



Evaluation of 'The Environment Now' Programme

Policy & Practice

St Chad's College, Durham University

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Contents

	Acknowledgements	5
	EXECUTIVE SUMMARY	7
1	Introduction	
1.1	Our Bright Future Programme Objectives	10
1.2	The Environment Now Programme Objectives	11
2	Evaluation methodology	
2.1	Evaluation approach and research questions	13
2.2	Methodology	13
2.3	Analytical approach and reporting	13
2.4	Research context	14
3	Programme structure, process and achievements	
3.1	Programme structure and process	18
3.2	Programme participation	20
3.3	Project characteristics	21
3.4	Programme principal achievements	24
4.	Evaluation of the delivery phase of the TEN programme	
4.1	Applying for a The Environment Now programme	25
4.2	Getting projects started	26
4.3	Training, skill development and mentoring	27
5	Programme journey case studies	
5.1	Smart Plug	32
5.2	CarbonWatch	33
5.3	Filamentive	34
5.4	ThermoDrone	35
5.5	LettUs Grow	36
5.6	Utter Rubbish	38
5.7	Summary of key points from case studies	39

6	Programme impact	
6.1	Development of confidence, skills and employability	41
6.2	Entrepreneurship and environmental leadership	42
6.3	The application of digital solutions to environmental issues	43
6.4	Partnership and influencing public policy	44
6.5	Communicating successful outcomes	45
6.6	Summary of achievements against anticipated outcomes	48

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Executive summary

The Environment Now programme

The Environment Now is one amongst 31 projects funded by a £33m Big Lottery Fund programme: Our Bright Future: Empowering young people to lead change. The National Youth Agency (NYA) managed The Environment Now programme and supported projects.

The Environment Now programme aimed to work intensively with 50 young people as project leaders who could be supported and trained to develop their learning about sustainability, development of employability skills and their understanding and use of digital technologies.

This programme was co-funded by Telefonica UK Ltd (O2 is the customer facing brand of Telefónica UK) and it was intended that The Environment Now should build on the success of tO2's Go Think Big programme, by offering up to £10,000 of funding to develop individual projects by young people aged 17 – 24.¹

The focus for participants would be to develop digital solutions to sustainability issues primarily, but not exclusively, in the following areas:

- *Energy efficiency*, in its broadest terms and wherever this is most relevant to the lives of young people;
- *Waste and recycling*, including re-usability and second life products.

Given the substantive intellectual demands placed upon potential project leaders, the key target group for the project leaders were students or recent graduates of higher education institutions studying a sustainability subject which gave them a grounding in environmental issues and challenges.

The project has several stages

- Recruitment and selection to the programme through five cohorts of projects this which involved a series of 'hackathon' and 'thinkspiration' events followed by an application process and pitching session prior to the agreement of a business plan and project milestones.
- Running projects with support to project leaders and teams from the NYA, mentors from Telefonica UK Ltd and running training and information events.
- Organising a series of 'inspiration events' led by project teams and delivered to young people to enhance their environmental understanding and the role of digital applications in achieving such objectives.

Evaluation approach and research questions

The enquiry focused on three principal areas of analysis.

- The extent to which the project has enabled young people to gain new skills relevant to finding jobs, training, volunteering opportunities, or starting entrepreneurial projects that contribute to the green economy.
- The extent to which the project leaders successfully engaged other young people with their environment; by inspiring and enabling action.
- The extent to which the project has encouraged young people to use digital technologies to have an impact on the way that communities view the environment and stimulates positive community action and/or contributes towards community cohesion.

Methodology

A mixed methods approach was adopted in the evaluation including:

- A limited use of quantitative data on participants' biographical details and patterns of participation in the project.
- Transcribed qualitative interview data collected by the evaluation team with a sample of 10 case study project leaders (on three occasions) as they progressed through the programme.
- Interviews with ten Telefonica UK Ltd mentors allocated to the ten case study projects.
- Observations from the NYA delivery team on progress in individual projects.
- Transcribed qualitative interview exit data for all projects collected by the NYA programme team using an agreed questionnaire.

Characteristics of projects

The characteristics of projects are summarised in two ways. Firstly by their environmental purpose and secondly by the mode of digital innovation employed.

Environmental purpose

- 12 projects were primarily concerned with issues *surrounding public education and consumer advice* which centred on environmentally informed consumer awareness and choice on issues ranging from the environmental impact of clothes manufacture to issues associated with ethical consumer goods and food choices.
- 13 projects were concerned with *energy conservation and fuel use*. These ranged from projects to

¹ O2's Go Think Big programme was also evaluated by Durham University. The final report of the principal evaluation can be found here: [https://www.stchads.ac.uk/wp-](https://www.stchads.ac.uk/wp-content/uploads/2015/09/Opening-Doors-an-evaluation-of-O2-Think-Big-in-the-UK-1.pdf)

encourage cycling to those which improved monitoring on fuel use or lowering energy needs and expectations.

- 11 projects were devised mainly to improve *public health and campaigning*. Public health projects (8) ranged from devices to alert people to dangers of low air quality, water purification and sewage waste. Campaigning projects (3) focused on issues associated with animal welfare and ecological conservation.
- 14 projects addressed issues centred on *waste and recycling*. Several of these projects were devised to monitor waste and thereby facilitate waste avoidance. Many of the projects were focused on recycling of products through reselling/ redistribution of unwanted but serviceable products or direct recycling and reuse of base materials such as plastics, food, water and so on.

Digital applications

Projects adopting digital technologies fell into three broad categories: digital innovations, digital informatics and digital communication.²

- **Digital innovations:** the use of digital equipment to achieve environmental outcomes (23 projects) were concentrated largely on monitoring waste (6) and energy use (10) and improving public health (6).
- **Digital informatics:** the use of digital techniques to collect, categorise, analyse and process information - (8 projects) set up interactive databases to inform decision making by public bodies or consumers, these were divided more or less equally by environmental purpose.
- **Digital communications:** the use of communications technologies - (19 projects) focused primarily on consumer information and advice (9), but also was concerned with waste and recycling (4), public health and campaigning (4) and to a lesser extent, energy conservation (1).

Programme principal achievements

The recording of outputs of the programme was monitored by the NYA and headline statistics are reported here:

- 50 young people-led funded projects that addressed an environmental challenge through the development of a digital product or service (achieved target 50).
- 100 sustainability students attended 'Hackathon' sessions (exceeded target 526 attended events).
- 1,500 young people participated in inspiration sessions (exceeded target, 3,659 attended events).
- 8 'Thinkspiration' events run across four universities (exceeded target, 30 events delivered).

- 60 'Inspiration' sessions delivered in regions across the UK (exceeded target, 76 events held).
- 50 young people received mentor support from O2/sustainable organisation employees (achieved target³).
- 50 young people will have attended Insight session with O2/sustainability organisations (exceeded target 78 attended).
- 50 young people will have accessed at least one day work experience within O2/sustainability organisation (currently below target, 19 attended to date).
- 275 young people will actively participate in the projects (achieved target).
- 700 will collaborate with project activity (achieved target).
- 17,500 people will be impacted by the project (achieved).

Key evaluation findings

A number of common themes have emerged from the evaluation of individual journeys and case studies

- The evidence indicates that project leaders had very high ambitions for their projects. This meant that they had to be responsive and flexible about how their projects developed in order to secure a successful outcome. The overall programme was successful in helping young people manage these necessary shifts in their initial plans in response to contingencies.
- All projects required teams to come into contact with other agencies as clients, suppliers or partners. This required diplomatic negotiation, patience and perseverance. Project leaders were well supported in these complex roles and were successful in managing sometimes difficult relationships. In many cases, the programme helped project teams secure longer term partnership arrangements.
- Leadership skill development was an integral aspect of the programme's aims. The case studies demonstrate how young people developed these skills, with support, through their project journey. This could be a difficult process, when project team members had different levels of commitment – but this is the nature of management and leadership and so the experience stands project leaders in good stead for their future career.
- There is strong evidence to demonstrate project leaders benefitted from the investment in themselves and their project by The Environment Now. This investment of finance support, but most particularly 'belief' and 'trust' was enormously beneficial for the development of confidence, commitment and ultimately the success of most projects.

² In the fields of digital informatics and digital communications, apps were widely used – but for distinct purposes.

³ Additional mentoring support was provided by academics in home universities or through brokerage by the NYA team.

- Most project leaders had a shared interest in environmental issues and the use of digital solutions to problems. The project provided an ideal platform for project teams to address complex issues on both fronts. The emphasis on digital technology limited participation by women compared with men, but the way the project was structured and recruitment organised attracted more women participants than might otherwise have been anticipated.
- Project leadership and innovation requires a strong sense of focus and commitment. All project leaders demonstrated this clearly. The concentration required to see projects through meant that leaders were heavily involved with what they were doing in terms of time, energy and emotional commitment. But they were able to separate themselves from this focus when presenting their projects to other young people in inspiration events. The experience of communicating to a less well informed audience was instrumental in developing their skills and confidence as project leaders.

Recommendation

The evidence demonstrates the NYA programme team provided very good support to participants throughout and appropriate levels of monitoring of progress were maintained.

While the efficacy of mentoring was not universally recognised by the young people on the programme, the evidence suggests many did benefit from this aspect of the support. When it was not working out too well, the programme team were able to reconcile such problems – usually through the appointment of new mentors.

The evidence indicates mentors and mentees were not, perhaps, as well informed as they might be about each others' expectations and responsibilities. This could not easily have been anticipated when the project was set up given the experimental nature of the programme. However, if this or similar programmes were to be developed further, it may be worthwhile addressing the potential mis-matches in expectations on the boundaries of the mentor role.

Young people's experience of The Environment Now in their own words

A selection of quotations follows which illustrate the points in the evidence summary.

Investment in transferable skills and confidence

'I've been able to meet people along the way and I've gained skills for life. I'll take this experience and all the skills I've learnt along the way and I'll definitely use them in later life whether it's for a job or another start up or another business idea I've had. The experience from this young age has been really good because loads of people don't really get this opportunity and I've been extremely lucky to be in this situation.'

Entrepreneurship and leadership

'I've definitely learnt that I can be more of a team leader than I have been in the past, because obviously I've coordinated the two projects and I've had to organise everything. I think I've surprised myself in the way that I've had to learn about project management and coordination and organisation, obviously with mentoring as well which has been really helpful. I think as a team we've definitely learnt to communicate to each other a lot more and how to progress effectively despite the amount of setbacks we've had, we've done quite well.'

Perseverance and commitment

'For me, it's the fact that it always can be done. Things seem impossible initially, but they can be done. It doesn't have to be perfect, it has to be done... It was getting the project done. Before we just had an idea, but now it's actually done. That's really cool.'

'I learnt that I'm really good at persevering through bad times and really taking feedback on. Not letting rejection get to me and just bouncing back. Before I didn't really have that many opportunities to feel rejection so it gave me the opportunity to have some exposure to that and I've learnt that I've got that perseverance in me.'

Environmental impact

'I'd say it was a really positive experience for me because not only was I able to help a social problem in my city and help real people, I learnt loads along the way and I was able to push myself with money behind me and create a product where people will actually be able to be helped. I wouldn't have been able to do it without it.'

Influencing other young people

'It was really enjoyable to go out and engage with young kids. I really enjoyed that personally. It was a really nice change from day-to-day activities for us. We were engaging with the wider community, teaching young kids about what we're doing. We did engage with a lot of people on that day which was really nice.'

The added value of investing trust

'The fact that someone believed in it – that was already the biggest thing because when I described it to my parents they thought it was rubbish. It was amazing that this programme was not focusing on having a proper business plan, it was more about 'What's the project? Why do you want to do it? Will you finish it?' It was great to have someone believe in it rather than just be like, 'well it's not going to make money so scrap it'. It was such an important thing that [The Environment Now] provided for us.'

1

Introduction

1.1 Our Bright Future Programme Objectives

The Environment Now is one of 31 projects funded by Our Bright Future, which is a £33m programme funded by the National Lottery through the Big Lottery Fund. Each project is helping young people aged 11-24 gain vital skills and experience to improve their wellbeing. At the same time, they act as catalysts for delivering change for their local environment and community; whilst contributing to a greener economy.⁴

The programme is wide-ranging in scale, from a local focus to a national level, the Our Bright Future projects are based around the following key themes:

- environmental action
- environmental campaigning
- vocational training
- sustainable enterprises
- youth leadership and influencing opportunities

The projects are diverse in their aims and approaches and collectively address many issues and challenges faced by young people. 'From community orchards to environmental arts and developing local campaigns, each project is driving positive change in its local environment and local community.'⁵

The overarching programme, is being managed by the Royal Society of Wildlife Trusts (and a consortium of supporting organisations including: Centre for Sustainable Energy, The Conservation Volunteers, Field Studies Council, Friends of the Earth, vInspired, Yorkshire Dales Millennium Trust and UpRising).

The five-year programme, running from 2016-2021, is being evaluated independently jointly by Collingwood Environmental Planning and Economic Research Services (ERS). An evaluation panel and steering group has also been established to provide oversight over the process.⁶

The Our Bright Future programme aims to empower young people (11-24 years of age) to shape their future and make a difference to the environment. In doing so, it is anticipated that young people will have developed valuable skills and knowledge to help them into

⁴ See: <http://www.ourbrightfuture.co.uk/>

⁵ For full details on the programme's objectives, see: <http://www.ourbrightfuture.co.uk/wp-content/uploads/2016/01/A5-networking-12-page-booklet-Our-Bright-Future-final-for-web-use.pdf>

⁶ For full details of the evaluation panel and steering group, see: <http://www.ourbrightfuture.co.uk/about/our-people/the-evaluation-panel/>

employment or further education, as well as the confidence and self-esteem to become leaders in their community and influence local decision making.

Using this approach, the Our Bright Future programme aims to achieve the following outcomes:

- More local communities enjoy environmental improvements through activities led by young people
- Young people gain new skills relevant to finding jobs, training, volunteering opportunities or starting entrepreneurial projects that contribute to the green economy
- Young people have increased knowledge, improved social networks and improved wellbeing
- There is better evidence about how young people can improve their local environment and this evidence is used to inform wider policy and practice

To ensure that the whole programme benefits from the national evaluation programme together with individual evaluations, a Share Learn Improve (SLI) has been established to provide programme support by facilitating knowledge sharing and learning across the overall programme and to strengthen the achievement of programme outcomes.

1.2 The Environment Now programme objectives and structure

The partnership approach to the delivery of The Environment Now programme built upon O2's Go Think Big programme model and IP developed by O2, managed by the NYA. NYA and O2 have had seven years' experience of working in partnership on O2's Go Think Big programme, providing seed grants to help young people lead positive social change. The Environment Now programme aimed to work far more intensively with 50 young people as project leaders who could be supported and trained to develop their learning about sustainability, development of employability skills and their understanding and use of digital technologies.

It was recognised at the outset that young people's journeys as project leaders would be demanding but also potentially very rewarding as their learning is accelerated and their skills and understanding increases. It was also anticipated that the programme would enable them to develop their project ideas and encourage and enhance their aspiration to succeed in achieving their environmental ambitions and that would assist them in the development of their future employment or entrepreneurial careers.

By building their confidence, self-esteem and entrepreneurial drive, the programme hoped to encourage the young people to become sustainability leaders of the future.

This programme was co-funded by Telefonica UK Ltd (O2 is the customer facing brand of Telefónica UK) and it was intended that The Environment Now should build on the success of O2's Go Think Big

programme, by offering up to £10,000 of funding to develop individual projects by young people aged 17 – 24.⁷ It was anticipated that the focus for participants would be to develop digital solutions to sustainability issues primarily, but not exclusively, in the following areas:

- *Energy efficiency*, in its broadest terms and wherever this is most relevant to the lives of young people;
- *Waste and recycling*, including re-usability and second life products.

Given the substantive intellectual demands placed upon potential project leaders, the key target group for the project leaders was students or recent graduates of higher education institutions studying a sustainability subject which gave them a grounding in environmental issues and challenges. As such, it was expected that leaders would have existing stocks of knowledge on the environment and considerable existing or potential capability to influence a wider group of young people as active team participants or users of products or services arising from their projects.

The project aimed to achieve the following for young people and the wider community. These objectives form the basis of this evaluation. By the end of the programme it was expected that young people should be in a position to:

- ***Specifically for project leaders***

Learn and apply business skills and learn how green challenges may lead to sustainable business ideas.

Provide experiential learning that assists career planning.

Influence attitudes and decisions that shape their communities.

- ***For active team participants in the programme***

Create ownership and motivation to continue beyond the development phase (the supported period of the programme)

Create an environment that helps them recognise their ability to be environmental leaders.

- ***For a wider constituency of young people and other beneficiaries in the community***

Act as a catalyst for change – investing and empowering young people.

Support young people to harness the power of digital technologies for social good.

In sum, it was anticipated that programme participants will improve their *knowledge and understanding* of environmental challenges relating to energy use, waste and recycling and how digital technology can be applied to help address these challenges.

⁷ O2's Go Think Big programme was also evaluated by Durham University. The final report of the principal evaluation can be found here: <https://www.stchads.ac.uk/wp-content/uploads/2015/09/Opening-Doors-an-evaluation-of-O2-Think-Big-in-the-UK-1.pdf>

Project team participants will increase their *skills and employability* by responding to real business and environmental challenges and improve their understanding of the green economy and jobs.

Individuals, families and communities will be supported to *live more sustainable lives* and that this will be achieved through the effective uses of digital technologies in a range of contexts.

2

Research context and methodology

2.1 Evaluation approach and research questions

The enquiry focused on three principal areas of analysis.

The extent to which the project has enabled young people to gain new skills relevant to finding jobs, training, volunteering opportunities, or starting entrepreneurial projects that contribute to the green economy.

The extent to which the project leaders successfully engaged other young people with their environment; by inspiring and enabling action.

The extent to which the project has encouraged young people to use digital technologies to have an impact on the way that communities view the environment and stimulates positive community action and/or contributes towards community cohesion.

2.2 Methodology

A mixed methods approach was adopted in the evaluation including:

- A limited use of quantitative data on participants' biographical details and patterns of participation in the project.
- Transcribed qualitative interview data collected by the evaluation team with a sample of ten case study project leaders (on three occasions) as they progressed through the programme.
- Interviews with ten Telefonica UK Ltd mentors allocated to the ten case study projects.
- Observations from the NYA delivery team on progress in individual projects.
- Transcribed qualitative interview exit data for all projects collected by the NYA programme team using an agreed questionnaire.

2.3 Analytical approach and reporting

This evaluation report draws almost entirely upon qualitative evidence gained from interviews and observation of young people engaged in the programme.

To preserve confidentiality, quotations have been carefully selected so that individual project teams or mentors cannot be identified. In the report there is selective use of case studies where permissions were gained from respondents to identify individual projects.

The report does provide a limited amount of quantitative data on programme volumes of activity and the biographical details of participants which were provided by the NYA and are reported here.

2.4 Research context

Developing environmental potential

The research proceeded on the understanding that enterprising activity involves a willingness to spot opportunities and make plans to tackle them which can produce profitable outcomes (in a social or financial sense). But also recognise that this involves risk of failure from which people must develop the resilience to bounce back.

It was intended that the evaluation should focus on the extent to which the programme helps young people to foster such skills through its 'youth led' approach. The project was youth led in the sense that the programme team were not prescriptive about the structure or focus of the environmental project which young people chose to do, providing that there was an element of digital activity.

While it was expected that the project would present many challenges for young people, the evaluation was designed to explore the benefit gained from the experience (often for the first time) of framing an issue which *they* think is important to the environment and their communities, deciding what *they* want to do about it within the resources they have been allocated or can muster from others, and finding a practical way *they* can achieve an objective.

The process was, in short, a socially oriented creative endeavour which required young people to take responsibility for making something happen. While the programme provided young people with room to work out ideas for themselves and develop projects in their own way, it was planned that they would not be left alone to achieve their objectives. Consequently, the evaluation needed to assess the relative value, from young people's perspective, of the support provided by the programme team and Telefonica UK Ltd employee volunteer mentors.

Particular areas of interest in the evaluation include:

- How young people devised project ideas, how project objectives were defined and amended, with support, to ensure that there was realistic scope for achievement
- How young people generated innovative ways of solving problems using a mix of digital and non-digital assets.
- How young people developed relationships with project collaborators and developed and used their powers of persuasion to draw other people and organisations in to support them with their projects; and,
- How young people managed resources and/or devised ways of winning extra financial or in-kind resources to increase the impact or scale of their projects.

It was recognised that in some cases, highly motivated young people may take their ideas further and form or develop existing businesses and social enterprises as a result of the project, however, the achievement of sustainable projects in this way is not regarded as an essential indicator of project success.

Some of the participants, it was anticipated (on the experience of previous evaluations) may not fully achieve all of their project objectives but would still contribute in developmental terms.

Similarly, it was thought to be likely that fostering enterprising attitudes would be beneficial for young people who did not aspire to start businesses – but rather - may provide them with the skills and confidence to be enterprising in many contexts including their communities, in their studies, or as employees

Digital skills

The Environment Now programme team hoped to develop a supportive environment within which young people can generate and test their ideas, take positive risks and manage problems and disappointments in the process of running their projects by using digital technology.

While the project specification did not disaggregate different aspects of digital usage, the evaluation aimed to explore the issue in a broad way to include the following:⁸

- ***Digital innovation:*** which may include the development of specific digital tools which involve more or less complex exercises in coding or assemblage of existing digital tools to produce tangible products.
- ***Digital making:*** which may involve a range of established digital technologies to generate products (such as websites, music, film, artefacts and installations, etc.) which could impact on the public's environmental attitudes and behaviours.
- ***Digital communication:*** which may involve the use of existing digital platforms (for the purpose of communicating information, advertising, campaigning, event ticketing, event streaming and so on).
- ***Digital research and data management:*** which may involve the use of existing data base and data analysis programmes to collect, collate and analyse data for environmental or evaluation purposes.

As the project sought to make a contribution to digital education, it was necessary to think carefully about how to help young people to awaken and embrace ideas about digital creativity and enterprise. A part of this process was to generate ways of helping young people to recognise that they actually have quite complex digital skills available to them now, that these skills are 'transferable' in different contexts and demystify the process of developing more complex skills.

Little has been reported in the research literature on this issue, but it was anticipated that it may be the case that young people's awareness about the potential of their digital skills has become hidden

⁸ These categories were subsequently refined on the basis of the experience of the programme, see Section 3

due to the ubiquity of their practice and because they have always been exposed to or had access to digital technology.⁹

Young people who have grown up in the digital world, or 'digital natives' to use the term attributed to Marc Prensky in 2001¹⁰, may also need to be offered different approaches to learning than those offered by 'digital immigrants' who have had to incorporate digital technologies into the ways they think about and do things.

Prensky¹¹ alerts us to the tendency of digital immigrants to frame the use of digital technology, especially in learning environments, within established pedagogic practices – rather than to realign thinking about the way that young people actually learn digital skills.

While Prensky's ideas are contentious his arguments show that digital natives' fluent or naturalised use of technology may shape the way they think about its purpose and potential. Indeed, for digital natives, assimilation of skill is more organic, unremembered and also, potentially, not regarded as a skill at all.¹² This may create new opportunities for young people to engage constructively with digital technology and enable them to integrate digital elements into their projects in ways which 'digital immigrants' may be less likely to consider.

Digital inclusion

The Our Bright Future programme seeks to encourage young people from different backgrounds to engage with environmental issues. That stated, it was expected that most young people on the programme would have demonstrable capability and capacity to tackle challenges because they would be university students or recent graduates.

In digital learning terms, there is evidence to suggest that biographical and socio-economic characteristics can affect the likelihood of engagement. In particular, there may be a gender dimension which could, potentially, be observed in the programme.

Recent research¹³ shows that women consider themselves to be more adept in the use of social networks for business purposes than males by a margin of 4%. But when digital making skills are considered, males are much more likely to think that they are adept (39%) than females (25%).

Males also outnumber females in relation to entrepreneurial flair by 32% to 21%. Recent research with a smaller sample of young people

⁹ Scott, L. (2015) *The four dimensional human: ways of being in the digital world*, London: William Heinemann.

¹⁰ Prensky, M. (2001). "Digital Natives, Digital Immigrants". *On the Horizon* 9 (5): 1–6.

¹¹ Prensky, M. (2012) *Digital Natives to Digital Wisdom: Hopeful Essays for 21st Century Education*, Thousand Oaks, California: Corwin.

¹² For a detailed exposition of these processes, see, Palfrey, J. and Gasser, U. (2008) *Born Digital: understanding the first generation of digital natives*, New York: Basic Books.

¹³ The Youth Census comprised a stratified sample of 2000 young people who responded to telephone interviews. A substantive review of the findings of the survey can be found in Chapman, T. and Dunkerley, E. (2011) *Opening doors: developing young people's skills and raising their aspirations: An evaluation of O2's Go Think Big 2010-2012*, Durham, Policy & Practice, St Chad's College, Durham University.

by Nesta¹⁴, corroborate these findings through an exploration of cultural expectations about gender roles. It is shown that 14% of boys say that digital making is 'nerdy' or 'geeky' compared with 21% of girls. Similarly 47% of boys get involved with digital making because they find digital technology intrinsically interesting, compared with only 33% of girls.¹⁵

Gender differences in digital engagement in formal education has also been highlighted as a problem,¹⁶ with fewer females engaging with STEM subjects, resulting in there being only 15.5% of women in the science, technology, engineering and mathematics workforce. Indeed, the Chartered Institute for Information Technology reports that of the 4,000 students who took computer science at A Level in 2014, only 100 were female.

*'As well as greater quantity of activity, the field needs to grow by providing activity that is compelling for new and different groups of young people. They need to be engaged in digital making in a way that is relevant to them and their hobbies and interests, alongside discovering new avenues for creativity and self-expression. What children learn through this process may contribute to a skillset for future employment in a technology-related job, but these skills will also lend themselves to creative roles, which our research found is likely to become increasingly important.'*¹⁷

The Environment Now's ambition to focus more closely on the use of digital technologies by young people to achieve social benefit whilst at the same time developing digital skills and confidence in new contexts, it was anticipated, could usefully tackle aspects of unmet demand for such activity. But it was also recognised that care needed to be taken at the outset to ensure that participants in the programme were not inadvertently 'self-selected' by young people who already recognise that they have digital skills to the exclusion of others who may have the potential to develop them.

¹⁴ Quinlan, O. (2015) *Young digital makers: surveying attitudes and opportunities for digital creativity across the UK*, London, Nesta.

¹⁵ The Nesta survey included a nationally representative sample of 1,000 young people. The research, by TENS Global used an online survey which may skew results to some extent as all respondents will have had access to internet technology.

¹⁶ *ibid.* See paragraphs: 53.60.

¹⁷ Quinlan (2015) *ibid*, p. 8.

3

Programme structure and process, participation and achievements

3.1 Programme structure and process

The Environment Now programme involved a number of key stages which are described briefly below.

Enrolling project leaders to the programme

This was achieved throughout the life of the programme in five cohorts. Encouraging young people to join the programme involved a range of activities including direct contact with Universities to garner interest and support for the programme from academic departments. 'Hackathon' and 'Thinkspiration' events were held at Universities and at O2's Go Think Big Hub in London to introduce potential candidates to the programme.¹⁸

Whilst the programme was initially aimed at young people who were studying at University or who were recent graduates the team delivered 'Thinkspiration' events with colleges, youth groups and organisations who worked with young people such as The Princes Trust. In total The Environment Now programme delivered 30 workshops to 525 young people. The programme was also widely advertised through social media and via previous project leaders in O2's Go Think Big programme.

The programme was also widely advertised through social media and via previous project leaders in O2's Go Think Big programme.

Selecting projects

The process of application was defined to ensure that potential candidates were made fully aware of the programme and allowed young people to identify areas of support which could be offered to them throughout the duration of the programme in order for their project to be a success.

It was also a clear expectation that successful candidates' projects must align with the environmental objectives of the programme and incorporate aspects of digital technology into their workplans.

The online application process was not unduly complex but did demand that potential participants could marshal their ideas

¹⁸ Substantive 'Thinkspiration' sessions were held at the following institutions: Peter Jones Enterprise Academy (Leicester), Lincoln University, UWE Bristol, Bristol University, Edinburgh University, Brooksby College, Melton Mowbray, Lancaster University, Queens University Belfast, Ulster University, Prince's Trust, Slough, Keele University, Manchester Metropolitan University, Leeds University, Birmingham City University, University of Kent and Bedfordshire University.

coherently and succinctly and outline a potential action plan and project budget. Those young people who submitted proposals which showed sufficient promise were then invited to a 'pitching' session to inform and convince a panel about their project's potential.

Subsequently, panel members scrutinised the detail of applications and evaluated project pitches before finally deciding whether to invite young people to join the programme. Panel members included staff from the NYA, The Wildlife Trust and Telefonica UK Ltd.

While this procedure may appear to be quite daunting, young people who had shown an interest in joining the programme were given a good deal of support by the NYA team and success rates in being selected in the post on-line application stage were high.

Supporting young people through the delivery phase of the project

Once young people had been enrolled onto the programme, they were allocated mentor support by the NYA team. Mentors were drawn from full-time, part-time employees and agency staff at Telefonica UK Ltd ensuring, where possible, that there was a good skills/knowledge match with the project. Mentors worked with project leaders remotely by using telephone or Skype calls, although in some cases, face-to-face meetings also took place.

Where mentors with the appropriate skills could not be accessed at Telefonica UK Ltd, the NYA team arranged for other mentors with the requisite skills to lend support. Additionally, many of the project leaders gained valuable support from university academics in the institutions where they studied or had recently been students.

Training events were also organised by the NYA project team. For example, of the eleven principle 'Insight' face-to-face events, 86 attendances were accumulated by project leaders at a range of institutions in London, Birmingham, Edinburgh and Durham.

Additionally, project leaders were encouraged to take advantage of short-term work experience sessions. These were mainly facilitated by Telefonica UK Ltd or were brokered by or offered in-house by the NYA.

Monitoring achievement of project milestones

Pivotal to the success of the programme was the sustained engagement of project leaders with the NYA team. In the accepted project proposals, each project team were expected to devise a clear business plan and action plan to complete the project which included a series of timed milestones.

The allocation of funding was linked to the successful completion of these milestones. While some flexibility was ultimately provided in the timing and substance of milestones where project aims necessarily changed to some extent – the system itself brought structure and rigor to the programme and ensured that individual project monitoring was closely attended to.

Delivery of 'Inspiration' events

As an important aspect of the programme's achievement was to influence other young people about environmental issues, it was expected that project participants could exercise a measure of environmental leadership beyond the bounds of the aims of their individual projects.

Consequently, there was an expectation that project teams should deliver an 'inspiration event' to young people. These events were not designed simply to showcase the projects but rather to engage a younger audience in environmental issues and to encourage them to think critically about their own and their communities approach to the environment and where possible challenge taken-for-granted ideas about, for example, waste and recycling.

76 inspiration events had been held by the end of October 2018 serving a total of 3,659 young people. These events were held across England and Scotland and one in Sweden.

3.2 Programme participation

The Environment Now programme did not seek to stratify the population of participants by specified criteria. This is because the majority of those who entered the programme were well qualified people who were current undergraduates and postgraduates or recent graduates of UK universities.

However, it was hoped that the programme would be as inclusive as possible in terms of gender and age participation, regional distribution and by ethnicity. The biographical data collected for the programme indicate the following.

Gender

Participation in the programme was heavily weighted towards males. Amongst the 50 programme leaders, only 12 were women. However, the indications are that this is a good level of representation of women given that the programme demanded that project leaders engaged in aspects of digital innovation – an area of academic study where women are heavily under-represented (see Section 2.3 for further discussion).

Age

The age range of the participants (at the point of joining the programme) was skewed towards the older age group. 33 were aged 23-24, 13 were aged 20-22, and only 4 were 19 or younger. Given the high level of demands and expectations on the project, this is not surprising.

Ethnicity

The majority of the project leaders were white British (34). However there was an above average representation amongst BME groups by

population including 5 Asian, 6 Black and one mixed-race – representing 26% of the cohort.¹⁹

Regional representation

The regional location of projects was fairly well distributed although there were no projects in Wales, Northern Ireland or North East England.²⁰ The projects were distributed as follows

- Greater London (15)
- South East England (3)
- South West England (8)
- Eastern England (2)
- English East Midlands (2)
- English West Midlands (4)
- North West England (1)
- Yorkshire and Humber (10)
- Scotland (5)

3.3 Project characteristics

The characteristics of projects are summarised in two ways. Firstly by their environmental purpose and secondly by the mode of digital innovation employed.

Environmental purpose

- 12 projects were primarily concerned with issues *surrounding public education and consumer advice* which centred on environmentally informed consumer awareness and choice on issues ranging from the environmental impact of clothes manufacture to issues associated with ethical consumer goods and food choices.
- 13 projects were concerned with *energy conservation and fuel use*. These ranged from projects to encourage cycling to those which improved monitoring on fuel use or lowering energy needs and expectations.
- 11 projects were devised mainly to improve *public health and campaigning*. Public health projects (8) ranged from devices to alert people to dangers of low air quality, water purification and sewage waste. Campaigning projects (3) focused on issues surrounding animal welfare and ecological conservation.
- 14 projects addressed issues centred on *waste and recycling*. Several of these projects were devised to monitor waste and thereby facilitate waste avoidance. Many of the projects were

¹⁹ Four respondents recorded 'prefer not to say'.

²⁰ The location of projects does not, of course, necessarily indicate the birth areas of project leaders because a majority are likely to have moved from their family home to university. However, there is no available data to confirm this.

focused on recycling of products through reselling/ redistribution of unwanted but serviceable products or direct recycling and reuse of base materials such as plastics, food, water and so on.

Digital applications

Projects adopting digital technologies fell into three broad categories: digital innovations, digital informatics and digital communication.²¹

- **Digital innovations:** the use of digital equipment to achieve environmental outcomes (23 projects) were concentrated largely on monitoring waste (6) and energy use (10) and improving public health (6).
- **Digital informatics:** the use of digital techniques to collect, categorise, analyse and process information - (8 projects) set up interactive databases to inform decision making by public bodies or consumers, these were divided more or less equally by environmental purpose.
- **Digital communications:** the use of communications technologies - (19 projects) focused primarily on consumer information and advice (9), but also was concerned with waste and recycling (4), public health and campaigning (4) and to a lesser extent, energy conservation (1).

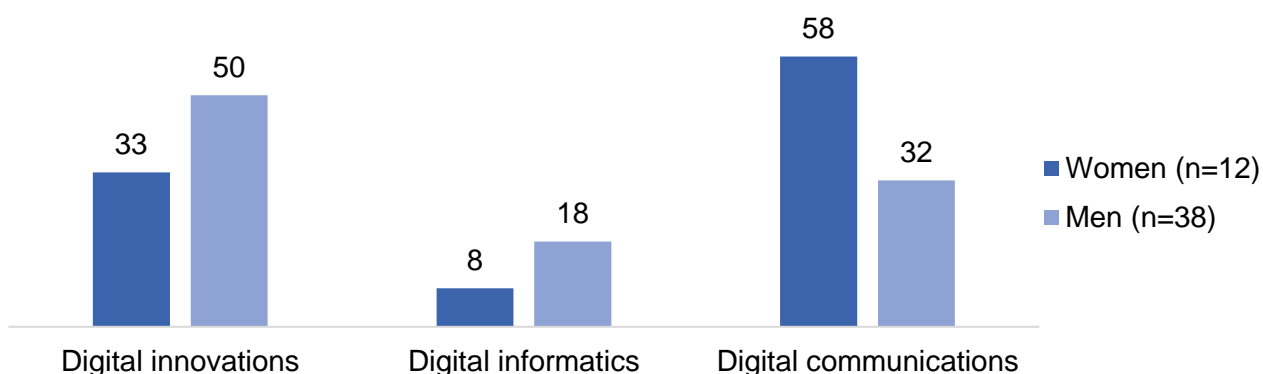
Figure 3.1 illustrates the intersections between the use of digital technology and environmental purpose.

Figure 3.1 Intersections between digital technology adopted and environmental purpose of projects (numbers of projects)				
	Digital innovations	Digital informatics	Digital communications	N=
Public education and consumer advice	0	2	9	12
Energy conservation and fuel use	10	2	1	13
Public health and campaigning	6	1	5	11
Waste and recycling	7	3	4	14
N=	23	8	19	50

It is worth noting that there are clear gender differences in relation to the type of digital applications used, as shown in Figure 3.2. Men were more likely to use digital innovations while women were more likely to use digital communications.

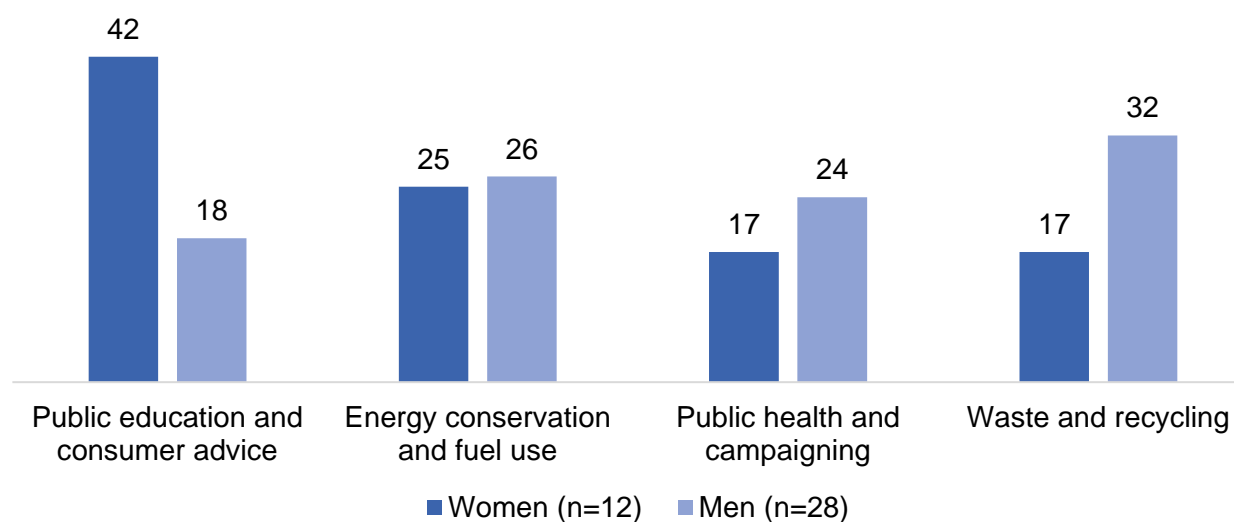
²¹ In the fields of digital informatics and digital communications, apps were widely used – but for distinct purposes.

Figure 3.2 Use of digital applications in projects by gender
(percentages)



In relation to the environmental purpose of projects, some gender differences are also apparent. Women were more likely to be concerned about issues associated with public education and consumer advice, while men were more focused on waste and recycling and public health/campaigning. Men and women were equally likely to focus on energy conservation and fuel use (around 25% of projects).

Figure 3.3 Environmental purpose of project by gender
(percentages)



3.4 Programme principal achievements

The recording of outputs of the programme, as discussed above, were monitored by the NYA and headline statistics are reported here:

- 50 young people-led funded projects that addressed an environmental challenge through the development of a digital product or service (achieved target 50).
- 100 sustainability students attended 'Hackathon' sessions (exceeded target 526 attended events).
- 1,500 young people participated in inspiration sessions (exceeded target, 3,659 attended events).
- 8 'Thinkspiration' events run across four universities (exceeded target, 30 events delivered).
- 60 'Inspiration' sessions delivered in regions across the UK (exceeded target, 76 events held).
- 50 young people received mentor support from O2/sustainable organisation employees (achieved target²²).
- 50 young people will have attended Insight session with O2/sustainability organisations (exceeded target 78 attended).
- 50 young people will have accessed at least one day work experience within O2/sustainability organisation (currently below target, 19 attended to date).
- 275 young people will actively participate in the projects (achieved target).
- 700 will collaborate with project activity (achieved target).
- 17,500 people will be impacted by the project (achieved target).

²² As discussed, additional mentoring support was provided by academics in home universities or through brokerage by the NYA team.

4

The delivery of The Environment Now programme

4.1 Applying for a The Environment Now programme

The Environment Now programme offered young people the opportunity to apply for grants of up to £10,000 to undertake an environmental project, with support from mentors, using digital technology. Such an offer looks attractive and, as such, it might be expected that there would be a torrent of interest to take part. However, the programme team recognised from the start that the realities of attracting candidates with the potential to take on the demands of the programme would be challenging.

It was recognised that there were a several reasons why young people may be reticent about taking part. Firstly, feelings of caution may centre on the high levels of perceived responsibility associated with the project. For most young people £10,000 is regarded a great deal of money, and even if access to such funds was relatively easy to achieve, the responsibilities associated with delivering a project with a high level of expectations was daunting.

Secondly, the target group of young people for the project, that is recent graduates or current university students, are busy. Students have their studies to attend to and this is a top priority for them given the financial, intellectual and emotional investment they have injected into their educational ambition. And graduates, similarly, are in the process of transitioning to employment, entrepreneurial ventures or are considering more advanced study. With uncertainties on the horizon, it is often difficult to commit to a substantive project of this nature.

Thirdly, the expectations of the programme itself were ambitious. Indeed, in the early development phase, ideas for the promotion of the project would have put heavy and probably unrealistic demands on young people – which may have resulted in dissuading many from considering taking part.²³ While the approach ultimately taken was softer, it was still recognised that many potential candidates may not recognise in themselves, their potential to achieve the demands of the programme.

²³ For example, early promotional material included the following lines: 'are you passionate about creating change and delivering global connectivity?'; 'could you revolutionise the world through the power of digital technology?'; and, 'are you ready to change the world and disrupt normality?'

With these caveats in mind, The Environment Now programme delivery team adopted a number of approaches to stimulate interest amongst young people to join the programme (see section 3.1). This was an appropriate strategy because those young people who were finally enrolled on the programme arrived via several routes. In some cases, they engaged with the programme directly via promotional events to which they had applied to attend. But more commonly, attendance at these events was preceded by other contact with influencers who stimulated interest in the project. Influencers included academic members of staff who had been informed about the programme and members of the NYA team who were able to identify potential candidates from O2's Go Think Big programme. In this sense, attendance at events often indicated an existing interest in the programme.

The events, themselves, were well constructed sessions which drew on a range of people to present the programme, including, NYA programme team members to explain the processes, expert digital innovators to demonstrate how technologies could be marshalled, environmental professionals and activists who could stimulate interest in the benefits to be gained from projects and senior staff from Telefonica UK Ltd to signal their high level of investment from the company in the programme through their financial contribution of grants and commitment to offer mentoring support to successful candidates.

Once applications had been submitted by potential project leaders and these had been reviewed successfully, candidates were invited formally to pitch their ideas. This process, though later regarded as beneficial, was considered to be quite daunting by many of the candidates.

However, it was later recognised that the process had helped them to sharpen up their ideas on what they hoped to achieve within the project. That process was often undertaken with considerable levels of assistance from the NYA programme team who offered feedback and advice on the strengths and weaknesses of initial applications.

4.2 Getting projects started

Enrolment on the programme occurred in phases. In total there were five cohorts of project leaders who entered the programme.²⁴ This phased approach was purposeful, to take account of the likelihood that supporting project leaders to get started in the programme would involve quite an intensive support process. It was also recognised, however, that it was simply impractical to engage leaders of 50 projects in one go – given the expected difficulties of drawing people into the programme as discussed above.

²⁴ The five cohorts comprised the following: cohort one, 9 projects; cohort two, 5 projects; cohort three, 10 projects; cohort four, 8 projects; and cohort five, 16 projects. The evaluation process was planned in such a way as to invest most of the available time in the early stages of the project in order to offer support in the development of the programme. Consequently, most of the intensive qualitative work was with the first two cohorts of projects.

The early stage of the project involved project leaders establishing and agreeing with the NYA programme team a set of milestones through which their projects would advance. Achievement against these milestones would then be monitored by the NYA as each project developed. It was also expected that each project would establish a clear business plan – where project spend was directly connected to milestones and distribution of funding dependent upon successful completion of work at each stage.

Finally, the start-up phase of the project required young people to establish project teams to support them in their work. Most of the teams were relatively small, involving three to five people – usually fellow students or recent graduates who they knew. The skills mix of teams was an important consideration given the likely multidisciplinary needs of the project ranging from business skills, environmental knowledge and digital expertise. Most project leaders were successful in establishing commitment from team members early on – but as will be discussed below, sustaining commitment amongst team members was not always an easy thing to achieve.

4.3 Training, skill development and mentoring

As noted in Chapter 3, all project leaders were allocated mentors to support them in their project journeys. Additionally, project leaders and their team members were invited to take part in training sessions on various aspects of their skill and knowledge development.

Training and support

As a well-qualified cohort of project leaders it was expected that they would bring with them to the project, significant levels of technical skills and knowledge. It was, therefore, not fully understood in the early stages of the project what kinds of training and skill development they may need. Consequently, attendance at early sessions was patchy and to some extent undermined the experience of this aspect of support. As one project leader observed:

'[We would have benefitted from] More regular contact with other project leaders and entrepreneurs as well as more networking opportunities with other entrepreneurship style events and those type of things, it's always beneficial. It's always a hard balance to get between encouraging people to go and them being valuable to go to. Some of the events that we went to through The Environment Now weren't particularly well attended which then doesn't encourage you to go to future ones, so it's a bit of a vicious cycle.'

As the programme progressed, however, later cohorts were offered tailored support to meet common areas of need in terms of skills and knowledge development. For example, a series of 'insight' sessions were organised for later cohorts of project teams on issues ranging from business marketing, networking and influencing.

Mentoring

Mentors were allocated to all project leaders. In most cases mentors were deployed by Telefonica UK Ltd, although in some cases, where the technical fit with projects could not be achieved, external mentors were sourced by the NYA programme team.

In many cases, the support offered by mentors was appreciated by project leaders and indeed, in many cases, their support helped to drive the project forward in a positive way.

'I didn't feel like I was just given the money and then "off you go". I feel like I was given guidance throughout the whole way so that was quite a big thing for me. Without the mentorship or support I definitely would have been lost, so that was a really important thing for me... I would be miles behind where I am now because I had such a supportive mentor.'

This was most likely to happen when the skills match between mentors and project teams was close.

'The [mentors] both chose our project because they had an interest in the concept and the technology. They spent lots of hours in phone calls and emails going over stuff with us and answering all our questions... they had a personal interest in what we were doing so that really helped.'

Getting the right match between mentors with a strong commitment to lend support to project teams was not always easy however. Often this was associated with the specific needs for technical support by project teams.

'[The NYA team] worked really hard to find me lots of mentors and they were all kind of hopeless and that was very frustrating. There was one time I'd made a meeting with somebody and he never confirmed and then I assumed it was going to happen and then he just wasn't there... When we contacted them with problems or questions they didn't always give very helpful answers. So that was probably the most frustrating aspect of it – it wasn't the programme itself but the mentors were kind of annoying.'

As the above quotations indicates, it was not always felt that mentors' responsiveness to support demands or commitment to projects was strong enough. This resulted in a measure of dissatisfaction amongst some project leaders.

'I guess the one bit of feedback is that... I didn't really engage with the O2 mentor properly. I got a feeling the O2 were involved as more of a publicity thing for them as just a 'we're doing good' kind of thing for them and they didn't have that much buy in. I spoke to one guy and he was really helpful, he was going to provide us with [digital equipment] and I was, like, wow that's awesome so I kept speaking with him.'

While several project leaders expressed a measure of dissatisfaction with the support offered by mentors, this needs to be countered to some extent with the observations made by mentors themselves.

Some of the mentors had quite high expectations of the project leaders and in some cases it was not felt that their role was to provide detailed information and support but rather to lend encouragement and inspiration on developing and marketing potential products. As one mentor remarked, *'It would be easier for us to help if they'd already got a bit of traction. We could add value if there's a bit more value to the business already.'*

Amongst those mentors which had relatively high expectations, they communicated some frustration about being expected to offer 'elementary' support. *'They had a narrative on what they wanted to do, but didn't have a business plan. And [when offered advice] they could be better at responding to advice and criticism, they need to follow up, get things done. So I got as far as I can, and need to pass them on to someone else.'* Or as another mentor observed: *'They lack a bit of confidence and conviction,'* but did not feel that it was their role to help with this.

Other mentors were more amenable to providing support in the early stages of a project which was to be developed by a relatively inexperienced team of young people.

'The hardest part of any business is the start up stage. [The project leader] is keen and energetic and is doing something he believes in - and he can articulate his opportunity very well. He's not the sort of person who'll let this fall by the wayside at the first sign of trouble. But he needs support in bedding in the project at each stage - and that's what I'm trying to help with.'

The over-enthusiasm of some mentors for the projects could present some difficulties too. As one mentor observed,

'I've made a point of being proactive, but I know I have to be careful not to "over mentor" or, "take over". I think she's creative and quite entrepreneurial, got a lot of ability, but I don't want to pressurise her. A balance needs to be struck.'

In most cases, mentors were new to the role and felt uncertain about the extent to which they should commit time and energy to projects and what best way would be to lend support. In one case, a mentor felt that they too needed some support and guidance on how they should work with project teams and be more clearly informed about the boundaries around their responsibilities. And as was the case with the project leaders, some mentors felt that the skills match was not right for them.

More experienced mentors managed the relationship more successfully and could gauge well the extent to which they needed to inject advice and support. As one mentor observed:

'He's very enthusiastic and is willing to get his hands dirty, but there's no slack. He comes up with specific questions and where it's out of my field of expertise, I can connect him with the expertise he needs on the technical side - there's no point in trying to bluff your way through when you know it's beyond your limits.'

The above discussion shows that a degree of mismatch between project team and mentor expectations is probably inevitable.

Differences in expectations about the appropriate level of ambition for a project often needed to be ironed out. Project leaders often started out with very high levels of ambition which mentors often sought to tackle by encouraging a higher level of realism on achievability – advising, for example, the production of a prototype rather than trying to take a product straight to market. Project leaders could then recognise that they had been successful at the right level.

'The main success is that it's done and there is a prototype. Everyone that I show it to says it's a really cool idea. The unsuccessful part is the time now, it needs more time, more dedication, more money. I thought it would be easier – I didn't take into account how much time it would take to plan stuff.'

Or as another project leader observed:

'I think we decreased the expectations of what we are trying to do. We are still doing the app, but now when we saw the budget and to develop our project would start at £15,000 from a developer, so we thought we would do a proto-type instead – like a proof of concept and go from there.'

Mismatches in expectations between mentors and project teams could not have reasonably been anticipated at the early stages of the programme. But now that they have been recognised, it would be useful in future iterations of this or similar projects to achieve a higher level of clarification on what the mentors role is and what the limits of their commitment should be.

Support from the NYA programme team

Support from the NYA programme team was appreciated by participants. And often, the level of support gained was much more intensive than they had expected:

'We didn't think it would be as involved as it was. [the NYA team] got a lot more involved than I think we thought you were going to be. I thought it was going to be like any other grant where they just kind of give you the money and then check up on you at the end. It's actually really nice having some mentoring and support through the process instead of just an expectation that you'll get on with it. So I think it's definitely exceeded our expectations.'

'I think it was really positive. I definitely felt supported. I definitely felt like I could approach the team at any point if I needed help or anything in particular.'

'I think the [NYA team] have provided us with friendly approachable support, like when things weren't going so well with mentors, they were good at managing the situation and finding solutions.'

'They are very good with communications so when there were events or things coming up they are always forthcoming with invites and stuff. They email regularly and give regular updates.'

The project leaders strong sense of focus on their project meant that some were less than enthusiastic about aspects of monitoring what they were doing. While it was generally accepted that the administrative burdens of the programme were relatively low, as one project leader commented *'From the scheme point of view, it has been a surprise, positively speaking, we expected more red tape with the budget,'* few claimed to enjoy this aspect of the work.

'I think probably the part I enjoyed the least was filling out the budget forms and all of the timeline stuff at the beginning because that sets up the expectation - and throughout the process things change and at the back of your mind you're thinking I've got to kept to this timeline. Not that there was an extra added pressure on it but it's just there I suppose. I see the need for it and it is important but for our teams and because of how rocky it's been at times it's been a bit stressful in the way that we've got to stick to the timeline. Structure is really, really good, but because of the setbacks we've had and having to restart the projects it's a bit of a nightmare really.'

Keeping accurate plans and records was not to everyone's taste: *'Finding every single receipt post completion was quite tedious'*, but others recognised that building structure around the project had ultimately helped them:

'I think at the start I didn't enjoy the budget analysis and spreadsheets because I wasn't used to it so at first I thought it was quite tedious and boring, but I realised afterwards the value of doing it.'

Summary of key points

This section of the report has explored the way that participants in The Environment Now programme experienced their journey. The evidence demonstrates that the programme team provided very good support to participants throughout and that appropriate levels of monitoring of progress were maintained.

While the efficacy of mentoring was not universally recognised by the young people on the programme, the evidence suggests that many did benefit from this aspect of the support. And when it was not working out too well, the programme team were able to reconcile such problems – usually through the appointment of new mentors.

The evidence indicates that mentors and mentees were not, perhaps, as well informed as they might be about each others' expectations and responsibilities. This could not easily have been anticipated when the project was set up given the experimental nature of the programme. However, if this or similar programmes were to be developed further, it may be worthwhile addressing the potential mis-matches in expectations on the boundaries of the mentor role.

What this section has not done, is to explore the environmental aspects of the project. This is due to the tremendous level of variation in the areas of environmental benefit addressed and the different kinds of digital applications adopted. Consequently, the next section uses a series of case studies to explore this issue further.

5

Project journey case studies

This section introduces six case studies on the journeys of six The Environment Now projects. The case studies have been selected to provide more textured illustrations of the different experiences project leaders had when developing and undertaking their projects.

5.1 Natalie Bird, Smart Plug

Natalie, a graduate in mechanical engineering, was approached by The Environment Now programme team to think about making an application as she was a member of the Board of Trustees of Engineers Without Borders UK – a charity in the sustainable international development sector.

Her project idea, *Smart Plug*, aimed to design an app to alert householders to their levels of energy use by making a digital connection with a smart meter. The project had the potential not only to reduce a household's carbon footprint, but also reduce cost by running appliances at lower tariff rates.

This was an ambitious plan, because it involved the development of an easy to use app to interact with smart meters, but also because it involved negotiation with energy supply companies who installed these devices. Natalie and her project partner were both digitally literate but did not have all the specialised knowledge or skills to design the app themselves. So, in the early stages of the project's development, they tried hard to get others to join them.

The Environment Now programme provides young people with an expert mentor from NYA's partner organisation Telefonica UK Ltd. Natalie's project was ambitious in scope and her mentor was able to offer good advice and helped her to bring into focus what could realistically be achieved within the time and the budget she had available. This helped to overcome disappointment derived from the difficulties that would be encountered when approaching energy companies who supply and operate smart metres. The idea now was to produce a stand-alone app to draw upon remote data to assess energy use and timing.

As the project developed, Natalie and her project partner were joined by another graduate who had complementary digital skills. Being recent graduates, of course, all members of the team needed to secure career positions as soon as they could. This necessarily impinged on their commitments to the Smart Plug project. Ultimately, Natalie's partners joined a graduate scheme and left the project.

The NYA programme specifically aims to meet the Our Bright Future objective of building young people's confidence to lead projects. This

is a challenging task and it was recognised that projects involved a risk of failure from which people must develop the resilience to bounce back.

The Smart Plug project could not continue, but Natalie benefitted from her involvement and is stoical about what she achieved: 'they say nine out of ten start-ups fail and it made me realise that eight out of nine of those will be down to so much more than business. So, I don't feel bad about it, but it was frustrating at the time.'

Natalie has put her own experiences to good use and now supports two other project leaders in The Environment Now programme and is eager to advise others. It is hard setting up businesses, but Natalie was pleased that 'when it didn't work out, there was no judgement or being told I wasn't trying hard enough or anything like that. I tried everything in my control, but nonetheless, sometimes things aren't in your control.'

Natalie's story is an important one. It shows that programmes such as The Environment Now are right to be sensitive to the inevitable risks of things not working every time and be supportive no matter what. And Natalie's experiences are far from unique – all project leaders face challenges – but this can help them take on the next thing with their eyes open to the risks, but more confidence and ability to manage them.

5.2 Hana Mandova, CarbonWatch

Hana, a mathematics graduate, and now a doctoral student in the biological sciences at Leeds University had a good understanding of environmental issues before applying to The Environment Now (TEN), an *Our Bright Future* programme run by the NYA in partnership with Telefonica UK Ltd.

The Environment Now programme encourages young project leaders to channel digital innovation in many ways, ranging from the development of specific digital tools, digital making, digital communication and digital research and data management techniques to create products or services which can bring environmental benefit.

The aim of CarbonWatch was to create an app which allowed people to 'check the best time to use your electrical appliances, save iceberg from melting and use electricity from renewables'.

<http://www.thecarbonwatch.com/>. The purpose of the app is to show pictorially, through the use of algorithms, how much iceberg melt can be avoided by using appliances at different times of the day.

Hana recognised that she and her two project partners, Thanyasinee and Rob, did not have all the digital skills they needed, so she was pleased that she was to be allocated a Telefonica UK Ltd mentor who could help develop or access the technical expertise CarbonWatch needed for its digital applications.

It soon became clear that the costs of appointing a professional developer to create an app could be well above her budget, but they achieved this within budget although the emphasis shifted, mid-way, towards prototyping which could subsequently be developed if enough business interest can be garnered to invest further.

The Environment Now programme recognises that running any project requires young people to develop strong and productive relationships with collaborators and develop and use their powers of persuasion to draw other people and organisations in to support them with their projects.

For most young people involved, like Hana, this is the first time they attempted this, so a key driver of the programme was to help project leaders learn how to manage resources and/or devise ways of winning extra financial or in-kind resources to increase the impact or scale of their projects.

Working with other people on projects can be challenging and Hana worked hard to delegate tasks to her two project partners. Both were enthusiastic, but neither were UK nationals and were geographically mobile, so leadership could be difficult in practical terms. Initial enthusiasm is not always enough to keep people engaged in the longer run – and Hana's team now recognise that it is necessary to establish firmer ground rules from the start – and this learning will be important in future projects Hana leads.

Project plans can also change in response to circumstances, but Hana was successful in shifting priorities so that all her milestones were met, but not necessarily in the order originally planned. The Environment Now programme team, Hana says, has been enormously supportive and extended the time needed successfully to complete the project – and the Android certified app has now been launched.

As Hana says "Well, to be honest, we have had our ups and downs, thinking it will never happen, so it is lovely to see the product is there."

5.3 Ravi Toor, Filamentive

Filamentive is a company set up by Leeds University environment and business graduate, Ravi Toor, in 2015 to recycle and process plastic waste to make 3D printer filament. The drive to develop his product came from the realisation that 90% of plastics come from non-renewable sources and that as the volume of 3D printing increases, this situation could worsen.

Ravi had enjoyed success in his business before joining the Our Bright Future funded *The Environment Now* programme in January 2017. Indeed, he was recognised as Leeds University 'Entrepreneur of the Year' in 2016.

The purpose of the Our Bright Future programme is to empower young people to act as catalysts for delivering long-term change for the environment and their local communities. In doing so, young people are supported to: develop vital skills and knowledge, develop the confidence to become leaders within business and their local communities; and to contribute to the green economy.

Ravi found out about The Environment Now programme, which is run by the NYA in partnership with Telefonica UK Ltd, at his university's enterprise society and decided to apply. He was already working with a company that could handle the technical and engineering side of the recycling processes and was confident about his own marketing skills. But he needed more funding and support to experiment with the

manufacture of 3D printer filament and wanted to use digital tools to improve his company's marketing profile.

The Environment Now funding Ravi received has been used to achieve the above objectives in broadly equal proportions and he feels that the digital aspects of the project went hand-in-hand with marketing and production objectives,

Funding also enabled him to produce free samples of filament to reach more customers, which are now available from the company website: <https://www.filamentive.com/about-filamentive-recycled-filament/>.

Drawing on the support of mentors from Telefonica UK Ltd helped Ravi to consolidate his activity, but he recognises that the drive to make things happen must necessarily come from within. He knew that the aims of his project were ambitious and was pleased that things had gone reasonably smoothly, as he wryly observed, 'Obviously it had to be realistic so that the goals weren't too utopian...perhaps that there were no big surprises *was a surprise* – it went so well that I can only thank the NYA team for that.'

Throughout the project, Ravi has remained ambitious to achieve more environmental impact. As he stated mid-way through the programme: "We are looking at product take-back where we have figured out a way to give discount on filament for returns of cases and we can re-use by selling or donating. [Then] we can recycle and reuse to help the environment but also promote more sales."

Making the project succeed needed, Ravi felt, for the programme team to be flexible and responsive: "There was no red tape or massive bureaucracy to get the funding when you needed it, they were really flexible and helpful; we had to send invoices, but there was a kind of trust relationship from the start, [they were] informal and approachable too."

5.4 Ken Brooksbank, ThermoDrone

Ken is a recent graduate of University of Strathclyde, Glasgow, holding an MSc in Environmental Entrepreneurship. His academic and professional background in environmental science and an undergraduate marketing degree from the University of Chester gave him a good grounding to develop his own company, ThermoDrone.

ThermoDrone provides a service to companies by using drone and camera technology to conduct aerial environmental monitoring, thermal imaging and 3D mapping.

In developing his company, Ken won a grant in 2017 from The Environment Now, a programme delivered by the NYA in partnership with Telefonica UK Ltd. It is one of 31 interventions funded by the £33m Our Bright Future programme funded by the Big Lottery Fund.

While the programme purposefully provides young people with room to work out ideas for themselves and develop projects in their own way, it was never intended that they would be left on their own to achieve their objectives. Consequently, a mentoring programme ran alongside the programme where each project leader was allocated a

member of Telefonica UK Ltd's staff who held expert knowledge in their field.

Ken was impressed by the support he gained from his Telefonica UK Ltd mentors: "They spent lots of hours in phone calls and emails going over stuff with us and answering all our questions – they had a personal interest in what we were doing so that really helped." He also praised the NYA programme team for helping with setting up events, coordinating the budget and giving general advice.

This not to say that achieving his ambitions were straightforward. As Ken remarks "You start off with very high expectations so it's hard not to have surprises. Every little failure feels like a *massive one* and then you learn to roll with it... we always knew it was going to be difficult and it's a case of persevering."

Working with his project partner Simone, a civil engineer, who has construction and thermal imaging technology expertise, it was possible to build a business case for ThermoDrone service. But the road has not always been smooth – due to restrictions set, for example, by air traffic control permissions in larger cities. Similarly, on the technical side, hold-ups surrounding the acquisition of cameras stalled activity mid- way through the project.

The potential environmental impact of the project is clear, but this is not what necessarily drives customer interest – that can be driven instead by legislative constraints over carbon emissions and saving on fuel costs.

For many young people on The Environment Now programme, this is the first time that they have had an opportunity to frame an issue which *they* think is important to the environment and their communities, deciding what *they* want to do about it within the resources they have been allocated or can muster from others, and finding a practical way *they* can achieve an objective.

Gaining funding to make projects such as ThermoDrone is not easy, and Ken appreciated this: "TEN were onboard from day one, others wouldn't give us a chance. They gave us a chance and really liked it. We couldn't have done it without them."

5.5 Charlie Guy, LettUs Grow

The inspiration to develop the project by Charlie and the company's co-directors Jack Farmer and Ben Crowther, was an awareness that a majority of fresh food produce in the UK is imported when out of season. So the LettUs Grow project was established to find new ways of growing indoor irrigation equipment that could be used at home or commercially by farmers nearer the point of consumption, thereby reducing air miles and food waste.

The LettUs Grow innovative modular aeroponic system allows plants to grow without soil. This is done by watering roots with a fine mist of water and nutrients. Commercially, the system delivers consistently

high yields via 'vertical' indoor farms which reduce fuel costs and much less water than is the case in conventional irrigation.²⁵

In their The Environment Now programme, the team wanted to tackle the problem that up to 45% of salad products are wasted by households. So the team initially developed a table-top version of their soil-free irrigation system which uses LED lighting. These compact, low-cost products provide an opportunity for householders to grow salad and herbs in their kitchens all year round. Furthermore, kitchen gardeners could be supported by a web application, 'E-cosystem', which issues reminders about when to water plants and can automate LED lighting.

As the project developed, however, the focus was put on the commercial vertical growing system and recognition for the new product has been widespread. For example, the Bristol-based business start-up was selected from over 800 applications for the final of an international sustainable entrepreneurship competition. LettUs Grow has also won over £100,000 by making it to the final of the Postcode Lottery Green Challenge.²⁶ LettUs Grow also won the prize of 'Best Elevator Pitch' at SETsquared Bristol's annual Tech-Xpo2018 event, which was held at Circomedia Bristol. Charlie Guy was previously a participant in O2's Go Think Big programme and on the basis of his successful previous project work was approached by the NYA team to consider joining The Environment Now programme.

The suggestion came at a good time for LettUs Grow because it offered Charlie's project team the chance to have 'the freedom to develop our own ideas and explore and build something that has snowballed into something much, much bigger. The whole journey that we've been on and the growth from the beginning of the programme to the end has been pretty massive.'

The funding boost from the project '...allowed us to kick start what we're doing. In the early stages, it contributed to us bringing on some interns and I guess that's had a big impact on the team... When the project started it was just me, Jack and Dan. There's now a team of 11 full time staff. We've now raised £1 million for the project, starting from £10,000 that's quite a jump so I think that probably constitutes success.'

'I think it's just so valuable. Without these sort of funding mechanisms, so many of the projects that we've met and engaged with just wouldn't have happened. Alongside our successes, it's allowed so many projects to come into existence and who knows what they'll achieve.... I think there is a huge importance for programmes such as The Environment Now to let young people explore and develop potentially world changing ideas. I feel like I'm now not talking to a friend, but to an audience! But yeah I guess that's how I like to think about the programme.'

²⁵ Details on LettUs Grow can be found here: <https://lettusgrow.com/#products>.

²⁶ See: <https://www.greenchallenge.info/info/finalists/2018/lettus-grow>.

5.6 Elliott Lancaster, Utter Rubbish

Elliott Lancaster, a student at Keele University established the Utter Rubbish project to tackle fly-tipping in North Staffordshire. The project was established with support from The Environment Now and Staffordshire Business Innovation Centre. This has involved Elliott developing a website and smartphone app – which provides residents with information about bin collection dates, recycling and other council services - the software also provides information about local skip hire companies.

One of its most innovative features is the production of an app which encourages and helps members of the public to report incidents of fly-tipping directly by taking photos which are logged geographically and are dated. The idea caught the imagination of local authorities including Newcastle-under-Lyme Borough Council and East Staffordshire Borough Council and was entered into The Evening Sentinel Business Awards, in the Start-Up of the Year category, sponsored by Solidor.²⁷

The Environment Now programme team encouraged participants to influence and work with other organisations to secure further investment and access to markets for their projects. Utter Rubbish has been particularly successful in this respect by gaining additional support from Keele University's *Smart Energy Network Demonstrator* project (SEND) and *Stopford Energy and Environment*.

Reflecting on his experience of The Environment Now programme, Elliott said that while he already had some skills that were needed, 'I think in terms of what I've learnt – I've learnt how to establish good networks and how to develop my technical skills'. 'I'd say it's definitely boosted my confidence. Joining the programme there was a lot of support beforehand around what my expectations were. We had an event in London for some initial training and I thought that was really helpful.'

Working with other organisations can be challenging, as Elliott discovered and with the benefit of hindsight, he now recognises that '...there is stuff I'd do differently. Local authorities are a big part of my project and they can be very difficult to deal with at times. So I think I'd go about planning that differently and do more research beforehand into that.'

With perseverance, however, the project achieved its ambitions – as Elliott stated: *'I think it has been a great success. If you look at what's happened, especially towards the tail end of the project. Even though there were a lot of things that meant we had to halt the project at times, with local authorities, we have built up that rapport over time. The project has been recognised locally, nationally and internationally. So I think it has been a great success.'*

Furthermore, the project has been instrumental in raising awareness of environmental issues amongst children and young people. 'We had

²⁷ See: <https://www.keele.ac.uk/business/businesssupport/smartenergy/>

schools come for a residential at the university. I did a couple of workshops on fly tipping... We looked at the different impacts of different materials on the environment for example plastics... Because my project is more communication based, it was really good to be able to see what difference it could actually make. It was good to get so many people involved in that Inspiration event. It was good because sustainability isn't always covered in the curriculum at school, so it was great to put on an educational session for them.'

Elliott doubts that the project could have been successful without The Environment Now. 'The advert that my lecturer showed me was actually what sparked my interest. Through discussing it with her, I began to develop some ideas around sustainability which I don't think would have happened otherwise or if it had at least not to that extent.'

And now the project is looking likely to expand. 'At the moment I'm expanding it nationally so I'm meeting some local authorities and it's recently been announced that I won an award in the Enterprise category at the Green Gown Awards. I am also shortlisted for the Reimage Education awards, where I will be presenting Utter Rubbish in San Francisco.'

5.7 Summary of key points from case studies

A number of common themes have emerged from the above case studies which can now usefully be summarised.

- All of the case studies indicate that project leaders had very high ambitions for their projects. This meant that they had to be responsive and flexible about how their projects developed in order to secure a successful outcome. The overall programme was successful in helping young people manage these necessary shifts in their initial plans in response to contingencies.
- All projects required teams to come into contact with other agencies as clients, suppliers or partners. This required diplomatic negotiation, patience and perseverance. Project leaders were well supported in these complex roles and were successful in managing sometimes difficult relationships. In many cases, the programme helped project teams secure longer term partnership arrangements.
- Leadership skill development was an integral aspect of the programme's aims. The case studies demonstrate how young people developed these skills, with support, through their project journey. This could be a difficult process, however, when project team members had different levels of commitment – but this is the nature of management and leadership and so the experience stands project leaders in good stead for their future career.
- There is a strong evidence to demonstrate that project leaders benefitted from the investment in themselves and their project by The Environment Now. This investment of finance, support – but most particularly – 'belief' and 'trust' was enormously

beneficial for the development of confidence, commitment and ultimately the success of most projects.

- Most project leaders had a shared interest in environmental issues and the use of digital solutions to problems. The project provided an ideal platform for project teams to address complex issues on both fronts. The emphasis on digital technology limited participation by women compared with men, but the way the project was structured and recruitment organised attracted more women participants than might otherwise have been anticipated.
- Project leadership and innovation requires a strong sense of focus and commitment. All project leaders demonstrated this clearly. The concentration required to see projects through successfully meant that leaders were heavily involved with what they were doing in terms of time, energy and emotional commitment. But they were able to separate themselves from this focus when presenting their projects to other young people in inspiration events. The experience of communicating to a less well informed audience was instrumental in developing their skills and confidence as project leaders.

6

Programme impact

The Environment Now programme worked intensively with 50 project leaders and their teams for between ten months and a year. In so doing, a good deal of learning has been gained on the impact of the programme in meeting its key objectives. In this section, a review of impact is provided drawing upon qualitative evidence to illustrate key learning points.

6.1 Development of confidence, skills and employability

Many of the participants in the programme were confident about their abilities and ambitions from the start. But because they were often very ambitious about what they could achieve, they needed to be resilient when things did not go to plan. As one project leader stated:

'I think, initially, I was fairly confident it would go to plan as it wasn't from scratch, but I underestimated what needed doing. Having to research more and having a launch day helped to clarify things. Before, I thought it was all straightforward but now I see the benefit of having that support. It's all been fantastic so far and I can't fault them at all.'

Or as another project leader commented:

'You start off with very high expectations, so it is hard not to have surprises. Every little failure feels like a massive one and then you have to learn to roll with it. I wouldn't say there have been surprises as such, because we always knew it was going to be difficult and it's a case of persevering.'

While the experience of developing projects could involve disappointments along the way, many of the young people recognised that this had equipped them well for the future:

'I've been able to meet people along the way and I've gained skills for life. I'll take this experience and all the skills I've learnt along the way and I'll definitely use them in later life whether it's for a job or another start up or another business idea I've had. The experience from this young age has been really good because loads of people don't really get this opportunity and I've been extremely lucky to be in this situation.'

Even when projects did not reach a successful outcome, project leaders recognised that the experience had benefitted them. As one project leader observed:

'I feel like I learnt a lot about myself! I'm probably a bit unique in that but I learnt that it's okay to fail and that sometimes

failure and saying 'this isn't working out, I don't want to do it anymore' is the hardest thing to do, but also sometimes the right thing and therefore it's not a failure. That was the first time I've really experienced having to say 'I can't do this' and I had to be comfortable with that. I've definitely learnt that it's like a paradigm shift in a way to learn that it's okay to fail. Yeah, it was really good even though it was hard.'

In other cases, it was felt that the project had taken on a life of its own which might, in the short-term at least, have led them to doubt its value:

'I think personally for me it's been good, I've developed skills and it was good to experience that kind of area. If I'm being honest, I think it was actually a massive distraction for me. While I was at uni I was very distracted on the project. It's not necessarily a bad thing on the project, it's more for me that I let myself get quite invested in it and now that I haven't got anything to do with it any more, I've kind of wasted that time that I probably should have been looking at new jobs or something else. I just didn't have the best personal journey – it was a good overall impact but I don't have the best view over what my choices were basically.'

Others managed to keep a balance between project work and their other responsibilities, but they recognised that this was not easy.

'Managing doing this at the same time as doing my university degree. It's been a really tough process because I'm in final year now, I was in my second year last year. The work steps up and you have to manage your time. That was by far the hardest thing. Definitely time management and finding time to do both.'

6.2 Entrepreneurship and environmental leadership

The participants in The Environment Now programme were hungry to achieve their goals and as capable and well educated people, they set themselves ambitious objectives. Some team leaders thrived in this entrepreneurial environment.

'I learnt about myself that I dream pretty big, and sometimes I shouldn't dream too big and I should think realistically. [But] what I enjoyed the most was probably the dreaming big part. I enjoyed the fact that our mentor was from O2 so they allowed us to dream even bigger – that comes with being part of a large organisation. I think the fact we were actually allowed to think for ourselves was probably what I enjoyed the most.'

Others were more cautious in the way they framed their ambitions and had to learn how to manage their own expectations in line with those of the programme. As one participant observed:

'I find it challenging, but not daunting. It's driving. It's good to have these external pressures. It's good to have responsibilities and say "have you done this on time?" – not questioning you – but I don't want to disappoint these people.'

Or as another project leader stated: *'It's challenging, yeah, absolutely! At 23, having just left uni and having a business is pretty daunting at times but it's good to have the support of [mentors] behind us.'*

In some cases, the project helped young people to establish their own businesses and improved their prospects of success over time. As one project leader stated:

'Yes – it's going quite well, it employs me now. It will be something I'll definitely continue with. I'm looking into future funding – trying to increase sales for now. I'm looking at maybe crowdfunding or angel investments. I definitely think being part of The Environment Now would help in such a process.'

Developing new products with, in many cases, market potential could not be achieved alone – so the development of leadership skills was integral to the success of their projects. This was widely recognised by participants

'I've definitely learnt that I can be more of a team leader than I have been in the past, because obviously I've coordinated the two projects and I've had to organise everything. I think I've surprised myself in the way that I've had to learn about project management and coordination and organisation, obviously with mentoring as well which has been really helpful. I think as a team we've definitely learnt to communicate to each other a lot more and how to progress effectively despite the amount of setbacks we've had, we've done quite well.'

Perseverance was, therefore, essential:

'For me, it's the fact that it always can be done. Things seem impossible initially, but they can be done. It doesn't have to be perfect, it has to be done... It was getting the project done. Before we just had an idea, but now it's actually done. That's really cool.'

As another participant observed:

'I learnt that I'm really good at persevering through bad times and really taking feedback on. Not letting rejection get to me and just bouncing back. Before I didn't really have that many opportunities to feel rejection so it gave me the opportunity to have some exposure to that and I've learnt that I've got that perseverance in me.'

6.3 The application of digital solutions to environmental issues

Engagement with The Environment Now programme carried expectations that project teams would employ digital technologies and that this would demand that they built their skills in this domain (see case studies in Section 4). While many participants already held this expertise prior to joining the programme, others did not:

'Unfortunately, I'm not [digitally literate] and that is one of the reasons I went for this so I could build up these skills. I could gain these tech skills while [the project] is being developed, it's

a big learning process for myself, but also an exciting opportunity.'

In such cases, project teams needed additional support. Achieving that could take time however, as one project leader observed:

'There were a couple of mentors that I got pointed in the direction of but there didn't seem to be much technical expertise. It would be great to speak with someone who knew about [technical issues] you could tap into. I think [the NYA team] did put me in touch with someone and I did speak to someone about that, but it seemed odd that the whole project was about digital technology and there wasn't really any technical expertise. There was involvement from O2, but it was all the corporate side of O2 which didn't really match with what we were doing.'

Most project teams recognised that digital engagement and application was essential to the success of their project:

'The digital aspect is the key, as it wouldn't be able to happen without it, but the environment is the driver still for me – I'm still very passionate about it and that is what everyone else will see when it's released.'

Or as another project leader stated: *'The driver is the environmental but I feel like this issue would not be able to be resolved without this digital technology.'*

6.4 Partnership and influencing public policy

Most of the projects in The Environment Now programme worked in teams to engage with other organisations to succeed. This could involve establishing partnerships with other businesses to support them in the development of products. Similarly, project teams had to work with and often negotiate with organisations to ensure that their plans were feasible (see case studies for examples of how this happened).

Developing the requisite skills and confidence to build relationships and broker deals with other organisations could be challenging, and, in some cases frustrating when the pace at which they could move forward was limited by external influences.

Participants recognised the value of such challenges, and in hindsight, saw that their journey was of necessity a difficult one as the following quotations from three project leaders indicate:

'It's been a really good journey for me. I've learnt a lot along the way. Obviously, if I had the knowledge that I do now last November, then I would have done things different, my pitching style would be completely different. You saw me talk on Saturday [celebration event, Oct 2018] and I think I'm a decent speaker right now because I've had a lot of practice but before I wasn't as confident as I am now and I'd stutter all the time and I'd have a piece of paper there to fall back on. Because you weren't there from the beginning you [Charlotte

Tidbury] can't really see the difference but if you ask [the NYA team] they'll definitely tell you.'

'You learn what you're good at and what you need to improve on. Because it was already a business I was running, I felt confident with certain skills like sales, organisation, things like that but you do learn more about yourself in terms of team work and working towards a certain goal. It definitely helped me be aware of where I needed to improve.'

'I'd say it was a really positive experience for me because not only was I able to help a social problem in my city and help real people, I learnt loads along the way and I was able to push myself with money behind me and create a product where people will actually be able to be helped. I wouldn't have been able to do it without it.'

6.5 Communicating successful outcomes

Benefit for young people

All project teams were expected to deliver an 'inspiration' event as they approached the end of their project to young people. It is hard to generalise about the way these events were prepared and delivered, but it is useful to provide some indications of the experiences of young people and their impression of how successful they were in communicating messages to others.

One of the key features of a good inspiration event was to ensure that the presentation was pitched at the right level and avoided getting into too much technical detail because the purpose was to have an impact on environmental attitudes and behaviours. But as the following quotation suggests, getting the balance right was not always easy to do.

'We deliberately made sure that our inspiration event was at a level where the audience could understand it. The youngest was 17 and the oldest was 22, perhaps, and they [gained] a good understanding of how energy works in general and a bit about power stations so they understood it quite well. I think I did ramble on about the technical side for a bit but then I could just see people glazing over.'

As the above quotation indicates, commitment and focus of project leaders could result in them emphasising aspects of their project which were not easily accessible or interesting to others. But the process of delivering inspiration events helped project leaders to break out from their 'project shell' and this could be enjoyable for them and their audience.

'It was really enjoyable to go out and engage with young kids. I really enjoyed that personally. It was a really nice change from day-to-day activities for us. We were engaging with the wider community, teaching young kids about what we're doing. We did engage with a lot of people on that day which was really nice.'

In this case, the project leaders were already used to delivering presentations to more technical audiences, so the inspiration event created new challenges.

'We do a fair bit of engagement generally but it's usually with the tech community or the start-up community so it was nice to go out to the local community and engage with them. It was over the school holidays as well so there were a lot of young kids and they were all very excited [about the project]... which was nice. We're meeting them again next week and we'll probably do another project with them in the near future. We're already thinking about ways that we can engage in much wider education now that we've got a facility here... that we can bring people in to.'

Presenting complex ideas to less well informed audiences required project leaders to capture the attention of young people – here is one example of how this was achieved.

'I used a game – there were black balls and white balls and they had to try to collect the most white balls. It was using visualisation. The concept wasn't too hard to explain so it wasn't too bad. It was about making them think about things and have a discussion. For example, they talked about solar, and I asked them 'what about at night? Do you not use electricity at night?' and they realised that they do. We covered all different types of energy from nuclear to hydro. It was nice to take it more from the bigger picture to relate to them. People sometimes can be so narrow-minded so it was good to work with the kids and start opening their eyes. It's good to get kids being open minded from a young age.'

Similarly a recycling project used props to get debates going in their inspiration sessions:

'It was quite easy to explain to kids. For example, that old top that you don't use anymore, you can make it into something else. Kids are quite creative anyway so it's easy to show them physically we can make this into a new outfit, use your imagination.'

When there were links to the existing curriculum, project teams tried to make such links clear in order to win their audiences over.

'It was related to their curriculum, it was a Year 12 class so they were learning about sustainability and plastic so I tried to link it as much as possible to what they were learning about. Some of them had used 3D printers before so they were aware about the materials. I would maybe make it a bit more interactive next time as it was more of me with a PowerPoint and them asking questions and discussing.'

Finally, the organisation of inspiration events gave project teams chance to extend their own understanding of how to present to audiences from different countries. One of the projects, for example, organised an inspiration event in Scandinavia.

'So we did it in [Scandinavia] – so not in the UK- but we went to a school, they actually contacted us because they were

really interested in the work we were doing [on our project] and we thought it would be a really good opportunity with The Environment Now to go I think there were about 20-30 students who asked us all sorts of questions about what we do and what impact it can have. I think it was really interesting for us to see, because agriculture is often overlooked in many ways and is seen as a very old-person thing, but actually there are a lot of people who can be inspired by revamping the work that farmers do and making it a bit more exciting. I think they were a cohort of young people who we have inspired to carry on with this kind of work.'

While it is not possible to assess the response of audiences from their own point of view (by using for example a standard questionnaire) it is clear from the above discussion that project leaders were attuned to their audiences and worked hard to communicate complex ideas in an engaging and informative way.

In total, 3,659 young people attended the 60 inspiration events which were delivered by project leaders in The Environment Now programme.

Benefit for project teams

From the point of view of project leaders, the project was generally considered to be a great success for them personally. Much of this sense of success derived from the fact that the programme had confirmed the value of what they wanted to do and had invested in them personally as individuals.

'Having the freedom to develop our own ideas and explore, and build something that has snowballed into something much, much bigger. The whole journey that we've been on and the growth from the beginning of the programme to the end has been pretty massive. Beyond that as well, the outcomes that we've managed to achieve.'

'I think it's really good that we were given the opportunity to explore a new market and reduce that risk element, we could just do it without worrying. So for other people who have established projects, I think that was definitely something that I'd recommend to other people... it's a great opportunity because you get funding to give it a go and I don't see why you wouldn't take that opportunity.'

'The fact that someone believed in it – that was already the biggest thing because when I described it to my parents they thought it was rubbish. It was amazing that this programme was not focusing on having a proper business plan, it was more about 'What's the project?, Why do you want to do it?, Will you finish it?' It was great to have someone believe in it rather than just be like, 'well it's not going to make money so scrap it'. It was such an important thing that [The Environment Now] provided for us.'

'We had applied for several funding things before and I don't think we were as appreciated as much as I think we should

have. Certainly not as much as this one. This was a perfect match for us. The Environment Now were on board from day one – others wouldn't give us a chance. They gave us a chance and they really liked it. We couldn't have done it without them.'

In addition to the experiential benefit and skills gained, the projects could also be successful in material terms.

'Yeah, I think it's been a success. We've grown – when the project started it was just [three of us], but mainly just me working on it. There's now a team of 11 full time staff. We've now raised £1 million for the project, starting from £10,000 that's quite a jump so I think that probably constitutes success. The team's developed massively, we've developed products, we've sold a product, we've got a software system in development which was always part of the project, we've partnered with multiple universities and have a number of research projects ongoing with these universities.'

'It's had a huge impact. It's launched our product into a position where it's now a fully functioning business. When we started we were just two guys working on this little project. [The Environment Now] were the first to put money towards it and that's taken us so far and we've done loads of development work with that money. We've now got a really incredible product and we've now been recognised by some angel investors who've invested money and we couldn't have done that without [this programme].'

6.6 Summary of achievements against anticipated OBF programme outcomes

While it was not expected that individual project evaluations should assess all aspects of the national programme evaluation; The Environment Now programme evaluation sought to outline, at the outset, the principal research questions which were set at a national level and to map these against the key objectives and anticipated outcomes of the The Environment Now programme, as shown in Figure 5.1.

Having completed the evaluation, it is now possible to make informed summary judgements about the achievements of The Environment Now programme.

Figure 5.1 Principal OBF Programme Outcomes Anticipated and Summary of Achievements via NYA The Environment Now programme

National programme evaluation objectives	The Environment Now programme anticipated contributory role in delivering national programme aims (prior to commencement)	Summary assessment of project achievement set against anticipated outcomes
<i>Outcome One: More local communities enjoy environmental improvements through activities led by young people</i>		
To what extent and what impact has engagement with Our Bright Future affected the following:		
Green infrastructure and community places?	Scope to make a substantive contribution where discrete environmental change is central to project objectives.	The Environment Now programme encouraged teams of young people to undertake realistically framed but nevertheless ambitious projects to make a difference to the environment. Given the wide range of project aims it is difficult to summarise benefit collectively. Furthermore, the success of many projects has led to their continuation so benefit cannot yet be fully assessed. Case study material presented in this report provide examples of actual or potential impact of a range of project types.
Number and quality of local environmental improvements in project areas?		
Overall quality of local environment?		
What is the value (financial/social/environmental or otherwise) of physical positive environmental change created through engagement in Our Bright Future?	Unlikely to be in a position to produce plausible cost-benefit appraisals given the scale of the projects.	It was not anticipated that cost-benefit analysis could be undertaken given the scale and variety of projects developed in the programme
To what extent and what Our Bright Future actions/interventions have created the greatest positive change (and which have created the least) for disadvantaged young people, their communities and the environments they live in? This question should consider:	Potentially strong contribution. The achievement of this objective is dependent upon the extent to which the project can engage with more marginalised or disadvantaged project leaders and teams.	To a large extent, projects in The Environment Now programme have addressed generalised environmental issues rather than focusing on disadvantaged or marginalised communities. However there are notable exceptions, including projects on: reallocating food which might otherwise be wasted to poorer households; on the alleviation of fuel poverty through better fuel conservation; on the redistribution of pre-owned goods to less advantaged households; and, devising projects to support public health in poorer communities – particularly associated with air and water quality.
Community cohesion	Potentially strong contribution. Projects which emphasise the importance of challenging attitudes and behaviours and provide new solutions using realistic objectives	Many of the projects in The Environment Now programme focused on attitudinal and behavioural change. The strong emphasis in the project on finding digital solutions to promote positive attitudes to waste and recycling, energy conservation and efficiency has produced new ideas with considerable potential
Wider community benefits		
Attitudes of community members/young people		

Health and wellbeing of communities/young people and other Our Bright Future beneficiaries	with tangible outcomes may make a significant contribution.	for future development. These solutions have centred on the development of digital applications to educate and inform consumers.
To what extent are there patterns or trends (if any), that depend on demographics and country/regions?	Limited contribution. The relatively short-term nature of projects is likely to limit the scope for evidence.	The scale of projects in The Environment Now programme was relatively small and often their objective was to establish demonstration projects which may have potential for future development and scaling up. Consequently, there was little scope to assess trends at this stage as was initially anticipated.
To what extent are communities undertaking new and/or unplanned activities (if any) as a consequence of engaging with Our Bright Future?	Strong contribution. Through the production of qualitative case studies on individual projects which seek to engage communities.	The Environment Now programme aimed to concentrate on the production of digital solutions to common environmental issues. As such, demonstration projects were established to tackle a range of issues surrounding waste and recycling, energy efficiency and conservation. Case studies have been produced to illustrate the potential impact of a range of projects if they are taken forward on completion of the formal programme. A number of initiatives are now closer to market, or business ideas have been tested and consolidated which have the potential to make a substantive difference to local communities – although assessing such impact directly is beyond the scope of the current evaluation.

National programme evaluation objectives	The Environment Now programme anticipated contributory role in delivering national programme aims (prior to commencement)	Summary assessment of project achievement set against anticipated outcomes
<i>Outcome Two: Young people gain new skills relevant to finding jobs, training, volunteering opportunities or starting entrepreneurial projects that contribute to the green economy</i>		
To what extent (or not) are young people (16-24 years of age) employed in the green or general economy as a result of participating in Our Bright Future and to what extent is it 'high quality' employment (long term career prospects vs zero hours contract) i.e. temporary, seasonal, full-time, part-time, permanent, voluntary etc?	Some scope for contribution. The programme may contribute to overall national impact depending upon project leaders' career trajectories.	Most of the participants in The Environment Now programme were university students or recent graduates. [This was a purposeful strategy] to ensure that project leaders had the available confidence, skills and knowledge to sustain their project to a successful conclusion. Many of the candidates remain students and are not yet seeking employment although the likelihood is that participation in The Environment Now programme will stand them in good stead for making future job applications because their abilities in extra-curricular work will be demonstrable. In a minority of cases, participants in The Environment Now programme have established environmentally-oriented businesses or successfully developed existing businesses as a result of their involvement. Case study material helps to illustrate these achievements
What different routes (if any) have young people (16-24 years of age) taken to gain employment as it relates to the green economy as a result of participating in Our Bright Future?	Scope for contribution. Likely to provide strong qualitative data to explain routes into green economy jobs.	
To what extent (if any) have young people (11-24 years of age) experienced a change in their levels of knowledge, skills and confidence, environmental perception and awareness, and increased their social/environmental networks? What actions/interventions had the greatest/least positive impact?	Strong likelihood of contribution. Likely to produce strong qualitative data on individual case studies of enhanced awareness, networking, etc.	The programme had successfully and demonstrably contributed to raising the confidence and skills development of project leaders and their teams. As a demanding and ambitious programme, even these capable candidates, were stretched and challenged and as a consequence are able to identify new areas of strength they would not otherwise have been able to develop in their current circumstances.
To what extent (if any) have young people (11-24 years of age) increased and improved their health and well-being as a result of participating in Our Bright Future?	Strong likelihood of contribution. Broadly based qualitative indicators of health and wellbeing will be collected for project leaders together with self assessments of changed attitudes and behaviours together with stronger qualitative evidence.	Many of The Environment Now programme projects aimed to have an impact on public health. These ranged from projects focusing on food, exercise and improvement in the living environment. The use of inspiration events led by participating teams has helped to communicate key messages from individual The Environment Now projects to a wide constituency of young people (and other older adults). It has been estimated that the reach of these events has been to about 17,500 people.

What impact has Our Bright Future made on the green economy?		
To what extent has the Our Bright Future programme increased general knowledge and awareness of the green economy among young people (11-24 years of age) engaged with Our Bright Future?	Likely contribution through qualitative evidence. Unlikely to provide data on general awareness, but stronger case study material in discrete contributions through qualitative data.	While it was not anticipated that hard data could be produced to demonstrate impact, qualitative evidence indicates that many projects have successfully raised young people's awareness of environmental issues. The strong emphasis in many projects on consumer choice and behaviour illustrates this point particularly clearly.
To what extent are young people (11-24 years of age) able to communicate and promote the green economy among their communities as a result of engaging in Our Bright Future?	Likely contribution through qualitative evidence. Likely to be limited to evidence drawn from project leaders and other young people contributing to the programme through case studies and qualitative interviews.	Project leaders and their teams have been effective in communicating and promoting green issues through a series of 76 'inspiration' sessions which reached a population of 3,659 young people.
What skills, knowledge and qualifications (if any) are needed to actively participate in a green economy among young people (11-24 years of age)?	Potentially strong contribution. While the proportion of young people engaged in this element of skill development cannot be predicted, association with university departments is likely to produce good examples of skill, knowledge and accreditation.	The Environment Now programme focused on current higher education students or recent graduates given high expectations of existing skills and knowledge of environmental issues and capability in digital application in project development. While involvement in the programme is not directly and formally accredited (and could not be given the range of activities involved) the principal areas of new skill development are associated with environmental project management, business planning, relationship building, leadership and influencing.

National programme evaluation objectives	The Environment Now programme anticipated contributory role in delivering national programme aims (prior to commencement)	Summary assessment of project achievement set against anticipated outcomes
<i>Under Outcome Three: There is better evidence about how young people can improve their local environment and this evidence is used to inform wider policy and practice</i>		
What influence (if any) has the Our Bright Future programme had on local, regional or national government policy and cross sector decision making and to what extent are Our Bright Future policy recommendations embedded in local and national government manifesto's as a direct result of Our Bright Future interventions?	Potential contribution to overall programme impact. Likely to make a measured contribution through insights gained from empirical, policy and practice analysis in evaluation report.	<p>The Environment Now programme only formed one part of a much wider programme (being one of 31 existing projects). As such its contribution to overall programme aims are necessarily limited.</p> <p>However, learning from the programme indicates the importance of confidence and leadership development amongst young people who have been encouraged to set up demonstration projects in a variety of fields of relevant to public policy and business innovation.</p> <p>The strong focus on energy efficiency and conservation, and waste and recycling in The Environment Now programme has led to the development of projects which led directly to contact with public authorities.</p> <p>Examples included the development of digital consumer knowledge and information applications to improve aspects of choice with environmental benefits and waste and recycling applications of relevance to public bodies with statutory responsibilities for such issues.</p> <p>The programme also highlighted the complexities surrounding the use of environmentally beneficial new applications due to local procedural restrictions and constraints which are difficult to overcome. However, the communication of new ideas have the potential to have catalytic impact on public policy even if, ultimately, the political processes surrounding and necessary levels of investment in change may come from different quarters.</p> <p>As time bounded and resource restricted demonstration projects, it would be unreasonable to expect too much from individual The Environment Now programme initiatives at an individual level.</p>
To what extent is the Our Bright Future programme delivering successful campaigns at a local level that are influencing local policies and decision making? How is this happening?		
To what extent (if any) is the overall Our Bright Future advocacy campaign creating a 'groundswell' movement in support of positive environmental change led by young people (11-24 years of age); influencing local, regional and national government policy?		
To what extent are cross-sector decision makers engaged in Our Bright Future advocacy and policy work? What, if any benefit does this bring?		



Durham
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