



# CHOICES CHANCES CHANGES



2017 Survey

of female students' attitudes to STEM

# Foreword

The I Wish project has created a wave. I Wish is not just a wave of enthusiasm, it is a call to action.

Even as a forty five year old woman who happily goes to work every day, I Wish spurred me on not only to ask why, but to ask why not.

To a sixteen year old girl at an educational crossroads this type of event is not just empowering, it is essential. Each speaker has a story to tell, all with an overriding message that with the correct mind set, mentoring and motivation girls can be whatever they want to be. Yes, it showcases successful women in STEM but for the students I think it is the journey that stands out. Everyone speaks of their **choices, chances and changes.**

It is not about ticking a CAO box, it is about making that change, taking the road less travelled.

I truly believe that this event has and will continue to change the future fabric of Irish women in STEM.

Long may it continue.

*Dr Pixie McKenna*



**2,397**  
girls

**54**  
teachers

**15**  
counties

# Open Letter From The Founders

The I Wish survey is one of the largest surveys ever of Irish secondary school girls across the island of Ireland on their attitudes to STEM; what influences them and what is important to them as they consider their leaving certificate subject choices and future career paths.

**2,397 girls** across **15 cities** and counties responded to the 2017 I Wish survey. I Wish 2017 also surveyed the teachers that accompanied these students to the I Wish 2017 Showcase on their perspective and on how best to meet the challenges in promoting STEM across the secondary school system.

Both groups had **something valuable to say** and we have learned from them.

I Wish has been surveying 14-17 year old girls for several years now. We know from previous I Wish surveys that:

Girls want to see **more visible role models** in STEM;

**82%** of girls want a career **where they can help other people** yet they don't see how STEM can facilitate that.

This year we framed the I Wish Survey to give us a deeper insight into why these girls don't make the link between subject choices in the classroom and opportunities to help other people through a career in STEM.

In addition, this year we compared the girls' views against those of their teachers as key influencers.

This unique "whole classroom" view has given us very valuable insights into how best to promote a greater understanding of the Choices, Chances and Changes delivered through STEM in the classroom.

# Key Messages from the 2017 I Wish Survey



Crucially, there is a direct link between the number of extra-curricular STEM activities undertaken by students and the take up of STEM subjects to leaving certificate. Amongst the girls only schools that attended 3 or more extra-curricular STEM events,

**30%**

chose to take at least 2 STEM subjects to leaving certificate compared to 20% who attended 2 or less. This effect is less marked in mixed schools but still exists. This demonstrates that particularly in girls' schools participation in extra-curricular STEM activities is highly influential.



The school environment has an enormous impact on the girls' choice of subject and career, even more so than parents, guardians and friends.

**94%**

of students are hugely influenced when choosing subjects by how a subject is taught and how enjoyable the subject is.

Students in girls' only schools are more likely not to have chosen any STEM subjects for leaving certificate.

**94%**

of teachers recognise the opportunities for STEM careers;

**74%**

of teachers would like to receive more support through training and access to STEM role models and industry.



Teachers are the 'gatekeepers' to both extra-curricular STEM activities and subject options. Their influence on the environment which shapes the girls' perceptions of STEM subjects and careers is profound.

# 67%

of the students indicated the decision on who could attend an event was made by the class teacher or the school versus 8.8% who indicated that anyone could attend.

# 94%

of students are hugely influenced by how a subject is taught and how enjoyable the subject is (both directly influenced by the teacher) when choosing subjects, far more so than the influence of friends (4%) or family recommendation (15%).

The data from the I Wish 2017 survey is a gift from the girls and their teachers to all of us who are motivated to make a difference.

The I Wish team with the help of **Accenture** have distilled it and analysed it and present it to you now so that you might use it to create Choices Chances and Changes for the next generation of leaders, influencers and entrepreneurs.

# I Wish Showcase

I Wish Showcase events are effective.  
The format, content and design work.

96%

of teachers surveyed indicated that I Wish is an important source of information about careers in STEM.

40%

of the girls who attended have made changes to their subject or career choices following I Wish 2017.

*We are hugely encouraged by that.*

*We call upon you to take just one action – sign up to the I Wish Charter and drive actions to create Choices, Chances and Changes. [www.iwish.ie](http://www.iwish.ie)*

# Outcomes

As a direct outcome of the 2017 I Wish Surveys, **I Wish 2018** has been designed to meet the feedback from students and teachers for more places, more role models and an even wider range of STEM employers.

We have also developed a new concept, the 'Teach IT Zone' where engagement between teachers and industry will be actively facilitated to help both, better understand the STEM linkages and to give the teachers greater visibility on the opportunities

available by building connections with Science Foundation Ireland/Smart Futures, local government and industry partners.

We continue to collaborate with our partners in industry, higher education institutes and local government to offer the transformative **I Wish experience** free of charge to all female students and we continue to ensure DEIS schools are well represented.

*Year on year the I Wish Entrepreneur Zone (pictured below) proves to be an arena of great interest to the students attending*



# Recommendations

We want to thank the 4,000 girls that registered for I Wish 2017 and the 2,397 of those that completed our survey and gave us a very valuable gift

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We recommend:

- Given the correlation between the attendance at extra-curricular STEM events and the likelihood of studying a STEM subject, that the informal STEM education programmes should be incorporated into the school curriculum. This amounts to the least disruption and leverages off the very fine work of the programmes in place such as I Wish, Engineers Ireland, Smart Futures, BT Young Scientist Exhibition and Coderdojo amongst others.

- Significant change to teacher supports and further training on STEM opportunities.

## Go Raibh Míle Maith Agat

We thank **Science Foundation Ireland** for their continued support.

As participants of the Science Foundation Ireland Discover partnership funded programme, we recognise I Wish is an important part of the informal STEM education and awareness eco-system. We have added to the conversation by listing a number of 'macro environment' recommendations at the end of this report.

**Accenture** partnered with I Wish to facilitate this survey. We are very grateful for and want to acknowledge their time and expertise in digitising and analysing the very valuable data on our behalf and for their active participation in I Wish 2017.

Finally, we want to thank the 4,000 girls that registered for I Wish 2017 and the 2,397 of those that completed our survey and gave us a very valuable gift – a window into their world; a world of **Choices Chances and Changes**.

We **Get IT**, let's make sure the next generation of girls **Get IT**.

*Gillian Keating  
Caroline O'Driscoll  
Ruth Buckley*

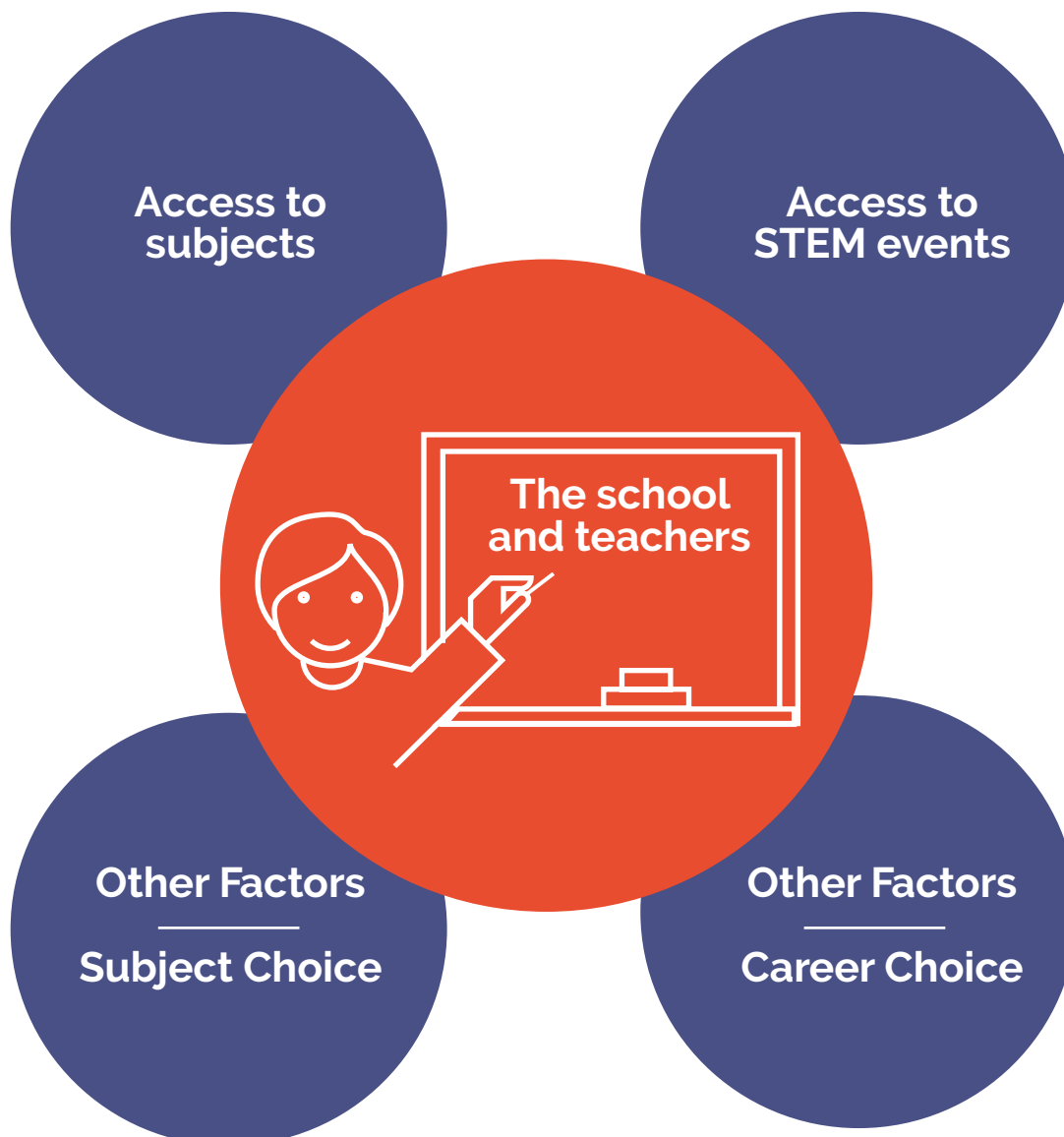


# Choices & Chances

What subject **choices** are available to girls at second level?

Do they have the **chance** to access STEM awareness and education events to inform these critical choices?

There is a direct link between the take up of STEM subjects and the chance to participate in STEM activities. We asked how accessible these chances were to all? We examined the factors influencing subject choices offered and career choices favoured by girls. In regard to subject choices we got a valuable snapshot of why some girls choose not to do honours maths.



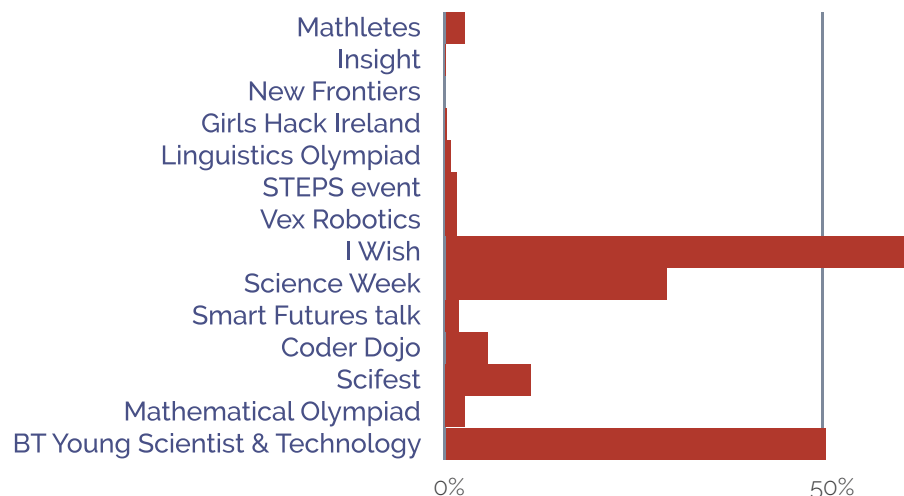
# Accessibility to STEM events & subjects

For many years now the Irish State has funded programs to educate society on the importance of a knowledge economy and to increase the uptake of students studying STEM at third level. But how accessible is information on STEM careers to a typical Irish 15 or 16 year old girl?

Given the major investments by Science Foundation Ireland and the many other groups hosting STEM events and

programmes for schools we wanted to understand how aware the students were of these initiatives and the extent to which they were participating. We also wanted to understand what the most popular events were and why.

We designed a number of questions to ascertain how the girls are selected to attend I Wish and other STEM programs and events.

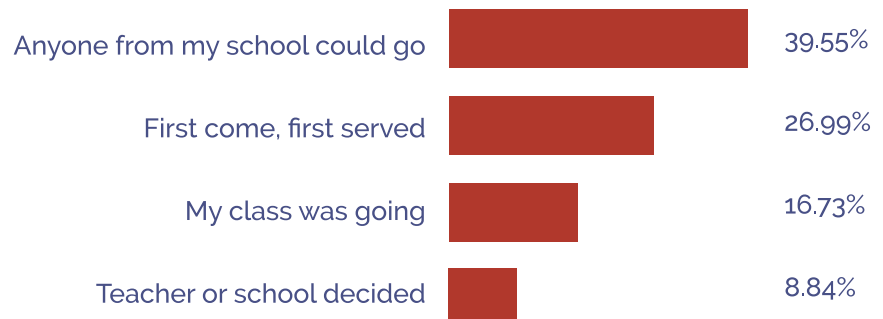


## Which of the following STEM events have you attended?

The events list for this question were supplied by Science Foundation Ireland and show the wide array of STEM events and activities available to most schools in Ireland and the level of engagement by the girls surveyed at I Wish 2017.

## How are students chosen to participate in I Wish?

67% of the girls replied that this decision was made by either the class, the teacher or the school, providing overwhelming evidence that the school acts as the 'gatekeeper' to STEM events.



## Accessibility to Stem Subjects

### Are the schools offering core STEM subject choices?

The results below are taken from the teacher's survey and are encouraging. The majority of female students surveyed have access to physics however there is still the anomaly

that in a knowledge economy it is not compulsory to take science at junior certificate which limits choices available at leaving certificate. Any student who does not study science at junior

certificate level is severely curtailing his or her future subject and career options at a very young age when they are not best placed to understand the long-term consequences.



**87%**

of the schools surveyed offer leaving certificate physics



**72%**

of schools offer all three science subjects to leaving certificate



**32%**

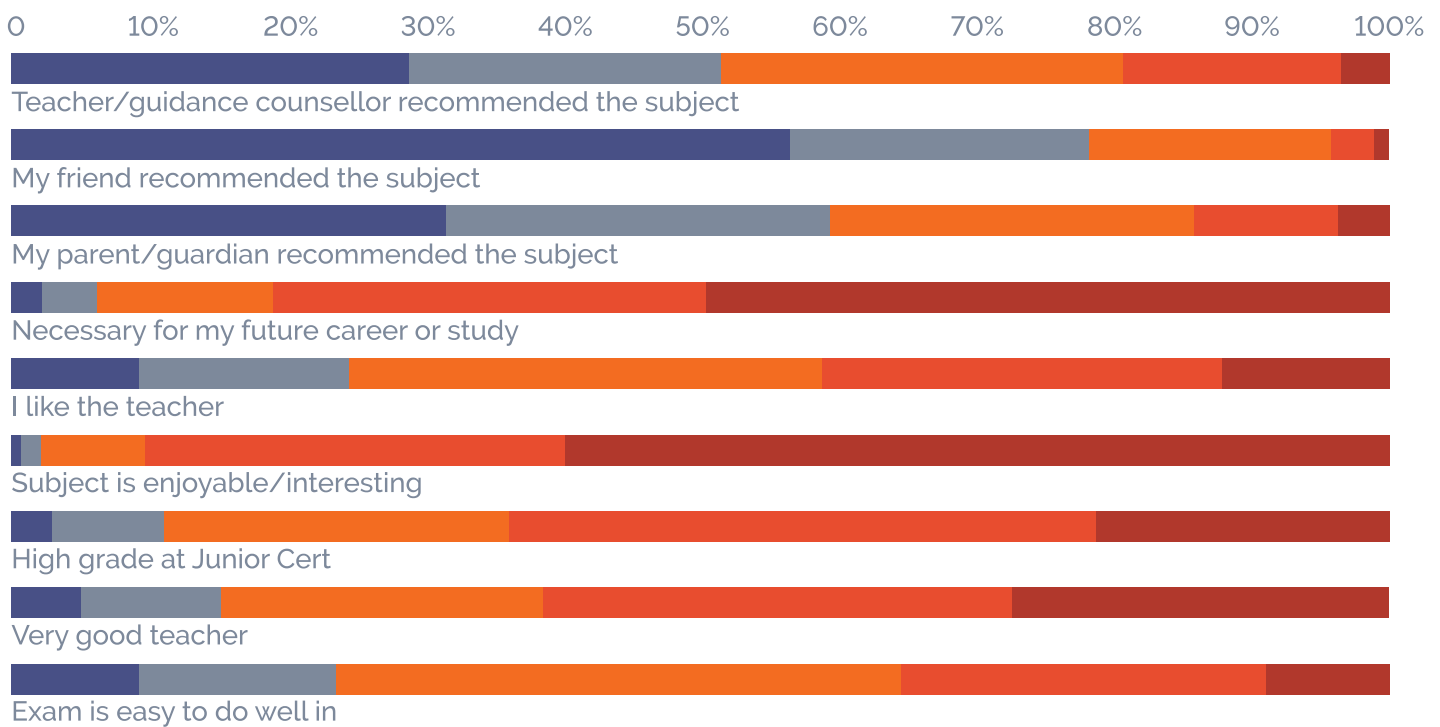
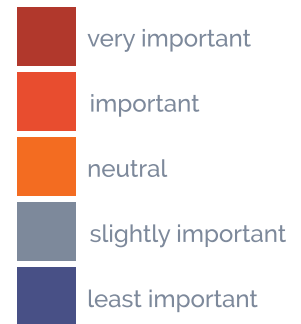
Junior certificate science is NOT compulsory in 32% of schools surveyed



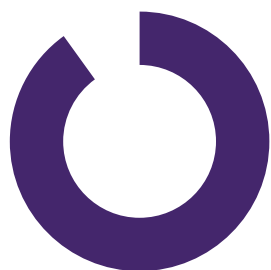
All schools surveyed offer guidance councillor facilities

## Other Factors Influencing Girls Subject Choices & Career Choices:

How influential is the school environment to the girls' subject choices?



The top three reasons for choosing a particular subject are directly influenced by the teacher. A teacher has a major influence on the way a subject is portrayed and received. He or she can often be the first person to link the subject to the practical real life application by case studies or demonstration.



# 91%

of students said a subject being interesting or enjoyable to them was important or very important to their subject choices.



# 81%

agreed that relevance of a subject to future career or study was an important or very important factor in choosing a subject.



# 55%

said that a high grade in a subject in their Junior Certificate exams held importance in their subject choices .

We need to make sure we provide all of the necessary information to teachers

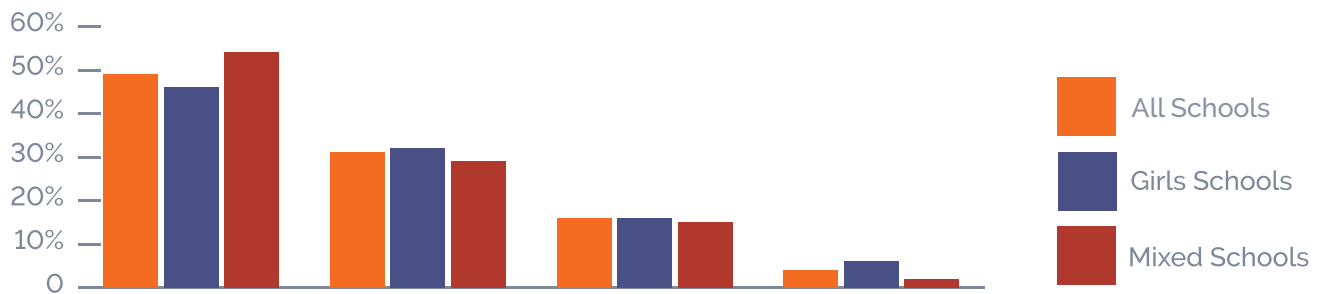
We need to ensure we build partnerships between schools and local industries

If science is not compulsory we are limiting the future generation of innovators as early as 14.



## Is there a difference in the take up STEM subjects in girls' schools versus mixed school environment?

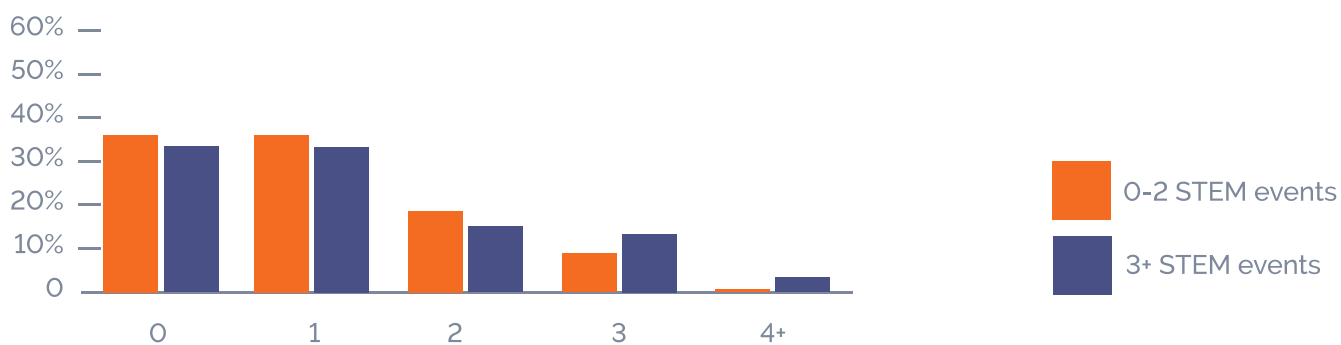
### Number of STEM subjects



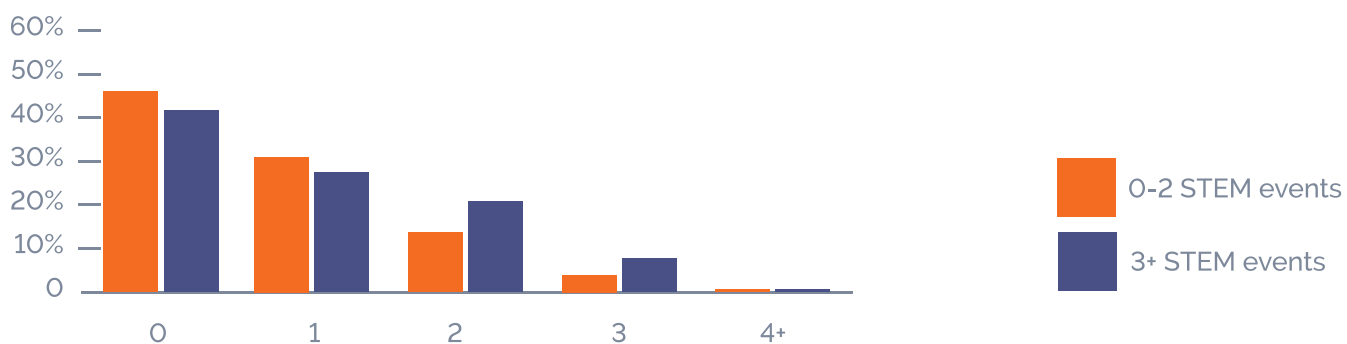
STEM subjects are defined as agricultural science, engineering, physics, biology, chemistry, technology, home economics, economics, applied mathematics and honours mathematics. A significant number of the students are not taking any STEM subjects in their leaving certificate. This is a real cause for concern. There is little difference between STEM subject take up levels between girls' schools and mixed schools.

A structured program of STEM opportunity awareness for students, teachers and parents should be part of the TY program at all schools – we need to commit to delivering information on opportunities to all key influencers.

### STEM event attendance vs. STEM subject choice - mixed schools



### STEM event attendance vs. STEM subject choice - girls' schools



The two graphs above show the link between the numbers of STEM events attended by students in a mixed school and in a girls only school. Amongst the students in girls' schools who attended 3 or more STEM events, approximately 30% chose to do at least 3 STEM subjects versus just over 20% of girls who attended 2 or fewer.

The effect is less marked in mixed schools but still exists.

Teachers play a key part in deciding whether or not to send students to STEM events – let's encourage and incentivise participation.



How influential is the general school environment to girls career choices?

The top factor at 94% is aligned to how interesting a career is perceived by a student. Arguably this interest is piqued, developed and sustained in a school through the subjects required to pursue that career, the popularity of biology and medicine is an obvious example.

The teacher as we have seen is also a key influence.



**94%**

of students thought interest in a career as important or very important to career choice



**85%**

saw job opportunities in a career as an important or very important factor in choosing subjects



**89%**

thought it was important or very important to be good at the career



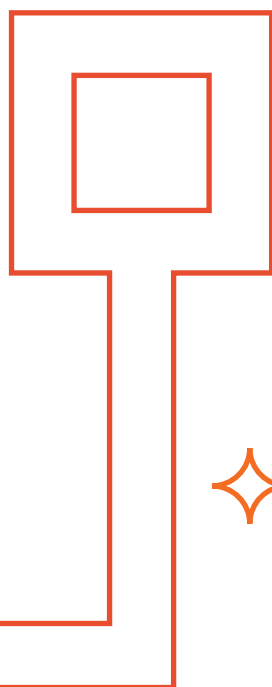
**82%**

of students thought it was important or very important to have a career where they can help other people

We need to very clearly link  
and align specific subjects to  
specific career paths

*Did you know at 17  
what subject would be  
important for a career  
as a Field Service  
Engineer at VMWare  
or a Scrum Master at  
Symantec?*





These results give a positive indication that students in the main have access to STEM events and good subject choices but both are very dependent on the teachers influence both in his/her ability to provide current and informed options to students in the classroom and also in their role as the gatekeeper to STEM events.

The uptake level is still disappointing with 49% not taking any STEM subject to leaving certificate level. 82% of students report that they want a career where they can help other people. 94% a career that is interesting and 89% a career that they will be good at. We know STEM careers can deliver all of these but young girls don't.

We urgently need to bridge the gap and clearly demonstrate the link between doing STEM in the classroom and an interesting and life changing career.

## Reasons for opting out of Honours Maths?

Far fewer girls study honours maths than boys so we asked these girls what influenced them in their decision to opt out of honours maths.

59% of the I Wish survey respondents intend to take the honours maths paper for leaving certificate but we know from the 2016 leaving certificate maths statistics<sup>1</sup> that 30% of girls only will actually sit the honours maths paper. What happens between transition year and the sitting of the leaving certificate that makes these girls change their minds?



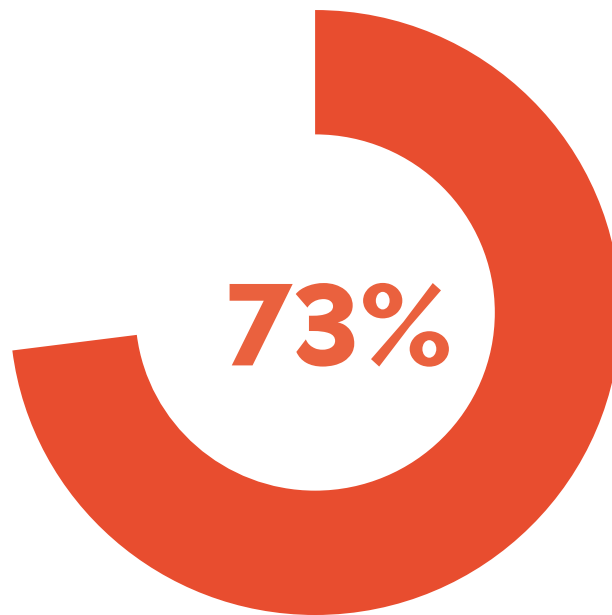
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<sup>1</sup> 23975 girls sat either ordinary or higher level maths for the 2016 leaving cert of which 7166 girls sat the higher level paper.

Ref: State examinations commission statistics

Those who indicated that they did not intend to sit honours maths set out their reasons for not doing so;



of students who opted out of Higher Level maths agreed or strongly agreed that the subject is too difficult



**40%**

agreed or strongly agreed that there are easier ways to gain CAO points



**35%**

agreed or strongly agreed that they wouldn't need Higher Level maths for their career



**43%**

agreed or strongly agreed that Higher Level maths is too time consuming

We need to re-visit how maths is taught throughout secondary cycle. We need to be mindful of negative messaging.

Once again, these perceptions can be positively influenced by the teacher and the school environment.

Time and time again at I Wish we hear from engineers, data analysts and tech entrepreneurs that they were told to do pass maths and yet they managed to excel in their chosen career paths clearly demonstrating that honours maths would not in all likelihood have been too difficult.



# Changes

Teachers tend to underestimate their role as influencers yet in our experience over the last 3 years the teachers are often the STEM champions in the school. The 2017 teacher's survey indicates an enormous appetite for support, information and formal on-going professional development for both career guidance and STEM teachers. This appetite is not currently being met by the structures on the ground. This cohort of

teachers are very aware of the opportunities for those who pursue STEM careers but interestingly their feedback suggests that many of their colleagues are not.

## What do we know about this important group?



**77.8%**

The majority of the teachers who accompanied the girls to I Wish are female



**46%**

of the teachers who attended I Wish with their pupils were Science or Maths teachers.

The most popular STEM event attended by those surveyed was I Wish followed by Science Week and Scifest. There is a high level of awareness of certain STEM events amongst teachers.



*We can  
learn from  
them*

The teachers who responded to the I Wish survey are the STEM advocates in the school. These teachers have an insight into what influences the students when they pick their subjects and their careers.



## What changes are these key influencers recommending in our schools?



# 28%

of the teachers surveyed agree or strongly agree they don't know enough about STEM



# 74%

of teachers believe additional teacher training in STEM careers would be beneficial.



# 94%

agreed or strongly agreed that role models are very important in STEM



# 94%

agreed or strongly agreed that STEM is a growing area of opportunity.

Teachers feel they have a good understanding of STEM in general but a significant majority (74.1%) would welcome training in STEM. Their suggestions for improvement were wide ranging and imaginative demonstrating a genuine appetite. These recommendations ranged

from traditional learning similar to the professional diploma in mathematics for teaching to continued professional development courses, resource packs and in-service training days.



A large number indicated an appreciation for access to 'real life application' or exposure to STEM on the job training where both teachers and students have regular access to local STEM employer sites and employees, including female role models.

*'I am a maths teacher and students often ask how some of the maths they study is used in other jobs. I would like to be shown some examples so I could show my students.'*

Several teachers commented on the advantages of a 'whole of school' approach or adoption of STEM in an integrated manner across the school, many stated that other departments in schools do not understand the relevance of STEM. Another interesting perspective from teachers is the fact that some colleagues think STEM is just about Maths and don't appreciate the importance of all STEM subjects.



# 96%

agreed or strongly agreed that I Wish is an important source of information about careers in STEM



# 94%

teachers indicated they are interested in attending I Wish 2018



# 40%

Teachers observe that 40% of students have made changes to their subject choices or career choices following I Wish.



# 85%

of teachers felt they were better able to advise students on STEM following I Wish.

# Macro environment recommendations

## 1.

Incorporate the informal extra-curricular STEM education programs into the curriculum

Don't leave it to chance or the initiative of individual teachers, all students should have access to attend or participate in two or more STEM events as part of their school year. The evidence is there, the more STEM events or activities that girls participate in the higher the take up of STEM subjects and interest in STEM careers. Let's make it mandatory.

## 2.

Value and recognise the role of teachers as STEM champions & gatekeepers in the schools by offering support and training to the teachers including industry internships

The school environment and the teacher are far more influential on the environment in which the girls are making decisions, than any parents, guardians or friends. The schools act as 'gatekeeper' to STEM events, subject choices and subject levels. The teacher's impact on subject choice is profound with the top influence on subject choice being interesting or enjoyable at 91% of respondents. By contrast only 4% cited their friends as an influence in subject choice and only 15% cited parents.

## 3.

STEM needs to be integrated across the school and all teachers regardless of their subjects should support STEM education through awareness and school wide programs, in a "whole of school" approach

'Educate all staff about the importance of girls taking STEM subjects'.

'Teacher training for non-STEM subject teachers...not everyone is aware they are a STEM teacher'.

'Many teachers think STEM is just about Maths and don't appreciate the importance of STEM subjects'.

## 4.

Continue to promote female role models in STEM to students to show them that many women have incredible careers in STEM. Let's continue to show them the possibilities and shine a light on the amazing women in STEM

For each of the 52 weeks of the year 2018 we will endeavour to feature a short clip of the life of one woman in STEM. If you would like to sign up please register at [www.iwish.ie](http://www.iwish.ie)

One week

-

One woman

-

One window on the  
World of STEM

## 5.

Integrate into the syllabus a clear link between subjects and actual 'real world' application. This year many teachers expressed the value of this connection for them and their students

'I would like more in depth knowledge about various careers available in STEM and what type of careers will be available in the future'.

82% of students want a career where they can help other people yet less than 16% intend to take physics to leaving certificate.

This message also came across strongly from the students in the 2016 survey. Young girls wanted to make a positive difference to society and I Wish 2016 focused on providing examples of STEM careers that are helping people. We need to continue to show these girls the link between STEM in the classroom and the career with purpose that they can have through STEM

# Finally

We owe it to the girls and their teachers to have their voices heard. We take the feedback from both students and teachers seriously which is why we have introduced this report with a commitment to make the following changes to I Wish 2018 Showcase.

## 1. Increase Accessibility

I Wish has always been free of charge for schools and students to ensure there is no cost barrier to those who want to attend. To continue to meet the year on year growth in demand I Wish will increase the capacity of the I Wish 2018 program and ensure 5,000 girls can attend our event in Cork or Dublin free of charge.

## 2. New Teach IT Zone

The teachers have indicated a need and appetite for further information and access to employers and career information. The establishment of a new zone, the Teach IT Zone in 2018 is directly supporting this objective to provide this support to and for the teachers.

## 3. Teacher Internships

We will work with our industry partners to explore a new internship programme which will offer internships to teachers to help them gain an insight into STEM roles.

## 4. Line of sight between subject, career and benefit to society

82% of girls want a career where they can help other people yet so few study Physics and Chemistry. The 2017 I Wish contributors were asked to provide examples of STEM careers which directly add value to people's lives. We intend to expand and enhance this theme of "Purpose" to show these girls that having a career in STEM is purposeful, engaging, life changing and is the current career choice of many amazing women. Both teachers and students require this 'clear line of sight' if more girls are to be attracted into STEM careers. I Wish 2018 will expand on this.

## 5. Leveraging STEM

The I Wish 2018 student survey will be offered via an App which will be accessible to all students both before and after the event and ensure any future such events continue to capture the girls' imagination and foster ambition for careers in STEM. We also plan to enhance the content on our website to ensure even more relevant information and tools for use in the classroom.

# I WISH STUDENT SURVEY 2017

Name of School		
Is your school:	Mixed Sex	Single Sex
Your gender:	Male	Female
Age:		Year:

## 1. Have you attended or experienced any of the following events or programs?

Please Circle all that apply

BT Yong Scientist & Technology Exhibition	Mathematical Olympiad		
Scifest	Coder Dojo	Smart Futures Talk	Science Week
I Wish	Vex Robotics	STEPS Event	Linguistics Olympiad
Girls Hack Ireland	New Frontiers	Insight	Mathletes

## 2. How were you selected to attend I Wish? Please select the most accurate below.

	First come, first served
	Anyone from my school could go
	Teacher or school decided
	My class was going (please specify year and class)
Other (please specify)	

## 3. Which Leaving Certificate subjects, if any, (maximum four) are in your opinion most important for careers in Technology, Engineering and Maths?

Accounting	Economics	Mathematics	Business
Agricultural Science	Engineering	Music	Home Economics
Art	Geography	Physics	Chemistry
Biology	History	Technology	Applied Mathematics
Other (please specify)			

## 4. Have you chosen your three 'option' subjects for the Leaving Cert exam? If 'no' please skip to Q6. If 'yes' please circle below and answer Q5.

Yes	No
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Accounting	Economics	Mathematics	Business
Agricultural Science	Engineering	Music	Home Economics
Art	Geography	Physics	Chemistry
Biology	History	Technology	Applied Mathematics
Other (please specify)			

## 5. Why are you choosing these subjects? Please mark each statement on a scale of 1-5, 1 being least important and 5 being very important.

	Least Important	Slightly Important	Neutral	Important	Very Important
Exam is easy to do well in	1	2	3	4	5
Very good teacher	1	2	3	4	5
High grade at junior cert	1	2	3	4	5
Subject is enjoyable/ interesting	1	2	3	4	5
I like the teacher	1	2	3	4	5
Necessary for my future career or study	1	2	3	4	5
My parent/ guardian recommended the subject	1	2	3	4	5
My friend recommended the subject	1	2	3	4	5
Teacher /guidance counsellor recommended the subject	1	2	3	4	5

## 6. Are you planning to take Higher Level Maths at Leaving Cert?

If 'yes' please skip to Q8

Yes	No	Don't Know
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## 7. If you answered 'no' or 'don't know' to Q6, please state if you agree/disagree with the statements below on a scale of 1-5,

1 being strongly disagree and 5 strongly agree.

	strongly disagree	disagree	neutral	agree	strongly agree
Honours maths is too time consuming	1	2	3	4	5
Honours maths is too difficult	1	2	3	4	5
I do not need honours maths for my career	1	2	3	4	5
There are easier ways to gain CAO points	1	2	3	4	5

## 8. Are you planning on further study after completing the Leaving Cert?

Yes	No	Don't Know
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## 9. What career area are you most interested in working in the future, please choose maximum three?

Business	Inventor	Nursing
Pharmacy	Hotel/ Restaurant	Physiotherapy
Engineering	Administrative	Architecture
Technology / Computer / Science	Travel/ Tourism	Medicine
Food Science / Nutrition	Hair/ Beauty	Dentistry
Biological Sciences	Physical / Chemical / Sciences	Design
Psychology	Primary Education / working with children	Secondary Education
Sports Studies	Starting your own business	Law
Social Work	Don't Know	Construction Trade
Other(s):		

## 10. Why would you like to pursue these careers in the future?

Please circle each statement on a scale of 1-5,

1 being least important and 5 being very important.

	Least Important	Slightly Important	Neutral	Important	Very Important
Interesting Career	1	2	3	4	5
Stay/live in Ireland	1	2	3	4	5
Opportunity to travel	1	2	3	4	5
High salary	1	2	3	4	5
Job security	1	2	3	4	5
Working in a team	1	2	3	4	5
Working on my own	1	2	3	4	5
Making new discoveries	1	2	3	4	5
Would be good at it	1	2	3	4	5
Work/life balance	1	2	3	4	5
Excellent job opportunities	1	2	3	4	5
Helping other people	1	2	3	4	5
Other (s)					

### 11. Which of these STEM careers would you consider exploring?

App/video game designer/ programmer		
Mobile phone technology and communications developer		
Medical technology developer		
Medical / pharmaceutical research		
Renewable energy engineer / scientist		
Designing bridges, buildings, roads etc.		
Creating smart towns/infrastructure		
Developer of technology to help reduce famine and hunger		
Developing satellites, planes and rockets		
None of these		

### 12. Do you have a family member who works in a STEM career?

If 'yes' please indicate family relationship.

Yes	No
-----	----

Parent / Guardian	Sibling	Aunt / Uncle
Other (s)		

### 13. Please state if you agree/disagree with the statements below and circle on a scale of 1-5, 1 being strongly disagree and 5 being strongly agree

	strongly disagree	disagree	neutral	agree	strongly agree
STEM is for nerds and those gifted in maths only	1	2	3	4	5
STEM is a growing area of opportunity	1	2	3	4	5
I don't know enough about STEM	1	2	3	4	5
STEM is more suited to boys than girls	1	2	3	4	5
Role models are very important in STEM	1	2	3	4	5
I would not pursue a career which I perceive as ' male dominated '	1	2	3	4	5
I Wish is an important source of information about careers in STEM	1	2	3	4	5

### 14. Any Other Comments?

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*"The overall levels of performance and engagement in STEM subjects are not good enough if we aim to provide the best for our nation's children and if we wish to sustain our economic ambitions for the future. A step change in STEM performance and outcomes is required throughout the educational system if we are to move our STEM education performance up to the highest levels."*

*Prof Brian McCraith, President DCU and Chairperson of the STEMERG*

# Charter for choices chances changes

**Thousands**  
of young girls want to  
“**Make The World A Better Place**”

We are one of  
**Thousands**  
of Companies  
Higher Education Institutes  
Public Sector Partners  
and  
**Volunteers**

That can show them  
**how**  
through **STEM**

## Because IT Matters

### IT Matters Because:

Expertise in STEM subjects is required to deliver our economic ambition;

Just 17% of first time entrants to technology courses in universities are women, just 24% in engineering representing no change in 10 years;

Women make up 50% of the workforce yet less than 25% work in jobs that use STEM skills;

The world economic forum predict that the top 15 economies will lose 5 million jobs in the next 5 years; these losses will fall disproportionately on women as they are not taking up careers in the new jobs created by STEM if we do nothing.

Do something – be a driver of change.  
Register your commitment :

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and create Choices, Chances, Changes



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