

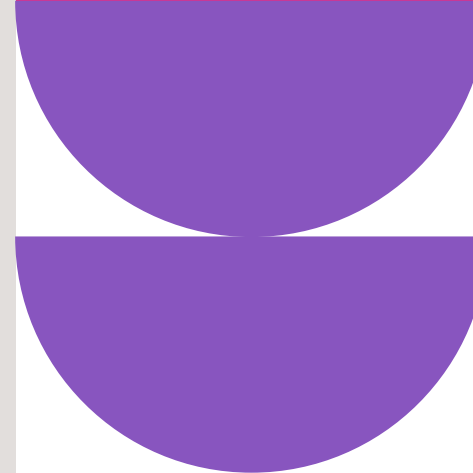
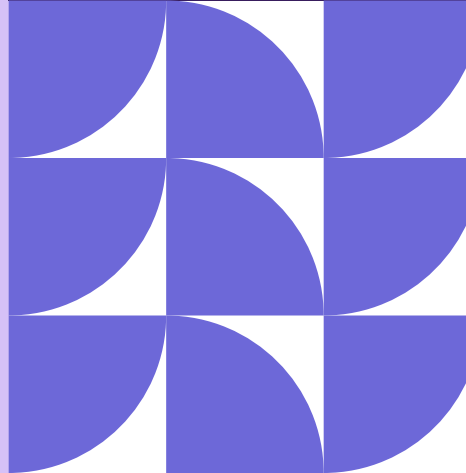
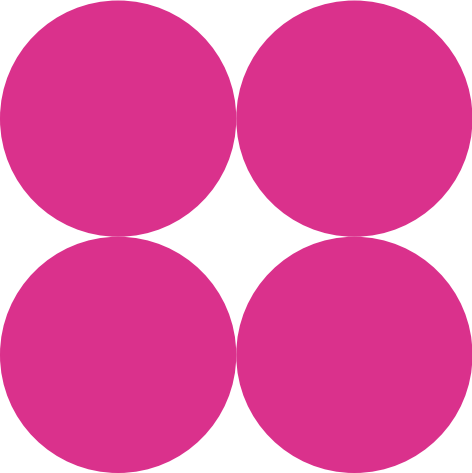
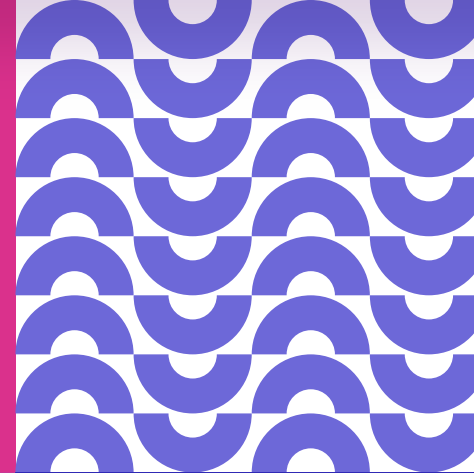
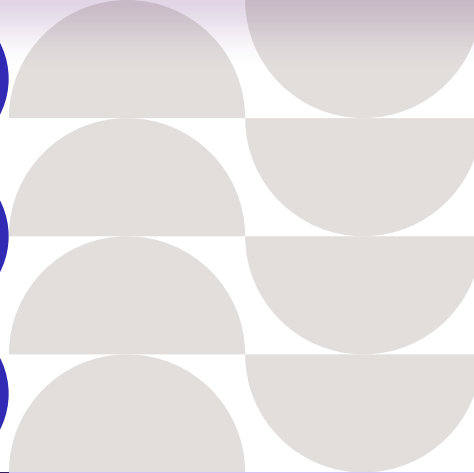
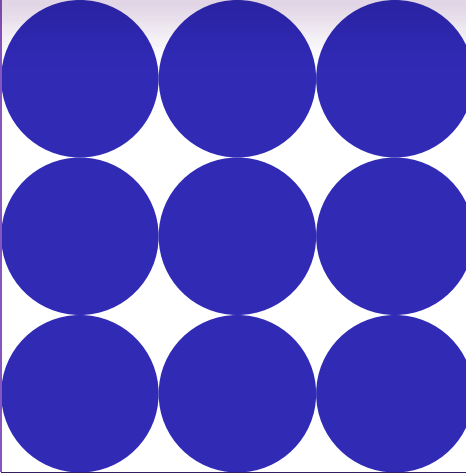


"I raise up my voice — not so that I can shout, but so that those without a voice can be heard. We cannot succeed when half of us are held back."
– Malala Yousafzai



I WISH

2025 REVIEW



NO GIRL
GETS LEFT
BEHIND

WHY WE LISTEN: AMPLIFYING GIRLS VOICES IN STEM

STEM is at the heart of innovation, economic growth, and societal progress. Yet, despite gains in female participation in higher education and the workforce, women remain underrepresented in key STEM fields such as engineering, ICT, and construction. Early experiences, confidence, exposure to role models, and access to subjects all play a crucial role in shaping these outcomes.

This report explores these dynamics, drawing on the voices of students, school-level data, and research insights. It highlights the importance of early intervention, demonstrates the impact of informal STEM experiences, and uncovers persistent barriers such as maths anxiety, limited subject choice, and structural inequalities in schools. We also examine the opportunities presented by hobbies, sports, and social media as tools to build confidence, engagement, and aspiration.

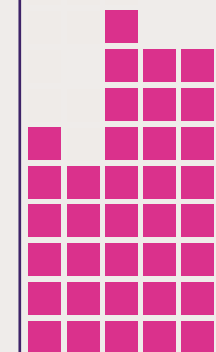
At I Wish, we know that inspiring girls early and sustaining that engagement through secondary school and beyond is key to changing the STEM landscape. The findings presented here are both a celebration of progress—such as growing female enrolment in STEM—and a call to action to address the challenges that remain.

This report is for educators, policymakers, parents, and industry partners. Together, we can ensure that girls have the confidence, knowledge, and opportunities to pursue STEM, and that the STEM leaders of the future are as diverse, talented, and empowered as they deserve to be. But mostly this report is for the girl who sits in a classroom thinking that she can't. You can and you will because you already hold what you need within yourself. Breaking down barriers; well that is up to us. That is our promise to you.

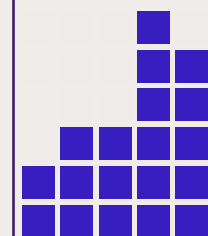


11 YEARS OF CHANGE: THE I WISH LEGACY

Engaged with
65,988
girls



23,365
girls have
shared
their
voices
through
our
surveys



141
Industry
Partners



38% DEIS
schools



1,152
Volunteers

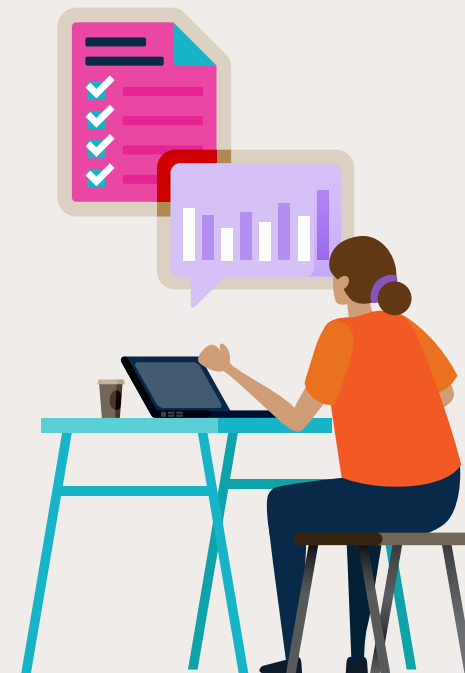


1,118 Role
Models



Our suite of activities have included:

- Annual National Showcase event
- I Wish Deloitte Mentorship Programme
- Entrepreneurship programmes
- I Wish 3rd level Campus Programmes
- Tech For Good Programmes
- International Twinning Exchange Programmes
- I Wish Primary Programmes
- Transport Partnerships with Iarnród Éireann, Translink & Bus Éireann





STARTING YOUNGER: PLANTING THE STEM SEED EARLY PRIMARY PROGRAMME

Launched in 2024, the I Wish Primary Programme gives students early exposure to STEM through alumni talks, industry visits, and hands-on experiments. Participation grew by 38% in 2025, with 265 students taking part.

We started this programme because **early intervention is critical**. Research shows that confidence, motivation, and enjoyment in STEM are formed early and shape later subject and career choices. The Department of Education's *Review of Effective Interventions for Addressing Gender Balance in STEM* stresses that equity requires action across families, schools, and society, beginning in the earliest years. But early intervention alone is not enough—it must be followed by **sustained support in secondary school** so that confidence built in primary school is not lost. Connecting interventions across all levels of education ensures a stronger STEM pathway and prevents the drop-off we currently see in girls' confidence from 6th class to 4th year.



MATHS ANXIETY: FROM PRIMARY TO SECONDARY



"I loved talking about our dreams in the classroom. I always thought my dreams were too big but hearing that my friends are dreaming big too made me feel better" Student

By secondary school these sentiments become a significant barrier:

- 72% of students said they are considering or have already chosen Higher Level Maths for the Leaving Certificate, but the most common reason was the bonus points incentive, not enjoyment or confidence.
- A significant barrier remains the perceived difficulty and anxiety around maths.

Our findings highlight maths as a pressure point. At primary level:

- 49% of students felt good at maths only sometimes.
- 42% were unsure, and 17% were not confident in STEM.
- Negative themes included "maths is hard", "maths makes me anxious", and "I feel like a failure when I get answers wrong".

This fear of maths (not actual ability) continues to shut doors for girls



Despite these challenges, primary students also showed real optimism:

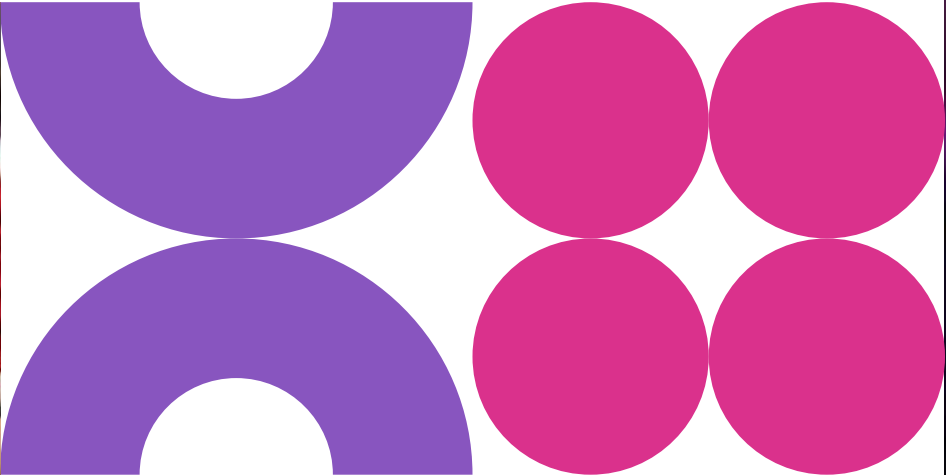
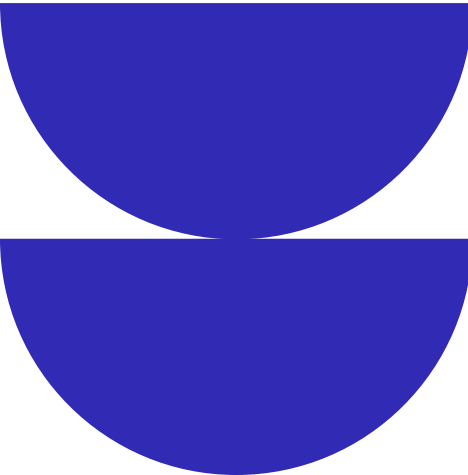
- 95% believed girls can be just as good as boys in STEM, with 100% of boys in mixed schools agreeing.
- 50% wanted more STEM activities, and 100% asked for more experiments, less bookwork.
- Positive themes included curiosity, problem-solving, and discovery.

This contrast—high enthusiasm for STEM but growing anxiety around maths—shows why primary school is a crucial opportunity. If left unaddressed, the confidence gap deepens through secondary school.

The Department’s new STEM curriculum rightly prioritises hands-on learning, echoed in IBEC’s Empowering Women in STEM report (2025), which calls for early engagement, practical learning, and visible role models. **The I Wish Primary Programme already delivers on these goals.**

Engaging now gives us the chance to change the story before it is too late.

“My favourite part was listening to other people talking about how they got into STEM at Johnson & Johnson”



“Our school was part of the I Wish Primary programme. They honestly loved every minute of it. We were taken on an exciting trip to Carbery. It was an exceptionally well organised day which was pitched perfectly to 6th class and it gave a great overview of STEM career possibilities” *Teacher*”

CONTINUING THE PATH TO SECOND & THIRD LEVEL. PROGRESS CHECK, ALOT DONE - MUCH MORE TO DO...

Female new entrants to STEM undergraduate programmes by broad ISCED category (HEA, 2023). Between 2014 and 2023, female enrolment in STEM fields has increased across all disciplines, with the **largest gains in Engineering, Manufacturing and Construction (+10%) and Natural Sciences, Mathematics and Statistics (+8%)**.

	2014	2023
All STEM disciplines	28%	35%
Natural Sciences, Mathematics and Statistics	51%	59%
Engineering, Manufacturing and Construction	15%	25%
Information and Communication Technologies (ICTs)	15%	20%



Within these broad ISCED categories we see the highest rates of female enrolment in the Natural Sciences, Mathematics and Statistics, with a marked representation in Biology, Biochemistry and Biological and related sciences.

	2023
Biology	70%
Biochemistry	70%
Biological and related sciences not further defined or elsewhere classified	68%



In the 2023/2024 school year, **more than half of all students in higher education were female**. However, enrolment in ICTs (25%) and in Engineering, Manufacturing, and Construction (22%) remained among the lowest for women. The (Construction Industry Federation’s Outlook Survey; November 2024) further highlights the gap, identifying access to skilled labour as one of the sector’s biggest challenges, with only 9% of the construction workforce being women—and just 1% on building sites. This imbalance is not simply a matter of choice at higher education level; it reflects patterns of confidence, exposure, and encouragement that begin much earlier. And yet progress over the past decade shows what is possible.

Female enrolment in STEM has grown across every discipline since 2014 (up 7% overall) with Engineering (+10%) and Natural Sciences (+8%) leading the way. Today women make up 70% of Biology Students and nearly 7-in-10 in BioChemistry. **Progress is happening... Momentum is building.** The challenge now is to turn these gains into lasting change across all of STEM.



MIXED VS. SINGLE-SEX INSIGHTS

INDICATOR	MIXED SCHOOL	SINGLE-SEX SCHOOL
% of girls reporting self-confidence as a barrier to STEM	60%	67%
% of girls reporting lack of access to STEM subjects as a barrier	37%	55%
Availability of STEM beyond Biology, Chemistry, Applied Maths	Broad range including Construction, Engineering, DCG	Only 71% offer STEM subjects other than Science or Maths
Science compulsory at Junior Cycle	More likely	Less likely

This highlights that **girls in single-sex schools are more likely to face structural barriers**, including limited subject choice and lower compulsory exposure, compared to mixed schools.

STUDENT DECISION-MAKING FACTORS

When asked what drives subject choice, students highlighted:

- 1. **Whether the subject is required for their chosen college course.**
- 2. **Whether they feel good at it.**
- 3. **Whether they enjoy it.**

This aligns with STEM subject choice specifically, where usefulness for college courses, self-perceived ability, and study load were key considerations.

CONCLUSIONS

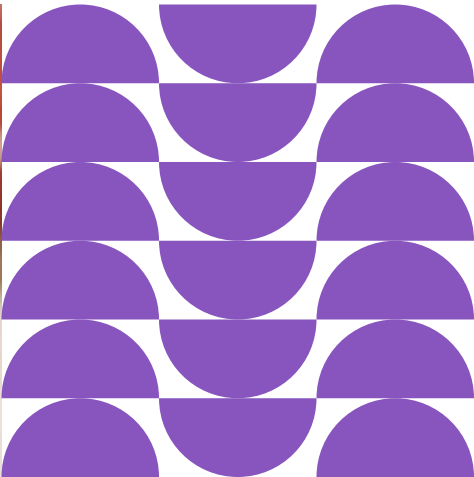
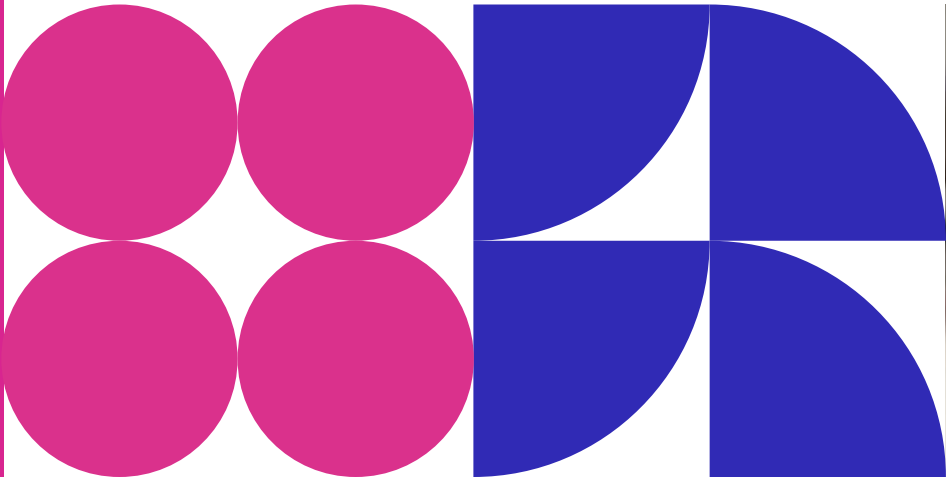
School type matters: Students in single-sex schools are more likely to report lack of access to STEM subjects as a barrier (55% vs. 37% in mixed schools), and only 71% of girls’ schools offer STEM subjects beyond science and maths, compared with 96% of boys’ schools. Core sciences are widely available (87% of girls’

schools offer Physics, Chemistry, Biology), but access to applied STEM remains limited. Confidence is fragile: self-belief is lower among girls in single-sex schools.

Exposure drives opportunity: In mixed schools, girls have more access to applied subjects, but stereotypes in mixed classrooms still shape participation and confidence (Özdere, 2023).

Pipeline impact: Structural and confidence barriers help explain why female participation in ICT, engineering, and construction remains low at higher education and workforce levels.

Both structural changes (ensuring access to applied STEM subjects in all schools) and confidence-building interventions (starting early and sustained into secondary) are needed.



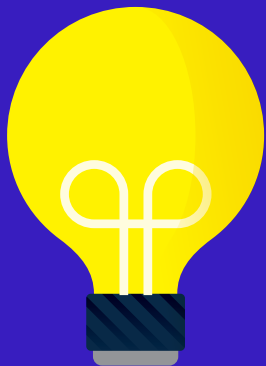
WHAT'S HOLDING US BACK: STEM SUBJECTS - WHAT'S ON OFFER, WHAT'S MISSING

We asked the girls whether or not their school offer the following subjects at Leaving Certificate level:

SUBJECT	MIXED SEX	SINGLE-SEX	DIFFERENCE
Agricultural Science	76%	54%	-22%
Applied Maths	70%	75%	+5%
Art	97%	97%	
Biology	99%	98%	
Chemistry	95%	97%	+2%
Construction Studies	84%	5%	-79%
Design and Communication Graphics	84%	27%	-57%
Engineering	74%	6%	-68%
Physics	93%	93%	
Physics with Chemistry	35%	25%	-10%
Technology	65%	20%	-45%
Computer Science	62%	39%	-23%

These figures show that while Science subjects like Biology and Chemistry are widely available, **access to practical, applied STEM subjects (Construction Studies, Engineering, and DCG) is dramatically lower in single-sex schools.**

The Department of Education's Indicator report 2024 shows that only 71% of all girls schools are offered a STEM subject other than Maths or Science as opposed to 96% in boys schools. Research shows that while girls' STEM achievement has improved in mixed schools, stereotypes in mixed classrooms still limit their participation and confidence (Özdere, 2023). These findings suggest that while girls in single-sex schools may perform well academically, limited subject offerings and structural constraints may continue to restrict their opportunities and contribute to the persistent underrepresentation of women in STEM fields.



"There are so little STEM subjects apart from Physics, Chemistry and Biology offered in all-girls schools. We don't have any idea of whether we have the interest and skills to pursue areas like engineering and this nervousness leads to uptake in college courses "



HOW IS IRELAND PERFORMING GLOBALLY?

The Women in Digital Scoreboard is a yearly “report card” from the European Commission showing how well each EU country is doing in closing the digital gender gap. It highlights where progress is being made and where efforts still fall short.

In the 2024 scoring **Ireland was ranked third in Europe** (74 out of 100). (Finland no. 1 and Estonia no. 2). This compares with an overall average score in Europe is 55 out of 100.

This strong performance signals progress, but it also masks the persistent underrepresentation of women in ICT courses and digital careers.

Being near the top of the European rankings places Ireland in a position of responsibility:

we cannot be content with high scores if the reality is that girls are still opting out of ICT, engineering, and construction due to maths anxiety, low confidence, and lack of exposure to role models. **To sustain and build on our progress, we must strengthen the connection between early interventions**—like the I Wish Primary Programme—and ongoing supports through secondary and into higher education.

Only by acting at every stage can Ireland turn international recognition into lasting change and ensure that women are better represented in the industries where they are most needed.

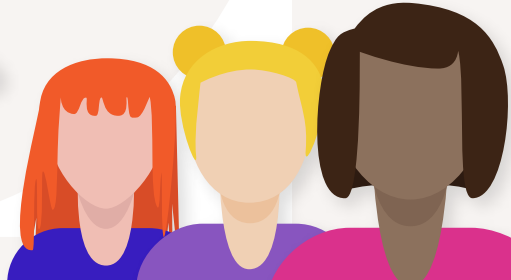


IN THEIR OWN WORDS: WHAT GIRLS REALLY THINK

"All girl schools don't offer engineering or technology classes and practically make girls think STEM is only about science and maths."

"Going into a male dominated career can be intimidating"

"We are brought up to think of men when we think of STEM whether its intentionally put in our heads or not. This kind of stuff can create a lack of confidence or faith for women who have a big interest in STEM and think about a possible job in it "



THE BARRIERS TO STEM

BARRIER	it is a barrier
Poor gender equality in STEM careers	65%
Lack of information about careers in STEM	64%
Lack of school visits by female role models in STEM	62%
Lack of access to STEM work experience programmes	61%
Lack of information about STEM college courses	59%
Lack of self-confidence in my ability to pursue a career in STEM	58%
Lack of self- confidence in my ability in STEM subjects	55%
Lack of access to female role models in STEM	50%
Limited STEM subject choices in my school	46%

WHAT GIRLS WANT FROM A CAREER - VALUES

We asked students to tell us what a career in STEM might offer them, and they told us the following:

1. Good work-life balance
2. Opportunities to work from home
3. A chance to start my own business
4. High Salary
5. Opportunity to travel

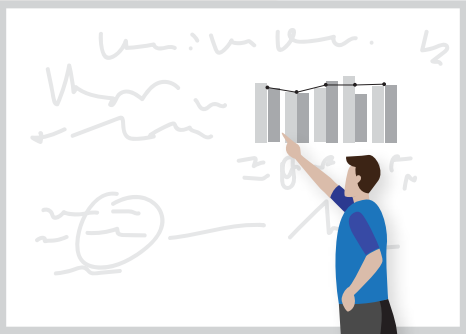
THE VALUES THE GIRLS ARE LOOKING FOR:

2014	2025
1. An interesting Career	Having a good salary
2. Being good at it	Work life balance
3. Excellent job opportunities	Being good at it
4. Contributing to the world/helping others	Job security
5. Work-life balance	Opportunities to work abroad



There seems to be a trend over time where students are thinking about the practical aspects of a career at earlier stages.

Many of the opportunities a STEM career might offer that are highlighted by I Wish speakers are reflected in the students values in a career.



SCROLLING TOWARDS STEM: HOW SOCIAL MEDIA SHAPES ASPIRATIONS

Social Media is an ever-present part of students' lives:

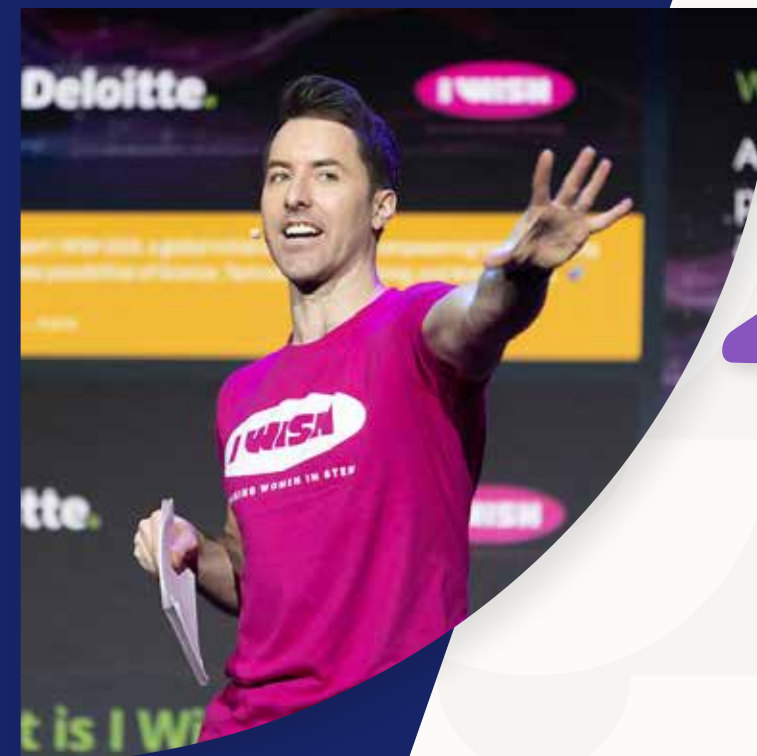
- 82% use social media every day
- 54% use it for 2+ hours per day
- 28% use it for up to 2 hours

Social media is here to stay but there are positives and negatives for teenagers. In our survey, students generally reported a neutral impact of Social Media on self-esteem, with no significant differences between mixed and single sex schools. While this is good to hear, arguably some may not fully realise its negative impact with many students surveyed equally reporting feelings of being “sad” or “insecure” after engaging online. Indeed in another report (Daniels & Robnett, 2020) while students reported low levels of comparison on Social Media, it was noted that appearance focused use can increase body shame and reduce girls confidence in maths and science.

This points to the need to enforce digital regulation to better protect and safeguard our teenagers online. But if we can get that right, this also raises another important question: given the high degree of usage among teenagers, should we assess meaningful interventions in informal STEM education via Social Media when done in the right way? When students tell us that they don't know enough about STEM, should we embrace Social Media as a platform to enhance knowledge and showcase positive role models? **We know that Social Media platforms can effectively promote positive STEM role models, challenge stereotypes and inspire girls**, but content must be carefully designed to be inclusive, engaging and identity affirming (Steinke et al, 2024).

Social Media is where teenagers consume their media, where they connect, share moments and memories. Could we curate it as a positive place where they feel empowered to express themselves, to have a real voice and be inspired to follow their boundless dreams, wherever it will take them?

“We need to create a more comforting and supportive environment for teenagers.”



“Social media is where many young people go to learn and be inspired, so it’s an important platform for STEM. It can inform, engage, and excite, but it’s also a space where misinformation spreads and where too much screen time is a real concern. With 97% of children aged 12-14 in Ireland now owning a smartphone, the challenge for all of us is to regulate these platforms responsibly, while also giving young people a real voice in shaping the policies that affect them. Done right, social media can be a powerful tool for curiosity, creativity, and belonging in STEM.”

Mark Langtry aka ‘Mark the Science Guy’, Education Entrepreneur, Head of Science & Sport- Explorium, Creative Director, Educational Presenter & Producer.

“It makes me feel confident that I don’t do it often. But when I do I get very insecure and sad.”



SPORTS & HOBBIES

Participation & Confidence

- 85% of students had at least one hobby that made them feel more confident.
- 65% played at least one sport; 35% did not play any.
- Girls who played sports reported higher confidence in general life, school, STEM subjects, and speaking up in class.

Area	Sports players	Non-sports players
General life	68%	52%
School life	61%	49%
Speaking up in class	55%	42%
STEM subjects	53%	40%
Other subjects (History, Geography, Languages)	59%	47%

ACCESS & BARRIERS

- 35% said they cannot take part in hobbies/sports as much as they would like.
- Top barriers: cost, other commitments (e.g., part-time work), travel needs.
- School demands were the least likely reason for missing out.

Improving Girls' Participation

Students said the following would make the biggest difference:

- More opportunities for girls to take part.
- More encouragement from schools and communities.
- A greater focus on female athletes and role models.

Sport Ireland's Adolescent Girls Get Active reports fostering supportive and inclusive environments is crucial for encouraging teenage girls to participate in sport. The report emphasises the importance of positive reinforcement, accessible programs, and role models who inspire confidence.

"We need more female role models in sport"

" The awareness we have spread about how sport can really help your mental health is one of the only things in the internet that doesn't have a high scale of negative posts or comments"

NEXT STEPS TO CLOSE THE STEM GENDER GAP

The evidence is clear: if we want to close the gender gap in STEM, action is needed at multiple levels, from early intervention through to secondary school and beyond.



1. Early STEM Experiences

Expand the I Wish Primary Programme to build confidence, curiosity, and motivation from an early age.

2. Equal Access to STEM

Ensure all girls have full access to STEM subjects at secondary school, tackling structural barriers in timetabling and subject choice.

3. Extracurricular & Applied Learning

Offer more experiments, applied learning, and real-world STEM opportunities from ages 12–16 to create a coherent pathway.

4. Mandatory STEM Event in TY

Require all schools to attend at least one STEM event during Transition Year to spark interest and normalise participation.

5. Social Media Engagement

Curated STEM content could make STEM more accessible, inspire girls, and actively counter stereotypes – using a platform they are already highly engaged with.

6. STEM & Sports

Promote girls' participation in both STEM and sports to develop resilience, teamwork, problem-solving, and self-belief, strengthening pathways into underrepresented fields.



Thank You

The team at I Wish extends heartfelt thanks to our partners, teachers, higher education institutions, I Wish alumnae, and especially the girls who took the time to participate in our survey. Your insights and enthusiasm are helping to inspire and encourage the female STEM leaders of tomorrow.

We would like to offer special thanks to Jen O'Shea, PhD Researcher, School of Applied Psychology, Department of Anatomy and Neuroscience, UCC, and Dr. Katie O'Reilly, PhD, Cork University Business School, for their invaluable expertise and support with the data analysis.

Designed by Kim McCullough, Minti Studios.

#DreamDareDo

www.iwish.ie



REFERENCES

Barth, J.M., Masters, S.L. and Parker, J.G. (2022) 'Gender stereotypes and belonging across high school girls' social groups: Beyond the stem classroom', *Social Psychology of Education*, 25(1), pp. 275–292. doi:10.1007/s11218-021-09683-2.

Bloodhart, B. et al. (2020) 'Outperforming yet undervalued: Undergraduate women in Stem', *PLOS ONE*, 15(6). doi:10.1371/journal.pone.0234685.

Daniels, E.A. and Robnett, R.D. (2020) 'The stem pipeline: Do media and objectified body consciousness create an early exit for middle school girls?', *The Journal of Early Adolescence*, 41(7), pp. 1099–1124. doi:10.1177/0272431620983442.

Department of Education (2024). Education Indicators of Ireland. Available at: <https://www.gov.ie/en/department-of-education/publications/education-statistics/>

IBEC (2025) Empowering Women in STEM. Available at: <https://www.ibec.ie/EmpoweringWomeninSTEM>

González-Pérez, S., Mateos de Cabo, R. and Sáinz, M. (2020) 'Girls in STEM: Is it a female role-model thing?', *Frontiers in Psychology*, 11. doi:10.3389/fpsyg.2020.02204.

HEA (2023); Key Facts and Figures/ Statistics/ Higher Education Authority (HEA.ie)

Institute of Guidance Counsellors (2023) IGC National Survey 2022/2023. Available at: <https://igc.ie/wp-content/uploads/2024/03/IGC-National-Survey-2022-2023-final.pdf>

Özdere, M. (2023) 'Single-sex schools vs mixed-gender schools: Comparing impacts', *Region - Educational Research and Reviews*, 5(4), p. 11. doi:10.32629/rerr.v5i4.1282.

Qualifax Subject Requirement tool. Available at: <https://www.qualifax.ie/subject-requirements>

Sport Ireland (2023) Policy on Women in Sport. Available at: <https://www.sportireland.ie/sites/default/files/media/document/2023-11/Sport%20Ireland%20Policy%20on%20WIS%20%282023%20Final%29.pdf>

Steinke, J. et al. (2024) 'Women in STEM on TikTok: Advancing visibility and voice through stem identity expression', *Social Media + Society*, 10(3). doi:10.1177/20563051241274675.

Tandrayen-Ragoobur, V. and Gokulsing, D. (2021) 'Gender gap in STEM education and career choices: What matters?', *Journal of Applied Research in Higher Education*, 14(3), pp. 1021–1040. doi:10.1108/jarhe-09-2019-0235.

Vainionpää, F. et al. (2020) 'Girls in it: Intentionally self-excluded or products of high school as a site of exclusion?', *Internet Research*, 31(3), pp. 846–870. doi:10.1108/intr-09-2019-0395.

Women in Digital Scoreboard (2024). Available at: <https://digital-strategy.ec.europa.eu/en/news/women-digital-scoreboard-2024>

Department of Education Review of effective interventions for addressing gender balance <https://assets.gov.ie/static/documents/review-of-literature-to-identify-a-set-of-effective-interventions-for-addressing-gende.pdf>