




Royal Academy
of Engineering

The role of networking in driving regional collaboration

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A photograph of two students, a young woman and a young man, both wearing safety glasses and blue lab coats. They are focused on a complex electronic circuit board with many wires and components. The woman is in the foreground, looking intently at the board. The man is slightly behind her, also looking at the same area. The background is blurred, showing what appears to be a workshop or laboratory setting with various equipment.

How do teachers
prepare young learners
in a rapidly changing,
technology-driven
world where
educational equality is
essential for an
*inclusive economy and
a sustainable society*
for all?

The Connecting STEM Teacher programme 2011-2023

National network of 50 school
hubs

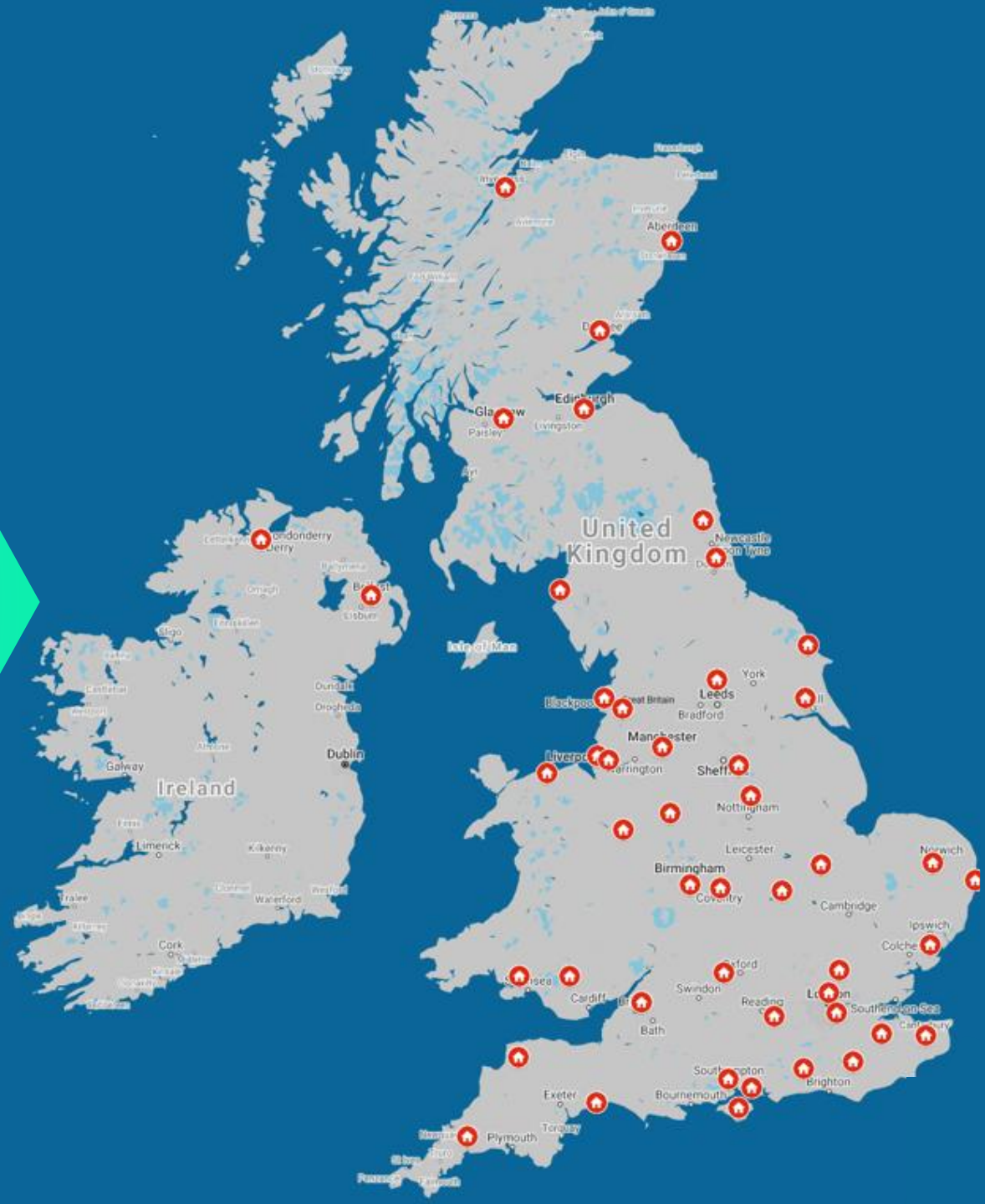
A community of 7000 schools

1,000 teacher collaborations
each year

1 million students experience

STEM teacher CPD

Engineering themed
resources



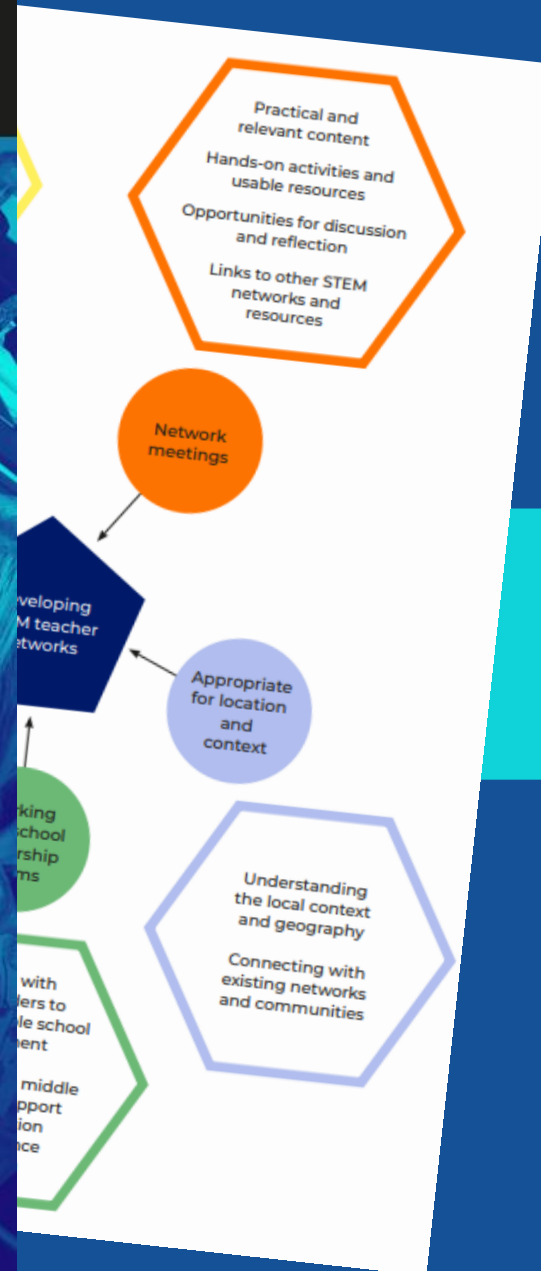
Using STEM teacher networks in teacher professional development

Key learning from the Connecting STEM Teachers
programme and associated literature review

February 2024

Clare Gartland and Tuba Gokpinar

University of Suffolk



2
Network
meetings

4
Working
with school
leadership
teams

1
Network
formation
and
structure

3
Appropriate
for location
and context

5
Effective
network
leadership

Welsh Valleys Engineering Programme 2018

Employer Engagement Project 2022

17 companies located in South
Wales

74 secondary and primary schools
participating

12 student-centred projects with
engineering focused activities

5650 students engaged

Engineering challenges for primary schools



Thales: digital forensics
[Read more](#)



Thales: the Internet of
Things
[Read more](#)



Vishay: assembly line
[Read more](#)



Tata Steel: upcycled
structures
[Read more](#)



Zimmer Biomet: bionic
Barbie
[Read more](#)



ORE Catapult: offshore
renewable energy
[Read more](#)



Morgan Sindall: net zero
schools
[Read more](#)



Teacher Guide
[Read more](#)

Engineering challenges for secondary schools



Panasonic: weather station
[Read more](#)



Panasonic: toughbook
[Read more](#)



Concrete Canvas: bridge
building
[Read more](#)



General Dynamics: payload
[Read more](#)



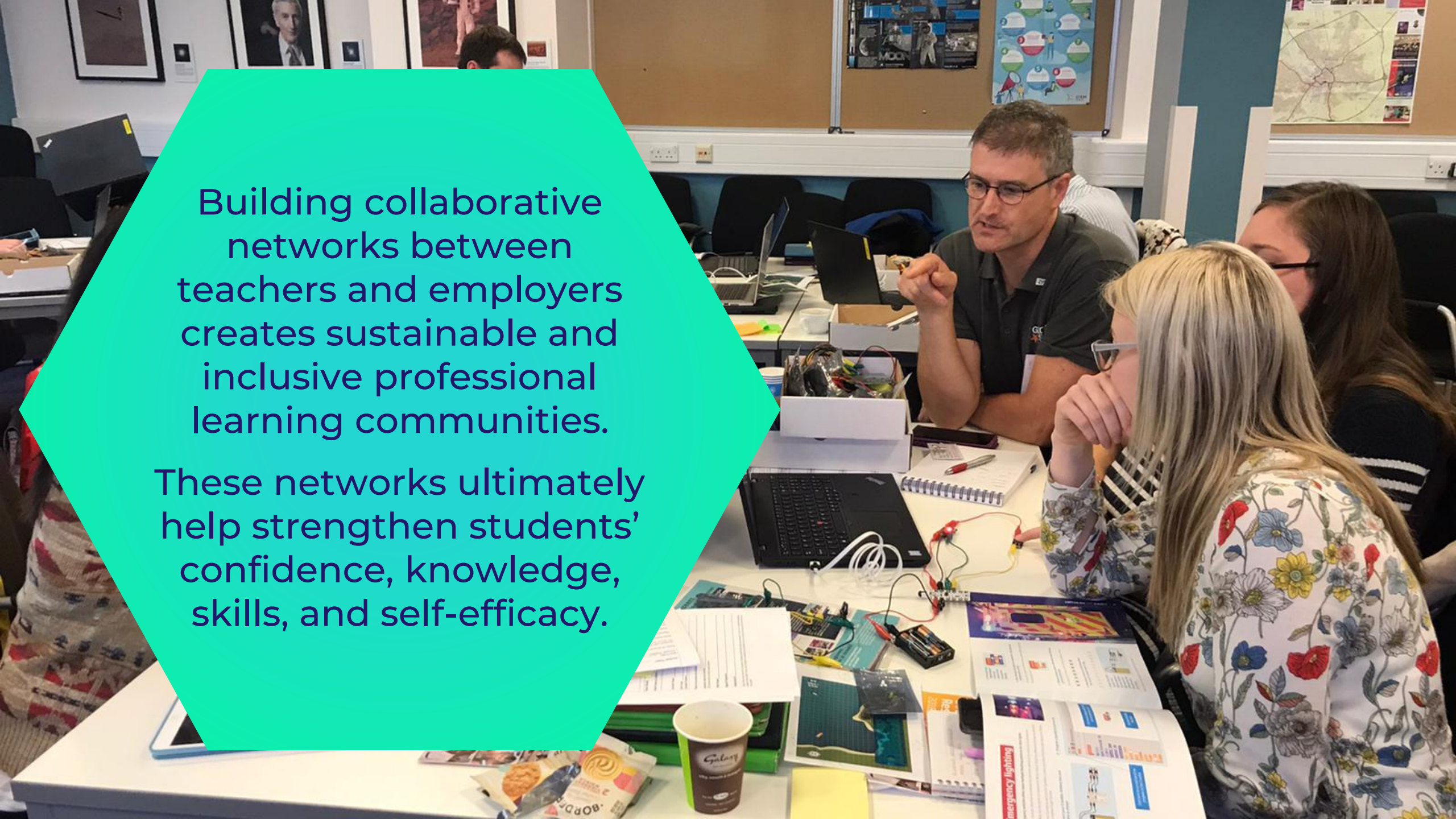
Safran Seats: egg drop
[Read more](#)



Teacher Guide
[Read more](#)

Building collaborative networks between teachers and employers creates sustainable and inclusive professional learning communities.

These networks ultimately help strengthen students' confidence, knowledge, skills, and self-efficacy.



What's next?

for regional schools' programmes in the West Midlands, Scotland and Northern Ireland

Expand funding partnerships

Recruit local lead teachers

Employer linked STEM projects and experiences

Monitoring and evaluating

