

TechNES

Technology Network for Embedded Systems

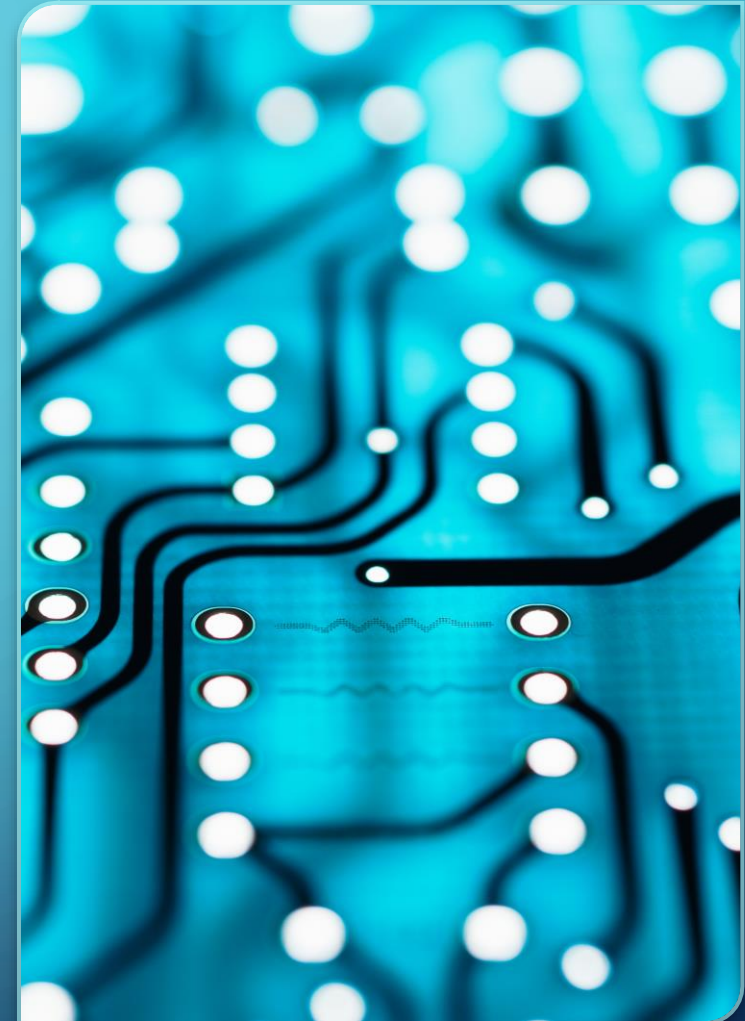
Steve Drew – Network Director



TechWorks is a not for profit member based organisation, focussing on semiconductors / electronics and deep tech.



<https://www.techworks.org.uk/>
<https://technes.org.uk/>





TechNES (The Technology Network for Embedded Systems) has been established to provide a platform for coherence in this domain by connecting leading companies across industrial sectors, sustaining and supporting the world-class capability that exists in the UK.

This will cover all aspects of embedded systems design from hardware and software_engineering through to systems engineering. From silicon design through to the end system.




Networking

- Access to member only resources, workstream activities, and discounted sponsorship opportunities.
- Access to BaseCamp groups to download presentations, member badges and other materials as well as networking within the wider TechNES community. With a wide range of workstreams, members are able to network with a range of leading industry companies.
- Access to discounts on training and services through the Technology Hub.
- Access to The Academy and discounts on courses along with inputs into future development



Work Streams



Conferences & Events



Industry Change



Collaboration



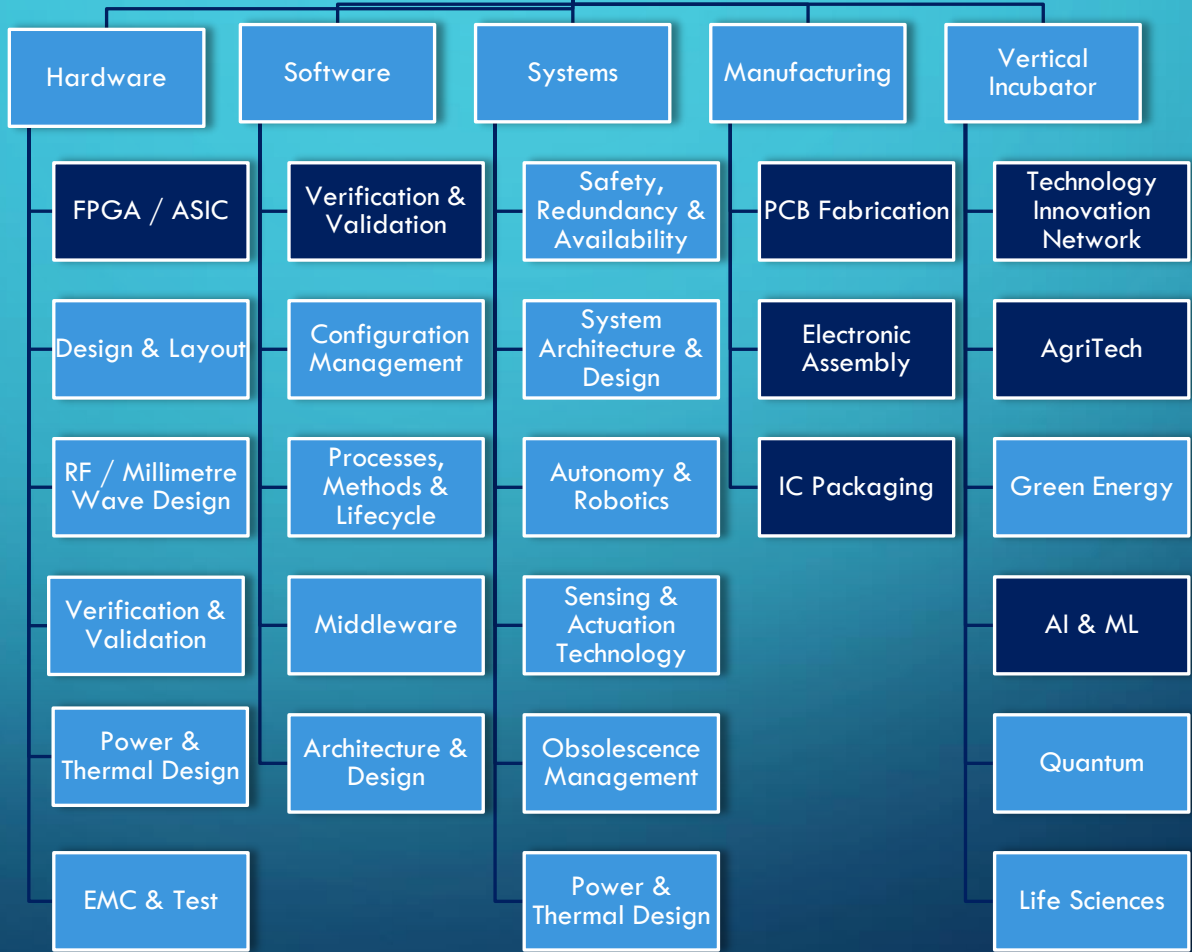
Steering Committee

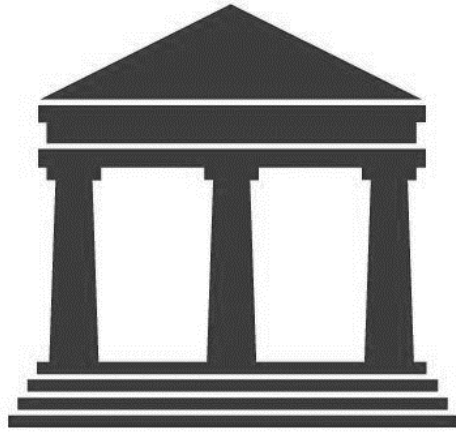
Technology Hub

Research Advisory Board

Academy

Working Group Structure





THE ACADEMY

The Challenges we face

Deloitte.

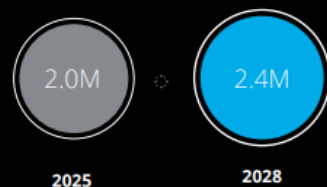


The jobs are here, but where are the people?

Addressing the manufacturing skills gap and influencing a positive future of work

Our studies indicate that the skills shortage is expanding . . .

The skills gap may leave an estimated **2.4 million** positions unfilled and put **\$2.5 trillion** in manufacturing GDP at risk over the next decade.



What's causing the shortage?

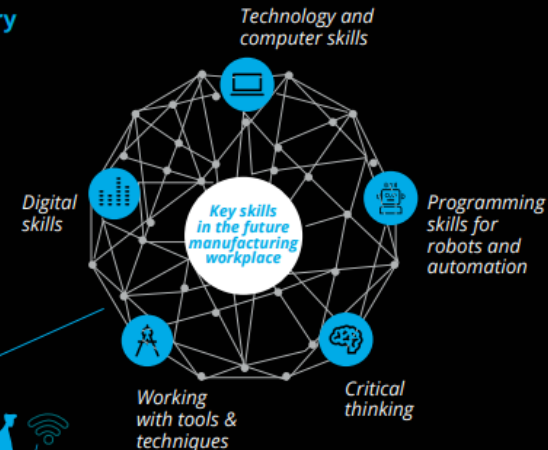
Shifting skillsets due to the introduction of **advanced technologies and automation**

Misperceptions of manufacturing jobs

Retirement of baby boomers

What skills are necessary for future success?

Digital skills must marry human skills. **50% of manufacturers** said they have already adopted automation, and the top skills that must accompany technology are critical thinking, programming, and digital.



How can manufacturers positively influence the future of work?

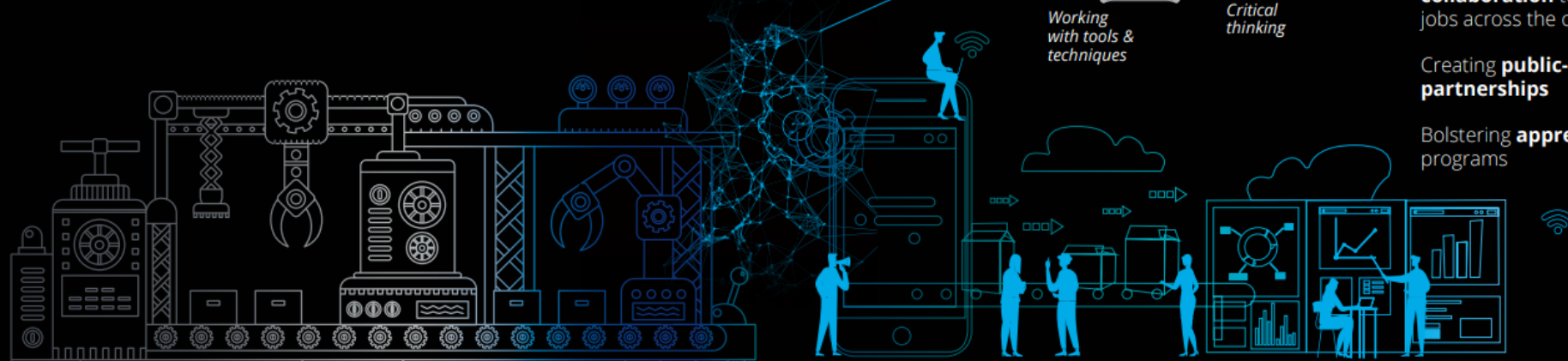
Tapping into the resources from the retiring generation of **baby boomers**

Developing **in-house training** that engages a multigeneration workforce

Building human-machine collaboration to supplement jobs across the organization

Creating **public-private partnerships**

Bolstering **apprenticeship** programs



A part of the Solution

Where do I find my next "xxxxx" engineer ?

Do you need help to fill a skills gap

Inspire ,drive and grow employees by providing training

Increase your marketability/ employability

Need a flexible approach to your training needs

Comprehensive study programme that develops the skills and knowledge

 **TechWorks**

I'm creating a training program for just 1 or 2 graduates a year

Learn new skills and how these are applied



I'm a small company and training can be very expensive

Universities don't teach what industry needs

There are no training courses for what I need my engineers to know

Flexible approach to training

Inspire ,drive and grow employees by providing training

Advance your job related capabilities

Planned Courses

Design Verification for IC Design

Design Verification for FPGA Design

FPGA Overview

DSP Design

PCB Layout

PCB Design

PCB Manufacture

Understand Printed Circuit Boards

Electronics Assembly for Engineers

Zero to ASIC

Open Source IC Design





Introduction to Design Verification (DV)

The TechWorks Academy present the DV course to introduce participants to design verification

Course Objectives

By the end of the course, participants should be able to

- Describe the best-practice DV strategies applied currently to semiconductor digital designs
- Understand the main methodologies, tools and languages used in those best-practice DV strategies
- Apply those DV methodologies, tools and languages to basic digital designs
- Analyse a “real” semiconductor digital design and suggest an appropriate DV strategy
- Understand current best-practice DV sufficiently to enable participants to discuss DV topics confidently with colleagues

After completing the course participants will have sufficient understanding of DV tools and methodologies to contribute effectively to real projects

Target audience

- University students going on or started a placement at a semiconductor design company
- University graduates starting or started work at a semiconductor design company
- Engineers wanting to transition their career to or are just curious about DV
- Managers wanting some understanding of the topic

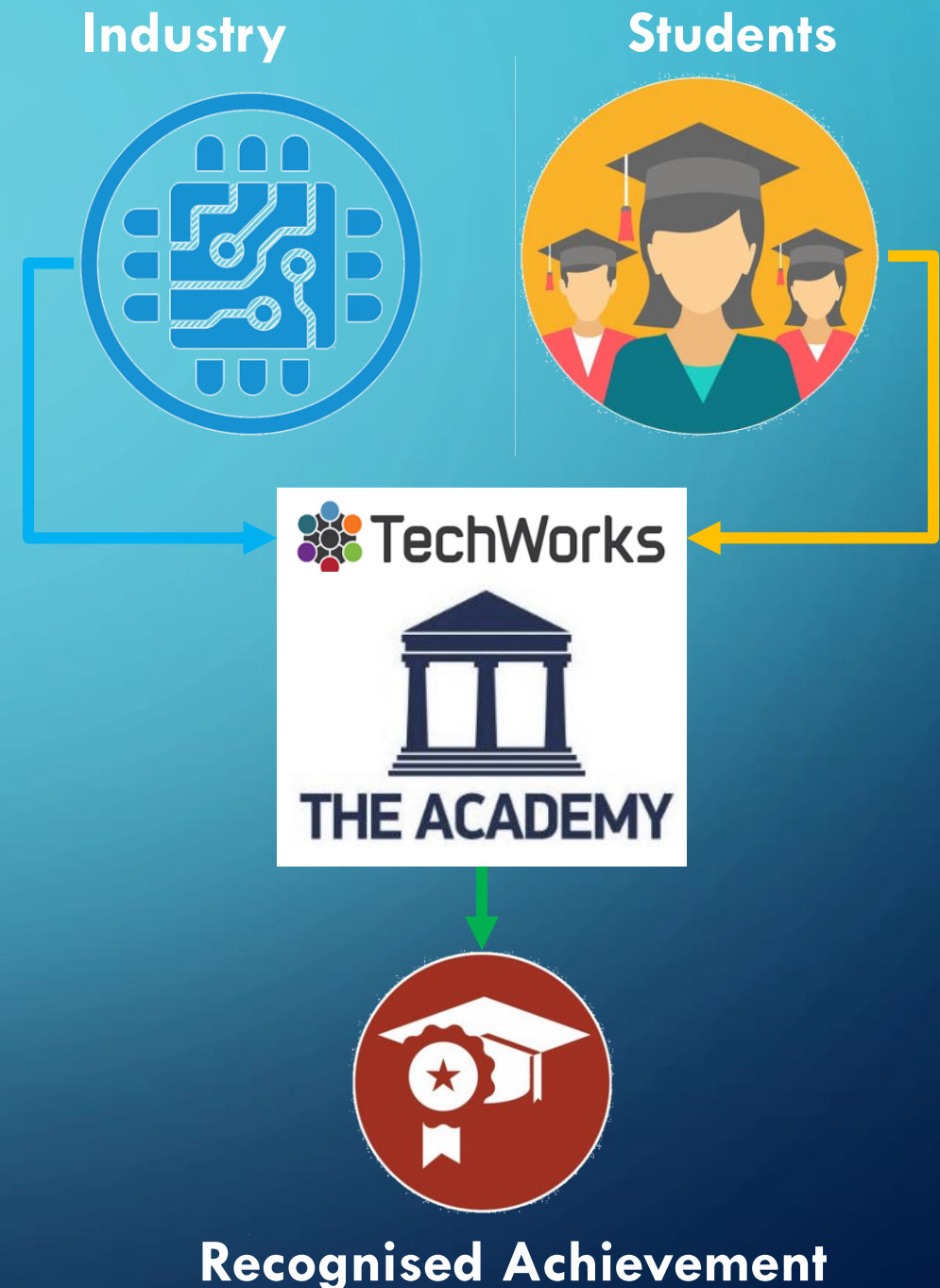
Pre-requisites

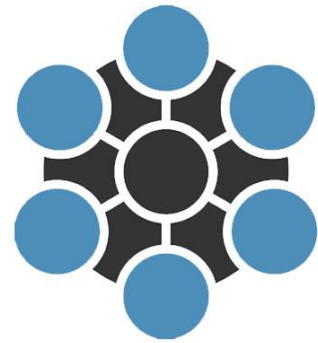
None. The course is suitable for a wide range of people working in semiconductor design & development, especially recent graduates. Although not a prerequisite, some experience of programming (preferably with an Object-Oriented language) would be useful.



Creating a Centre of Excellence for the Skills Gap in our Industries

- ✓ Connecting Industry to Students
- ✓ Connecting Students to Industry
- ✓ Providing Industry recognised training
- ✓ Managed and supported by Industry





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