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ANNUAL REPORT 2019

'SUSTAINABLE GROWTH THROUGH COLLABORATION'





A WORD FROM OUR FOUNDER STUART

At SmartSTEMs, we believe encouraging young people to practise STEM-based subjects, allows them to develop their intellectual and creative faculties for the greater good. The processes and skills developed through STEM education are essential in our daily lives and it is imperative that we, collaboratively, support our young people to become educated in the broadest sense: confident, literate, numerate, constructively critical and technically capable digital citizens of the world.

It is on this note that I would like to say a massive thank you to every single one of our supporters. From our Industry Fayre Extraordinaires and inspiring Workshop Hosts to our army of Volunteers and Student Buddies – we could not do what we do without help from all of you. We know that it is only by working together that we are able to create a constant drumbeat of activities, across all four pillars of STEM that everyone can tap into ensuring that no single person or organisation has to carry that responsibility alone. We believe that regular and varied activities are essential to ensure that as many young people as possible are made aware of STEM, and due course run the risk that they too become passionate about something STEM related!

Our industry partners tell us that we are able to help them make their CSR more impactful and allow them more effectively to contribute to building a talent pipeline. Primary and secondary teachers speak of our volunteers helping to bring STEM to life through passionate role models and those in tertiary education know we can bring new, and reinforce existing school and industrial links with very many benefits across employability, pipeline and even research. By acting across all these areas on a regular basis, as far and wide as possible we ensure that as many young people as possible have a rounded, regular and ultimately positive STEM experience. By these actions we play our part in amplifying the positive societal impact of STEM education and thereby increase the STEM capital of future generations.

We believe we have a low cost, high efficacy model of engagement and have proven it to be repeatable and scalable but we are always looking for ways to improve and would love to hear any constructive criticism of our working practice. We want to get better, to be better, and to that end SmartSTEMs are working towards becoming a Certified B Corporation organisation. This certification will align us with businesses that meet the highest standards of verified social and environmental performance, public transparency, and legal accountability to balance profit and purpose. B Corps are accelerating a global culture shift to redefine success in business and build a more inclusive and sustainable economy.

This year's annual report, is packed with stories and messages from our supporters and partners. We hope you enjoy reading the report and would be delighted to hear your thoughts and suggestions regarding our work. Of course we look forward to welcoming you to an event soon. When you come along, be sure to bring a friend and tell a few others about it afterwards... after all collaboration is key to SmartSTEMs and the theme for this year's report is Sustainable Growth through Collaboration.

Stuart Macdonald
Founder of SmartSTEMs

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OUR VALUES, VISION & MISSION

OUR MISSION

SmartSTEMs provides equal access to inspire and realise the full potential of future generations, facilitate cost effective collaboration with industry and education to develop the next generation of talent and create and maintain inclusive and open partnerships to deliver social value and opportunity.

Our model is scalable and replicable and delivered through our intertwined initiatives of hub events and outreach:

VISION

Hub Events are held in tertiary education establishments where we convene industry and schools to apply the SmartSTEMs glue and get the good people we work with connected and collaborating to best effect.

Outreach is delivered in Schools & Clubs affording STEM activities locally & ongoing.

OUR VALUES



EQUAL ACCESS



COLLABORATION



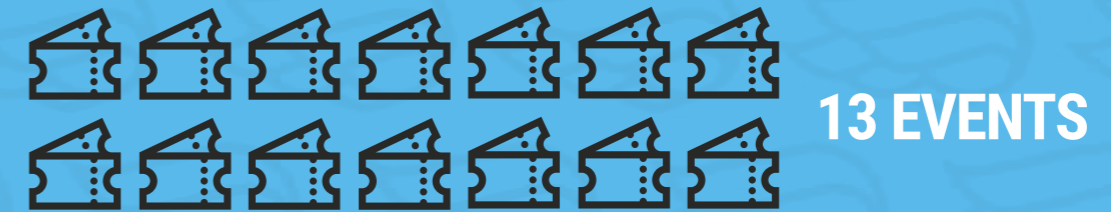
INCLUSION



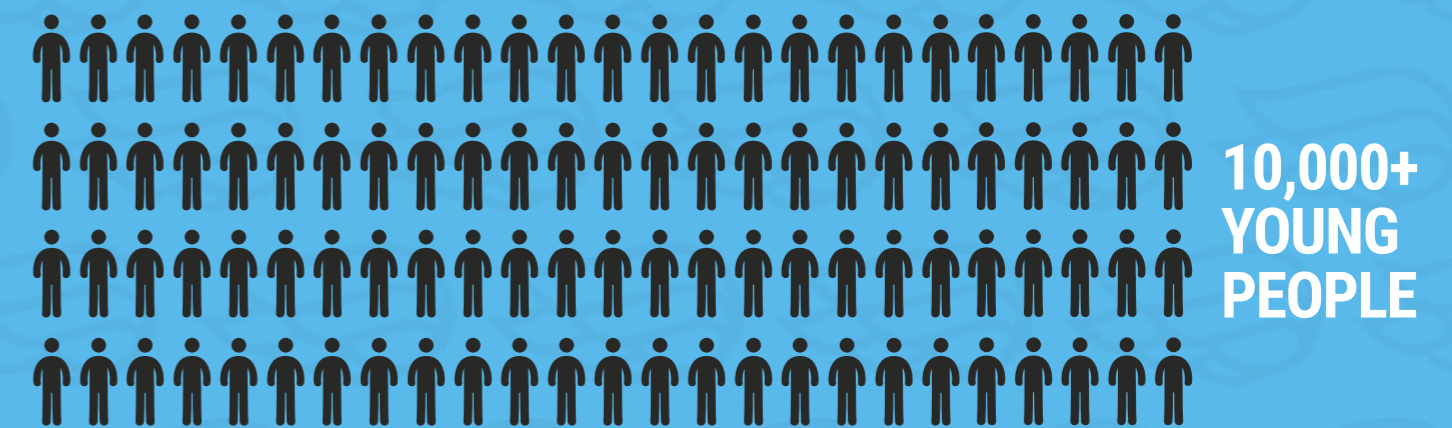
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THE GROWTH OF SMARTSTEMS

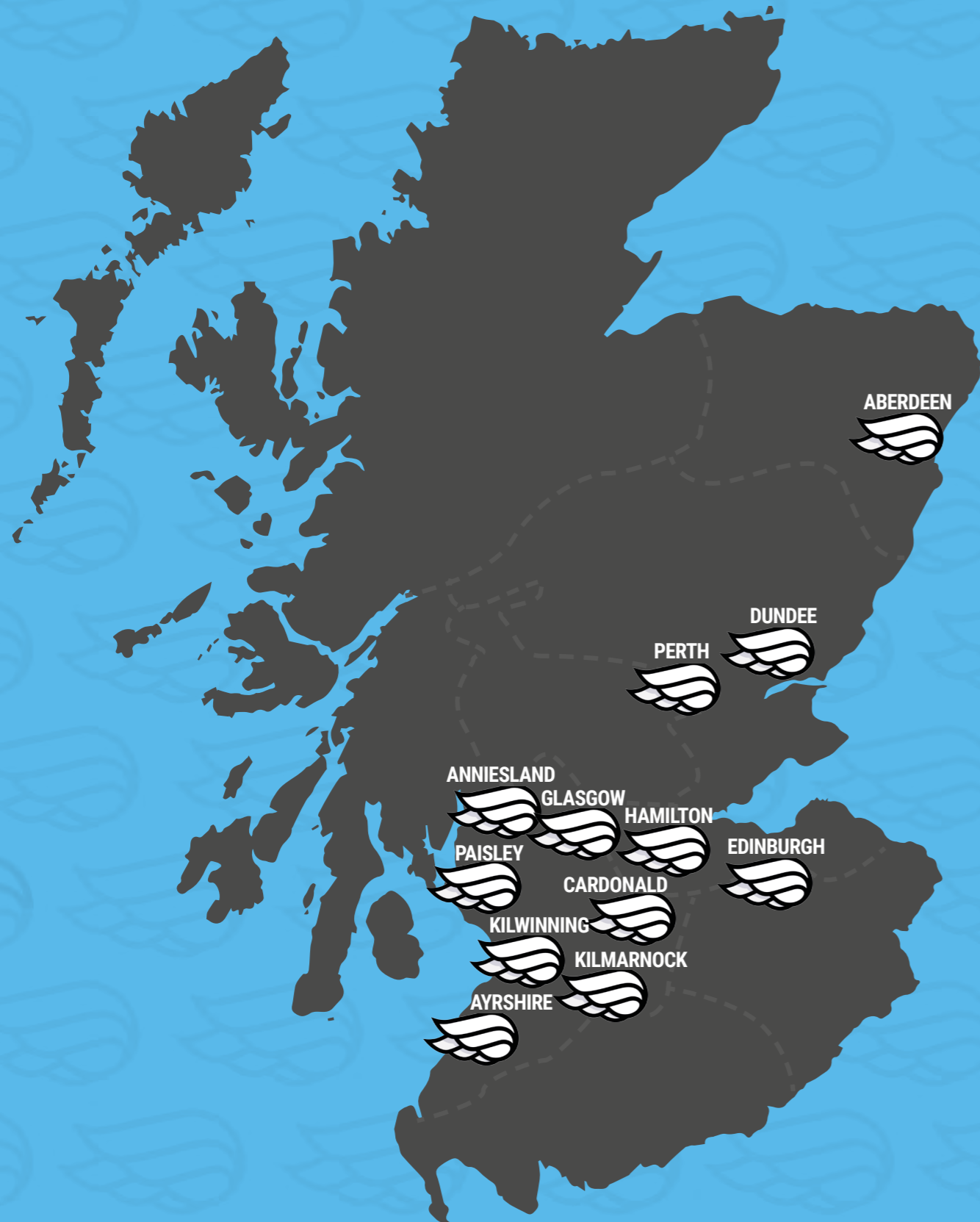
IMPACT FOR 2018/19



IMPACT TO DATE



NEW LOCATIONS FOR 2018/19



THIS YEAR'S REPORT IS ALL ABOUT

“SUSTAINABLE GROWTH THROUGH COLLABORATION”

'HERE'S WHAT WE'VE BEEN UP TO'



IT'S BEEN AN ACTION PACKED YEAR FOR



June 2018 Our first event outside Scotland

Our first event out with Scotland was held in partnership with University of the West of Scotland London Campus.



August 2018 First full time member of staff

With funding support from Scottish Children's Lottery we hired our first full-time member of staff which enabled us to scale and increase our impact.



August 2018 Became an Amazon Smile Charity

We became a charity partner on the Amazon Smile scheme which enables customers of Amazon to donate a percentage of their purchases to our charity.



August 2018 Formula One Donation

We provided financial support to a team of school pupils from Inveralmond Community High School to enable them to attend the Formula 1 in schools final in Singapore.



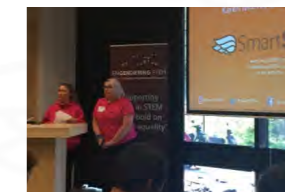
October 2018 DressCode Support

We offered financial support which enabled the formation of a charity called DressCode. DressCode aspires to make a dent in the Computing Science gender gap; with the aim of engaging, inspiring and raising awareness of opportunities in the world of tech.



October 2018 Became a Co-Op Local Community Fund

We were appointed as a charity partner of the Co-Op, which allowed us to arrange a number of fundraising events in partnership with their team and customers in order to raise funds for our charity.



October 2018 Presented at Engendering STEM Conference

Presented at Engendering STEM Conference – Our team flew to Amsterdam to present at the Engendering STEM conference with the aim of improving stakeholder knowledge and awareness of gender equality issues within the STEM sector.



February 2019 Nominated charity for Ceed Awards

We were appointed at the charity partner at the Centre for Engineering Education & Development which allowed us to raise funds for our charity at their annual awards dinner, and meet many industry partners.



October 2018 Diversity Conference Judges Award

We were selected as the winner of the Judges Award at the Diversity Awards. The Herald and GenAnalytics National Diversity Awards recognise the outstanding success of companies and organisations, individuals, third sector organisations and community groups who are demonstrating a strong commitment and track record of achievement in ensuring that everyone in our society has the opportunity to fulfil their ambitions, aspirations and potential.



“ SmartSTEMs has been an excellent partner for Ayrshire College over the years, collaborating on several major events held within our campuses.

Their major strengths lie in being able to bring key people together to facilitate workshops, and ensuring each event runs as smoothly as possible for all participants.

Feedback from our most recent events has been overwhelmingly positive, with many of the pupils highlighting how enjoyable and engaging the activities have been. SmartSTEMs deserves a lot of credit for this.

”

AYRSHIRE COLLEGE

“ Smart STEMs is an exciting and fun event for everyone involved, from school pupils to lecturers, students, technicians and industry. That is why GCU was the first University in Scotland to support the HUB events and the fact we more than 500 pupils on campus at these events every year is fantastic. The event promotes STEM to pupils from Primary 6 to Secondary 2 – a crucial period before subject selection. “Female uptake of engineering and computing programmes remains low and it is events such as SmartSTEMs that aim to improve understanding of the relevance of STEM to future careers for women.

”

GLASGOW CALEDONIAN UNIVERSITY

**WHAT OUR HOSTS
HAVE TO SAY...**





HEARING FROM OUR INDUSTRY HOSTS...

“ We collaborate with SmartSTEMs on hosting events within our own offices and getting Sky representation at events being hosted by various universities and colleges. I get involved with SmartSTEMs because having spent a large part of my career working in Technology, I am passionate about raising awareness of the variety of career options that are available and breaking down barriers to get more girls engaged in STEM overall.

Since joining sky this year, I have been able to host a SmartSTEMs stall at an event in Glasgow and have jointly hosted an event with West Lothian College. At this event we took each of the schools in attendance to visit our Sky Academy Studios; ran a technology coding workshop with the pupils; had volunteers from our change delivery team assist on the day; and our keynote speaker was one of our female Home Service engineers. SmartSTEMs provides a fun and engaging approach to STEM and encourages collaboration across industry sectors!



sky

Sharon Forder, Senior Project Manager



I have been working with SmartSTEMs for five years. Our first event was a journey into the unknown based on a chance meeting at a Women in Technology conference, and the spark of an idea that SmartSTEMs helped me to germinate into something beautiful. Over the years we have supported over 500 young people explore careers in STEM, provided them with an opportunity spend the day at our campus at Gogarburn, and introduced them to creative people who are passionate about STEM.

SmartSTEMs have always worked brilliantly to help achieve our vision: an event especially for primary-school aged girls, designed to inspire them to consider studying STEM and pursuing a related-career. We have worked with a huge range of partners: from start-ups in the fashion industry; to mathematics professors, to cutting-edge AI inventors and these have all been provided through SmartSTEMs excellent network across a wide-range of industries.

The best thing about working with SmartSTEMs has been the level of professionalism and credibility that they have brought to our events, made possible by their dedicated and knowledgeable team. At the outset, we had the idea, but needed support to deliver it and they have never failed us. This allowed us to gain positive attention in local and national media, which beneficial for the company and helps to ensure funding for the event is sustained from year to year. On a personal level, I love working with the SmartSTEMs team, and I hope to continue doing so for many years.




RBS

Lindsay Law, Head of Audit




A WORD FROM OUR TEACHERS..



“ SmartSTEMs is a fantastic initiative! It raises aspirations to pupils all across the country and I would highly recommend all schools to get involved. This is an easy and perfect opportunity for industry to get involved and help inspire the next generation of talent in STEM. What they bring is no ordinary event, it is highly interactive and engaging. SmartSTEMs are making a huge impact to so many pupils across the country which is really exciting! I would highly recommend anyone going along to even volunteer and help out at these events!!

***Toni Scullion, Teacher at St Kentigern's Academy
& Founder of Dress Code***

”



“ My remit in school is two-fold. I am a Maths teacher in a modern high school, teaching all levels. I also have responsibility for STEM across the school. This involves working with a number of partners both internally, within the school and council, and externally with organisations like SmartSTEMs. SmartSTEMs plays a crucial role in challenging, inspiring and informing our students about STEM. Given that SmartSTEMs events are targeted at S1 or S2 students, it often means that our students' first experience of STEM is with SmartSTEMs. It is important for us to continue attending the SmartSTEMs events as it is rare that events have inspirational female speakers coupled with both a wide variety of STEM challenges that students can get involved with and a range of STEM businesses offering careers advice. The combination just seems to work. Our students always enjoy their day at the SmartSTEMs events, and come back to school enthused and ready to become part of the next generation of scientists, engineers, technologists and mathematicians..

***Stuart Boag, Maths Teacher &
PT STEM at Barrhead High School***

”

HERE'S TO OUR VOLUNTEERS

“ I volunteer with SmartSTEMs because I believe the positive experience they bring to young people and in particular young girls can have a life changing effect. The world needs lots more young people to go in to STEM roles to help the world find smart solutions to the problems we face. From global warming to famine, we are not short of problems and technology is going forward at a rate which is truly inspiring.

There are no roles in which women cannot do and thrive in. Diversity in gender is important and it has been proven already that increasing the numbers of women in STEM roles increases productivity. When young people get access to the fantastic opportunities which exist in this area, it can give them confidence to overcome some of the societal barriers which still exist. Working with young people always give me a great deal of satisfaction. Their enthusiasm and willingness to get involved demonstrates to me that the future is in safe hands.

Sarah Walker, Volunteer: Workshop Host, Exhibitor

”

“ I have been involved with SmartSTEMs since its inaugural event in 2015. In that time, I have run various workshops, hosted exhibition stands, delivered keynote speeches, and been a general supporter of the events. I think SmartSTEMs is a wonderful charity that really makes a difference to the lives of the children it reaches. The events expose the kids to a whole host of experiences and role models they would just not get within a school environment. This truly opens their eyes to the range of careers they could have in the future and really connects what they are learning about in the classroom to the industrial world.

SmartSTEMs enables children to explore their full potential! The events break down the barriers to certain careers, inspire them with first-hand experiences, and enable them to realise with hard work, dedication and focus, they can do and be anything they want to be! For me, as a supporter and volunteer, there is no better feeling that knowing you are inspiring a young person, helping them on their journey to have a long, happy and fulfilled career in whichever subject their passion lies

Vicky Hamilton, Recoil Knee Pads: Speaker, Workshop Host, Exhibitor

”



EDF HEADLINE SPONSOR

EDF STAFF QUOTES

“ I thought it was great. The kids enjoyed the VR stuff and it was all well organised. The girls all seemed interested and enthusiastic. It was a great day interacting with the kids at the uni and they loved the headsets. ”

“ It’s amazing what a bit of positive encouragement can do, I have already volunteered to help next Thursday at the SmartSTEMs, UWS event. ”

“ A great event and with good engagement from the kids. ”



“ Inspiring young people is at the heart of our educational strategy which is why our partnership with SmartSTEMs makes so much sense for EDF. The hub events are great fun and it’s clear from the feedback we get from volunteers that they enjoy talking to the pupils about their interests and their goals. The mix of workshops and talks, along with the opportunity to meet industry employers, give lots of opportunities for inspiration. EDF aims to increase diversity amongst those entering careers in science, technology, engineering and maths and our collaboration with SmartSTEMs has helped us talk to thousands of young people from a variety of backgrounds about careers in these areas. ”

Robert Gunn, Torness Station Director



JP MORGAN CHAMPION SPONSOR

“ SmartSTEMs focuses on getting young people interested in STEM subjects at a very early stage before they make career choices in the future. This is hugely important because STEM learning builds the skills children will use for the future. There are a plethora of jobs in STEM fields and by choosing this path, you're very likely to have an interesting and diverse career and you will develop analytical skills, which will be useful in every field of work. ”

**Sonja Jillich, Technology
Apprentice | Securities
Processing Technology**

J.P.Morgan

SmartSTEMs has been a vital part of J.P. Morgan's Youth Engagement Strategy as a part of its Tech for Social Good programs. SmartSTEMs allows J.P. Morgan to reach thousands of students to promote STEM and computer science careers and academic opportunities to an under-represented demographic. The program also allows J.P. Morgan staff to utilise their expertise as volunteers at SmartSTEMs events, thus allowing them to give back to the communities they live and work and inspire the next generation of technology talent.

“ SmartSTEMs allows young people to see a side of technology that is exciting and fun as opposed to the opinions they may already have based on misconceptions from what they've been shown in their normal school lessons. Often a career in STEM can be portrayed as mundane or repetitive, but by exposing young people to the more interesting and exciting side of technology through SmartSTEMs events, they get a chance to expand their interests and possibly career aspirations to something they may not have considered before. ”

**Zoe Macdonald, Technology
Apprentice | Reference Data
Technology | Corporate
Technology**

STAR SPONSORS



“ As a leader in the recruitment industry supporting the Manufacturing & Engineering sectors, I have been passionate about engaging young people in STEM and raising awareness of the wonderful careers that STEM can lead you towards for some time.

I started volunteering for SmartSTEMs and was blown away by the impact it has on young people so much so I am now a Trustee and want to help the SmartSTEMs team reach their goals to inspire as many young people as possible.

A rewarding, inspiring and emotional experience for me!

Karen Stewart,
Managing Director of Nine Twenty



NATS is really pleased with the success of our activities in collaboration with SmartSTEMs.

Before working with SmartSTEMs, we already had an extensive STEM programme with local schools in place. We were keen to extend our engagement beyond the immediate vicinity of our Prestwick Centre, to include schools a bit further afield, and widen the socio-economic cross section we interact with. SmartSTEMs events have allowed us to reach larger groups, drawn from large areas, in a single session.

We recognise the importance of improving collaboration and links between Industry and Academia. We also want to support teachers by helping students identify careers and vocations, as well as the skills and training needed to set them on that path. We see our activities with SmartSTEMs as a key part of our wider engagement strategy.

Holding the events at Colleges and Universities was a strong attraction for us. To see pupils, many of whom may not have imagined a future in Higher Education, enjoying their day and being able to see they could enjoy that future, is a real bonus. The sessions are well run and administered and the feedback we receive is always very positive. Our staff have really enjoyed being part of the programme.

We are looking forward to our next session, already planned for the New Year.

**Ian Clarke, Manager External
Engagement, NATS,
Prestwick Centre**



OUR SUPPORTERS





STUART MACDONALD,
Founder of SmartSTEMs &
Managing Director of Seric
Systems

I am passionate about young people, their education and the need to bring equity to the opportunities they are afforded. I founded SmartSTEMs to directly address these issues and in so doing have tried to build a low-cost high-efficacy means of bringing together the full education system and industry.

This is to put us societally at the risk of leaving less people behind through some accident of birth. Perhaps most fundamentally, I believe that by making it easy for people to do good, more people implicitly will do good: SmartSTEMs is about removing the barriers to entry, and the collaborative framework approach we take achieves just that.

Overall, I dream of a more munificent society where everyone contributes to the development of others and SmartSTEMs for me is a key part of that vision. One that also has the potential to create a more compassionate, IP-rich, export-driven economy that will benefit everyone.



CHRISTINA MACKAY,
Founder & Managing Director
of Beyonder

BeYonder Ltd is a champion and advocate of SmartSTEMs. I continue to support SmartSTEMs in all ways I can including keynote speaking especially around Circular Economy & running a variety of workshops. SmartSTEMs is a great opportunity to partner with from start-up businesses to international corporates and is an excellent skills & knowledge platform enriched with experience for young people through to volunteers and all partner organisations.

It is an excellent platform and culture of collegiate working across many industry sectors where we get to share what is current in our industry, inspire the next generation to be those practitioners & thought leaders with a focus on social mobility and well-being for people & the planet.



MARGARET GIBSON OBE,
Deputy Chief Executive of
The EY Foundation

The world is changing and the earlier that young people can learn about the opportunities that could be available to them in the world of work, the better for them and the communities in which they will live and work. To be inspired by the workshop leads, exhibitors and the speakers at SmartSTEMs events helps bring these key skills and attributes to life for those attending.

I am proud to serve as a trustee and recognise that everyone who gets involved in the events takes something valuable away with them – building networks, social capital and collaboration is key.



DUNCAN THOMSON,
Lecturer, University of The
West of Scotland

I am a lecturer and degree programme leader in the School of Computing, Engineering and Physical Sciences at University of the West of Scotland. After more than two decades of seeing predominantly males choosing these subjects, I am passionate about increasing the diversity of my students, and want to make sure these interesting, creative, rewarding and world-changing career paths are clear choices open to everybody. Since volunteering at the first SmartSTEMs event in 2015, I have organised 7 events at University of the West of Scotland and delivered workshops at many more. I consider my involvement as a SmartSTEMs trustee as an extension of that role, and a way of helping to widen access to STEM-focussed careers across Scotland and beyond.

OUR TRUSTEES

FINANCIALS

FINANCIAL REVIEW AND POSITION

The financial statements have been prepared in accordance with the current United Kingdom statutory requirements and the Charity's Memorandum and Articles of Association.

The main source of funding in the past year has been headline sponsorship and activation from EDF Energy at £40,000, donations totalling £37,000 were also received from JP Morgan.

We became a nominated charity through Ceed, a local charity through the Co-op community development fund and also set up on Amazon Smile.

We moved forward on our tiered sponsorship packages. Nine Twenty were recognised for their significant benefit in kind support to SmartSTEMs with an appropriate sponsorship package.

The Charity had net incoming resources for the year of £2,924 (2018: £50,056). With unrestricted reserves of £63,470 (2018: £60,546) at 30 April 2019.

FUTURE PLANS

The trustees intend to continue to develop the service and ideally to double the HUB activity in the coming year.

The two major projects for 2019/2020 are geographical expansion and a working practice improvement review.

Expansion - to expand our geographical reach with our HUB events and OUTREACH activities attracting more young people from areas of deprivation and work with more HE/FE establishments.

Digital workflow - having undertaken a review of the working practices of the charity we are seeking to codify these in order to minimize any additional labour requirement for truly scaling the activities. We are seeking a funder having identified and costed the exercise at £15,000.

STRUCTURE, GOVERNANCE AND MANAGEMENT

Governing document




The Charity is a Scottish Charitable Incorporated Organisation (a SCIO). It was registered in its current legal form on 19 April 2016. It has a single tier structure and as such the trustees are the members of the charity. A full copy of the constitution is available on request.

SMARTSTEMS SCIO

Detailed Statement of Financial Activities for the Year Ended 30 April 2019.

	2019	2018
	£	£
INCOME AND ENDOWMENTS		
Donations and legacies		
Donations	50,120	23,960
Charitable activities		
Grants	<u>40,000</u>	<u>58,000</u>
Total incoming resources	90,120	81,960
EXPENDITURE		
Charitable activities		
Wages	30,624	-
Rent Payable	19,296	-
Insurance	585	562
Marketing	11,069	17,984
Sundries	6,794	5,460
Entertainment	3,299	3,543
Red Sky Facilitation	4,800	-
Travel	<u>2,069</u>	<u>-</u>
	78,536	27,549
Support costs		
Management		
Wages	3,500	3,815
Governance costs		
Accountancy and legal fees	<u>5,160</u>	<u>540</u>
Total resources expended	87,196	31,904
	<u> </u>	<u> </u>
Net income	<u>2,924</u>	<u>50,056</u>



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