Digital Solent Conference Report

November 2017

Helping make the Solent the UK's leading region for digital business growth

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1.0 Introduction

1.1 About the Digital Solent Conference

As part of the development of an ambitious programme of regeneration that seeks to transform local economic prospects, the Isle of Wight Council worked in conjunction with the Solent LEP and VentureFest South to hold the first Digital Solent Conference, which took place on the 8th November 2017.

The event was held at Cowes Yacht Haven on the Isle of Wight and was attended by 159 delegates *(see appendix 2).* Attendees included local companies active in the digital sector on the Island and in the wider Solent region, secondary school pupils, Isle of Wight council cabinet members and a range of representatives *(see appendix 1),* who shared their digital knowledge, experience and expertise. The event enabled leading national and international speakers and local and regional stakeholders to be brought together with the local digital business community and the wider business community, to create opportunities for all delegates to better understand what digital technologies can offer in a growth focused economy now and in the median future.

During the event, tables of delegates were asked to participate in an 'innovation challenge', led by a facilitator drawn from the digital business community. The challenges identified related to some of the key economic, social and environmental issues facing the Isle of Wight and wider Solent region. These challenges were designed to encourage networking and knowledge-sharing amongst the business community, and enabled delegates to form relationships that could potentially be maintained after the event and inform the basis for detailed work on a Digital Isle strategy.

Delegates attending the Digital Solent Conference

1.2 What were the aims of the Digital Solent Conference?

The conference aimed to attract and appeal to two key audiences: companies in traditional sectors looking for digital transformation insights, and firms in the digital industry interested in making new connections. Therefore, the speaker sessions and the innovation challenges were designed to benefit both of these audiences. This was achieved not only by providing an insight into digital technologies during the conference, but also, by introducing the prospect of engaging with local digital firms to jointly solve business problems, develop new lines of business or transform existing ones.

The speaker sessions aimed to provide wide-ranging overviews of each of the three topics which were, 'the digital landscape', 'business benefits of digital presence' and 'cyber-resilience', and intended to inspire and motivate delegates to respond to the challenges that were set for the day. The innovation challenges aimed not only to help businesses network, but also to encourage businesses from different backgrounds to work together, potentially benefitting from the alternative skills and insights of their team members.

An introductory video from Richard Branson

2.0 Speaker Sessions

2.1 Session 1: The Digital Landscape

Following a welcome speech by the Leader of Isle of Wight Council, David Stewart, and a scene setting introduction by Martin Thomas, a social media commentator and conference facilitator, a brief message of support from Sir Richard Branson was broadcast to delegates. The Virgin Group boss congratulated all involved for recognising that the specific potential of the digital economy is helping grow prosperity on the Isle of Wight, and added his support for the aims of the event in moving the Island's economy fully into the 21st century.

The first speaker session considered the "Digital landscape" and combined a landmark announcement regarding investment in the Isle of Wight's digital infrastructure, an update of the UK government's Digital strategy investment programme and a perspective on the Isle of Wight's potential attributes in attracting digital enterprise and the global trends in the digital sector.

The main purpose of the opening session was to open up delegates' minds to the potential offered by enhanced technologies in addressing key issues facing societies and the availability of this capability to public and private sector organisations seeking to develop an enhanced public service or market opportunity.

The Digital Landscape panel

The Gigabit Island – Full Fibre, future proof, ultrafast broadband – fit for the 21st Century

John Irvine – CEO – Wight Fibre

The Digital Solent conference provided the perfect platform for Wight Fibre's CEO John Irvine to open the event with the announcement of a £35m investment in Wight Fibre's digital infrastructure from 2019 to 2021.

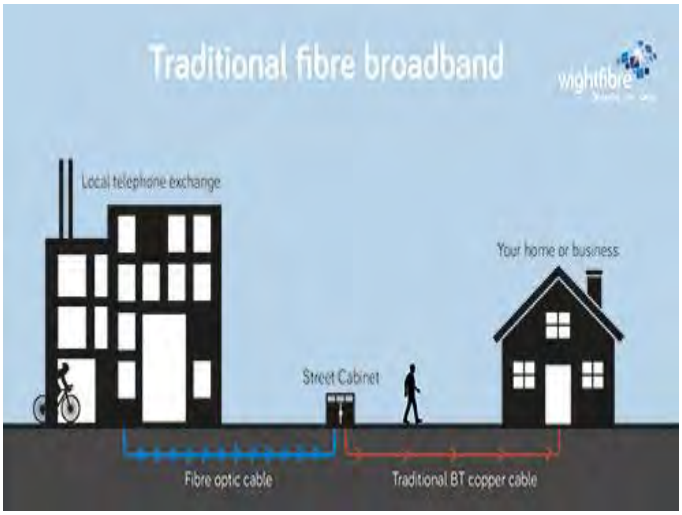
WightFibre is the first company in the country to receive investment from the government's new Digital Infrastructure Investment Fund, which was launched by HM Treasury in July this year.

John Irvine, CEO, WightFibre

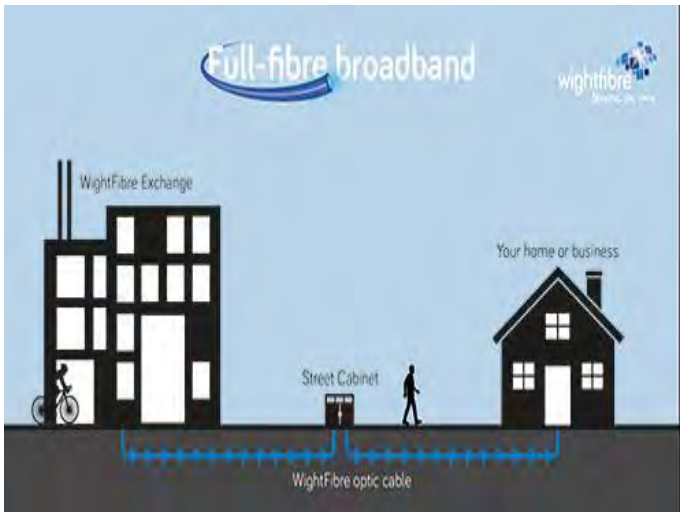
WightFibre's full-fibre broadband network will provide speeds of up to 1GB (1,000Mb) or faster to over 50,000 homes and businesses across the island, including areas of the island not previously served by WightFibre. This will create the UK's first 'Gigabit Island'. Full-fibre broadband uses fibre optic cabling all the way from the exchange into the home. This compares to existing broadband infrastructure on the island which uses fibre to the cabinet but then copper twisted pair from the cabinet to the home.

WightFibre's chief executive officer, John Irvine, said: "Just 10 years ago few of us could have imagined just how much we would all be using the internet both at home and work. Traditional copper networks have struggled to keep up with demand. The new WightFibre full-fibre network will be capable of handling the islands broadband demands for decades to come, catapulting the island into the front line of the new digital economy".

https://www.wightfibre.com/full-fibre/



Traditional fibre broadband



Wightfibre

Dr Jeffrey Starr – University of Maryland

Co-Founder, Managing Partner, and Chief Operating Officer of Neo Prime Solutions, Inc. (NPSI), Dr. Jeffrey Starr, focuses on research and consulting on the development of next generation security products to detect and protect networks against advanced persistent threats. He is a visiting professor at the University of Maryland teaching an advanced honors undergraduate cyber security laboratory seminar focused on mobile platform security. Previously, as Senior Vice President for Corporate Development for G4S Americas, he led in the application of Monte Carlo based modeling products to site vulnerability assessments, particularly in the high security critical infrastructure sectors, and developed initiatives on cyber security applications for the commercial nuclear security industry. He co-authored the first crisis management procedures now used by G4S globally, and guided the G4S position on the International Code of Conduct to govern security firm accountability in conflict zones. During three years as Vice President in the Business Intelligence Group of Goldman Sachs in New York, he evaluated reputational and regulatory risks to the Firm of exposure in Emerging Market transactions to illicit financial activities, and advised on options to restructure those transactions to mitigate such risks. He worked with GS Information Security to develop policies and procedures related to cyber security, detecting network attacks, and mining the web to detect threats against the Firm. Dr. Starr served for over 20 years in various capacities in the US Government, reaching the rank of Senior Executive Service 5.

His transatlantic perspective challenged delegates to think about the kind of image the island want to promote to the rest of the world and grasp the opportunity provided by embracing a digital economy by rallying all available financial and intellectual capital. This would involve enabling structured collaboration between, island businesses, global blue chips and universities across the world. Jeff outlined his experience in the fibre led transformation of Chattanooga in the USA drawing parallels between how a small industrial city had reinvented itself and the challenge facing the Island as maritime and rural economy.

Andy Stanford–Clark – Chief Technology Officer – IBM

Andy Stanford-Clark is the Chief Technology Officer for IBM in UK and Ireland. He is an IBM Distinguished Engineer and Master Inventor with more than 40 patents. Andy is based at IBM's Hursley Park laboratories in the UK, and has a long background in Internet of Things technologies. He has a BSc in Computing and Mathematics, and a PhD in Computer Science. He is a Visiting Professor at the University of Newcastle, an Honorary Professor at the University of East Anglia, an Adjunct Professor at the University of Southampton, and a Fellow of the British Computer Society.

Andy lives on the Isle of Wight. His comments as part of the panel discussion centred on: "disruptive" technologies – including Internet of Things, assisted technologies in health and social care, block chain and how these technologies and business opportunities might help address the challenges the Isle of Wight faces in growing its economy and tackling its social challenges. Andy also highlighted the launch of the Fawley Waterside "intelligent merchant city" project as another key development in the Solent region.

Justin Leese – Programme Director – **Local Full Fibre Networks Programme** - Department for Digitial, Culture, Media and Sport

Justin has been in the telecoms industry for over 30 years in companies such as Scottish Telecom (Thus), NTL (Virgin Media), Ericsson and Openreach. Whilst at NTL his team launched the first UK's Broadband service and whilst at Ericsson he was the Programme Director for the UK launch of 4G in 16 cities for EE as well as VoIP services across Germany for Deutsche Telekom. He recently joined the Department of Digital, Culture, Media and Sport as Director for the Local Full Fibre Networks Programme.

Justin, in his comments, sought to highlight the potential afforded by Wight Fibre's investment, backed by the UK Governments Digital Infrastructure investment programme and discussed:

- The governments recently announced £1.1bn of funding through the £400m DIIF (Digital Infrastructure Investment Fund) and £740m NPIF (National Productivity Investment Fund). How do you see these stimulating the market for gigabit connectivity?
- Why we need Gigabit networks? – The UK lags behind other EU countries in the penetration of full fibre
- The Local Full Fibre Network (LFFN) Wave2 programme and its potential for the Isle of Wight
- The relationship between the LFFN and the 5G Trials and Testbeds Programme.

2.2 Session 2: Business benefits of digital presence

The session was prefaced by a short video highlighting some the digital businesses that have successfully established themselves on the Isle of Wight

https://iwightinvest.com/digital-solent-conference/

The panel consisted of:

- **Christina Conroy** Director, Coralesce Ltd.
- **Patrick Slattery** Managing Director, Accenture
- **James Lambert** Associate Director Oxford Economics

Christina Conroy Director, Coralesce Ltd.

The session commenced with Christina Conroy announcing the launch of a new website called TechIslandUK. This is a project that has been funded by the Royal Society for the Encouragement of Arts, Manufactures and Commerce (The RSA), and provides a directory of case studies that showcase the Island's, often 'hidden', tech and digital companies.

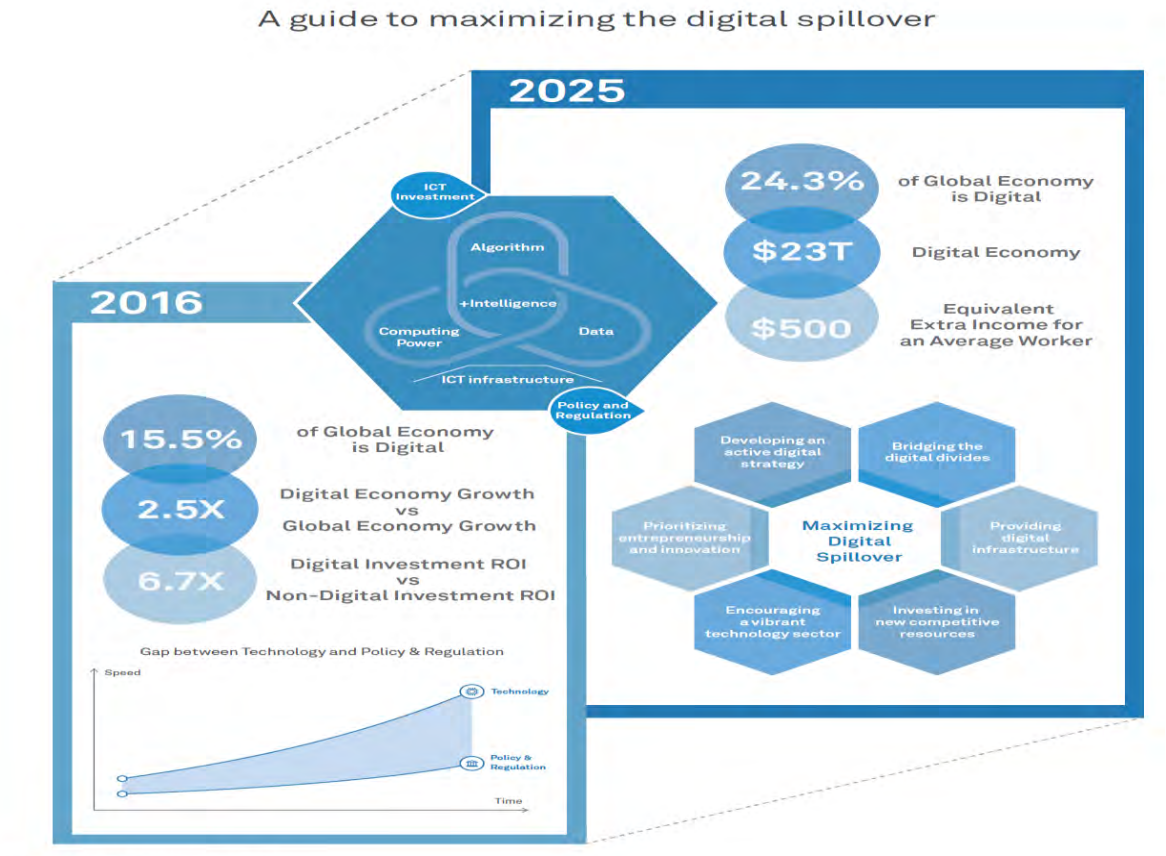
Christina explained that engagement with young people on the Island had shown that people were keen to return to the Island after gaining higher education, but weren't aware of the opportunities that exist here. The TechIslandUK website intends to address this gap, and is looking to gain a greater presence in schools.

Companies that wish to be featured should get in touch via the website, which is at http://techislanduk.com/ and is also on Twitter and Facebook.

There was an audience question from Mark Minghella, Head of Computing at Sandown Bay Academy, who wanted to know how the island can break through the digital divide, and provide better access and skills for young people?

Christina responded by drawing our attention to the public libraries programme in San Francisco and how that city has managed to turn its libraries into great facilities for public engagement with digital skills and inclusion, for both young and old.

James Lambert Associate Director, Oxford Economics



Source: Oxford Economics, Huawei

James Lambert presented the findings from his recent research project into the digital economy that was funded by Huawei, and resulted in a report called "Digital Spillover: Measuring the true impact of the Digital Economy".

James noted that their analysis showed clear evidence that a pound invested in the digital economy is amplified in the rest of the economy. This is the 'spill over' effect referred to in the title of the report, and they analysed three pathways by which this happens:

- Internal Spill overs, where investments in new technologies and practices have much wider impact within an individual organisation than originally anticipated. And why this happens in certain firms but not others.
- Horizontal Spill overs, where some ecosystems encourage firms to share knowledge and technology applications with their peers.
- Vertical spill overs, in which the adoption of new digital technologies and platforms, ripple through a supply chain improving efficiency and productivity at all levels.

James explained that there was much that policy makers could do to invest in the 'soft' infrastructures that enable these spillover effects as well as 'hard' infrastructures such as ultra-fast broadband.

Patrick Slattery Managing Director, Accenture

Patrick Slattery then spoke about the disruptive energy of digital technology to change how value is provided to end customers and overturn established sectors of the economy, including financial services that he is engaged with on a daily basis.

The corollary of this is that there are still far too many firms that have not yet embraced digital technology and are leaving themselves open to being disrupted by more savvy and more agile competitors. It's crucial that more traditional businesses start their digital transformation journey.

In answer to a question on this point, Christina Conroy pointed out that companies can get started just by using free online tools that provide immediate cost savings, such as meeting technologies that provide video-conferencing and screen-sharing with up to eight people for free. Not only can such tools save a trip off island, but can also begin to get staff familiar with using digital tools in their work.

Ben Dyer of Powered Now then spoke from the audience on the way his business provides digital tools expressly for some of these traditional or legacy businesses, and the huge improvement in customer satisfaction that it brings.

Patrick Slattery explained that the problem that many businesses face is when to disrupt what might still be a very healthy legacy business model. Innovating is one thing, but getting the timing right to switch from the old to the new is very hard and risky.

Input from the audience

A question was asked of James Lambert around what the key lessons from the Spillover Report are for the Isle of Wight specifically. James suggested that the Island should look to open up channels for these spillovers to take place. For instance, ensuring that firms are open minded enough to take proper advantage of new technologies and methods; to evaluate the island's technology supply chain and ensure it is competitive; and the extent to which one business' success stories can be shared and emulated within a sector, which is perhaps a cultural factor that this island particularly has going for it.

John Devlin of Ascensos then explained how and why he had decided to set up a service centre on the Island, and the not insignificant barriers he faced in doing so, many of which were about how the Island is perceived by people externally such as his stakeholders, investors and clients. But also, once these challenges had been overcome, the enthusiasm and quality of staff that Ascensos had been able to attract so quickly was making the venture a success.

Finally, Mark Minghella spoke from the audience and raised his concerns around whether the schools on the Island are able to prepare students to take on these digital roles and take advantages of these opportunities? And conversely whether employers will be looking to attract skilled people to the island to do these jobs at the expense of the indigenous youth? For the Island's young people to have a chance to compete in this new economy, they need exposure to the technologies that they need to be proficient in, but this is expensive. Local businesses, and firms that locate to the island, have a responsibility to help the local youth realise their ambitions to be part of the new economy.

Delegates at the conference

Christina responded to a question about how to insure that people living on the Island get the full benefit of the digital revolution, by suggesting that all stakeholders have a role to play in overcoming the digital divide and investing in education, including business. And that furthermore, we should perhaps apply some digital disruption to the problem itself by reimagining how we currently do things in these areas.

The final question of the session asked each of the panellists what advice they would give the Innovation Challenge teams.

- Christina Conroy suggested they should see pain points as an opportunity.
- James Lambert encouraged the teams to look at where there is market failure. If there was a simple business case to be made, it would already have been. So look closely at why something is not already being done.
- Patrick Slattery noted that if the vision is to make the island famous for its digital skills and capabilities, we need to think about specialisation not just broad skills.

2.3 Session 3: Cyber resilience-risks and opportunities

The panel consisted of:

- **Commander Dave Clark** - City of London Police.
- **Dr Jeffrey Starr** - Neo Prime Solutions, Inc. and the University of Maryland
- **Paul O'Brien** - Director of Service, BT Innovation Lab

The cyber resilience risks and opportunities panel

Commander Dave Clark - City of London Police.

The session started with Commander Dave Clark talking about his role in the Force and the need for businesses to have a social conscience that encourages them to think about the security of their customers and how policing, civil society, government and industry all need to work together to keep people safe.

He noted that 55% of fraud and economic crime on the Isle of Wight is technologically enabled in one way or another. This means that we are not producing technology that is secure by design, or secure by use.

There is a need for business to be profitable, of course, but without a social conscience it is apparently too easy for firms to make choices that endanger the public, and the consequences of that can be very bad, including for the firms themselves.

In response to questions about the major threats, he noted that phishing emails are currently the number one threat, but that there isn't a culture of reporting them. This is not the case with any other form of crime, so why don't we report the fact we've received a malicious email? Reporting them helps organisations better understand the threat.

Finally, Commander Clark talked about "connected efficacy" and the need for firms to work better with agencies to collectively keep customers and citizens safe, and that the Police also need to do more to be a good partner to business in this regard.

Dr Jeffrey Starr - Neo Prime Solutions, Inc. and the University of Maryland

Dr Jeffrey Starr was then asked what it will take for the Island to become a centre of excellence for cyber security. He responded by saying that the key to this is foresight. He explained that industry is still in a paradigm of 'patch as fast as you can' and that breaches are usually only discovered six to eight months after they occurred. In addition, it is now much easier and cheaper to launch attacks as sophisticated tools are available on black markets that do not require particular technical skills to wield, there are more threat actors than ever before and attacks are now automated and disguised behind large armies of bots, rather than being carried out by a single individual at a computer somewhere.

In order to get ahead of this, industry will need to be able to predict where future threats are most likely to come from and allocate their resources accordingly. They need to be thinking where is the threat going to come from, and what are the most likely, most innovative, solutions to counteract this threat for the next iteration of the cyber arms race?

Jeffrey's opinion was that if the Island can help firms do this, it can become a centre of excellence.

The question was asked whether the Island could learn anything from the experience of Tel Aviv, which has become a world leader in cyber security. Jeffrey's response was that Tel Aviv, and Israel in general, emergence might seem sudden but is the result of investment over decades, and that it is tied to national priorities that helped its development enormously, for instance in the education system. Nonetheless, there are things the Island could learn and implement, certainly.

Paul O'Brien - Director of Service, BT Innovation Lab

Paul O'Brien then described the various research programmes that operate under his auspices at British Telecom, and that many of them are using Artificial Intelligence to monitor large communication networks - BT are active in 180 different countries. They use these technologies in operations centres to build up understanding of what normal patterns of use look like, so that they can more quickly detect anomalies that might indicate a cyber-attack or related event of some kind. So similar to the predictive analysis that Jeffrey Starr was alluding to, although this kind of analysis would always be reactive.

Paul also mentioned that BT use Artificial Intelligence to predict faults and provide more efficient ways to allocate their 20,000 engineers that operate in the UK

Paul was then asked about the likelihood that AI will automate a large number of jobs. He responded by expressing the view that it will change the shape of the jobs market but that automation will likely occur at the level of tasks rather than whole jobs. There will likely be fewer, higher skilled jobs as roles change to accommodate AI, and there will be a lot of new jobs in developing and maintaining AI systems, of course.

Finally, the panellists were asked by Ian Atkinson of Oriel Laboratories what they think the impact of cloud services such as AWS and Azure will be?

Paul O'Brien explained that these services rely on economies of scale to provide computing services more cheaply, and that this may be attractive for many companies, but that if this involves storing data offshore that this could appear 'creepy' to customers and be damaging to the company's brand.

Jeffrey Starr said that cloud platforms will not only become a more important contributor to outsourcing managed services for businesses, but also for developers as these are important development platforms that extend innovation. There is a dark side to everything, though, and the dark side here is that firms are not only outsourcing their managed services and basic IT infrastructure, they are also outsourcing your security. So who do you trust more?

3.0 Innovation Challenges

Innovation challenge teams

This chapter contains summaries of the Innovation Challenges conducted by the tables during the conference.

Please email regeneration@iow.gov.uk along with your table number if you would like to receive updates on the challenges that you participated in.

3.1 Summary of challenges

Table #2: Team AGGLO

Table lead:

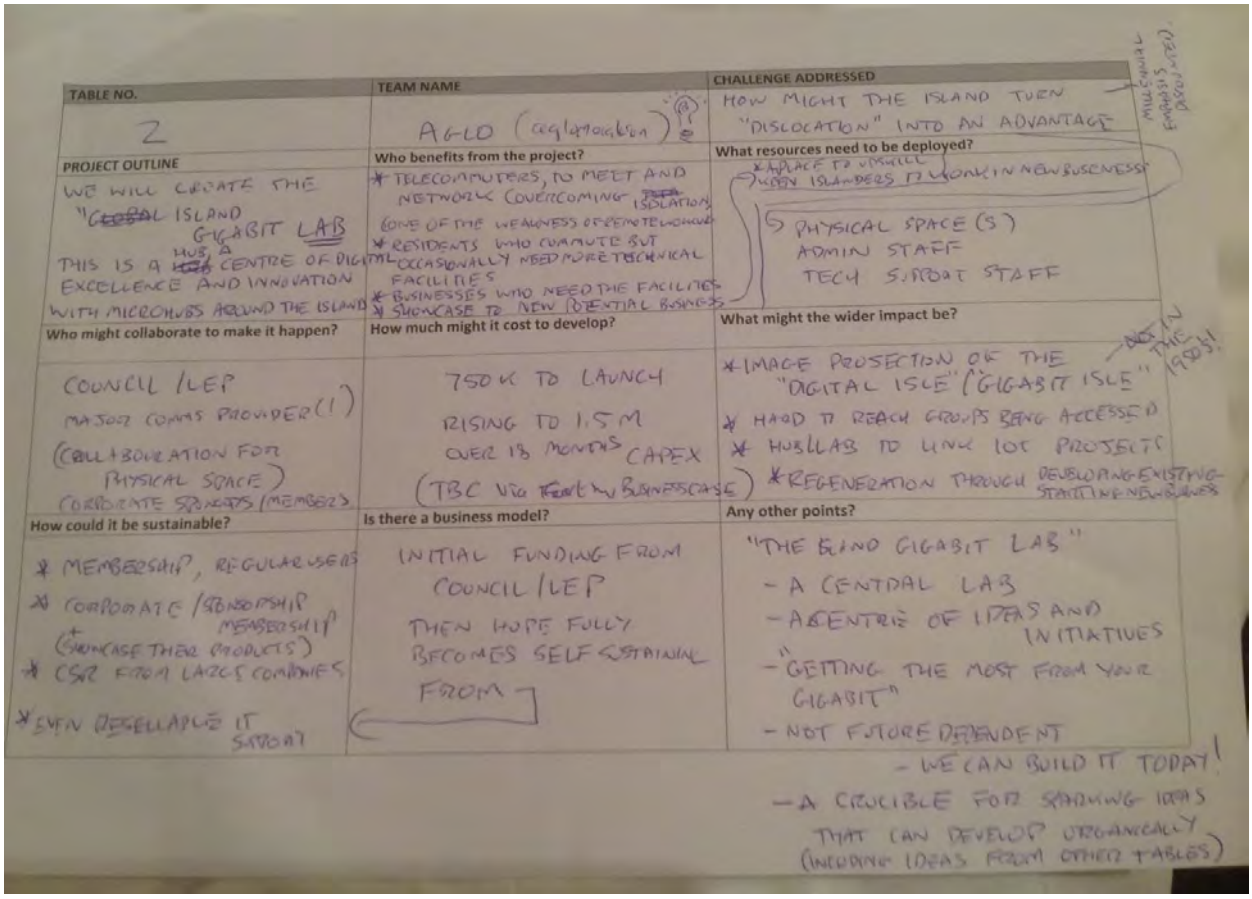
- Steve Clark (Clark Associates IOW LLP)

Challenge:

- **Dislocation** - How might the Island turn 'dislocation' into an advantage?

Project Summary:

Team AGGLO, which stands for Agglomeration, approached their challenge by imagining the development a hub and spoke network of co-working, incubation, remote working and teleconferencing facilities, along with IT support and digital business specialists. A centre of digital excellence and innovation with micro-hubs around the island.



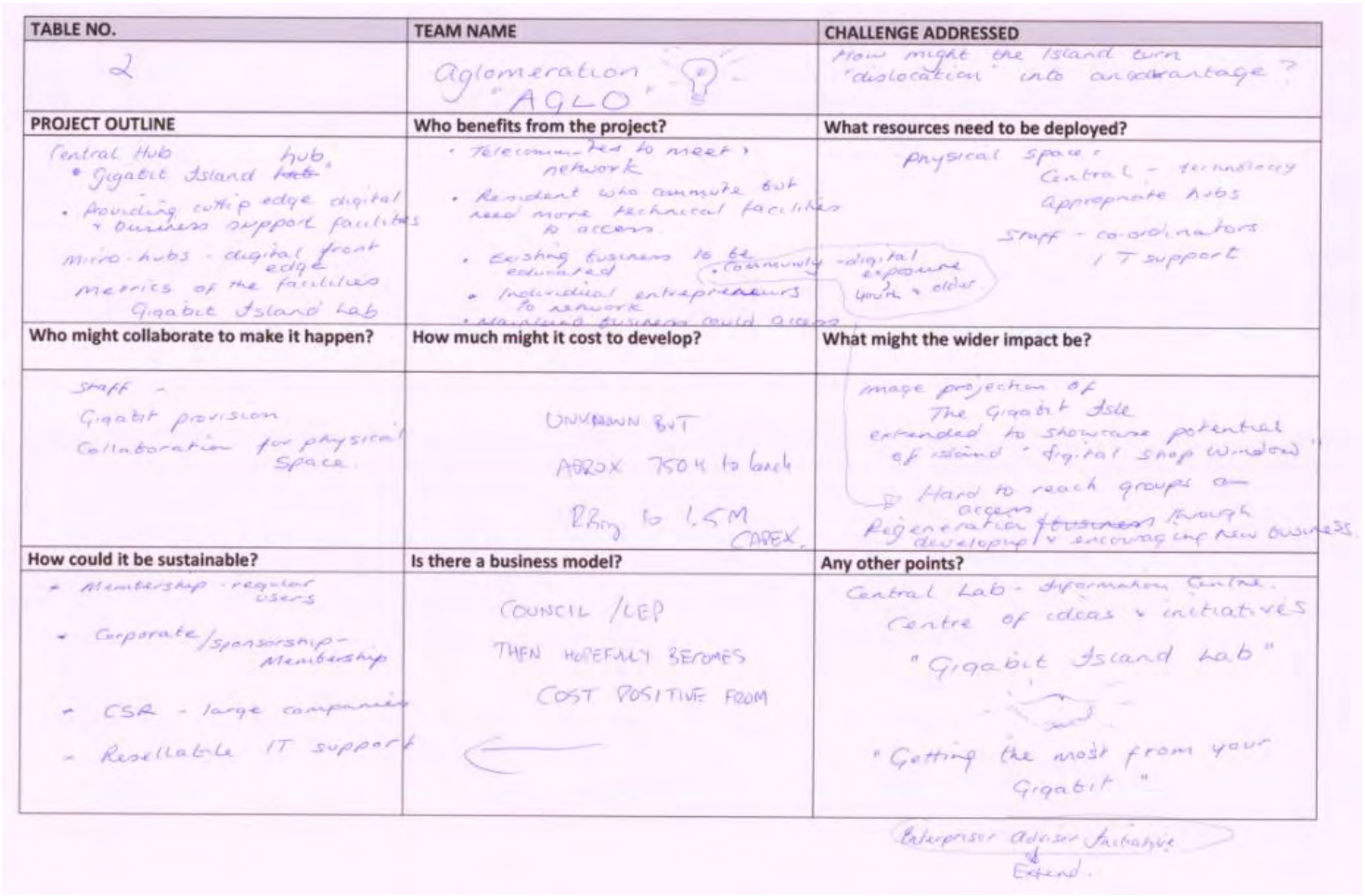


TABLE NO.	TEAM NAME	CHALLENGE ADDRESSED
2	Aglomeration "AGLO"	How might the Island turn "dislocation" into an advantage?
PROJECT OUTLINE	**Who benefits from the project?**	**What resources need to be deployed?**
Central Hub hub • Gigabit Island ~~hub~~ • Providing cutting edge digital + business support facilities Micro-hubs - digital front edge Metrics of the facilities Gigabit Island Lab	• Telecommuters to meet + network • Resident who commute but need more technical facilities to access • Existing business to be educated • Individual entrepreneurs to network • Mainland business could access • Community - digital exposure Youth + older	Physical space: Central - technology Appropriate hubs Staff - co-ordinators IT support
Who might collaborate to make it happen?	**How much might it cost to develop?**	**What might the wider impact be?**
Staff - Gigabit provision Collaboration for physical space.	UNKNOWN BUT APPROX 750K to back Ring to 1.5M CAPEX.	Image projection of The Gigabit Isle extended to showcase potential of island "digital shop window" Hard to reach groups on access Regeneration ~~business~~ through development + encouraging new business
How could it be sustainable?	**Is there a business model?**	**Any other points?**
• Membership - regular users • Corporate/sponsorship - Membership • CSR - large companies - Resellable IT support	COUNCIL /LEP THEN HOPEFULLY BECOMES COST POSITIVE FROM	Central Lab - Information Centre. Centre of ideas + initiatives "Gigabit Island Lab" "Getting the most from your Gigabit"

Enterprise Advisor Initiative
Extend.

Table #3: EcoIsland 2.0

Table lead:

- Ray Cobb (Solent Growth Hub)

Challenge:

- **Gigabit Broadband** - What could happen if the whole island was connected with gigabit broadband?

Project Summary:

Team EcoIsland 2.0 suggest the establishment of the "WightGrid" - an Island-wide smart energy grid that would take advantage of the Island's universal high-speed and low-latency communications to look after energy management. A smart grid would allow energy devices to communicate with each other and channel electricity to where it is needed or can best be stored. This could be set up as a test bed, to trial solutions which can then be taken elsewhere and exported around the world. This could be combined with a new kite mark standard, "WightGoods", to indicate compatibility.

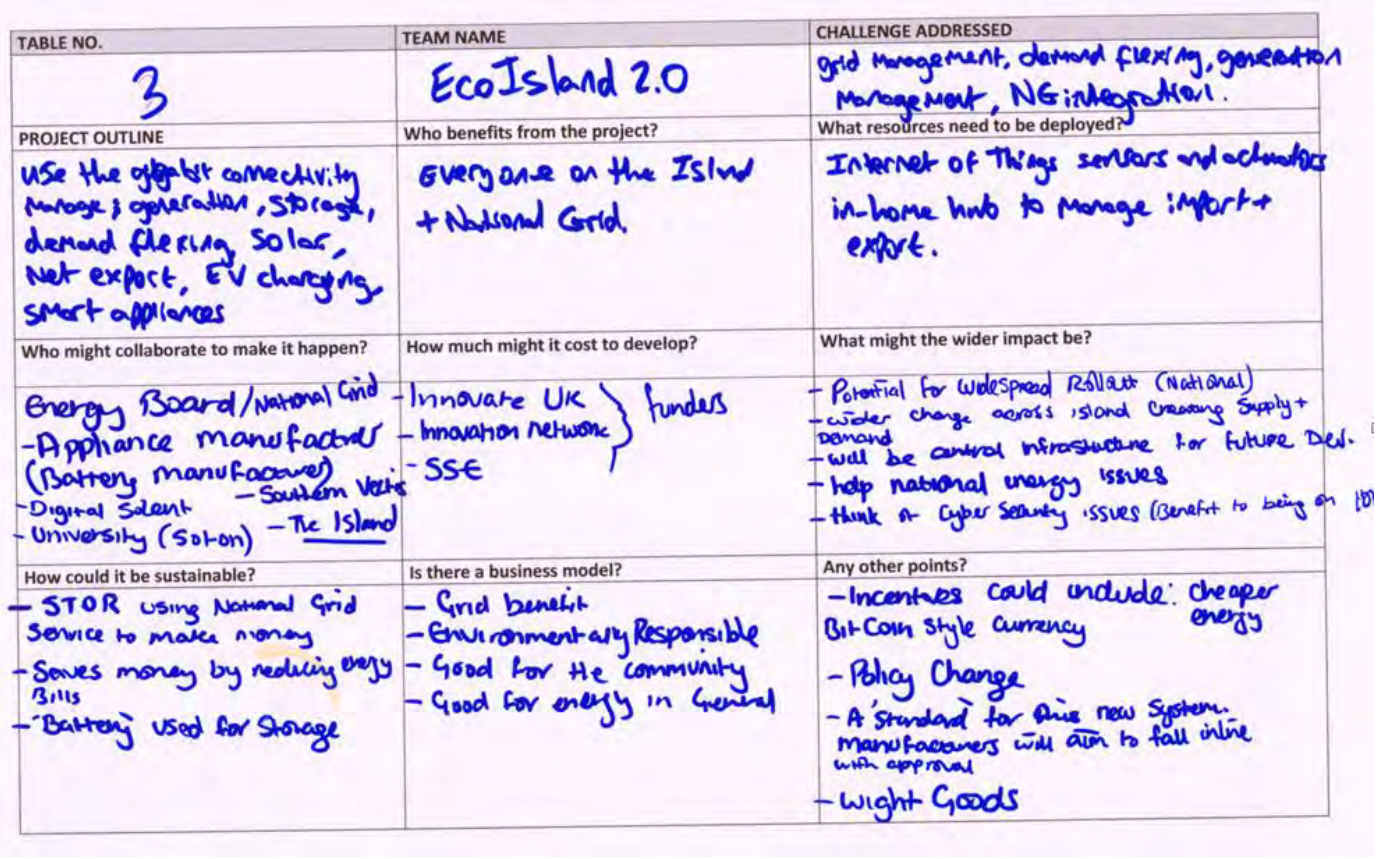


TABLE NO.	TEAM NAME	CHALLENGE ADDRESSED
3	EcoIsland 2.0	Grid management, demand flexing, generation management, NG integration.
PROJECT OUTLINE	**Who benefits from the project?**	**What resources need to be deployed?**
Use the gigabit connectivity manage; generation, storage, demand flexing, Solar, Net export, EV charging, smart appliances	Everyone on the Island + National Grid.	Internet of Things sensors and actuators in-home hub to manage import + export.
Who might collaborate to make it happen?	**How much might it cost to develop?**	**What might the wider impact be?**
Energy Board/National Grid - Appliance manufacturer (Battery manufacturer) - Digital Solent - University (Soton) - Southern Vectis - The Island	- Innovate UK - Innovation network - SSE } funders	- Potential for widespread rollout (National) - wider change across island creating supply + demand - will be central infrastructure for future Dev. - help national energy issues - think of Cyber Security issues (Benefit to being on IOT
How could it be sustainable?	**Is there a business model?**	**Any other points?**
- STOR using National Grid service to make money - Saves money by reducing energy bills - Battery used for storage	- Grid benefit - Environmentally Responsible - Good for the community - Good for energy in General	- Incentives could include: cheaper energy Bit-Coin style currency - Policy Change - A standard for this new system. manufacturers will aim to fall inline with approval - Wight Goods

Table #4: Technology Cares

Table lead:

- Malcolm Marshall (Turner Montgomery Inc)

Challenge:

- **IoT & Healthcare** - What opportunities are there at the intersection of IoT, home automation and social care, health and well-being?

Project Summary:

A Centre of Excellence to Start Well, Age Well and Live Well to provide a seamless citizen care journey with preventative and predictive elements. This needs a common language amongst caregivers and technology providers across the Island, as well as collaboration, connectivity and investment. Investment could though be recouped with savings to the current overall health and social care budget.

'TECHNOLOGY CARES'

TABLE NO.	TEAM NAME	CHALLENGE ADDRESSED
4	CITIZENS JOURNEY	CENTRE OF EXCELLENCE TO START WELL, AGE WELL, LIVE WELL
PROJECT OUTLINE CITIZEN	Who benefits from the project?	What resources need to be deployed?
SEAMLESS CARE WITH PROVENTATIVE AND PREDICTIVE ELEMENTS. ONE SOURCE OF THE TRUTH.	ALL	CONNECTIVITY COMMON LANGUAGE TELEMETRICS
Who might collaborate to make it happen?	How much might it cost to develop?	What might the wider impact be?
HEALTH SOCIAL CARE 3RD SECTOR TECH PROVIDERS	£100 p.a. / patient £200 p.a / professional £1m CAPITAL plus ++	Revenue % SAVING OF £300 - £400 M. OF CURRENT HEALTH + SOCIAL CARE BUDGET EG. 2% / 24M.
How could it be sustainable?	Is there a business model?	Any other points?
SMALL PILOTS CO FUNDED VIA INNOVATE AND PRIVATE SECTOR.	- YES / SAVING MONEY - BUSINESS CASE UNDER CONSTRUCTION	GOT TO TAKE RISKS FAILURE IS OK DATA SECURITY

Table #5: 5G2

Table lead:

- Denise Barlow (Solent Growth Hub)

Challenge:

- **Free Thinking** - What kinds of people will be attracted to the island, given the new infrastructure, especially in the short term?

Project Summary

Gigabit Island might attract people who have a slightly different demographic and psychographic profile, perhaps similar to those who were attracted to Stockholm's high speed infrastructure 10-15 years ago, and who started Pirate Bay, Spotify, Mojang, King Games, etc. Perhaps who wouldn't be deterred by things larger firms and corps would look at. Agile, personally and lifestyle motivated. The team's approach is called "Work where you want/Consume where you are", and would account for there being very different attractors for these people than for traditional firms and investors.

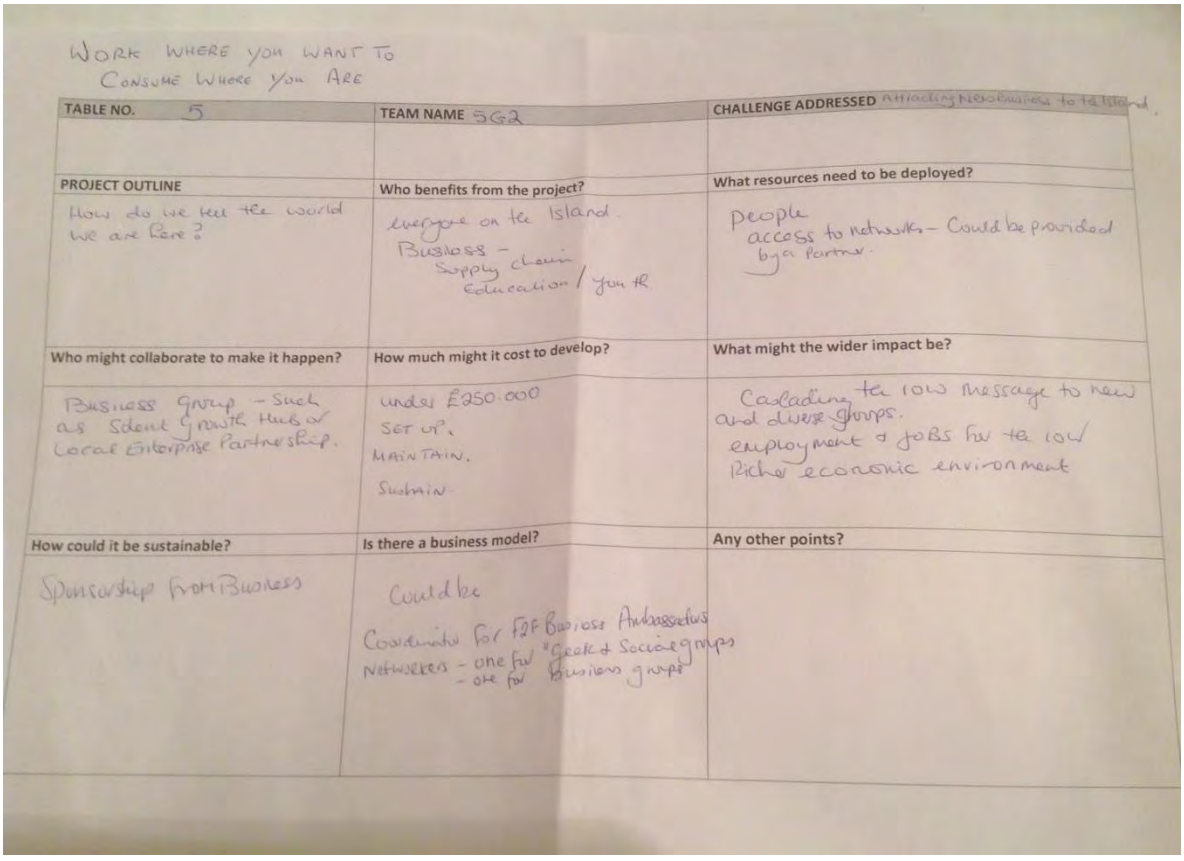


Table #6: Island Bites

Table lead:

- Jeff Underwood (IFPL & Chamber of Commerce)

Challenge:

- **Sector Knowledge Transfer** - What innovations and practices from the islands technology sector can be translated into other parts of the economy, and how?

Project Summary:

Testbed Island. The Isle of Wight is an excellent testbed geographically, and has a history of being used as such: water-meters, fluoride toothpaste, police body cameras, Walkers crisps, etc. Promoting the Island as a technology testbed, for instance for autonomous vehicles. Mostly self-funded but would require start-up funding for an innovation centre to coordinate and help manage data, provide a point of engagement and support.

(Pam Jones at Portsmouth University says the university would be keen to support this.)

Table #7: The Retainers

Table lead:

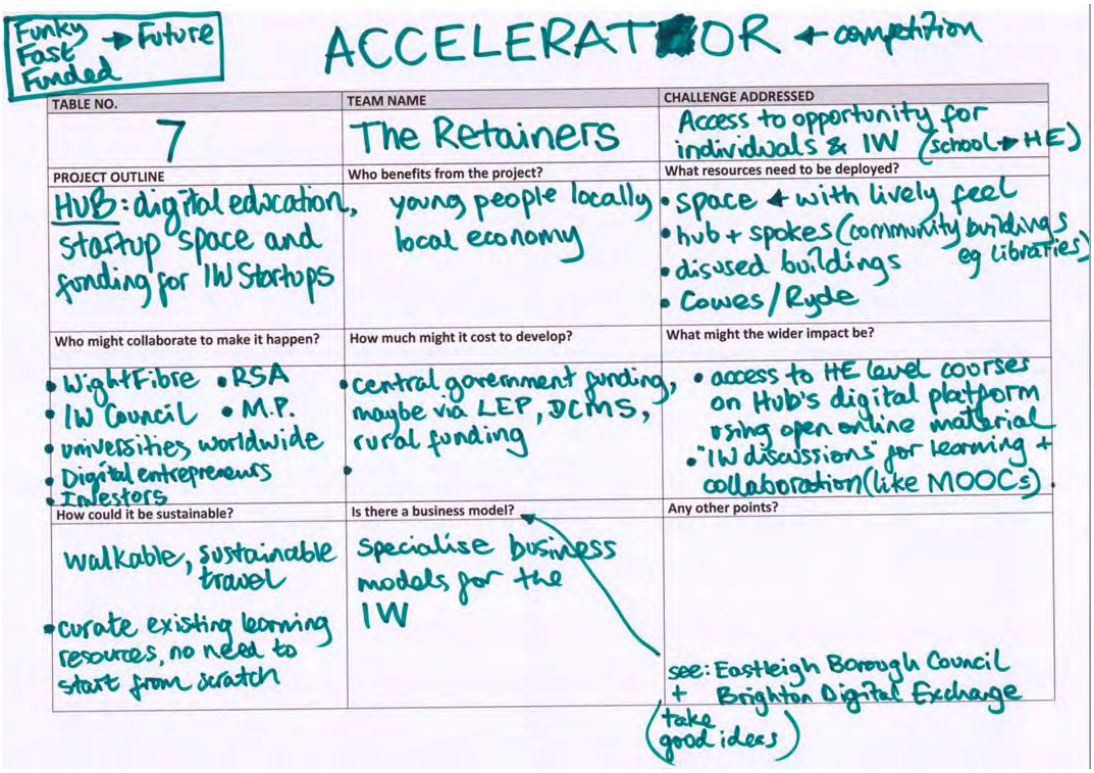
- Christina Conroy (Coralesce Ltd)

Challenge:

- **Graduate Growth and Retention** - How might new digital trends in education be leveraged to educate people to graduate and postgraduate levels, and retain them?

Project Summary:

Team "The Retainers" adopted a three-pronged approach to keeping high skilled graduates in the island consisting of: Digital education; a "Hub and Spoke" Start-up space; and funding for start-ups. Greater access to higher education on digital learning platforms (curated locally), along with co-learning spaces that double as start-up and co-working spaces.



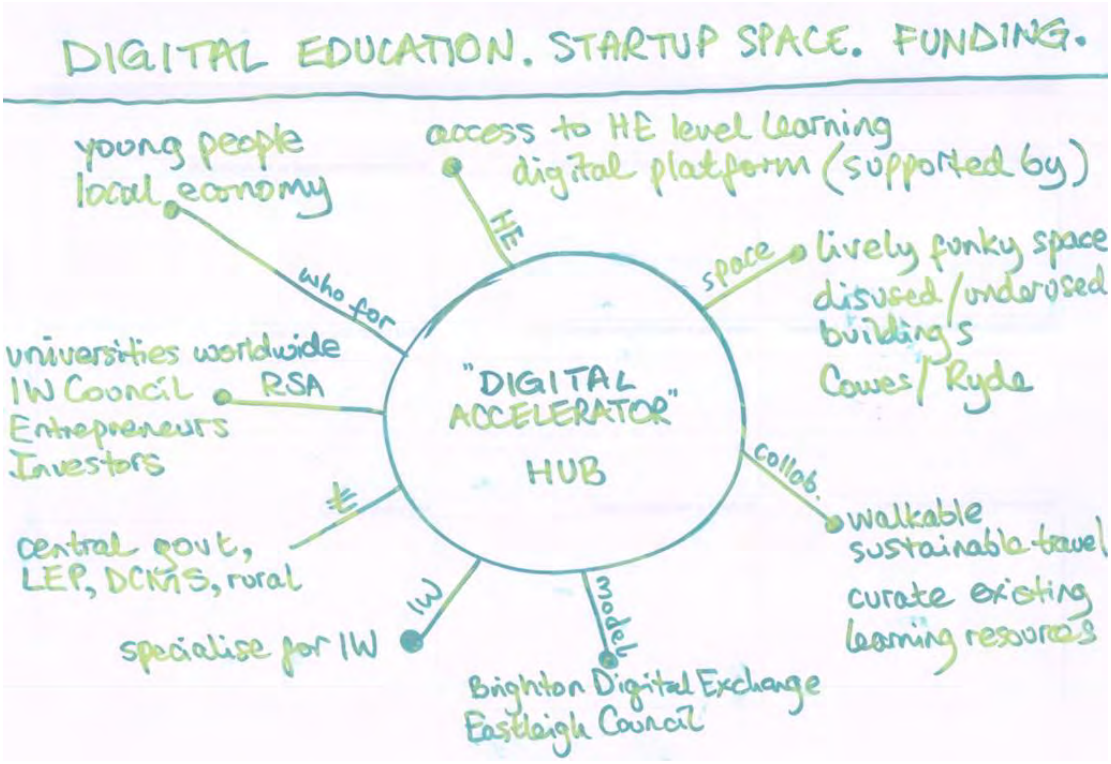


Table #7 The Retainers' *innovation challenge output*

Table #8: Great Wight Hope

Table lead:

- Ben Dyer (Powered Now)

Challenge:

- **Save £24m** - How can the Island save £24m over the next four years?

Project Summary:

The challenge as described was too negative, so the team changed it to "how can we make £24m over four years?" How could we power economic opportunity on the island? Their solution: to establish an investment and incubation hub on the Island. It would borrow models from elsewhere, and be funded with a mixture of private and public money. Outcomes: sound investments, sell IP and research back in to the market. Everyone would benefit: investors, public sector, local people, start-ups, etc.

In addition, to enable this, and the plethora of other ideas that have been suggested, the IOW should hire a CTO. The team also provided a link to their pitch canvas.

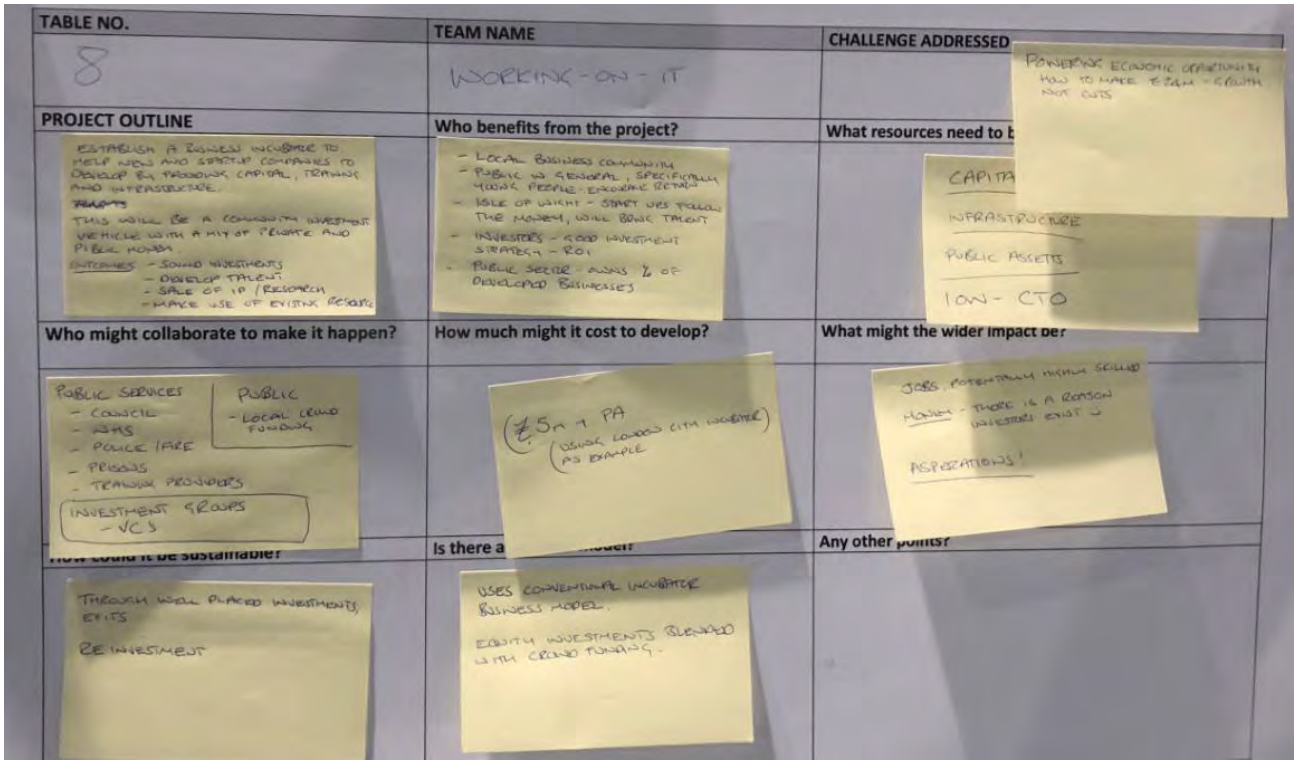


Table #9: Paradigm Shifters

Table lead:

- John Devlin (Ascensos)

Challenge:

- **Technologies & Trends** - What technologies and trends are of particular importance to the Island?

Project Summary:

Looked at a more fundamental challenge: How to address the negative perception of the island, especially in the business community, and the impact this has, e.g. on insolvencies, unemployment rate, school performance, average salaries, etc. Solution to rebrand the Island as a digital centre of excellence, by building a digital entrepreneurial academy at the core. Raise the aspirations and capabilities of people on the island, and start moving the dial on all the indicators that currently reflect negatively. Create a better place to live, work and play.

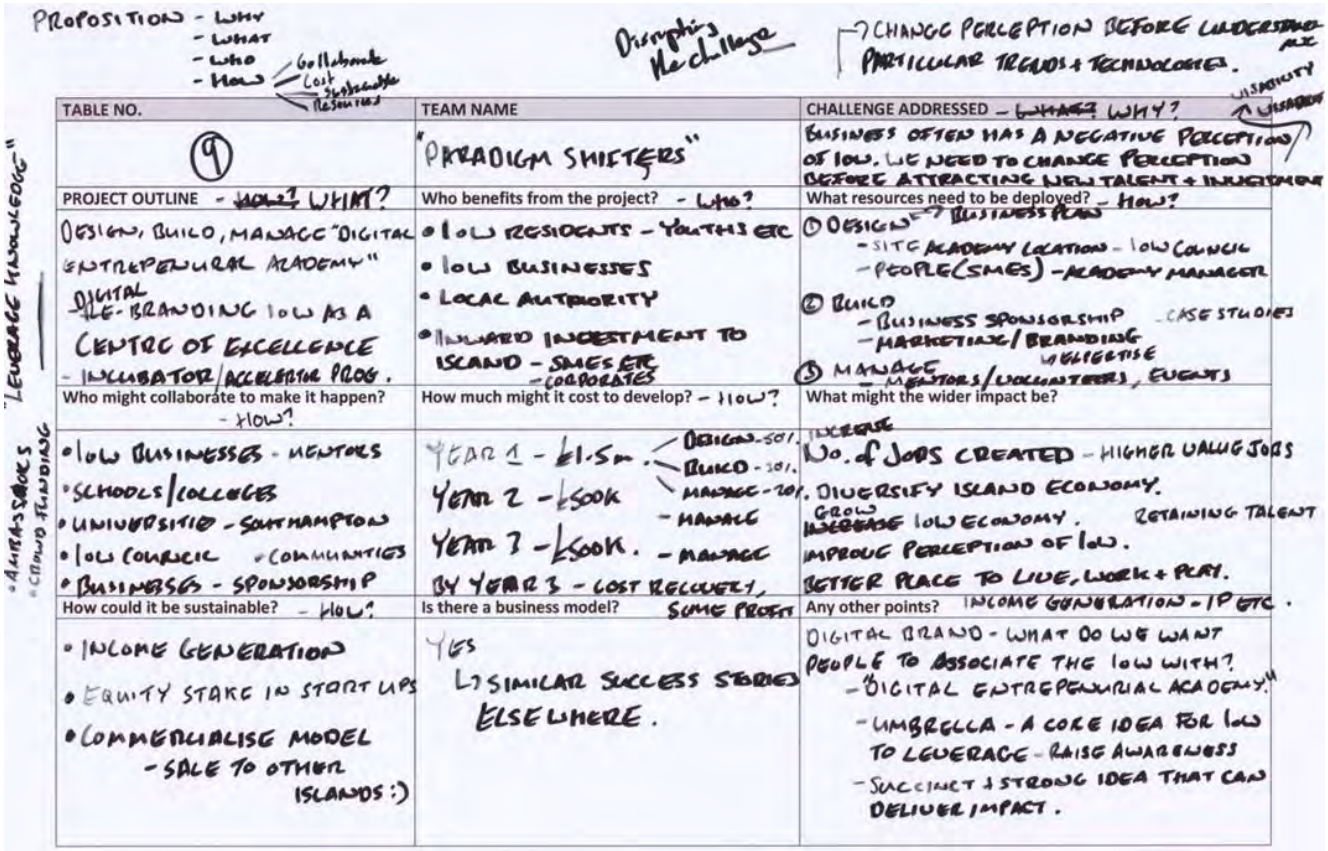


Table #10: Top Team Ten TTT

Table lead:

- Reniera O Donnell (IoW Council)

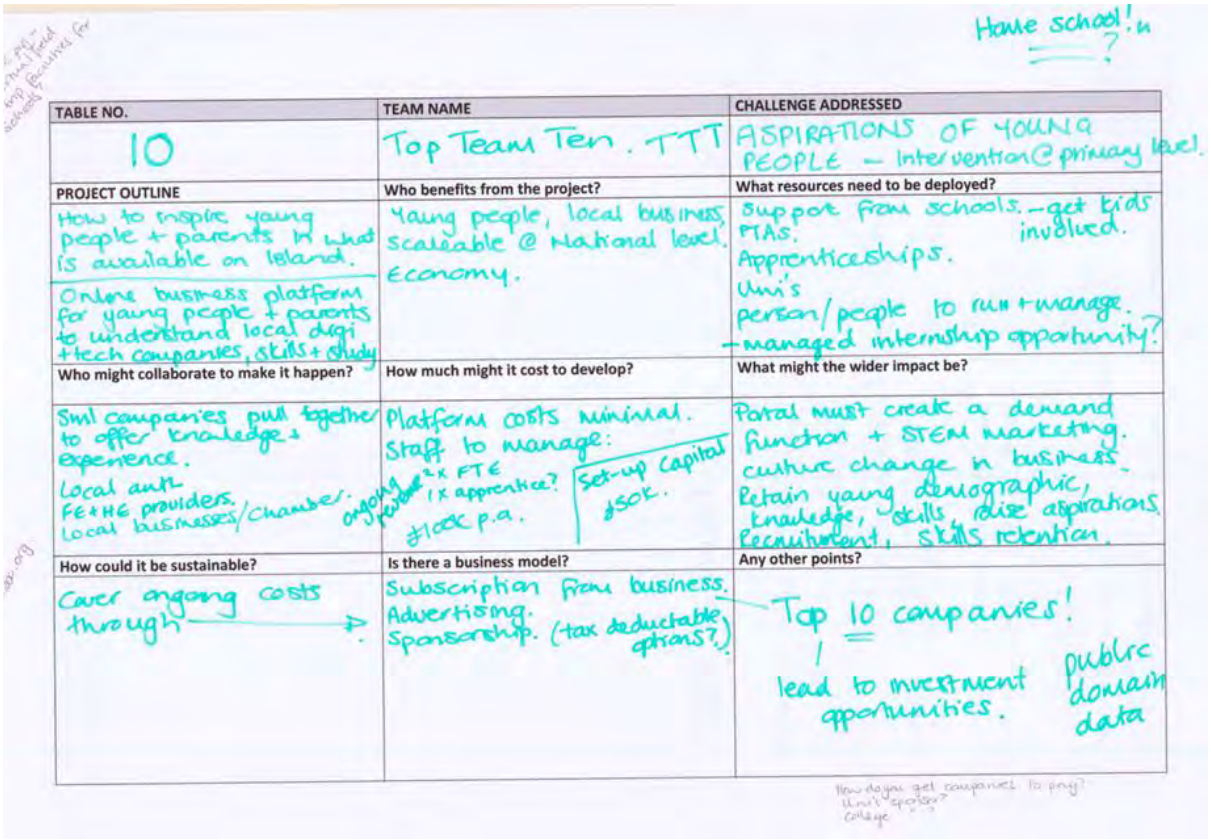
Challenge:

- Free Thinking - How do we raise the aspirations of the people on the island, especially young people?

Project Summary:

The team suggest creating an online portal that allows people to access information on the Island's firms, with profiles and available jobs, but also the kinds of skills they look for and the pathways that people can follow to gain those skills. This would require start-up capital, and then ongoing support which could be funded by company subscription.

This could grow into something far more than just a directory, but allow people to really engage with each other and employers.



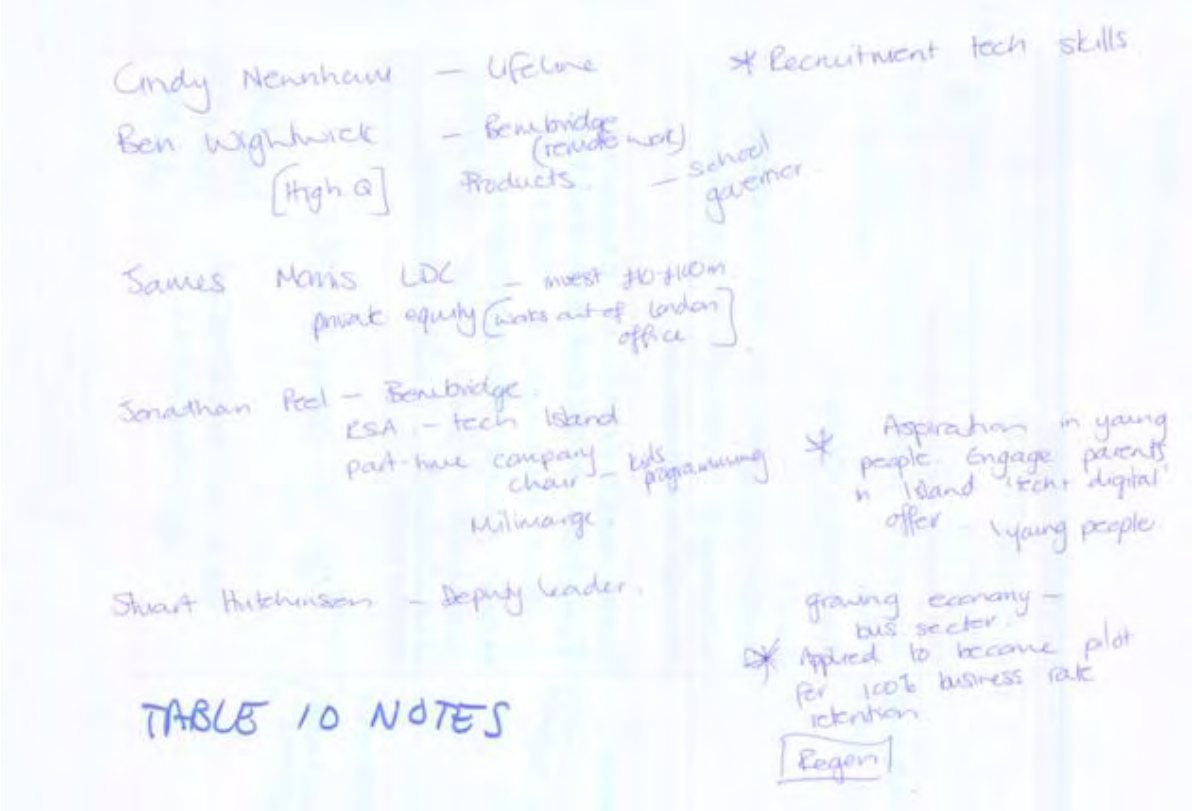


Table #11: The Upskillers

Table lead:

- Phillip Attfield (NextGen Skills Academy)

Challenge:

- **Upskilling** - What might be done to upskill the Island's workforce?

Project Summary:

To increase training and jobs on the island, and cross-train employees into new roles. Firstly, go out to current employers and find out what gaps they have and what training they require, then create a hub that can provide that training. Expand this to people who work at home, so they can also have a place to convene for training with others. Can the Island use its network of libraries to deliver this? Along with a central hub? Would use sponsorship and funding from employers, along with public funds, apprenticeship levy, etc. Extend this by conducting research into why people move to the island, and what keeps them here.

Table #12: Isle of Won

Table lead:

- Charlotte Clark (Clark Associates IoW LLP)

Challenge:

- **Visitor Offer** - How can digital improve the Island's visitor offer?

Project Summary:

There's a need for improved engagement in the digital landscape, to promote the island and visitor experience. Everyone would benefit. There's no need to reinvent the wheel: look at existing resources and seek to extend and improve them, share best practice between businesses and invest in training and digital skills within the industry. Note that of 1,200 businesses in the Wight BID, 400 did not have business email addresses.

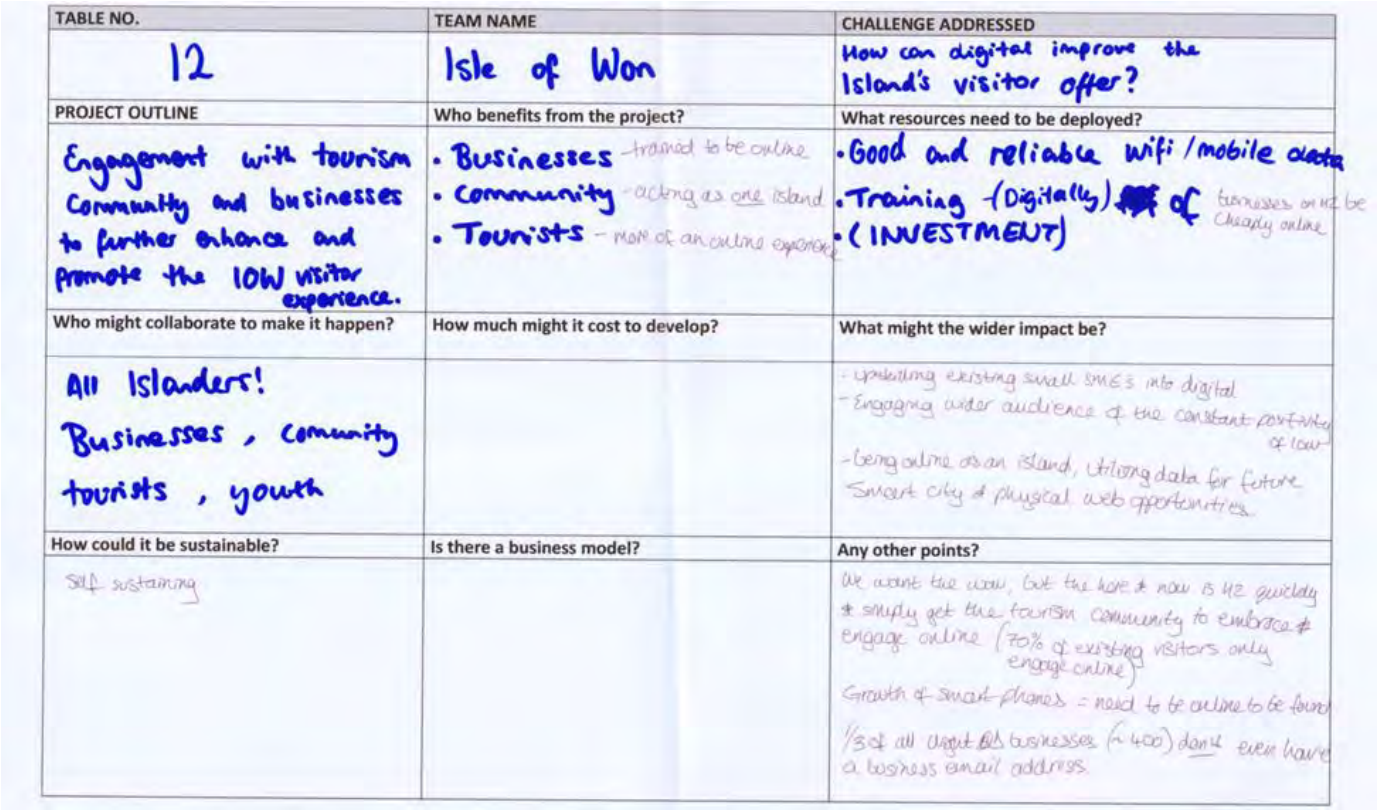


TABLE NO.	TEAM NAME	CHALLENGE ADDRESSED
12	Isle of Won	How can digital improve the Island's visitor offer?
PROJECT OUTLINE	**Who benefits from the project?**	**What resources need to be deployed?**
Engagement with tourism Community and businesses to further enhance and promote the IOW visitor experience.	• Businesses - trained to be online • Community - acting as one island • Tourists - more of an online experience	• Good and reliable wifi / mobile data • Training (Digitally) of businesses on IW to be Clearly online • (INVESTMENT)
Who might collaborate to make it happen?	**How much might it cost to develop?**	**What might the wider impact be?**
All Islanders! Businesses, community tourists, youth		- upskilling existing small SMEs into digital - Engaging wider audience of the constant positivity of IOW - being online as an island, utilising data for future Smart city & physical web opportunities
How could it be sustainable?	**Is there a business model?**	**Any other points?**
Self sustaining		We want the wow, but the here & now is IW quickly & simply get the tourism community to embrace & engage online (70% of existing visitors only engage online) Growth of smart phones = need to be online to be found 1/3 of all digital businesses (c 400) don't even have a business email address

Table #13: Getting There

Table lead:

- Ken Dueck (Tractioneers Ltd)

Challenge:

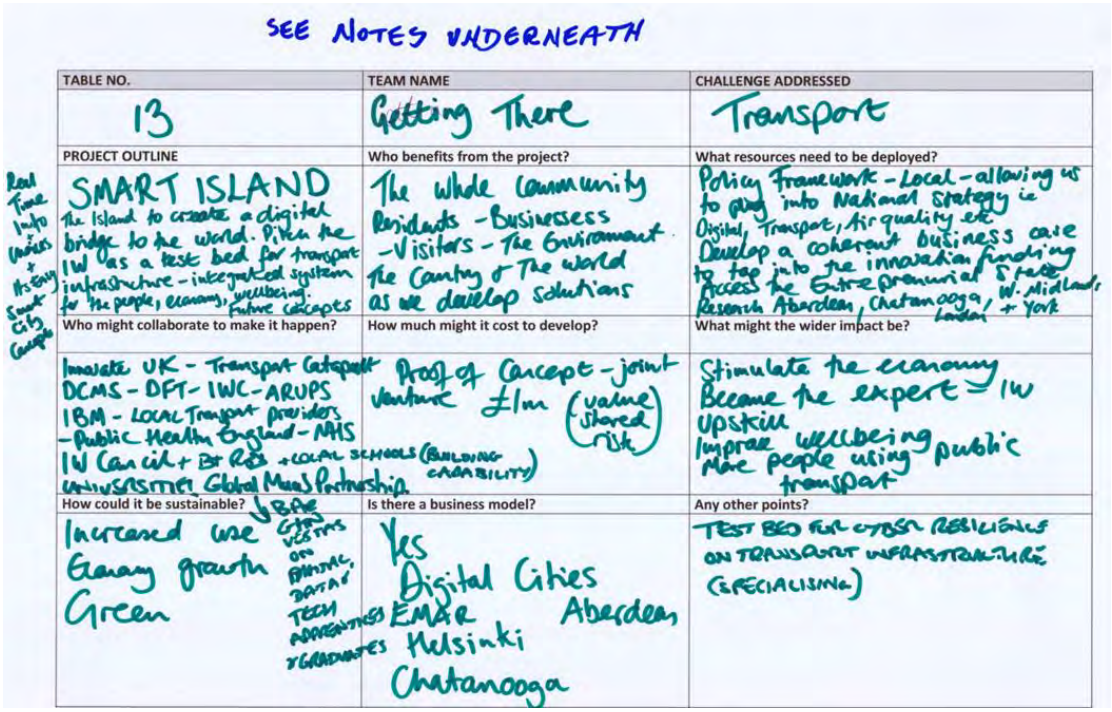
- **Transport** - How could the Island's transport be different in ten years' time?

Project Summary:

We are an island nation, and 97% of our trade by volume comes via the sea, and more on the IoW. Let's paint a picture of the future where we have a productive and innovative island, that's affordable, with accessible housing, transport for a growing community, a distinctive, liveable island and inclusive, vibrant and healthy neighbourhoods. A sustainable and resilient island. Our proposition is to create an intelligent transport platform - a Digital Bridge to a Smart Island. We want to build partnerships to get access to innovation funds, and mobility as a service innovators (such as Finland's MaaS Global), and other smart-city organisations. Present the island as a proof of concept platform for these firms to trial their intelligent transport technologies. Learn from other successful progressive places.

Updated vision:

"In ten years I want to open the County Press and see high value digital data and technology jobs advertised from Island-based companies, this is the greenest and happiest high tech community in the UK, enabled by the Digital Bridge to a Smart Island."



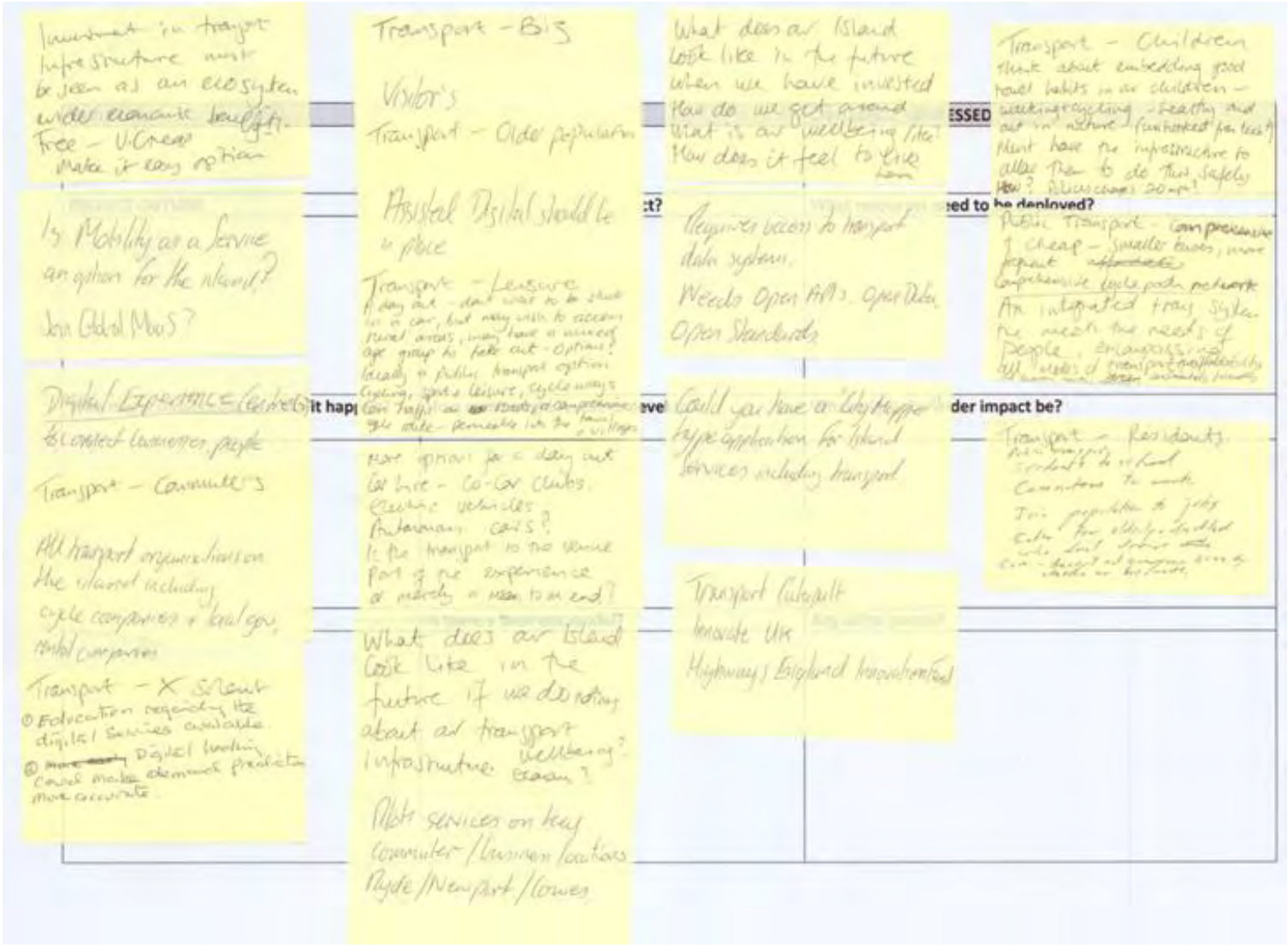


Table 13 Getting There *innovation challenge output*

Table #14: The Incomers

Table lead:

- Chris Dymond (Perform Green)

Challenge:

- **Dislocation** - How might the Island turn 'dislocation' into an advantage?

Project Summary:

We want to attract skilled digital professionals to the island, so we intend to give them a taste of the lifestyle and environment here by offering "Develop Retreats". This would be a space where digital development teams could come for a few days or weeks to work on a project away from distractions, and with access to the Island's amenities and great accommodation. This would be out of season, and would work in conjunction with local providers. The service would be highly technically enabled, and the stay would be facilitated. There could be optional leisure activities, and perhaps training and local engagement opportunities. This would be low cost to set up, and could be sustainably revenue generating.

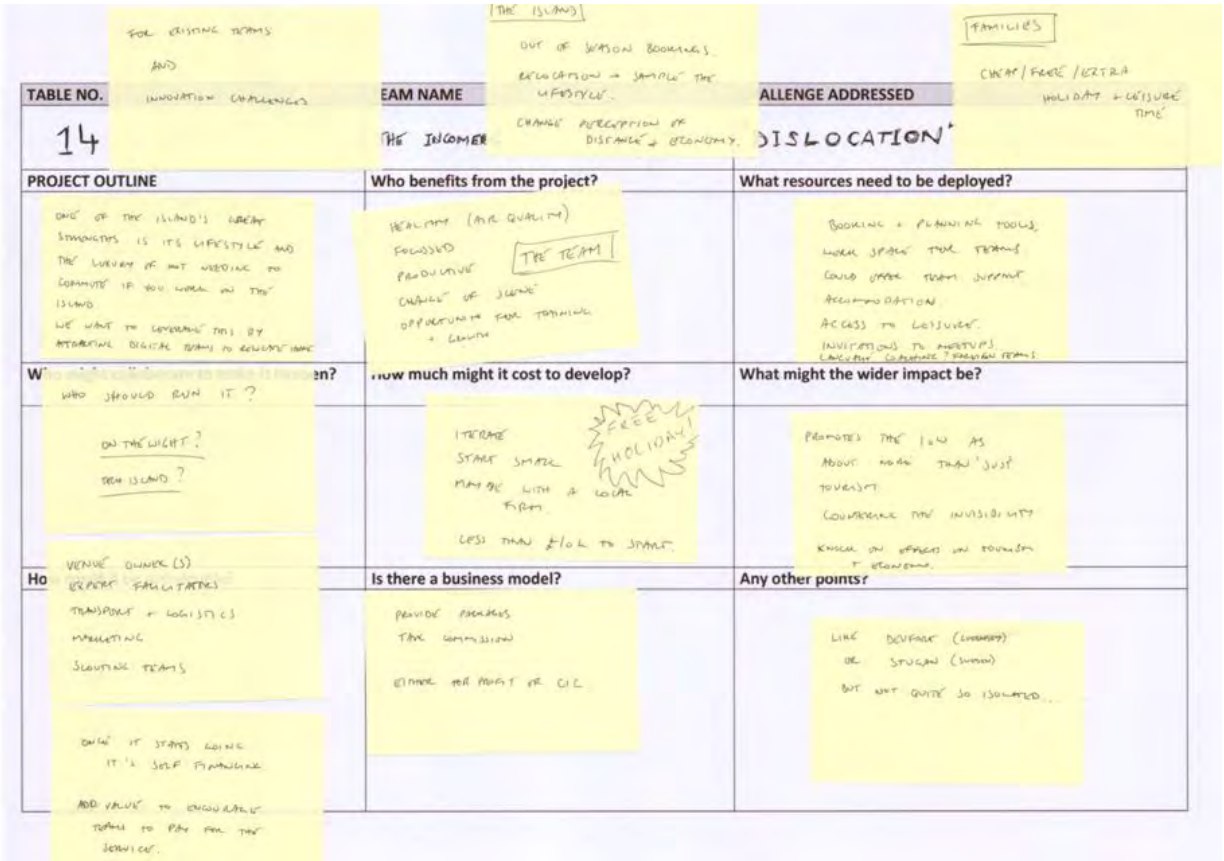


Table #21: Silicon Isle-Mobisle

Table lead:

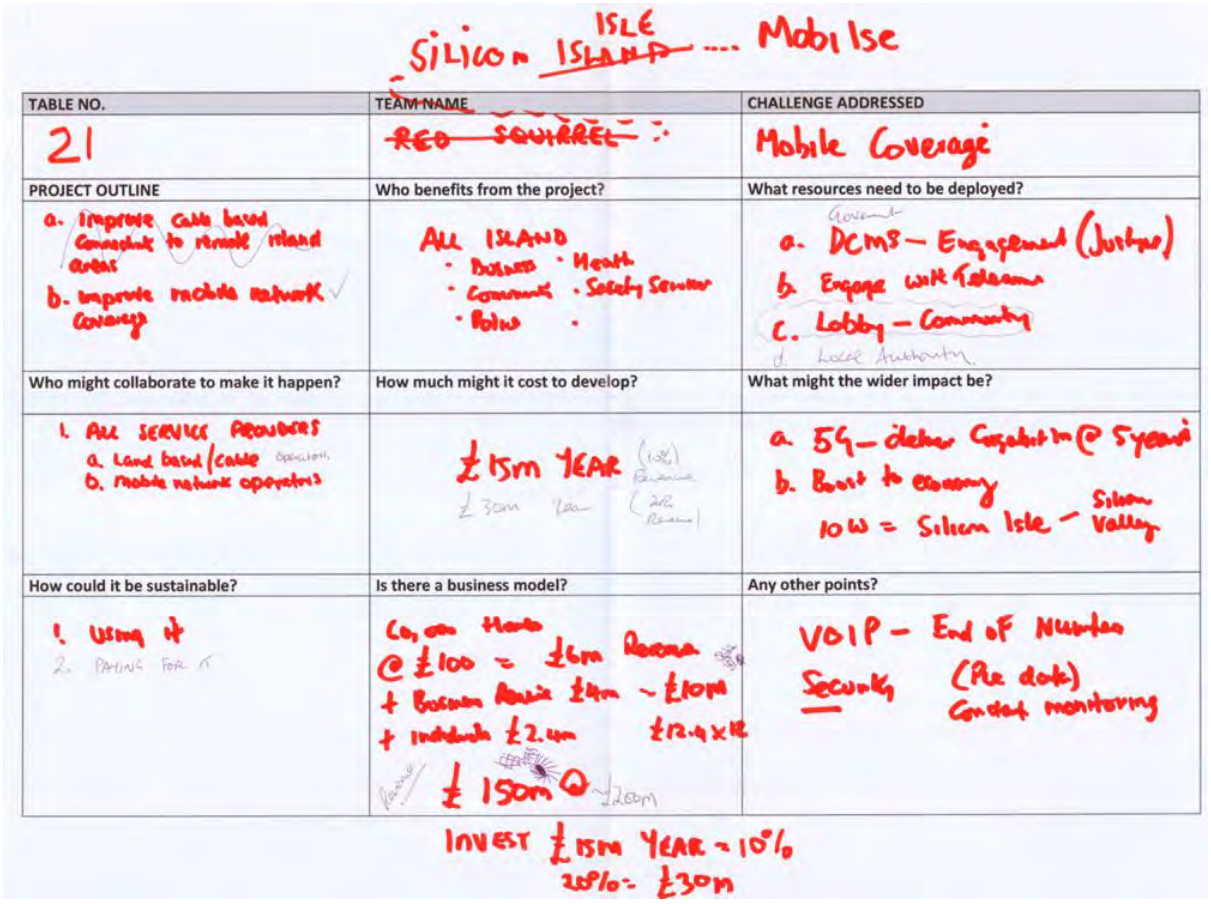
- Alistair Dickinson (MyCRM)

Challenge:

- **Technologies & Trends** - What technologies and trends are of particular importance to the Island?

Project Summary:

The team considered a long list (see attached sheet), but in the end came back to the fact that without a good connection, most technologies that are enabled by mobile just don't work. And mobile phones do not work effectively across the whole of the Island, even for 2G. So the team proposes a scheme to ensure that the entire island has mobile signal coverage. Immediately start talking to the government and carriers, and form a lobby group to do so. Estimate that there is 150-200m revenue generated on the Island by mobile and broadband firms, that leaves the island. We would like them to pledge that they take a proportion of that money for one year, and reinvest it in ensuring 100% coverage. We should ensure universal coverage now, not wait for 5G.



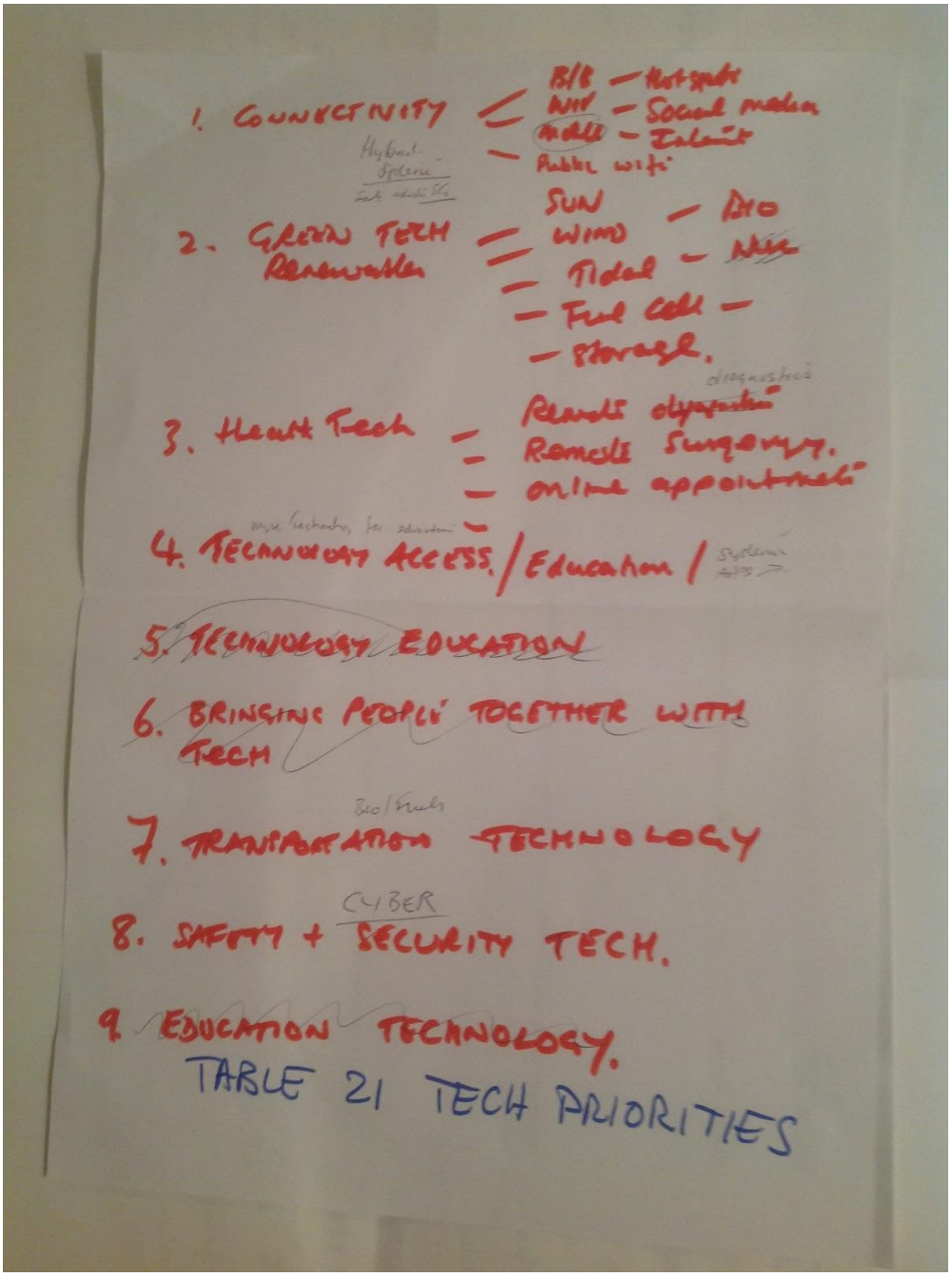


Table 21 Silicon Isle Mobisle *innovation challenge output*

Table #22: Born in the Cloud

Table lead:

- Cerys Brammall (Medina School)

Challenge:

- **Dislocation** - How might the Island turn 'dislocation' into an advantage?

Project Outline:

The current problem is that the youth of the Isle of Wight has to leave the island to complete their university education. The team's solution is to create the IoW Youth University - a university campus on the island, operated by the youth of the island themselves (with support).

> *"A 10,000 strong youth start up tackling local challenges and projects, with local support leveraging resources such as distance learning. A roadmap to a real university."*

It would consist of a new web-based and mobile platform for accessing learning and coordinating project work, along with physical spaces for learners to come together to engage with projects and course material. It could be funded through sponsorship, and with the enthusiasm.

The team created a Powerpoint presentation describing the concept.

This was the winning team.

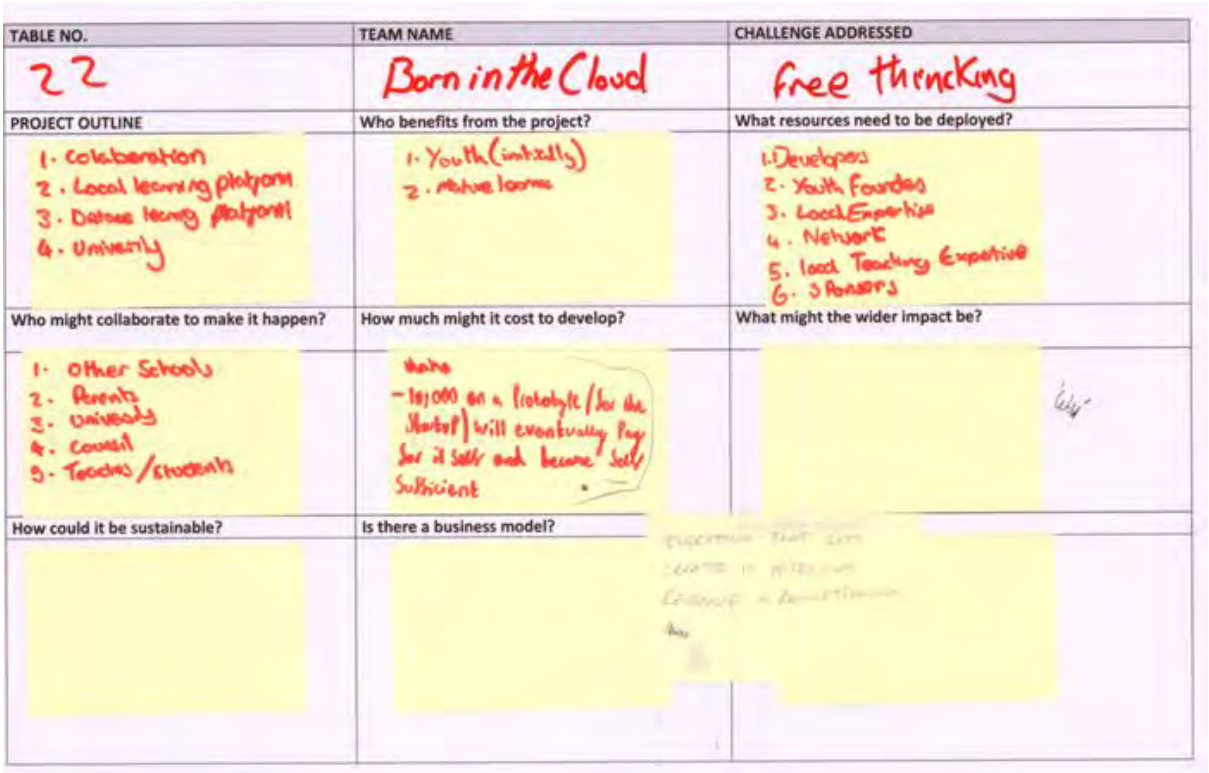


Table #23: Smart People, Smart Futures (Schools table)

Table lead:

- Sam Hatley-Smith

Challenge:

- **Dislocation** - How might the Island turn 'dislocation' into an advantage?

Project Summary:

Aim to be the first generation of Islanders to overcome the dislocation gap. Four ideas:

1. Virtual university. Online classrooms. Specialists from other universities can teach remotely. Cheaper than a real university. Access from home. Less restriction on courses, as these could come from partners all over the world.
2. My places app, for people on holiday. Show things to do near you and help the visitor economy.
3. Unifying the islands transport into a single mobility service. Could be accessed by islanders via a range of technologies, including mobile, RFID, biometric scanning, etc. (i.e. ticketless). Central account across all transport. Free transport for students.
4. Work experience database, to make it easy for students to find firms to gain experience from

School pupils at the Digital Solent Conference

TABLE NO.	TEAM NAME	CHALLENGE ADDRESSED
23	IOW - "SMART PEOPLE" - smart future	
PROJECT OUTLINE	**Who benefits from the project?**	**What resources need to be deployed?**
FIRST EVER GLOBAL; "SMART ISLAND" (ie Isle of Wight : IoW) (Or Europe) band on the concept.	The entire Island's citizenship then sold globally. . Government - access fee - add on IT	. People . Technology . specialisms: legal, intellectual.
Who might collaborate to make it happen?	**How much might it cost to develop?**	**What might the wider impact be?**
. Education . Law enforcement . Private/public Sector . Health . Transport . Secondary/primary schools . Insurance . Employers . Citizens	. Collective efficacy • COUNCIL MOTION / PUMP PRIMS INVESTMENT • MP SUPPORT / BACKING • Deputy on IOW ambition!	Market leader, global leader. Creating names and jobs.
How could it be sustainable?	**Is there a business model?**	**Any other points?**
— P.S.H.E / CITIZENSHIP (CURRICULUM) — BUSINESS - SOCIAL RESPONSIBILITY MANDATE TO WORK EXPERIENCE — COUNCIL "DIGITAL STRATEGY" INCLUDES (10-15 years)	CORE STRANDS: — VIRTUAL UNI PUSH "FACILITY" - CITIZENS - TOURISTS — WORK EXPERIENCE APP — CYBER BULLYING "TOOL" / ON-LINE OFF LINE — TRANSPORT NETWORK - SMART TRAVEL (BIO MATRICS) RFID, Tracking technology	• SECURITY / SAFETY • SELL THE ISLAND'S USP's WITHIN THE CONCEPT • CREATE AN "ENABLING CULTURE"

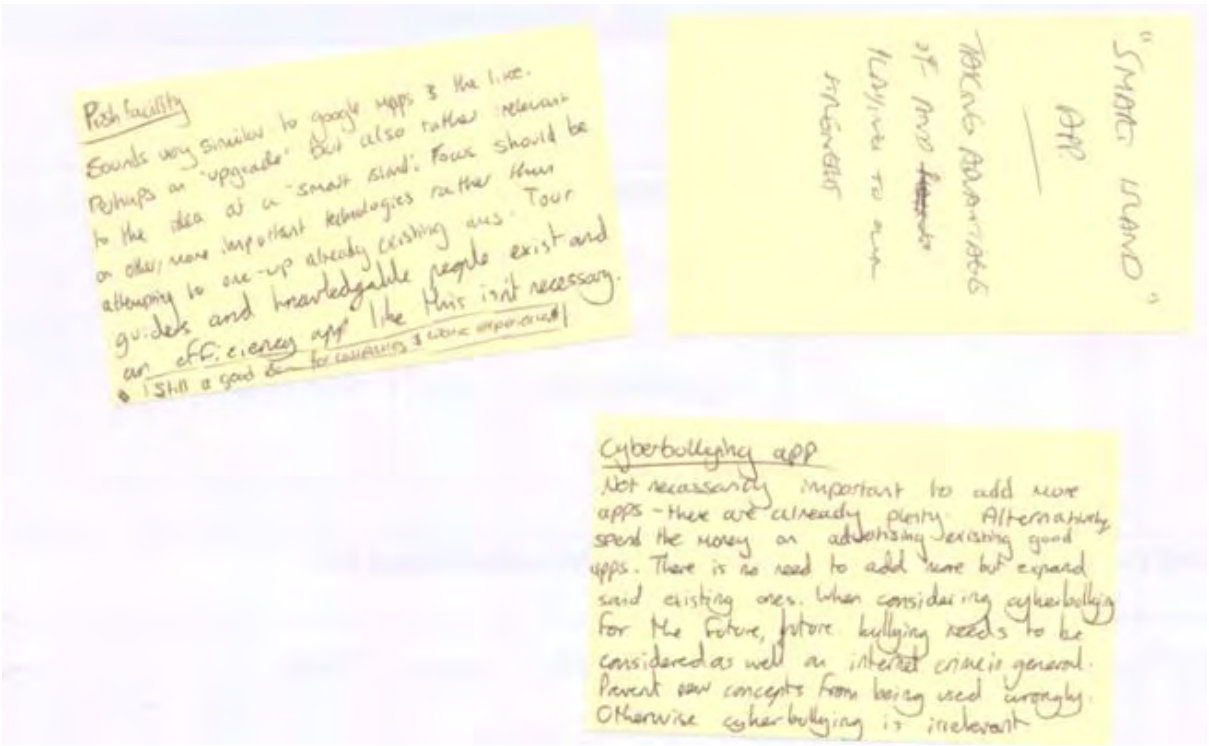
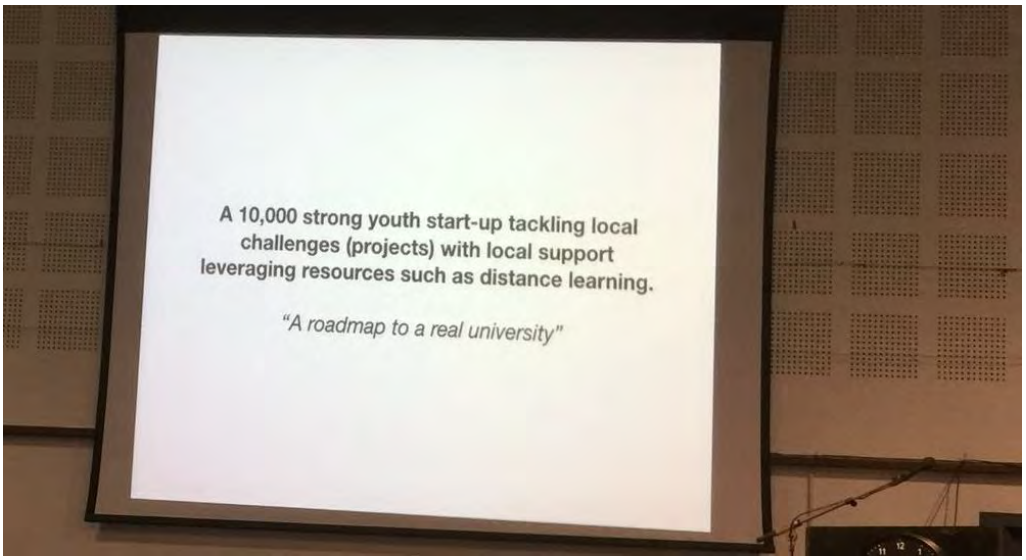


Table 23 Smart People Smart *Future innovation challenge output*

3.2 Continuation of winning project



The winning team's presentation

Some additional background on the hopes and challenges expressed by the young people, and what has happened since the conference, provided by Barrie Robinson of Future Basics:

"The students discussed the challenges they currently face in extending their in-school interaction and relationships beyond the school environment, pointing to platforms and apps currently available as poor substitutes for what they do in person, and an assumption by the people who create these apps that trivial banter, sharing and "complaining" is what this group aspires to do.

There was significant concern for their future: a sense of being disconnected not only from each other, but also from those who may be able to mentor them. In particular, there was a desire to do well and to create, which was countered by deep concern about the future, both on the Isle of Wight and beyond the island's shores.

One student articulated the "disconnected" issue well. The island is a network of villages and towns. Public transport is slow and expensive. Cycling from one village to the next can be dangerous because of the lanes and because of national speed limit that most people drive at down the lanes (cycle tracks do not connect). It is not convenient or often possible to "get a lift" and no real suitable places to meet (given they want to do and create). So there is a push to use iMessage, Snapchat etc., but they perform really badly and are not fit for purpose.

There was a desire to meet locally. But this was not about meeting to listen to music, or play sports, or pool, but more to "be" and "do". Homework was mentioned, making stuff was mentioned (3D printers), being able to work on projects, or extend projects (such as leveraging IoT to fix some of the transportation issues).

"But where to start?" was very much a topic of discussion.

The resulting sentiment was that they wanted ways to continue to "be together", "learn together" and "create together", which is what we have been facilitating since. Project 1 is a platform to enable this digitally. Project 2 may be a project to deliver physical space, but potentially could be any of the other projects that the group or sub-groups decide they want to develop, with the support that the platform enables.

As a creative director who has built teams and products in the UK and in San Francisco Bay Area, I am mentoring the student group, helping to organise their thinking and prioritise their roadmap, but the desire is to have this group self-manage and self-organise, with input, where one of the most important things they learn is how to own and develop their concept, which is something that even the most accomplished entrepreneurs can struggle with. As such we are taking small steps.

The team has grown from 10 to around 30 organically, with broad agreement on the mission. Which I feel goes to show that this desire for positive change exists beyond the table group, and the aforementioned is likely a pain point(s) that is felt by youth across the island and beyond. How these pain points affect individuals and youth on a larger scale likely differs greatly from place to place and family to family and is, as you could imagine, dependent on all kinds of factors. It is likely that simply the act of teachers asking in the classroom "who would like to attend?" was a significant filter in this regard. Importantly, the core team is very enthusiastic, and we've seen "less-inspired" students become inspired and engaged through the process to date.

The students want to create a youth start-up, and would like for that to lead to university-level education on the island. But it is equally important to understand that their ambitions are very much centred on what that means in terms of how they can fix many of the issues that they feel need to be fixed. Very much a DOING culture.

Happy to share additional thoughts, currently the focus is on turning concepts and ideas into product design and prioritising features for a prototype web app.''

Barrie Robinson

4.0 Debriefing and next steps

Following the event, a series of key de-briefing points have been considered by key stakeholders.

The components of a roadmap...

There were wide-ranging discussions about the elements of a comprehensive digital development strategy, and all the areas that would be touched by it. These included intellectual resources and education; financial relationships, investment and funding; vision-setting and co-visioning with different groups and networks across the island; digital infrastructure, which is isn't limited to fibre broadband, but also needs to account for a range of other communications technologies such as 5G, LoRaWAN, TV White Space, etc.; physical infrastructure, such as workspaces and community resources; the digital economy including support for start-up and scale-ups, sector specialisms, network-building and investment, etc.; the political, demographic and socio-cultural implications, and how these link to the kinds of lifestyles that the Island is looking to support and encourage; and finally how all of this needs to be communicated internally and externally.

Digital twins...

Alongside these discussions was also the notion that the Island isn't alone in seeking to address these questions, and that there may be opportunities to connect with other places that have similar needs, or similar geographies. There could be other 'Gigabit Islands' in the world, or other places with which the Island could have 'digital twin' relationships, such as the "Gig City" of Chattanooga, perhaps.

Joining things up...

It was also clear from the innovation challenge suggestions at the conference that many of them included the need for physical space, often mentioning a 'hub and spoke' model of delivery. As the Island is at the beginning of this journey, relatively speaking, it has the opportunity to think about many potential uses for such spaces and design them in flexible ways that mean they can be extended or repurposed, and that their business models can be diverse and experimental from the start.

Collective enthusiasm…

There was a great sense that there are many people and organisations behind and aligned with the digital development of the Island, both politically and economically, and that the

Island has the talent, resources and connections to solve its problems and create a bright prosperous future for Islanders.

Associated with this were other notions: that the Island needs to be clear in its ambitions, and the kind of life and environment it wants to create; that the vision should be a bold one, that imagines and inspires change; that the youth of the Island have a crucial role to play; and that world class digital infrastructure is fantastic, but won't be enough in itself to bring about the change that's desired.

It will take the joint efforts of people and organisations across the Island, and beyond its shores, to bring about the changes that were so enthusiastically and hopefully expressed at the Conference.

Next steps

The main actions arising so far from the conference have been

1. Bids for infrastructure investment –

5G test bed - Following the conference a consortium of organisations that had come together as a result of the Digital conference prepared an application for funding to the UK Governments 5G test bed programme. This bid sought to build on the islands pivotal role in developing wireless/radar technologies and its potential to offer a use case focused on the use of assisted technologies in meeting health and social care needs.

Local Full Fibre networks – The council, with the support and advice of partners' mobilised at the conference have submitted and bid to fund the roll out of full fibre to areas of the Isle of Wight not covered by the Wight Fibre full fibre investment. Centring on the use of community buildings as key hubs if successful the investment will enable total full fibre island coverage. The programme also offers a full fibre business voucher scheme

2. Development of a Digital Isle Strategy-

The ambition, enthusiasm and collective goodwill stimulated by the confidence is being harnessed in the development of a Digital Isle strategy. All those involved in helping making the conference a success will be invited to continue supporting the development of the strategy an online co-authoring process. At the centre of the strategy will be the proposed project responses to the Innovation challenges. A key output from the strategy process will

be a platform for collaboration in moving forward the Islands digital ambitions, with progress being reviewed at an annual Digital stocktake.

See appendices for speaker bios and list of attendees