

re-imagine your street

report to Adaptation Scotland

Prepared by:

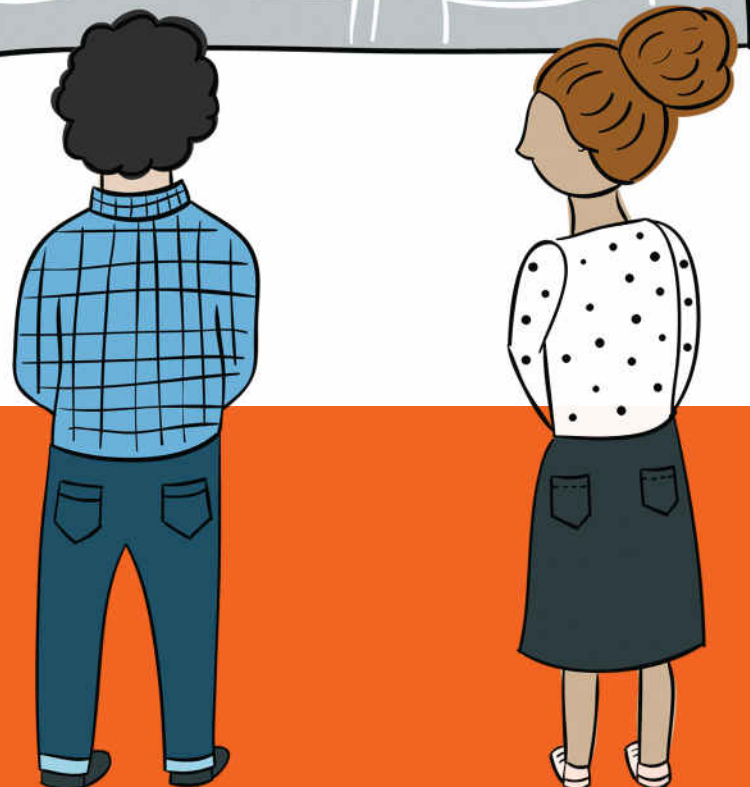
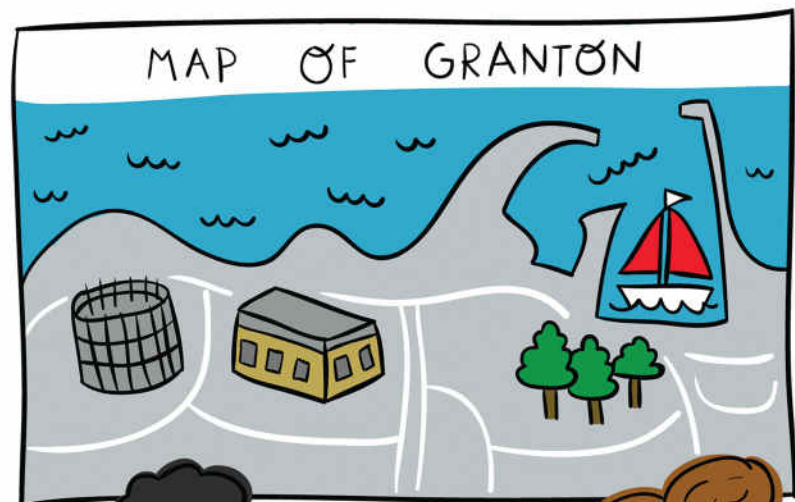
Leonie Alexander

Urban Biodiversity Project Officer
Royal Botanic Gardens Edinburgh

Dr. David Kelly

Assistant Professor in
Architectural Engineering
Heriot Watt University

Katie Q Illustration





Royal
Botanic Garden
Edinburgh



The Re-Imagine Your Street project was a partnership project led by Royal Botanic Garden Edinburgh and Heriot Watt University; and funded by the Adaptation Scotland programme.

The project was supported by Museum of the Future Now (MoTFN) and Katie Q Illustration. Additional input was provided by the City of Edinburgh Council, Scottish Water and SEPA.



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SUMMARY

Re-Imagine Your Street was a pilot public engagement project funded by Adaptation Scotland. It involved a partnership approach, co-led by Royal Botanic Garden Edinburgh (RBGE) and Heriot Watt University with additional support from Adaptation Scotland, Creative Carbon Scotland, Scottish Water, and City of Edinburgh Council including those involved with Edinburgh Adapts. A graphic artist was commissioned to capture the learning throughout the engagement process.



Purpose

The intention of the project was to explore residents' perceptions of the impact of climate change at a local level including of increased risk of flooding, more extreme rainfall and limited capacity of the urban drainage system.

The project was funded by Adaption Scotland with the intention of better understanding the interest and agency of the local community within this context. The project leaders (RGBE and Heriot Watt) had additional interests:

- To promote the role of domestic gardens to offer a potential adaptive solution with vegetation and soil acting absorbing and slowing runoff. In recent years, many of the city's gardens have been lost to impermeable cover to create low maintenance paved areas or off-street parking.
- To understand the value of various public engagement techniques within this context

Approach

The project focused on a single street in north Edinburgh, namely Boswall Parkway in Granton. This location was chosen on the basis of it being a potentially vulnerable area in SEPA's local flood map and because of its function as a main thoroughfare in North Edinburgh with mixed housing and businesses.

The project partners engaged with a range of local residents and businesses, with an engagement approach designed by RGBE and Herriot Watt University, based on a 'shaping event' with the project partners.

Initial outreach involved face to face interactions for example at the pharmacist, a local takeaway and at bus stops. Meetings were held with Granton and District community

council representatives. Interaction was designed to encourage participation in two subsequent creative sessions delivered by Museums of the Future Now (MOTFN). This approach involved interactive story-telling from a futures perspective, designed to provide insights into opportunities for adaptation responses driven by resident's aspirations and concerns.

Two sessions were held in early 2018 - a two-hour session in the afternoon and a 2.5 hour session in the evening. These were attended by 17 and 10 people respectively. Visitors worked in teams of three to develop stories for the year 2050.

The outcomes were clustered into a number of themes which were represented graphically by a local artist. These themes were then used as the starting point for conversations with local residents during a series of Urban Street Labs.

The learning was shared at a feedback/ reflection event with project stakeholders.

Findings

Themes

The themes provide insights into opportunities for adaptation driven by people's aspirations and concerns. Key themes that emerged were:

- The importance of growing food locally, building on existing initiatives such as **community gardens**, as well as opportunity to harvest food locally from the **marine environment**
- The role of **community planning** and the need to overhaul urban planning and design, to prepare for future climate impacts. This included positive feedback on options for sustainable urban drainage and interest in addressing poor drainage, waterlogging and localised flooding.
- The need to develop links and share experiences between younger and older people and address **intergenerational responsibilities**
- The importance of **local culture** – in particular building on activities relating to local churches, clubs and the community centre and more recent plans by the National Galleries National Collections Facility.
- **The opportunity to make an asset of the shoreline** – with a need identified for more policy interventions that relate to the littoral which was perceived as having lower priority than Land Use Strategy and Marine Plan

Further themes related to the importance of **learning lessons from past initiatives**, **the role of technology** and the importance of taking a **systems approach**.

Engagement Approach

One of the most effective ways of engaging local residents was found to be through face-to-face conversations and one of the most prominent topics on residents' minds was flooding. Whilst Boswall Parkway is not currently one of the City of Edinburgh Council's (CEC) priority flood areas, residents have experienced small-scale, localised flooding and associated disruption first-hand..

MoTFN proved an effective way of meeting people living and Granton and talking to them about how they think about the future of their area. The approach revealed context in terms of people's priorities, what works locally and what doesn't and what their aspirations might be. Future engagement may benefit from a combination of such an approach and more practical focused approach to identify tangible projects.

The partnership approach to planning and delivering the project was valuable. The inclusion of a graphic artist creating visually engaging material was a considerable benefit.

Next Steps

The project generated a range of follow on discussions and projects including:

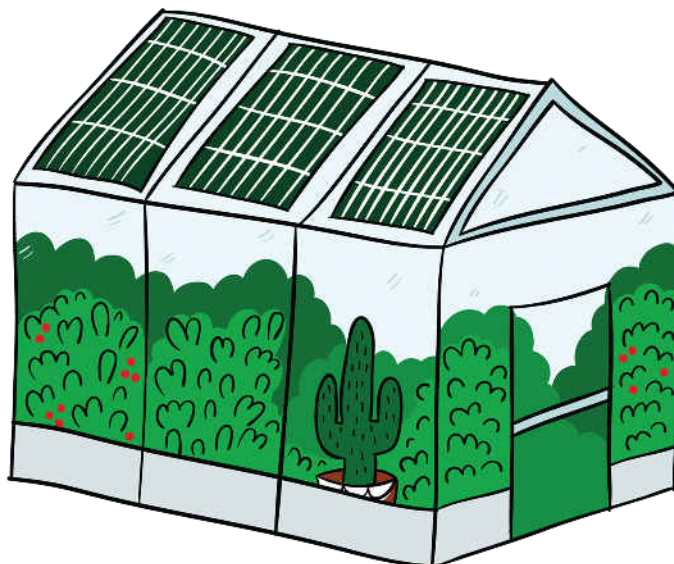
- Engagement with the National Galleries of Scotland to share key learning from community engagement to inform the development of the new National Collections Facility in Granton.
- Engagement with SEPA to inform community engagement linked to River Basin Management Planning.
- Upcoming submission by Heriot Watt University of a multidisciplinary research project to the EPSRC to investigate domestic garden retrofit and adaptation for enhanced urban stormwater control.
- A series of student dissertations investigating the potential impact of specific interventions based on selected themes that emerged from the project.

INTRODUCTION

Re-Imagine Your Street was a pilot public engagement (PE) project funded by Adaptation Scotland (AS) which aimed to explore PE techniques and to evaluate their success within the context of predicted climate change in Edinburgh – particularly the risk of increased flooding, more extreme rainfall, urban densification, and limited capacity of the urban drainage system. Domestic gardens offer a potential adaptive solution with vegetation and soil acting as sponges, absorbing and slowing runoff. However, in recent years, many of the city's gardens have been lost to impermeable cover to create low maintenance paved areas or off-street parking. This project aimed to explore this subject focusing on a single street in north Edinburgh and engaging with public sector organisations, local residents and businesses using a range of different engagement techniques.

The key deliverables and milestones agreed for this project were:

1. A Public Engagement workshop for early career researchers and other team members at Heriot-Watt University
2. A Shaping Event with all key agencies and community represented (November 2017)
3. Two Museums of the Future Now (MOTFN) sessions and three Urban Street Labs. Neighbourhood Permeability Map and Planning Tool
4. One Feedback event with project stakeholders with the possibility of a further feedback event for the community depending on the result of the stakeholder event. *Adaptation Scotland would provide additional funding for this further community event if it goes ahead.*
5. An internal evaluation report and an external summary of the project's methods and results.



THE TEAM

This was a partnership project with RBGE and Heriot Watt University as lead partners working with a Steering Group comprised of The Museums of the FutureNow, Creative Carbon Scotland and representatives from Edinburgh Adapts. Adaptation Scotland provided project support and Katie Q Illustration provided design work. Representatives from the City of Edinburgh Council, Scottish Water and the local Granton community also participated in the Steering Group and attended the Briefing and Shaping events and the final Stakeholder event – the reflection workshop.

Organisation/ community	Name	Role
RBGE	LEONIE ALEXANDER	Joint Coordinator + Steering Group
Heriot-Watt University	DR DAVID KELLY + departmental students	Joint Coordinator + Steering Group
EDINBURGH ADAPTS	RUTH MONFRIES	Climate change adviser
KATIE Q	KATIE QUINN	Graphic Artist + Steering Group
ADAPTATION SCOTLAND	DAVID MACPHERSON	Steering Group
CITY OF EDINBURGH COUNCIL	FIONA MACLEOD	Edinburgh Adapts strategy delivery
CITY OF EDINBURGH COUNCIL	GORDON McOMISH + DAVID McADAM	Drainage advice
SCOTTISH WATER	DAVID WINTER	Drainage advice
CREATIVE PRACTITIONERS	MUSEUM OF THE FUTURE NOW	Concept development and implementation
CREATIVE CARBON SCOTLAND	GEMMA LAWRENCE	Contribute to shaping meeting + evaluation
LOCAL COMMUNITY	WILLIE BLACK + BARBARA ROBERTSON	Advice

PROJECT SCHEDULE

Figure 1 shows each of the activities within the project schedule. A meeting between the client and Steering Group was held in September 2017 to discuss implementation. At this meeting it was agreed that a creative practitioner would be appointed to work with the team to explore the issues more broadly. Museums of the FutureNow (MoTFN) was selected as the creative practitioner due to their previous experience of working the public on climate change-related topics. Students at Heriot-Watt University were recruited in October 2017 and trained in PE and filming skills in order to equip them for meeting the public and recording events. A Briefing Event was organised in November 2017 to explore ideas with representatives from the local community and key partners including Scottish Water and City of Edinburgh Council. In December 2017, a Shaping Event was organised with the Steering Group and MoTFN to develop and agree the format of PE activities. A number of outreach activities were carried out in January 2018 to invite the public to attend the MoTFN workshops, which were scheduled to take place towards the end of that month. A series of Street Interviews were then carried out in February 2018 to gain further public opinion of the key themes that emerged from the MoTFN workshops. Finally, a Reflection Workshop took place at the end of March 2018 to discuss the project findings with the stakeholders.



Figure 1: Project Schedule

SUMMARY OF ENGAGEMENT

The team engaged with a number of different audiences at various stages during this PE project including during event planning and promotion of the MoTFN events. These included:

- Boswall Parkway residents at the MoTFN workshops
- Businesses and other institutions including churches and care homes in or adjacent to Boswall Parkway during leafleting
- Chance encounters at bus stops during leafleting
- Granton and District Community Council representatives and attendees at their monthly meeting
- Local residents during street interviews at bus stops, in the local Pharmacy and takeaway


In addition, a presentation was given to a wider audience at a Creative Carbon Scotland Green Tease event focusing on urban flooding and adaptation (held on 19 December 2017) and at an Edinburgh Adapts event on 5 April 2018.

We also consulted specifically with two local members of the Granton community who were invited to attend the Briefing Meeting in order to give feedback to the stakeholders on ideas for engaging the community, local issues related to climate change and adaptation, previous consultations in the area and suitable venues for the MoTFN workshops. They were both paid a small fee for attending which was really appreciated.

The MoTFN workshops were advertised through a combination of direct contact with residents and sending information out through local communication channels as follows:

- a. Delivered ~ 240 invitations through domestic and business letter boxes in Boswall Parkway and adjacent streets which lead into Boswall Parkway (*Figure 2 on page 7*)
- b. Follow up knock on doors in Boswall Parkway – 24 January 2018
- c. Granton and District Community Council presentation to CC meeting on 29 January (*Figure 3 on page 8*)
- d. Notified Lifelong Learning Development Officer, NW Locality - North West Locality events
- e. North Edinburgh News article - <http://nen.press/2018/01/30/boswall-parkway-re-imagine-your-street/> advertising Museum of the Future Now workshops
- f. Evening News advertised Museum of the Future Now workshops
- g. Posters installed in bus shelters in Boswell Parkway advertising Museum of the Future Now workshops.









What might Boswall Parkway look like in the future?
 What challenges and opportunities might there be?
 What might the street be like for your great grandchildren?

The Museum of the FutureNow will be running two workshops on Thursday 1 February at Granton United Church (125 Boswall Parkway, EH5 2PP) and we'd love you to get involved. The workshops will take place between 1pm - 3:30pm; and 6pm - 8pm.

For more information and to book your place, please contact Leonie Alexander at l.alexander@rbge.ac.uk or 07918 736481.

Your ideas will contribute to a wider public conversation about actions that can be taken to transform streets.

"It was around 2028 when we got together to change things. The drains couldn't cope with the rainfall and we were sick of being flooded. With the help of the Council we planted trees and shrubs and put in raised water features. It was beautiful!"

- Jack McCloud (local resident), 2039

Figure 2: Invitation to Museum of the Future Now event



GRANTON AND DISTRICT
Community Council

GDCC Newsletter

Issue 02

Community Newsletter of Granton & District Community Council , Issue: January 2018

Welcome to the January 2018 issue. We aim to use this community newsletter as a tool to communicate with local residents. So far, we have received many positive feedback since publication of our first version before Christmas. Please note, we have gathered information from various sources to use in this newsletter. Therefore, we are not responsible for accuracy / authenticity of these information. Please contact directly with the relevant organisation for more clarification. We appreciate your feedback on this issue.

Local Artist's Exhibition by LIFT

Date: 03 Feb 2018, 1pm
Venue: Madelvic House, 33
Granton Park Avenue, EH5
1HS

Low Income Families
Together (LIFT) are holding
an exhibition of drawings and
paintings by local artists. All
are invited.

GDCC office bearers

- Fred Marinello - Chair
- Mizan Rahman- Secretary
- Lorna Forsyth- Treasurer
- Suzanne Ebel- Minutes Secretary
- Jill Taléyarkhan- Community Liaison
- Donald McDonald - Public Transport
- Martyn Whyte- EACC Liaison

Community Councillors:

- Heather Pugh
- Frederick Hessler
- Kashif Ather



Biodiversity Workshops: Re-imagine Your Street

Date: 01 February 2018, Time: 3pm – 5:30pm or 6pm – 8:30pm
Venue: Granton United Church, 125 Boswall Parkway, EH5 2PP

The workshop will ask following questions -

- What might Boswall Parkway look like in the future ?
- What challenges and opportunities might there be ?
- What might the street be like for your great grandchildren ?

This pilot project has undertaken by Royal Botanic Garden and funded by Adaptation Scotland consulting with communities about solutions to climate change and adaptation.

To book your place, contact Leone E-mail: LAlexander@rbge.org.uk ,
Tel: 07918 736 481



Figure 3: Granton and District Community Council Newsletter

MUSEUM OF THE FUTURE NOW WORKSHOPS

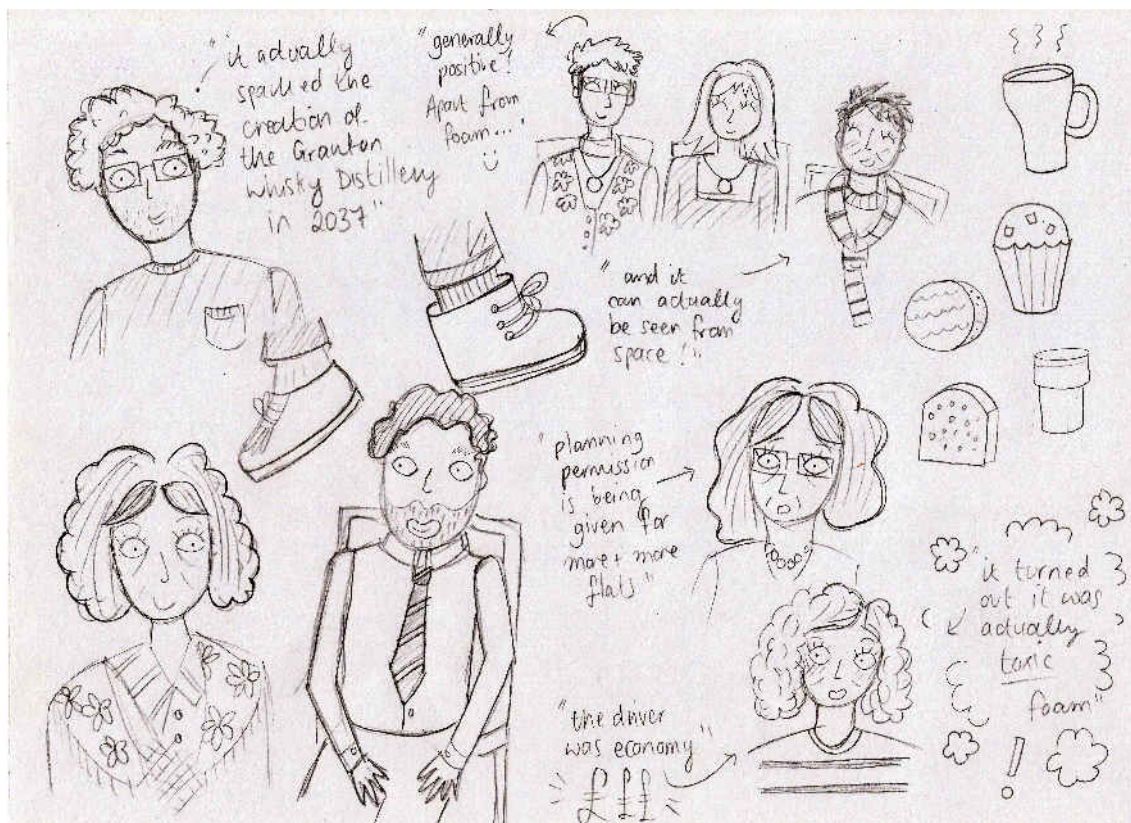
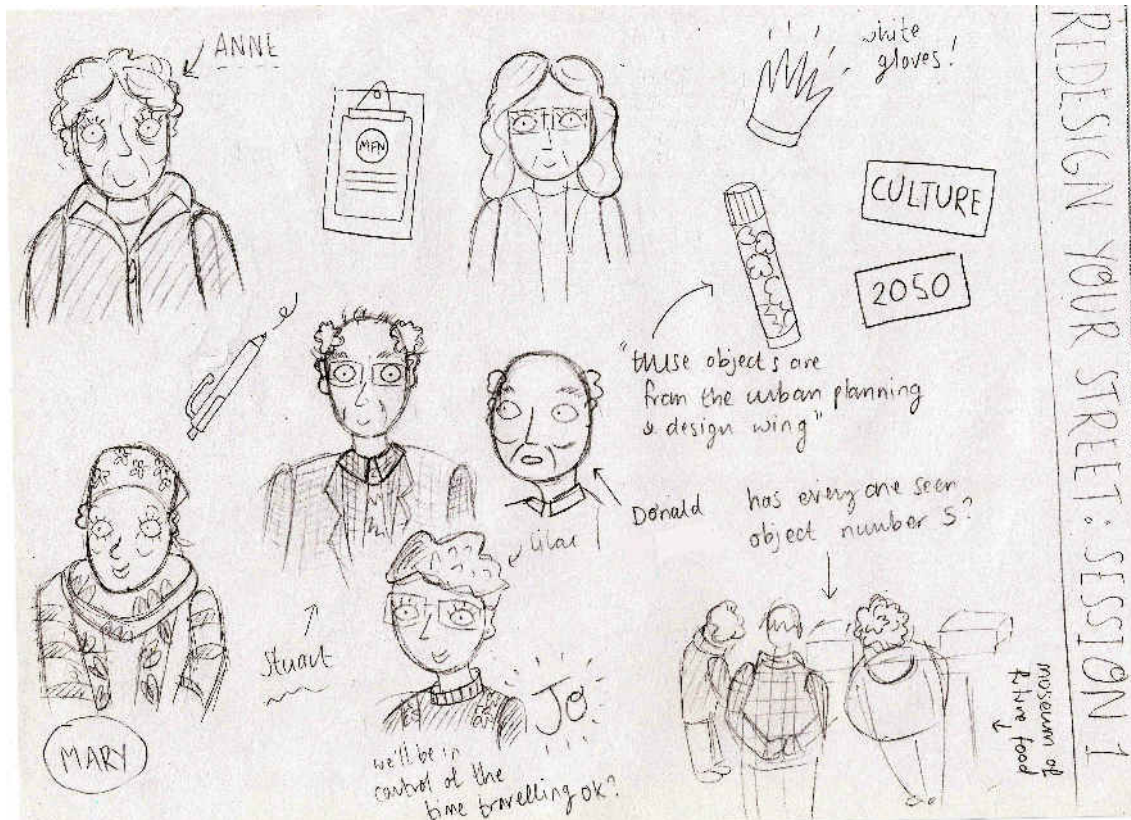
Following the original Briefing Meeting (20 December 2017) and Shaping Meeting (2 December 2017) for the Reimagine Your Street project, it was agreed that the Museum provided a way to meet people living in Granton and talk to them about how they think about the future of their area. Boswall Parkway in Granton was chosen as the venue for the Museum as it is highlighted as a potentially vulnerable area in SEPA's local flood map and because it is a main thoroughfare with mixed housing and businesses and cuts through the Granton community – west to east.



The Museums of the FutureNow: Urban Planning and Design wing opened for 2 hours in the afternoon and 2½ hours in the evening of 1 February 2018 at the Granton United Church on Boswall Parkway. Seventeen (17) people visited in the afternoon and ten (10) in the evening. Of these around a dozen were from the local community. The others were from the extended project team. The Museum method is included in Annex 1. The visitors worked in 5 teams of 3 people and 1 group of 2 in the afternoon, and 2 groups of 3 and 2 groups of 2 in the evening. All stories were developed for the year 2050 and are featured in Annex 2. Each transcript includes the object that the group worked with and the driver (context) for their story [object / driver]. Each transcript is followed by a candidate 'theme' for the story, as interpreted by the author as the story was being transcribed. These individual themes have then contributed to the list of Key Themes detailed in this report.



Figure 4: Photos from MoTFN workshops (courtesy of Ola Kamel)



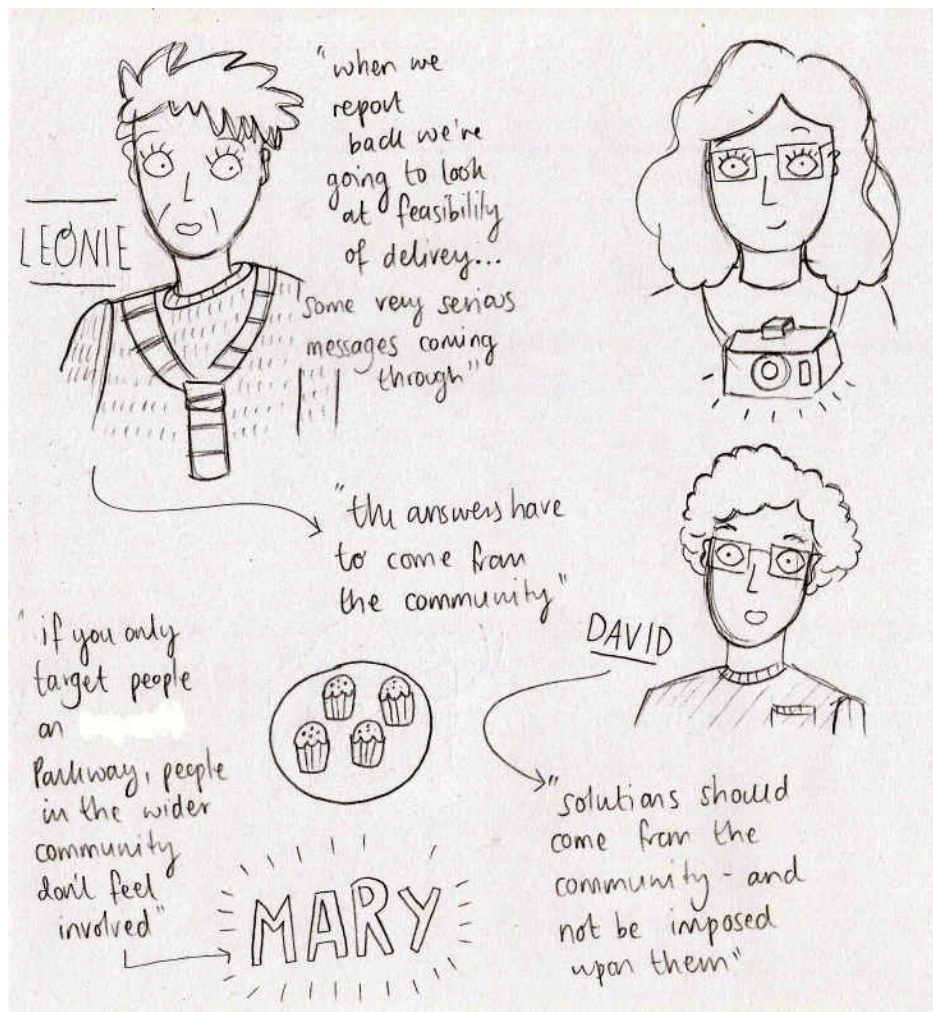


Figure 5: Sketch notes from MoTFN workshops

Example story:

This brooch was found in the Granton Walled Garden. It's thought to have been sold by an Edinburgh jeweller - Grant Boswell or Boswell Grant - to Mary, Queen of Scots. The brooch was made with pearls from Forth oysters discovered through DNA analysis and of fur from an otter slain on the Forth estuary. The brooch was sold at auction and raised £1m, which was used to fund the reintroduction of appropriate genetic stock of oysters into the Forth. This included the development of an oyster nursery on Boswall Parkway to maintain the stock. This in turn inspired the people of Granton to adopt it as a symbol of success of the redevelopment of the Edinburgh Shoreline, where a habitat was created specifically to support otters. In fact, otters were seen regularly in Boswall Parkway feeding in the spring where wetlands had been created as a result of re-imagining the street. This initiative resulted in social, environmental and economic benefit to the area. The natural environment attracted tourists and during the season, eating oysters was a popular attraction. The oysters thrived and created the Granton reef which can be seen from space and which has protected this part of the city from

rising sea level. The success was recognised internationally and led to significant strengthening of sustainability legislation and EIAs.

[Theme: food production/festival; social, economic and environmental impact - a means for sustainable development]

Key themes - MUSEUM 1

- The importance of local (land-grown) food with potential for local sustainable development.
- Build on existing initiatives such as the community gardens
- The (potential) power of the community
- Identify the co-benefits of any initiative for local sustainable development - economic, environmental and social.... plus aesthetic.
- Technology may save us particularly in building infrastructural services but without a systems approach there are highly likely to be unintended consequences.

Key themes - MUSEUM 2

- The importance of local (marine) food with potential for local sustainable development.
- The need for an overhaul of urban planning and design
- Dystopian futures
- Opportunities for local sustainable development, fictional but plausible.
- Intergenerational responsibilities
- Some existing initiatives are considered to be cautionary tales rather than something to be built on further
- The importance of culture
- The lack of policy for the shoreline compared to the Scottish Government's Land Use Strategy and Marine Plan. The shoreline seems literally to have fallen through the crack between departmental boundaries.

The themes emerging from the stories were then further explored during Street Interviews to see which of them resonate with the wider community. They were prepared as themed cards by our Graphic Artist – See *Figure 6 for images* – and used as a conversation starter during street interviews with people waiting at the bus stop, people waiting in the queue for prescriptions in the local Pharmacy and with the owner of Darin's take away shop.

THEMED CARDS

- Community food
- Intergenerational Initiatives
- Community Planning
- Local Culture
- Local Sustainable Development
- Water Well Managed
- Your Ideas

- Community Gardens
- Locally Sourced Marine Food
- Lessons From Past Local Initiatives
- Make an asset of the shoreline
- Systems Approach
- The Role of Technology



community
food

Are there any unused areas in Boswall Parkway that could be used for productive food growing?



intergenerational
initiatives

Do you have any suggestions where these could happen on Boswall Parkway?



community
planning

Do you have any ideas about how to introduce community planning in Boswall Parkway?



local
culture

How would you encourage people to share their culture with the community in Boswall Parkway?



local sustainable development

What projects could happen in Boswall Parkway to contribute to reducing climate change?



water well managed

What changes could happen in Boswall Parkway to encourage adaptation?

your ideas

Please give us your thoughts on what you think Boswall Parkway will be like in the future.



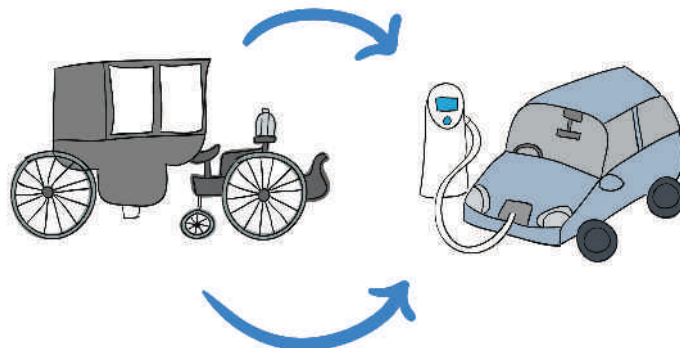
community gardens

The Boswall Parkway community is already working to grow and share food. Do you have any ideas to develop this, or create wildlife-rich areas?



locally sourced marine food

Do you think there is any prospect of this in Boswall Parkway?



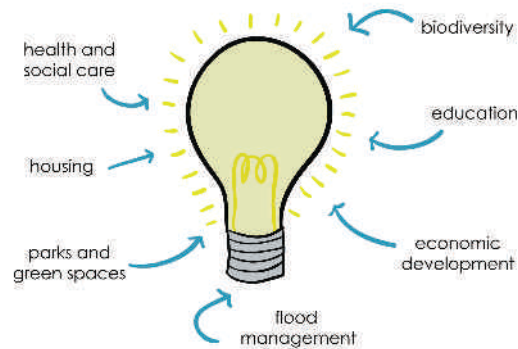
lessons from past local initiatives

Are there any lessons to be learned from the past?



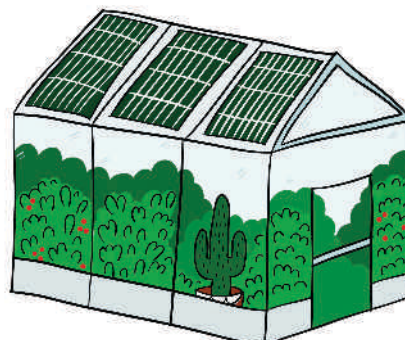
make an asset of the shoreline

Could the shoreline be an asset in terms of tackling climate change?



systems approach

Do you have any examples of good practice or ideas where these approaches could be applied in Boswall Parkway?



the role of technology

How could technology contribute to local solutions for climate change?

Figure 6: Theme Cards

KEY LEARNING POINTS

A reflection workshop was held on 26 March 2018 in order to review progress and to consider and reflect on the findings of all the interventions. As a result of this it was agreed that the final report would identify potential actions that could be taken against each Key Theme. A short statement about each of the Key Themes is given below and *Quotes* from the street interviews have been assigned to each of the Key Themes. Then the potential for each area is considered. Some of the Key Themes have been merged for joint consideration.



Community food + Community Gardens

The Granton Growers is a very successful local initiative taking over City of Edinburgh Council owned areas of amenity grassland and creating productive growing areas with a whole range of health and social benefits. Any ideas regarding community growing initiatives should be discussed with the Granton Growers at an early stage. One of their gardens is located on Boswall Parkway. There are a number of other potential partners including the Granton Orchard, North Edinburgh Arts and Pilton Community Health Project, which is also located in Boswall Parkway. Nobody we interviewed was involved in community food growing. A few were aware of a local food growing initiative – Granton Growers. Granton and District Community Council expressed enthusiasm for Biodiversity initiatives.

'It would allow people to know each other better.'

'It would be good to have allotments.'

Community garden... 'started off perfect then went to pot.... Stupid place to put it...'

'I wouldn't be interested'

'We have a garden of our own and grow tomatoes in the greenhouse.'

'Quite a good idea if people don't let them go to ruin'

I know about the community gardens in Muirhouse – great idea. There is one right behind our house. Good to use in kitchens and educate young people.'
(Refers to Granton Growers).

'Idiots stay around here... vandalism... not interested in being involved'

'Would be an idea to have a summer BBQ – free burgers to bring the community together.'

'Not involved – would be interested – would be open to using local produce in pizzas' (Darin's Take Away - East end of Boswall Parkway).

'Not interested in being involved.'

Potential:

- Further discussion with the Royston Court Care Home which backs onto Boswall Parkway and where the Manager expressed an interest in offering the amenity grassland strip on Boswall Parkway to the local community to develop as allotments or other growing area.
- Fruit trees or other edible plants in existing areas of amenity grassland.
- While many residents of Boswall Parkway have their own gardens, there are extensive areas of mown grassland to the north and south of the road comprising back greens or private gardens. There has been a back green initiative in Granton and this could be built on to assess potential engagement in diversifying these areas for food growing, amenity or biodiversity.
- Use of locally grown food to supply the take away outlet at the west end of Boswall Parkway.

Community Planning + Lessons from past local initiatives

During the street interviews we did not get feedback on any successful initiatives with the possible exception of upgrading kitchens in Council Housing, which many people were very pleased about, but others less so as they received leftover units as resources ran out.

'They tried to improve the back greens but it didn't work.'

'Stuff just gets done by the Council.... Might be different if there was more consultation...'

'Council doesn't resolve anything. Streets a mess with dogs.'

'Gardens are a mess'

'Takes a lot of resources and time.'

Potential:

Any proposed local interventions would require extensive input over a reasonable period of time to ensure that initiatives are sustained beyond the short term. Green Infrastructure Community Engagement funding administered by SNH may be an appropriate source of match funding offering a maximum of 40% of total project costs.

<https://www.greeninfrastructurescotland.scot/green-infrastructure-community-engagement-fund>

Water well managed

Interviewees were shown images of different urban drainage solutions (Annex 3) and asked to comment. Overall the responses were positive with the exception of the grasscrete, which in the image appeared rather devoid of green. However it was viewed as a good practical solution when explained. Most people were drawn to the more mature trees and green landscape as their favourite.

'They all look good.... Good to have green.'

'Trees block the view and cut out the light so can't see to open my door to get in at night.'

'I like the green ideas.'

'We have a water butt – saves me going upstairs when I need to water the garden.'

'Don't like concrete.'

'I like trees and water.'

'Not much room for these street features with all the parked cars.'

'Grasscrete would be practical.'

Rain garden – 'that's a nice wee burn.'

'Trees are very important. We need trees to save the world. Gives us fresh air.'

Image of the trees bottom right... *'It reminds me of home (Gambia) where we used to gather under the big tree after school and there would be food vendors... fresh mango...'*

'In Dublin the Council work with the local college on flower planters in the city'.

Potential:

Further consultation with local residents about some potential interventions by going to the places where they gather e.g. the churches and the primary school or by leafleting or door-to-door. Granton Parish Church appears to be very active and they have recently had success with a Climate Challenge Fund application. Other churches appear to have smaller, older congregations. It was noted during the door-to-door recruitment that people would discuss local flooding issues and referred to local flooding issues in their gardens. At the workshops it emerged that an underground stream rises after heavy rainfall and has had to be recently pumped out. Other issues with the local sewer were also highlighted. Some first floor flats have gardens so the idea of a water butt could be a very practical proposition for them. The feasibility of offering support to individuals, businesses or organisations for a range of interventions should be considered i.e. for each intervention what benefits/dis-benefits would accrue, what level of support could be offered in terms of design/materials/installation/monitoring and whether they would act as demonstration sites for others to learn from.

Locally sourced marine food + Make an asset of the shoreline

There is currently no locally sourced shellfish or seaweed, which is safe to eat due to contamination. Small numbers of people fish off the Granton shore/pier. Local walkers and dog walkers use the beach and the harbour is used by two yachting clubs and is currently under re-development. Any aspirations for harvesting local food from this section of the Forth will depend on water quality improvements as determined by SEPA. North Edinburgh Arts facilitate groups to walk to the beach at Gypsy Brae for a picnic and other activities and these have proved very popular. We did not get a strong impression that local residents in Boswall Parkway were connected to the coast despite its relatively close proximity.

'Total change to the beach from when I was wee – cleaner, seating areas. Before there was nothing'.

'Could be even better – stalls for refreshments...'

'Changed a lot since I was young.'

'I visit in the summer. Changed with recent development. I have been in the area of 16 years. Could be better – anything to keep the young occupied.'

'We go to Cramond – a playground would be helpful – the only other place to go is Portobello.'

'Rarely go there.'

'Never go to the coast – not got the time.'

'Need to go towards Silverknowes – cleaner – nothing along this end'.

Potential:

Work with Sustrans, Pilton Community Health, North Edinburgh Arts to facilitate outings to the beach - walking or on bikes/electric bikes and outings to explore the local biodiversity on the beach could be arranged. During these outings consider how the beach could become a local asset. Some of these could be undertaken as part of the RBGE Edinburgh Shoreline project.

The role of technology + Local sustainable development + Systems approach

These were more difficult to explore during the street interviews but one individual identified sedentary lifestyles as requiring a systems approach to improving the situation. He was very concerned about his own health and that of his children who he does not consider are sufficiently active.

'There should be PV or solar on all new developments.'

'People are not being physical – not cycling or doing exercise. They are not lazy – just a normal lifestyle. 'Too much social media. Government needs to step in.'

'Police operation on stolen motorbikes was quite good – stopped for a while but started up again...'

'Could be free bikes – maybe in the summer.'

Intergenerational initiatives

No specific examples emerged during the street interviews. There is clearly potential for this with the Royston Care Home and any community gardening initiative where residents could benefit from locally grown food and flowers and other mutually beneficial activities could develop between growers and residents.

Local culture

Local cultural activities identified focused mainly on the churches with church services, lunch clubs and other church based activities. The Royston Wardieburn Community Centre offers classes in a range of activities. Pilton Community Health Project (<http://www.pchp.org.uk/about-us>) offers a whole range of health related activities and support. Slightly further afield North Edinburgh Arts and granton:hub offer a range of activities.

'Could be used to tackle local drug problem.'

'I keep myself to myself'.

Mother from Gambia visiting her daughter - 'Why don't you say hello to your next door neighbour?'

'There is scope – a diversity of community now – new culture – could harness this'.

Potential:

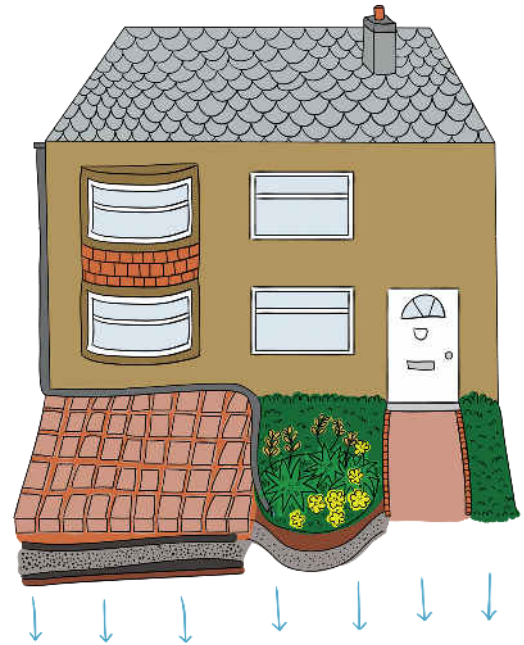
There are a whole range of initiatives in the wider area - Pilton Community Health Project (PCHP) have devised a series of local walks – Hidden Gems which include routes and features of local interest:

http://www.pchp.org.uk/sites/default/files/resource/files/PCHP_A5_HIDDENGEMS_AUG16_FINAL.pdf

PCHP are also currently developing other routes for people to try out. North Edinburgh Arts are a very dynamic organisation with a huge range of classes and events on offer. The Madelvic car factory in Granton Park Avenue is a significant local history story as the first purpose built car factory and pioneering production of electric cars. The factory office space is now leased by granton:hub community group where a range of classes and activities take place. The National Galleries National Collections Facility is being developed on derelict land in Granton, which includes the Madelvic car factory building. As a result of the Re-Imagine your Street presentation at Edinburgh Adapts a meeting has been held with two National Gallery staff members - Siobhan McConnachie and Bryan Troddyn – who are very interested in the process and findings of Re-Imagine Your Street and who are currently appointing a community engagement officer to 'work with local partners to make sure we create a place that will be welcoming and inspiring for the community.'. Their aim is for the NCF '...to be a game changer – a place for looking and exploring, for talking and making.' Bryan Troddyn is responsible for sustainability and is very interested in adaptation and best practice. Curious Edinburgh (<http://www.curiousedinburgh.org/>) are developing a Granton tour highlighting the rich history of the area.

KEY LEARNING ABOUT ENGAGEMENT PROCESS

The initial proposal submitted to Adaptation Scotland (A.S.) had a more direct focus on the subject of climate change and predicted weather patterns in Edinburgh, particularly more severe rainfall events, their impact on local flooding, and how citizens might contribute to adaptation. We were also aiming to identify more tangible outputs to include specific interventions that could be delivered and considering how these would translate into tangible reductions in flow into the local drainage system. We anticipated these would include areas where de-paving would be feasible, where structural diversity of vegetation could be enhanced and where measures such as water butts could be installed. However, the initial meeting with Adaptation Scotland widened the focus with the inclusion of a creative practitioner subsequently selected as the Museums of the FutureNow (MoTFN) with the aim of opening up the subject and the time frame to capture more imaginative and less constrained thinking. Our main engagement tool changed from being the proposed urban street labs to two MoTFN workshops.



We found the 'round table' approach to this project very useful both in planning and delivery with the involvement of Sniffer and Adaptation Scotland, Creative Carbon Scotland, Scottish Water, and CEC officials. In addition, Adaptation Scotland staff time committed to the project was really appreciated and a sound way to maintain reasonably close scrutiny of project delivery. D. MacPherson and A. Beswick were extremely helpful during this process.

COMMUNITY ENGAGEMENT ACTIVITIES

Knock on doors:

Door knocking was undertaken by Leonie Alexander and two Heriot Watt students, who worked together. Approximately 20% of houses/flat occupants answered the door. Everyone was friendly and engaged in at least a short conversation on the doorstep. They were given another copy of the Re-imagine card – the first having been delivered to all the houses/flats in the street - with a short explanation of what the project was about and they were then asked if they might be interested in attending either of the MoTFN events. It is not clear how many new people attended the workshops as a result of the door to door. However, it was a chance to discuss the issues.

MoTFN workshops:

The two workshops were very well delivered within an excellent venue (Granton United Church), a friendly welcoming atmosphere (offering tea, coffee, and cake) and a degree of theatre to generate an open, creative space. All bar one individual participated in the story telling. One person sat out and another subsequently reported that she was slightly bemused by the process as she had thought we were discussing urban drainage and flooding. The person who sat out is a long-term resident of the area, a historian and who has a huge amount of knowledge about the locality. The benefit of adopting a more creative approach is tapping into a wider agenda. The dis-benefit is that there is less opportunity to identify tangible projects, which could be delivered. Fundamentally all the practical ideas that emerged could have been listed before any public engagement. What the MoTFN workshops (and street interviews – see below) revealed was context in terms of people's priorities, their sense of disquiet about the future, what works locally and what doesn't and what their aspirations might be. A combination of methods would be recommended for any future PE pilots to ensure engagement with all personality types and to maximise intelligence gathering with a range of techniques.

The role of the graphic artist:

One of the key things about the graphics was for the project team to have a high quality, light-hearted engagement tool. This applied to the initial cards, which were posted through people's doors and posted on line and the illustrated theme cards produced for the street interviews. Everyone found the graphics engaging and they worked well on line and in hard copy. The graphics also helped to give the project both an identity and lasting legacy as the graphics generated can now be used for further communication and discussion.

Public reaction:

During the door to door discussions the two students who were assisting engaged several people in a conversation about flooding and got a positive response to a very straightforward dialogue, i.e. people were interested in a practical sense particularly as it was raining on the delivery day and much of the ground was water logged.

Although this area is not a flooding priority for CEC there was surface flooding particularly in people's gardens at the time of the project. Two people cited personal experience of drainage issues in the neighbourhood. One was an underground stream, which flows under a local resident's garden and where they have had to pump the water off site after heavy rainfall events to prevent the house being flooded. The other was a damaged, leaking sewer where there was difficulty in identifying the correct department who would take responsibility for repair which caused months of delay. During the street interviews two people said they were not interested and a third said she was not interested but did then proceed to enter into discussion. Everyone liked the idea of improving the neighbourhood by greening up but they were not confident that without long-term assistance this would be a success. We did not get any impression that people would take an initiative themselves but that support would be required in order to sustain successful implementation.

Engagement with public sector and community partners:

What worked well in terms of engagement with public sector (Local authority/ SEPA) and community partners (e.g. North Edinburgh Arts/ local churches/ community reps who attended scoping meeting).

The benefit of engaging with both CEC and Scottish Water during the Scoping Meeting meant that knowledge gaps that currently exist in those organisations could be explored during the project. For example, Scottish Water showed great interest in knowing and understanding which sustainable forms of controlling rainwater during storm events would be accepted by the public. This helped to shape the types of questions put to the public during the Street Interviews.

Our briefing and scoping meetings were held at granton:hub but after selection of Boswall Parkway as our target street we felt this was too distant from BP residents and looked for suitable meeting venues on the street itself. Contacting local churches to discuss workshop venues proved to be a good way to initiate discussion and they all expressed interest and willingness to be involved.

Recruitment:

Quite a considerable effort was made to engage people and to encourage them to come to the Workshops but despite this we only recruited low numbers. The only incentive offered was tea and cake. Three people who came to a workshop had actually had a practical issue with local flooding – a leaking sewer and an underground stream which rises after heavy rain and risks threatening a property. If flooding had been a pressing issue for people locally it is likely that we would have been deluged with participants. If this had been the case it is likely that they would have been seeking a very practical discussion on problem solving rather than more esoteric story telling. On reflection a non-urgent flooding locality was a good choice to explore how people respond to adaptation before any sense of a catastrophic event.

Numbers of people engaged.

- Door to door leafleting and street interviews ~ 55
- Community Council - 7
- Workshops – 12
- + Wider engagement via presentations at 2 events – Green Tease and Edinburgh Adapts

What might have been done differently if a similar PE project was being planned?

It proved to be very difficult to get people to come along to a workshop event. Even those who expressed interest during the leafleting or door to door or who had a professional interest did not come along on the day. As a result, numbers at the workshops were low, although boosted by students from Heriot-Watt University, so we were able to assign a member of the local community into a group with students to maximise local resident input.

During the course of identifying a suitable venue for the workshops two of the churches were very keen to engage – Granton United Church and Granton Parish Church. Our original proposition was to run Urban Street Labs but due to these scheduled for the end of the teaching semester, this did not prove possible due to the availability of student volunteers. We had been invited by the Minister of the Parish Church to conduct the Urban Street Labs within the church grounds on a Sunday and to address the congregation from the pulpit! Unfortunately, we were not able to take up this offer and in any case we would have been addressing a far wider geographical spread in the congregation than the intended focus on a specific street – Boswall Parkway. Building on existing events where people are already planning to go would be a sound approach but it would be difficult to achieve an audience focused on a single locality. For these reasons the planned the Street Interviews replaced the Urban Street Labs.

Thought was given to running a crèche during the workshops but this was not included in the budget and therefore did not prove possible. It is open to speculation how many additional people would have attended but we would recommend that this approach be considered for future events.

Another approach to community consultation is to pay participants to encourage attendance. At around £10/hour this could prove to be an attractive incentive to engage.

During the course of the project we learnt a considerable amount about Boswall Parkway, its businesses, residents, public spaces. It was remarkable how open people were to talk about their locality, the issues they face and how things could be improved which did give us considerable insight into what might be feasible by way of future interventions.

The Museums of the FutureNow presented two workshops, which revealed a broader take on the subject of climate change with more opportunity to reflect on the wider area, to consider the historical context and what the future might hold. These were very skilfully delivered and thoughtful events. Some local residents found it hard to connect with this approach and might have preferred a more 'nuts and bolts' discussion. In planning future events we would recommend a place for both approaches but with people being clear about expectations.

To get a sense of participant feedback of the MoTFN workshops, the students from Heriot Watt University were asked to reflect on the activity and to provide an account of their experience and what their perception of the activity was before and after taking part. The following questions were put to the students:

1. Before the event, what did you think the Museums of the FutureNow would be?
2. Before the event, what was your impression of how effective the Museums of the FutureNow would be in engaging the public in important topics?
3. Having taken part in the event, how enjoyable was the Museums of the FutureNow?
4. Having taken part in the event, would you say that the Museums of the FutureNow is an effective tool for engaging with the public on important topics, and why?
5. Having taken part in the event, do you have any recommendations of what the Museums of the FutureNow could do to improve its format?

Student answers are provided in Annex 4 and overall provide a positive response to the MoTFN workshop experience. It is interesting to note the preconceptions of what format the workshop would take. One student thought *"it would be very much an interactive environment which you could explore at your own pace - like a typical museum"*. Another thought it *"would be modern technologically"*, whilst another expected to see *"performance/movies acting scenarios of climate change impact"*.

Most students admitted scepticism about the effectiveness of the workshop to generate meaningful information. One student said, *"an interesting concept but I wasn't sure exactly how much 'useful' information on the research topic could be extracted"*. Another said, *"I wasn't fully convinced it would be as engaging"*, whilst another said *"I did not expect a lot of people to be engaged"*.

But having taken part in the workshop, all students expressed a positive experience. One student stated *"I really enjoyed the experience, in particular hearing other people's scenarios which they had come up with and the interlinking themes that were brought to the surface without people being forced into them"*. One replied *"A lot! I was there for both events and it never felt dull. It's a really unique event that was effective in bringing about discussion. I particularly like the discussion that followed each scenario"*. Another said *"It was a very interactive and creative thinking experience which made it more enjoyable and interesting to hear from other people perspective"*. And the final student gave it *"7 out of 10"*.

Students also viewed the workshop as being an effective tool for engaging the public. One said *"I think it would be a useful tool in order to gain information without people feeling pressured into certain answers as it was good fun. It was a shame that more members of the local community didn't get involved with the event"*. Another said, *"It makes individuals feel comfortable first before bringing up subjects that were then discussed in detail. It was good as well there was the capacity to let the conversation develop on its own accord. I think it allows members of the public to express how they're feeling, which is followed by an effective discussion"*. Another said *"Yes, it involved group work and for people to discuss their opinions and tell others their reasoning of why also which is important in engaging public to these kind of activities"*. And the final student said *"The principle and idea is very good because as mentioned being able to use your senses and connect through objects to the future is interesting but I think it needs a little more creativity"*.

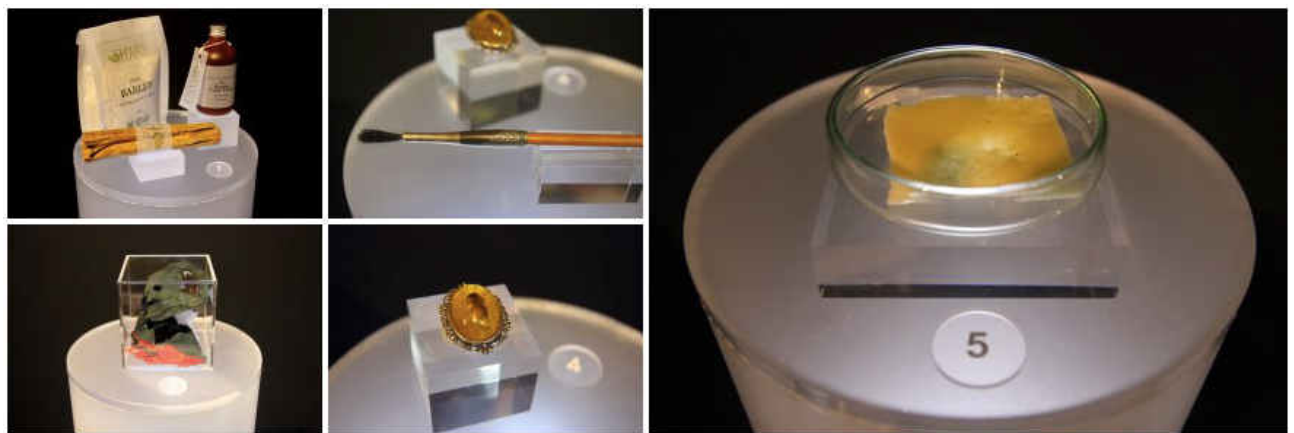
Students were also asked if they had any recommendations of how the workshop could be made even better. One suggested, *"Maybe reduce the time for which participants developed the scenarios and focus more on the discussion element - or bring in a new activity"*. Another suggested, *"Include technologies e.g. monitors to present more items which is a future element"*. And the final student said, *"I think the message would be better received through visualisation tools or ambience in addition to physical. For*

instance, displaying a short video about each of the objects rather than being read out or maybe the use of background music or sounds? It needed more energy overall to be more engaging".

ANNEX 1: MUSEUMS OF THE FUTURE NOW METHOD

Participatory Scenario Planning for the Anthropocene

The original *Museum of Future Food* was an installation presented as one of the works emanating from Nil by Mouth¹ at the Scottish Parliament in Holyrood in November 2014. It came with explanations for each of the five exhibits in a museum catalogue. The exhibits themselves evolved from discussions with scientists from the Strategic Research Programme.² They were presented with care, up-lit on pedestals, in clear presentation cases.



The Museum of Future Food, Scottish Parliament, November 2014.

Since then the process has changed somewhat. The Museum has become interactive encouraging visitors to imagine the future. The Future Food installation (or something quite like it) is used as an introduction to the process. Museum visitors are invited to examine the exhibits and encouraged to read their story in the accompanying catalogue. In its most recent outing (as a vehicle for community engagement in the context of Aberdeen Adapts³) visitors were given white gloves to handle the exhibits, some of which were presented in vacuum packs. This introductory stage of the process is intended to reinforce in a light-hearted way the 'authority' of the museum as an institution. It also suggests subliminally the type of stories that the visitors themselves will be asked to create in the interactive scenario-building phase that follows.

¹ Nil by Mouth: <http://creativefutureshq.com/projects/nil-by-mouth-food-farming-science-and-sustainability>

² Environment, Agriculture and Food Strategic Research Portfolio:
www.gov.scot/Topics/Research/About/EBAR/StrategicResearch

³ **Aberdeen Adapts** is an Adaptation Scotland programme: www.adaptationscotland.org.uk/get-involved/our-projects/aberdeen-adapts

The interactive story-telling phase is the vehicle for imagining the future. Depending on the number of visitors, they are asked to form groups of 3 or 4 people.

One person from each group is asked to select an object at random from the range of objects available. No object is visible as they are wrapped in opaque bags.

Objects have included a fragment of a rubber sheet, a brass swallow, a stone fragment, a vial of water, a faux-fur and pearl brooch, a whistle, a strand of barbed wire, a drinking flask, a bee in amber brooch, a hand pollination brush, a selection of share products, a flag fragment, synthetic food...

At the same time, other members of the group are given 3 cards that identify a place, a date and a driver.

Places have included *The Jungle* (migration camp in Calais, France) Amsterdam (Netherlands), Can Tho (Mekong Delta, Vietnam), Timbuktu (Mali), Edinburgh (Scotland), London (England), Kousseri (Cameroon), Mexico City (Mexico). Dumfries (Scotland) and Aberdeen (Scotland) have also been used where the *Museums of the FutureNow* has been used to explore specific local issues: flooding, as part of the SUBMERGE project in Dumfries developed for ArtCOP21⁴, and urban adaptation issues in Middlefield, Aberdeen.²

Dates are usually in the range 2030 to 2050, far enough in the future to encourage imagination, but not so far as to be inconceivable.

Drivers have included: politics, religion, economics, environment, technology, media, science, and policy.

Each group is then asked to create a story that explains the significance of their object: **what** the object is and **why** it is in the museum. We ask one person in each group to take good notes (to help us capture their stories accurately after the event).

Then, one person is asked to tell their group's story to everybody else. Reasonably detailed notes are taken by one of the curators, while the other two facilitate the discussion.

The entire event usually takes around two hours.

⁴ SUBMERGE: www.thestove.org/portfolio/submerge/?doing_wp_cron=1497599679.5764129161834716796875

After the event, the visitors' and curators' notes are transcribed and we look for any patterns emerging from the stories. From previous Museums these include:

- Shifts in power structures: distributed social (resistance/activist) movements
- Loss and mourning
- fragmentation / isolation / separation / conflict
- migration

and, more optimistically perhaps:

- magic / the sacred / spiritual responses
- materials design: technology will save us
- connectedness and collaboration

Based on the twelve Museums that have been run to date, these patterns are apparent across different communities of practice, interest and place and are starting to help identify cultural constructs that may accelerate (or limit) transformational change.



Museum of Climate Futures scenario building workshop for ArtCOP21

ANNEX 2: MUSEUMS OF THE FUTURE NOW WORKSHOP STORIES

The following are summaries of the stories told within the group workshops; which are mainly the direct transcriptions of the notes that each group took. Each transcript includes the object that the group worked with and the driver (context) for their story [**object / driver**]. Each transcript is followed by a candidate 'theme' for the story as interpreted by the author while the story was being transcribed. These have contributed to the identification of the *Key Themes* highlighted below.

The themes emerging from the stories that people told each other about the future will be explored during the *Urban Street Labs*; which will take place in the next phase of the project to see which of them resonate with the wider community.

Key themes:

- Museum 1:
 - The importance of local (land-grown) food with potential for local sustainable development.
 - Build on existing initiatives such as the community gardens
 - The (potential) power of the community
 - Identify the co-benefits of any initiative for local sustainable development - economic, environmental and social.... plus aesthetic.
 - Technology may save us particularly in building infrastructural services but without a systems approach there are highly likely to be unintended consequences.
- Museum 2:
 - The importance of local (marine) food with potential for local sustainable development.
 - The need for an overhaul of urban planning and design
 - Dystopian futures
 - Opportunities for local sustainable development, fictional but plausible.
 - Intergenerational responsibilities
 - Some existing initiatives are considered to be cautionary tales rather than something to be built on further.

- The importance of culture
- The lack of policy for the littoral compared to the SG's Land Use Strategy and Marine Plan. The littoral seems literally seem to have fallen through the crack between departmental boundaries.

Other references from group discussions:

1. Dan Sickles - the man who campaigned successfully for the greenspace in New York City that is Central Park.
2. Agnes Denes. Wheatfield. A Confrontation:
www.agnesdenesstudio.com/works7.html

Afternoon session 15:00 – 17:30

Group 1: Red Sandstone / Community

Anne [local], Stewart [local], Gemma [Creative Carbon Scotland]

The object (red sandstone) is one of the last remaining pieces of Madelvic House - an important community site for Granton, the site of the City Chambers. In 2050, a local historian was elected leader of the city council. One of her priorities was protection of Granton's heritage. Sealants were applied to the sandstone; slate was used to protect the roofs. New skills were developed (or old skills were re-discovered). This led to inward migration of skilled workers looking to develop these skills - many were from the Netherlands. These skills were then used to restore Madelvic Factory, where a zoological institution was founded to provide a home for a range of threatened species from around the world. Boswall Parkway developed into the city's nature quarter, attracting city wildlife. The area became an attractive place to live with people working and living in the same place. Plant based remedies contributed to local well-being. Different creatures were provided refuge from increasing sea temperatures.

[Additional notes that the group made on their conversation in developing the story]

It is difficult to imagine the houses in Boswall Parkway surviving climatic changes as the build quality is so unsubstantial. Noise is also a problem. There is the potential then for new building in the area; Royston and Northside are much more substantial. There are some significant buildings in the area. Madelvic House is a substantial building. Its outer layer is sandstone, a structural material that guards against extreme weather. It is not fully waterproof but a sealant could be applied. The provenance of the stone is unknown. The Factory is likely to deteriorate which

is a shame as it encompasses an important period of the history of the area, not least the 30 years when the electric cars were produced there.

Group 2: White Powder / Economy

Kirsten [Heriot-Watt] +1 [Heriot-Watt]

The 'grantinuals' (white powder) were invented in Granton by Grant to solve the problem of flooding in streets and houses by absorbing water and turning into a foam. It had a huge positive effect on the local economy. It was banned in 2050 due to the toxic foam it created (when it absorbed the water). The slide contains the last remaining sample of the powder still in existence. It is in the Museum as a warning: there are no quick fixes. Grant reinvested all of the profits from the sales of the powder into the area in an attempt to recompense the local community.

[Theme: Technology will save us - a cautionary tale]

Group 3: Faux fur brooch with pearls / Politics

Leonie [RBGE Project Lead] + 2

This brooch was found in the Granton Walled Garden. It's thought to have been sold by an Edinburgh jeweller - Grant Boswell or Boswell Grant - to Mary, Queen of Scots. The brooch was made with pearls from Forth oysters discovered through DNA analysis and of fur from an otter slain on the Forth estuary. The brooch was sold at auction and raised £1m, which was used to fund the reintroduction of appropriate genetic stock of oysters into the Forth. This included the development of an oyster nursery on Boswall Parkway to maintain the stock. This in turn inspired the people of Granton to adopt it as a symbol of success of the redeveloped of the Edinburgh Shoreline where habitat was created specifically to support otters. In fact, otters were seen regularly in Boswall Parkway feeding in the spring where wetlands had been created as a result of re-imagining the street. This initiative resulted in social, environmental and economic benefit to the area. The natural environment attracted tourists and during the season, eating oysters was a popular attraction. The oysters thrived and created the Granton reef which can be seen from space and which has protected this part of the city from rising sea level. The success was recognised internationally and led to significant strengthening of sustainability legislation and EIAs.

[Theme: food production/festival; social, economic and environmental impact - a means for sustainable development]

Group 4: Soil / Culture David Kelly [Heriot-Watt] + 2

Frequent and repetitive extreme rainfall and flooding was the soil of all of its valuable nutrients for crops and vegetation. Agriculture suffers, trees, plants and flowers struggle to cope, communities lose feeling of place, families (who had been in Granton for decades/generations) begin to migrate, inter-faith groups step-in to form a community garden. A movement of community fundraising begins to bring back livelihood and raise money to replenish the soil from peat farms in the North of Scotland (offered by Highland whisky distilleries), which sparked the creation of the Granton Whisky Distillery in 2037. Sustainable crops → community garden → regular community gatherings → Granton Whisky Society became a major local employer → their 2037 vintage became highly prized.

[Theme: social, economic and environmental impact - a means for sustainable development]

Group 5: Part of a Tree / Wellbeing David McPherson [Adaptation Scotland], Mary [local] + 1

The object was part of a tree cut down and in its place space was made to grow food for the community. It is in the Museum as a symbol of the decision to expand growing. In 2018, the community saw how well the community garden was doing and wanted to expand it. This required more land so some trees on old greenspace were cut down and vegetables were planted instead. As the climate grew warmer, more and more could be planted. This brought the community together, increased socialising, and shared food. This encouraged people to start growing in their front gardens as well, making an edible street. The next generation of children grew up among all this gardening and were taught how to grow their own food and they passed this on to other parts of the city. A new community food centre and meal hall was built so that people could share food, sell produce and cook community meals together. This helps to bring people together rather than sitting at home in the house. The schools' land could be transformed into food farms with children learning about how to grow their own food. Using wheat grown in the community, a new Granton Bakery opens, selling fresh bread to the whole community. This brings jobs into the area and helps improve people's health. The stalks of the wheat are used to make bags and baskets and other useful items, helping to make Granton free from plastic.

[Theme: build on existing initiatives - food for health, well-being and social impact]

Group 6: Test tube of water / Health

Gillian [local, had lived in India for many years] +2

Dirty water from the 2040 floods in Granton infected many people due to it being a densely populated area. Community uproar led to an initiative to improve drainage using storm drains, sink tanks and permeable materials such as gravel, more purification plants and more green area with very absorbent plants, and especially trees, reducing concrete.

[Theme: community activism bringing about change]

[Additional notes from the discussion]

- Frustration with planning, both as a concept and the way it is practiced
- The disproportionate influence of property developers
- The preference to outsource to the private sector
- Gillian told a story from her time in Mumbai, a city that has learned to live with water (monsoon). What channels are there for knowledge exchange?
- Unintended consequences: for example, improvements in waste recycling has led to more frequent collections which in turn has had a detrimental effect on the roads. This highlights the need for systems solutions (and, in the first instance, systems thinking to characterise the problem).

Evening session 18:00 - 20:30

Group 1: Dried Mud / Economy

Archie [local resident] +2

It's 2050 and there's been a huge storm that has rendered the buildings on coast uninhabitable. Everyone's been temporarily evacuated from the waterfront to Boswall Parkway, which is now a dense estate of high rise flats without any cultural or biological diversity. Boswall Parkway has suffered. It is not self-sufficient as the soil has become inaccessible as result of the rampant development. Without tourism, community or any potential there has been little to keep the residents. The economy has collapsed. The migrants from the waterfront are shocked. They reminisce on how Boswall Parkway used to be with its greenspaces. Their intent is to take a radical review of urban design, knocking down many of the high-rise buildings to recreate landscapes. The soil in the vial in the Museum is a reminder of the fundamental need to cherish the earth.

[Theme: urban planning]

Note: Pennywell Gardens was highlighted as a case study of what not to do: dig up the greenspace to create more parking]

Group 2: Water in Vial / Culture

Orla [Heriot-Watt] + Secretary Community Council

Rain water, collected from 2010, which stands as a reminder of the consequences of pollution. The water in the vial is in the Museum as the last example of uncontaminated, pure, rainwater. Due to global warming the rain has become polluted. Chemicals have made rainwater acidic, which is damaging to both crops and skin. People cannot leave shelter without special equipment. Many people cannot afford this and so cannot go outside at all. The culture of the areas changes forever. No vegetables can grow in the open. The Granton Community Garden is irrigated with grey water from underground springs and, for those who can afford it, water from the purification plant.

[Theme: dystopian but plausible future; food and culture]

Group 3: Red sandstone / Technology

Leonie +2

Red sandstone used to be used as a building material but supplies were diminishing as high quality quarries were being flooded due to global warming. Alternative building materials were required. Granton No.1 School kids collecting plastics from the beach were asked for ideas about what use this material could have. They said 'spin it like candy-floss'. This was the inspiration for the Granton Building Blocks factory on the site of the gasworks. Fuelled by sustainable energy from tidal and wave sources, the plastic is spun into super light bricks which have an ultra-low u-value. This was a global first and a Boswall Parkway Community Hub was constructed to demonstrate the new technology. This created a whole new market for mixed recycled plastic which drove new technologies for cleaning up the sea. Granton became a new commodity town built on recycled plastic bricks as the basis for local sustainable development

[Theme: technology will save us / local sustainable development; next generation will need to clear up our mess]

Group 4: Faux Fur & Pearl Brooch / Health
David Kelly [Heriot-Watt] +2

In 2030, Edinburgh was hit by a plague outbreak, which killed hundreds of people. It was discovered that the cause of the outbreak was urban foxes of which there are a lot locally, and they then spread the virus. The Edinburgh plague epidemic forced the UK Government to erect a cordon around the city bypass. No-one was allowed in; no-one was allowed out. The plague was resistant to modern medical treatment and all of the greatest medical minds were working hard to find a solution. It was observed that the rich and wealthy developed immunity to the plague virus and the World Health Organisation investigators found that it was due to their oyster rich diet. A campaign was rolled out to introduce oysters to all diets. They were consumed both raw and dried and ground into flour. Leading to the founding of the Granton Oyster Farm on the coast 8 minutes from Boswall Parkway. The oyster farm also provided unexpected dividends for water quality as a result of the need for water purification. Ironically, excavations for the foundations of the Radisson hotel on Niddrie Street had discovered tons of oyster shells, which had at one time been food for the poor. Plague survivors were given the fur-and-pearl brooch.

[Theme: social, economic and environmental impact - a means for sustainable development]

ANNEX 3: SUSTAINABLE URBAN DRAINAGE IMAGES



Rainwater Harvesting



Downpipe Disconnection



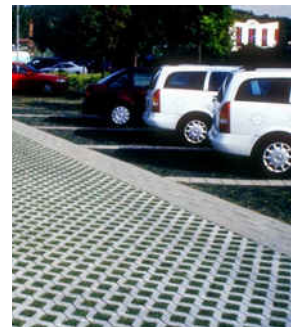
Green Roofs



Infiltration Trench



Grass Swale



Pervious Pavements



Filter Drain



Detention Basin



Retention Pond



Bioretention Trench



Raingarden



Street Trees

ANNEX 4: STUDENT FEEDBACK ON MUSEUMS OF THE FUTURENOW

1. Before the event, what did you think the Museum of the Future Now would be?

Student 1: I was aware of how Museums of FutureNow vaguely worked from knowing people who had previously been part of it but I thought the process would be more pin pointed to the topic of research and not as open as it was to ideas.

Student 2: I thought it would be very much an interactive environment, which you could explore at your own pace - like a typical museum. I didn't expect we would interact with each other as much.

Student 3: I thought Museums of the FutureNow would be modern technologically developed museum consisting of the historical elements that is to date.

Student 4: Prior to the event, in addition to the objects that were handed out, I thought there would be a sort of performance/movies acting scenarios of climate change impact- that's because you mentioned a theatrical/drama group was taking part in the event.

2. Before the event, what was your impression of how effective the Museum of the Future Now would be in engaging the public in important topics?

Student 1: I thought Museum of the Future now sounded like an interesting concept but I wasn't sure exactly how much 'useful' information on the research topic could be extracted in relation to flooding in that area.

Student 2: I wasn't fully convinced it would be as engaging as it was as I thought it would be a case of individuals wandering around and observing objects.

Student 3: I wouldn't have thought to have a very interactive and public engaging experience; instead I thought it would be very informative and factual excluding all the critical thinking aspects.

Student 4: Given the way in which people were asked to participate and the nature of the topic, I did not expect a lot of people to be engaged. I think with such a topic, approaching people and getting them involved on the spot would be a better fit. It's like someone asking me to go to a chemistry or biology talk - I know how important that it is and value it but not enough to take time off my weekday to attend, but if someone shared information with me as I'm passing by I would be more than happy to hear them out. In terms of the actual activities that took place, I thought the idea of being able to touch and connect with something and envision the future was interesting

3. Having taken part in the event, how enjoyable was the Museums of the FutureNow?

Student 1: I really enjoyed the experience, in particular hearing other people's scenarios that they had come up with and the interlinking themes that were brought to the surface without people being forced into them.

Student 2: A lot! I was there for both events and it never felt dull. It's a really unique event that was effective in bringing about discussion. I particularly like the discussion that followed each scenario.

Student 3: It was a very interactive and creative thinking experience, which made it more enjoyable and interesting to hear from other people perspective.

Student 4: 7 out of 10

4. Having taken part in the event, would you say that the Museums of the FutureNow is an effective tool for engaging with the public on important topics, and why?

Student 1: I've not seen the final information extracted from the event but from the summary at the end of each session it seemed to draw up areas of which to research further into within the local community. I think it would be a useful tool in order to gain information without people feeling pressured into certain answers, as it was good fun. It was a shame that more members of the local community didn't get involved with the event.

Student 2: Definitely. It makes individuals feel comfortable first before bringing up subjects that were then discussed in detail. It was good as well there was the capacity to let the conversation develop on its own accord. I think it allows members of the public to express how they're feeling, which is followed by an effective discussion.

Student 3: Yes, it involved group work and for people to discuss their opinions and tell others their reasoning of why also which is important in engaging public to these kind of activities.

Student 4: The principle and idea is very good because as mentioned being able to use your senses and connect through objects to the future is interesting but I think it needs a little more creativity.

5. Having taken part in the event, do you have any recommendations of what the Museums of the FutureNow could do to improve its format?

Student 1: I thought the whole process was well thought-out and conducted; the only slight shame was the lack of participants from the community. Maybe making the advertisement of the event clearer or more attractive to a wider scope of the community, for better representation.

Student 2: Maybe reduce the time for which participants developed the scenarios and focus more on the discussion element - or bring in a new activity.

Student 3: Include technologies e.g. monitors to present more items which is a future element.

Student 4: I think the message would be better received through visualisation tools or ambience in addition to physical. For instance, displaying a short video about each of the objects rather than being read out or maybe the use of background music or sounds? it needed more energy overall to be more engaging.