

Engineering the Future

The Smallpeice Trust
Strategic Plan
2025-2030



Smallpeice

Transforming Lives Through STEM

A single spark of curiosity can ignite a lifelong passion, but only with the right nurturing and opportunities to grow.

What We're Proposing

A systematic expansion of our STEM engagement programmes over five years, moving from our current strong foundation to reach significantly more young people, particularly those from under represented backgrounds. We will achieve this by developing new delivery locations in community settings, strengthening partnerships with organisations that share our values, and building the infrastructure needed for sustainable growth.

Our Aspiration

By 2030, we aim to increase our annual reach by 25%, engaging over 62,500 young people with 60% female participation and 45% from under represented backgrounds. We will establish 10+ new partnerships with community organisations and develop sustainable funding models that enable long-term planning and consistent delivery.

The 5-Year Journey

Our strategy follows a deliberate progression: Year 1-2 focus on piloting and optimising new approaches; Year 3-4 build systems and scale proven methods; Year 5 consolidates learning and prepares for our next strategic phase. Each year builds systematically on the previous, ensuring sustainable growth whilst maintaining the quality and inclusive approach that defines our work.



Purpose

Through STEM, to inspire the young people of today to become the changemakers of tomorrow.

Mission

Getting young people excited about STEM subjects, no matter their background, through fun, sustainable and educational activities delivered by inspiring experts and partners.

Values

Excellence

Collaboration

Innovative

Inspirational

Inclusive

Impact (Theory of change)

A wide inclusive and inspiring choice of introductions to engineering and STEM learning pathways and talent pipelines are available to and used by CYP (Children and Young People).

Engineering talent and solutions reflect the diverse society they are intended to benefit.

The full diversity of CYP in the UK have the aspiration and skills to be changemakers within society.

Effective and impactful communication of the role of engineering and STEM education in society.

Outcomes (Theory of change)

CYP have been inspired to pursue learning pathways to engineering and STEM.

CYP and influential adults in their lives understand how to navigate engineering and STEM learning pathways and talent pipelines.

In safe spaces, the diversity of CYP in the UK are introduced to and engaged in engineering and STEM education.

An increased number and diversity of engineering and STEM role models inspire future generations of young people.

In safe spaces, the diversity of CYP in the UK have a greater range of innovative opportunities to develop their societal skills, attributes and behaviours to contribute positively to a better society.

SPT is a 'go-to' for government on engineering and STEM education and learning pathways.

A stronger charity landscape in support of STEM engagement.

Provision to industry of collective voice on inclusive engineering and STEM education.

5-year Strategic Pillars

1. Expanding Access

Every young person deserves the chance to discover their potential regardless of their background, circumstances, or the barriers they face.

(See Page 14)

2. Agile Team

Innovation isn't just what we teach it's how we work. We're building a team that moves at the speed of young people's curiosity.

(See Page 15)

3. Resilient Funding

Sustainable funding means sustainable futures. When you invest for the long term, so do the young people we inspire.

(See Page 16)



Introduction

For nearly six decades, The Smallpeice Trust has been inspiring young people to see themselves in engineering careers by equipping them with the skills and confidence to become tomorrow's changemakers. As we look to the next five years, we recognise the need to evolve ensuring our delivery is more inclusive and our programmes better aligned with the rapidly shifting educational and economic landscape.

Manufacturing, trade, and industry are increasingly central to government strategy for growth and global competitiveness. With skills shortages challenging key sectors, building a **future ready workforce** has never been more essential. We are proud to act as a catalyst, connecting young people with the knowledge, experiences, and inspiration they need to thrive in engineering and technology.

Within the wider STEM outreach ecosystem, we play a distinctive role. Whilst others focus on isolated interventions, we create **continuous learning pathways from ages 8 to 18**. Our hands-on programmes developed with schools, universities, and partner organisations - **don't just teach**; they open doors that might otherwise remain firmly closed, particularly for young people from socially disadvantaged backgrounds who have been systematically excluded from these opportunities.

In recent years, the organisation has navigated significant challenges, from post COVID uncertainties to shifts in leadership and marketplace dynamics. However, the **passion behind our work** has remained unwavering. This strategy builds upon proven foundations whilst refining our approach with clear direction.

At the heart of our mission lies renewed commitment to priority audiences: girls, younger learners at Key Stage 2 (From 8yrs), and **socially disadvantaged communities**. Through targeted engagement, we will create pathways, **break down barriers**, and empower the next generation of STEM leaders. This strategic direction has been shaped through **extensive consultation with children and young people**, ensuring their voices and aspirations remain central to everything we do.

Guided by **three Strategic Pillars**, we are positioning The Smallpeice Trust not only for meaningful outcomes today but also for long-term sustainability. By future-proofing our funding, building a innovative team, and widening access to opportunities, we are laying foundations for a more inspiring and inclusive organisation.

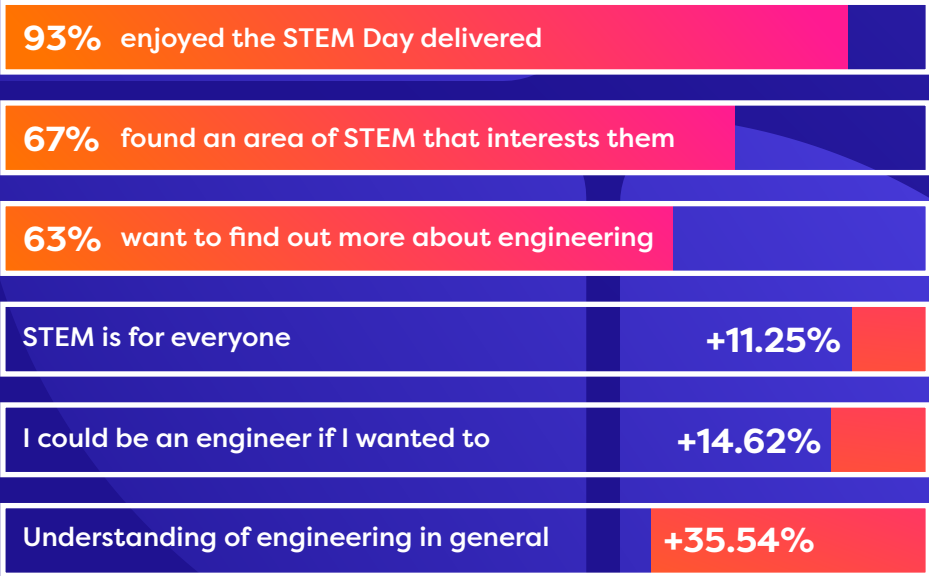
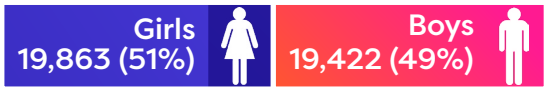
**We're not just changing lives.
We're engineering what comes next.**



INSPIRING THE NEXT GENERATION: **OUR IMPACT IN NUMBERS**

Pupils engaged with a STEM Day 2024/25

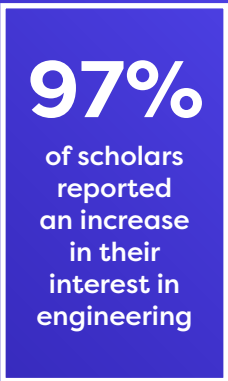
Schools



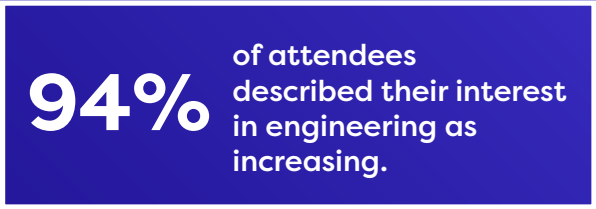
Our Team



Communities



Arkwright



Why we care

Behind every statistic is a missed opportunity for a young person, for industry, and for the nation. The UK's future economic prosperity depends on a diverse, skilled, and inspired STEM workforce. Reversing these trends demands urgent, coordinated action to make STEM education more inclusive, accessible, engaging, and relevant to all learners.

Right now, too many young people—especially girls—are still missing out on the opportunities that STEM careers can offer. The evidence is undeniable: young people are three to four times more likely to consider a career in engineering if they participate in a **STEM careers activity**. These moments of exposure can be transformative, yet access remains uneven. Through our **consultation with children and young people**, we learnt that many had never considered engineering as a viable career path, often due to lack of exposure to relatable **role models** and **hands-on experiences** that demonstrate the creative, problem-solving nature of the field.

Despite progress in some areas, engineering and technology continue to face stark **gender imbalances**. Just 15.7% of the engineering workforce is female, compared to 56% in other occupations. This disparity begins early. Only 16% of girls believe engineering is a suitable career for them, and just 12% feel it reflects who they want to be. Children and young people's perceptions are not only limiting individual potential but are **restricting the talent pipeline** for one of the UK's most critical growth sectors.

Equally concerning are the young people who are naturally practical rather than traditionally academic. Many learners struggle in conventional classroom environments yet possess genuine curiosity, problem-solving instincts, and hands-on capabilities. These young people may not excel at school but could thrive in STEM careers that value making, building, and real-world application. That's why we actively reach these learners where they are through **community spaces and youth centres**, beyond the traditional school gates.

At the same time, the situation is compounded by an **alarming decline** in practical, design-led education—the kind that emphasises hands-on learning and real-world application to prepare students for STEM careers. This decline is restricting vital entry points into engineering and technology. Over the past decade, there has been a 52% decrease in Design and Technology (D&T) GCSE entries, with many schools no longer offering the subject at all. Without taking early steps to foster creativity, problem-solving, and hands-on learning, **too many young people are denied** the chance to uncover their talent and passion for STEM. That is where we come in.

The scale of this challenge demands partnership, investment, and a clear plan of action.





**We lead with
evidence and
empathy**





The Current Landscape of STEM Education in the UK

As of 2023, around one-third of the UK workforce is employed in STEM-related roles, with employment in these sectors growing significantly faster than in non-STEM areas. This underscores the urgent need to equip young people with the skills, confidence, and opportunity to thrive in these important sectors.

However, systemic challenges persist. Girls and students from disadvantaged backgrounds remain significantly under-represented in STEM, particularly in engineering and technology. Schools continue to face barriers to delivering **engaging STEM experiences**. Limited time, funding, and staffing often prevent the hands-on, inclusive learning that inspires genuine long-term interest in these subjects.

Whilst entries for Design and Technology GCSEs have fallen by 52% in the last decade, the wider education sector is responding to the need for **engineering and technology-related training pathways**. Apprenticeships are playing a growing role in this shift. In the 2023/24 academic year, 29% of all apprenticeship starts were in engineering and technology, outpacing apprenticeship growth in other sectors. This reflects a broader recognition of the value of **combining academic study with practical, hands-on experience**.

Apprenticeships are not only helping to address skills shortages but are also providing more accessible and diverse pathways into high-value STEM careers. As the **demand for job-ready talent** continues to rise, embedding practical learning opportunities within the education system will be essential to meeting the needs of both young people and the economy.

Skills policy is also becoming increasingly important in wider economic planning. Around two-thirds of businesses cite **skills as a barrier to growth**, particularly in areas like advanced manufacturing. While departments such as the Department for Business and Trade (DBT) and the Department for Education (DfE) are strengthening their working relationship, greater alignment between education, skills, and industrial policy will be key to unlocking long-term impact.

Whilst national campaigns have increased interest in STEM among young people, a more coherent and inclusive approach is needed one that connects classroom learning with **real-world opportunity**, signposts young people towards different educational pathways, and reflects the needs of both learners and the labour market.



We partner for
success



Our Ways of Working

At The Smallpeice Trust, how we work is just as important as what we deliver. As we grow, we remain grounded in a set of values and principles that ensure our programmes are inclusive, engaging, and impactful, for every young person we reach.

We design with inclusion in mind. If it's not inclusive, it's not good design

We build our programmes to reflect the rich diversity of the UK, because representation matters. True STEM engagement means creating space for curiosity, confidence, and creativity, especially for young people who haven't always seen themselves represented in these fields.

We already connect with students from a wide range of backgrounds, but we're going further. We're extending our reach into safe, supportive learning environments — in schools, youth clubs, and community spaces, to welcome underrepresented groups into STEM. By removing barriers, challenging assumptions, and meeting young people with empathy, we help them see STEM as a place where they belong and can thrive.

We make STEM joyful, hands-on and human

STEM should never feel cold or intimidating. We bring it to life through real-world problem-solving, teamwork, and growing use of gamification to make learning lively and fun. Our sessions are filled with creativity, interaction, and energy, because when students are engaged and supported, they grow in confidence, learn more deeply, and start to see themselves in new futures.



We treat failure as part of the process and we're helping more young people see it that way too.

Through playful, practical activities like our engineering cycle, we show that setbacks aren't stop signs, they're springboards. One mistake at a time, we help build resilience, create innovation, and encourage bold thinking. This mindset equips young people to be adaptable, courageous, and ready for whatever path they choose, in STEM or beyond. We extensively evaluate and assess our programmes to ensure this approach works.

We lead with evidence and empathy and we're evolving as young people's needs do.

Our work is informed by research, teacher insight, and lived experience. We listen closely to the young people we work with and the communities we serve, using what we learn to evolve and adapt. We fail fast, learn quickly, and adapt our programmes accordingly. Our rigorous impact evaluation drives this continuous improvement. Our approach is thoughtful and responsive, grounded in a deep understanding of both educational need and emotional development. It's how we ensure our programmes stay relevant, inclusive, and impactful.

We partner for success and we're seeking new collaborations to broaden our impact

We know we're not alone in delivering brilliant STEM education. That's why we collaborate with fantastic partners who share our values and passion. Together, we're able to offer more young people a more complete, more inspiring journey into engineering and technology. Now, we're seeking new collaborations — with organisations that create empowering STEM content and want to help us scale our reach, deepen our quality, and shape a more inclusive future. By combining strengths, we can offer young people a more complete, inspiring journey into the world of STEM.



From First Spark to Lasting Impact

A young person's interest in STEM often begins with a single moment: a spark of curiosity ignited by a hands-on experience, an inspiring role model, or simply the chance to try something new. But that spark needs nurturing. For curiosity to grow into confidence, and eventually a sense of purpose, young people need time, encouragement, and meaningful opportunities to build on their interests.

Our mission goes far beyond one-off experiences. We're creating a **connected, inclusive journey** where every young person can explore, deepen, and apply their passion for STEM as they grow. From early exposure in schools and community settings to specialist courses, mentoring, and our flagship Arkwright Engineering Scholarship, we're shaping personalised pathways that support each **young person's development** in a way that works for them.

With the backing of our current partners, we're working to **strengthen these pathways** across all our programmes so that no matter where a young person starts or where they hope to go, it's clear that there's always a next step they can take.



A young girl with long braids is smiling and writing in a notebook at her desk. She is wearing a blue denim shirt over a dark blue top. In the background, two other students are seated at their desks, one looking towards the camera and the other looking down. The classroom has blue chairs and wooden desks.

**We design
with inclusion
in mind**

STRATEGIC IMPACT AREA 1

Expanding Access to Unlock Every Young Person's Potential

Why this Matters: Creating and transforming spaces that make STEM more accessible and empowering for every young person. We recognise that talent is everywhere, but opportunity is not. By breaking down systemic barriers and reaching young people where they are, we can unlock the potential of tomorrow's innovators, regardless of their background, circumstances, or educational pathway. We regularly speak to children and young people to gather new ideas, test our concepts, and ensure our content meets the toughest test—relevance to young people.

What Does This Look Like?

- Running hands-on programmes in new places, like activity centres and homeschooling communities, to reach those often left out of STEM engagement;
- Working closely with schools in disadvantaged areas and offering more scholarships and mentoring for under-represented students;
- Making our content easier to access and relate to by improving the way we write, present, and deliver it, based on new inclusion guidelines;
- Using gamified and interactive approaches to spark interest in students who don't respond to traditional teaching styles;
- Partnering with groups outside the usual STEM world like youth clubs and libraries, to meet young people where they already are;
- Piloting alternative ways to take part, like virtual scholarships and hybrid courses, so more young people can be reached to get involved;
- Tracking long-term impact to understand how taking part shapes young people's educational journeys and future success.



STRATEGIC IMPACT AREA 2

Agile, Innovative Team to Drive Meaningful Change

Why this Matters: A dynamic team helps us respond quickly to the needs of young people, funders, and partners, ensuring we stay relevant, effective, and impactful in everything we do. We're building a nimble, forward-thinking team that champions innovation, drives operational excellence, and adapts to the ever-changing STEM landscape.

What Does This Look Like?

- Using real-time impact data and pilot feedback to guide what we scale, adapt, or retire—making evidence-based decisions, not assumptions;
- Embedding a culture of innovation across teams, encouraging creativity, experimentation, and solution-focused thinking through an “innovation lab” approach;
- Investing in digital skills and training so staff can confidently adopt new tools and keep pace with changing delivery and engagement methods;
- Introducing automation and AI to streamline operations, reduce admin burden, and focus time and energy where it matters most;
- Using new technology to stay innovative whilst keeping our data accurate to make better decisions;
- Moving from reactive to proactive marketing and storytelling, using powerful digital narratives to engage young people and attract funders and partners.



STRATEGIC IMPACT AREA 3

Resilient Funding to Sustain and Scale Impact.

Why this Matters: Sustainable funding gives us the freedom to innovate, the ability to forecast, plan ahead, and the reach to support those who need us most. We're building a resilient and adaptable funding model to power long-term, high-impact STEM experiences that inspire and empower young people from all backgrounds.

What Does This Look Like?

- Securing multi-year partnerships that provide financial stability and enable long-term planning, innovation, and deeper impact;
- Diversifying income streams so our mission isn't dependent on any one sector or source of funding;
- Engaging high-net-worth individuals and alumni through meaningful relationships built on shared values and proven results;
- Designing modular, flexible funding packages that meet the goals of corporate, philanthropic, and individual donors;
- Expanding profit-generating programme models such as franchised content, scalable delivery, and bespoke offers, while maintaining access and inclusion;
- Using real-time data and insights to demonstrate impact, refine cost models and ensure transparency and accountability to all supporters. From First Contact to Lasting Impact.



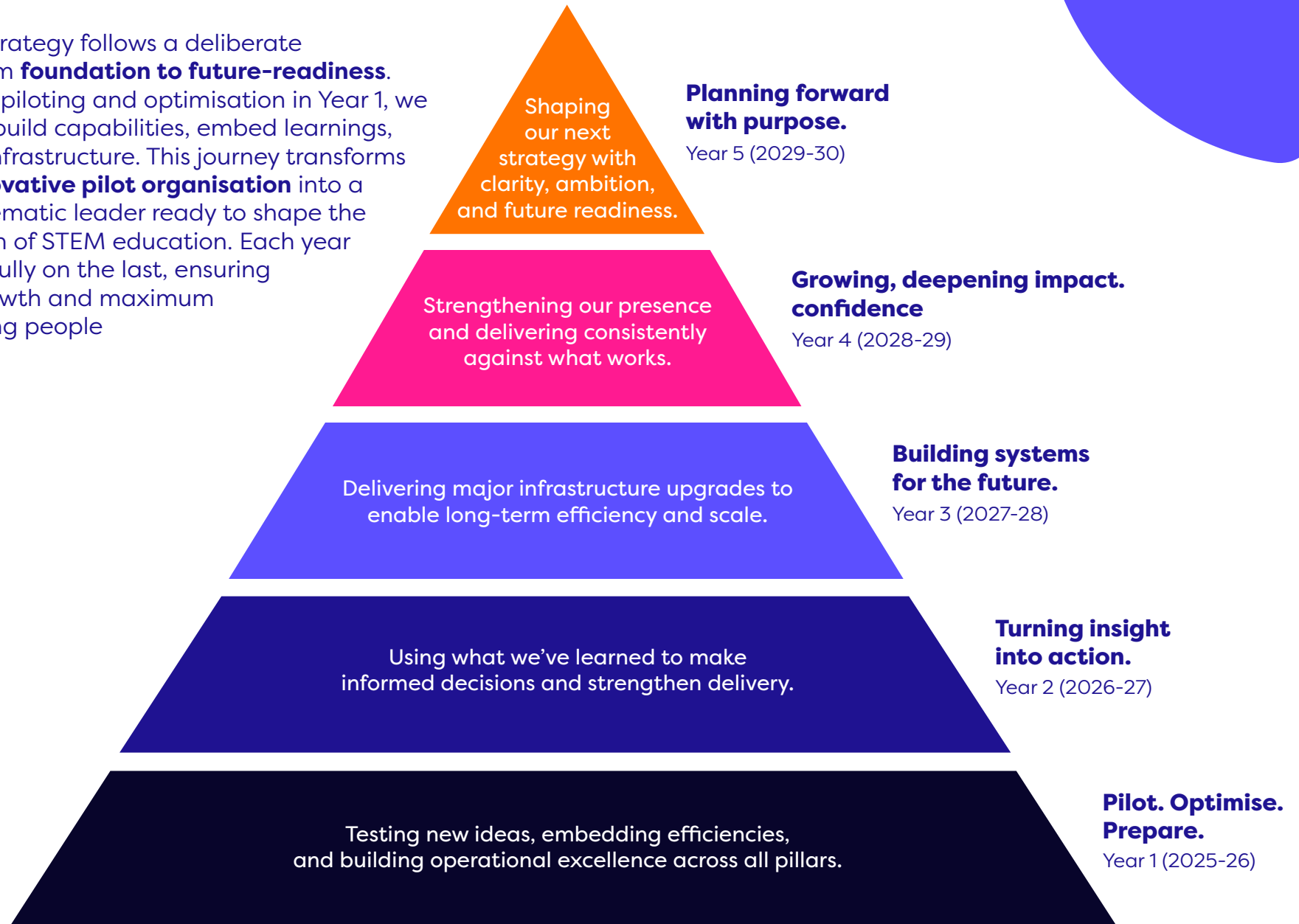


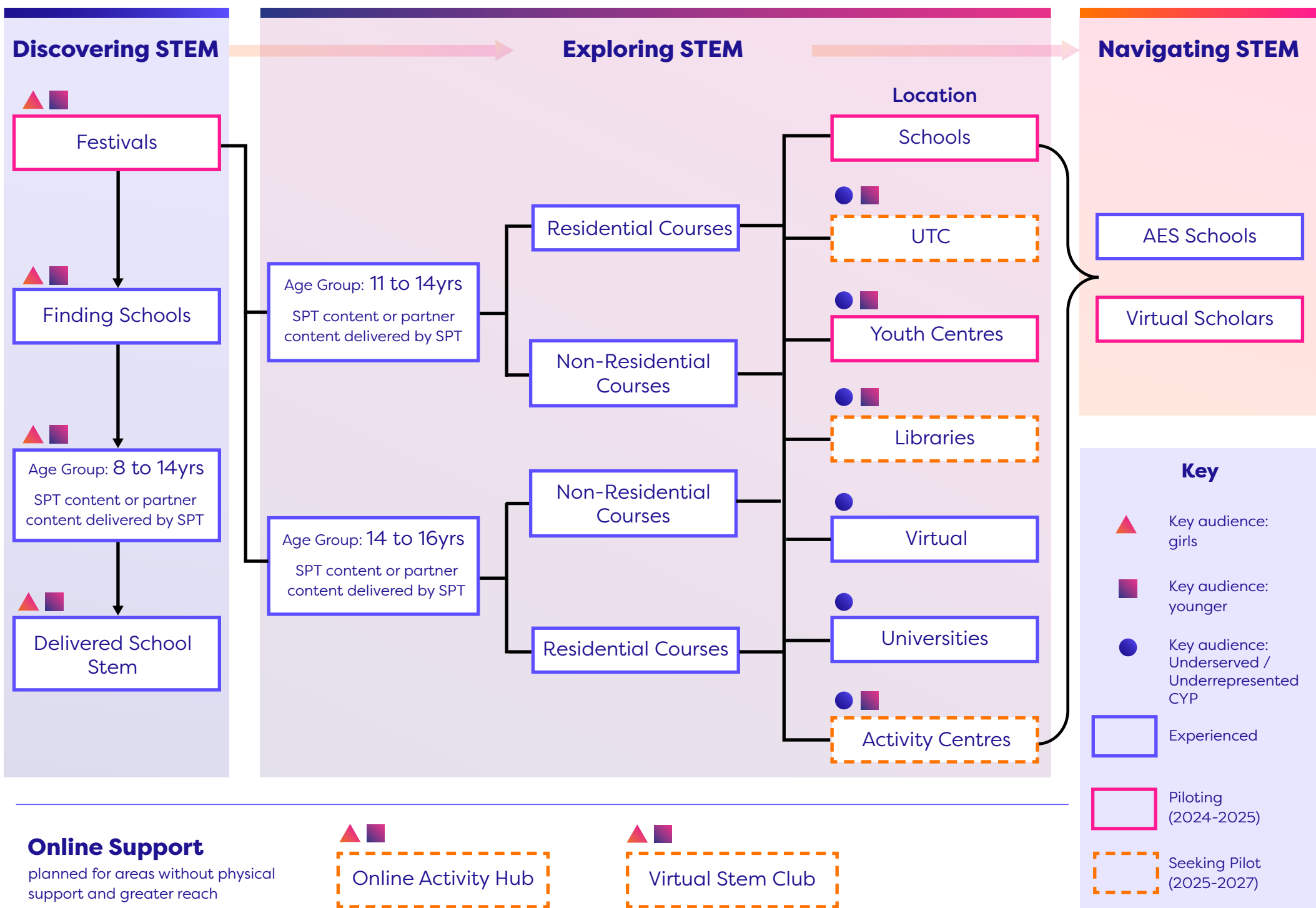
**Shaping
the next
generation
of STEM
education**

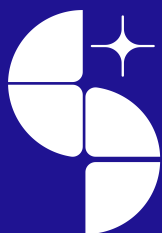


Our 5 Year Strategic Journey

Our five-year strategy follows a deliberate progression from **foundation to future-readiness**. Beginning with piloting and optimisation in Year 1, we systematically build capabilities, embed learnings, and scale our infrastructure. This journey transforms us from an **innovative pilot organisation** into a confident, systematic leader ready to shape the next generation of STEM education. Each year builds purposefully on the last, ensuring sustainable growth and maximum impact for young people across the UK.







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**To inspire the young people of today to
become the changemakers of tomorrow**



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