

Delft, the Netherlands, 8-10 November 2017

<http://www.plateconference.org>

**DAY 1: Wednesday November 8<sup>th</sup>**

	Wim Crowwel room	IDE Arena	vd Grinten room	Studio 23/24	Studio
13.30 – 13.40			<b>WELCOME</b>		
13.40 – 14.20			<b>KEYNOTE 1: Kirsi Niinimaki</b>		
14.30 – 15.45	<b>Session 1</b> 1.1 Design for product longevity	1.2 Product lifetime optimization	1.3 Consumer and cultural perspectives	1.4 Business opportunities	
16.15 – 17.05	<b>Session 2</b> 2.1 Design for product longevity	2.2 Circular economy and policy	2.3 Consumer and cultural perspectives	2.4 Business opportunities	
17.15 – 18.45	<b>Workshop 1</b> Workshop W1	Workshop W2	Workshop W3	Workshop W4	Workshop W5
18.45	<b>RECEPTION</b>				

**DAY 2: Thursday November 9<sup>th</sup>**

	Wim Crowwel room	IDE Arena	vd Grinten room	Studio 23/24	
9.00 – 10.30	<b>Workshop 2</b> Workshop W6	Workshop W7	Workshop W8	Workshop W9	Workshop W10
11.00 – 12.15	<b>Session 3</b> 3.1 Design for product longevity	3.2 Product lifetime optimization	3.3 Consumer and cultural perspectives	3.4 Business opportunities	
13.45 – 14.30			<b>KEYNOTE 2: James Pierce</b>		
14.30 – 15.45	<b>Session 4</b> 4.1 Design for product longevity	4.2 Circular economy and policy	4.3 Consumer and cultural perspectives	4.4 Policy	
16.15 – 17.30	<b>Session 5</b> 5.1 Product lifetime optimization	5.2 Circular economy and policy	5.3 Consumer and cultural perspectives	5.4 Business opportunities	
17.30 – 18.15			<b>KEYNOTE 3: Deepali Sinha-Khatriwal</b>		
18.15	<b>DINNER</b>				

**DAY 3: Friday November 10th**

	<b>Wim Crowel room</b>	<b>IDE Arena</b>	<b>vd Grinten room</b>	<b>Studio 23/24</b>	
<b>9.00 – 10.15</b>	<b>Session 6</b> 6.1 Design for product longevity	6.2 Circular economy and policy	6.3 Consumer and cultural perspectives	6.4 Design for product longevity	
<b>11.00 – 12.15</b>	<b>Session 7</b> 7.1 Design for product longevity	7.2 Circular economy and policy	7.3 Consumer and cultural perspectives	7.4 Business opportunities	
<b>13.45 – 14.35</b>	<b>Session 8</b> 8.1 Consumer influences	8.2 Circular economy and policy	8.3 Consumer and cultural perspectives	8.4 Circular economy	
<b>15.00 – 16.15</b>	<b>KEYNOTE 4: Ruud Balkenende</b> <b>Location: TUDelft Aula (Mekelweg 5)</b>				
<b>16.15</b>	<b>RECEPTION in Aula</b>				

## DAY 1: Wednesday November 8<sup>th</sup>

13.30 – 14.20 Welcome & Keynote **Kirsi Niinimäki**  
*Fast or slow? Fashion lifecycles in a circular economy context*

### 14.30 – 15.45 Session 1

#### 1.1 Design for product longevity (Wim Crouwel room)

Chair: James Pierce

**1. Design framework for emotionally durable products and services**

Haines-Gadd M.<sup>(a)</sup>, Chapman J.<sup>(a)</sup>, Lloyd P.<sup>(a)</sup>, Mason J.<sup>(b)</sup> and Aliakseyeu D.<sup>(b)</sup>

a) University of Brighton, Brighton, UK

b) Philips Lighting, Eindhoven, NL

**2. Uniquely for you: The individualised avenue for longer product lifetimes**

Armellini J.<sup>(a)</sup> and Prof. Ford P.<sup>(a)</sup>

a) De Montfort University, Leicester, United Kingdom

**3. Exploration of the ways of empowering people in the design process through product personalization for prolonged product lifetimes**

Ozan E.<sup>(a)(b)</sup> and Doğan Ç.<sup>(b)(c)</sup>

a) Yaşar University, İzmir, Turkey

b) Middle East Technical University, Ankara, Turkey

c) Carleton University, Ottawa, Canada

#### 1.2 Product lifetime optimization (IDE Arena room)

Chair: Ruud Balkenende

**1. Considering optimal lifetimes for LED lamps: A mixed approach and policy implications**

Jessika Luth Richter<sup>a)</sup>; Carl Dalhammar<sup>(a)</sup>, Leena Tähkämö<sup>(b)</sup>

a) International Institute for Industrial Environmental Economics, Lund University, Lund, Sweden

b) Lighting Unit, Department of Electrical Engineering and Automation, Aalto University, Espoo, Finland.

**2. Measuring the historical change in the actual lifetimes of consumer durables**

Oguchi M.<sup>(a)</sup> and Daigo I.<sup>(b)</sup>

a) National Institute for Environmental Studies, Tsukuba, Japan

b) The University of Tokyo, Tokyo, Japan

**3. Promoting circular innovation through innovation networks: The case of cradle to cradle certified products**

Schmitt J. and Hansen E.G.

Johannes Kepler University (JKU), Institute for Integrated Quality Design (IQD), Linz, Austria

#### 1.3 Consumer and cultural perspectives (vd Grinten hall)

Chair: Jan Schoormans

**1. Design for sharing: Libraries of things as a product-service system**

Ameli, N.<sup>(a)</sup>

a) Affiliation a: Bochum University of Applied Sciences, Bochum, Germany

**2. Is ownership the issue? The role of responsibility in determining public acceptance of product-services systems**

Cherry C.E.<sup>(a)</sup> and Pidgeon N.F.<sup>(a)</sup>

a) Cardiff University, Cardiff, UK

**3. Room for change: Impact of building-level innovations to facilitate product reuse among residents**

Ordóñez I.<sup>(a)</sup>, Hagy S.<sup>(b)</sup>, Bard F.<sup>(b)</sup>, Wahlgren L.<sup>(c)</sup> and Ringstrand B.<sup>(c)</sup>

- a) Department of Industrial and Materials Science, Chalmers University of Technology, Gothenburg, Sweden
- b) Department of Architecture and Civil Engineering, Chalmers University of Technology, Gothenburg, Sweden
- c) Industrial Ecology master program, Department of Energy and Environment, Chalmers University of Technology, Gothenburg, Sweden

#### 1.4 Business opportunities (Studio 23/24)

Chair: Nancy Bocken

##### 1. ***Circular business model framework: Mapping value creation architectures along the product lifecycle***

Nussholz, J.<sup>(a)</sup>

a) Affiliation a: Lund University, International Institute for Industrial Environmental Economics (IIIEE), Lund, Sweden

##### 2. ***Circular added value: Business model design in the circular economy***

Hofmann F.<sup>(a)</sup>, Marwede M.<sup>(a,b)</sup>, Nissen, N. F.<sup>(a)</sup>, and Lang, K. D.<sup>(a,b)</sup>

a) Fraunhofer Institute for Reliability and Microintegration IZM, Berlin, Germany

b) Technische Universität Berlin, Berlin, Germany

##### 3. ***Classifying circular business models: A practice-based review.***

Whalen K.<sup>(a)</sup>

a) International Institute of Industrial Environmental Economics, Lund University, Sweden,

### DAY 1: Wednesday November 8<sup>th</sup>

16.15 – 17.05

Session 2

#### 2.1 Design for product longevity

(Wim Crowel room)

Chair: Alan Manley

##### 1. ***Understanding material change: Design for appropriate product lifetimes***

Bridgens B.<sup>(a)</sup> and Lilley D.<sup>(b)</sup>

a) Newcastle University, School of Engineering, Newcastle-upon-Tyne, UK

b) Loughborough University, Design School, Loughborough, UK

##### 2. ***Transforming and prolonging design lifespans: Design education cases for sustainability.***

Doğan Ç.<sup>(a)(b)</sup>

a) Affiliation a: Carleton University, School of Industrial Design, Ottawa, Canada

b) Affiliation b: Middle East Technical University, Department of Industrial Design, Ankara, Turkey

#### 2.2 Circular economy and Policy

(IDE Arena room)

Chair: David Peck

##### 1. ***Slow fashion in retail environments: Why storytelling is critical for product longevity.***

Matheny R.<sup>(a)</sup> and Hernández A.<sup>(b)</sup>

a) Assistant Professor, Department of Design, The Ohio State University, Columbus, Ohio, USA

b) MFA Candidate, Design Research and Development, The Ohio State University, Columbus, Ohio, USA

##### 2. ***Pilling in knitwear: A clothing longevity problem beyond design***

Claxton, S.(a), Cooper, T. (a), Goworek, H. (b), Hill, H.(a), MacLaren, A.(a) and Oxborrow, L.(a)

a) Nottingham Trent University, Nottingham, UK.

b) University of Leicester, Leicester, UK.

#### 2.3 Consumer and cultural perspectives (vd Grinten hall)

Chair: Ruth Mugge

##### 1. ***Throwaway culture as a status symbol with fashion in India***

Dr. Vibhavari Kumar

NIFT, Bengaluru, India

**2. *Ever-faster, ever-shorter? Replacement cycles of durable goods in historical perspective***

Wieser H.

Sustainable Consumption Institute and Manchester Institute of Innovation Research, Manchester, UK

**2.4 Business opportunities (Studio 23/24)**

Chair: Paul Nieuwenhuis

**1. *Sustainable business model experimentation practices: Evidence from three start-ups***

Schuit C.S.C.<sup>(a)</sup>, Baldassarre, B.<sup>(b)</sup> and Bocken, N.<sup>(c)</sup>

a) Affiliation a: Innoboost, Amsterdam, the Netherlands

b) Affiliation b: THANKS, Amsterdam, the Netherlands

c) Industrial Design Engineering, Delft University of Technology, Delft, the Netherlands

**2. *Challenges and support for scaling up upcycling businesses in the UK: Insights from small-business entrepreneurs***

Sung K.<sup>(a)</sup>, Cooper T.<sup>(a)</sup>, Ramanathan U.<sup>(b)</sup> and Singh J.<sup>(a)</sup>

a) School of Architecture, Design and the Built Environment, Nottingham Trent University, Nottingham, UK

b) Nottingham Business School, Nottingham Trent University, Nottingham, UK

**DAY 1: Wednesday November 8<sup>th</sup>**

**17.15 – 18.45**

**Workshops**

***W1. Working with two theoretical perspectives from consumer studies to research circular business models and product service systems***

Maurizio Catulli, The Open University and University of Hertfordshire

Matthew Cook, The Open University

Stephen Potter, Emeritus Professor, The Open University

***W2. Options for lifetime labeling: Design, scope and consumer interfaces***

Carl Dalhammar, IIIIEE at Lund University

Jessika Luth Richter, IIIIEE at Lund University

***W3. Electronic textiles and product lifetimes: how can multi-disciplinary design strategies for product longevity be placed at the heart of the wearables industry?***

Angharad McLaren, Nottingham Trent University, UK

Dorothy Hardy, Nottingham Trent University, UK

Ana Mestre, Nottingham Trent University, UK

***W4. Engaging consumers in product lifetime extension***

Bettina Heller, UN Environment, Paris

***W5. Exploring cherishability as a future model: Exploring textile materials, hand skills and personal response***

Shirley Mclauchlan, Edinburgh University

## DAY 2: Thursday November 9<sup>th</sup>

### 09.00 – 10.30 Workshops

#### ***W6. A research agenda for expected product lifetimes: A review of knowledge and priorities for future research***

Alex Gnanapragasam\*<sup>1</sup>; Masahiro Oguchi<sup>2</sup>; Christine Cole<sup>1</sup>; Matt Shapley<sup>1</sup>; Angharad McLaren<sup>3</sup>; Alex Rodrigues<sup>1</sup>; Tim Cooper<sup>1</sup>

1 Product Design, Nottingham Trent University, UK

2 National Institute for Environmental Studies, Japan

3 Fashion Textiles and Knitwear Design, Nottingham Trent University, UK

#### ***W7. Consumer intervention mapping across the product lifecycle***

Leila Sheldrick - Dyson School of Design Engineering, Imperial College London

Matt Sinclair - Loughborough Design School, Loughborough University

Mariale Moreno - Centre for Competitive Creative Design, Cranfield University

Emma Dewberry - Department of Engineering and Innovation, The Open University

Harris Makatsoris - Sustainable Manufacturing Systems Centre, Cranfield University

#### ***W8. Generation starships: Exploring a space of material scarcity through fiction and speculative design***

Sara Li-Chou Han, Manchester Metropolitan University

Douglas Atkinson, London College of Fashion

#### ***W9. Interdisciplinary approaches: Teaching clothing longevity strategies across educational disciplines***

Angharad McLaren, Nottingham Trent University, UK

Stella Claxton, Nottingham Trent University, UK

Helen Hill, Nottingham Trent University, UK

#### ***W10. Planned obsolescence: To what extent is this phenomenon effectively tackled by the national rules set up in Belgium, France and Germany?***

Anais Michel, Faculty of Law, KU Leuven

## DAY 2: Thursday November 9<sup>th</sup>

### 11.00 – 12.15 Session 3

#### **3.1 Design for product longevity (Wim Crouwel room)**

Chair: Sonja van Dam

#### **1. *Playing for time: Seven practice-led workshop tools for making design decisions to extend the life of fashion textile materials and products***

Earley R. and Goldsworthy K.

University of the Arts London, UK

#### **2. *Risk & Race: Creation of a finance-focused circular economy serious game.***

Whalen K. (a), (b)

a. International Institute of Industrial Environmental Economics, Lund University, Sweden

b. In the Loop Games, Netherlands

#### **3. *Sustainability cards: Design for longevity***

Hasling, K.M. (a) and Ræbild, U. (a)

a) Design School Kolding, Kolding, Denmark

### 3.2 Product lifetime optimization (IDE Arena room)

Chair: Ruud Balkenende

#### 1. *On the meaningfulness of data in product design for lifetime optimization*

Fiore E.<sup>(a)</sup> and Bourgeois J.<sup>(b)</sup>

a) Department of Architecture and Design, Politecnico di Torino, Turin, Italy

b) Department of Design Engineering, Delft University of Technology, Delft, The Netherlands

#### 2. *Repair vs. replacement: What is the best alternative for household small electric and electronic equipment?*

Bovea M.D., Ibáñez-Forés, V., Pérez-Belis, V.

Department of Mechanical Engineering & Construction, Universitat Jaume I, Castellón, Spain

#### 3. *How modularity of electronic functions can lead to longer product lifetimes.*

Nissen N. F.(a), Schischke K.(a), Proske M.(a,b), Ballester M.(c) and Lang K.-D.(a,b)

a) Fraunhofer IZM, Berlin, Germany

b) Technische Universität Berlin, Berlin, Germany

c) Fairphone B.V., Amsterdam, the Netherlands

### 3.3 Consumer and cultural perspectives (vd Grinten hall)

Chair: Vicky Lofthouse

#### 1. *The influence of information about prior use on consumers' evaluations of refurbished electronics*

Mugge R. (a), de Jong W., Person O.(b), and Hultink E. J.(a)

a) Delft University of Technology, Delft, the Netherlands

b) Aalto University, Helsinki, Finland

#### 2. *Dimensions of sustainable behaviour in a circular economy context*

Daae J.(a, b); Chamberlin L.(c) and Boks C.(c),

a) Department of Product Design, Oslo and Akershus University College of Applied Sciences (HiOA), Oslo, Norway

b) Bergfald Environmental Consultants, Oslo, Norway

c) Department of Design, Norwegian University of Science and Technology (NTNU), Trondheim, Norway.

#### 3. *What's hot what's not: The social construction of product obsolescence and its relevance for strategies to increase functionality*

Jaeger-Erben, Melanie(a) and Proske, Marina(b)

a) Center for Technology and Society, TU Berlin, Germany

b) Environmental and Reliability Engineering, TU Berlin, Germany

### 3.4 Business opportunities (Studio 23/24)

Chair: Erik Jan Hultink

#### 1. *Business experiments as an approach to drive sustainable consumption: The case of HOMIE*

Bocken, N.M.P. (a,b), Bom, C.A., (b), Lemstra, H.J. (b)

a) Industrial Design Engineering, Delft University of Technology, Delft, the Netherlands

b) HOMIE B.V., Julianalaan 67a, 2628 BC Delft, The Netherlands

#### 2. *Will durability be a characteristic of future cars?*

Nieuwenhuis P.(a)(b)

a) Centre for Automotive Industry Research, Cardiff Business School, Cardiff University, Cardiff, Wales, UK

b) Sustainable Places Research Institute, Cardiff University, Cardiff, Wales, UK

#### 3. *A Double diffusion of innovations: The case of electric automobility product service system.*

Catulli M. (a), Cook, M. (a) and Potter, S. (a)

a) Department of Engineering and Innovation, Open University, Walton Hall, Milton Keynes UK, MK7 6AA

**13.45 – 14.30** Keynote **James Pierce**  
*Speculation, Durability, and Design*

**DAY 2: Thursday November 9<sup>th</sup>**

**14.30 – 15.45**                      **Session 4**

**4.1**            **Design for product longevity**                                      **(Wim Crouwel room)**  
Chair: Kirsi Niinimäki

**1. Sustainable fashion tailoring: An approach for creating a heightened emotional attachment to garment apparel at undergraduate level, through pedagogy, story telling, digital technologies and traditional craftsmanship.**

Morrish D.  
Sheffield Hallam University, Sheffield, England

**2. Conditional garment design for longevity**

Gwilt A.<sup>(a)</sup> and Pal R.<sup>(b)</sup>  
a) Art & Design Research Centre, Sheffield Hallam University, Sheffield, UK  
b) Swedish School of Textiles, University of Borås, Borås, Sweden

**3. Improvement design in portuguese wool lifecycle: Ecological yarn collection**

Morais, C.(a) and Barragão, V.(b)  
a) CIAUD, Faculty of Architecture, University of Lisbon, Portugal  
b) Faculty of Architecture, University of Lisbon, Portugal

**4.2**            **Circular economy and policy**                                      **(IDE Arena room)**  
Chair: Sharon Prendeville

**1. "Crafting the waste" as a stimulus to collaborative learning and collective production: An example from Turkey**

Atalay, D.  
Beykent University, Textile and Fashion Design Department, Istanbul, Turkey

**2. Towards a typology of waste in fashion practice: An Australian perspective**

Payne A.(a) and Binotto C.(b)  
a) Queensland University of Technology, Brisbane, Australia  
b) Independent scholar, Sydney, Australia

**3. Impact on resource intensity from consumer disposition: Relationship with product lifetime and disposal.**

Yamamoto H. (a) and Murakami S.(a)  
a) Department of Systems Innovation: The University of Tokyo, Tokyo, Japan

**4.3**            **Consumer and cultural perspectives (vd Grinten hall)**  
Chair: Michael Luchs

**1. Object Therapy: Critical design and methodologies of human research in transformative repair.**

Keulemans G.(a), Rubenis N.(b), Marks A.(c)  
a) University of New South Wales, Sydney, Australia  
b) Australian National University, Canberra, Australia  
c) Independent Social Entrepreneur, Sydney, Australia

**2. Preserving objects, preserving memories: Repair professionals and object owners on the relation between memories and traces on personal possessions**

Zijlema, A.(a)(b), Van den Hoven, E. (a)(b)(c)(d); and Eggen, B.(b)(a)



- a) University of Technology Sydney, Ultimo, Australia
- b) Eindhoven University of Technology, Eindhoven, the Netherlands
- c) University of Dundee, Dundee, United Kingdom
- d) Australian Research Council's Centre of Excellence in Cognition and its Disorders, Sydney, Australia

**3. Do-Fix workshops: understanding users' product repair experience**

Nazlı Terzioğlu  
Royal College of Art, London, UK

**4.4 Policy (Studio 23/24)**

Chair: Ella Jamsin

**1. Consumer complaint deadlines and product durability: The role of law and regulation**

Pål Strandbakken (a)  
a) Consumptin Research Norway (SIFO), Oslo and Akershus University College

**2. Do ecolabels extend product service times? An analysis of the product group specific criteria of the European union and Nordic ecolabels**

Suikkanen J.(a) and Nissinen A.(a)  
a) Finnish Environment Institute, Helsinki, Finland

**3. Product policy and material scarcity challenges: The essential role of government in the past and lessons for today.**

David Peck (a), Conny Bakker (b), Prabhu Kandachar (b), Timo de Rijk (c)  
(a) Delft University of Technology, Faculty of Architecture and Built Environment  
(b) Delft University of Technology, Faculty of Industrial Design Engineering  
(c) Stedelijk Museum, 's-Hertogenbosch

**DAY 2: Thursday November 9<sup>th</sup>**

**16.15 – 17.30                      Session 5**

**5.1                      Product lifetime optimization                      (Wim Crouwel)**

Chair: Tim Cooper

**1. Use phase of wool apparel: A literature review for improving LCA**

Laitala K.(a), Klepp I. G.(a) and Henry B.(b)  
a) Consumption Research Norway (SIFO), Oslo and Akershus University College of Applied Sciences, Oslo, Norway  
b) Queensland University of Technology (QUT), Science and Engineering Faculty, Brisbane, Australia

**2. Intelligent disassembly of components from printed circuit boards to enable re-use and more efficient recovery of critical metals**

Kopacek B.<sup>(a)</sup>  
a) Affiliation a: Austrian Society for Systems Engineering and Automation, Vienna, Austria

**3. Strategies for food longevity**

van Genuchten, E.J.S.(a); Mulder, I.J.(a) and Schaaf, N.(b)  
a) Delft University of Technology, Delft, Netherlands  
b) ConComCow, Rotterdam, Netherlands

**5.2                      Circular economy and policy                      (IDE Arena)**

Chair: David Peck

**1. Planned obsolescence: The Government's Choice?**

Ober E.(a), Dell'Anno B.(b), Drèze J.-R.(c), Herrmann L.(a), Luciano A..(d), Maltry R.(e), Oehme I.(f), Schmon B.(a) and Ventère J.-P. (g)  
a) Federal Ministry of Agriculture, Forestry, Environment and Water Management, Vienna, Austria  
b) Ministry for the Environment, Land and Sea, Rome, Italy  
c) Federal Public Service for Health, Food chain safety & Environment, Brussels, Belgium  
d) Italian National Agency for new technologies and sustainable economic development, Rome, Italy

- e) Federal Ministry for Environment, Nature Conservation, Building and Nuclear Safety, Berlin, Germany
- f) Federal Environment Agency, Dessau-Rosslau, Germany
- g) Ministry for the Ecological and Inclusive Transition, Paris, France

**2. *Product lifetimes through the various legal approaches within the EU context: recent initiatives against planned obsolescence***

Michel A.

Affiliation: KU Leuven, Campus Brussels, Belgium

**3. *Implementing “preparation for re-use” in WEEE management: An analysis of the European experience & recommendations for Ireland.***

McMahon K.(a), Fitzpatrick C.(a) and Johnson M.(a)

a) Dept. of Electronic & Computer Engineering, University of Limerick, Limerick, Ireland

**5.3 Consumer and cultural perspectives (vd Grinten hall)**

Chair: Jan Schoormans

**1. *Taking good care: Investigating consumer attitudes to product maintenance.***

Young G.

Sheffield Hallam University, Sheffield, UK

**2. *Carative factors to guide design development process for object-owner detachment in enabling an object’s longevity***

Choi Y., Stevens J, and Brass C.

Innovation Design Engineering, Royal College of Art, London, United Kingdom

**3. *Consumers’ attitudes towards product care: An exploratory study of motivators, ability factors and triggers***

Ackermann L.(a, b), Mugge R.(b) and Schoormans J.(b)

a) DE|RE|SA, Salzburg University of Applied Sciences, Puch/Salzburg, Austria

b) Department of Product Innovation Management, Delft University of Technology, Delft, The Netherlands

**5.4 Business opportunities (Studio 23/24)**

Chair: Erik Jan Hultink

**1. *Sustainable product management by integrating physical and digital lifecycles***

Baumgartner R.

University of Graz

**2. *Smart-circular systems: A service business model perspective***

Alcayaga A.(a) and Hansen E. G.(a)

a) Institute for Integrated Quality Design (IQD), Johannes Kepler University Linz (JKU), Linz, Austria.

**3. *Additive manufacturing for circular product design: A literature review from a design perspective.***

Sauerwein, M. (a) , Bakker, C.A. (a) and Balkenende, A.R. (a)

a) Faculty of Industrial Design Engineering, Delft University of Technology, Delft, the Netherlands

**17.30 – 18.15 Keynote Deepali Sinha-Khetriwal**

*Product longevity: Insights from the Indian Context and Experience*

## Day 3: Friday November 10<sup>th</sup>

09.00 – 10.15                      Session 6

### 6.1      Design for product longevity (Wim Crouwel room)

Chair: Conny Bakker

**1.    *The Circular Pathfinder: Development and evaluation of a practice-based tool for selecting circular design strategies***

Van Dam, S.S.(a), Bakker, C.A.(a), De Pauw, I.C.(b), Van der Grinten, B.(b)

a) Delft University of Technology, Delft, Netherlands

b) IDEAL&Co, Amsterdam, the Netherlands

**2.    *New product development and testing strategies for clothing longevity: An overview of a UK research study***

Cooper T. H.(a), Oxborrow, L.(a), Claxton, S. (a), Goworek, H.(b), Hill, H.(a), McLaren, A.(a)

a) Nottingham Trent University, UK

b) University of Leicester, UK

**3.    *Developing scenarios for product longevity and sufficiency***

Dewberry E.L.(a), Sheldrick L.(b), Sinclair M.(c), Moreno M.(d) and Makatsoris C.(d)

a)    The Open University, Milton Keynes, UK

b)    Imperial College London, UK

c)    Loughborough University, Loughborough, UK

d)    Cranfield University, Cranfield, UK

### 6.2      Circular Economy and Policy (IDE Arena)

Chair: Maria Bovea

**1.    *Management of material cyclicity potential: Example of electrical and electronic products***

Shevchenko T.(a) and Kronenberg J.(b)

a) Sumy State University, Sumy, Ukraine

b) University of Łódź, Łódź, Poland

**2.    *The circular economy fashion communication canvas***

Han S L-C.(a), Henninger C E.(b), Blanco-Velo J.(a), Apeagyei P.(a) and Tyler D J.(a)

a) Manchester Metropolitan University, Manchester, United Kingdom

b) University of Manchester, Manchester, UK

**3.    *Technology, style, and reuse: Using big data to examine product longevity and sustainability***

Makov, T.

Yale University, USA

### 6.3      Consumer and cultural perspectives (vd Grinten hall)

Chair: Debra Lilley

**1.    *Personalisation from a design practice perspective***

Bernabei R. (a), Power, J.(b)

a) University of New South Wales, Sydney, Australia

b) University of Tasmania, Launceston, Australia

**2.    *Clothing fit and sizing for women can be improved to increase the lifespan and durability by including the bust cup size as a new independent measurement***

Dove T

Hong Kong Polytechnic University

**3.    *Satisfaction matters: Design that learns from users' sensory and emotional responses to clothing***

Burcikova, M.  
Centre for Fashion and Costume Thinking, University of Huddersfield, UK

#### 6.4 Design for product longevity (Studio 23/24)

Chair: Masahiro Oguchi

**1. Redefining retail experiences: Formulating ideas for the future of retail design to promote product longevity**

Matheny R.  
The Ohio State University, Columbus, Ohio, USA

**2. The role of product designers in the transition towards the circular economy: A reality check**

Sumter D.X., Bakker C.A. and Balkenende A.R.  
Industrial Design Engineering, Delft University of Technology, Delft, The Netherlands

**3. Operationalizing contextmapping as a means for increment of product durability in kitchen utensils design**

Mahmoudi A. and Azhdari A.  
School of Industrial Design, University of Tehran, Tehran, Iran

### Day 3: Friday November 10<sup>th</sup>

11.00 – 12.15                      Session 7

#### 7.1 Design for product longevity (Wim Crouwel room)

Chair: Casper Boks

**1. Reducing clothing production volumes by design: A critical review of sustainable fashion strategies**

Maldini, I.<sup>(a)</sup> and Balkenende, A.R.<sup>(b)</sup>  
a) Amsterdam University of Applied Sciences and VU University Amsterdam, Amsterdam, Netherlands  
b) Industrial Design Engineering, Delft University of Technology, Delft, Netherlands

**2. Taxonomy of design strategies for a circular design tool**

Moreno M.A., Ponte O., Charnley F.  
Centre for Design, Cranfield University, Bedfordshire, UK

**3. Decontaminating experiences with circular offerings**

Baxter W.(a), Aurisicchio M.(a), Mugge R. (b), and Childs P.(a)  
a) Imperial College London, London, UK  
b) Delft University of Technology, Delft, The Netherlands

#### 7.2 Circular economy and Policy (IDE Arena room)

Chair: Nils Nissen

**1. Planned Obsolescence: Who are those Planners?**

Longmuss J.(a) and Poppe E.(a)  
a) Affiliation a: SUSTAINUM - Institute for Sustainable Economy, Berlin, Germany

**2. Developing a quantitative research method on planned obsolescence in architecture**

Akyurek K. B.(a) and Ciravoğlu A.(b)  
a) PhD Candidate and Research Assistant: Yildiz Technical University, Faculty of Architecture, Department of Architecture, İstanbul, Turkey  
b) Assoc. Dr.: Yildiz Technical University, Faculty of Architecture, Department of Architecture, İstanbul, Turkey

**3. Planned obsolescence in the circular economy**

Zeeuw van der Laan A. and Aurisicchio M.  
Dyson School of Design Engineering, Imperial College London, London, United Kingdom

### 7.3 Consumer and cultural perspectives (vd Grinten Hall)

Chair: Deepali Sinha-Khetriwal

#### 1. *Design for the wise consumer*

Luchs, M.

College of William & Mary, Williamsburg, Virginia, United States

#### 2. *Deconstructing cultural values of products: implications for sustainable design*

Dhadphale T.

Iowa State University, Ames, United States

#### 3. *The look of rough: Visual and tactile perceptions of cosmetically aged materials*

Manley A. H. G.(a), Lilley D.(b), Hurn K.(b), Lofthouse V.(b)

a) Southampton Solent University, Southampton, UK

b) Loughborough University, Loughborough, UK

### 7.4 Business opportunities (Studio 23/24)

Chair: Carl Dalhammar

#### 1. *Over the hill? Exploring the other side of the Rogers innovation diffusion model from a consumer and business model perspective*

Wells P. and Nieuwenhuis P.

Cardiff Business School, Cardiff University, Cardiff, Wales, UK

#### 2. *Assessing the sharing economy: Analysing ecologies of business models*

Boons F. (a) and Bocken N.(b, c)

a) University of Manchester, Sustainable Consumption Institute & Alliance Manchester Business School, Crawford House, Manchester M13 9P, UK

b) Lund University, IIIIEE, Tegnérplatsen 4, 223 50 Lund, Sweden

c) Delft University of Technology, Industrial Design Engineering, Delft, the Netherlands

#### 3. *Considering the user in the circular economy*

Lofthouse V.A.(a, b) and Prendeville S.(a)

a) IDI, Loughborough University, London, UK

b) Design School, Loughborough University, Loughborough, Leics, UK

## Day 3: Friday November 10<sup>th</sup>

13.45 – 14.35

Session 8

### 8.1 Consumer influences (Wim Crouwel room)

Chair: Ben Bridgens

#### 1. *Consumer expectations of product lifetimes around the world: a review of global research findings and methods*

Gnanapragasam A.<sup>(a)</sup>, Oguchi M.<sup>(b)</sup>, Cole C.<sup>(a)</sup> and Cooper T.<sup>(a)</sup> a) Affiliation a: Product Design, Nottingham Trent University, Nottingham, United Kingdom

b) Affiliation b: National Institute for Environmental Studies, Tsukuba, Japan

#### 2. *Sustainable consumption through product longevity: The influence of enhanced product lifetime information on purchasing electrical appliances among German consumers*

Jacobs K.<sup>(a)</sup>

a) Alanus University of Arts and Social Sciences, Alfter, Germany

### 8.2 Circular economy and Policy (IDE Arena room)

Chair: Rebecca Earley

**1. *Towards more circular office fit-outs: A socio-technical descriptive framework of office fit-out processes***

Casas-Arredondo M.(a), Croxford, B.(a) and Domenech, T.(a)

a) The Bartlett School of Environment, Energy and Resources, University College London, London, UK

**2. *Understanding the societal, entrepreneurship and economic aspects of developing a circular economy in cities: A case study of Coventry in the UK***

Ouillon S.(a) Dibb S.(b); and Peck D.(c)

a) Coventry University, Centre for Trust Peace and Social Relations, Coventry, UK

b) Coventry University, Centre for Business in Society, Coventry, UK

c) Delft University of Technology, Faculty of Architecture and Built Environment, Delft, the Netherlands

**8.3 Consumer and cultural perspectives (vd Grinten hall)**

Chair: Sonja van Dam

**1. *Is there a market for refurbished toothbrushes? An exploratory study on consumers' acceptance of refurbishment for different product categories***

Mugge R. (a), Safari I., Balkenende R. (a)

a) Delft University of Technology, Delft, the Netherlands

**2. *Consumer and user acceptance in the circular economy: What are researchers missing?***

Camacho-Otero, J.(a), Pettersen, I.N. (a), Boks, C. (a)

a) Department of Design, Faculty of Architecture and Design, NTNU Norwegian University of Science and Technology, Trondheim, Norway

**8.4 Circular economy (Studio 23/24)**

Chair: Ana Mestre

**1. *Interdisciplinary circular economy design education through local and regional partnerships***

Williams M.(a) McDonough M.(b), Edge S (c)

a) University of Gloucestershire, Cheltenham, England

b) University of Gloucestershire, Cheltenham, England

c) University of Gloucestershire, Cheltenham, England

**2. *Open and closed loops: How to teach and get students to embrace circular design***

Leube M (a) and Walcher D (a)

a) Salzburg University of Applied Sciences, Salzburg, Austria

**15.00 – 16.15** Inaugural lecture **Ruud Balkenende (Aula TU Delft)**  
*Circular Product Design*