STUDENT RSA DESIGN AWARDS

Think Differently About Design

How this brief will be judged
1 Social and environmental benefit
2 Research and insights
3 Design thinking
4 Commercial awareness
5 Execution
6 Magic

Please see the next page for further details

The Circular Emergency

01

Awards

There is one award available for this brief.

Philips Award of £2,500

The judging panel may decide on more than one winner and will allocate the awards accordingly. In addition, the judging panel may award commendations.

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Brief

Design a product, service or system that uses circular design principles to make emergency medical care more effective.

Background

- Emergency medical care is the treatment and transport of people in crisis health situations that may be life-threatening.
- It is used in a wide variety of situations – from cardiac arrests and strokes to car accidents and drownings – by paramedic services (ambulances, cars, motorbikes, aircrafts, boats) and in hospitals. It is often the nature of these situations, rather than lack of resources, that make it difficult to deliver care.
- We are interested in exploring two areas of challenge and opportunity:

1 Resource availability

- The right equipment, expertise and information needs to be available and kept in working order to ensure patients receive treatment when it matters most.
- To be able to respond to emergencies whenever they happen, a certain degree of 'redundancy' is built into the system. Equipment and resources can sit idle much of the time whilst being ready to be used at a moment's notice. Inefficient usage results in an overall cost to the environment.

2 Supply chains and information flows

- Globally, emergency healthcare systems differ from region to region, but most are incredibly complex – they often depend on long and intricate material supply chains, a fleet of well trained staff and information exchanges.
- This complexity means that when things go wrong and supply chains or communications are disrupted, emergency treatment and patient wellbeing can suffer. For example:
  - Rural communities cut off by extreme weather can easily get detached from long supply chains.
  - Treatments in urban environments can become backed up when complex, resource-intensive technologies like scanners are in high demand, break down or lose power.
  - Disruption or delays in communication and medical information exchange across different stakeholders can slow down or even harm diagnosis and treatment in emergency situations where time is of the essence.

- Circular economy thinking offers an inspiring vision for a world that is restorative and regenerative by design. It changes the way we view resource use by aiming to eliminate the concept of waste, with three principles: (1) designing out waste and pollution, (2) keeping products and materials in use at their highest value, and (3) regenerating natural systems.
- These principles have the potential to help us solve some of the emergency care challenges around resource redundancy, complex supply chains and communication flows.

How should you approach this brief?

- Explore one or both of the challenges outlined above – how might we balance the needs of emergency medical care systems and ensure resources are maintained and used as efficiently as possible? What are the opportunities to make them more resilient, reliable and viable in the long term?
- Select a specific place, such as a rural environment, busy urban setting or disaster zone, and understand how the emergency healthcare system currently works. Look at its strengths and shortcomings – how could a circular redesign improve its impact on society and the environment?
- Your design solution may address any typical emergency healthcare scenario, such as a cardiac arrest, stroke or serious trauma accident.
- Research the resource flows that enable emergency care delivery. Think about what goes in (what materials and expertise are needed?) and what comes out of emergency care (where is the waste? what happens to the information about the patient?)
- Think about the needs of various user groups interacting with the treatment: patients, medical staff, suppliers. How might you design a circular solution that improves both access to the right treatment and the overall effectiveness in an emergency?
- Explore new perspectives, methods and mindsets which combine design thinking with a systemic view. You may, for example, use the Circular Design Guide[1] as a tool.

(continued...)

Aug 2018	14 Jan 2019	13 Feb 2019	13 Mar 2019	20 Mar 2019	May 2019
Briefs launch + register your interest online	Competition opens	'Early bird' submission deadline (£25)	Final submission deadline (£35)	Judging begins: shortlisting and interviews	Winners announced

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RSA

– We want to understand how you go about investigating the issue, arrive at key insights and test your solution. We're not looking for incremental improvements to existing treatments – we want to see fundamental, creative redesigns of products, services or systems.

For the purposes of illustration only, viable responses could include:
– A product that improves access to emergency care, the practical treatment process on-site, and/or speeds up equipment redeployment in an emergency scenario, while being designed for circularity after use (reuse, remanufacturing, recycling, or returning nutrients to the biosphere).
– A service or initiative that improves the availability and flow of information/ allocation of resources across an emergency healthcare system, resulting in less waste and under-utilisation.
– A system that enables better decision-making by medics in an emergency, routing patients to the right treatment and improving resource utilisation.

… and many more are possible.

Judging criteria

There are 6 criteria that your entry will be judged against – make sure that your submission materials demonstrate that your solution meets these criteria:

1 Social and environmental benefit – how does your solution benefit society and/or the environment?
2 Research and insights – how did you investigate this issue? What were your key insights?
3 Design thinking – how did your research and insights inform your solution? How did you develop, test, iterate and refine your concept? Demonstrate the journey you've been through to the end result.
4 Commercial awareness – does it make sense from a financial point of view? What is unique about your solution compared to other interventions? Who would need to pay for, deliver or support your proposal in order for it to succeed?
5 Execution – we are looking for a design solution that feels pleasing and well resolved.
6 Magic – we want to see a bit of 'magic' – a surprising or lateral design solution that delights.

Submission requirements

All entries must be submitted through our online entry system, accessed via www.thersa.org/sda

If you are unable to submit online, please contact us by email at sdaenquiries@rsa.org.uk

As you prepare your submission, please ensure that:
– You do NOT include your name, university/ college or other identifying marks anywhere on your submission.
– None of your PDF submission files exceed 10MB – this is the maximum size for each individual file / board when you submit online.

The submission requirements are:
– 1 x A3 PDF Hero Image, with project title and 1 sentence description
  A singular 'poster image' that conveys the essence of your project, and includes your project title plus a 1 sentence description. For example: '*Bare Technology: a product and service design solution to convert old computers (e-waste) into simpler, more straightforward, accessible computers for older people*'. Your hero image should aim to bring your concept to life – make sure it is vibrant and engaging.
– 1 x A3 Written Summary
  A single A3 PDF page that summarises your big idea using the following format:
  – Problem (50 words max)
    What is the specific problem you identified within the brief topic? Who experiences this problem, and how does it impact them?
  – Process (75 words max)
    How did you investigate this issue – what were your key insights? What journey did you go through to get to your final solution?
  – Solution (50 words max)
    What is your proposed solution? How will it solve the problem?
– 4 x A3 PDF Boards Outlining Your Proposal
  4 pages describing your proposal and demonstrating that you have met the 6 judging criteria. Each board should include a heading. It is important that you number each board in the top right hand corner, in the order you want them viewed by the judges.
– 5 x A3 PDF Pages of Supporting Material
  Up to 5 A3 pages of additional material illustrating your development process – this could include scanned pages of your sketchbook or computer modelling (if applicable).
– Optional YouTube/Vimeo + website links
  Please note that we cannot guarantee supporting films and websites will be viewed at the shortlisting stage. If you have created digital materials, we recommend referencing them (for example by including labelled film stills or website screen grabs) in your 4 main PDF boards.

Partner information

Philips

Royal Philips is a leading health technology company focused on improving people's health and enabling better outcomes across the health continuum from healthy living and prevention, to diagnosis, treatment and home care. Philips leverages advanced technology and deep clinical and consumer insights to deliver integrated solutions. Headquartered in the Netherlands, the company is a leader in diagnostic imaging, image-guided therapy, patient monitoring and health informatics, as well as in consumer health and home care. Philips' health technology portfolio generated 2017 sales of €17.8bn and employs approximately 74,000 employees with sales and services in more than 100 countries.

Ellen MacArthur Foundation

The Ellen MacArthur Foundation works across business, government and academia to accelerate the transition to a circular economy – an economy that is restorative and regenerative by design. Transitioning to a circular economy is one of the biggest creative challenges of our time, and this systemic shift cannot be achieved with traditional design methods alone. Therefore, in 2017, IDEO and The Ellen MacArthur Foundation launched the Circular Design Guide, a freely available guide that combines design thinking techniques with the circular economy vision. Since then, the Foundation has been continuing to inspire and support designers on their journey of creating products, services and systems for the circular economy. What if in the very near future, all young designers are starting their careers well-versed in circular design and ready to tackle complex systemic challenges?

Brief devised and developed in collaboration with: Paul Gardien, Vice President of Philips Design; Kevin Shahbazi, Strategic Design for Circular Economy at Philips; and Simon Widmer, Circular Design Manager at the Ellen MacArthur Foundation.

1 www.circulardesignguide.com

Key dates

Aug 2018 – Briefs launch + register your interest online

Mon 14 Jan 2019 – Competition opens for submissions via www.thersa.org/sda

Wed 13 Feb 2019, 4 pm GMT – Deadline for 'early bird' submission at reduced entry fee of £25

Wed 13 Mar 2019, 4 pm GMT – Final deadline for online registration + submission (£35 entry fee)

Wed 20 Mar 2019 – Judging begins (2 stages: shortlisting + interviews with finalists)

May 2019 – Winners announced

Jun 2019 – Awards Ceremony