

YOUR LIFE

CAMPAIGN IMPACT REPORT



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Contents

Edwina Dunn Designing a radical solution to a seemingly intractable problem	03
Martin McCourt: Solving the UK's productivity puzzle	04
Ros Rivaz: Industry Expertise + Entrepreneurial Flair = Winning Formula for Success	05
Executive Summary	06
The Big Picture	08
Your Life: Our Approach	12
Government Engagement	18
Our Blueprint for Tackling the STEM Skills Crisis	20

Edwina Dunn

CHAIR, YOUR LIFE

Designing a radical solution to a seemingly intractable problem

Since launch in 2014 the Your Life campaign has been tackling a seemingly intractable problem. Despite a whole host of Government initiatives over the past 20 years, the numbers studying STEM have flatlined. The CBI has identified the gap in graduate skills in STEM as the number one issue facing the UK's competitiveness.

Put simply, not enough young people are studying maths and physics in sixth form, meaning they don't have the skills needed for the jobs of the future. So why should we fare any differently? Unlike previous campaigns, our approach hasn't been top down. It's started with our audience.

Working in data science, it is natural for me to want to look at what data tells us about the motivations of our audience and then build a solution that addresses this. Based on research from AT Kearney, framed in our Tough Choices Report, our approach has been insight-led and digital-first.

We have spoken to our audience in a way that engages them across the platforms they use and based on behavioural data. Rather than telling teenagers what we think they should hear, we've understood their motivations, what the barriers are for STEM uptake, and then built a solution to address this.

Our recently launched web-app, Future Finder, is a tool that underpins this data-informed agile approach. We replaced the lack of awareness of available jobs with clarity around the vital importance and high value attached to STEM qualifications. App downloads have been

amazing; delivered by a small team, in short order, it shows what a nimble entrepreneurial campaign can achieve.

Of course 1,000 days is not enough time to fix a problem that has been so prevalent for many years. The word on everyone's lips over the past few months has been "legacy" and we hope this document will provide that - the Your Life blueprint for STEM success. It's a result of all that we have learned, championed and hope to pass on. Like all the best recommendations, it's about action and is founded on fact and evidence.

So what have we learnt that we can pass on? First of all, you get what you measure. We've learnt that rewarding grades isn't enough. What shocked us most was the apparently "rational" decision-making of teenagers. They have been encouraged to focus on subjects where they are likely to achieve better grades because grades are what the education system reward most today. They also told us they genuinely didn't have a clue as to what jobs they could do with STEM subjects.

An education system that promotes subjects as well as grades could have a game-changing impact. The latest budget is therefore a step in the right direction. It is heartening to learn of the £600 incentive per maths pupil available to schools. It is pleasing to see the Government hearing our plea to promote STEM subjects as the best route to the jobs of the future.

Secondly, we recommend that we don't narrow options too early. There is a staggering difference in the take-up in STEM A-Levels for people who opt for double versus triple science GCSE.

Just a small increase in the performance of the lowest scoring schools could help to solve this issue. When we conducted our research to inform our School Finder tool, we found that nearly 50% of schools were underperforming. According to Starcount's* analysis of Department for Education schools data, if every school not achieving an average of 25% of A-level entries in STEM moved from

their current performance to just half-way towards this goal, we would achieve 33,000 entries per year, a long way towards filling the pipeline and our bold target.

These changes alone would have a profound impact. But industry can also play a crucial role. Business has so much knowledge about the dynamic changes coming in industry and many can inform education. So let's offer a helping hand, not a wagging finger.

I am delighted the Future Finder app will live on and continue to engage teenagers unsure of what brilliant pathways lead on from the further study of maths and physics. By harnessing technology and using it as a method of communication with the next generation, we will have a bigger impact.

Achieving gender parity will also go a long way to solving some of the issues at the heart of this crisis. It is a goal I will continue to work towards with the campaigning organisation, The Female Lead. It's an ambitious cause, but for the sake of our young people and our nation's future prosperity, we must change the current trajectory and dynamic.



Martin McCourt

NON-EXECUTIVE DIRECTOR, YOUR LIFE

Solving the UK's Productivity Puzzle

UK industry is struggling to fill jobs. We already have an estimated 40,000 STEM roles we are having trouble filling and the number of such roles is also set to increase by a staggering 1.3 million by 2030. The impact on productivity is severe.

Data from the G7 shows the UK's productivity output is far behind that of the USA, Germany and France. The only country we beat is Japan. And while there appears to be good news on employment, the record numbers of jobs reported are not high-skilled opportunities but lower-skilled roles in hospitality, jobs in coffee shops and jobs for Deliveroo. Meanwhile, we watch with envy as countries like Germany and France invest more in the latest equipment to drive productivity and maintain their competitive edge. As for investment in our own large-scale infrastructure projects, when it comes to speed of action, HS2 is more LS2 (low) while decisions on new airports, well, pull up a chair...

The banking crisis has deepened the problem. Credit supply remains weak and, consequently, so does investment. Our appetite for risk is not what it should be. As for Brexit? This could negatively impact exports and further weaken the UK's productivity. Big industry will be fine, however. Corporates will develop their own solutions to free movement of goods and workers by exporting functions, jobs and processes. Some are already striking deals with Number 10, thus business will thrive but the economy will dive.

Fixing all this requires a complicated and multi-faceted approach. Our economy's success hinges on the supply of STEM-qualified youngsters who are equipped and prepared to fill the jobs that industry already has available, and that will hopefully multiply if – and when – we start driving UK productivity forward.

“ We need an education system geared to producing appropriately qualified youngsters – that would be a great step forward

We need a more business-like approach to determine the number and nature of STEM roles that will need filling, and an education system geared to producing appropriately qualified youngsters – that would be a great step forward. Imagine, a STEM-qualified youngster supply chain process! Why not?

Your Life has been an invigorating and rewarding experience for me. The campaign has tackled this skills crisis head on. Contributing to a campaign that has made a difference, that speaks to young people directly and helps them engage with the message has been truly heartening.



Ros Rivaz

NON-EXECUTIVE DIRECTOR, YOUR LIFE

Industry Expertise + Entrepreneurial Flair = Winning Formula for Success

Large corporate organisations are fantastic at scrutinising a plan and then monitoring it – and this was certainly the case for Your Life. In fact, our corporate sponsors brought so much to this campaign that their generous financial contributions only played a small part.

By helping us streamline our processes, clarify the vision and deliver our KPIs, our corporate sponsors played an integral part in helping this winning campaign take shape.

The regular Corporate Advisory Board meetings hosted by our sponsors provided the perfect forum. They kept us on track, in doing the things we did well, while adding new streams when needed. The combination of their counsel, which complemented the entrepreneurial flair of Edwina's campaign team, made for a winning partnership – in stark contrast to some other rather leaden-footed STEM campaigns of the past.

A great example of this approach in action came from a thought leaders dinner held to examine the issues raised by our Tough Choices report. Our philosophy until that point had been to focus entirely on teenagers, but after hearing new evidence and listening to representatives from education and industry, we made a pivot toward adult influencers as another key target audience. This sowed the seeds for our “STEM School Finder” initiative aimed at parents and prompted us to address a key new audience – careers advisors – for the marketing of our web-app, Future Finder.

We successfully engaged these new audiences by working with the Times Educational Supplement and the Career Development Institute.

And now, as the three-year campaign comes to an end, the legacy of what we achieved and championed will live on with the companies who have helped fund it to date. Emboldened with new networks, new people and new potential opportunities, we thank them wholeheartedly.



“ Your Life targets 14- to 16-year-olds directly through specific content, social media and teen platforms. Our content surprises and excites young people about the possibilities unlocked by studying STEM subjects

Executive Summary

Your Life has been a three-year STEM campaign to ensure the UK has the maths and physics skills it needs to succeed in today's competitive global economy. Led by entrepreneurs and sponsored by industry, Your Life has championed a pioneering digital-first approach, inspiring and informing young people to make informed subject choices post-16. Our goal was to inspire young people to study maths and physics as a gateway to wide-ranging careers, while triggering employers to recruit and retain their talent.

IDENTIFYING THE PROBLEM

Despite multiple interventions, rates of STEM participation have flatlined in the UK, with many young people taking a negative view of these subjects. Launched in 2014, the groundwork for Your Life's approach was laid by genuine insight into this audience, informed by our groundbreaking report, Tough Choices: The real reasons A-level students are steering clear of science and maths.

Produced by Your Life sponsor and global management consultancy, AT Kearney, the

report detailed the key reasons young people are being turned off maths and science today. These include a perception that the subjects are only for the ultra-bright, and an alarming lack of knowledge of where these subjects can lead. Insight from the report was supported by detailed research into our audience undertaken by data insight company Starcount, and quantitative research into the motivational factors of our teenage audience, the so-called Generation Z.



Former Olympian and business woman Beth Tweddle is a Your Life patron

CHALLENGING PERCEPTIONS

Your Life targets 14- to 16-year-olds directly through specific content, social media and teen platforms. Our content surprises and excites young people about the possibilities unlocked by studying STEM subjects, and as a result, we've seen a rocketing growth in views, followers and engagement in a short space of time. We reinforced this engagement by providing interactive workshops and taking groups of students into businesses and demonstrating first-hand the exciting roles unlocked by STEM.

During our research, we identified a key missing component for students: an app that links subjects, skills and jobs, and challenges the inaccurate perceptions outlined by the Tough Choices report. Our Future Finder web-app, which we distributed via partnerships and through our existing audience across social media, addresses these needs and is on target to deliver 100,000 users by the end of December.

Today, with 1.5 million views of our content and 22% of 16-year-olds aware of the campaign (of which half say they have been positively impacted), we have made great headway in building both a brand and assets that truly connect to it.

Did you know that?

Your Life has had 1.5 million views for our content, with 22% of 16-year-olds aware of the campaign and 50% positively impacted by it

SECONDARY AUDIENCES

A key part of our work has focused on building a national conversation with key influencer adult audiences, such as parents and teachers. We achieved a crucial media breakthrough with our launch of the first ever STEM School rankings. Compiled by Starcount, we have identified the schools delivering the "jobs of the future" and provided a searchable postcode tool for parents to identify the best STEM schools in their area. Supported by former Olympian, businesswoman and Your Life patron, Beth Tweddle, the STEM school rankings achieved standout national media coverage and boosted our partnerships with organisations like Getty Images, Rate My Placement and Central Careers Hub.

RECOMMENDATIONS

Your Life can only go so far. Despite our successes, shifting the dial significantly requires a structural solution. Government needs to back words up with action to make a genuine difference. For example, we know that students are more likely to take STEM A-levels if they have taken triple science at GCSE, so moves to increase the number of students taking triple science are welcomed. At policy level, we believe schools should be assessed on subjects as well as grades, with more weight given to maths and physics. Currently, by prioritising grades and not subjects, schools are disincentivised from promoting STEM subjects due to the relentless focus on grades. We need to change this by shifting the focus of assessment to better rewarding STEM. This is the single most important change capable of transforming the landscape and helping the country build the workforce it needs.

We believe industry can do more too. We urge businesses to think innovatively about how they can better connect schools with future employers, and link careers to the curriculum through digital learning tools and in textbooks. With Brexit around the corner, the need is more urgent than ever to develop the right home-grown skills to ensure the country is fit for the future.



The Big Picture

The UK is facing a crisis. Businesses are increasingly dependent upon digital knowledge and numerical analytics, putting a high premium on maths and physics skills. However, despite signs of a modest increase this year, for many years the interest in science and maths as subjects post-16 has flatlined.

According to the CBI, this skills gap is the biggest threat to the UK's economy over the next five years. (CBI/Accenture Employment Trends Survey 2015). Meanwhile, the Campaign for Science and Engineering reports there are 40,000 STEM related jobs left vacant every year. To meet this demand, Your Life took up the challenge

for a step change in STEM participation. The knowledge of a STEM shortfall is nothing new; there have been countless initiatives aimed at tackling the issue. They form what Your Life non-executive director Martin McCourt describes as a solar system rather than an ecosystem, working in isolation and not together.

43%
of teens say they have had formal career guidance about their A-levels

STEM INITIATIVES

Many companies with significant reach have invested in their own scaled initiatives to boost STEM interest among children. Examples include Shell's Make the Future, a free four-day "festival of ideas and innovation" held in London and attended by thousands of young people for the last two years running.

BAE Systems, meanwhile, has embarked on a national schools roadshow that brings curriculum-aligned, interactive presentations to students with the hope to inspire whilst still meeting STEM curriculum objectives.

Beyond business, there exist many innovative non-governmental and social enterprises geared towards tackling the poor take-up in STEM subjects. These

include STEMETTES, a social enterprise working across the UK and Ireland to inspire and support young women into STEM careers; MakerClub, a nationwide network of after-school technology clubs for children aged 8 to 13; and "Kids Invent Stuff", a YouTube channel where young people can watch their inventions being built by engineers.

Targeting teachers, meanwhile, STEM Learning provides hundreds of thousands of teachers with curriculum-linked, quality-assured STEM teaching resources and materials produced by the STEM teaching community themselves. The organisation also runs a STEM ambassadors initiative where inspiring industry professionals give talks in schools.

THE TOUGH CHOICES REPORT

Despite this array of initiatives, Your Life has identified several barriers to boosting the uptake in STEM the UK's economy so desperately needs.

Commissioned in March 2016 and produced by A. T. Kearney in partnership with Your Life and the CBI, our report, Tough Choices: The real reasons A-level students are steering clear of science and maths, found large numbers of young people are put off maths and science during secondary school, despite being interested at the start.

The report revealed a lack of knowledge among teachers and

parents about job prospects for maths and science subjects, unintentionally resulting in young people not understanding the skills needed for success at work. The report pulled together two recent and extensive academic research programmes (by Kings College London and Aspires and Upmap from University College, London) and carried out some original qualitative research. The most startling finding of the research is that the low uptake of science and maths post-16 reflects apparently rational decision-making: students chose subjects they believed would be useful for their future career and where they can be successful.



56%
of employers describe low levels of skills as the number one issue they faced according to a CBI study

“The issues raised by the Tough Choices report reveal a perfect storm, one that leads to falling levels of STEM engagement with each year the child progresses through the education system

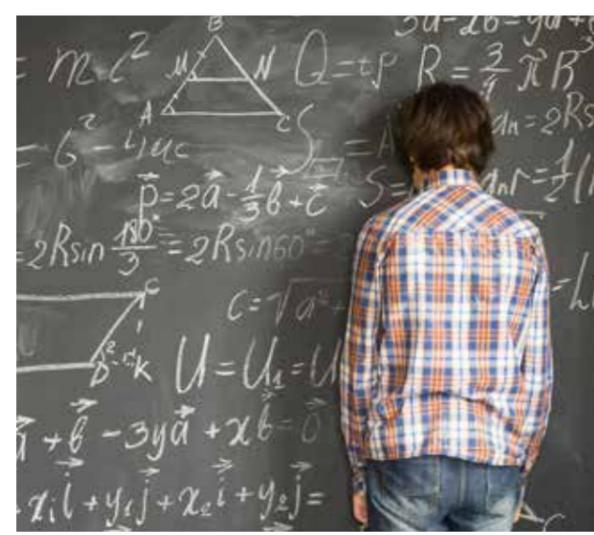
The key conclusions were:

- Teenagers have an alarming lack of knowledge of the many career paths dependent on STEM qualifications, despite employers calling for these skills. In AT Kearney's research, the most common answer given when asked what you could do with physics was "don't know".
- As they progress through school, students lose interest as maths and physics lessons become less practical, reinforcing the perception that there is limited career relevance. 72% of girls say they are interested in science at the start of secondary school, but just 19% take two STEM A-levels. For boys, 75% say they are interested falling to 33% taking two or more STEM A-levels.
- Interviews carried out by AT Kearney indicate that teachers and parents push students to prioritise good results and steer them away from STEM. Students say they listen to this guidance.
- Students selecting their subjects for A-level (or equivalent) hear a clear message from teachers, parents and peers: STEM study is only for the "ultra-bright".
- Evidence does suggest that historically it has been more difficult to earn high grades in STEM subjects than in nominally vocational subjects.

The above findings tend to have a greater impact on girls as they are additionally put off from STEM due to many science-related careers having a more "masculine" image.

The issues raised by the Tough Choices report reveal a perfect storm, one that leads to falling levels of STEM engagement with each year the child progresses through the education system.

While many initiatives focus on shifting psychological perceptions of these subjects among teens, the research highlights the need for cultural and systemic change as well as truly linking careers to the curriculum.



YOUR LIFE

FAST TRACK YOUR FUTURE



Your Life: Our Approach

Your Life's remit is to help and inform 14- to 16-year-olds as they prepare to choose their A-levels, with an aim to influence the outcome and help address the misconceptions around STEM study. From its launch in 2014, Your Life has taken an entrepreneurial approach to engaging its audience, rather than the more traditional top down method used to engage this demographic.

Our method has been digital-first and organic, aimed at reaching and engaging teenagers on the platforms they spend time on and scaling those platforms to extend our reach.

Insight has been at the heart of our campaign. To truly understand what motivates today's 14- to 16-year-olds, we worked with data insight company Starcount, using pioneering data science to develop the right engagement triggers for different teenage audiences, based on the brands,

celebrities and YouTube stars they loved. Our content strategy was built around these same themes: engaging audiences on the platforms they loved with relevant content.

Working with a team of Emmy Award-winning writers, we produced a series of videos produced for YouTube and Facebook designed to excite, surprise and inspire teenagers into discovering the potential careers opened up by studying maths and physics.

8,500

the number of teenagers we have reached directly



Doing “draw-my-lives” of famous figures is a really fun idea, and the illustrations are excellent. Informative too!

BLOGGER COMET MOON

The videos linked back to the campaign website, where resources, information, features and career profiles outlining the benefits of STEM study were made available.

The videos helped show the practical and relevant use of STEM in a format young people are familiar with and enjoy consuming. Video examples include “The Science of Pokemon Go”, “The Physics of Ballet” and the inspirational “Draw My Life” series, which helps challenge the masculine image of STEM by highlighting the work of famous women, both present and past. Other videos include our “Guess Work” career profile videos featuring an inspirational, diverse cast list with students guessing the surprising occupation of the person from a series of clues.

77%

of students say that they would consider maths and physics after our trips

DIRECT ENGAGEMENT

Direct engagement with teenagers has been an integral part of our approach, linking to the eight Good Career Guidance Benchmarks as set out by the Gatsby Foundation. We enabled employer encounters through our Best School Trip activity, taking groups of students into businesses so that students can understand the career pathways opened by maths and physics. These trips have included visits to dynamic companies such as Shazam, Amazon, Coca-Cola and Sky. After these trips 77% of students say they would consider maths and physics. This format has also been enthusiastically embraced by Johnson & Johnson who will continue to run a similar format going forward.

We also ran a young inventors' competition called Formula 100 that generated hundreds of entries and national media coverage.

Employer encounters were enabled further through an online live chat platform, helping us to connect school students with employers in regions where employer/school engagement is low. Finally, Gamewagon, which involved practical STEM career workshops in schools, plugs the gap in practical application of maths and physics identified by our Tough Choices research and links careers with the curriculum in an engaging interactive format.

1.5M views of content

140 videos produced

3.8 years, the amount of time our videos have been consumed for

220,000 visits to the campaign website

100,000 users for Future Finder by the end of 2017

50 careers profiles featured on our website

Future Finder

Having spent the first two years creating relevant content and direct engagement strands, Your Life was able to quickly establish a recognised brand for teenagers, as evidenced by our 1.5 million views and 22% brand awareness among 16-year-olds. This provided the platform for the campaign's big play: the launch of our Future Finder web-app. Navigating students, parents and teachers to jobs of now and the future.

Future Finder was built to challenge the view articulated in Tough Choices that STEM careers are a "dead-end" for teenagers' futures. When surveyed, some 88% said they wanted more information on career routes from different A-level combinations so we were confident in the potential take up of the web-app.

Linking today's A-level subject choices with tomorrow's jobs, "Future Finder" is a slick, easy-to-navigate platform that uses data feeds and machine-learning to provide intelligent careers advice for young people.

“ This special day has changed my whole school life... Now I am certain that I am taking a science subject for my A-levels

MOHSIN AHMED, 16



“ I love how the app is set out, it's easy to navigate. I particularly like the detail of information when it talks about specific jobs – as I've found details such as average income hard to find previously

HOLLY MIA MARSHALL, 16

4/5 the star rating teenagers have given Future Finder for usefulness

Available on all desktop, tablet and mobile via a web browser, Future Finder features 430 different jobs, with information on salary ranges and entry routes. The web-app draws on a variety of live labour market data feeds from credible sources such as UCAS, UKCES and the Russell Group. This powerful combination helps the user link A-level subject choices to the jobs and skills that will be in demand in the future.

Launched at the end of May 2017, Future Finder has beat our most optimistic forecasts and is on course for 100,000 users by the end of the year. We have promoted the service via our well established social media channels, using messages that we have tested both digitally and face-to-face to drive interest and engagement. Users have given it an average of 4/5 stars for usefulness. The most popular promotional message was which A-levels could earn users the most money, followed by which A-levels would lead to them having an interesting/cool job.

According to Google analytics, the app has performed three times as well as the average for an educational campaign, highlighting the nascent demand for a tool such as this.

“ Rewarding grades alone will not provide the numbers of STEM qualified students we need

EDWINA DUNN
CHAIR, YOUR LIFE

REACHING THE INFLUENCERS: TEACHERS AND PARENTS

While teenagers have been the primary target audience for Your Life, the influencers who reach teenagers are naturally of critical importance too. Our Tough Choices research helped identify the key role parents and teachers have in influencing A-level decision-making, and we adjusted our strategy to engage better with these audiences.

Our website includes lesson plans that help teachers connect careers to the curriculum, and these have been gratefully received, with positive feedback from busy teaching staff crying out for real world examples of how theoretical subjects are important to students. Andy Gardner, an experienced careers professional, helped us ensure Future Finder would be perfectly crafted for careers advisors.

MEDIA AMPLIFICATION

Media awareness has been at the forefront of our campaign to engage adult influencers. We have initiated hard-hitting media stories to influence parents to encourage their children to study STEM. We have created huge media awareness and national media coverage with consumer-focused stories on topics such as parents' anxiety with maths hampering their children's interest in the subject. We also launched a ground-breaking competition with Getty Images to re-picture STEM, creating a new set of diverse images to challenge and change the stereotyped masculine image. All of this helped create a platform for our key messages to cut through and lead a national conversation.

Our media work has been aided by our campaign patron, Beth Tweddle. An inspirational figure, Beth is a former Olympian, sports scientist and businesswoman who has great impact on both students and parents. Our work has also been further boosted by a series of inspirational role model ambassadors who have helped support us in their

outreach. We have seen our campaigns featured on Sky News, BBC1 and across the national press.

We targeted trade press too, building key partnerships with relevant publications and channels reaching teachers and careers advisors, such as T.E.S, Careers Development Institute and the Central Careers Hub.

“ The Future Finder app has great potential to improve career opportunities for young people by demonstrating how their curriculum choices today link with the jobs of tomorrow

CLAUDIA HARRIS
CHIEF EXECUTIVE, THE CAREERS & ENTERPRISE COMPANY

250

pieces of unique media coverage

55%

of students say their parents are the most important influence in their A-level decision-making (Tough Choices)

19%

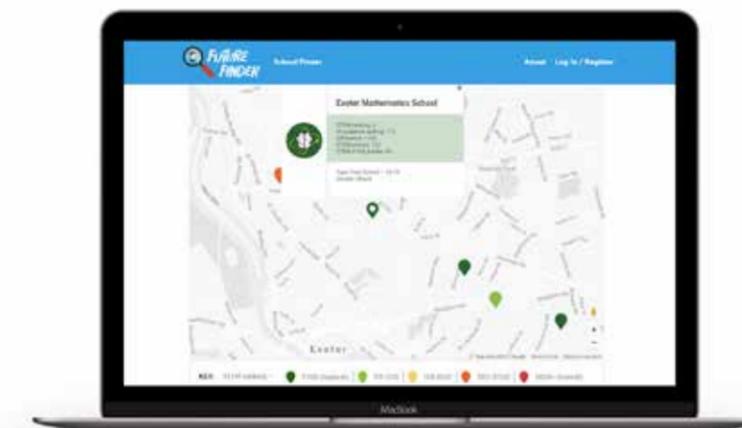
of students say their teachers are number one influence in their A-level decision-making (Tough Choices)

£30,000

the annual economic premium for studying maths A-level

841

schools fully engaged with campaign content



STEM School Finder

Our final big project of the campaign was the launch of STEM School Finder. Via a postcode search tool STEM School Finder ranks and displays schools in relation to their ability to deliver A*-B performance in STEM subjects.

Powered by Starcount, STEM School Finder uses the first in depth ranking of England's official published results table of 2,500 secondary schools, based on STEM performance. On the back of the publication we received wide coverage, including an exclusive in The Times newspaper and close to 5,000 visits to the tool in a short space of time. The research project also uncovered that

maths and science provided a potential wage premium of £30,000 per year. This was based on insight from Global Management Consultancy A.T. Kearney, relating to the A-levels most in demand for 430 key jobs. By leading a debate on the nature of education, we have helped keep the focus on STEM at the forefront of the national conversation.

“ Thanks, YourLife Team! You have delivered us a digestible career series for those of us not yet fluent in tech

MAJI THARPE,
STEM PROMOTER

Government Engagement



“ We want to be a can-do maths and science country. This is our route to future success. Maths and science can get us everywhere

THE RT. HON ELIZABETH TRUSS MP
CHIEF SECRETARY TO THE TREASURY

The Your Life campaign was set up by Government. As a result, we've had support from the Department for Education (DfE) as our sponsoring department in our regular Corporate Advisory Board meetings, as well as involvement from the Cabinet Office. Government first launched the campaign, recognising the need to address the imbalances in the education system. We have, however, deliberately remained at arm's length: keen to make our independence a campaign strength and apply an innovative approach.

Despite living through tumultuous political times, we have pressed forward our agenda to influence the debate on the STEM challenge with those policy makers in the position to initiate lasting change.

incentives in the system to boost the uptake of STEM. We welcome the announcement of the £600 incentive per student to encourage Maths.

While our insightful research has helped surface many of the key issues for policy makers to address, we have bolstered these messages by giving evidence to Government and decision makers. We gave ministerial briefings and called meetings with MPs, while Mark Page of AT Kearney gave evidence in person to the Science and Technology Select Committee's investigation into the STEM skills crisis.

Our influence was also made clear when the Government, after our continued lobbying, published the percentage of students taking one to two or three STEM A-levels. We pushed for this data and it has since become a measuring standard.

We've also pressed the case for further pupil expansion in taking triple science at GCSE. Research carried out with Censuswide found that students who take triple science at GCSE are 50% more likely to do at least one STEM A-level.

We are heartened to note in the latest budget that Government had heeded our call to change

“ We can look at things through the lens of the child, but we need to look at things through the lens of society. As a society, we need more teenagers developing these skills or we will be poorer

CLIVE HUMBY
DATA SCIENCE INNOVATOR

RADICAL GOVERNMENT ACTION NEEDED

Fundamentally, we believe a radical rethink of school assessment by Government, with an enhanced weighting given to STEM A-levels, would be the step change needed to transform the skills landscape. In recognising the increased importance of these subjects in how schools are assessed, we could go a long way to equipping young people with the skills they need to compete in the future. This is a challenge only more pressing with Brexit. By ensuring the barriers to STEM subjects are removed, and by giving young people the right training for the jobs of tomorrow, we can help tackle the UK's poor productivity performance.

We hope the publication of our STEM school ranking tables, the first of its kind, will be the catalyst to making that happen. Undoubtedly, the rankings have helped shape the debate and provoked much-needed comment and discussion in newspapers, forums and within schools, on the requirement to ensure young people's education reflects the needs of the future jobs market.

As Clive Humby, who led the work on behalf of Starcount, put it at the launch of our rankings: "We can look at things through the lens of the child, but we need to look at things through the lens of society. As a society, we need more teenagers developing these skills or we will be poorer."



50%
of teenagers that are aware of the campaign are more likely to study maths and physics

Our Blueprint for Tackling the STEM Skills Crisis

The last three years have given us these seven key recommendations for those taking up the mantle of increasing STEM participation. If we achieve the following we can give the country the skilled workforce it needs and boost the life chances of hundreds of thousands of young people.

- 1 Reward STEM at school**
Prioritise grades as well as subjects. Schools are disincentivised from promoting STEM subjects due to the relentless focus on grades. We need to change this fast by shifting the focus of assessment to better rewarding STEM.
- 2 Try Triple Science**
Promote triple science at GCSE. Research shows that pupils who take triple science at GCSE are twice as likely to go on to study maths and physics at A-level.
- 3 Share best practice**
Spread excellence in STEM between schools. According to analysis from Starcount, just a small increase in the performance of the worst performing schools could have a dramatic difference in overall numbers taking up STEM subjects. If the best schools can share findings and a winning formula with the worst performing we can make up the STEM shortfall.

If every school not achieving an average of 25% of A-Level entries in STEM moved from their current performance to just halfway toward the goal, we would achieve 33,000 entries per year, a long way towards filling the pipeline and our bold target.



- 4 Get to the root**
Understand the motivations that drive teenagers to make STEM subjects more appealing. "Do something interesting" and "earn money" have proved the most compelling messages Your Life has used to engage hundreds of thousands of young people across social media. This needs to be better understood to get the attention of young people and used correctly in communication and messaging.

16%
studying maths, and a 12% increase in physics, since 2014

- 5 Unify activity**
Turn the solar system of organisations into an ecosystem. Collaboration between organisations is key, we must all work together to address this challenge. A unified approach connecting all the organisations tackling STEM in a coordinated fashion would avoid mixed messages and teacher fatigue.
- 6 Business support**
Industry should offer a helping hand, not a wagging finger to schools. Businesses can provide a transformational impact to careers education, with real world examples, fed through technological solutions, like Century Tech.
- 7 Influence the influencers**
Creation of "science capital" for parents. Parents are the biggest influencers in the A-level decision-making process. We need to empower them with tools and information to ensure they understand and can communicate the importance of STEM for their children's futures.

Your Life was guided and supported by leading companies and major UK employers, whose support has been central to achieving the aims of the campaign.

AT Kearney

Mark Page, Rhiannon Thomas and Anastasia Kouvela

BAE Systems

Vicki Seward and Richard Hamer

Carillion

Janet Dawson, Lisa Benbow, Joan Murray and Georgia Jamieson

Johnson & Johnson

Jane Griffiths, David Keown, Nicola Scola and Rhoda Steele

Nestle

Richard Martin and Dean Gargano

Rio Tinto

Marie Rowland-Kidman and Tara Hopkins

Shell

Sally Martin, Fiona Dyer and Anna Haslam

“ We must help students make better informed decisions about jobs of the future and end our nation’s current skills deficit and low productivity

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