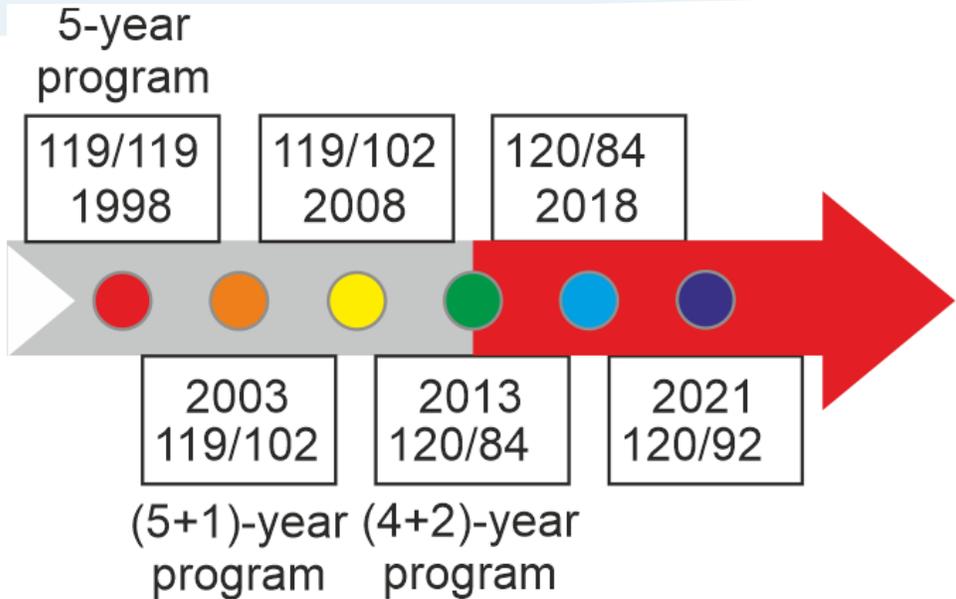
We examined the statistics of enrolled and graduated male and female students in the **educational programs at the BSUIR**, which are tightly connected with classes on Basic Physics and Solid State Physics.



The statistics of **Physics Faculty, branch Physics**, collected at the Yanka Kupala State University of Grodno (YKSUG) was also analyzed by gender.



Educational program on Physics: trends



Highlights

- For each year, it is shown how many hours the course includes for lectures vs. laboratory works with practical classes on Physics for engineering and IT students in Belarus;
- Fig. 1 presents a transfer from Soviet Union to Bologna education system

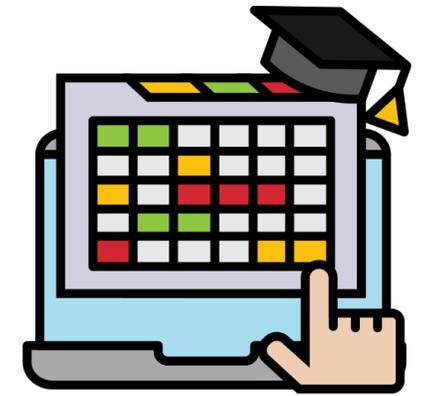
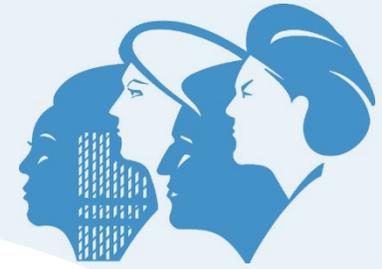


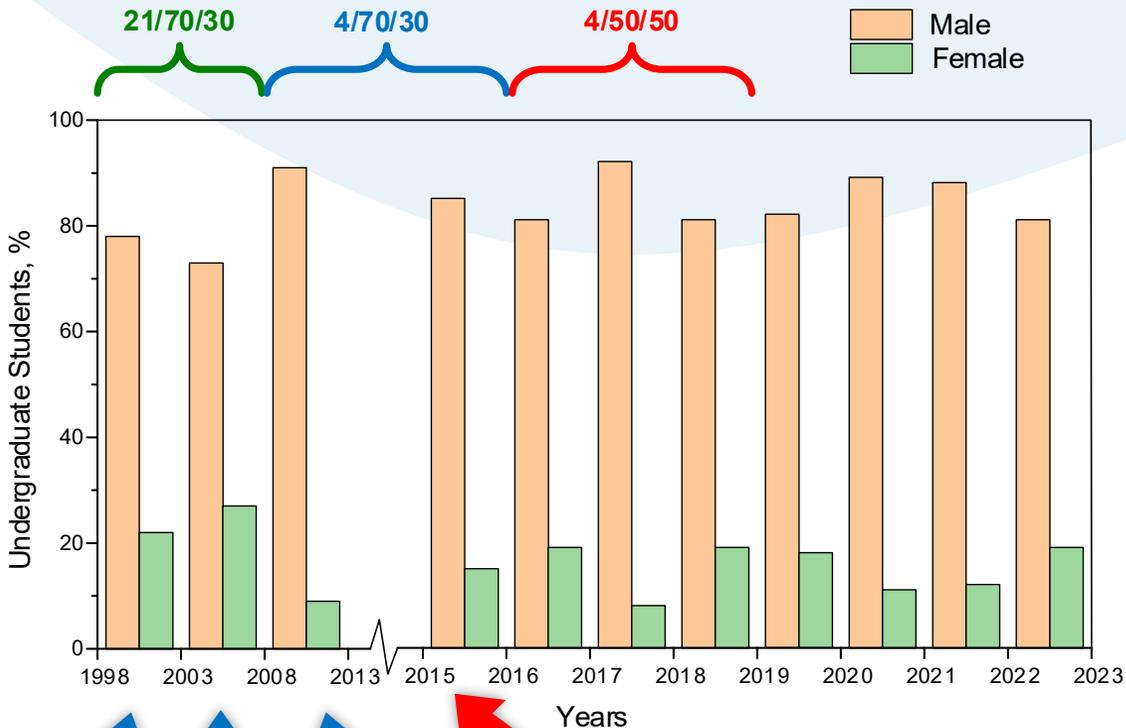
Fig. 1. STEM Physics curriculum timeline of years 1998 to 2023.

The total amount of the Physics course includes A/B hours, where A shows an amount of hours of lectures, B summarizes hours of practical classes and laboratory works.

Microelectronics, Nanomaterials and Nanotechnology Programs: BSUIR



Students graduated with honor: in total/male/female, %






 5 year program 5+1 year program 4+2 year program


 Decrease in the number of Practical Classes on Solid State Physics

Fig. 2. Statistics on students enrolled in the Programs

Highlights

- Decrease of academic hours devoted to practical work in Physics led to the following consequences:
 - 1) difficulties for students to succeed in Physics;
 - 2) decrease of student number received honored diploma



Branch Physics: YKSUG

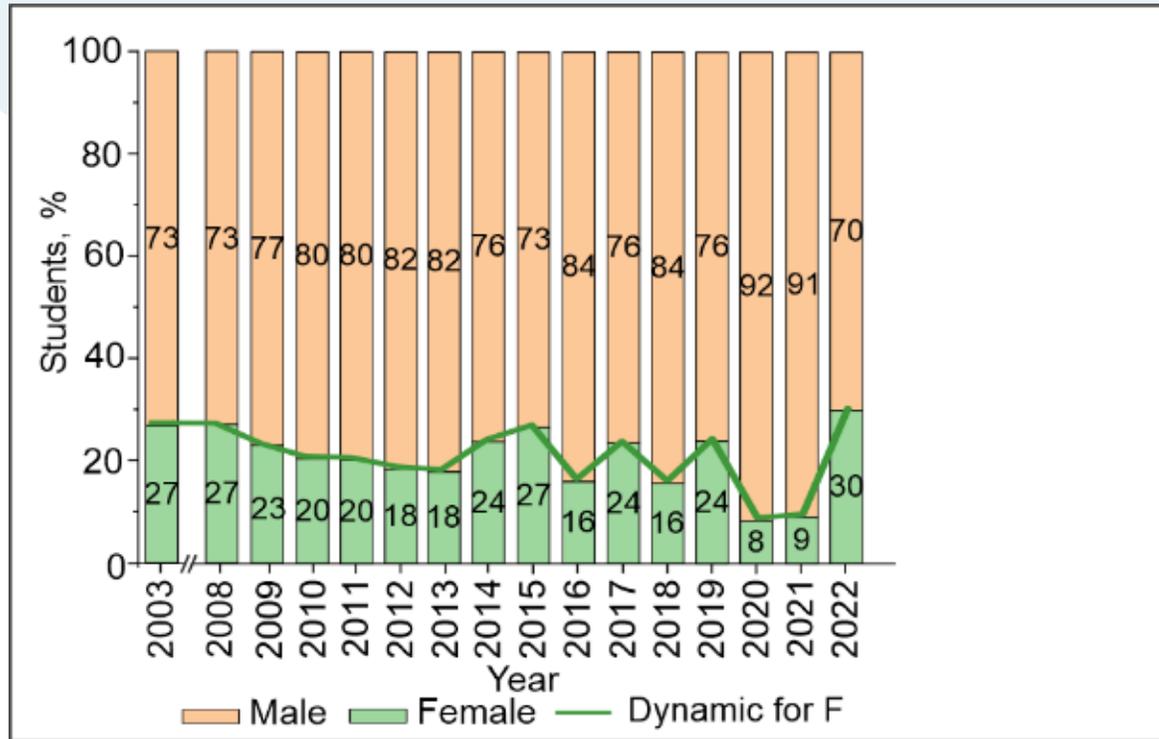


Fig. 3. Percentage of girls in the total number of applicants to the physics major* from 2003 to 2022

* 5 years duration of the study

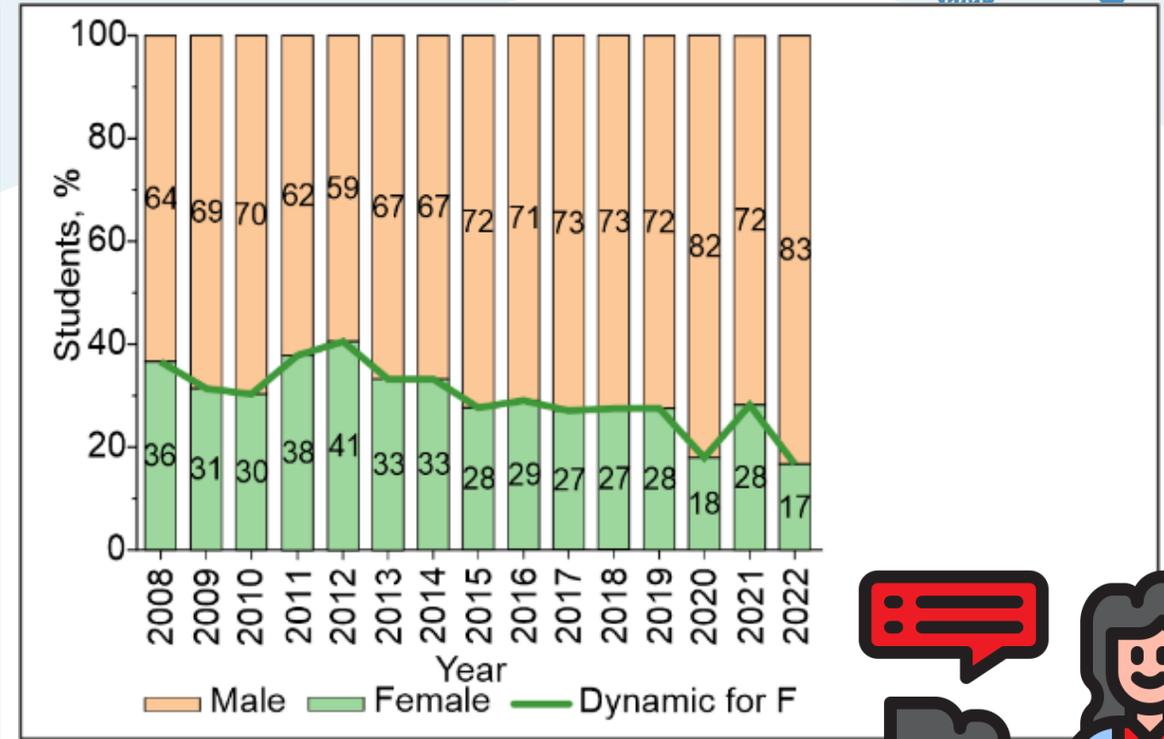
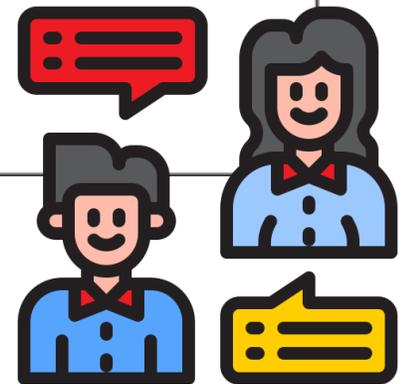
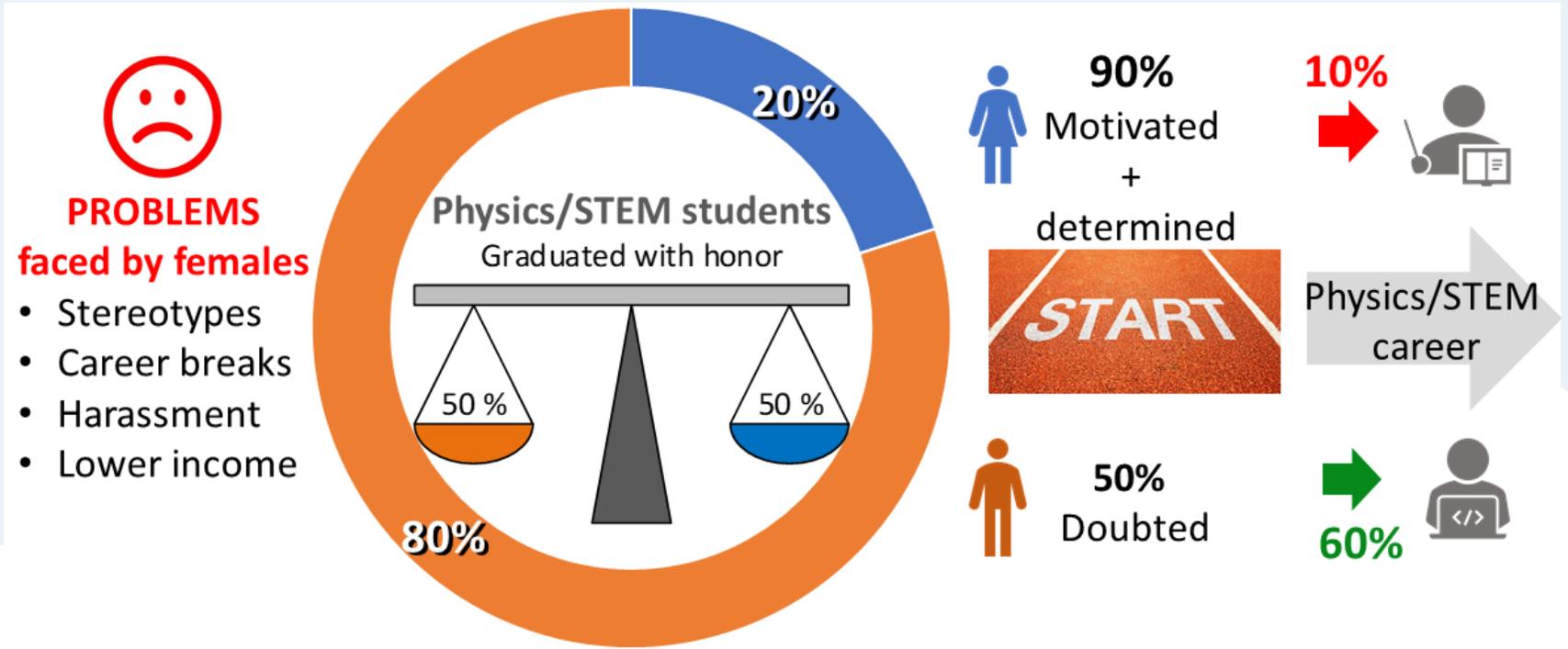


Fig. 4. Percentage of girls in the total number of graduates in physics from 2008 to 2022



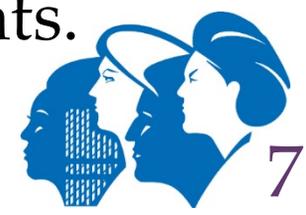
Conclusions

1. Compounding revealed phenomena is the leaky pipeline: Belarussian women disproportionately decide to leave a career trajectory due to isolation, ineffective feedback, insensitive interactions, and a **lack of role models and mentors.**



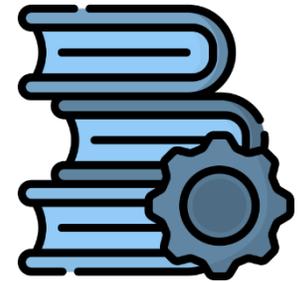
2. Respondents acknowledge the need to do more to attract, retain and promote women to build the **talent pipeline.**

3. Several important pieces of legislation would strengthen **legal safeguards** for women's rights.



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Thank you!



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