DESIGN to Deliver

September 2024

Design
to
Deliver

Funded by
Innovate UK Business Connect

SME Open Call Brief

"Design to Deliver will harness the creativity and confidence that only design brings"

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Programme outcomes

Expected outcomes from phase 1:
- Twelve SMEs to take part in rapid design sprints using various design methodologies across the whole programme.

- To develop twelve solutions that have been validated against user and location needs, adapted and applied to the context of one of the challenges of the programme.

- Host a showcase event to demonstrate the outcomes of the programme, and invite key industry professionals to attend

- Capture lesson learnt for further iterations of the Design to Deliver (D2D) programme

- Establish collaborative ways of working across the Catapult Network and with the other programme partners
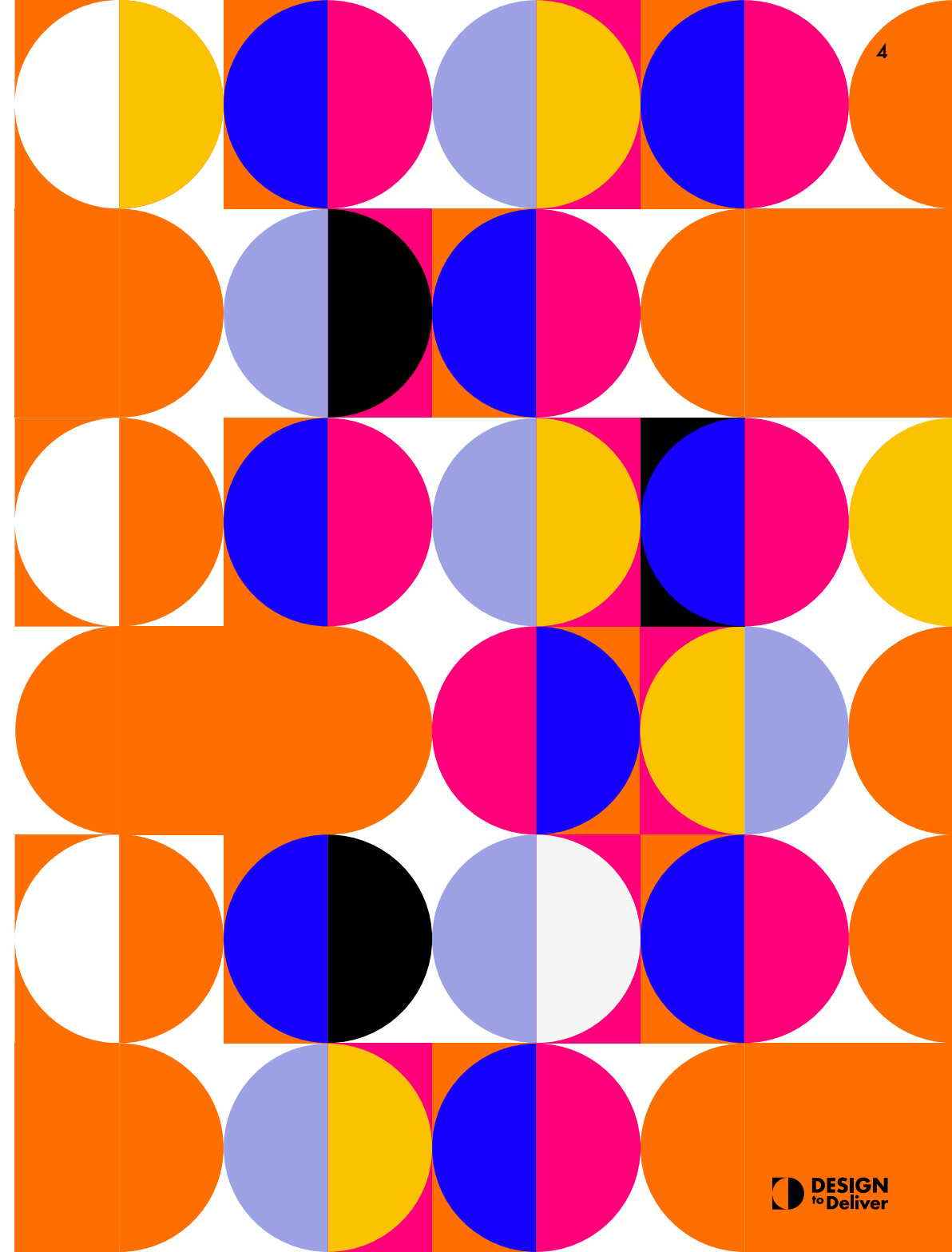
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The Brief

A systems & place based approach

Design to Deliver has been developed using a systems and place-based approach. Through focusing on three interconnected challenges, the programme aims to demonstrate combined impact and showcase the power of collaboration to address critical issues of our time.

SMEs will be asked to develop their solution in a way that responds to local issues and opportunities, considering the impact their product or service may have at different scales or environments.
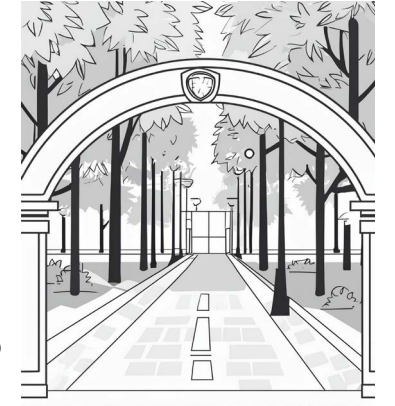

Region

Community

Park

Street

Household

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The Brief

Unlocking human behaviours to regenerate nature through leveraging accurate, accessible and actionable information.

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Design to Deliver 2024 is looking for innovative tech solutions that leverage information, helping people realise the value of nature, leading to nature-positive behaviour change. To achieve this, we need to ensure that information is accurate, accessible and actionable, inspiring people to take steps to regenerate nature.

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The Brief

Accessible, accurate & actionable information

- Our understanding of nature has dramatically changed in recent times.

- New technologies for identifying species, analysing genetics and recording global changing patterns, have greatly improved how we understand the intricate systems we're so heavily reliant on. However, this explosion of information coupled with increasing climate anxiety as global environmental issues become more apparent, has led to people feeling powerless and unsure of what steps to take.

- To unlock change, information must be:
  Accurate: From reliable sources, that can be traced and trusted
  Accessible: Available to all, in a format that people can access and easily understand
  Actionable: Relevant, tangible, targeted and clear on how to use the information

Realising the value of nature

- There are countless studies and reports which detail the declining health of our natural world and, more importantly, the significant consequences this decline could have.

- With around a quarter of all plants and animals under threat of extinction[1], the next decade will be critical for halting the decline and regenerating nature back to health.

- Natural ecosystems need to be seen as equally important stakeholders (compared to other human stakeholders) when designing and conducting our lives on this planet, ultimately leading us to action and behavioural change.

Taking action

- Our relationship with nature and how we value it is complex and influenced by many different factors.

- Understanding nature better and reconnecting with it, however, has the potential to change behaviours. For example, research shows a strong connection between spending time in nature and behaving in more environmentally-friendly ways[2].

- Therefore, we need to focus on creating a greater understanding of nature, to enable people to reconnect and subsequently take action.

[1] Kunming-Montreal Global Biodiversity Framework

[2] A meta-analysis of 85 studies found that people's connection to nature was actively leading them to take action

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The Challenges

1.

Collective solutions for wild urban places

2.

Informed choices for nature positive actions

3.

Space-enabled information for a thriving world

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Challenge 1

Collective solutions for wild urban places

How can you use information to contribute to the successful implementation, stewardship, and maintenance of wild urban places?

Why?

As urban infrastructure increasingly plays a role in the lives of both human and non-human beings, places where nature can thrive within urban landscapes are vital for reconnecting and realising the value of nature. The implementation, stewardship and maintenance of these wild urban places requires a collaborative effort, yet more needs to be done to ensure the right information is with the right people. The huge amount of data available, needs to be deciphered, connected, and formatted into actionable information so the various stakeholders involved can make informed decisions.

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Challenge 2

Informed choices for nature positive actions

How can you develop a solution* leveraging existing data, to help citizens be better informed to make nature-conscious decisions?

*Innovations: products, services, frameworks and platform

Why?

There is a lot of data-driven research available on the impact of climate change and the poor state of the UK's biodiversity, but actioning change is slow. Most of this data is targeted towards governments and businesses. The data is not readily accessible as it is jargon-heavy and is often presented in dense reports, making it hard for the wider public to access and understand it.

Data needs to be more accessible to citizens, leveraging existing data and translating it in such a way that it empowers citizens to make more informed decisions about choices in their daily lives, which will have a positive impact on nature and therefore on climate change and biodiversity. Solutions should offer citizens the ability to make alternative decisions, shifting attitudes from a feeling of "What can I do about it?" and "How is this my problem?" to "I am doing my part to restore nature and address the effects of climate change".

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Challenge 3

Space-enabled information for a thriving world

How can you translate space-enabled data and services* into information that is trusted and actionable, fuelling responsible behaviours towards nature?

Why?

The scale and quality of commercially available space-enabled data and services has risen exponentially in the past decade, driven largely by new satellites being launched, new services being available and more advanced technologies[1] being developed. The resulting volume of already very technical datasets makes them even more complex and difficult to comprehend and action or combine with other technologies.

*Through Earth Observation, satcom and sensing (e.g. IoT, drones)

[1] The Catalytic Potential of Artificial Intelligence for Earth Observation, World Economic Forum 2024

Possible scenarios

Challenge 1:

Demonstrating benefits of wild urban places to local communities and stakeholders
Innovative solutions to help visualise, interact and relate to information about the benefits and our impact on nature in urban places.

Green corridor development
Using and combing data around existing urban places to make the case to all stakeholders to enhance and connect urban greenery.

Collaborative decision making about nature
Collaborative platforms or tools that facilitate sharing of information and collective decision making.

Challenge 2:

Helping citizens to make informed shopping choices
A tool, platform or immersive experience that visualises the processes involved in making and bringing to market food, products or items of clothing and the impact of these processes on nature and provide information on alternative choices which have a lower-impact on the planet.

Showcasing the value of nature for individuals
A wearable device or online community platform that suggests activities for ways to get back out into nature and the benefits of each activity on personal wellbeing and the environment.

Challenge 3:

Biodiversity recovery
Combine Earth Observation data and sensors on the ground to measure habitat condition and monitor biodiversity abundance

Land management and agriculture
Bring space-enabled data and services into decision-making tools that help farmers and land managers care for the long-term health of soil, water quality and flood mitigation

Communities and businesses commitment
Engage with communities and businesses to gather data on the ground that complements monitoring of nature from space, to better inform local decision-making and regulatory compliance

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Thank you!