GENDER SCAN 2021 survey
Western Europe – Annex – Students report

GLOBALCONTACT Etudes&Conseil

Methodology of the Gender Scan TM 2021 survey :

The Gender Scan TM 2021 survey was conducted online (in 117 countries) from March to August 2021 on a declarative basis with 30,001 male and female respondents worldwide.

The total number of respondents for Western Europe is of 2616 people, , among which 968 men, 1622 women and 26 others, from 23 countries, which provides for a 1,8% margin of error.

The 23 countries from which the survey includes answers are the following: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, the Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, the United Kingdom.

The total number of students in the STEM fields is of 2586, among which 968 men and 1613 women. The total number of students in the digital fields is of 777, among which 386 men and 391 women.

The student definition is based on UNESCO's ISCED 2011 and 2013 definitions.

It therefore includes the following ISCED's levels :

students and graduates in higher education from ISCED levels 5 to 8 (i.e : post-baccalaureate short-cycle education, bachelors, masters and doctorate levels)

STEM disciplines include the following specializations:

- Mathematics
- Physics
- Life sciences, biology, chemistry
- Computer science, digital (courses under ISCED 2013 category 6, which includes programming, programming, network creation and administration, software and application development), software and application development).
- Engineers, processing and production industry
- Environment, sustainable development, ecology
- Building, civil engineering, construction
- Agriculture, agronomy, forestry, veterinarians

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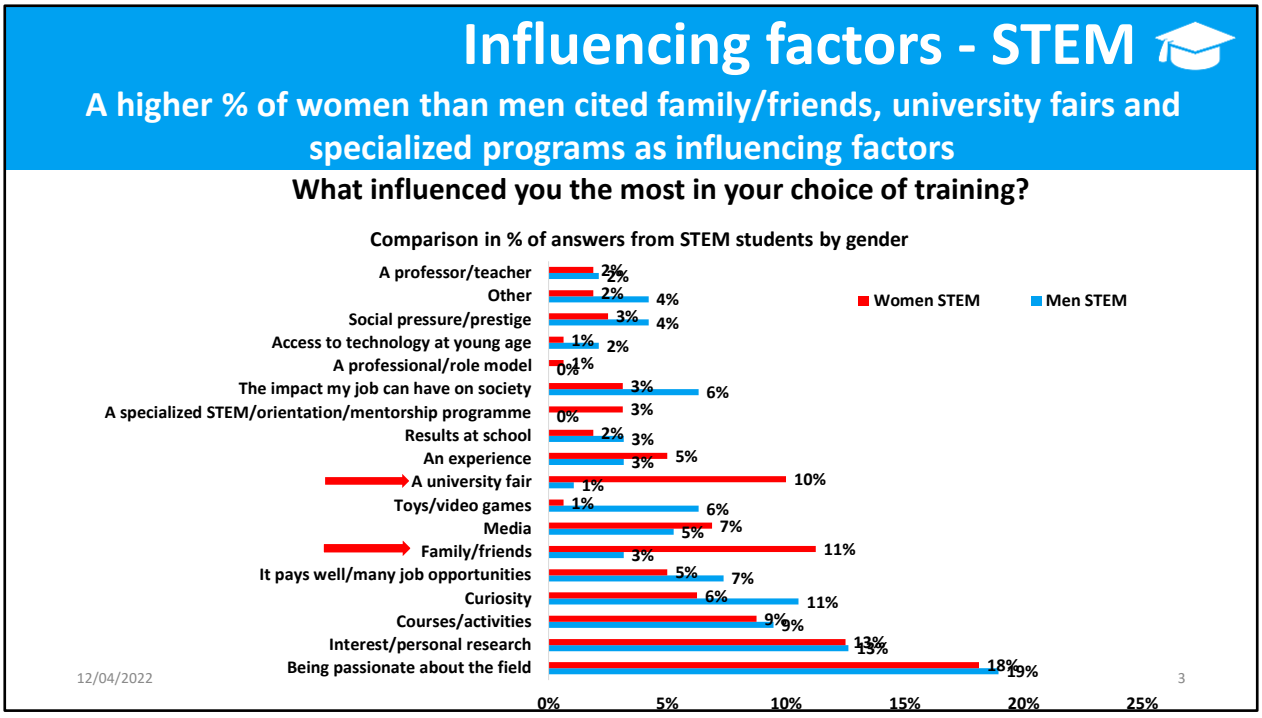


Results of the analysis of answers from 160 women and 95 men in STEM.

The most frequent answers are:

- Being passionate about the field (18% of female students in STEM vs 19% male students)

"I just loved it and I wanted to learn more." Spain, Woman, 23, Physics

"It was mostly a "natural passion", encouraged by those around me." Belgium, Man, 21, Mathematics

- Interest/personal research (13% of female students in STEM vs 13% of male counterparts)

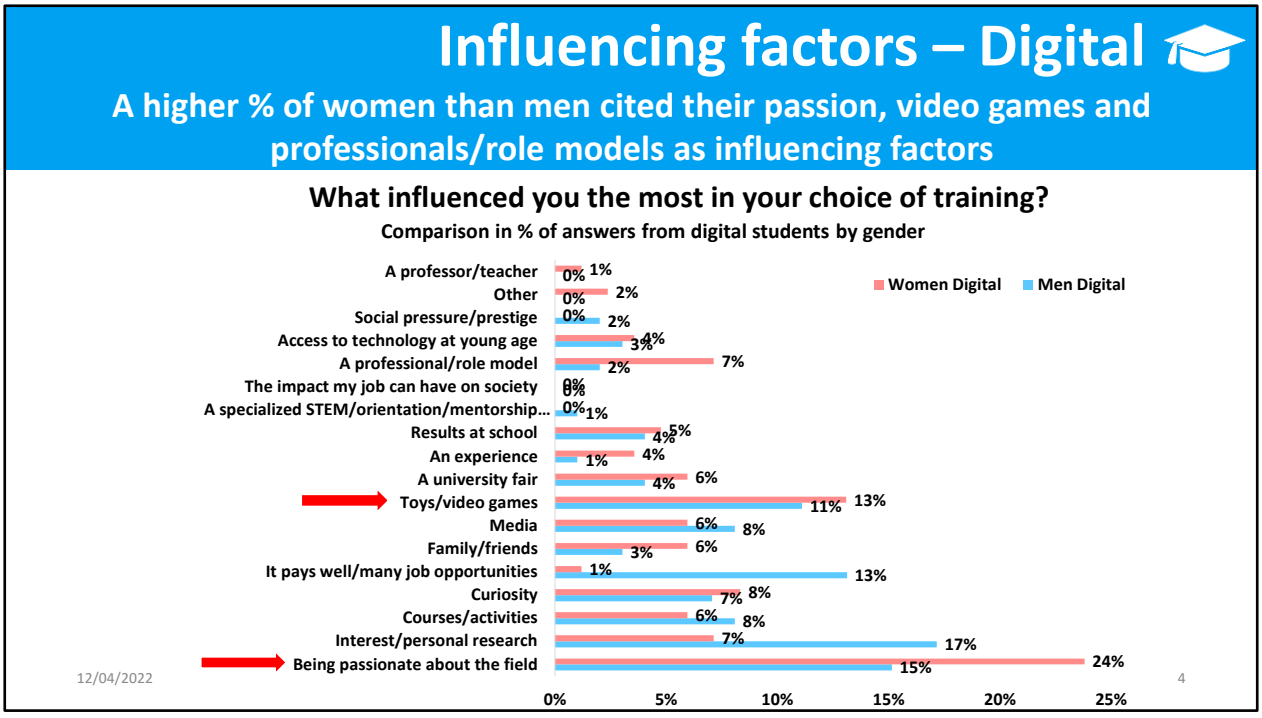
"Personal reflection and research." Italy, Woman, 24, Engineering, transformation and production

"Self-directed learning of the subjects" France, Man, 19, Mathematics

- Family/friends (11% of female students, 3% of male counterparts)

"Family for introducing me to biodiversity, friends for talking to me about environmental issues in first grade." France, Woman; 24, Life sciences, biology, chemistry/ Engineering, processing and production industry/ Agriculture, agronomy, forestry, veterinarians

"My classmates." Finland, woman, 21, Engineering, processing and production industry



Results of the analysis of answers from 84 women and 99 men in digital.

The most frequent answers are:

- Being passionate about the field (24% of female students in digital fields vs 15% male students)

"I just love programming, mathematics, physics." Portugal, Woman, 21, Computer sciences, digital/Engineering, transformation and production industry

"I am naturally passionate about it, I like to draw and let my creativity run free" Belgium, Woman, 19, Arts, humanities and Languages/ Computer sciences, digital

"I wanted to study something I loved doing." Iceland, Woman, 33, Natural sciences, biology; chemistry/Computer sciences, digital

-Toys/video games (13% of female students in STEM vs 11% of male counterparts)

"Toys, riddles, games, treasure hunts, field trips" Iceland, Woman, 25, Mathematics/ Computer Sciences, digital

"Social contacts in computer games." Austria, Man, 31, Computer Sciences, digital

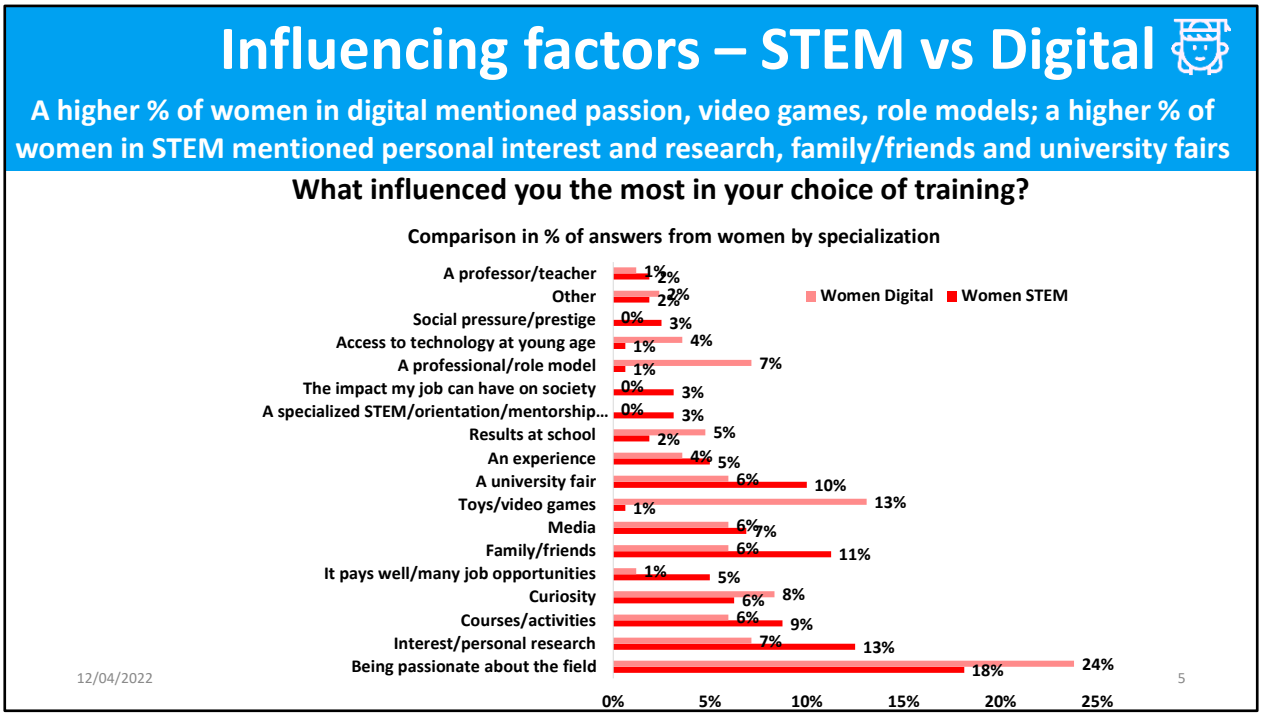
"Video games (Minecraft) where I learned to program in Java in order to make modification. " Belgium, Man, 20, Computer sciences, digital

- Interest/personal research (7% of female students, 17% of male counterparts)

"I looked for information on my own on various training sites" France, Woman, 22, Arts, humanities and Languages/Information, journalism, social sciences/ Computer sciences, digital

"Lifetime interest not influenced by a relative." Belgium, Woman, 22, Computer sciences, digital/Engineering, transformation and production industry

"It was rather by myself, trying to understand the world that I saw what I wanted to do." Belgium, Man, 21, Computer sciences, digital



Results of the analysis of answers from 160 women in STEM and 84 women in digital.

Topics that had significantly more answers from STEM students than digital students are:

- Interest/personal research (13% of women in STEM/ 7% of women in digital)

"I looked into what biomedical engineers did and thought that's what I wanted to do for a living." Belgium, Woman, 21, Mathematics, Physics, Natural sciences, biology, chemistry
"My own research." France, Woman, 21, Computer Sciences/ Digital

- University fair (10% of women in STEM/6% of women in digital)

"An informatics professor at a university fair" Austria, Woman, 21, Mathematics
« Open day of a university. » France, Woman, 22, Computer Sciences, Digital

- Courses/ activities: (9% of women in STEM/ 6% of women in digital fields)

"A robotics course I took part of (outside of school); general interest; fun in these subjects" Austria, Woman, 21, Mathematics/ Computer Sciences, digital

- Family/friends (11% of women in STEM/ 6% of women in digital fields)

"Parents and brother 10" United States, woman, 39, Engineering, transformation and production industry
"A friend told me about it" Belgium, woman, 20, Computer Science/Digital

- The impact my job can have on society (3% of women in STEM/ 0% of women in digital fields)

"The problem of global warming, I realized that I really wanted to contribute to the technological advances that will allow us to pollute less (whatever the type of pollution) while maintaining a good standard of living." Belgium, Woman, 17, Engineering, transformation and production industry

Topics that had significantly more answers rom digital female students than STEM ones are:

- Being passionate about the field (22% of women in digital fields vs 18% of women in STEM)

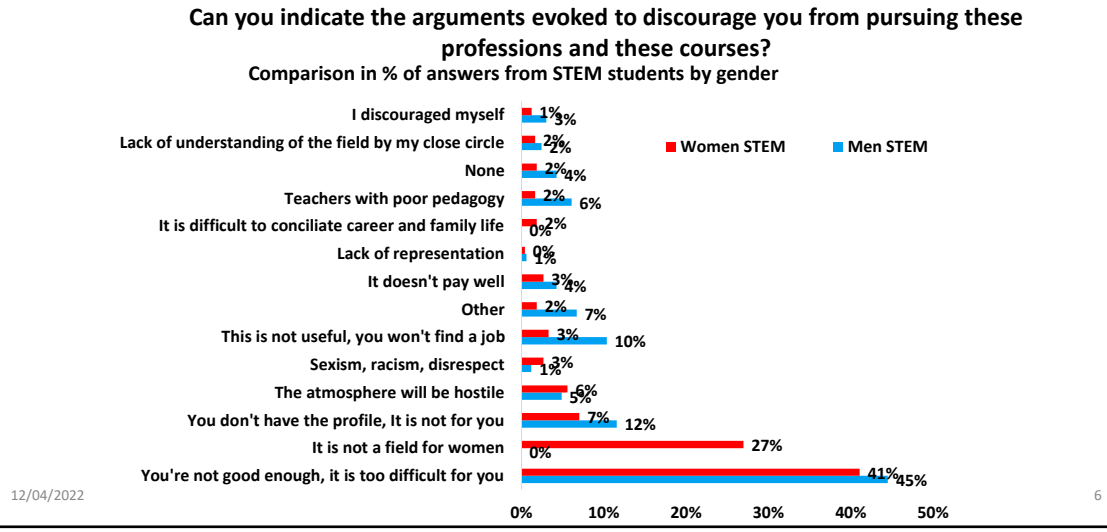
"my artistic passion came alone when I was a child" Belgium, Woman, 23, Arts, humanities and Languages/Computer sciences, digital
« I wanted to work in science because I liked it "France, Woman, 23, Engineering, transformation and production industry

- Curiosity (8% of women in digital fields vs 6% of women in STEM)
"My natural curiosity for programming and mathematics "Spain, Woman, 16, Mathematics/Physics/Computer sciences, digital
"Curiosity toward geometry, architectural heritages and Sociology." Belgium, Woman, 26, Construction industry, civil engineering

- A professional/role model (7% for women in digital, 1% for women in STEM)
"A professional who went to fix my sister's computer and I admired how he handled the machine. I wish one day I could work in this area." United Kingdom, Woman, 40, Computer sciences, digital
"Feminist role models" Austria, Woman, 30, Social sciences, journalism and information/Computer sciences, digital

Discouraging factors - STEM

30% of female respondents has heard that STEM is not one for women. A higher % of men has heard that they do not have the right profile or that this course does not lead to employment



Results of the analysis of answers from 482 women and 164 men in STEM.

- You're not good enough, it is too difficult for you (41% of women studying in STEM, 45% of men)

"Some people around me, especially male high school classmates and teachers, gave me the idea that if I got good grades it was because I was responsible and put time into it, but I wasn't bright enough to do a pure science degree." Netherlands, Woman, 23, Physics

"There was no one in particular who discouraged me. What made me have great doubts was the fact that physics and maths are too often associated with fields that are inaccessible, open only to true geniuses. At least, that's how I felt." Belgium, Woman, 21, Physics

- It is not a field for women (27% of women studying in STEM, 0% of men)

"Conservative people saying that a technical university or a construction site is no place for a woman." Austria, Woman, 25, Arts, humanities and Languages/ Engineering, transformation and production industry

"It's little remarks here and there like: But what an idea to do that as a woman! Isn't it too hard for a woman?" Germany, Woman, 22, Engineering, transformation and production industry

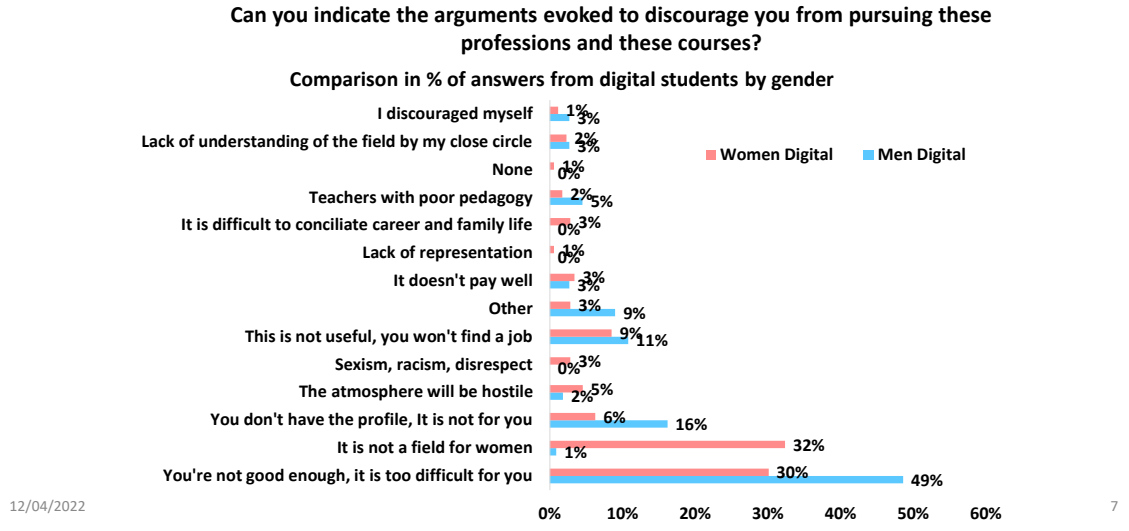
- You don't have the right profile, it is not for you (7% of women students, 12% of men)

"Not the right area for me" Portugal, Woman, 18, Natural sciences, biology, chemistry/Engineering, transformation and production industry

"Former boss at a chemical company advised against further studying chemistry, because I was not passionate about their field of chemistry and its applications." France, Man, 29, Natural sciences, biology, chemistry

Discouraging factors - Digital

30% of female respondents has heard that IT is not one for women. A higher % of men has heard that it is too difficult for them and that they do not have the right profile



Results of the analysis of answers from 176 women and 111 men in digital.

- It is not a field for women (32% of women, 0% of men)

"It's not a place for women" Belgium, Woman, 21, Computer sciences/digital

""It's a man's job" "What an idea to choose studies where there are so few women" Belgium, Woman, 24, Computer sciences, digital

- You're not good enough, It is too difficult for you (30% of women, 49% of men)

"You have bad grades in high school, how can you imagine going to university? You don't like maths, studies are not for you" Belgium, Man, 20, Computer sciences, digital

"Some family and friends were afraid of me going into engineering or programming courses, because there was a social "rumor" that it was very difficult, and many people ended up dropping out. As they knew I didn't have very high grades, they advised me not to enroll in those courses." Portugal, Man, 29, Natural sciences, biology, chemistry/Computer sciences, digital

"That it wasn't for me and that I was bad at math anyway. That it's too "smart" a job for me" Belgium, Women, 23, Computer sciences, digital

« Some people around me, especially male high school classmates and teachers, gave me the idea that if I got good grades it was because I was responsible and put in the time, but I wasn't bright enough to do a pure science degree." Netherlands, Woman, 23, Physics

- This is not useful, you won't find a job (9% of women, 11% of men)

« It's not a real job / it doesn't pay much / There are few job opportunities » Belgium, Woman, 22, Computer sciences, digital

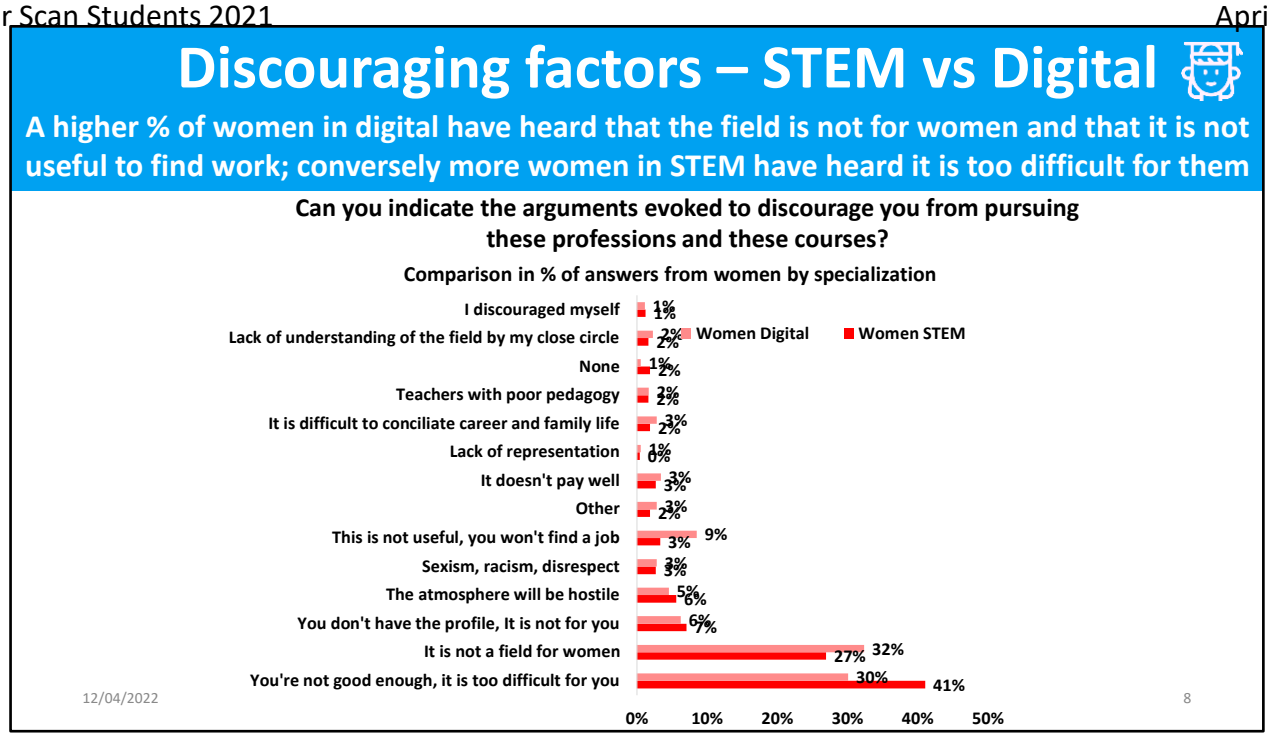
« They said there were no opportunities in my country, so why go for it?" Portugal Man, 22, Computer sciences, digital/Engineering, transformation and production industry

- You don't have the profile, it is not for you: 6% of women, 16% of men

« "Computer science is for the unsociable", "You go into computer science, it's typically the default choice when you don't know what to do with your future", "In computer science, you won't meet anyone and you'll stay single at 40", "You go into computer science, you'll become ugly, pimply and unsociable" Belgium, Man, 18, Computer sciences, digital

"you have to have a square mind, I have too much creativity" Belgium, Woman, 22, Computer sciences

"That I'm not cut out for maths and science. Two maths teachers and a science teacher told me this repeatedly." Belgium, Man, 18, Computer sciences, digital/Engineering, transformation and production industry



Results of the analysis of answers from 482 women in STEM and 176 women in digital.

Topics that had more answers from STEM students than digital female students are:
- You're not good enough, It is too difficult for you (41% of women in STEM, 30% of women in digital)

« Family stating, it is too hard and that I am not good at maths (although I always had top grades at school without having to study for it)." Austria, Woman, 27, Physics/Computer sciences, digital/Engineering, transformation and production industry

Data from the verbatim:

The arguments with more answers to the question "Can you indicate the arguments which were evoked to discourage you from pursuing these professions and these courses? » from digital female students than STEM ones are:

- It is not a field for women(32% of women in digital, 27% of women in STEM)

"It's a man's job" "What an idea to choose studies where there are so few women" Belgium, Woman, 24, Computer sciences/digital

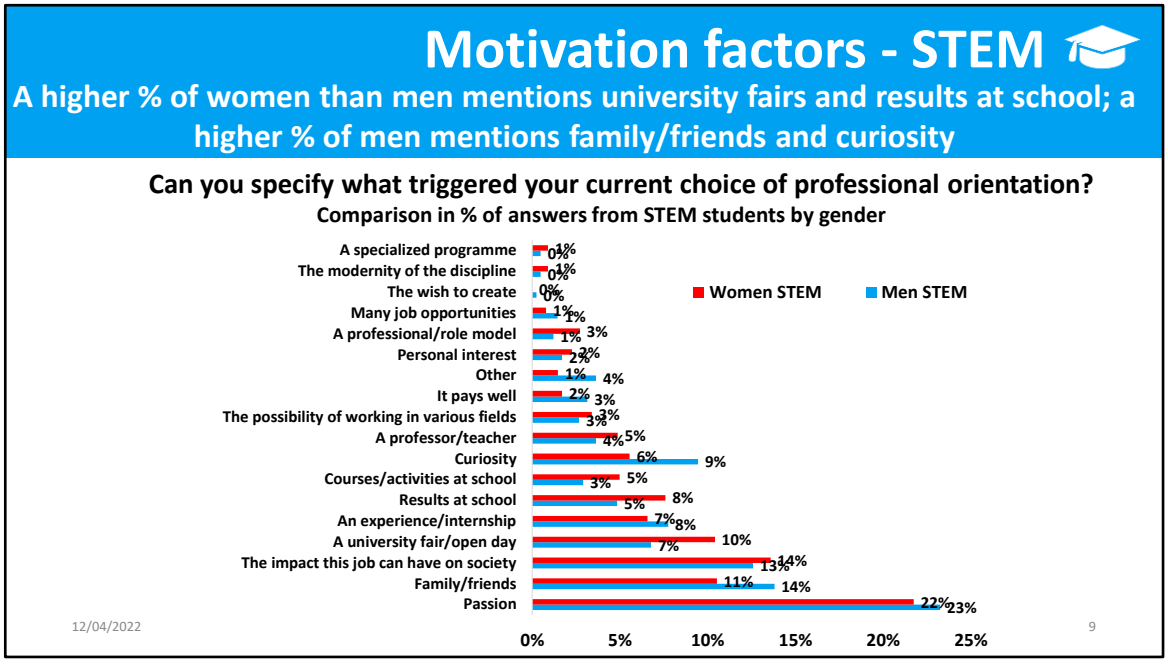
"I was told that it wouldn't be a place for me'. That it could be too dangerous, and I should rather become a teacher, that teaches that subject, than a active worker in that field." Austria, Woman, 19, Physics/Engineering, transformation and production industry

- This is not useful, you wont't find a job (9% of women in digital, 3% of women in STEM)

"No future, no job, no skills, not a real job" Belgium, Woman, 21, Computer sciences, digital

"What work would you have with this?" "Nobody needs that." Austria, Woman, 24, Mathematics

"What kind of work would you have with this? Nobody needs that." Austria, Woman, 24, Mathematics



Results of the analysis of answers from 883 women and 413 men in STEM.

The most cited aspects were:

- Passion (22% of Women, 23% of men)

"Since I was a little girl, I've always liked science, I've always done experiments, I've always played the scientist, I've always invented objects, it was a game. There was no triggering event, it has always been there. My parents let me do what I wanted and supported me in my studies." Belgium, Woman, 28, Engineering, transformation and production industry/ Environment, sustainable development, ecology/ Agriculture, agronomy, forestry, veterinary

"I always loved maths and I thought physics would be the most interesting way to use maths even though I didn't feel I had a strong background or a natural ability in physics, I understood later that in boys schools they are more encouraged to learn physics than I ever was." Ireland, Woman, 26, Physics

"I discovered my passion for technology (while I was studying economics) thanks to an Arduino box that was given to me for one of my birthdays." Belgium, Woman, 24, Business, economy, finance, accounting and law

- The impact this job can have of society (14% of Women, 13% of men)

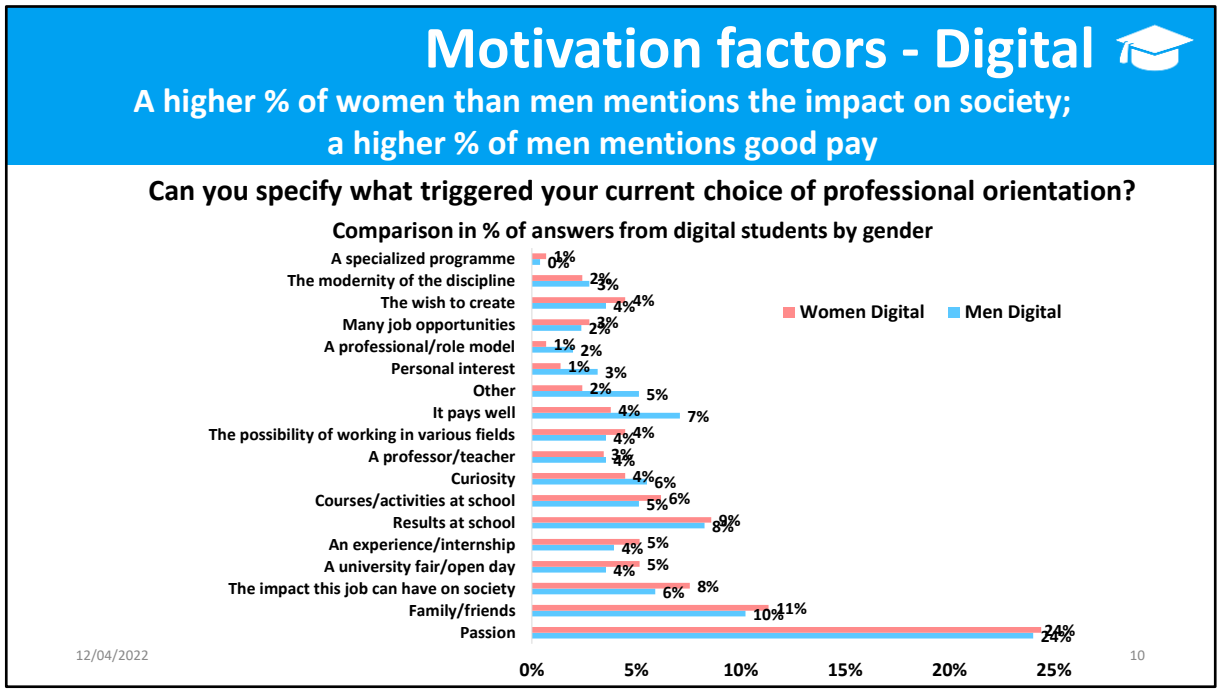
"Insatiable curiosity to understand and comprehend what surrounds me, to feel that what I do can influence and improve people's quality of life and to do my bit for society in order to leave my "footprint" positively and feel that I have used my time for something productive." Spain, Woman, 16, Mathematics/Physics/Natural sciences, biology, chemistry

"Reconciliation between a field I am passionate about and the imperative of the state of the planet" Germany, Man, 21, Natural sciences, biology, chemistry/Environment, sustainable development, ecology/Agriculture, agronomy, forestry, veterinary

- Family friends (11% of women, 13% of men)

"A talk with a professor at a university fair. He was encouraging and very enthusiastic about the area. Also my sister was very encouraging and talked a lot about the benefits of an informatics specialization."Austria, Woman, 21, Mathematics

« My father got the same education as me, and from a young age I was exposed to technology and engineering. He has a company in the area so I always had every opportunity to try out different equipment and technologies. » Portugal, Man, 25, Engineering, transformation and production industry



Results of the analysis of answers from 291 women and 254 men in digital. The most cited aspects were:

- Passion (25% of Women, 24% of men)

« I love to draw, it's my hobby, and I would like to make it my job » Belgium, Woman, 21, Computer sciences, digital

« I always liked technology and science, in any case I would have chosen programming, network security or computer engineer. There was no real triggering event other than the fact that I wanted to stay with my friends in my field of study » Belgium, Man, 19, Computer sciences, digital

« I like maths, I like computers, that's all » Luxembourg, Woman, 23, Computer sciences, digital

"I didn't know what to choose, and I was already spending a lot of time on my computer chatting, discovering things related to computers and that made me passionate" Belgium, Man, 18, Computer sciences, digital

- Family/Friends (11% of Women, 10% of men)

"Boyfriend introduced me to programming and IT and showed me that it is indeed not as difficult as I imagined it would be." Denmark, Woman, 26, Business, economy, finance, accounting and law/Computer sciences, digital

"I started with advice from older friends in the IT area. High school colleagues were also planning to go for IT and engineering courses. I did some research and decided to go too. I'm loving the course. (pity there aren't more women in the class)" Portugal, Man, 29, Natural sciences, biology, chemistry/

Computer sciences, digital

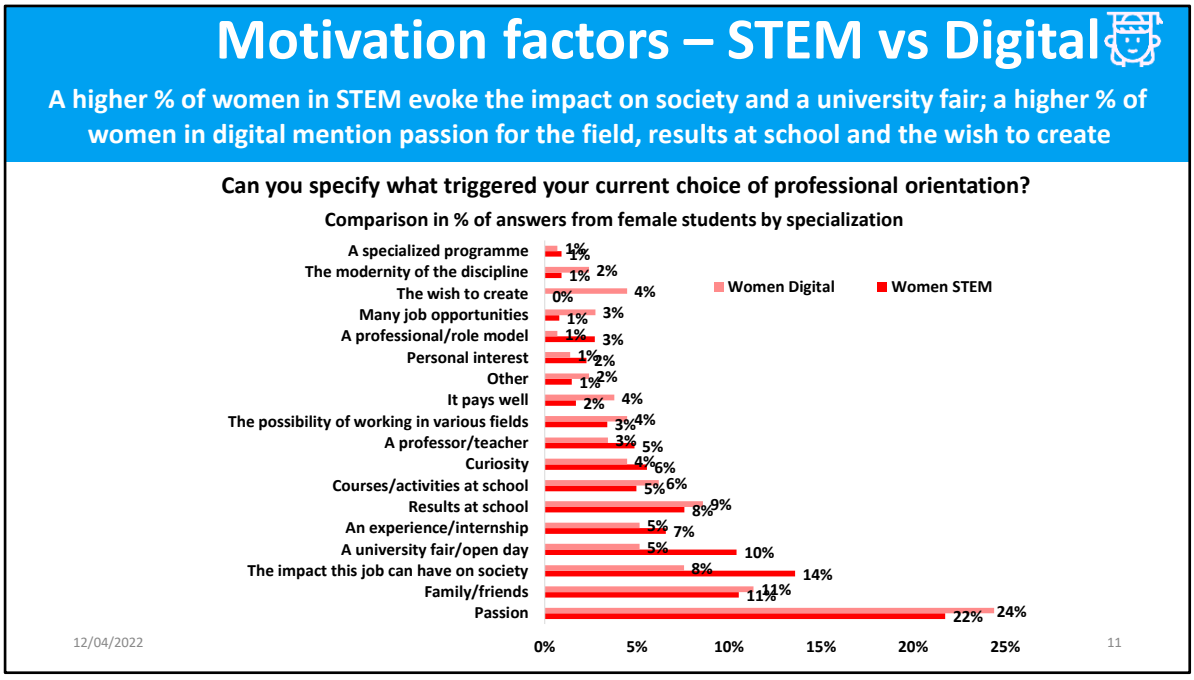
"I'm studying 2D Animation-Illustration at the HEAJ and I've been looking into it because my cousin studied there and seeing him do his work always made me dream so I went to study there a few years later," Belgium, Woman, 20, Arts, humanities, Languages/ Computer sciences, digital

"The introduction to computers by some members of my family," Belgium, Man, 23, Computer sciences, digital

- The impact this job can have on society (8% of women, 6% of men)

"Lack of women in science, even though it is so important that also women's need are taken into account when designing the future. Also the belief that science can do so much good for the world and solve many questions/issues. It is a unique way of changing and shaping our daily lives." Austria, Woman, 22, Natural sciences, biology, chemistry/Computer sciences, digital

"A computer science project that allowed me to discover what it could be like in practice and the ideal of being able to participate in the evolution of society towards a better world thanks to artificial intelligence and all the technological development that comes with it" Belgium, Man, 19, Computer sciences, digital



Results of the analysis of answers from 883 women in STEM and 291 women in digital.

Topics that had more answers from STEM students than digital female students are:

- The impact this job can have on society (14% of women in STEM, 8% of women in digital)

"What made me decide to study engineering was when I realized that technology could have a positive impact on society. By improving living conditions and allowing us to live in a better world. This happened when I was about 15-16 years old and I read about the development of medical technology." Belgium, Woman, 21, Natural sciences, biology, chemistry/ Engineering, transformation and production industry

« - aim 1: in the middle of an ongoing developing field of work and knowledge, trying to sound and implement the most progressive forms of technological and digital possibilities to reaching egalitarian conditions of life for all. aim 2: shaking the gender related imbalance » Austria, Woman, 30, Social sciences, journalism and information/Computer sciences, digital

- A university fair/open day (10% of women in STEM, 5% of women in digital)

"There was a week where students could visit any university in the city to find out what is interesting to it, I visited a lecture at the technical university and knew I'd belong here." Austria, Woman, 20, Environment, sustainable development, ecology/ Construction industry, civil engineering/ Retail services, transportation services, security services STEM

"Open day of my university. I found out that electronic engineering degree existed, it was exactly what I was looking for" Italy, Woman, 30, Computer sciences, digital/Engineering, transformation and production industry

Topics that had more answers to from digital students than STEM ones are:

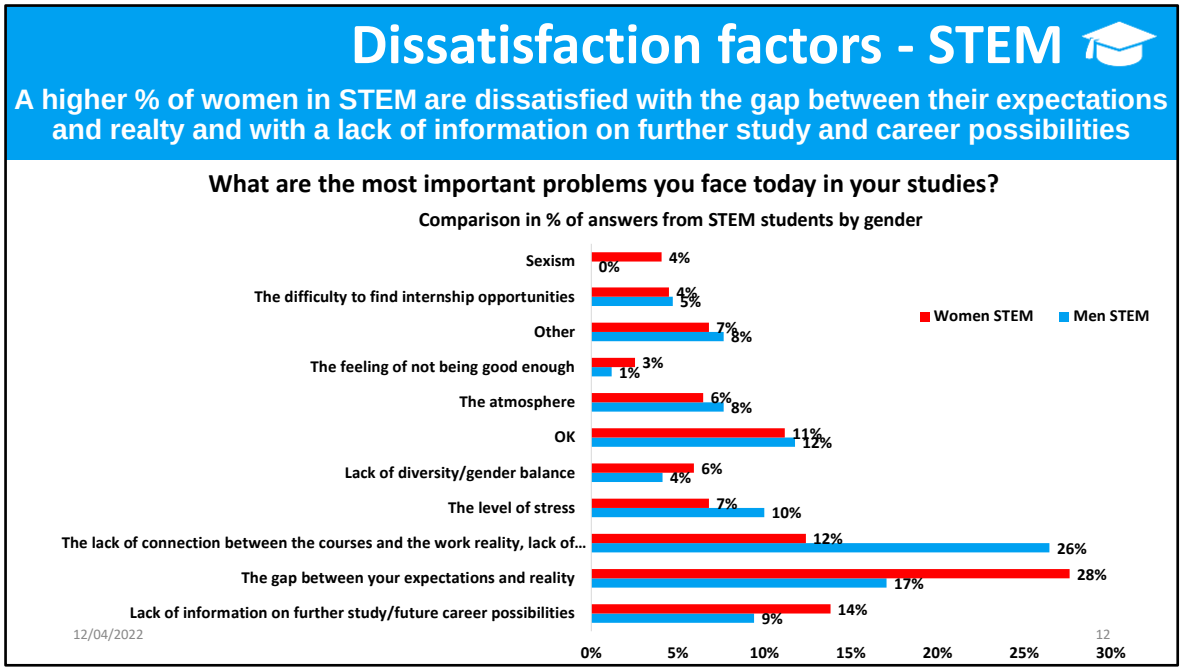
- Passion (24% of women in digital, 22% of women in STEM

"I didn't think too much about it, it was more of a given for me. I am passionate about the world around us and the studies I chose were the ones that were closest to what I love." Belgium, Man, 19, Natural sciences, biology, chemistry/Environment, sustainable development, ecology/ Agriculture, agronomy, forestry, veterinary

"It was always part of me. There wasn't really a choice to be made. I knew for a long time that I wanted to work in digital." Belgium, Woman, 23, Computer sciences, digital

- The wish to create (4% of Women in digital, 0% of Women in STEM)

"I want to learn to make my own programmes, to create from scratch." Spain, Woman, 19, Computer sciences, digital



Results from the analysis of answers from 912 women and 170 men in STEM

The most cited aspects were:

- The gap between your expectations and reality (26% of women, 18% of men)

things but I really don't feel that it's useful " Belgium, Woman, 22, Construction industry, civil engineering

""more interactive learning instead of front-of-class teaching" Austria, Man, 24, Natural sciences, biology, chemistry

"A more unified program. Courses are taught as independent from each other when in fact they are all related and needed to gain a deeper understanding of the subject studied" Belgium, Man, 25, Engineering, transformation and production industry

- The lack of connection between the courses and the work reality, lack of opportunities to practice (12% of women, 25% of men)

"working on real projects and not working on castles in the air" Austria, Woman, 27, Natural sciences, biology, chemistry

« To have a more practical and less theoretical university education. to be informed about what the labor market expects from us. » Belgium, Man, 23 Agriculture, agronomy, forestry, veterinary

"Training where the theoretical aspect would serve a technical purpose, which is often not the case." Belgium, Man, 23, Mathematics/Physics/Engineering, transformation and production industry/Construction industry, civil engineering

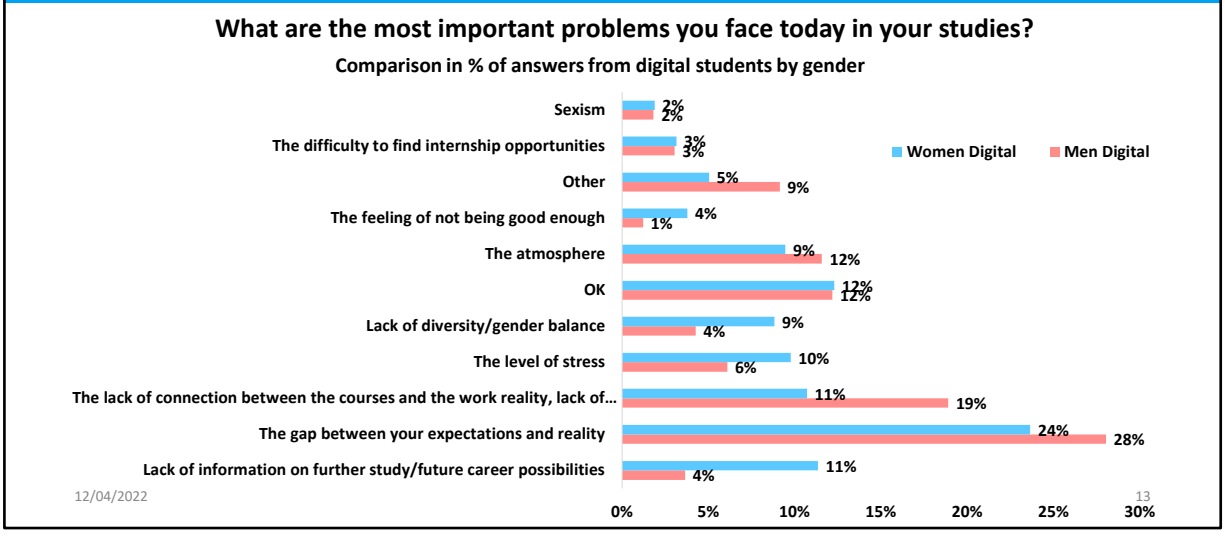
- Lack of information on further study/future career possibilities (13% of women, 9% of men)

"Much more information on the course, on the different options and on the masters " Belgium, Women, 21, Business, economy, finance, accounting and law

"Training on the future job that really awaits the graduate. Position, salary, expectations, atmosphere,..." Belgium, Man, 24, Construction industry, civil engineering

Dissatisfaction factors - Digital

A higher % of women are dissatisfied with the gap between their expectations and realty and with the lack of connection between the courses and the work reality



Results of the analysis of answers from 317 women and 164 men in digital. The most cited aspects were:

- <u>The gap between your expectations and reality</u> (28% of women, 17% of men)

“The first year of the bachelor's degree in computer graphics techniques is far too general, there are many useless or badly distributed courses, it's a waste of time, the options should be split from the first year to avoid having so many courses that don't interest us.” Belgium, Women, 19, Computer sciences, digital

“More information on different ways to do things and not saying that one way is "the way" to do things, as new methods are found all the time and having students open to change is important.” Iceland, Women, 21, Computer sciences, digital

« Going deeper into everything. I feel like I have only studied the tip of the iceberg. » Iceland, Women, 21, Mathematics/Natural sciences, biology, chemistry/Computer sciences, digital

“Keeping up with the times a lot more; realize that 50% of what we're thought isn't really that relevant anymore and 90% of what is isn't even taught.” Portugal, Men, 20, Computer sciences, digital

- <u>The lack of connection between the courses and the work reality, lack of opportunities to practice</u> (12% of women, 26% of men)

“More real-life examples and more practicality.” Iceland, Woman, 20,Computer sciences, digital/Engineering, transformation and production industry

« Mentoring and feedback on how to make things better (e.g. coding) and more practical examples and also practical project work. » Austria, Man, 31, Computer sciences, digital

« More projects, more concrete actions. », Belgium, Man; 19, Computer sciences, digital

- <u>Lack of information on further study/future career possibilities</u> (14% women, 9% of men)

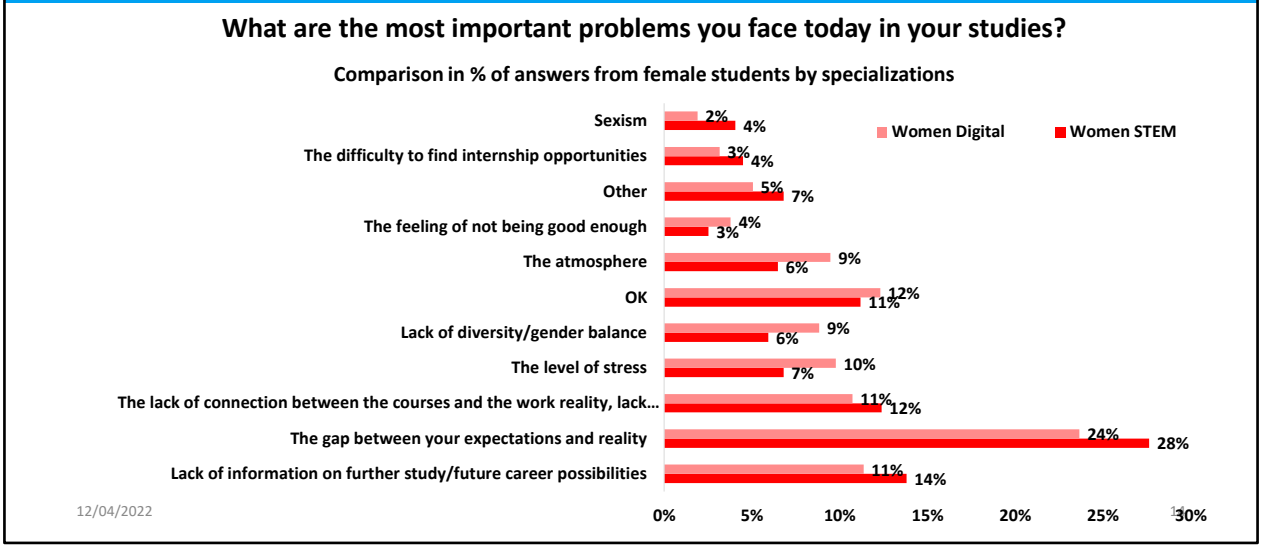
“Events for information on possible future jobs according to what is being studied.” Spain, Woman, 17, computer sciences, digital/Engineering, transformation, production industry

“to be more informed about additional jobs and training. Otherwise, the training is quite complete.” Belgium, Woman, 19, Computer sciences, digital

« To have more information about possible further studies and to know what my job will be later on.” Belgium, Man, 19, Computer sciences, digital

Dissatisfaction factors – STEM vs Digital

A higher % of women in STEM are dissatisfied with the gap between expectations and studies; a higher % of women in digital with the level of stress, gender balance and atmosphere



Results of the analysis of answers from 912 women in STEM and 317 women in digital.

The topics that had more answers from female STEM students than digital ones were:

- The lack of connection between the courses and the work reality, lack of opportunities to practice (12% of women in STEM, 11% of women in digital)

"Better preparation for entering the workplace. In my opinion, the academic world (as a student) and the professional world should not be so dissonant. A better integration between the two would make the transition from graduation to work more natural and fluid, where one knows what to expect and what is expected of him/her." Spain, Woman, 21, Mathematics/Physics

"I would like to see more initiatives to clarify the various opportunities for future employment" Portugal, Woman, 18, Engineering, transformation, production industry

- The lack of information on further study/future career possibilities (14% of women in STEM, 11% of women in digital)

« More information about the job after the studies (lifestyle, status, etc.) » Belgium, Woman, 24, Computer sciences, digital

"More information about the work you can get afterwards. For example, bringing in several people working in different fields in the FIRST year so that we can have an idea of what kind of work we might have. Personally, I have only attended 4 presentations since the beginning, and I find this insufficient." Belgium, Woman, 21, Engineering, transformation and production industry

The topics that had more answers from female digital students than STEM ones were:

- The level of stress (10% of women in digital, 7% of women in STEM)

"Stress level far too high, far too many courses per year, credits allocated to courses NOT representative of the work required." Belgium, Woman, 20, Natural sciences, biology,

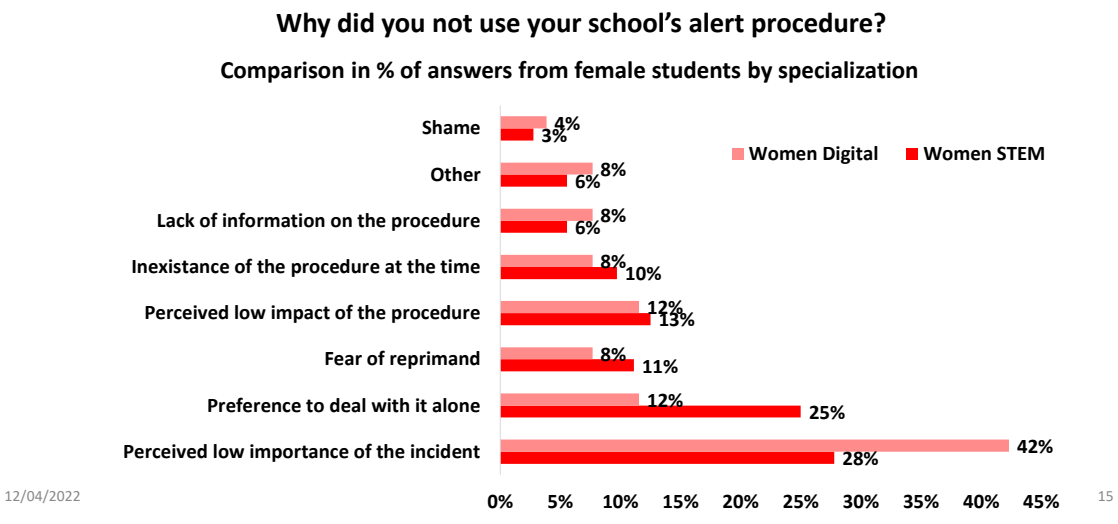
- Lack of diversity/gender balance (9% of women in digital, 6% of women in STEM)

"Mentorships for Women, inclusion and diversity in teachers, more quest lecturers/ models" Denmark, Woman, 26; Business, economy, finance, accounting, law/Computer sciences

"More gender balance and teachers that are not white males" Iceland, Woman, 22, Mathematics/Computer sciences, digital/Engineering, transformation and production industry

Sexism – reaction – STEM vs Digital

A higher proportion of women in digital minimize the importance of the sexist episode and a higher proportion of women in STEM prefer to deal with the issue on their own



Results of the analysis of answers from 72 women in STEM and 26 women in digital.

The most cited responses were:

- Perceived low importance of the incident (28% of women in STEM, 42% of women in digital)

"Because the sexist behavior I experienced is a kind of benevolent patriarchy that doesn't realize it exists. I have not experienced anything mean or humiliating." Belgium, Woman, 30, Mathematics/Physics

- Preference to deal with it alone or through informal support (25% of women in STEM, 12% of women in digital)

"I talked about it directly with the person, the situation was manageable without going through an intermediary" Belgium, Woman, 23, Environment, sustainable development, ecology

"I preferred to deal directly with the people involved and my teachers" France, Woman, 22, Computer science, Digital

- Fear of reprimand (11% of women in STEM, 8% of women in digital)

"Shame, fear of repercussions…" France, Woman, 18, Engineering, transformation and production industry

"Not to upset the hierarchy, not to make a fuss." France, Woman, 20, Mathematics, Physics, Engineers, processing and production industry

- Perceived low impact of the procedure (13% of women in STEM, 12% of women in digital)

"There are never any consequences for members of the teaching staff who act wrongly." Portugal, Woman, 27, Physics

« It doesn't work. they always hide among the people with more power. » Belgium, Woman,32, Physics