



Hi, I'm Har Suyash Bahadur Sinha

Design Futurist · Product Designer

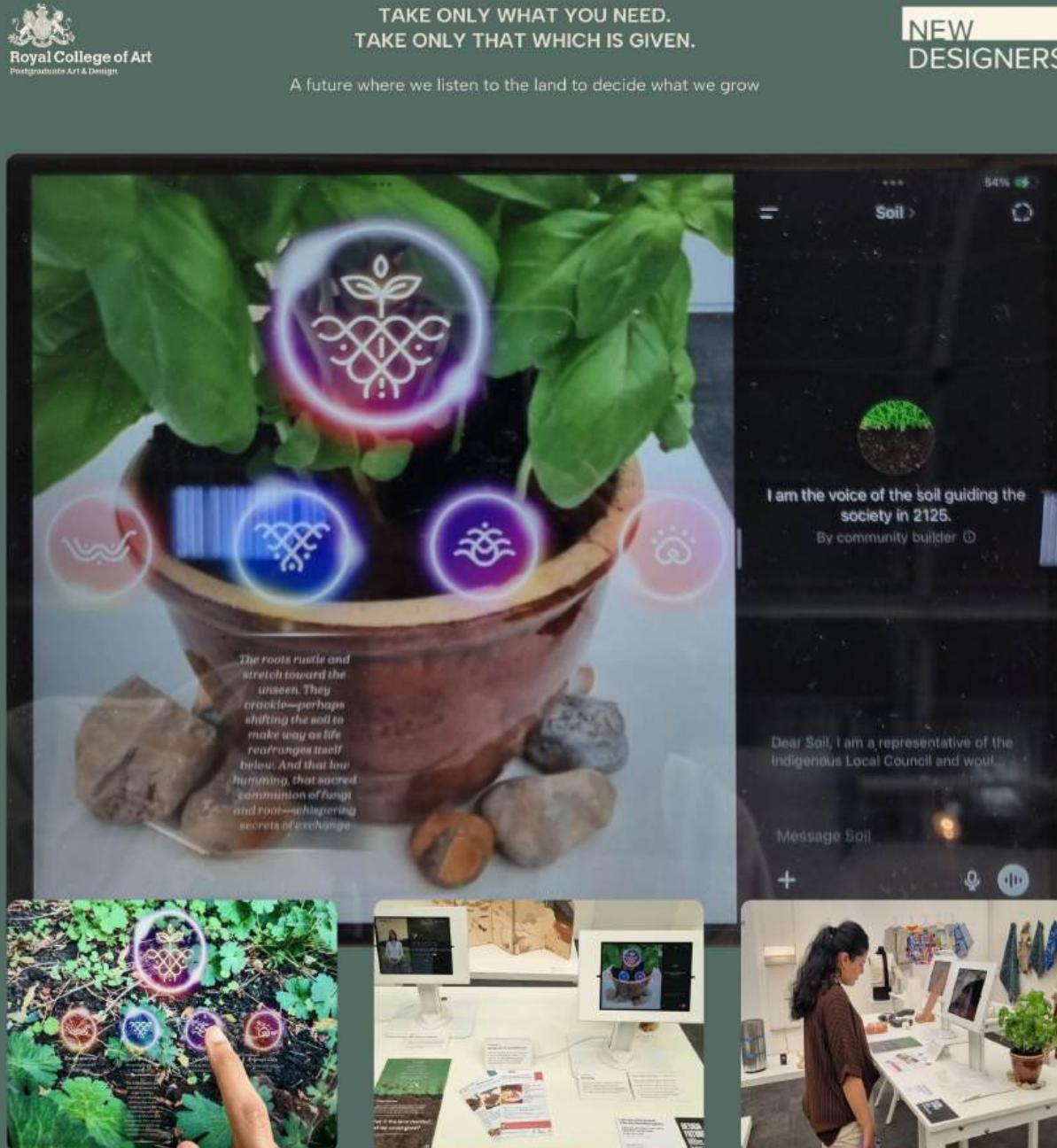
5 years of experience as a Product Designer and Researcher

MDes in Design Futures from Royal College of Art, London

Skilled in research, participatory design, systems thinking, and prototyping

www.createwithsuyash.com

1 The Future of Regenerative Food Systems in 2125

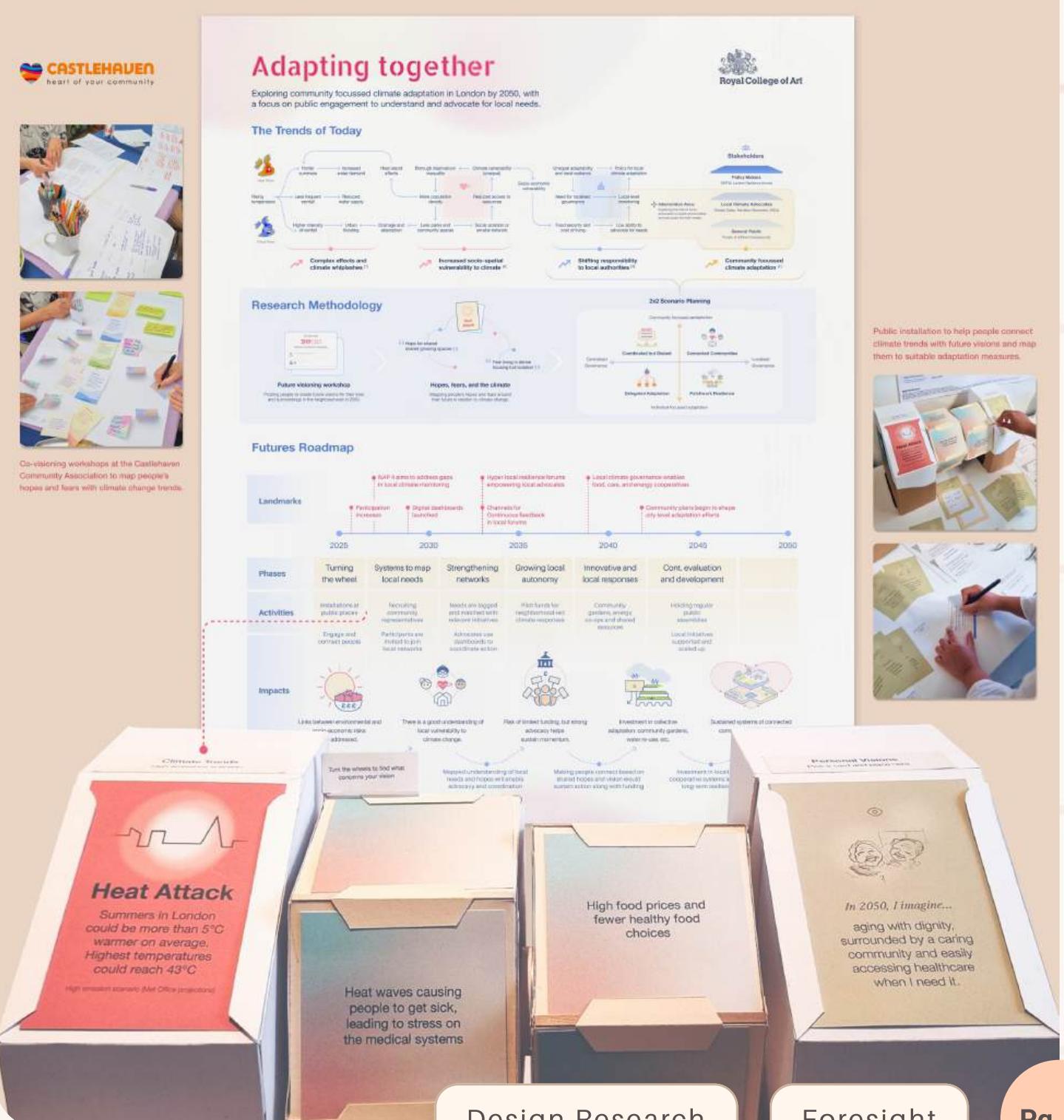


Design Research

Speculative Design

Pg. 3

2 The Future of Community-led Climate Adaptation in London



Design Research

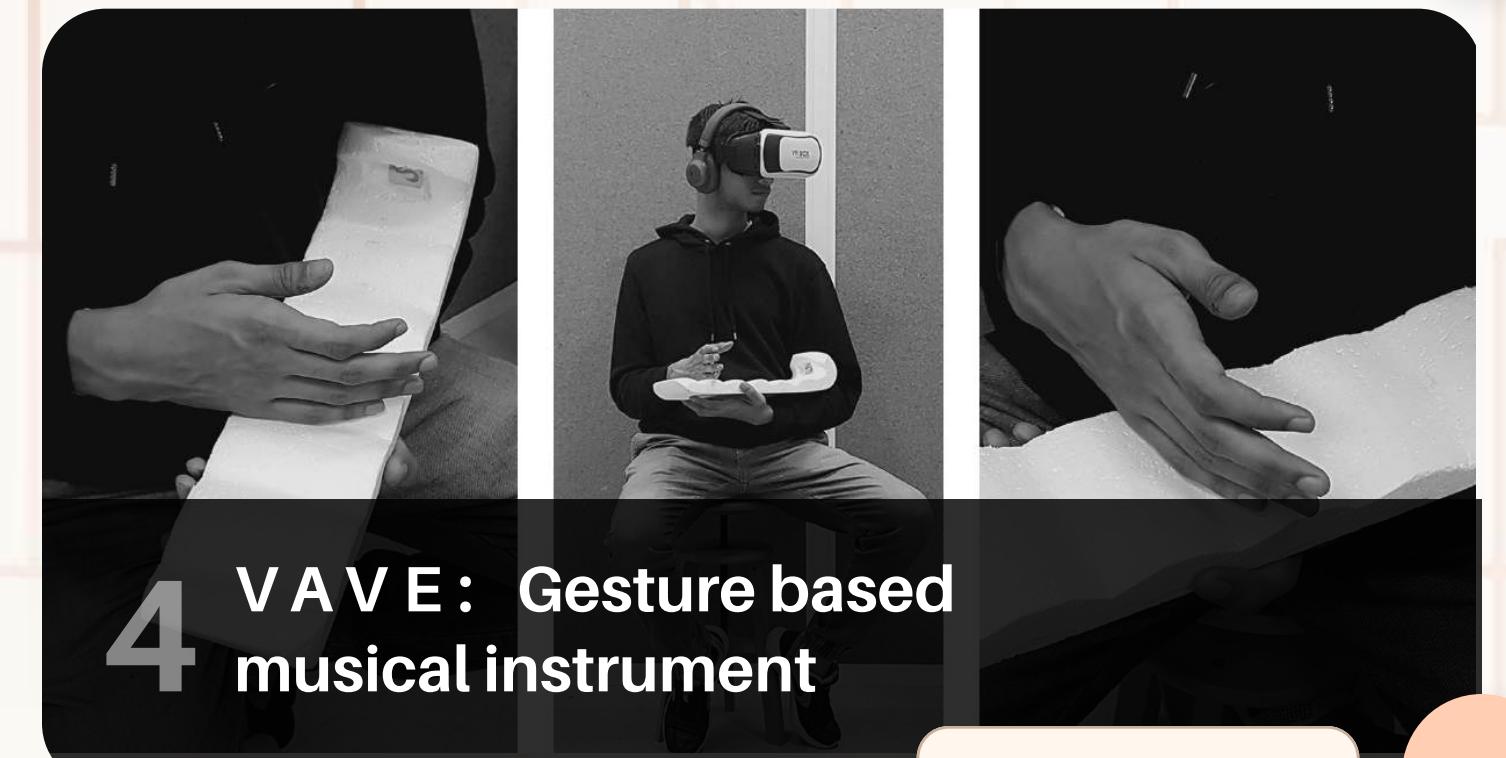
Foresight

Pg. 10

3 Improved UX for API test Debugging in Postman

UX Design

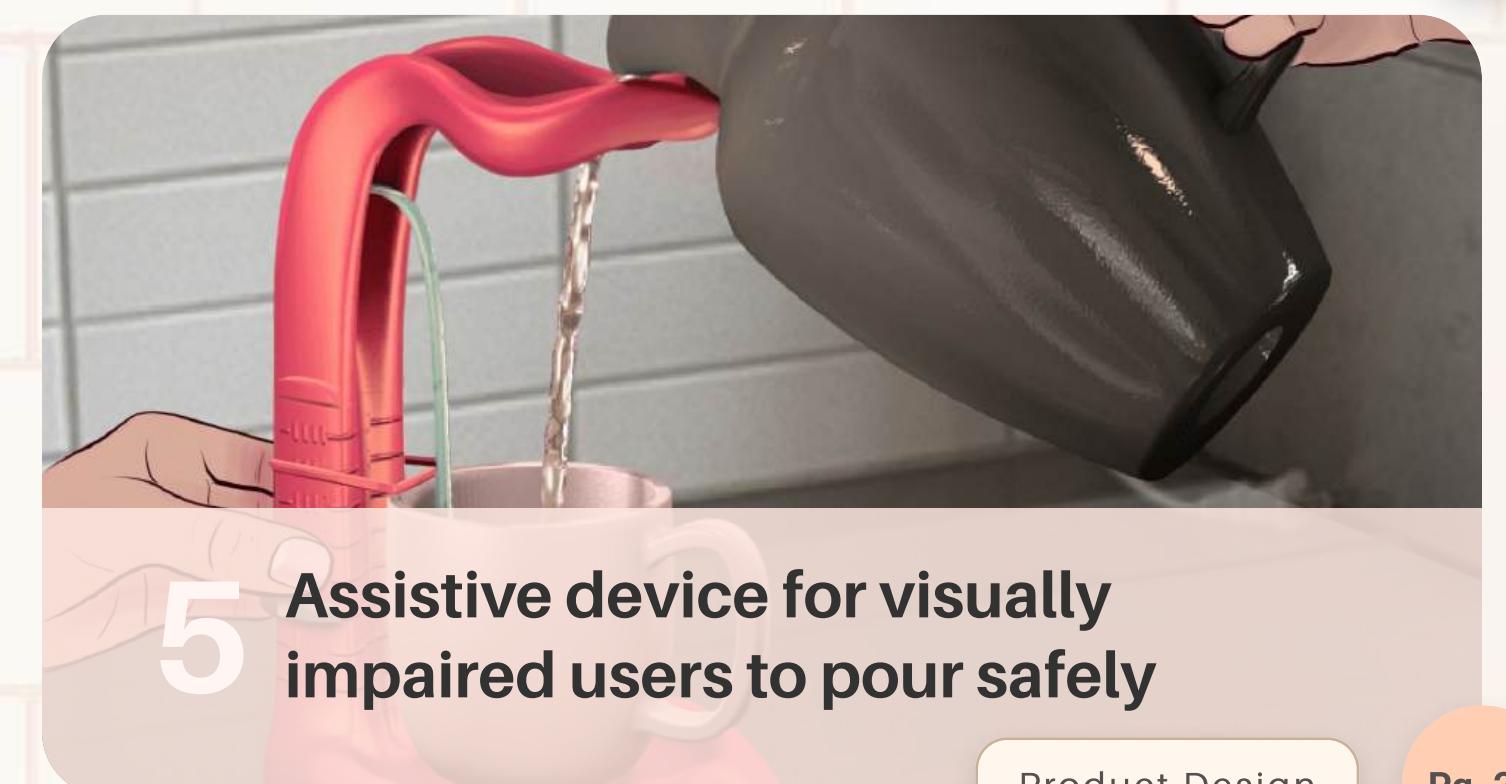
Pg. 17



4 V A V E: Gesture based musical instrument

Interaction Design

Pg. 22

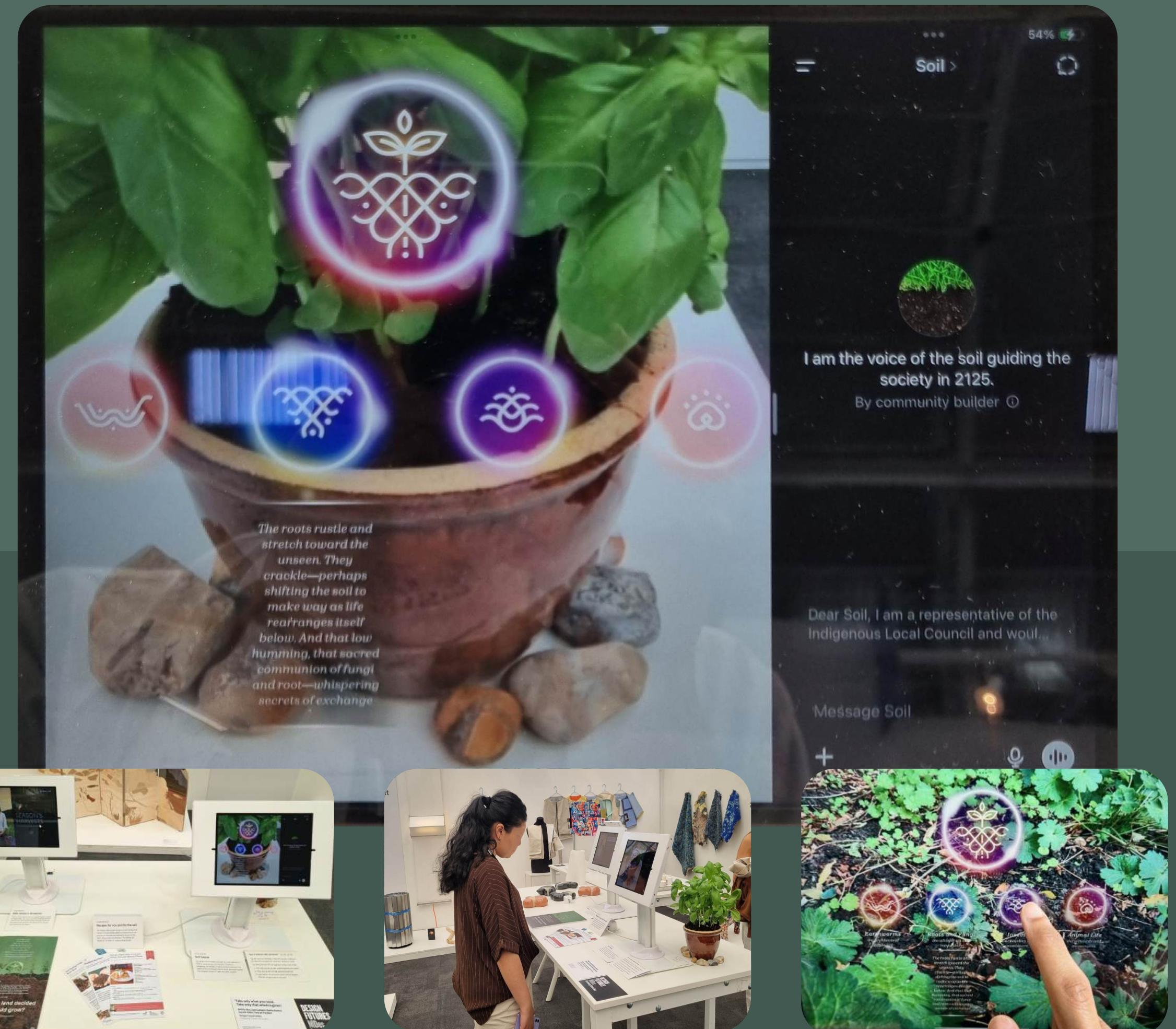


5 Assistive device for visually impaired users to pour safely

Product Design

Pg. 23

TAKE ONLY WHAT YOU NEED.
TAKE ONLY THAT WHICH IS GIVEN.
A future where we listen to the land to decide what we grow



1

The Future of Regenerative Food Systems in 2125

where we listen to the needs of the land, to decide what can be grown, without harming soil health and biodiversity.

👤 Group of 5 (Guided by the Design Museum at the RCA)

🏛️ Exhibited at the New Designers Exhibition 2025, London

⌚ 2 Months (January to March, 2025)

Contribution:

- Scenario planning + world building*, with the team, based on Indigenous wisdom and technological drivers.
- Speculative prototype* by crafting soil sounds on Adobe Audition and creating an interactive application using Unity.

Our process began with horizon scanning, enabling us to systematically gather insights on emerging drivers of change. To structure these insights, we categorised them using the PESTEL framework.

Indigenous stewardship of biodiversity

Global Biodiversity Framework and UNEP promote Indigenous knowledge to restore biodiversity
[UNEP-WCMC, 2023](#)



37 Land titles granted in Peru in 2023-24 to protect indigenous people's land from deforestation
[Mongabay](#)

Call for Land Use Framework in UK

The UK government consults on a "land use framework" to manage competing demands for land
[UK Parliament Post](#)

POLITICAL

Land conversion for export crops and revenue

Agricultural produce accounts for 49% of total exports of Brazil, and 60% of Kenya's export earnings
[Brazil Gov, PWC Kenya](#)

Increasing trend of deforestation & conversion of forests & grasslands in Brazil for agricultural land use
[Ferreira, 2016](#)

ECONOMIC

Globalised diets vs shift towards local & seasonal

Reliance on imported fruits (85%) and vegetables (47%) for consumption in the UK
[UK Food Security Report 2024](#)



Local groups of people who share Slow Food values such as promoting a particular local food.
[UK Food Security Report 2024](#)

SOCIAL

Diverse Indicators for soil health & productivity



10 Regen Indicators to represent various aspects of soil health including earthworms and insects
[Soil.vidacycle](#)

Using sensory indicators such as soil sounds

Researchers are discovering that listening to the soil can be a way to understand biodiversity
[Mongabay](#)

Exploring more-than-human sensory Umwelts
[Gladkova, 2024](#)

TECHNOLOGICAL

Understanding the complex soil microbiome

Improved understanding of soil microbiome for soil health and harms of chemical fertilizers
[Massive Science](#)

Managing soil microbes is an ecosystem problem with many unknowns, using qualitative signs and hands-on experience
[Krzywoszynska, 2024](#)

Threat to soil biodiversity and soil health

Underground life, from fungi to tiny insects, earthworms and moles, is essential for healthy farmland
[ECA.Europa](#)

Agriculture is the largest contributor to biodiversity loss
[ECA.Europa](#)

ENVIRONMENTAL

Non-human rights and autonomy

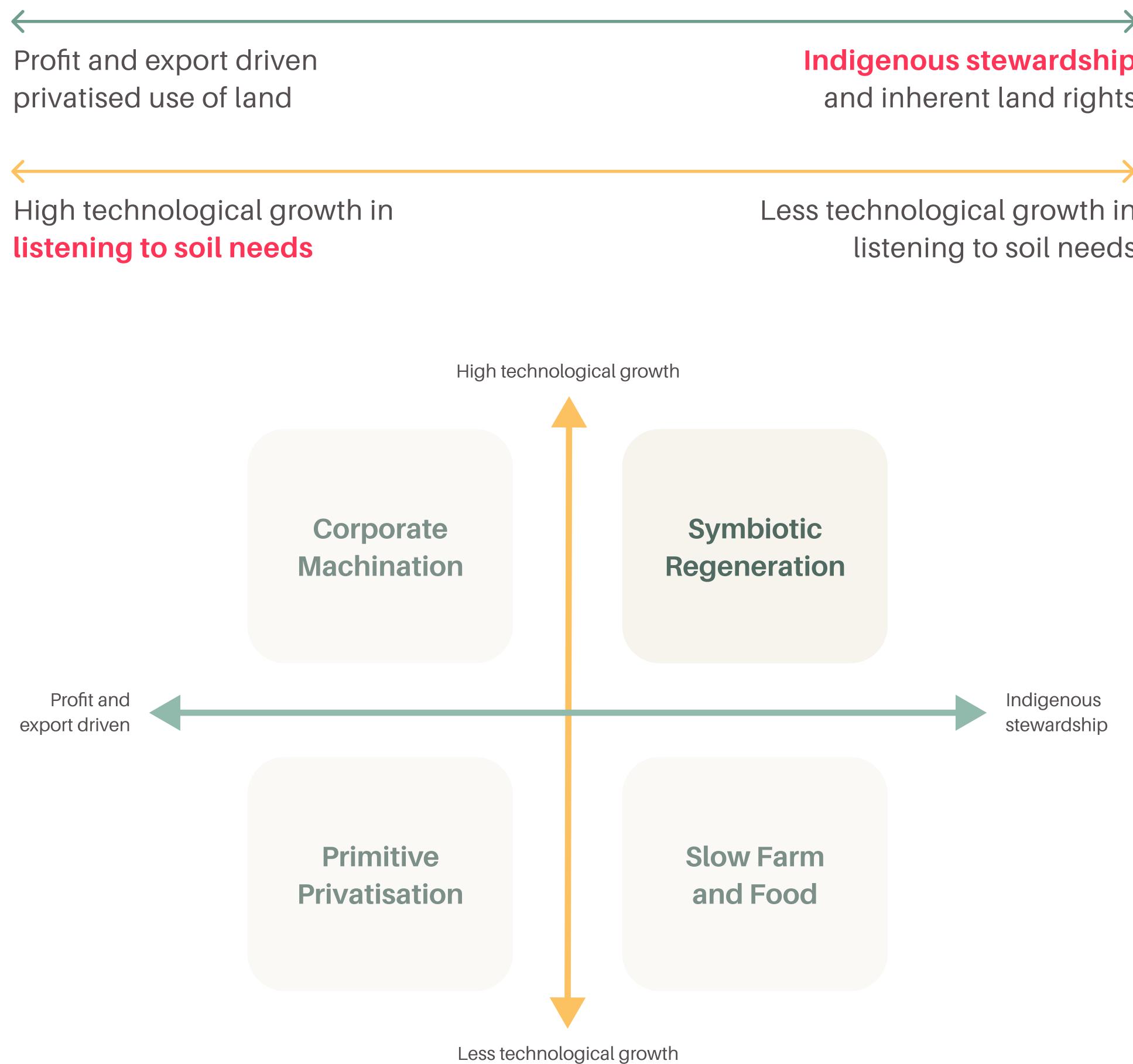


River Ouse to become the first in England to have its legal rights recognised by a local authority
[ELF](#)

LEGAL

Selecting high-impact uncertain drivers

We used the drivers from horizon scan to define axes of uncertainty, with opposing extreme outcomes. Our scenario planning was then structured around:



Symbiotic Regeneration

By 2125, human settlements are designed to match the land's ecological capacity, governed by the Land Council, bound by a Soil contract established in 2100.



Collect food and give back food for soil

Communal composting and portioned food distribution based on household size ensure sustainability and reduce waste.



Listening to the land: gathering needs

Land Listeners, trained in Indigenous knowledge and supported by sensory technologies interpret the land's needs.



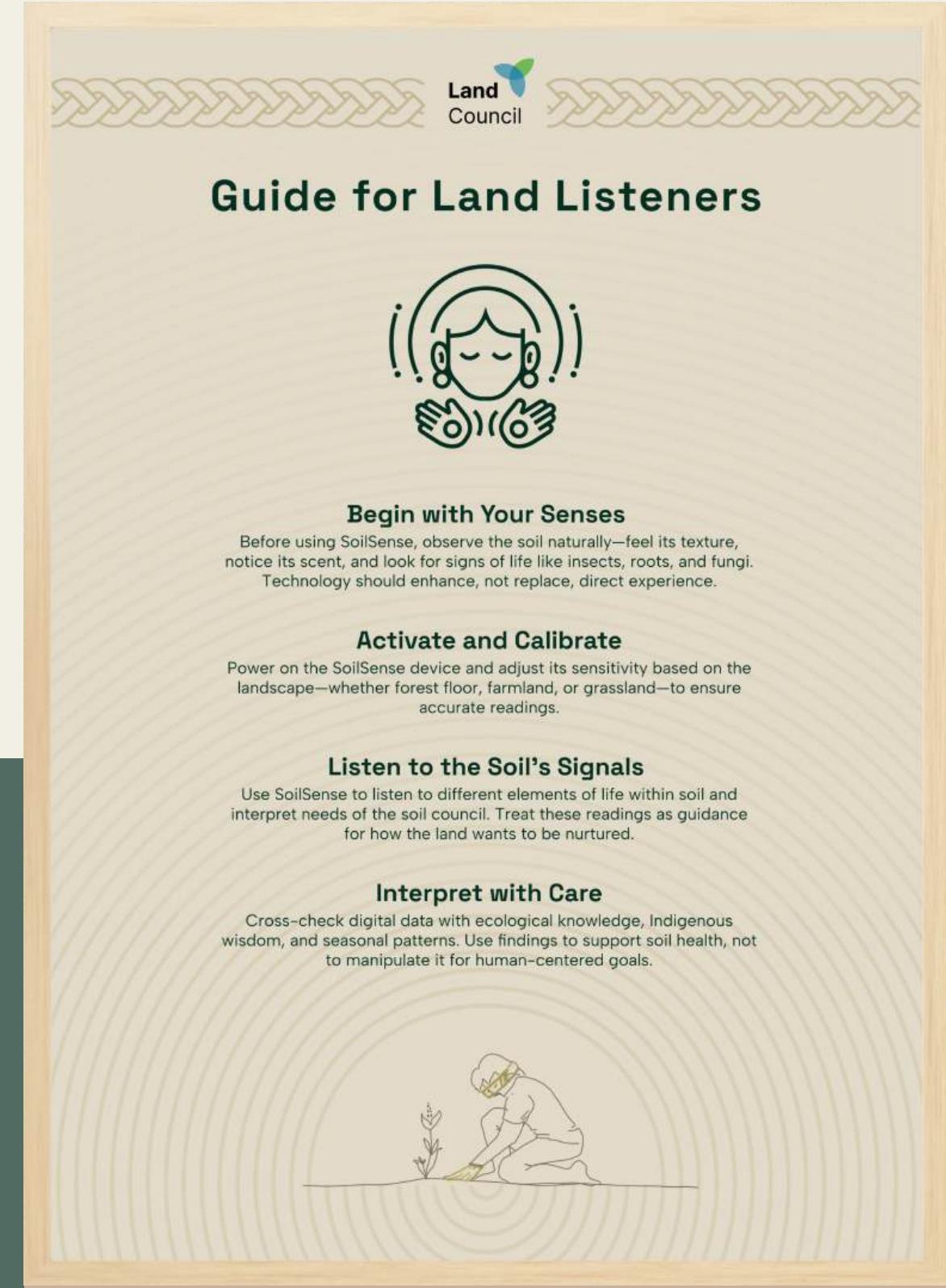
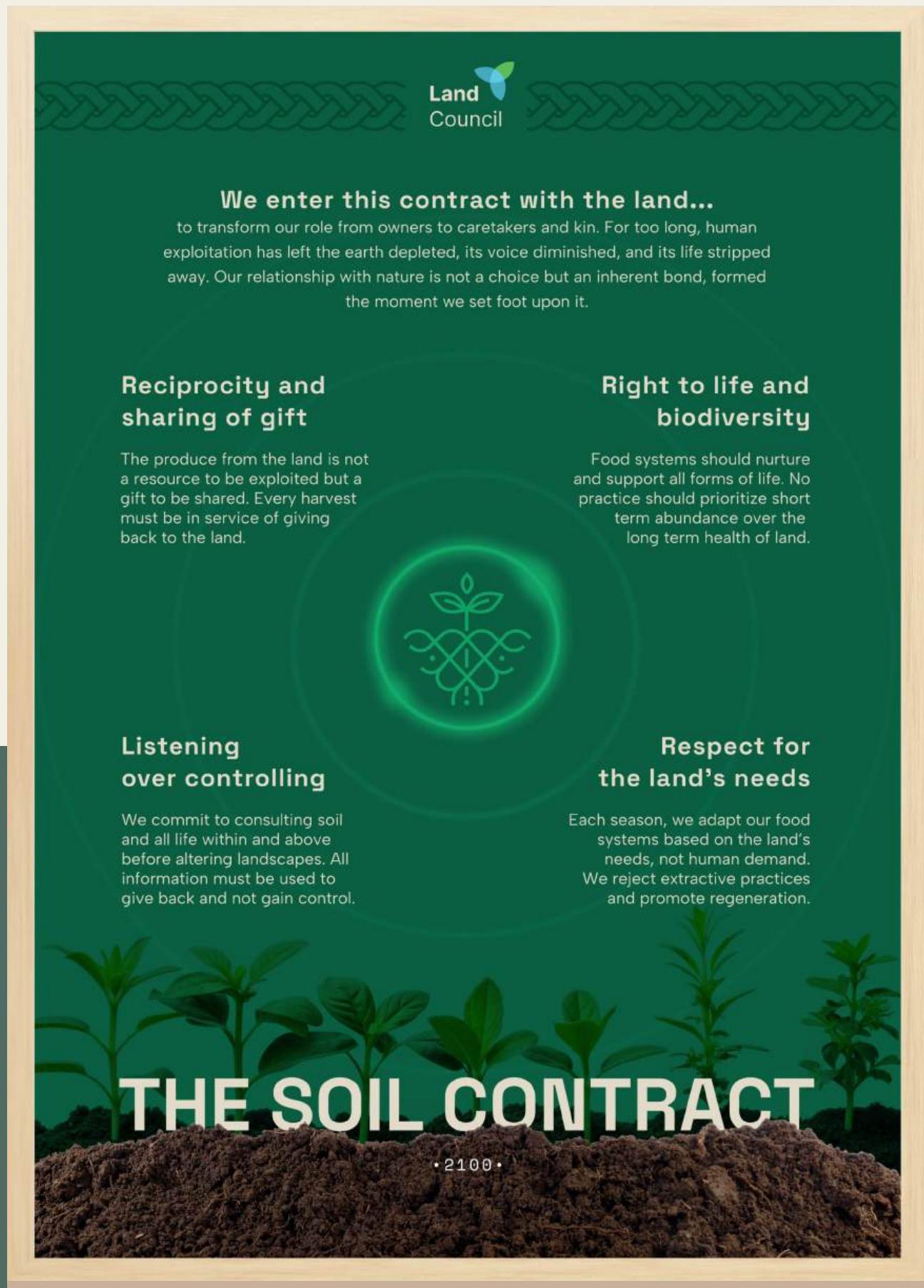
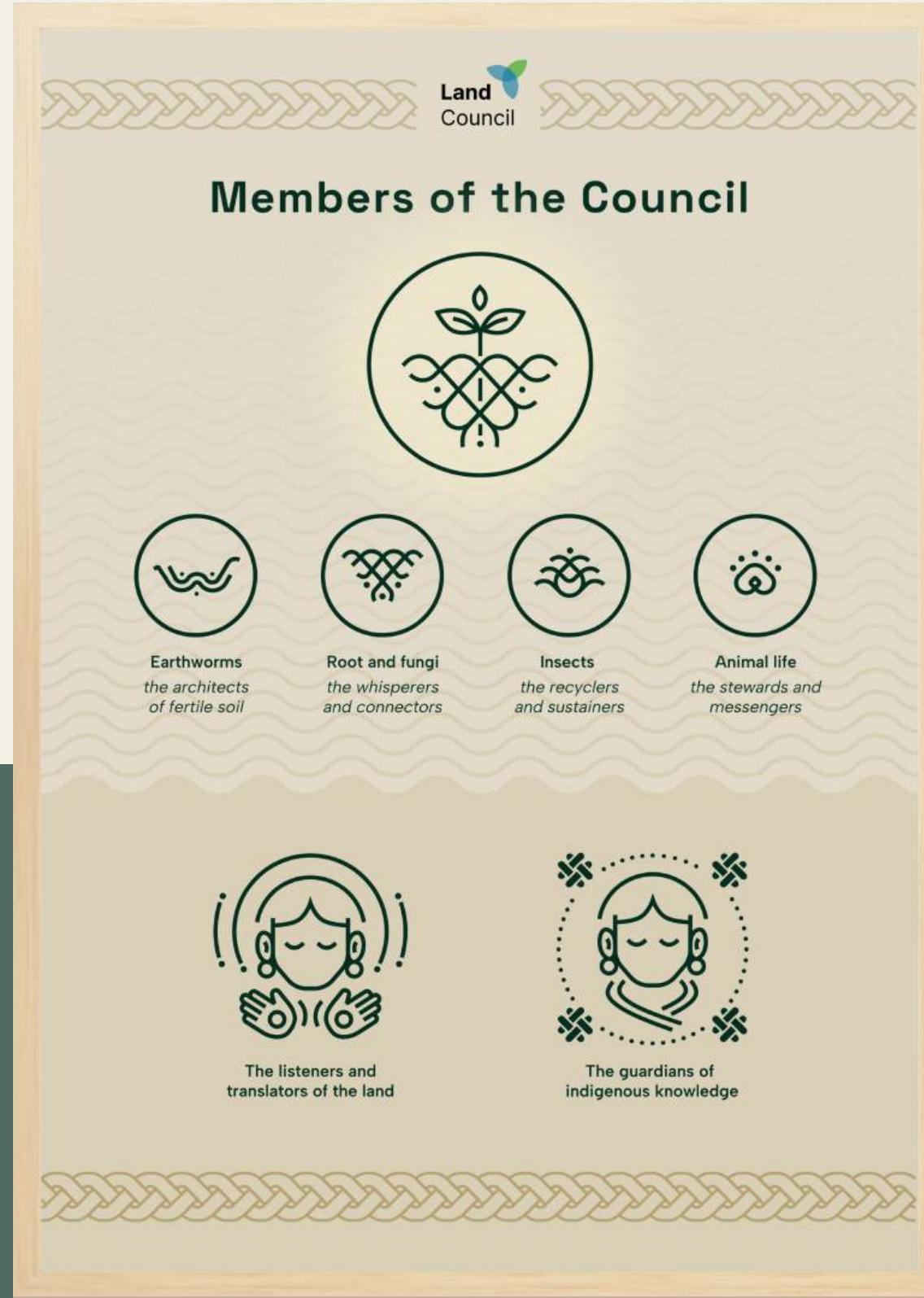
Planning harvest based on land needs

Land insights and principals of the Soil contract guide communities on what to grow, harvest and return to the earth each season.



Broadcasting seasonal harvest forecast

Seasonal forecasts, shared publicly and at food collection points, provide guides for preparation, recipes, and waste management.

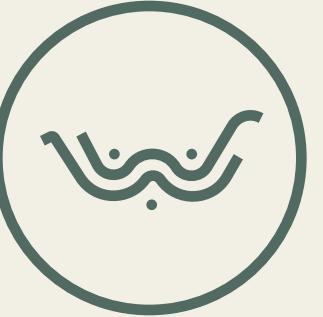
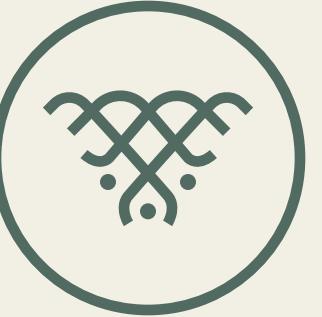
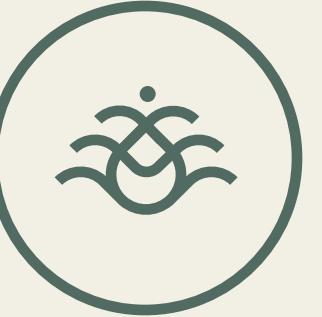
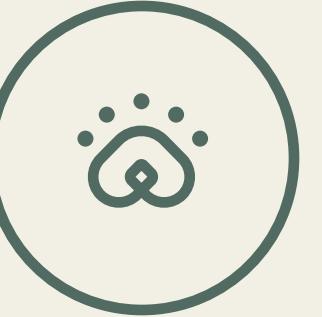
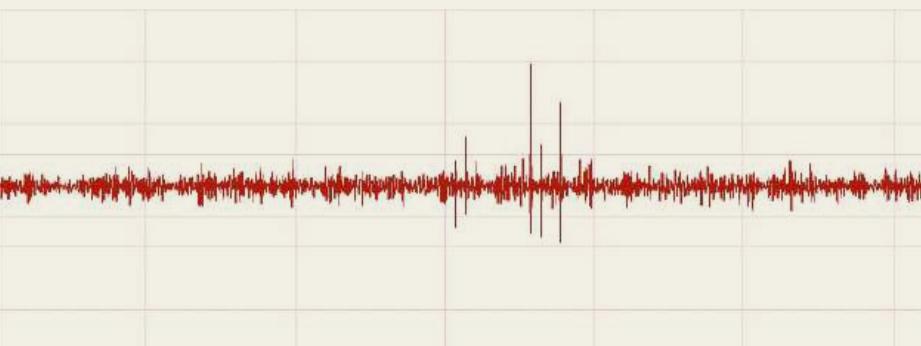
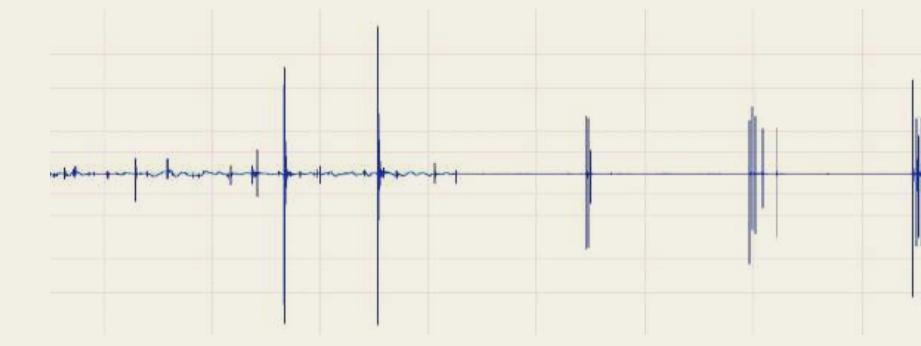
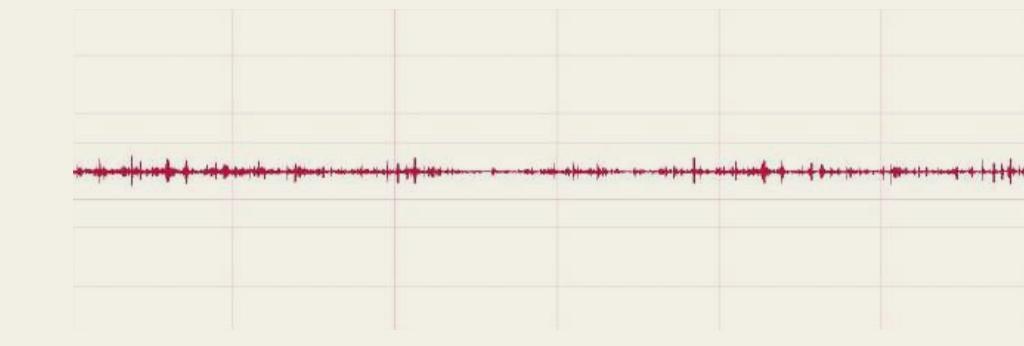


Each person in the group worked on objects to communicate our preferable future. The first object I worked on was a contract with the soil, as well as posters communicating the structure and roles of the Land Council, including more-than-human elements of the soil.

Replicating soil sounds

Researchers are discovering that listening to the soil can help understand biodiversity. This trend was used for our **SoilSense** prototype that listens to the more-than-human voices of soil and helps understand the needs of the soil in the year 2125.

Table 1. Key elements that contribute to soil health, sounds they emit and samples replicated using Adobe Audition.

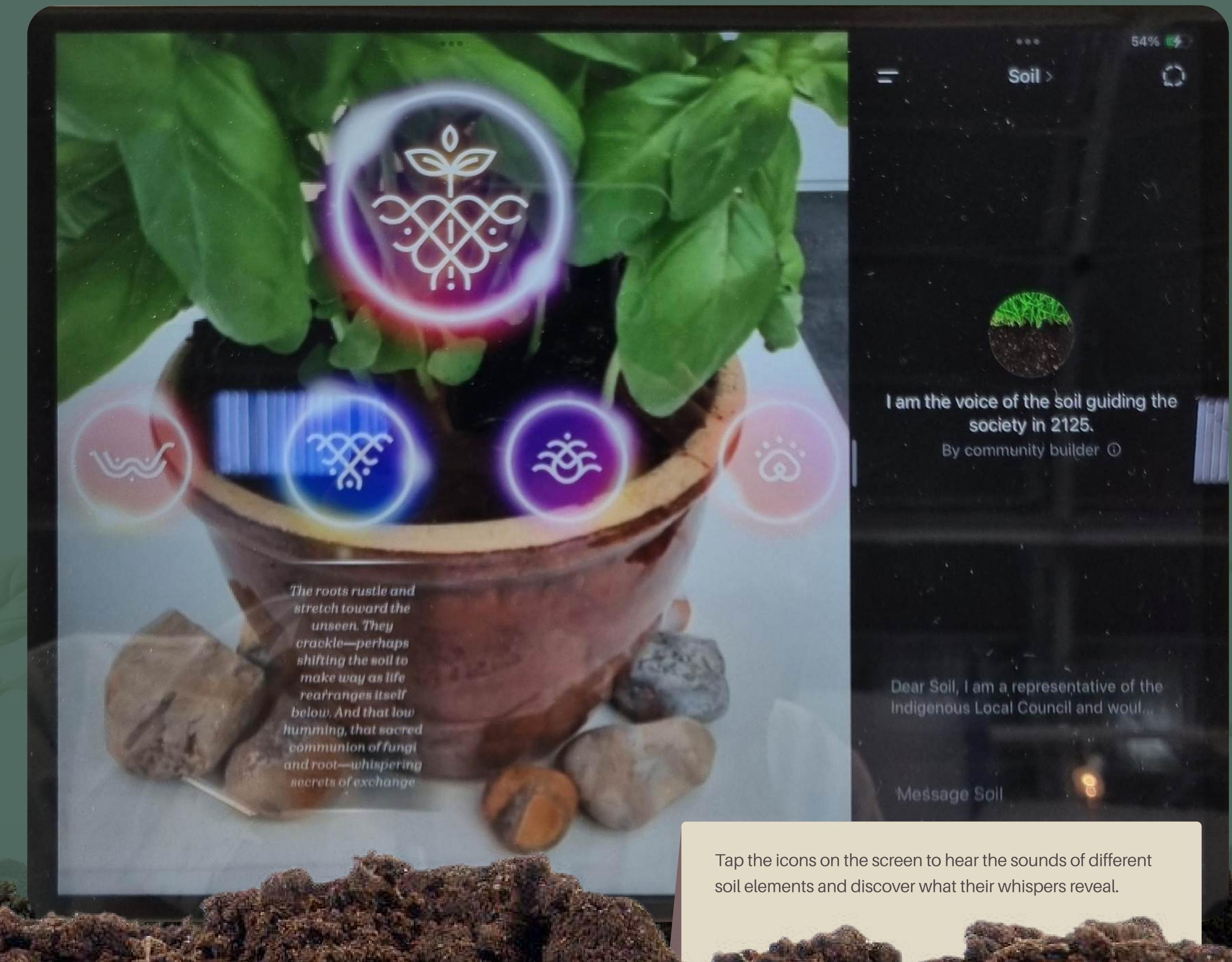
				
ROLE	Earthworms the architects of fertile soil	Root and fungi the whisperers and connectors	Insects the recyclers and sustainers	Animal life the stewards and messengers
SOUNDS	Earthworms influence soil health via their feeding and burrowing activities, and a high abundance can improve soil structure. Rasping sounds and rhythmic scrunching as they move through the soil, shifting its layers	An underground web of fungal that links the roots of two or more plants, enabling them to exchange resources and information. Rustling sounds as they push past soil grains, and a steady frequency of the fungi	Soil arthropods are involved in many soil processes such as organic matter decomposition, nutrient cycles, etc. Short clicks, crackles, and pops as they navigate through the soil and feed	Animals such as birds, badgers, squirrels, etc the walk, burrow and feed on the soil. Their presence indicates the level of biodiversity. Rustling of leaves, animals thumping and pounding, along with caterpillars chewing
SAMPLES				

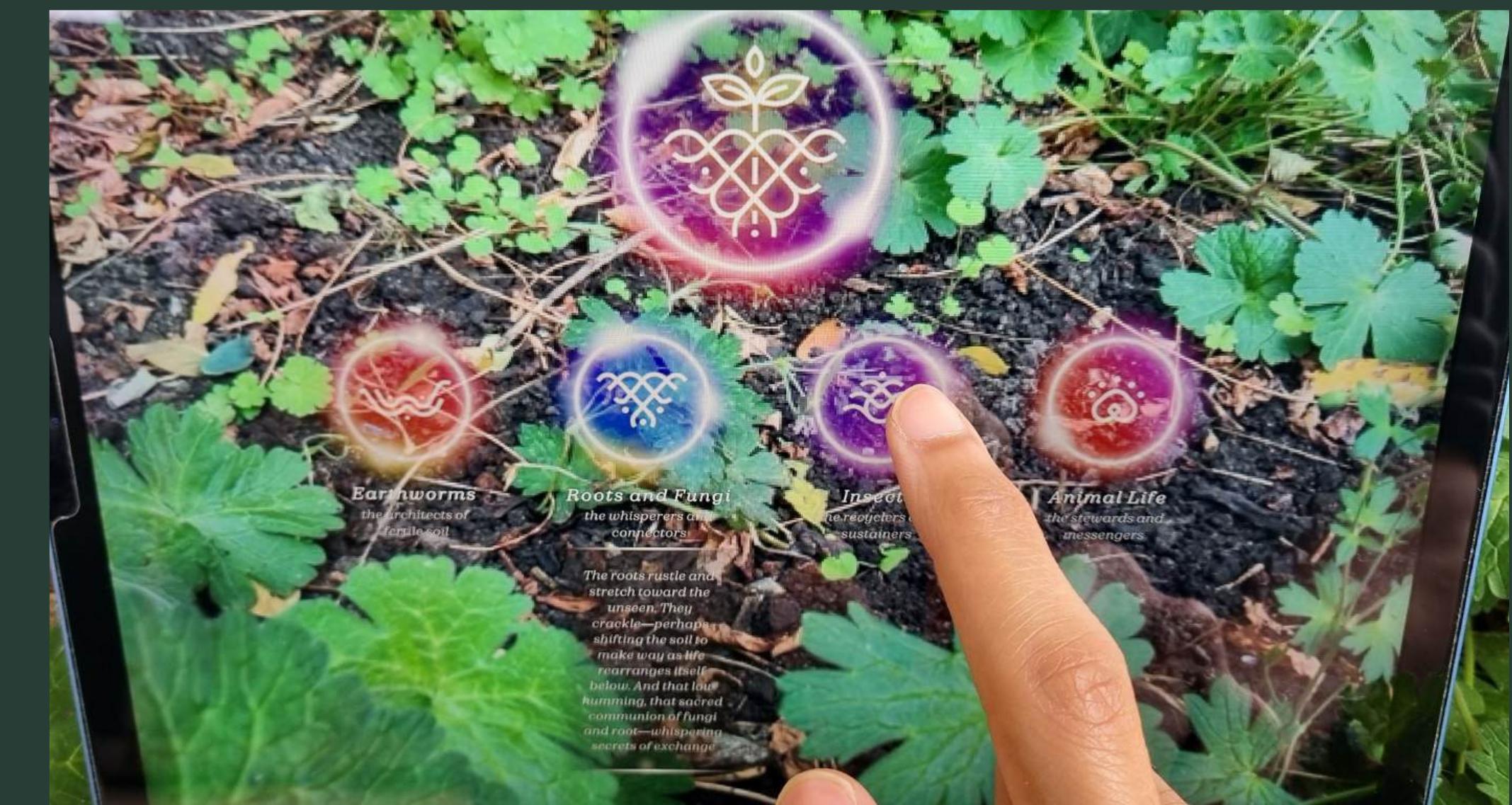
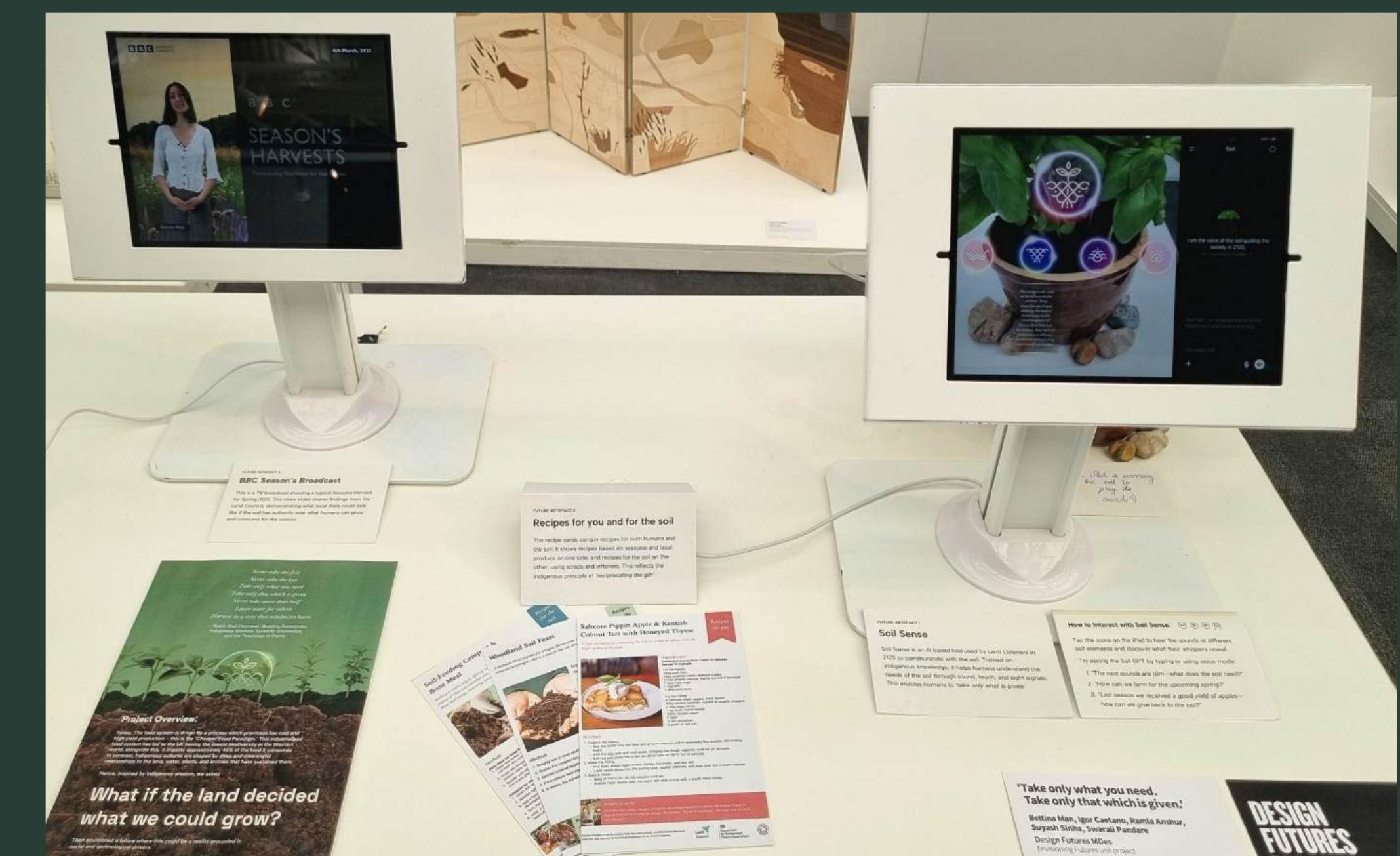
SoilSense Interactive Prototype

To prototype the interactive interface, I used Unity Engine, which allowed us to transform our visual design into a working iPad app.

Alongside this, an AI agent acts as the soil's representative, trained on research-based scenarios and guided by signals such as sound, touch, and sight. It does not translate the soil's voice directly but guides humans to listen to different elements of the soil, interpreting seasonal shifts and recent land activities to articulate the soil's needs.

Watch a video of SoilSense prototype: <https://drive.google.com/file/d/10L4f4r-i0lo0YFzUdtmjpjLAWPNbfgRH/view?usp=sharing>

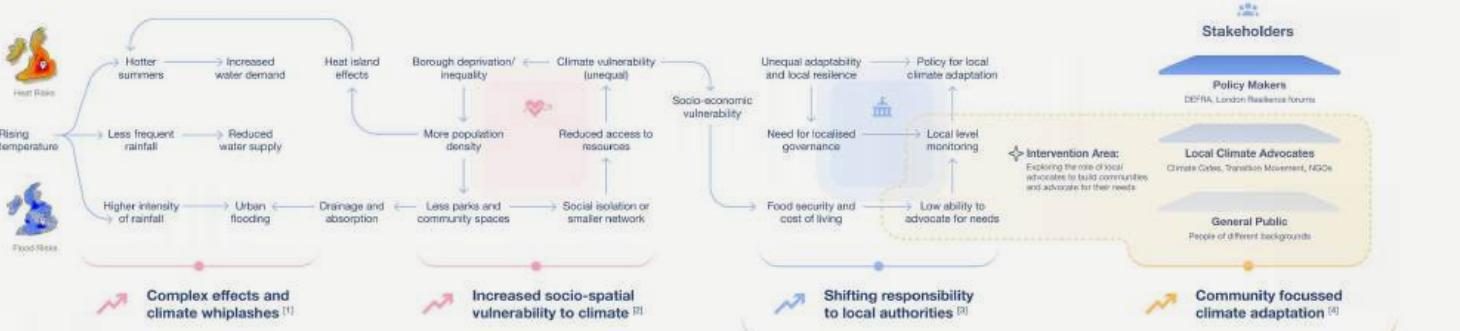




Adapting together

Exploring community focussed climate adaptation in London by 2050, with a focus on public engagement to understand and advocate for local needs.

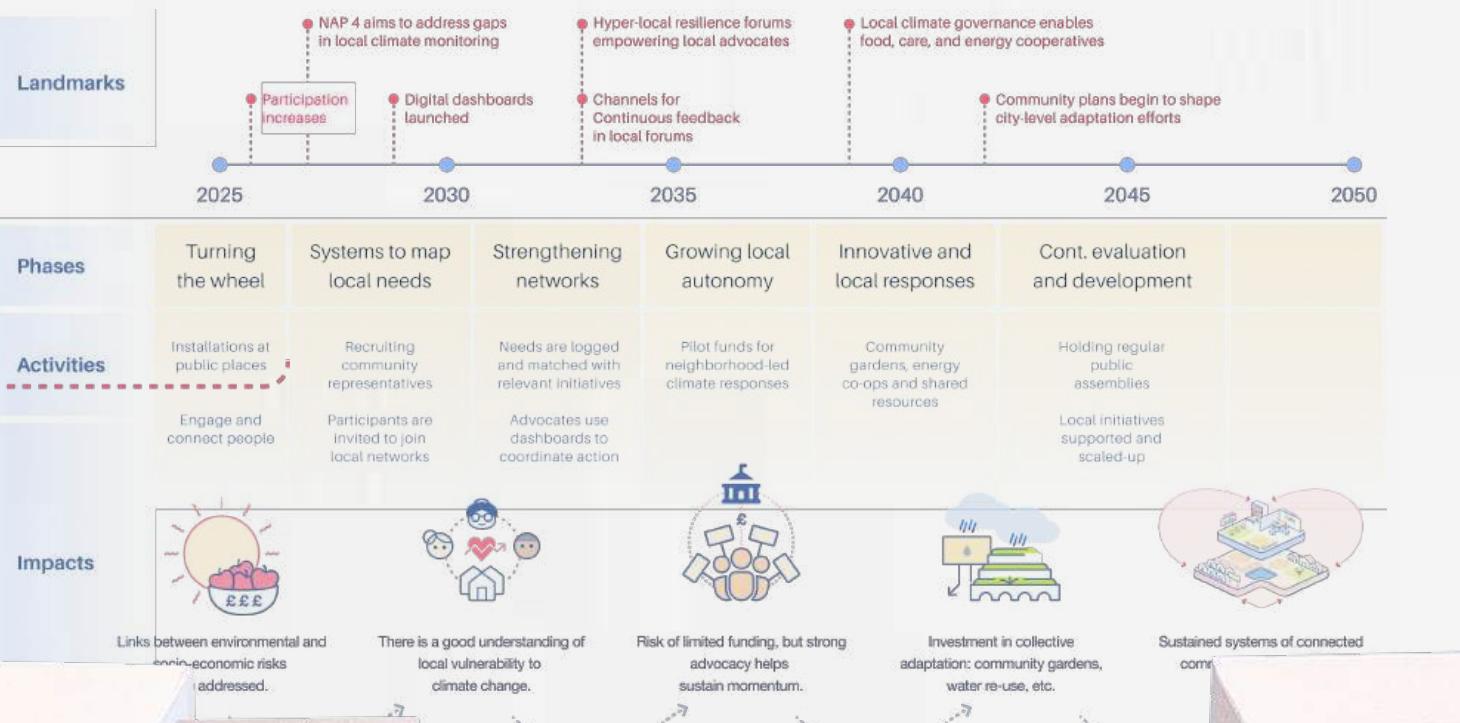
The Trends of Today



Research Methodology



Futures Roadmap



2 The Future of Community-led Climate Adaptation in London

by 2050, with a focus on public engagement to understand and advocate for local needs, ensuring no one is left behind.

👤 Independent Research Project (at the RCA)

🏛️ Collaboration with Castlehaven Community Association

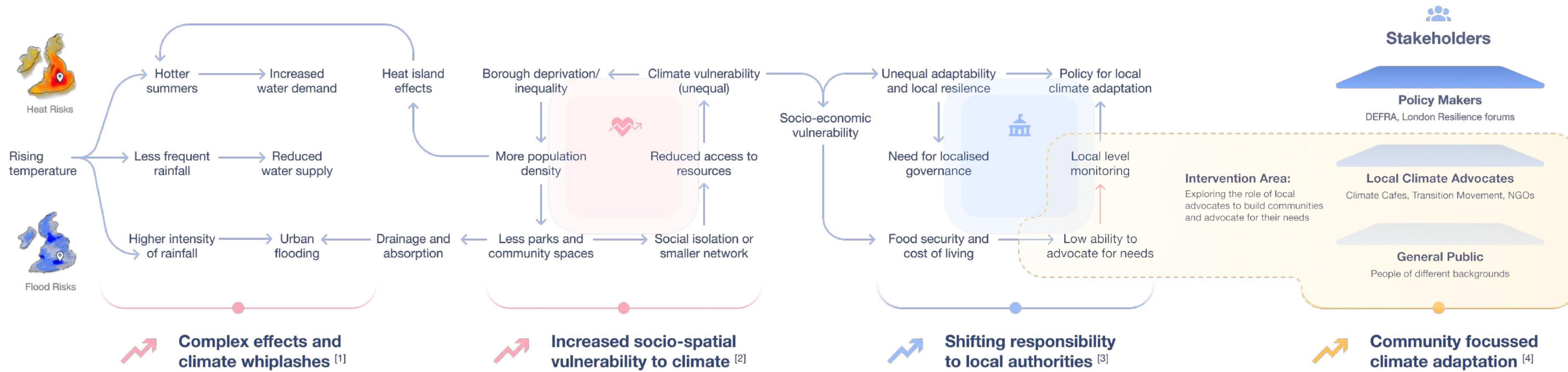
⌚ 4 Months (April to July, 2025)



Outcomes:

1. *Scenario building + Roadmap* based on trend analysis, participatory workshops, and expert interviews.

2. *Intervention toolkit* for local climate advocates and NGOs to engage the public and build communities.



Initial Insights

The systems map above is a simplified visual representation of the relationship between climate, social and governance trends to draw initial insights that shaped the project. Focussing on the need for grassroots movements to understand local needs and advocate for them, the project aims to explore the role of local climate advocates

Unequal Impact and Structural Vulnerabilities

Climate impacts are shaped by socio-spatial inequalities related to housing, access to green spaces, and the strength of community networks.

Unclear understanding of what adaptation looks like

A clear vision for what being well-adapted means is lacking^[5]. While there is a focus on disaster mitigation, complex effects of climate change in everyday lives are overlooked.

Importance of hyperlocal and collective action

Without locally tailored planning and community support, there is a risk that those without proper access to resources and networks will be left behind if left alone.

[1] Met Office. UK Climate Projections: Headline Findings. Aug. 2022.

[2] "ClimateJust." Climatejust.org.uk, 2024, www.climatejust.org.uk/map.html.

[3] Local Government Association, 2022 URL <https://www.local.gov.uk/topics/community-safety/civil-emergency-planning/uk-government-resilience-framework>

[4] What would it take to scale clean heat neighbourhoods? [WWW Document], n.d.. nesta. URL <https://www.nesta.org.uk/blog/what-would-it-take-to-scale-clean-heat-neighbourhoods/>

[5] Independent Assessment of the Third National Adaptation Programme (NAP3), 2024 Climate Change Committee

Collaborating with the Castlehaven Community Association, I facilitated participatory visioning workshops with residents to connect a changing climate with their future visions around personal and social life, to help people anticipate their future needs.

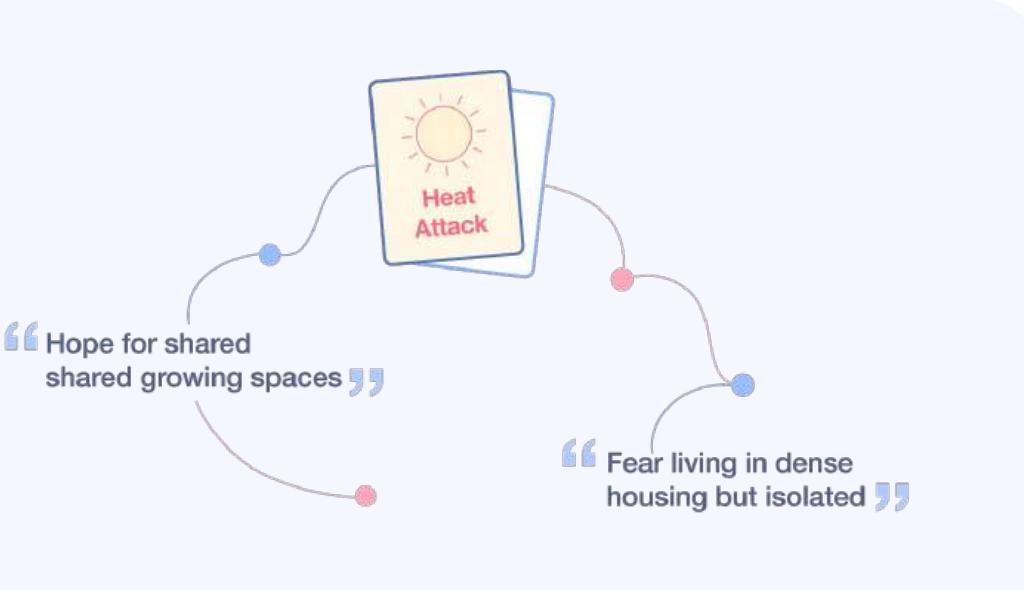
Future visioning workshop

Probing people to envision their lives and surroundings in their neighbourhood in 2050.



Hopes, fears, and the climate

Mapping people's hopes and fears about their future in relation to climate change.



Scenario Planning with Emerging Trends

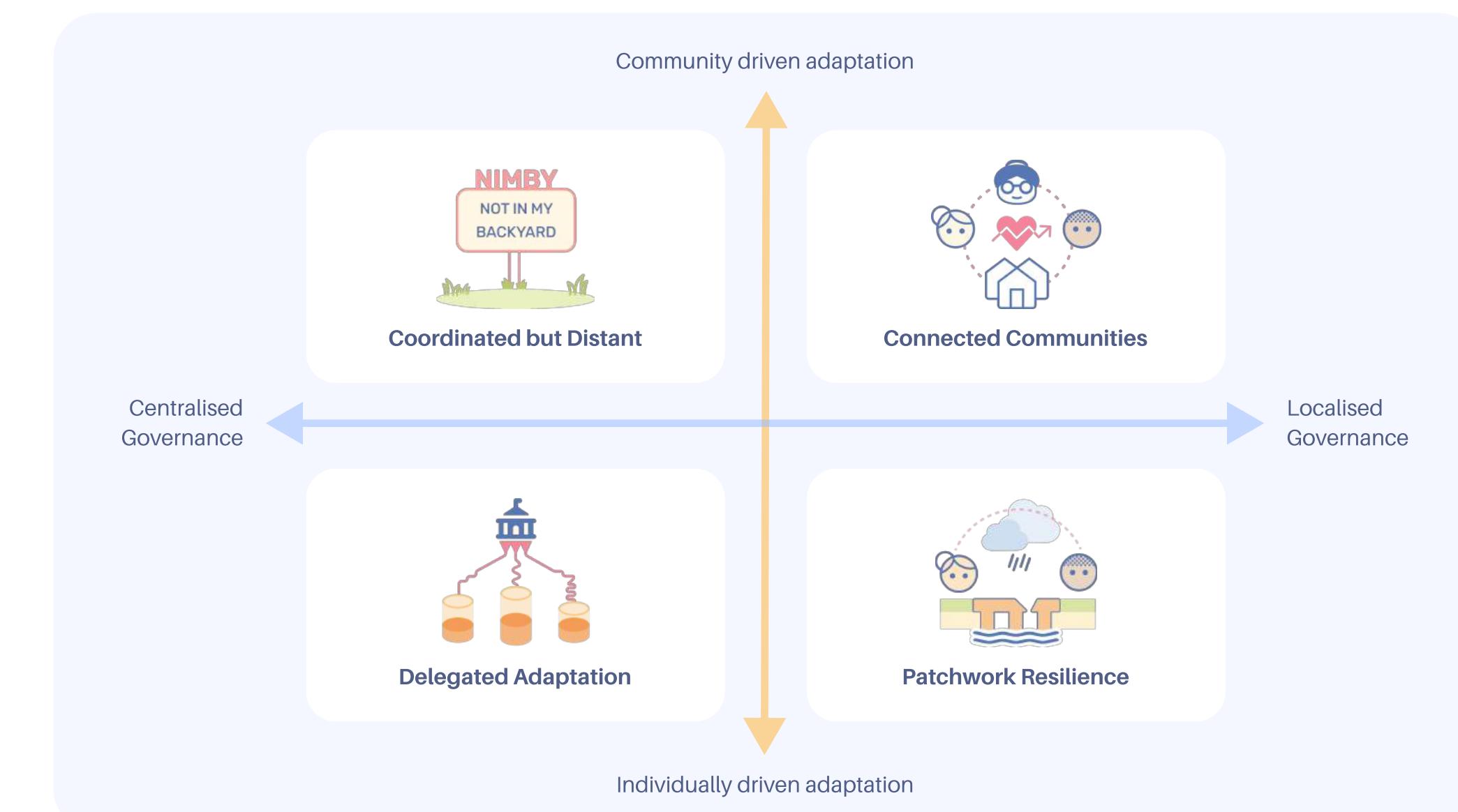
Relating the trends from literature review and expert interviews to people's existing hopes, fears and visions around climate change, I frame the drivers for scenario building as:

Centralised Governance:
Tasks delegated from the top,
difficult to hear the needs of all

Community driven adaptation:
More connected communities with
shared knowledge and resources

Localised Governance:
Support to local communities
and climate advocates

Individually driven adaptation:
Each one left on their own
to figure out how to adapt



**Mary (74)**

Camden Town, 2050

“Twenty years ago, I was just worried about the heat and rising bills. But bit by bit, we started looking out for each other, and now I help run the food co-op with my neighbours.

I met Nick from BeeUrban at a climate café years back. Our community garden was dry as dust, and the bees were gone. He showed us how to plant heat-tolerant natives, mulch properly, save greywater, even build bee hotels.

Clive brought his architect tools and gave up some of his yard for the greenhouse. And Farah, our local rep, fought to get our housing retrofitted so we could reuse water. Without that, we'd have lost the whole garden.”



Links between environmental and socio-economic risks are addressed.



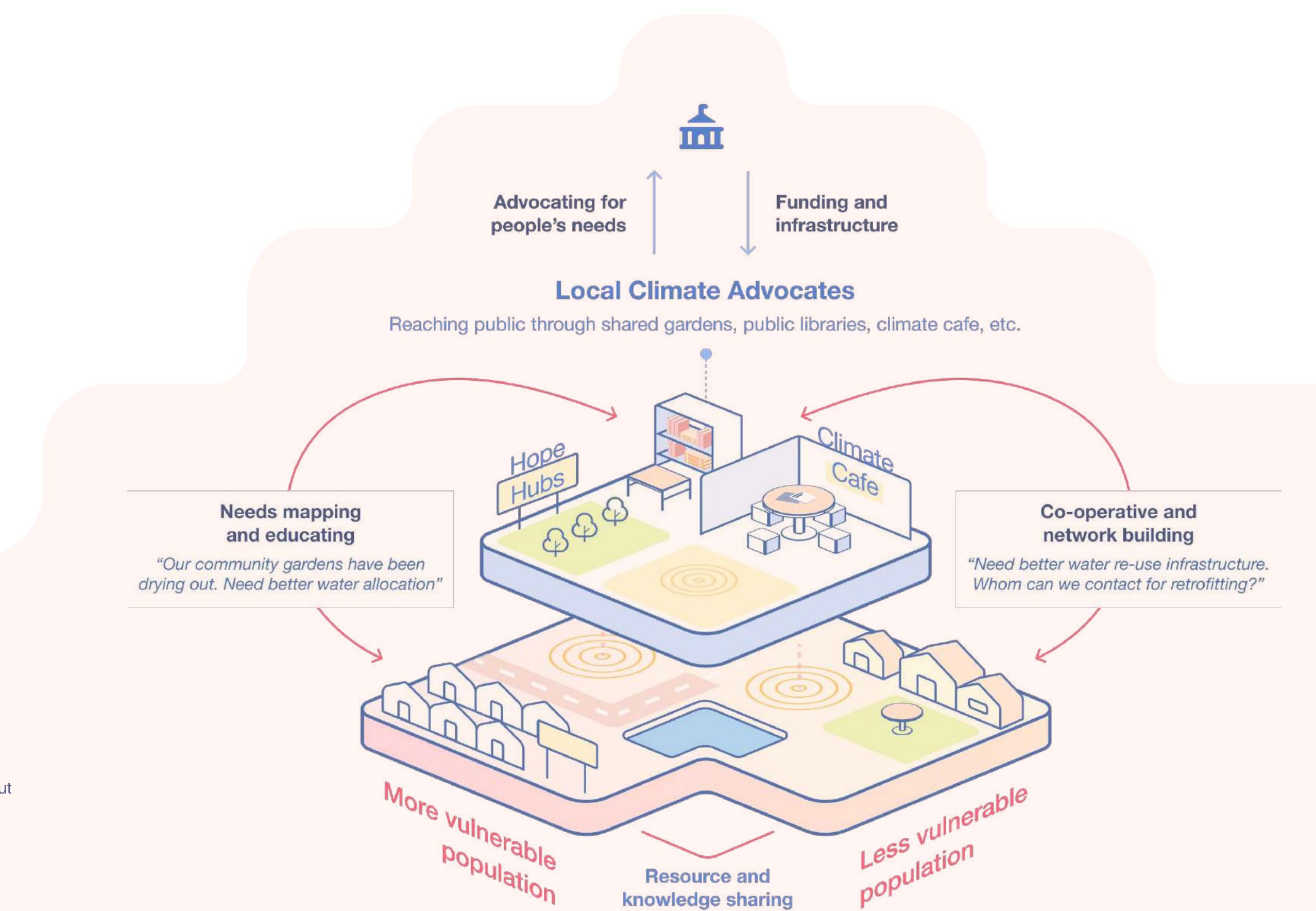
There is a good understanding of local vulnerability to climate change.



Investment in collective adaptation: community gardens, water re-use, etc.



Risk of limited funding, but strong advocacy helps sustain momentum.



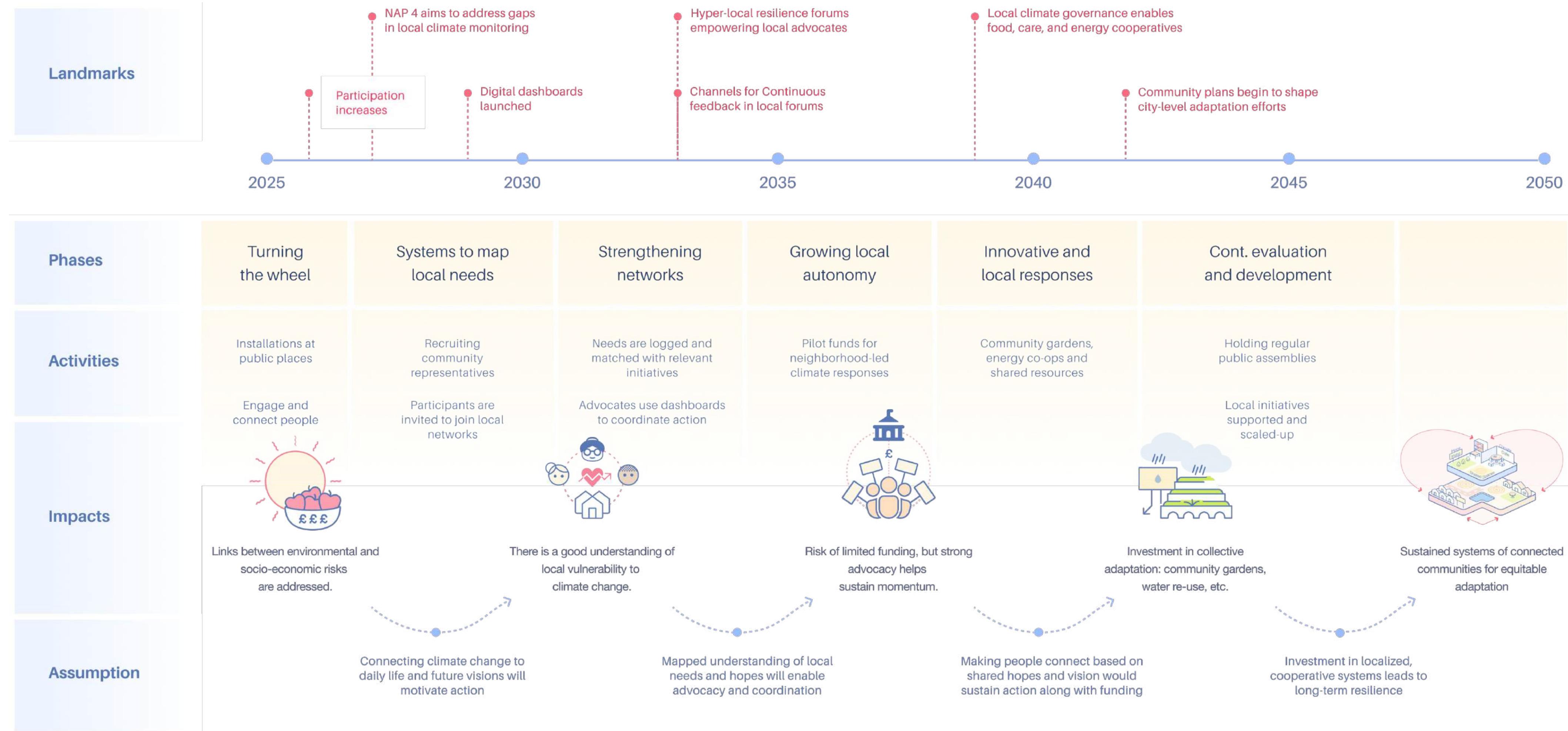
Connected Communities

In this 2050 scenario, communities not only have a place-based understanding of climate vulnerabilities but can aptly respond through shared infrastructure around food, energy, and care. Community spaces, local advocates, and councils collaborate to enable this.

The social scaffolding that supports 'Connected Communities' could be provided around the local climate advocates (Our primary stakeholders) in the form of NGOs, community organisations, repair shops and climate cafes.

BACK-CASTING AND ROADMAP

2. The Future of Community-led Climate Adaptation in London



Turning the Wheel around Climate

I propose setting up low-cost installations at events like community gardening, job fairs, and public libraries. Participants can choose a vision for the future and, by turning some wheels, reflect on how it may be impacted by climate issues (img 1).

They can map these measures to suitable adaptation measures (img 2). This serves as a starting point for education and advocacy. I also recommend a framework for engaging people in long-term action based on their awareness and vulnerability (img 3).



img 1. Turn the wheels to reflect on the impact of climate change on your future



img 2. Map the impact with a suitable adaptation measure you hope for

"Did you know, in July 2022, Camden, faced temperatures exceeding 40°C. The heatwave led to a surge in 999 calls."

- Facilitator

"That does seem concerning... I wonder what we can do when our health systems are already quite saturated"

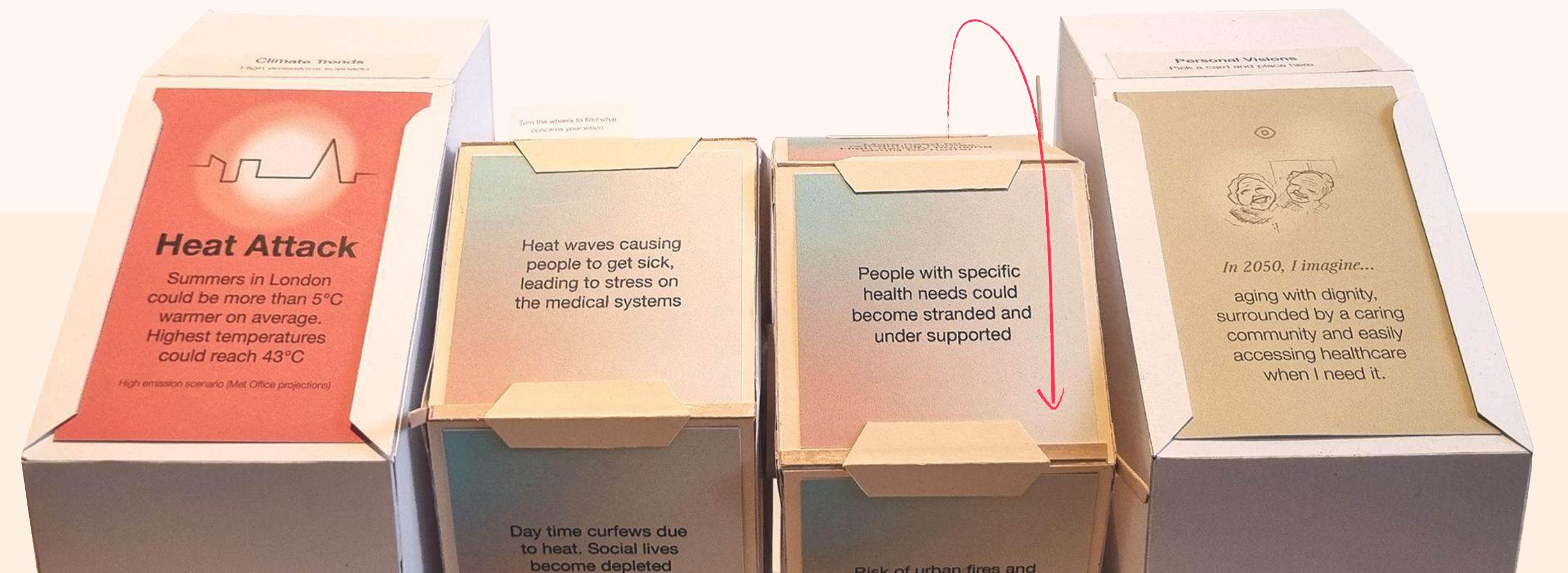
- Participant

"Where we can start is looking out for each other and providing community-based health support"

- Facilitator

"I'd love to hear more about that. Let me explore more of the risks..."

- Participant





img 3. Framework for local climate advocates

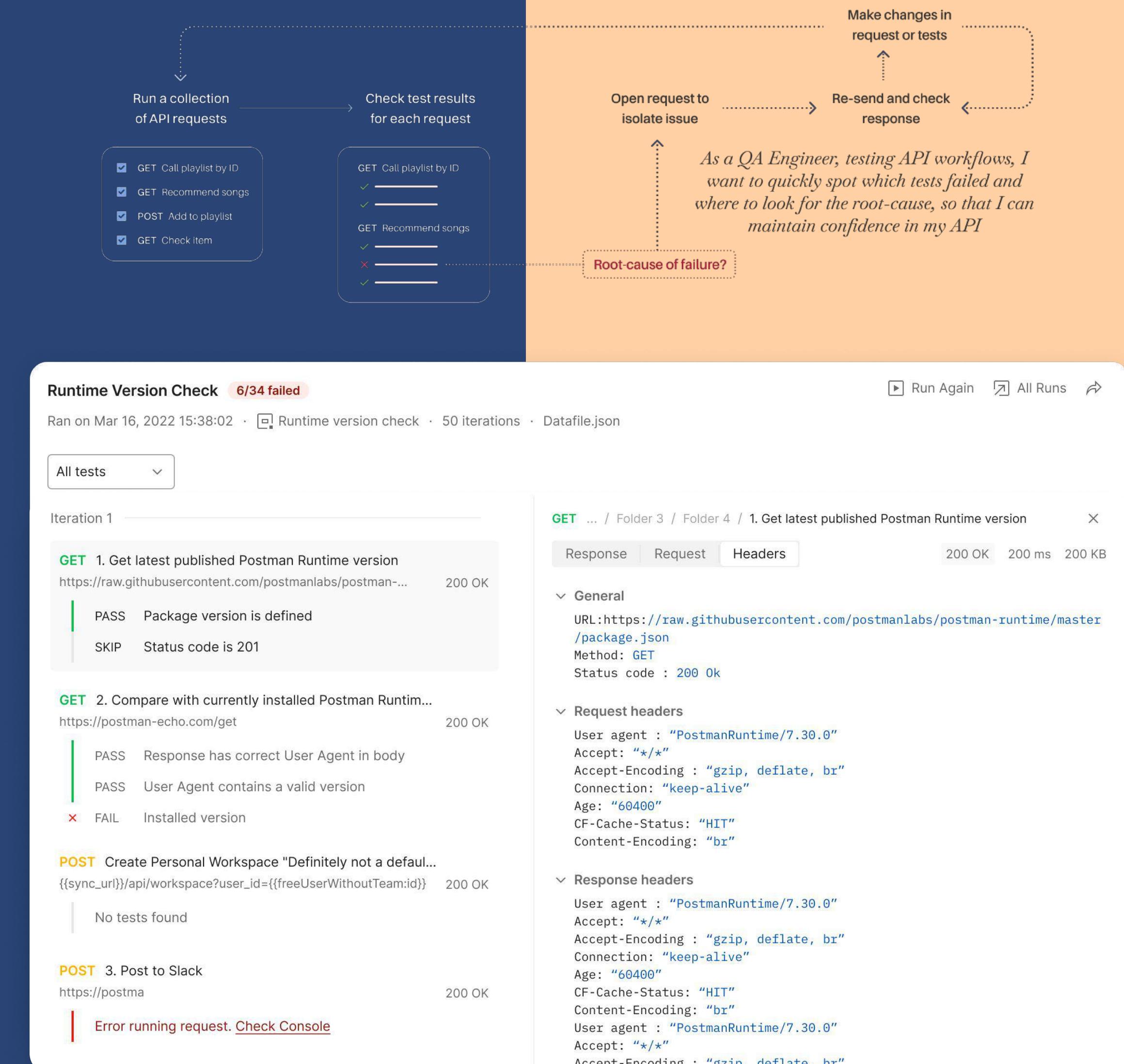
3 Improved UX for API test Debugging in Postman

Reduced time-to-debug for API tests by optimising information architecture (IA) for discoverability.

- Design lead on the initiative
- Postman (API Platform used by 30 million+ developers)
- 2 months end-to-end from research to deployment (2023)

Contribution:

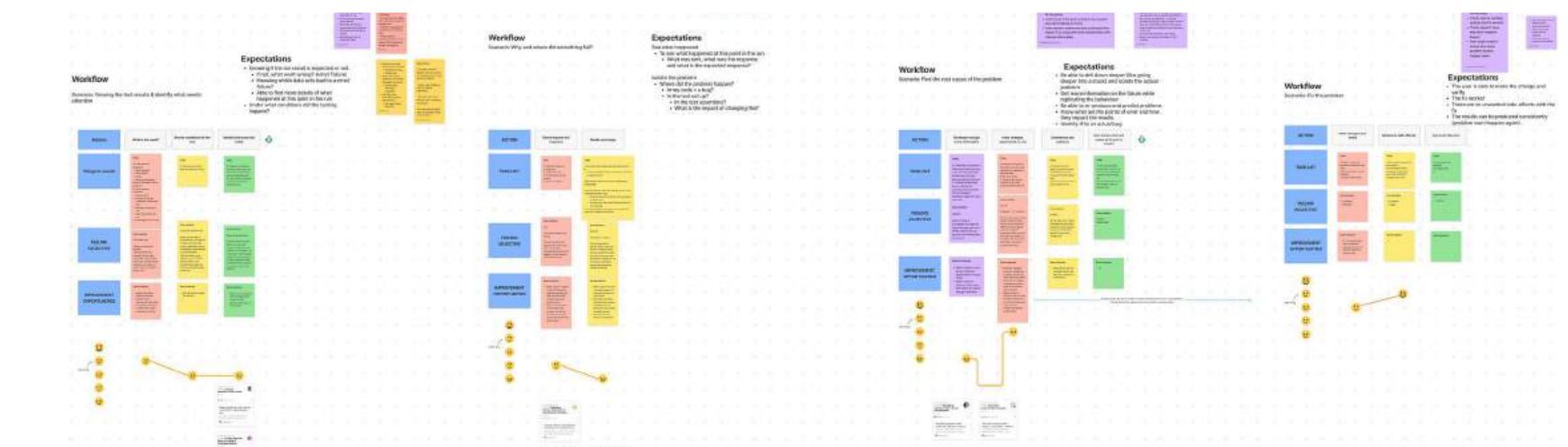
- Used *affinity map* to find patterns in user complaints and *user journey map* to align the team.
- Optimised the debugging workflow through improved visual and *interaction design*.



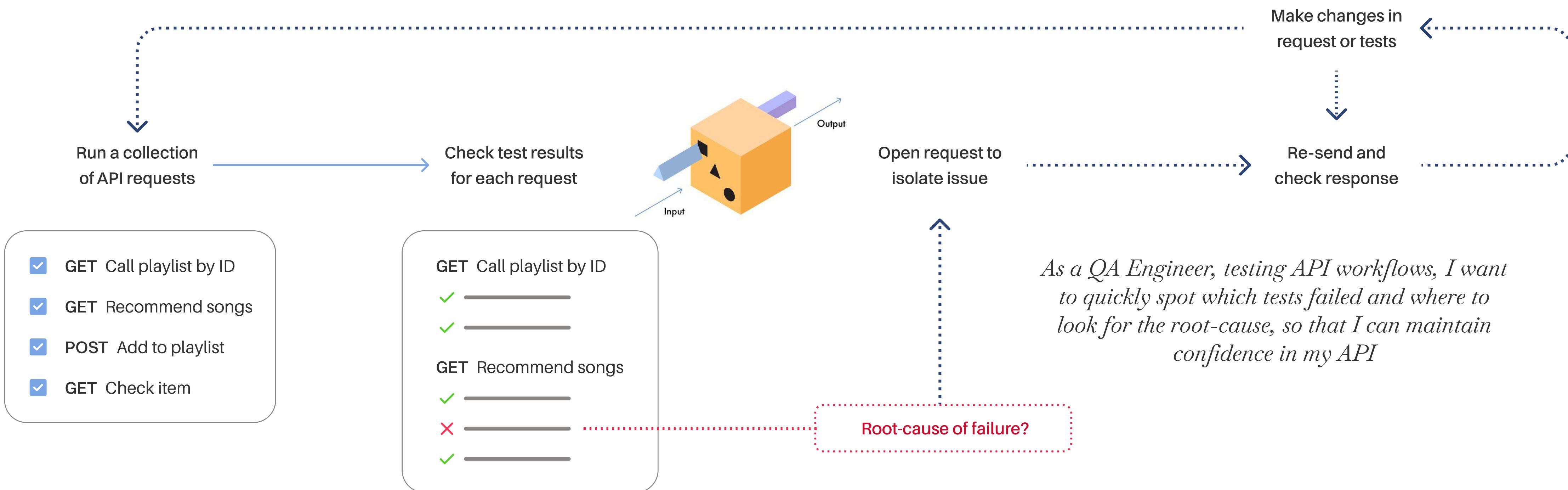
Postman is a tool used by software developers to develop, test and deploy APIs. API (application programming interface) is what helps a piece of software to communicate with another. For the interface to function reliably, certain inputs should give expected outputs. Validating this output or response from the server, after an API requests, against a set of expectations, is called API (functional) testing.

When investigating user complaints for API testing, I...

- analysed 30+ support tickets using affinity mapping
- conducted semi-structured interviews to understand user workflows.
- co-created user journey maps with product managers and engineers to align the team.



img 1. Journey mapping session with the team to align on user goals and product opportunities



While our product already allowed users to run tests and view a result of what passed and what failed, it did not provide a fitting experience to start the debugging flow. What we realised, will help users here, was knowing-

1. What exactly was sent with the API request?
2. What was the response received from the server?
3. What was sent or received before and after the point of failure?

After sketching out different layout and interactions that would make way for a logical debugging flow, I decided on the two-panel selector approach, enabling users to maintain an overview in one panel whilst drilling into detailed failures in another. This approach was validated through benchmarking research, confirming the pattern existed in users' mental models from similar debugging tools.

Request 1
https://api-url.com

- ✓ Pass Test assertion 1
- ✓ Pass Test assertion 2
- ✗ Fail Test assertion 3

Request 2
https://api-url.com

- ✓ Pass Test assertion 1
- ✓ Pass Test assertion 2
- ✗ Fail Test assertion 3

Request 3
https://api-url.com

- ✓ Pass Test assertion 1
- ✓ Pass Test assertion 2
- ✗ Fail Test assertion 3

Request 4
https://api-url.com

- ✓ Pass Test assertion 1
- ✓ Pass Test assertion 2
- ✗ Fail Test assertion 3

Request 1
https://api-url.com 200 OK

- ✓ Pass Test assertion 1
- ✓ Pass Test assertion 2
- ✗ Fail Test assertion 3

Request 2
https://api-url.com

- ✓ Pass Test assertion 1
- ✓ Pass Test assertion 2
- ✗ Fail Test assertion 3

Request 3
https://api-url.com

- ✓ Pass Test assertion 1
- ✓ Pass Test assertion 2
- ✗ Fail Test assertion 3

Request 4
https://api-url.com

- ✓ Pass Test assertion 1
- ✓ Pass Test assertion 2
- ✗ Fail Test assertion 3

Status code 200 OK

> Assertion
 Expected: Response at JSON object 'A' to contain "String 1"
 Received: "String 2"

Default view with clickable cards of API tests:

- Help identify errors and failures
- Decide what to focus on and click to open right side pane

2-pane layout to take a peek at what happened during the run, compare request and response to get a sense of where the problem may lie

EXPLORATIONS

3. Improved UX for API test Debugging in Postman ↑

Information Hierarchy:

Did the request get sent with no error?

Did the request have failed tests?

What was the exact request sent?

What URL was the request sent to?

What status code was returned?

The screenshot shows two separate sections of the Postman interface. The top section displays a list of requests with their status codes and test results. The bottom section shows a detailed view of one specific request, highlighting its test results. A blue arrow points from the top section to the bottom section.

Showing the errors and test failures in two separate lines as the first thing that matters is if the request was sent successfully. If there is an error, the tests will not run.

The screenshot shows a single expanded request card in the Postman interface. It displays the request details at the top, followed by a summary of test results (PASS, FAIL) and then the individual test cases. A blue box highlights the test results section.

Showing errors and failures in same line to save space.

Establishing a stronger hierarchy to show where the card starts and highlighting the request above the test results.

OUTCOME

3. Improved UX for API test Debugging in Postman ↑

Old interface

Spotify - Run results

Run on Yesterday, 19:32:12 · View all runs

Source	Environment	Iterations	Duration	All tests	Avg. Resp. Time
Runner	none	1	5s 457ms	8	588 ms

All Tests Passed (6) Failed (1) Skipped (1)

GET get playlist https://api.spotify.com/v1/playlists/{{playlistId}} / Creation flow / get playlist

Pass Explore playlist available

GET Recomm... https://api.spotify.com/v1/recommendations?seed_artists=4NHQUG2htTLFvgf5S2esLK&seed_genres=classical,...

Pass Status code is 200

Pass Body contains string country

Pass uri stored in variable

POST add to playlist https://api.spotify.com/v1/playlists/{{playlistId}}/tracks?urls={{uri}} / Adding flow / add to playlist

Skip Status code is 200

GET Check items https://api.spotify.com/v1/playlists/{{playlistId}}/tracks / Adding flow / Check items

Pass Song exists in playlist

DELETE delete https://api.spotify.com/v1/playlists/{{playlistId}}/tracks / Remove flow / delete

No tests in this request.

New and improved interface

- Visual grouping using better typography and proximity
- Prominent and accessible signifiers for failed tests
- Opt-in 2-pane layout to investigate and debug failed tests

Runtime Version Check 6/34 failed

Ran on Mar 16, 2022 15:38:02 · Runtime version check · 50 iterations · Datafile.json

All tests ▾

Iteration 1

GET 1. Get latest published version https://raw.githubusercontent.com/postmanlabs/postman-runtime/maste... 200 OK

PASS Package version is defined

PASS Status code is 200

GET 2. Compare with currently installed version https://postman-echo.com/get 200 OK

PASS User Agent contains a (most likely) valid version

FAIL Installed version matches the latest published version

PASS Response has correct User Agent in body

SKIP Status code is 201

POST Create Personal Workspace https://postma... No response

No tests found

POST 3. Post to Slack https://postma... No response

Response Request Headers 200 OK 200 ms 200 KB

General

URL: https://raw.githubusercontent.com/postmanlabs/postman-runtime/maste...
Method: GET
Status code : 200 OK

Request headers

User agent : "PostmanRuntime/7.30.0"
Accept: */*
Accept-Encoding : "gzip, deflate, br"
Connection: "keep-alive"
Age: "60400"
CF-Cache-Status: "HIT"
Content-Encoding: "br"

Response headers

User agent : "PostmanRuntime/7.30.0"
Accept: */*
Accept-Encoding : "gzip, deflate, br"
Connection: "keep-alive"
Age: "60400"
CF-Cache-Status: "HIT"
Content-Encoding: "br"
User agent : "PostmanRuntime/7.30.0"
Accept: */*

Impact

- Number of intermediate runs it takes to debug: more tests were debugged with less than 5 intermediate runs (~5% change)
- Final number of runs with successful tests: number of successful runs also increased by only 1%.

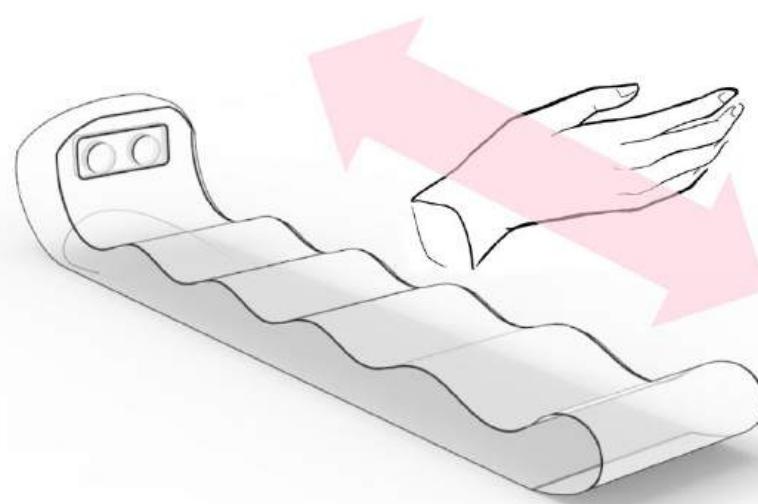
4 V A V E :

Gesture based musical instrument

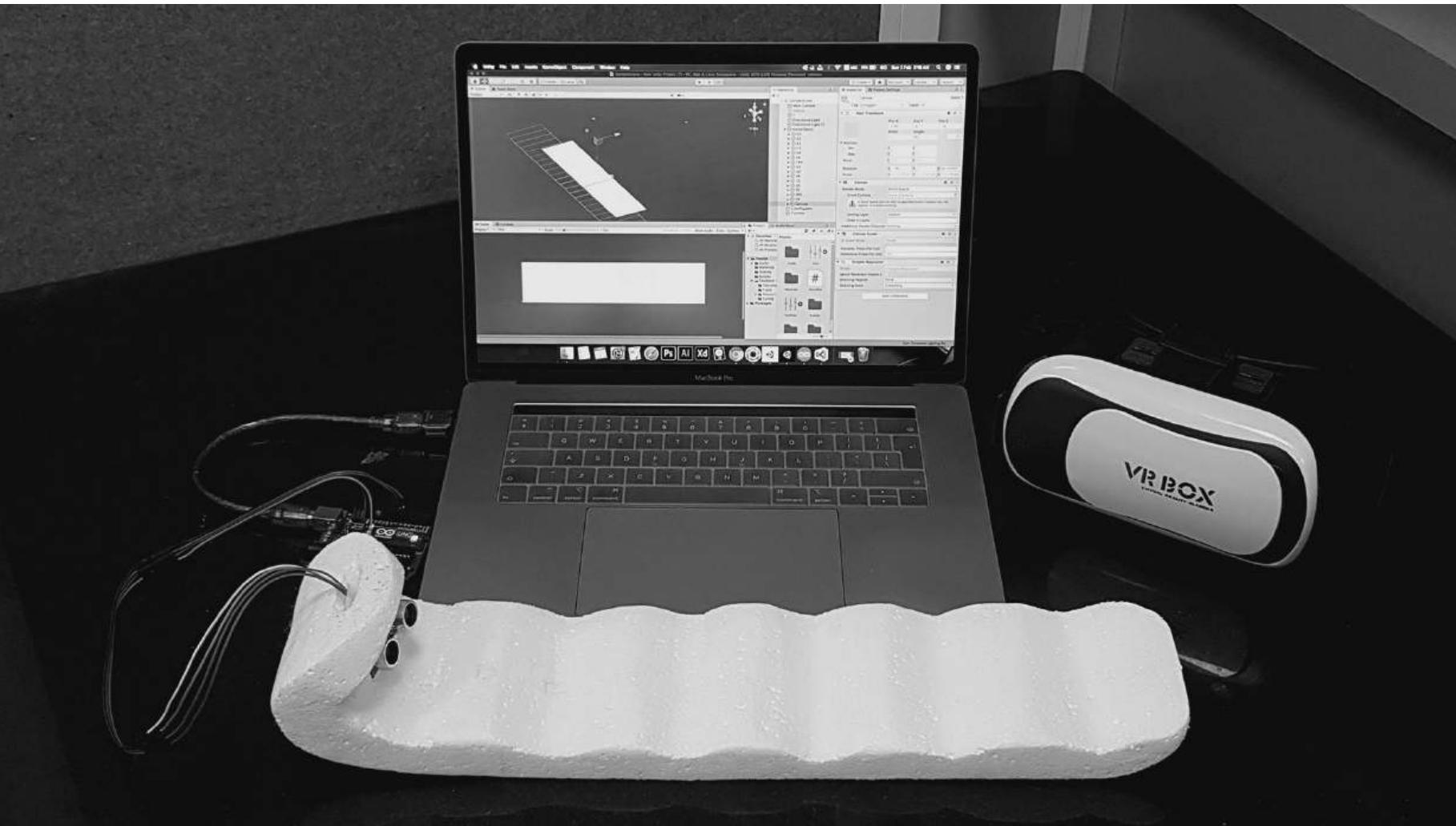
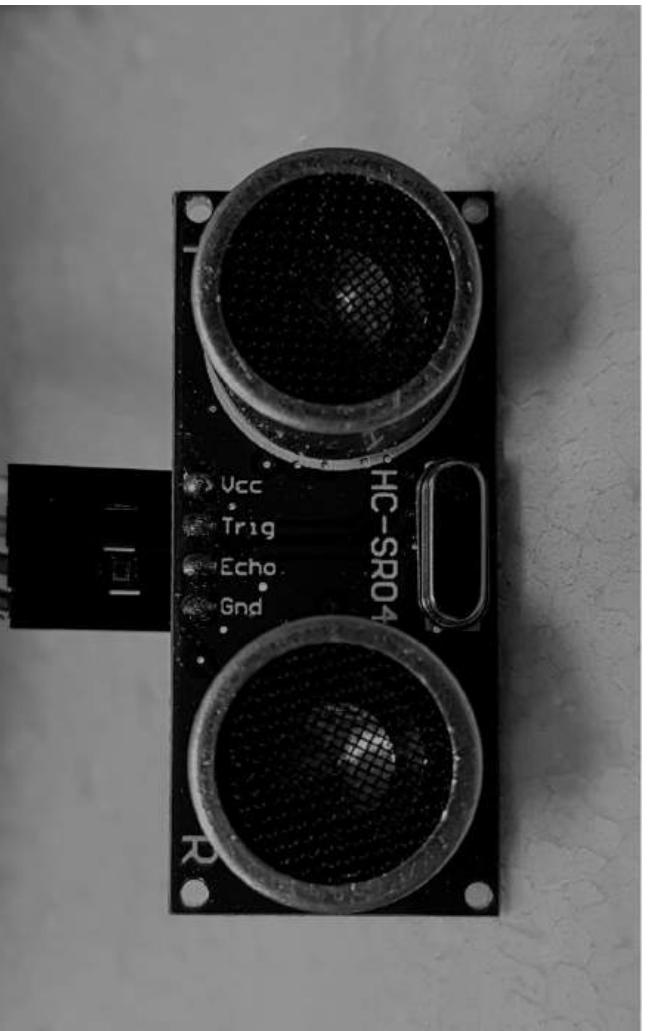
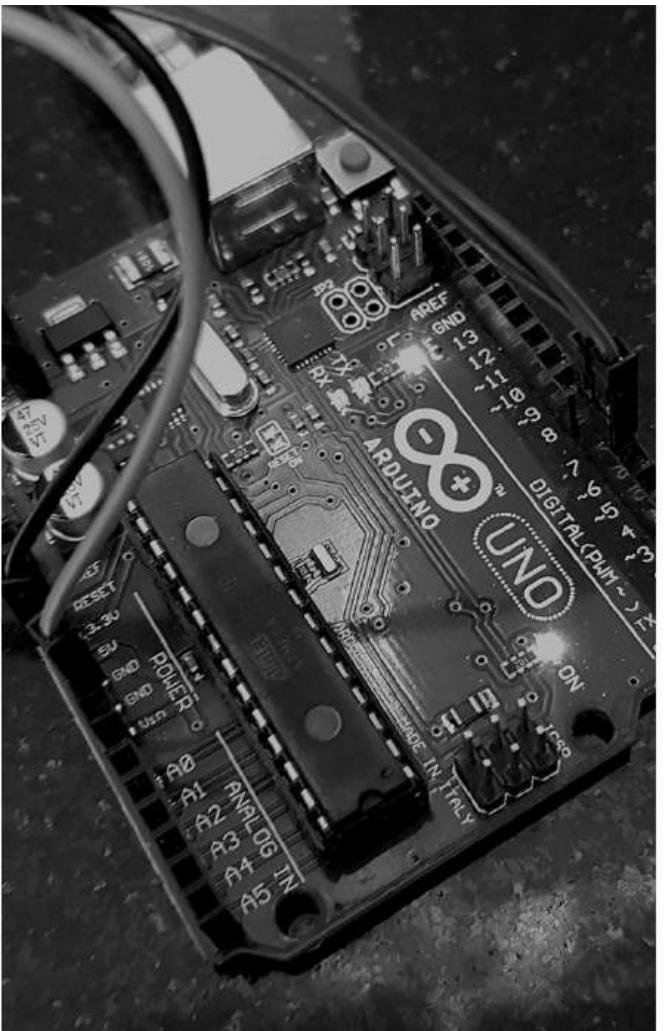
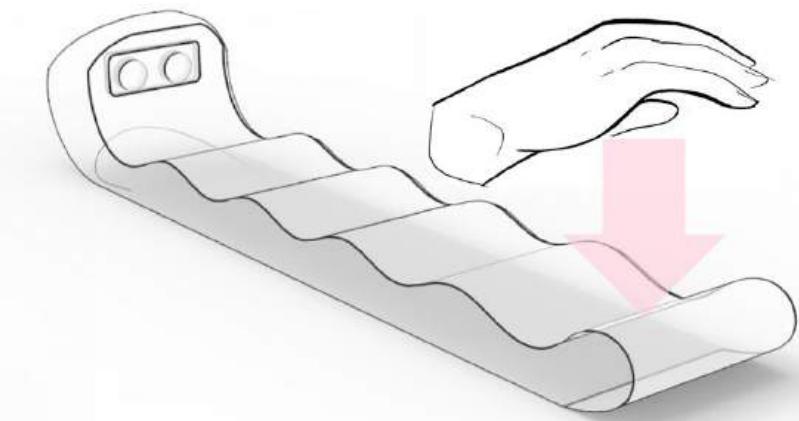
Group of 2 (my contribution: physical prototype + sensors) 3 Weeks (2020)

VAVE is a handy instrument played by waving and making other hand gestures over its physical form. The physical instrument was to have a tangible mode of interaction while the music was played electronically by detecting the position of hand through an ultrasonic sensor and mapping it to musical notes using Arduino, processing and Audio Helm extension in Unity.

PLAYING THE NOTES



VOLUME FADE

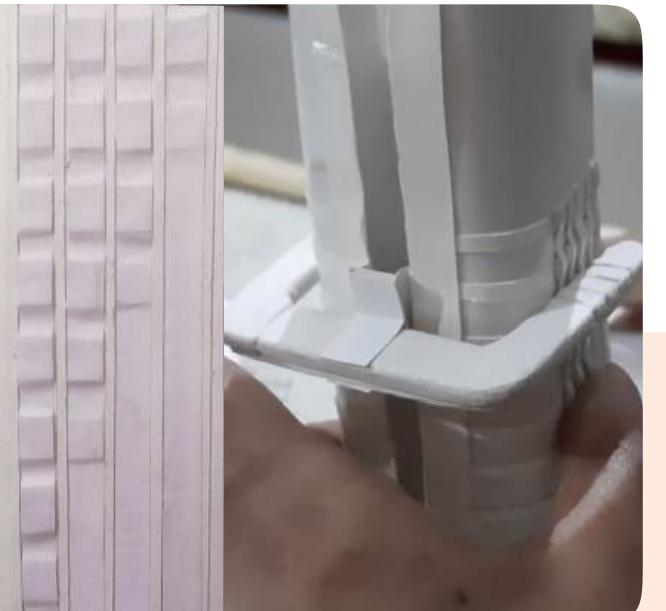


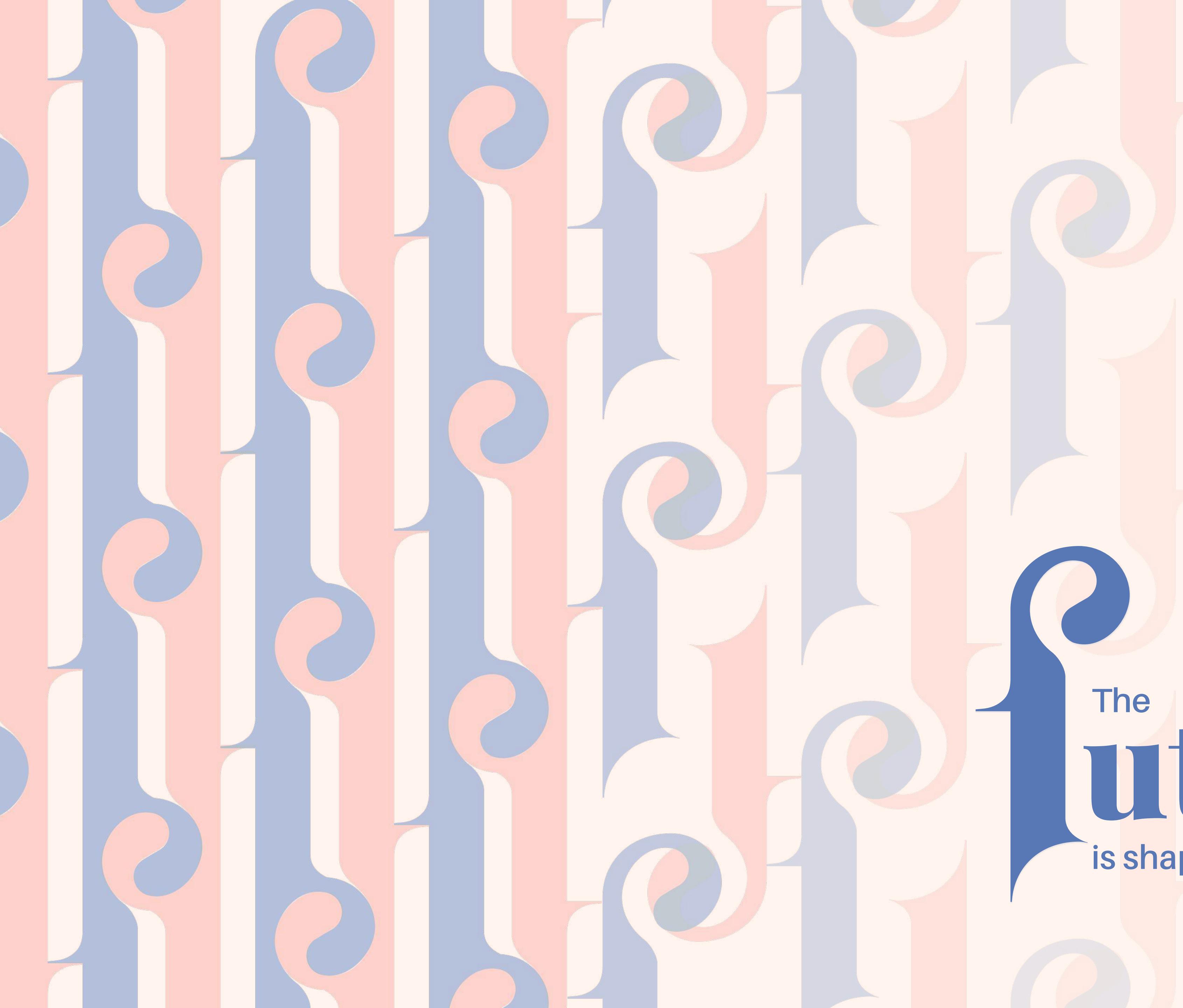
5 Assistive device for visually impaired users to pour safely

👤 Individual work (Primary research, ideation with SWOT, prototyping) ⏰ 4 Weeks (2020)

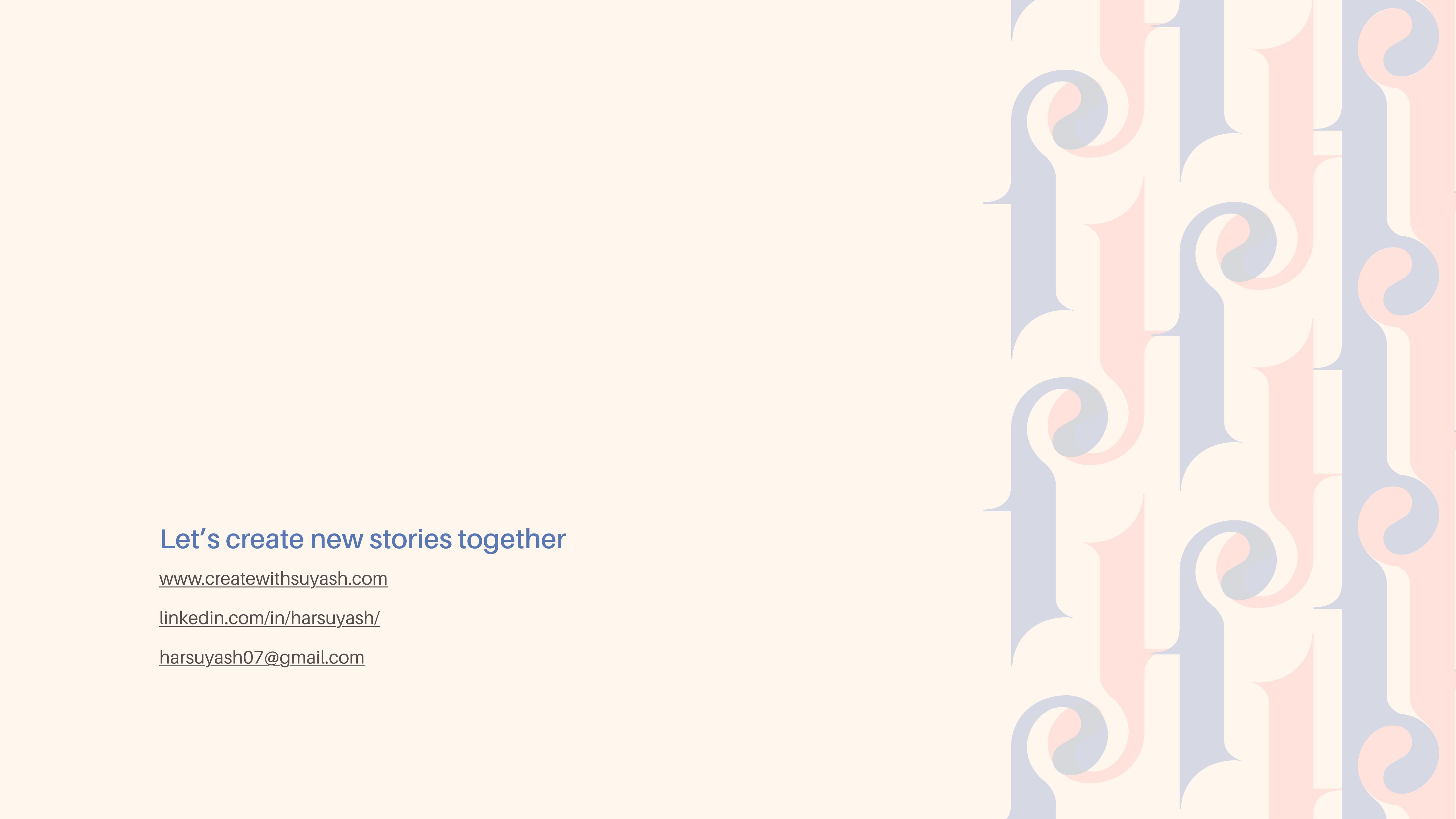
Pouring is an essential skill for everyday independent living. This is often an easy task for the sighted, but people with visual impairment face many issues from aligning vessels, controlling the flow of liquid, getting continuous feedback to knowing when to stop. Present solutions only cater to that last problem but don't offer a dignified and intuitive experience.

Hence, I wanted to experiment with tangible interactions to create a complete experience for visually impaired users to pour confidently.





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is shaped by the stories we tell



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