

TOMORROW'S
ENGINEERS

CODE

How to involve young people in shaping design and delivery of your programmes

EngineeringUK

GirlguidingUK

Solutions for the Planet

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EngineeringUK
INSPIRING FUTURES TOGETHER



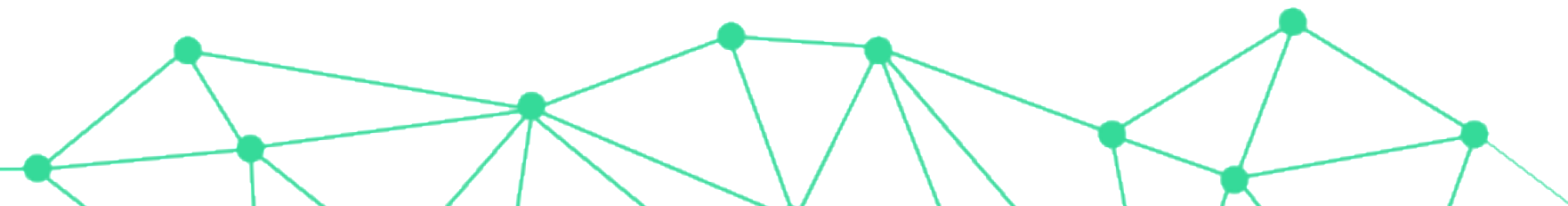
EngineeringUK Youth Insight approach

EngineeringUK's visions – vital our work is informed by young people

EngineeringUK Young Cloud Champions (2022-2024) – group of young people who met online to inform our work

Youth Insight Strategy started 2024

- Strand 1: how do we open up decision making and enable co-creation and co-delivery with young people
- Strand 2: how do we use the power of young people's stories in our communications and advocacy
- Strand 3: how do we support and encourage the E&T sector to include the voices of young people



Youth Insight Strategy progress

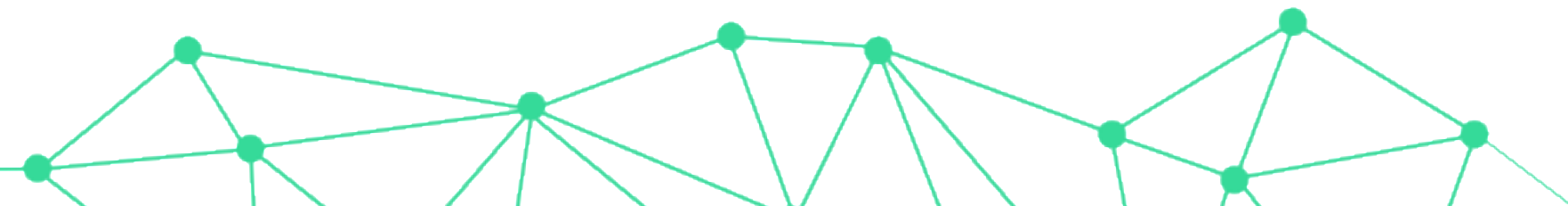
Informed by research on young people's views – e.g. Science Education Tracker.

Internal capacity building – informally we are building understanding of user centred design and our mind set of involving young people throughout the process.

Evaluation of programmes - all programmes are iterated annually based on evaluation including young people's experience of the programme

Work experience (aged 14 -15) – annual programme, in which we also consult young people

Involving the voices of young people in the Engineering and technology sector – today





Youth Insight Strategy progress: how we involve young people throughout the programme development process

Young people involved in:

- Idea or theme and approach for a new programmes
- Testing
- Iteration
- Branding and naming
- Encouraging further action by young people

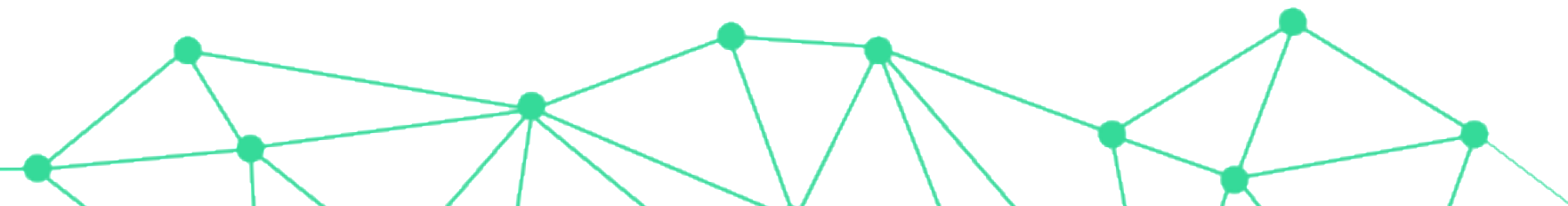
Case Study: Institute of Grocery Distribution – Food Engineering

Aim: to create a hands-on 2 hour workshop that made 11-14 year olds more informed, interested and confident in food engineering careers.

Types of evaluation: Observations, surveys, dotmocracy, learning journeys, interviews.

Phased youth insight

- Discovery: of potential hands-on activities (from competition, teamwork, exploration, experiment sensory etc.), topics and themes with the same group of students over 4 separate workshops.
- Testing: Using insights created a 2-hour workshop and tested with 6 schools and got 275 student surveys and feedback from teachers, volunteers and facilitators.
- Pilot: Final tweaks made to refine the workshop (now 90 minutes) and tested with a further 10 schools and over 1000 students. 360 evaluation undertaken. Same school as involved at Discovery.



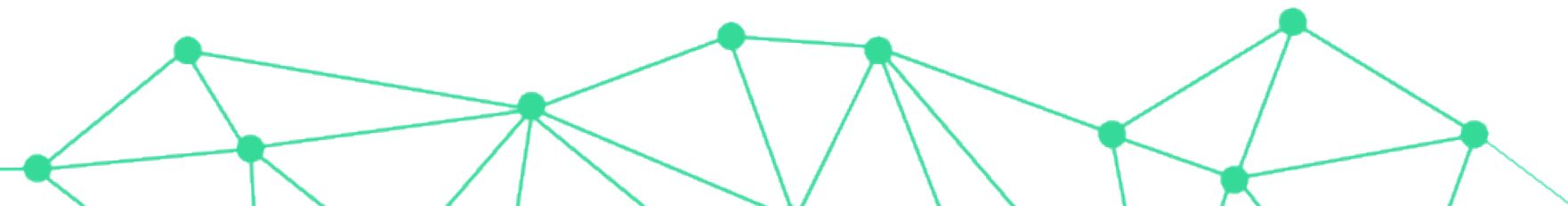
Key Learnings from Youth Insight

Evaluation: consistent questions each time (e.g. informed, interested and confident) but then they varied depending on what we wanted to know.

- Discovery: Which of these topics do you find most interesting, important and fun? What they got from each hands-on activity.
- Testing: Ranking the activities completed from most to least enjoyment
- Pilot: What did the workshop help them in understanding about engineering and in supporting their skills.

Breakdowns: We found interesting findings when comparing findings by gender, the gender of the facilitator and volunteers, length of workshop, year group, number of adults supporting etc.

- We didn't include the activity that boys enjoyed the most, if girls ranked them low.
- We changed the career messaging to focus on impact first, then person.
- We got volunteers to give specific feedback live to build confidence for girls
- Boys liked how the jobs linked to their skills and knowledge, girls liked it how it made the world better.

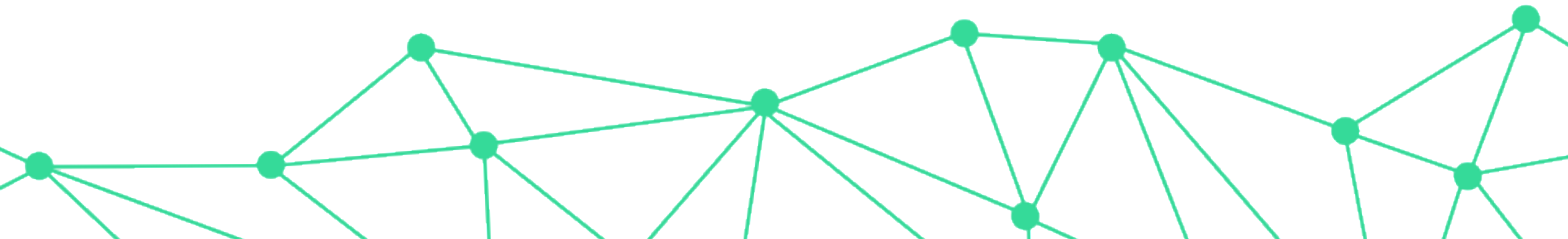


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GIRLGUIDINGUK

Laura Ewell, Service Designer



Designing a volunteer experience fit for the future

Laura Ewell, Service Designer



Jargon busting

Service

All the things that an organisation collectively provides to deliver an outcome for all its users; through any **path a user takes to reach their goal**.

User

A person who uses or operates a product, service, or system.

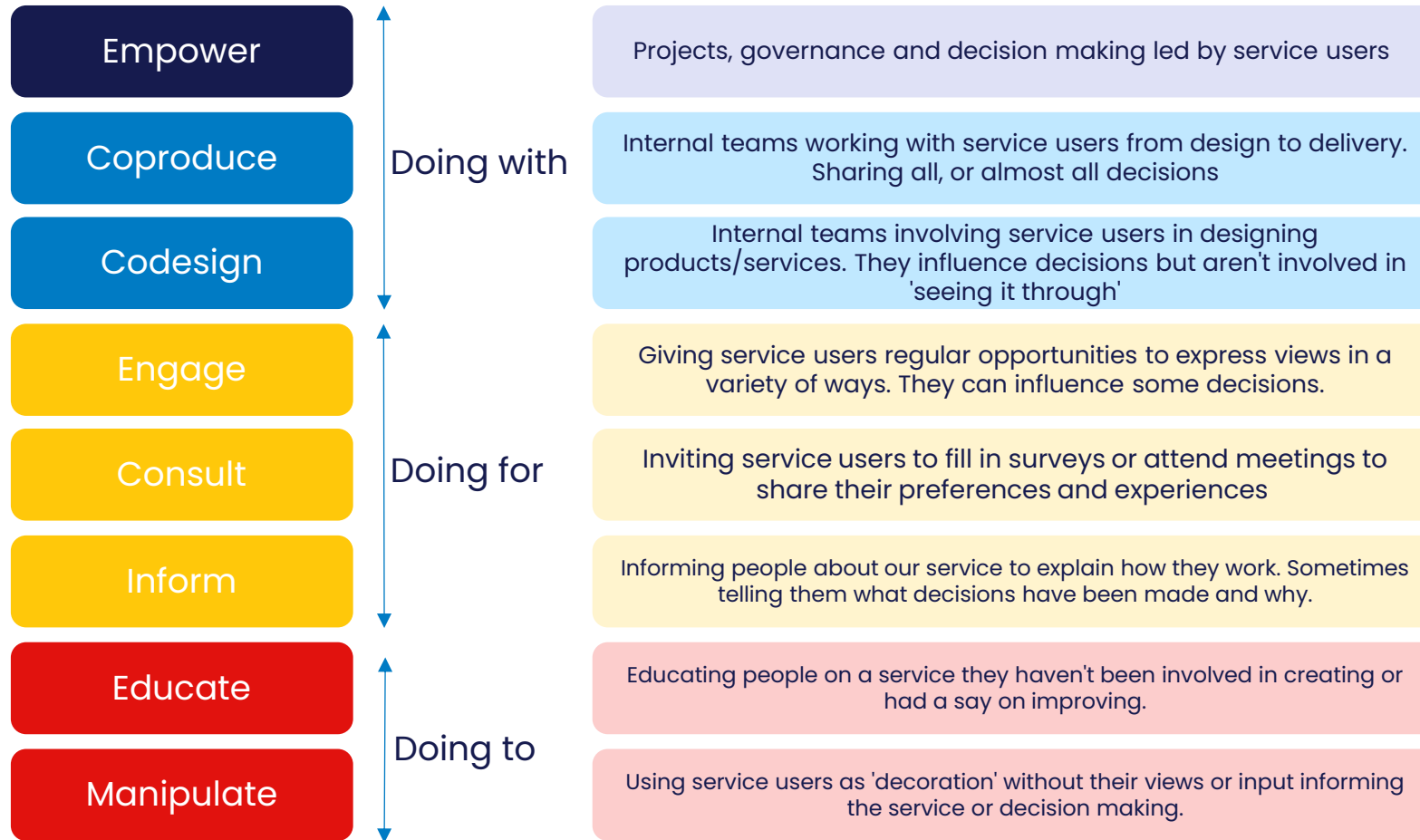
Design thinking

Design thinking is a **human-centered, iterative** approach to problem-solving and innovation that focuses on understanding **user needs** and creating **practical, creative** solutions.

Why meaningful involvement matters

Ensuring meaningful involvement

How we want to involve people in our work



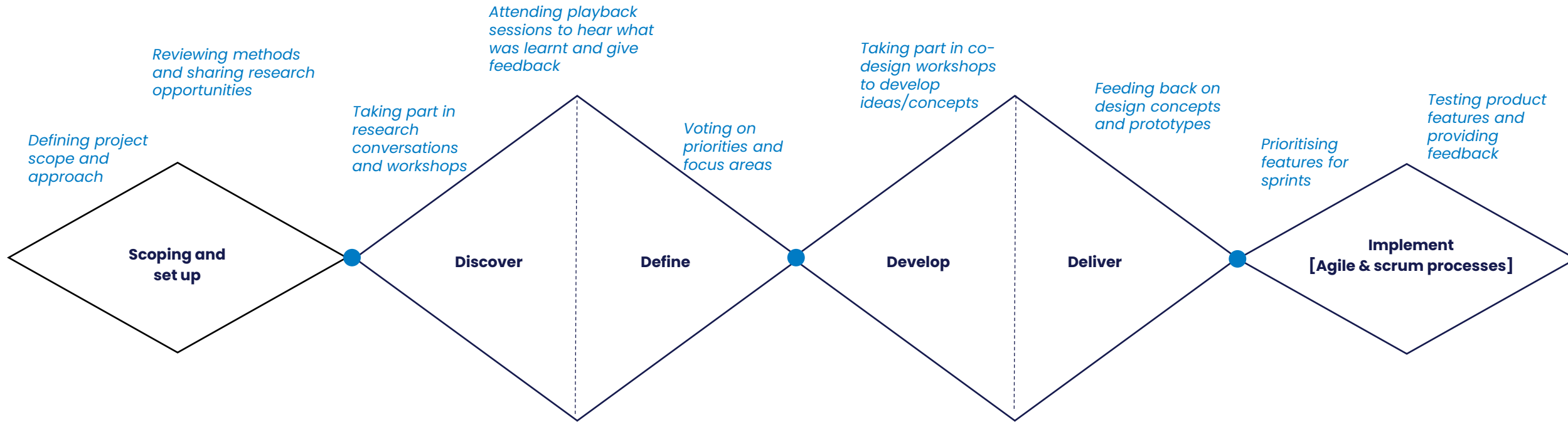
We want to make sure people are meaningfully involved in this work so that our products and services work for them.

We will always avoid 'doing to' people.

Scope of user involvement

When and where can people be involved in our projects

We want to make sure people are **involved throughout our project work**. Below shows an example of how people can be involved across the human centered design approach.



Potential volunteer involvement across a project – exact activities will be project dependent.

Our vision

An equal world where all girls can make a positive difference,
be happy, safe and fulfil their potential

Our strategy Girls can
do anything

Our ambition

By 2030, we'll reach more girls where they are, building their confidence when they need it most, so more girls will know they can do anything

Our long term aim

By 2035, 1 in 10 girls in the UK will be benefitting from a Girlguiding experience

**How we
will
achieve our
ambition**

We'll be known for and be impactful in being girl led, building girls' confidence and wellbeing for greater gender equality

We'll evolve the way girls 11+ experience guiding

We'll create a volunteering experience fit for the future

We'll develop Girlguiding inspired experiences to reach more girls

We'll embrace working in collaboration and partnership with others

**Which we
will do via
our shared
goals**



Unrivalled experiences for girls, led by girls



Rewarding and flexible volunteering



Inclusive, impactful and visible



Sustainable and efficient organisation

**With
priority
outcomes
per pillar**

- We are reaching **more girls at 11+.**
- We have developed **Girlguiding inspired experiences.** (Co-created experiences with schools and youth spaces inspired by Girlguiding.)

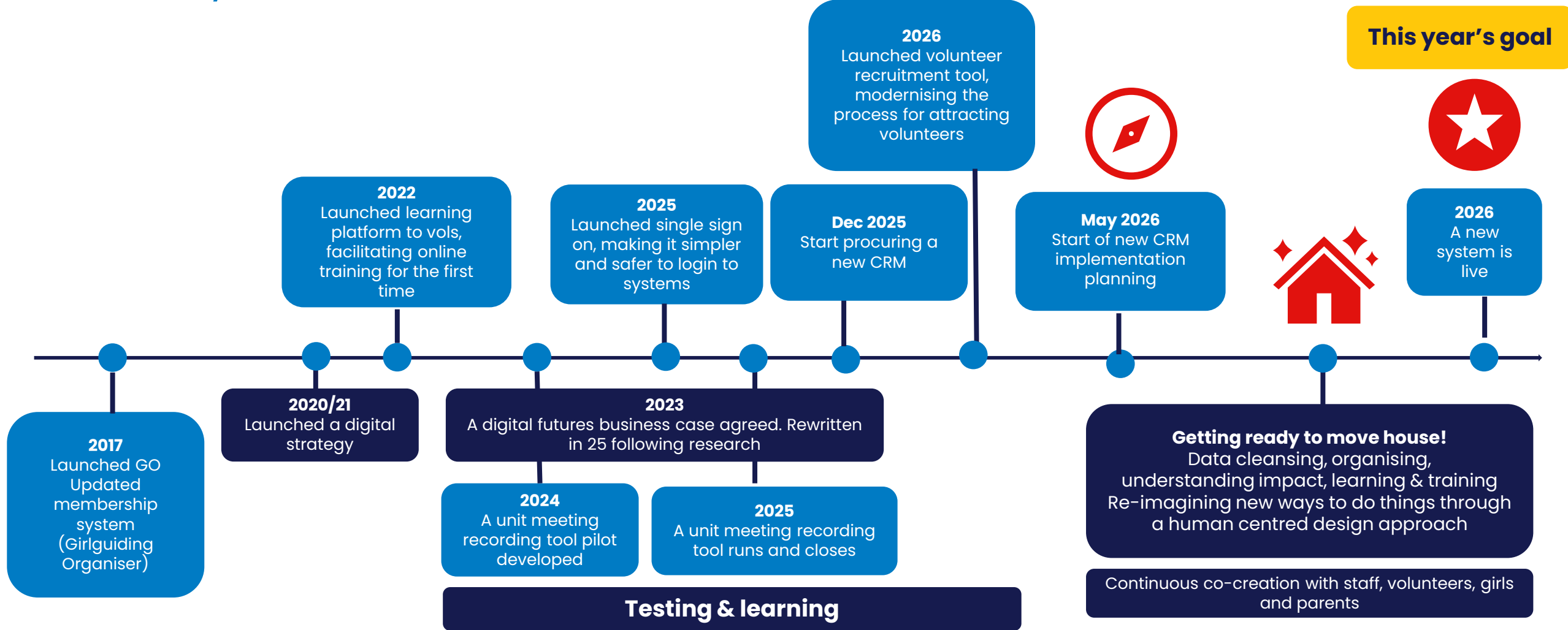
- Girlguiding has **more volunteers**, particularly women aged 18-30.
- It's **easy to become a volunteer.**
- We optimise every volunteer's time through **slicker processes** and tools.

- We **speak out on gender inequality** and tackle specific areas.
- We are **recognised** for building girls' **confidence, well-being** and **being girl-led.**
- Girlguiding is perceived as **relevant and modern.**
- We have **grown our external collaboration and partnership.**

- We have **diversified and grown our income.**
- **Digital, data and technology** enables girls, volunteers, staff and partners to deliver Girlguiding effectively.
- We are ethical and conscious of our **impact on the environment.**

Overhauling and modernising systems and processes

Our story so far



How we got here

The design process so far

Nov – Dec

Aims

To provide a **birds-eye view** of the people, processes, policies, and technologies involved in **running a unit**, including where there is consistency and where there is variance.
To identify **user and business needs** to inform decision-making on prioritisation.

Activity

Review consultancy work (Manifesto + Nomensa)

2 activities with Key User Group

13 colleagues across HQ engaged

Output

Developed 'Practical Hope' prioritisation criteria

Developed 'as is' service blueprints

Defined 5 key opportunity areas

Impact

Building trust with volunteers
Embedding HCD into ways of working, therefore embedding user and organisational needs into new solutions
Building clarity and engagement within GOTG team

Jan – April

To understand **what should be core to running a unit** so that we can reduce complexity and admin burden for volunteers
To **prioritise the improvements needed** to make it easy to run a unit from a service-level view, so that we can develop a roadmap of work.

Activities with 6 teams across HQ

Three workshops with volunteers

Designed a new service model with 'to be' service blueprints

Developed recommended priorities for work

"For the first time in a long time I feel like **someone is really listening.**"
Volunteer

"[The new service model is] **more streamlined** – if we're thinking about running a unit more simply internally, it will hopefully in turn feel more **simple for volunteers.**" *HQ staff member*

The problem we're solving

Volunteers who run units **want to deliver a great experience for girls.**

This goal is frustrated by the fact they spend an excessive amount of their time commitment to Girlguiding **tackling admin.** On the surface, this is because of challenges with our digital tools – primarily GO.

Underpinning this problem is Girlguiding's **complex** and **clunky** processes, digital tools, and organisational design. What volunteers currently experience as services are **not intentionally designed as services** by HQ.

Ultimately, poor experiences with our services **erodes their trust** in us.

Vision for the future experience of running a unit

Running a unit will be an **easy** experience, where volunteers can focus on **helping girls have fun, keeping people safe, and managing the basics of running a unit.**

Everything a volunteer needs to do will be **clear, connected,** and powered by systems that reflect **how volunteers actually work.**

In this future, volunteers know they can **rely on HQ** to build simple, easy, quick solutions and respond well when things go wrong.

Unit management and admin 87 98 | Please submit all scoring recommendations, and save no longer said

Help girls to know they can do anything, boost their self esteem and have fun adventures with badges

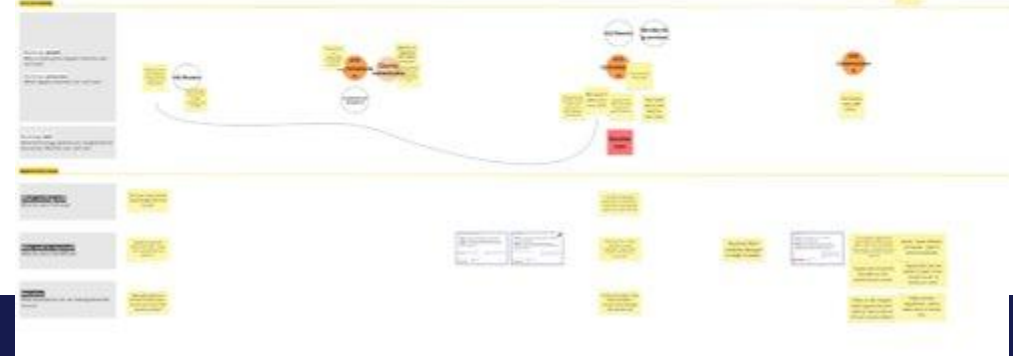
I organise weekly activities for the Brownies/Guides/Rangers so that they get to try new things, and also help them to grow and develop into nice people

Following guiding policy, completing Admin, contacting new young members, trying to keep on top of recording the programme on GO etc

My role is about being a positive role model, encouraging girls to try new things, build friendships, and develop important life skills while having fun.

Organise sessions for girls to have fun, learn new things and make friends. Working with a team of other adults and young women who aspire to be leaders. Managing resources and finances for the group

Organising weekly meetings with fun activities, working towards badges and having adventures for girls so that they know

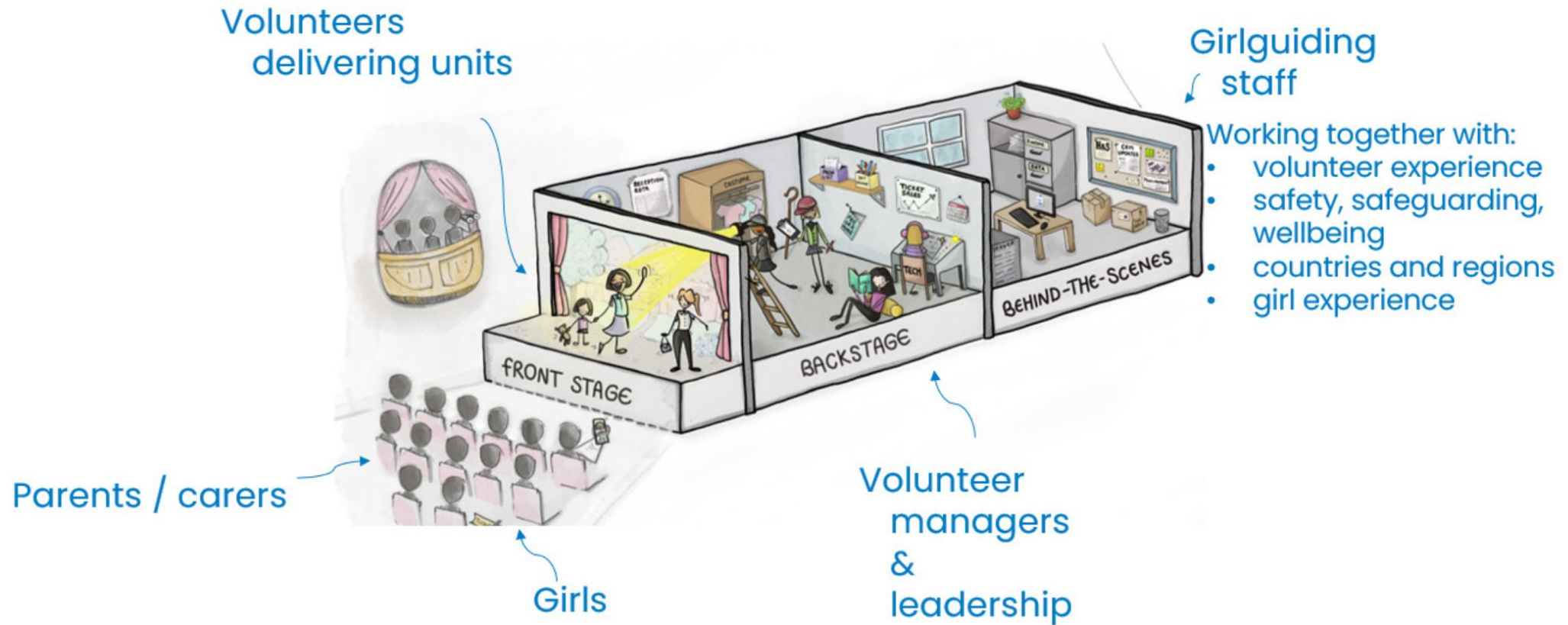


Key challenges with involving volunteers

- **Time and resource**
 - Feeling that engagement takes too long
- **Transparency and trust**
 - Worrying about what and how to engage with volunteers
 - A culture of trying to please everyone
- **Existing structures and processes**
 - Slow decision making
 - Organisational hierarchy creating barriers
 - Guardrails limiting communication with volunteers
- **Representation and inclusion**
 - Bias towards already engaged volunteers
 - Limited representation in research and panels

Designing for transformational change

From frontstage, backstage, and behind-the-scenes



Our vision for volunteer involvement

Guiding statements for our approach to user involvement in the Volunteer and Digital Programme

Our Girlguiding values:

Caring

Challenging

Empowering

Fun

Inclusive

Inspiring

Our shared vision for volunteer engagement:

Volunteer engagement is **exciting, rewarding, and relevant.**

Engagement with volunteers is **accessible and inclusive.**

We make sure we have the **structures in place** to enable vol engagement.

The impact of volunteer engagement is **measured and celebrated.**

Staff and volunteers have the **skills, attitudes and culture** in place to do vol engagement well.

Where could the people you're trying to reach have more influence over the decisions you're making?

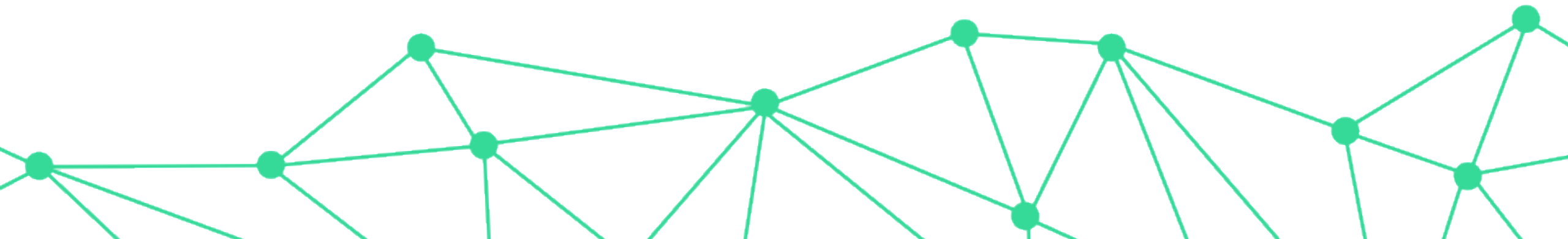
What would need to change in the way that your organisation works to make that possible?

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SOLUTIONS FOR THE PLANET

Jen Muranda, CEO



FROM YOUTH VOICE TO YOUTH INFLUENCE

How we embed young people's insight into decisions, programmes and organisational development

Jen Baughan, Co-Founder & CEO

Iyanu & Freya, S4TP Youth Impact Panellists



OUR STARTING PRINCIPLE

How can young people
meaningfully shape this?



WHERE WE EMBED YOUTH INSIGHT



WHAT MEANINGFUL INVOLVEMENT LOOKS LIKE



Purpose

What are young people influencing?



Power

What can genuinely change?



Commitment

One-off, short-term or ongoing?



Relationship

Consultation, co-creation or decision-making?



Recognition

Paid, voluntary or developmental?



Feedback

How will we close the loop?



THE CHALLENGES, AND WHAT WE HAVE LEARNT

1. Influence

2. Representation

3. Sustaining participation

4. Scaling without losing quality



OUR FIVE TOP TIPS

1. Start with a real decision
2. Name the type of involvement
3. Be explicit about the exchange
4. Prepare both sides
5. Close the loop





Young insight. Real impact.

How young people helped shape and improve
Northern Gas Networks' Work Experience Programme



*Young people.
Brighter ideas.
A fairer, greener future.*

The opportunity

Northern Gas Networks wanted to develop a more structured, engaging and inclusive work experience programme as part of their wider talent development pipeline.



They turned to their Young Innovators Council (YIC) to get honest, practical insight from young people about what a high-quality work experience programme should look like.

How we listened



18 young people from the Young Innovators Council took part in an online session (March 2025).



They shared insights based on their own experiences and research, explored what works well (and what doesn't), and designed their ideal programme.



Two proposed programme models were co-created with their ideas, reflecting different learning styles and interests.



**“It's great to see
our ideas being
taken seriously
and turned into
real plans.**

YIC member

”

What young people told us

The YIC were clear that an ideal work experience should:



Include a group challenge or task



Provide hands on, practical and realistic experience



Use new technologies



Offer a mix of job shadowing and career interactions



Include a range of departments and roles



Be relevant to real world challenges (e.g. net zero, energy, communities)



Be flexible and offer variety – one size does not fit all

“

A mix of real work, new experiences and meeting different people makes it meaningful.

YIC member

”

The result: two programme models

Based on the YIC's feedback, Northern Gas Networks developed two proposed work experience structures to test with young people.



Programme A

Career-focused and interactive

Designed to create more career interactions through engaging activities, including group challenges, practical tasks and the use of new technologies.



Programme B

Traditional with enhanced job shadowing

A more traditional approach with increased job shadowing, giving young people the chance to experience different roles and departments across the business.

The value for Northern Gas Networks



A programme that meets young people's needs

Direct insight led to a design that is more relevant, engaging and inclusive.



Stronger future talent pipeline

Helps attract and inspire the next generation of diverse talent.



Fresh perspectives

New ideas on how to make work experience real, practical and exciting.



Supports wider business goals

Aligns with NGN's commitment to skills, communities and a fairer, greener future.

Key takeaways for other businesses



Involve young people early

They bring valuable, honest and creative insights.



Be open to change

Young people can help shape solutions, not just comment on them.



Offer variety and flexibility

Different learning styles matter – one size does not fit all.



Turn insight into action

Show young people how their ideas make a real difference.

INTRODUCING IYANU & FREYA



Q&A and Discussion

- Post in the chat: reflections /learning you will consider taking away for your own work
- Reflections on if / what more could we consider doing to involve young people's perspectives in our work.

