

# CENTRE FOR DES/IGN /NNOVATION

SWIN  
BUR  
NE

SWINBURNE  
UNIVERSITY OF  
TECHNOLOGY



## DESIGN4HEALTH Melbourne 2017

Proceedings of the  
4th International Conference on Design4Health  
Melbourne Cricket Ground, Melbourne, Australia

4-7th December 2017

Editors: Deirdre Barron and Kurt Seemann

 DESIGN4  
HEALTH  
MELBOURNE 2017

Sheffield  
Hallam  
University

 LAB 4 LIVING

**Cover:**  
**Jayden Ryles-Smith**  
**Benjamin Chaves**

## Preamble

Welcome to the first Design4Health Conference in Australia, convened by the Centre for Design Innovation, Swinburne University of Technology, on behalf of, and jointly chaired with, the conference founders, Lab4Living, Sheffield-Hallam University, UK.

The Centre for Design Innovation investigates and validates the key factors that underpin the design of products, services, systems, spaces, and symbols to improve the chance of user uptake and impact.

Lab4Living, who established the conference, is an interdisciplinary research initiative that develops products and environments, and proposes creative strategies for dignified, independent and fulfilled living for all.

This international event invited the world of health and design practitioners and researchers to come together between the 4<sup>th</sup> and 7<sup>th</sup> of December, 2017 in Melbourne, Victoria, Australia.

### About the conference

Design4Health is an international conference that brings together designers, health professionals and creative practitioners with researchers, clinicians, policy makers and users from across the world to discuss, disseminate and test their approaches and methods in the ever-changing nexus between design and health.

The conference hosted a series of different events that provided an active forum to explore how the disciplines of design and health might intersect to bring forth new ways of thinking and working in what is a dynamic, innovative and increasingly important area of research and practice. The central question has been:

How can we work together to achieve positive and sustainable impact on the social, economic and cultural factors within our communities and beyond?

The range and insights presented at the D4H Melbourne event has revealed both the enormous value of this movement in research, and the benefits from undertaking serious, applied, and critical efforts that design and health expertise generate when they come together.

We invite you to browse the innovative ideas and critiques scoped in these proceedings

Sincerely



Associate Professor, Kurt Seemann, PhD. | Convenor | Design4Health 2017

## Supporters and Partners

Cabrini Hospital  
Centre for Design Innovation, Swinburne University of Technology, Australia.  
Faculty of Health, Arts and Design, Swinburne University of Technology, Australia.  
Jean Hailes for Women's Health  
Lab4Living, Sheffield-Hallam University, UK.  
Melbourne Cricket Ground, Melbourne.  
Ms Sarah Markey-Hamm and Ms. Siobhan Bahn, Conference Managing Agents, ICMS.  
Peter Stacey, Human Scale

## Acknowledgments

Many people have contributed their time and skills to assist the 2017 International Design4Health Conference in Melbourne, Australia, and the compilation of the proceedings. We wish to personally thank and acknowledge the work by Associate Professor Deirdre Barron, (Chair, Academic Review Board), and the boards two executives, Dr Alen Keirnan, and Dr. Nicole Aimers. Also wish to thank the work of:

Ms. Fatma. Mohammed, and Ms Andrea Streckfuss (Centre Coordinators, Centre for Design Innovation, Swinburne University of Technology).

Ms. Jenny Jiang (Project Management Intern)

Associate Professor Simone Taffe (Design4Health Melbourne Exhibition)

Ms. Bridgette Engeler (Design4Health Melbourne Exhibition)

Dr. Gianni Renda (Design4Health Melbourne Exhibition)

## Conference Convenor and Co-Chairs

Associate Professor Kurt Seemann (Convenor, Co-Chair)

Director, Centre for Design Innovation, Swinburne University of Technology

Professor Paul Chamberlain (Co-Chair)

Director, Lab4Living, Sheffield-Hallam University

## Academic Program and Review Committee

Associate Professor Deirdre Barron

(Chair, Academic Program and Review Committee, 2017)

Dr Nicole Aimers

Dr Alen Keirnan

Research Associate Kirsty Christer

Mr. Heath Reed

Associate Professor Flavia Marcello

Associate Professor Carolyn Barnes

# Scholarly Review Policy for the 2017 International Design4Health Conference Proceedings, Melbourne, Australia.

All papers included in these proceedings have been double-blind refereed by peers and revised to take into account the referees' recommendations.

## Citation for Proceedings

Seemann, K and Barron, D. (Eds.). (2017). *Design4Health, Melbourne. Proceedings of the Fourth International Conference on Design4Health 2017*, Melbourne Cricket Ground, 4 - 7 Dec 2017, Melbourne, Victoria, Australia: Centre for Design Innovation, Swinburne University of Technology.

**ISBN-13: 978-0-6480892-1-6**

## Citation for Paper in Proceedings (format)

Author Surname, First Initial. Second Initial. (Year). Conference paper title. In Seemann, K and Barron, D. (Eds.). (2017). *Design4Health, Melbourne. Proceedings of the Fourth International Conference on Design4Health 2017*, (pp. page range of paper) Melbourne Cricket Ground, 4 - 7 Dec 2017, Melbourne, Victoria, Australia: Centre for Design Innovation, Swinburne University of Technology.

**ISBN-13: 978-0-6480892-1-6**

## COPYRIGHT

© 2017 Sheffield Hallam University jointly with Swinburne University of Technology  
**Attributions:** Creative Commons: <https://creativecommons.org/licenses/by/4.0/>

Lab4Living | Art & Design Research Centre | Sheffield Hallam University | Sheffield | S1|1WB | tel: +44 (0) 114 225 6918 | fax: +44 (0) 114 225 6931 | [www.design4health.org.uk](http://www.design4health.org.uk)

Centre for Design Innovation | Swinburne University of Technology | Johns Street | Hawthorne | Victoria | 3122 | Australia | tel: +61 3 9214 8000 | [www.cdiengage.com.au](http://www.cdiengage.com.au)

## Table of Contents

1. The role of users in an innovative service design process in healthcare	12
Alhonsuo, M. and Miettinen, S.	
2. Learning critical communication in social services: Innovations in communication practices and technologies through simulation pedagogy and service design	16
Vuojärvi, H., Alhonsuo, M., Marttila, H.	
3. Foyle Bubbles: How can design reduce suicide attempts using everyday social and civic spaces?	20
Alwani, R., Raby, E., West, J., Bichard, J. and Spencer, J.	
4. How do space and information technology affect patients' waiting experience in an ambulatory centre?	24
Annemans, M., Stam, L., Coenen, J. and Heylighen, A.	
5. When interest pays off: The relationship between motivation, wellbeing and learning of technologies by older adults	27
Beh, Jeanie and Sonja Pedell	
6. Fit for purpose	31
Bell, Alison	
7. <b>Design standards and disability: Limitations in person-centred home modifications</b>	36
Lo Bianco, Michael, Sonja Pedell, Gianni Renda, and Ajay Kapoor	
8. The prototyping process of a patient support device for radiotherapy of breast and regional lymph nodes in prone position	39
Boute, Bert, <sup>1</sup> Wilfried De Neve <sup>2</sup> and Jan Detand <sup>3</sup>	
9. Wardrobe Adapted for Wheelchair Users	45
Bruckner, Melanie Sol, Gabriela Elise Fensterseifer, Gustavo Henrique Lagemann, Silvia Trein Heimfarth Dapper	
10. Delivering healthcare: A reframing tool to uncover the right problem to solve.	50
Cockburn, Jane <sup>1</sup> and Clementine Thurgood <sup>2</sup>	
11. Design Anthropology and the medicalisation of ageing: Reflections on Designing for mild cognitive impairment	55
Collier, G., Kayes, N., Reay, S., Hayes, N. and Bill, A.	
12. Giving people living with dementia a strong voice: reflecting on the role of design to create enabling activities	60
Claire, C. <sup>1</sup> and Pedell, S. <sup>2</sup>	

13. Discourse and collaborative design: exploring a critical approach to community engagement for design research insight	64
Cunningham, Helen J., <sup>1</sup> Joanna K. Fadyl, <sup>2</sup> Stephen D. Reay <sup>3</sup> and David E. White <sup>4</sup> Introduction	
14. Design for health: Experience of women-based food innovation initiative to overcome nutrition related health issues in Sri Lanka.	71
De Silva, S. <sup>1</sup> and Akane, M. <sup>2</sup>	
15. Co-designing to understand the tracheostomy product experiences of long-term tracheostomy users.	74
Dickson, C., Reay, S.D., Douglas, R. and Nakarada-Kordic, I.	
16. The refuge project: Designing through health, architecture and landscape	79
Donnelly, Samantha, Sue Dean, and Tracy Levett-Jones The intervention:	
17. Prototyping an emotionally responsive hospital environment	83
Douglas, R., Reay, S.D., Munn, J. and Hayes, N.	
18. Designers and hospitals: Considerations from an ongoing collaboration	88
Daphne Flynn, Kate McEntee, Rowan Page and Troy McGee	
19. Strategic design innovating wellness for the 21 <sup>st</sup> Century workforce	91
Fry, A. and Alexander, R.	
20. Using co-design workshops to develop a ward-level patient experience improvement toolkit.	95
Gwilt, I., <sup>1</sup> Partridge, R. <sup>2</sup> Peacock, R., <sup>3</sup> Marsh, C., <sup>4</sup> Sheard, L.Bradford, <sup>5</sup> Lawton, R. <sup>6</sup> and Langley, J. <sup>7</sup>	
21. Integrating responsive design and interdisciplinarity for healthcare environments	99
Haskell, N. <sup>1</sup> and Loy, J. <sup>2</sup>	
22. Interdisciplinary and cross-cultural approaches to design for healthy ageing	103
Scharoun, Lisa, <sup>1</sup> Danny Hills <sup>2</sup> and Carlos Montana Hoyos <sup>3</sup>	
23. The impact of user experience on simulation or VR-based training software in the field of medical surgery and teaching environment.	106
Hilgers-Yilmaz, Ute	
24. Can you have your cake and eat it too? A dilemma-driven approach to design for the early stages of health behaviour change	110
Ludden, Geke, <sup>1</sup> Deger Ozkaramanli, <sup>2</sup> Armağan Karahanoğlu <sup>3</sup>	
25. Wellbeing and the lived experience of dying with dementia in a typical Australian RACF	115

Kennedy, Karen	
26. Design for dementia: Making spaces for uncertainty	118
Fennell, Jac, <sup>1</sup> Cathy Treadaway <sup>2</sup> and Gail Kenning <sup>3</sup>	
27. Craft as purpose: Co-design for people living with advanced dementia	122
Kenning, Gail, <sup>1</sup> Cathy Treadaway, <sup>2</sup> Jac Fennell, <sup>3</sup> David Prytherch <sup>4</sup> and Andy Walters <sup>5</sup>	
28. Reciprocal design: inclusive design approaches for people with late stage dementia	125
Kenning, Gail	
29. QuittyLink: Involving smokers in the design of technology that supports individuals in quitting	128
Paay, Jeni, <sup>1</sup> Jesper Kjeldskov, <sup>2</sup> Uma Brinthaparan, <sup>3</sup> Lars Lichon, <sup>4</sup> Stephan Rasmussen <sup>5</sup> and Nirojin Srikandaraja <sup>6</sup>	
30. Communication design project: Redesigning medicine administration for the elderly in Hong Kong	133
Kwok, S.H.	
31. Thick care: Designing for an ethic of care and complexity in community aged care services	138
Lorenzetto, Anna	
32. Creating a personalised self-management system for post stroke rehabilitation; utilising a user-centred design methodology	142
Mawson, Susan, <sup>1</sup> Nasrin Nasr, <sup>2</sup> Jack Parker, <sup>3</sup> Huiru Zheng, <sup>4</sup> Richard Davies <sup>5</sup> and Gail Mountain <sup>6</sup>	
33. Designing for emergency departments: A literature review	146
McGee, T., Flynn, D., Coxon, S. and Keith, J.	
34. Kids in the waiting room: Lessons from Melbourne's Royal Children's Hospital	150
McLaughlan, R., Willis, J. and Sadek, A.	
35. Evidence and borrowing: Conversations with 8 architects on the use of evidence and innovation in the design of contemporary healthcare facilities	153
McLaughlan, Rebecca, Philip Goad, and Alan Pert	
36. ICU journey: Humanising the patient experience of Intensive Care	156
Meldaikyte, G., Fusari, G., Matthews, E. and West, J.	
37. Designing creActivities: Creative Methods to engage young people experiencing psychosis in co-design	160
Nakarada-Kordic, Ivana, <sup>1</sup> Nick Hayes, <sup>2</sup> Stephen D. Reay, <sup>3</sup> Carla Corbet <sup>4</sup> and Amy Chan <sup>5</sup>	
38. Responsive tangible rewards in physical activity gamification	167
Novak, James I. <sup>1</sup> and Jennifer Loy <sup>2</sup>	



39. Design across the Spectrum: Enhancing inclusion for children on the autism spectrum in the playground	171
Owen, Ceridwen, Damhnat McCann, Christopher Rayner, and Jackson Wells	
40. Increasing confidence through competence in people with dementia through meaningful conversations	175
Paay, Jeni, <sup>1</sup> Metta Bank <sup>2</sup> and Ivan Aaen <sup>3</sup>	
41. Interactive technologies helping young adults manage low self-esteem	179
Paay, Jeni, <sup>1</sup> Helle Larsen <sup>2</sup> and Heidi Nielsen <sup>3</sup>	
42. The SEE toolkit: How young adults manage low self-esteem using personal technologies	183
Paay, Jeni, <sup>1</sup> Helle Larsen <sup>2</sup> and Heidi Nielsen <sup>3</sup>	
43. Speculative co-design: a framework for designing medical devices towards enhanced usability, through explorations of experience.	187
Rowan Page	
44. Utilising Lego® Serious Play® to engage children and young people with ADHD and their parents	191
Powell, L., <sup>1</sup> Parker, J., <sup>2</sup> Harpin, V. <sup>3</sup> and Mawson, S. <sup>4</sup>	
45. Enhancing social connections amongst older residents of a rural town with community mapping and technology	195
Paulovich, Belinda.	
46. Technology in health and social care: a critical reflection from across two continents	198
Pedell, S. <sup>1</sup> and Claire, C. <sup>2</sup>	
47. Pictorial Language: A bridge to meaningful conversation between grandparent and adolescent grandchildren	202
Mayasari, Angeline and Sonja Pedell	
48. The hospital environment through the eyes of adolescents with long-term patient experience. Young people affected by cancer speaking	207
Peeters, Kimberl, Pleuntje Jellema, Margo Annemans, and Ann Heylighen	
49. Communicating information in health: Engaging students in design for health awareness.	211
Potter, E., Reay, S.D. and Thornhill, B.	
50. Stigma and the weight it carries when establishing a user experience Strategy: User research discoveries around mobility related issues	215
Neagu, E., Raby, E. and McGinley, C.	

51. Foyle Reeds: How can design reduce suicide attempts at a specific place whilst at the same time improving the experience for all?	219
Raby, E., Alwani, R., West, J., Bichard, J. and Spencer, J.	
52. Design for well-being: Examining Aceh post-tsunami houses	223
Rahmayati, Y.	
53. Dear pelvic floor exercises: A qualitative study among health professionals, pregnant and postnatal women	226
Barnard, R., Rodríguez Ramírez, E.R., Caudwell, C. and Baartman, V.	
54. NZ Fauna AR: an augmented reality exergame system to assist stroke survivors with independent rehabilitation.	230
Petrie, R., Rodriguez-Ramirez, E. and Chan, K.	
55. Exergames for healthy ageing: Inclusion through design	235
Čaić, Martina, <sup>1</sup> Vanessa Rodrigues, <sup>2</sup> Stefan Holmlid, <sup>3</sup> Dominik Mahr <sup>4</sup> and Gaby Odekerken-Schröder <sup>5</sup>	
56. Psychosocial Needfinding	239
Savig, E.S. <sup>1</sup> Gurevitch, J.H., <sup>2</sup> Jackson, J.E., <sup>3</sup> Alinowski, A. Agarwal-Hashmi, R., <sup>4</sup> Sourkes, B.M., <sup>5</sup> Cohen, H.J. <sup>6</sup> and Leifer, L.J. <sup>7</sup>	
57. Review of waste management service design for health and wellbeing in rural and remote Aboriginal and Torres Strait Islander communities	247
Seemann, K., McLean, S. and Fiocco, P.	
58. Designing innovative wayfinding systems in healthcare: from exploratory prototyping to scalable solutions	252
Short, E., Reay, S.D., Douglas, R.	
59. Designing health information to an acceptable standard: the state of the art, science craft, and design	259
David Sless	
60. Sharing the city: An intergenerational VR experience	262
Symington, Nicole, Kathy Constantin, and Sonja Pedell,	
61. Reimagining ageing: Insights from teaching co-design methods with designers, seniors and industry partners	268
Taffe, Simone, <sup>1</sup> Sonja Pedell <sup>2</sup> and Andrea Wilkinson <sup>3</sup>	
62. Taking the pulse: A survey of design for health development in Singapore	272
Koon Boon Tan, Michael	
63. Framing food literacies: Reflections from two Australian design-led innovation projects	278

Angela Turner

64. Research-led Design of a Communication Strategy for a Health Accelerator Program 283  
Turukalo, M.,<sup>1</sup> Thompson, J., Pedell, S.<sup>2</sup> and Kommatas, C.<sup>3</sup>
65. Making better use of recorded patient experiences: transforming literature into a collaborative tool for inspired interaction 288  
Villalba, C., Jaiprakash, A., Donovan, J., Roberts, J. and Crawford, R.
66. Designing for health beyond healthcare: From the institutional assumption to community health design 293  
Vink, Josina,<sup>1</sup> Vanessa Rodrigues,<sup>2</sup> Lisa Malmberg,<sup>3</sup>
67. Designing emotionally resonant aesthetic experiences in healthcare. 297  
Wan, T.,<sup>1</sup> Reay, S.D. <sup>2</sup> Smith, A.,<sup>3</sup> Douglas, R.A.<sup>4</sup>
68. Evaluation of universal design—A scoping project 302  
Watchorn, Valerie.,<sup>1</sup> Cathryn Grant,<sup>2</sup> Richard Tucker,<sup>3</sup> Danielle Hitch,<sup>4</sup> Patsie Frawley,<sup>5</sup> Susan Ang,<sup>6</sup> and Kathryn Aedy<sup>7</sup>
69. Decreasing the burden of hypertension: A design intervention to foster more accurate blood pressure measurements. 305  
Jackson Wells, Ceridwen Owen, James Sharman, Niamh Chapman, and Rebekah McWhirter
70. Developing the Double Diamond process for implementation—insights from a decade of Inclusive Design projects 310  
West, J., Fusari, G. , Raby, E., Alwani, R., Meldaikyte, G., Wojdecka, A., Matthews, E.
71. SlowMo/Mo—digital technology to provide support in coping with daily life 314  
West, J., Wojdecka, A. and Matthews, E.
72. Co-creating a digital decision aid for people with dementia and their caregivers to fulfil their unmet needs 317  
Van Zuthem, H.M.,<sup>1</sup> Cila, N.<sup>2</sup> and Wildevuur, S.E.<sup>3</sup>
73. Designing Information and Communication Technologies to support chronic disease self-management in practice: a case study from Australia and the Netherlands 322  
Wildevuur, Sabine E.,<sup>1</sup> Fleur Thomese,<sup>2</sup> Julie Ferguson<sup>3</sup> and Ab Klink<sup>4</sup>
74. What we wish we had known when we began: Insights on designing together with people with dementia in research and education 326  
Wilkinson, A.<sup>1</sup> and Hendriks, N.<sup>2</sup>
75. Violence, vulnerability, and care: A women’s history of HIV in America 329  
Matthew Wizinsky

76. Using Knowledge Mobilisation theory to inform the design of a co-design workshop for healthcare research and innovation	334
Joe Langley <sup>1</sup> , Dan Wolstenholme <sup>2</sup> , Rebecca Partridge <sup>1</sup> , Ian Gwilt <sup>1</sup>	
77. Improving the blood donation experience through better designed phlebotomy.	337
Wood, Caitlin and Selby Coxon,	
78. Actualising the participant designer: a case study in the design of health communications	342
Barnes, C., <sup>1</sup> Wragg, N. <sup>2</sup> and Wragg, L. <sup>3</sup>	
79. Playscapes: Pure Ludens	347
Yan, J. <sup>1</sup> , Hedges, S. <sup>2</sup> , Reay, S.D. <sup>3</sup>	
80. Strength for task training (STT) exergaming for lower limb stroke rehabilitation	352
RuiFeng Yeo and Edgar R. Rodríguez Ramírez	

# Foyle Bubbles: How can design reduce suicide attempts using everyday social and civic spaces?

Alwani, R., Raby, E., West, J., Bichard, J. and Spencer, J.

*Helen Hamlyn Centre for Design. Royal College of Art. UK.*

## Keywords.

Suicide, Behaviour, City, Person-Centred

### Introduction

This paper is submitted in tandem with the related paper 'Foyle Reeds: How can design reduce suicide attempts at a specific place whilst at the same time improving the experience for all?'

The River Foyle and its environments, banks and bridges in Derry/Londonderry in Northern Ireland have become associated with poor mental health and emotional wellbeing. 'Our Future Foyle' is a collaborative research initiative looking at how health and wellbeing can be designed into the riverfront in the city as a means of suicide prevention.

This paper discusses one aspect and output of the research and design process: 'Foyle Bubbles'.

## Process and Engagement

### 1. Methods

In order to carry out research and engage with the community as a whole the team have been carrying out a series of architectural interventions during city scale events. Using various co-design methods, the project has sought people from across the community, in an area which is known for its past conflict. Given the importance of providing opportunities for the whole community to have their say, the team created an engaging research space both on land and water, based on a local legend: a killer whale named Dopey Dick who swam up the river in the 1970s (a figure warmly remembered by both communities). The team also hosted a Cinema Premiere of a local film based on the River Foyle. Using the research space, and accompanying events, the team connected with over 5,000 people conducting more in-depth research with over 100 individuals, and have a digital reach of over 10,000 people. These methods fit into the Double Diamond design process (Design Council, 2005).

### 2. Results

City scale events focused on the riverfront increase footfall, temporarily transforming a negative and dormant public space into a destination with activity and positivity. Interviews with public health figures and the local search and rescue team showed that

during these events, suicidal behaviour and attempts on the riverfront and bridges do not occur, pointing to a sense of community cohesion as a factor.

The team’s engagement with the community showed an evident need for public services and destinations along the riverfront. Individuals said they felt that 'there is nothing to do or nowhere to go at the river' and 'there are not enough shops and cafes along the riverfront’. Further interviews corroborated these insights, showing the need for cafes and shops, weather shelters, public toilets, mental health therapy spaces, youth zones and activities.

More broadly, the research showed the need for shared space along the riverfront. People within the community felt that 'one side of the river gets more than the other side'. This pointed to the need for movable spaces that could respond to the needs of different areas of the waterfront without having to be located in one area. Such spaces would allow flexibility, and could be occupied by a variety of organisations and individuals to create a network and reinforce that community congestion.

### 3. Discussion

‘Foyle Bubbles’ are a series of satellite spaces designed to house arts, commercial, educational and well-being activities around the riverfront; these will act as suicide deterrents and increase footfall and so achieve natural surveillance of the site. These portable pods offer the opportunity for enterprise and community engagement through social and civic functions. The individuals or organisations within the pods will undertake mandatory mental health training in return for reduced rent, thus enabling everyday engagement within the community whilst at the same time providing mental health support and counselling without stigma or a clinical setting. Figure 1 shows the potential uses of the ‘Bubbles’, along with engaged stakeholders and activities.

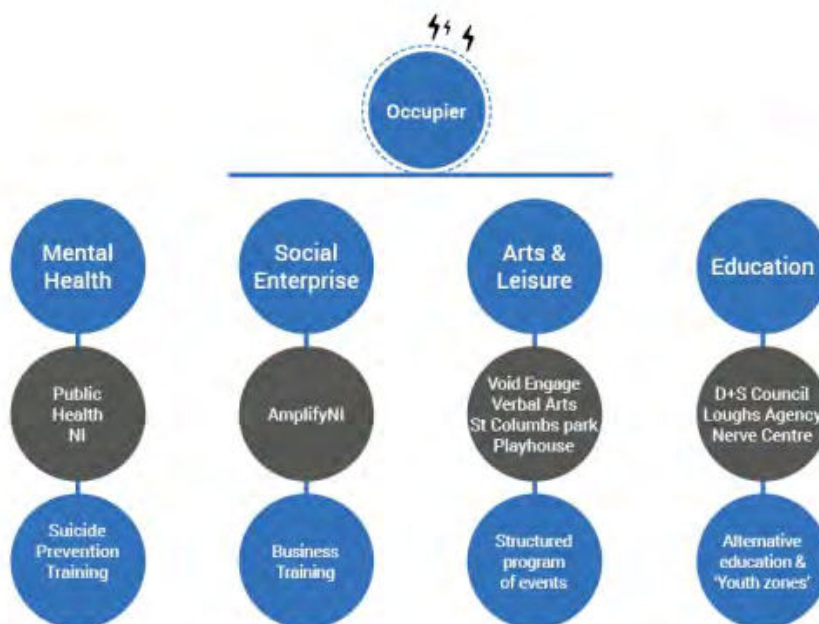


Figure 1. Uses of ‘Bubbles’, stakeholders and activities

In addition to the specific activities within the pods, an important function of the 'Bubbles' is to increase the presence of people in the immediate area, and thus improve the sense of life, positivity and community cohesion of the space by bringing people together. The local district council is looking at an alternative education programme in which the hardest to reach youths within the community have the opportunity to learn and develop business skills among the enterprises that occupy the pods. The portability of the pods is key to their success as they are able to respond to identified negative areas on the riverfront, and thus accommodate the changing needs of the local environment and community. Working in tandem with the local city CCTV initiative, the pods can be placed in areas with poor footfall or illuminate to become cultural beacons when not in use at night (figure 2). During these hours, the illuminated pods can light up areas associated with anti-social behaviour (or areas with low lighting), aid statutory services and provide spaces for people at point of crisis.

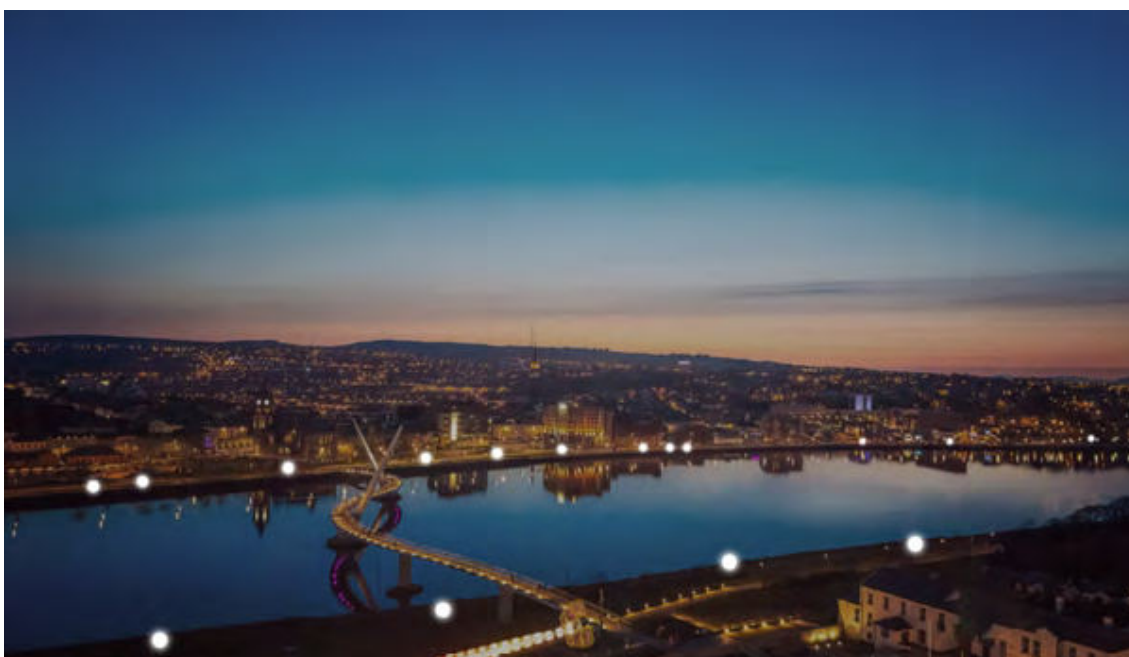


Figure 2. 'Bubbles' as beacons in night mode

## Conclusion

The 'Foyle Bubbles' concept emerged from a broad research and co-design project with multiple outcomes. With good stakeholder and community buy in, the team are now establishing the initial occupiers of the Bubbles. A pilot phase of a few pods at agreed locations, with co-designed features and functions, is currently being explored. The implementation of this small-scale trial will inform the statutory structures, environmental and community factors that can optimise their effectiveness. This pilot and subsequent measurable data provide the necessary evidence for larger procurement and roll out across the local community and service users with the hope of creating a connected, engaged and positive community on the river with the needs of people in crisis at its heart.

## Acknowledgements

This project is funded by Public Health Northern Ireland.

### Reference List

Design Council, 2005. "The Design Process: What is The Double Diamond?" Last accessed 30 June 17. <http://www.designcouncil.org.uk/news-opinion/design-process-what-double-diamond>.