



Science + Technology

Designing for Research Effectiveness:

What to expect on the day of the Design Sprint

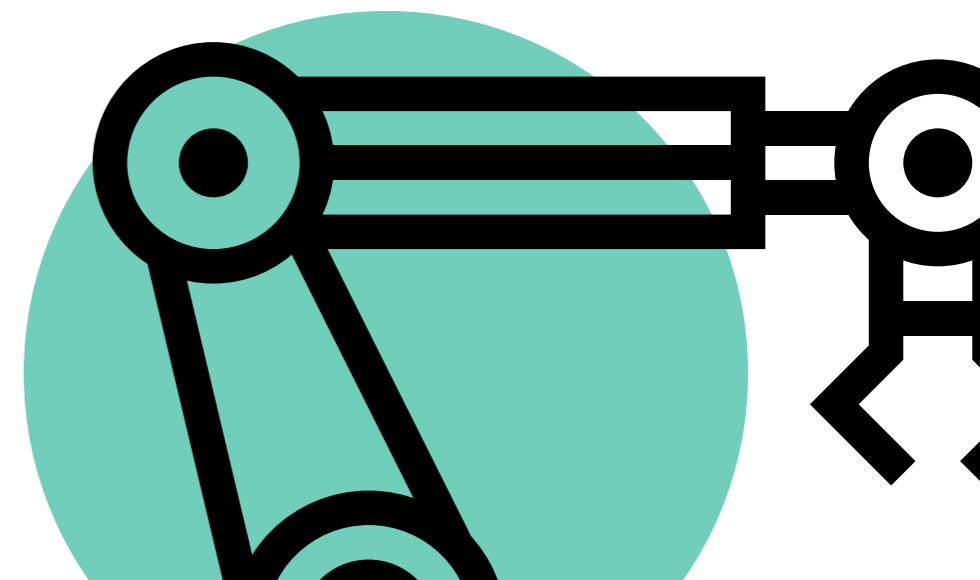
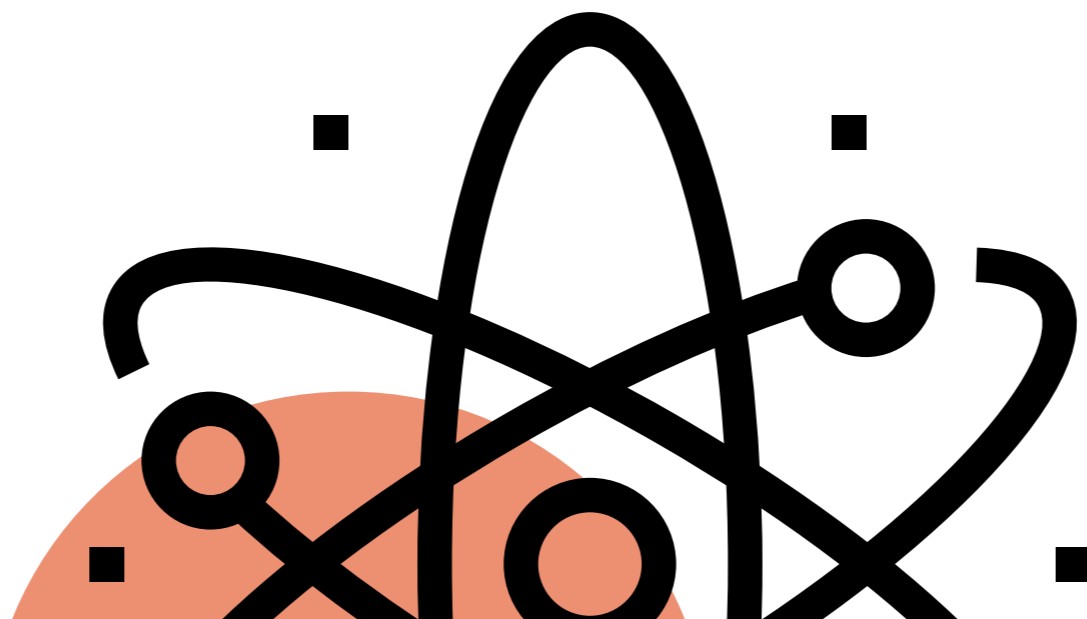
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ENGINEERING

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Designing for Research Effectiveness

What to expect on the day of the Design Sprint

The aim of a Design Sprint is to bring people with different backgrounds and expertise together. This is a platform to stimulate innovative design thinking in response to a specific question or problem.

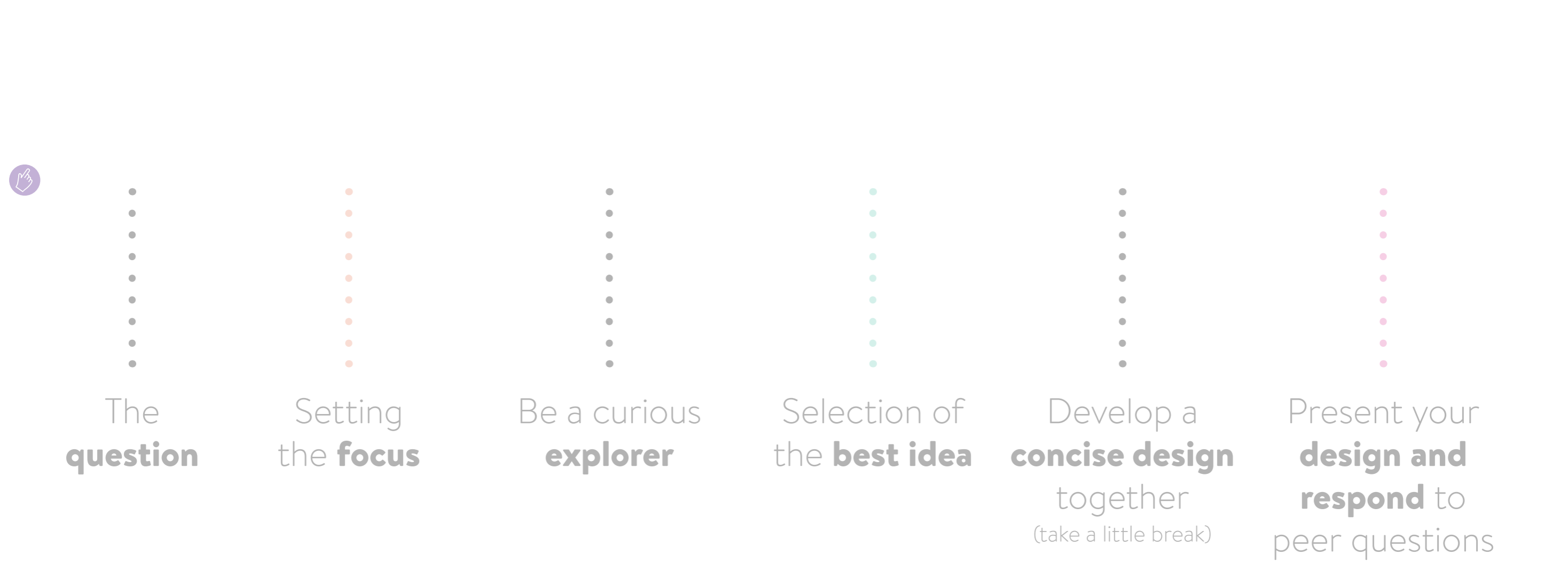
It is an outcome-driven process completed within a limited time period (in this case, four hours).

It will also be fun!



Designing for Research Effectiveness

The Process



Designing for Research Effectiveness

The aim of Design Sprints

The focus of this series of Design Sprints is to **reimagine how specialised research spaces, such as laboratories, might look and be used to increase research effectiveness.**

You are free to choose how you want to work during the design process.

Feel free to sketch on paper, use a computer/tablet or any other preferred and available means.



During each Sprint, BuroHappold provides participants with...

The Supplies:

Coloured sticky notes
Glue
Flipcharts and paper
A4 coloured card
Marker pens/Sharpies

The Tools:

Sprint canvas
Matrix
Maps, floorplans and/or images
Example images of buildings



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Designing for Research Effectiveness

The Design Sprint process in more detail

Intro



15 mins

Introduction to the Sprint

When you arrive at your Sprint, the room will be set up and ready for you to get into your designated teams of 4-8 people. Please familiarise yourself with others at the Sprint and find the table with your name on it.

At the beginning of the Sprint there will be a short introduction to what you are going to be doing. The process of the Design Sprint will be explained in full with an opportunity to ask questions.

TIP: We will place copies of the Sprint canvas on a wall or on tables in the Sprint room. This is designed to simplify the whole process and allow your team to dynamically track the progress of your Sprint.

Define



5 mins

Define the question

You will be introduced to the question that you will be responding to during the Sprint. In this case it is...

'How do we design for Research Effectiveness?'

You will be asked to reimagine how research spaces might look and be used to promote effectiveness. Collectively, the ideas resulting from the Sprint will help us to explore what the answer to this question could be.



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Designing for Research Effectiveness

The Design Sprint process in more detail



Discover – discovering and exploring key themes

At this stage, each team will discuss the key themes to understand them and interpret them in their own way.

During the Sprint, we will be exploring research effectiveness within R+D facilities in buildings and across campuses. We will combine analytical techniques from the Commercial, Higher Education and Healthcare sectors.

Teams will assess what the associated opportunities and challenges are for each theme under the following topics: **economic impacts, social impacts, environmental impacts, policy, future-proofing and technology.**



Decide – developing a key idea

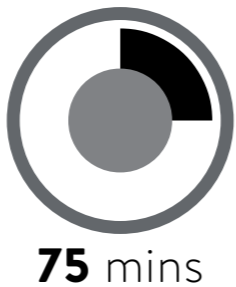
Your team will take key considerations from the Discover stage forward to build an idea of what you would like to focus on for the rest of the Sprint.

Each member of your team has a role to play. Discussion, exploration and creativity are encouraged. You have 10 minutes to discuss and agree on the idea(s) that are taken forward.

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The Design Sprint process in more detail

5 Design



Design Stage – your team’s detail design

It is now time to flesh out the initial idea in more detail. We supply a range of materials during each Sprint and you are welcome to present your ideas.

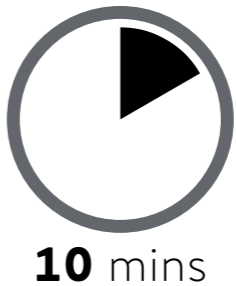
You have 75 minutes to create your solution and agree among the team who will present your solution as part of the Validation stage.

In preparation for the next stage (Validate), as well as to assist and influence you throughout the design of your idea, your team may also consider how it meets the key themes, opposite.

- What could government do?
- What could client project teams do?
- What could designers do?
- What could users do?

Take a break.

(Tea, coffee, water, juice and biscuits will be available).



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The Design Sprint process in more detail

Validate



60 mins

Validate – project analysis & responses

Each team is allocated between 10 and 15 minutes to present their developed idea to the other people in the Sprint.

The pitches will be timed and no overrunning will be allowed! Once the presentation is over, the other teams will have five minutes in which to ask questions.



All participants will be asked to fill in a feedback sheet asking how the Sprint went and what could be improved next time.

Networking

BuroHappold will provide refreshments after the Sprint. You are very welcome to stay a while longer and join your co-Sprinters for a drink and some buffet food.



We have been leading Design Sprints since 2015.

Here are two examples:

i) Connected and Autonomous Vehicles

We have explored the global issue of **Connected and Autonomous Vehicles** (CAVs). This examines how these vehicles will affect the way in which we live and work, the benefits and disadvantages of CAVs and the impact on urban spaces.

We led nine individual Sprints across the globe with a total of 283 participants.

Please refer to the list on the right hand side of this page for Sprint locations and number of participants. A sample of participating companies can be found on the next page.

For more information on BuroHappold’s Design Sprints exploring the impact on our cities of Connected and Autonomous Vehicles, please visit buro.im/BHonCAV

CAV Sprint locations:

- Pittsburgh: 33
- New York: 40
- Bath: 17
- London: 31
- Berlin: 33
- Riyadh: 56
- Dubai: 19
- Kuala Lumpur: 24
- Hong Kong: 30



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Examples of CAV Sprint participants:

SIEMENS

**BMW
GROUP**



TESLA



BOSCH

Carnegie Mellon University
The Robotics Institute



The Chartered
Institute of Logistics
and Transport

nationalgrid

URBAN-X



ice
Institution of Civil Engineers

**NYC
PLANNING**



مدينة الملك عبدالعزيز
للعلم والتكنولوجيا
KACST



CATAPULT
Future Cities



Self-Driving Car Project

MIROS
MALAYSIAN INSTITUTE OF ROAD SAFETY RESEARCH

TRL



Centre for Connected
& Autonomous Vehicles



MIT
Massachusetts
Institute of
Technology



CENTER FOR
Sustainable
Transportation
INFRASTRUCTURE

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Design Sprints since 2015.

ii) Higher Education

In 2014 BuroHappold led the first UK university student survey to gather student opinion of the university built environment. Adding qualitative data from Higher Education senior professionals, BuroHappold identified that connectivity was a major issue within UK university buildings, campuses and masterplans. Coupled with the increasing number of students reporting mental health instances, BuroHappold sought to investigate how the design of university buildings and masterplans could be calibrated to not only be cohesive but also promote happy, healthy and productive student-focused environments.

To date, BuroHappold has led four UK Sprints with a total of 82 participants exploring the topic of student wellbeing in the university built environment. We were joined by 14 universities, including Directors of Estates, Student Services and Accommodation professionals, architects, mental health charities and psychologists.

For more information on BuroHappold's Design Sprints in Higher Education, please go to buro.im/studentwellbeing





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For more information on BuroHappold's Sprints '*Designing for student wellbeing within the UK Higher Education sector*', please go to **buro.im/studentwellbeing**



For more information on BuroHappold's Design Sprints exploring '*How the effect of Connected and Autonomous Vehicles within the world's major cities*', please go to **buro.im/BHonCAV**



Contact us

For an informal chat about taking part in the planned series of Design Sprints, please contact **Frances Critchlow**.

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