Nigel Hollett
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The training of heating engineers, the QCF and its interface with MCS

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Summit SKILLS

“I want to see more homes, communities and businesses generating their own energy ... microgeneration is a key part of this vision”

“The Green Deal will be the biggest home improvement programme since the Second World War shifting our outdated draughty homes from the past into the future ... there will be strict rules about standards, information will be readily available and there will be a proper route for complaints “

Greg Barker MP, Minister for Climate Change

SummitSkills

- National Occupational Standards and QCF
- Effective engagement with employers
- Labour Market Intelligence
- Influence policy around skills
- Strategy for Environmental Technologies
- Sector skills agreement 2008

Key drivers

- Government and nations strategies
- Stimulus programmes
  - feed-in tariffs (2010)
  - renewable heat incentive (2011)
- Green Deal
- Microgeneration Certification Scheme (MCS)
- Building regulations development
- Emergence of the technologies themselves

SummitSkills – Sector Footprint

Typical Job Roles	Occupational Area					
	Electrotechnical	**Electrical and Electronic Servicing**	**Heating and Ventilation**	**Domestic Heating**	**Plumbing**	**Refrigeration and Air Conditioning**
Skilled worker	• Electrical Installation • Electrical Maintenance • Audio Visual Systems Installation • Electrical Instrumentation Installation • Data/Communications Systems Installation • Electrical Panel Building • Electrical Machine Rewind and Repair • Building Management Systems Installation and Maintenance • Security Systems Installation	• Domestic Appliance Installation • Commercial Electronic Equipment Installation • Domestic Electronic Equipment Installation • Signal Reception Systems Installation	• Heating and Ventilating Ductwork Installation • Heating and Ventilating Industrial and Commercial Installation • Heating and Ventilation Systems Maintenance • Heating and Ventilation Systems Servicing and Commissioning	• Domestic Heating Systems Installation and Maintenance	• Domestic Plumbing Systems Installation and Maintenance • Industrial and Commercial Plumbing Systems Installation and Maintenance	• Refrigeration Systems Installation • Refrigeration Systems Testing and Commissioning • Refrigeration Systems Service and Maintenance • Air Conditioning Systems Installation • Air Conditioning Systems Testing and Commissioning • Air Conditioning Systems Service and Maintenance
Technical worker (Roles stated may be across occupational areas)	• Building Services Engineering Design Engineer • Building Services Engineering Commissioning Engineer • Building Services Estimator • Building Services Engineering Contract or Project Engineer			• Building Services Engineering Computer Aided Design Technician • Building Services Engineering Service and Maintenance Engineer • Building Services Engineering Quantity Surveyor • Building Services Engineering Site Supervisor		
Professional worker	• Higher level roles as stated for technical worker • Building Services Engineering Contract or Project Manager			• Building Services Engineering Consulting Engineer		
Environmental Technologies/ Microgeneration	The design, installation and maintenance of systems employing the following environmental technologies fall within the SummitSkills footprint: • Solar Water and Heating • Combined Heat and Power • Ground Source Heat Pumps • Air Source Heat Pumps • Biomass • Bio-Fuels (Liquid) • Rainwater Harvesting • Grey Water • Mechanical Heat Recovery Ventilation • Photovoltaics for Micro-generation • Micro Wind Energy • Micro Hydro Generation Systems • Fuel Cell Technology In relation to the above technologies, the footprint that is primarily covered by SummitSkills is typically associated with the production of electrical energy up to 50 kilowatts, and the production of heat up to 45 kilowatts thermal.					

Qualifications and credit framework

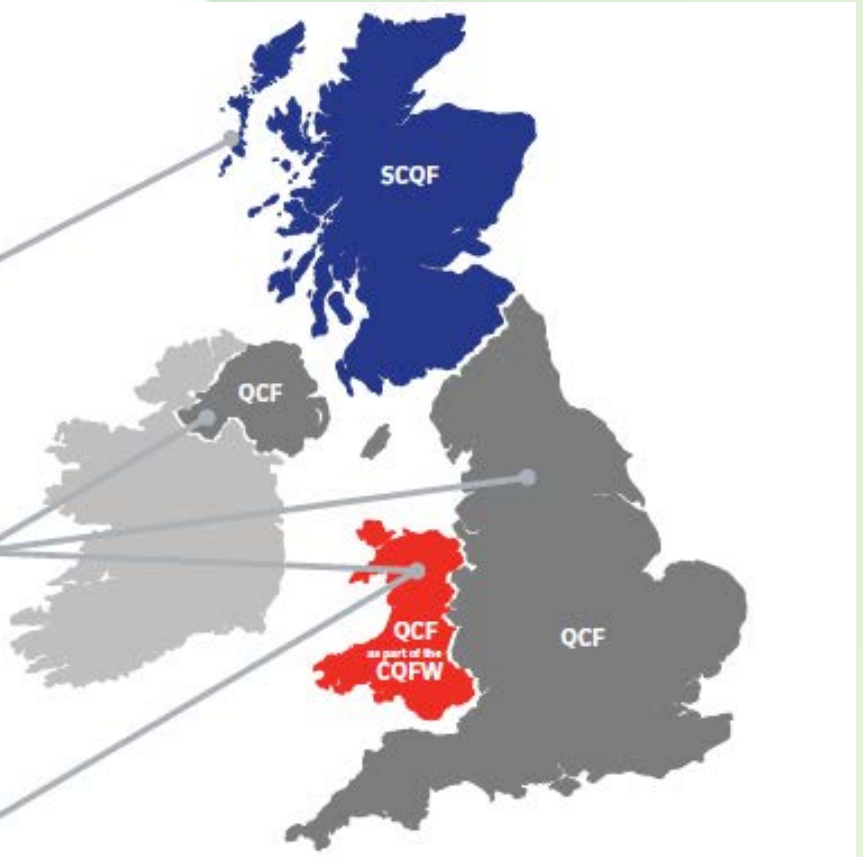
- Replace the National Qualifications Framework (NQF) from January 2011
- At the heart of a major reform of the vocational qualifications system - make the whole system simpler to understand and use and more inclusive
- Make both the system and the qualifications offered far more relevant to the needs of employers and more flexible and accessible for learners

Implementation

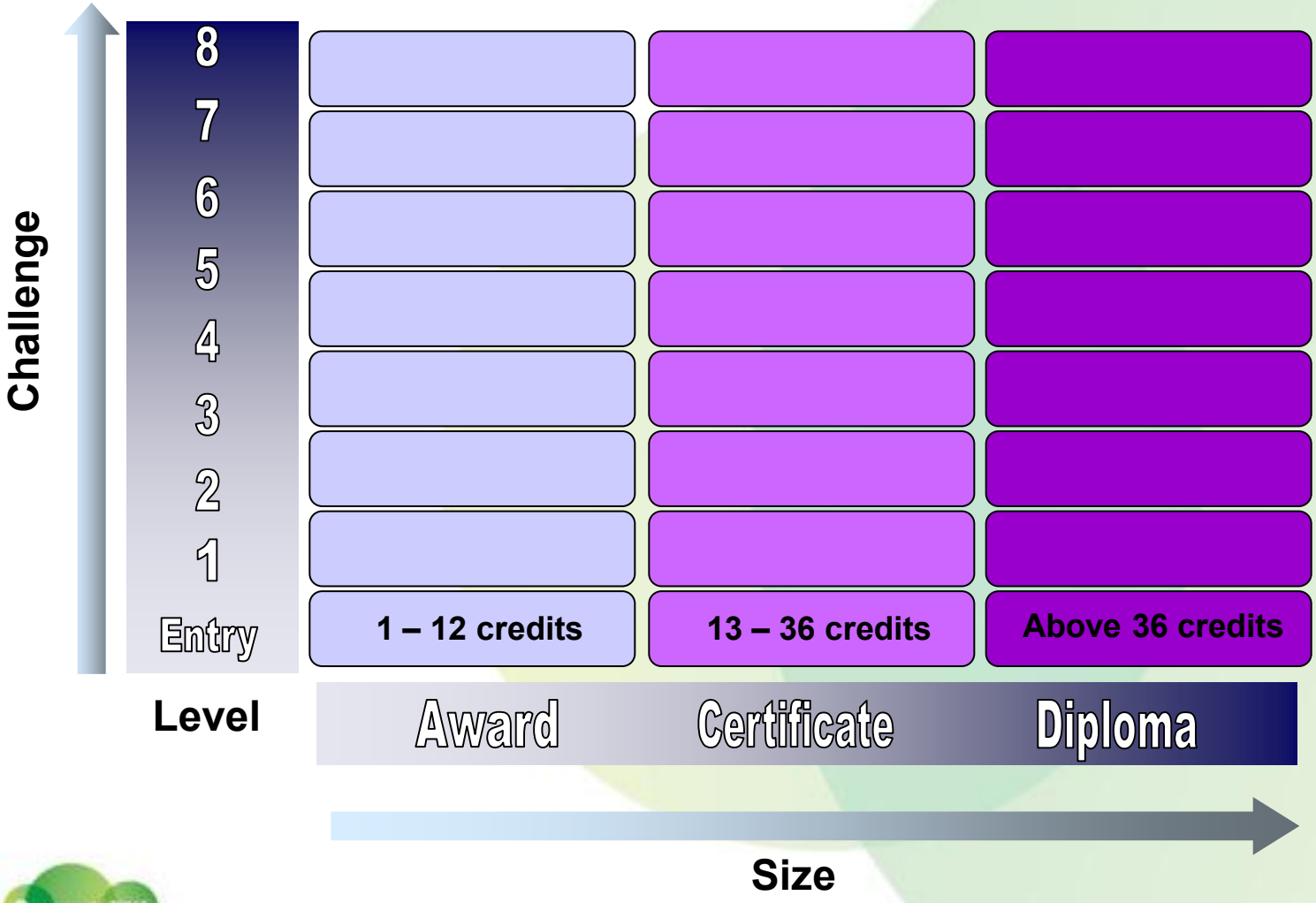
Scotland is already operating under the **Scottish Credit and Qualifications Framework** (SCQF), which differs in structure to the QCF – parties are looking at cross framework articulation.

The **QCF** will be implemented across **England, Wales** and **Northern Ireland.**

In **Wales** the **QCF** will form part of the larger **Credit and Qualifications Framework for Wales** (CQFW).



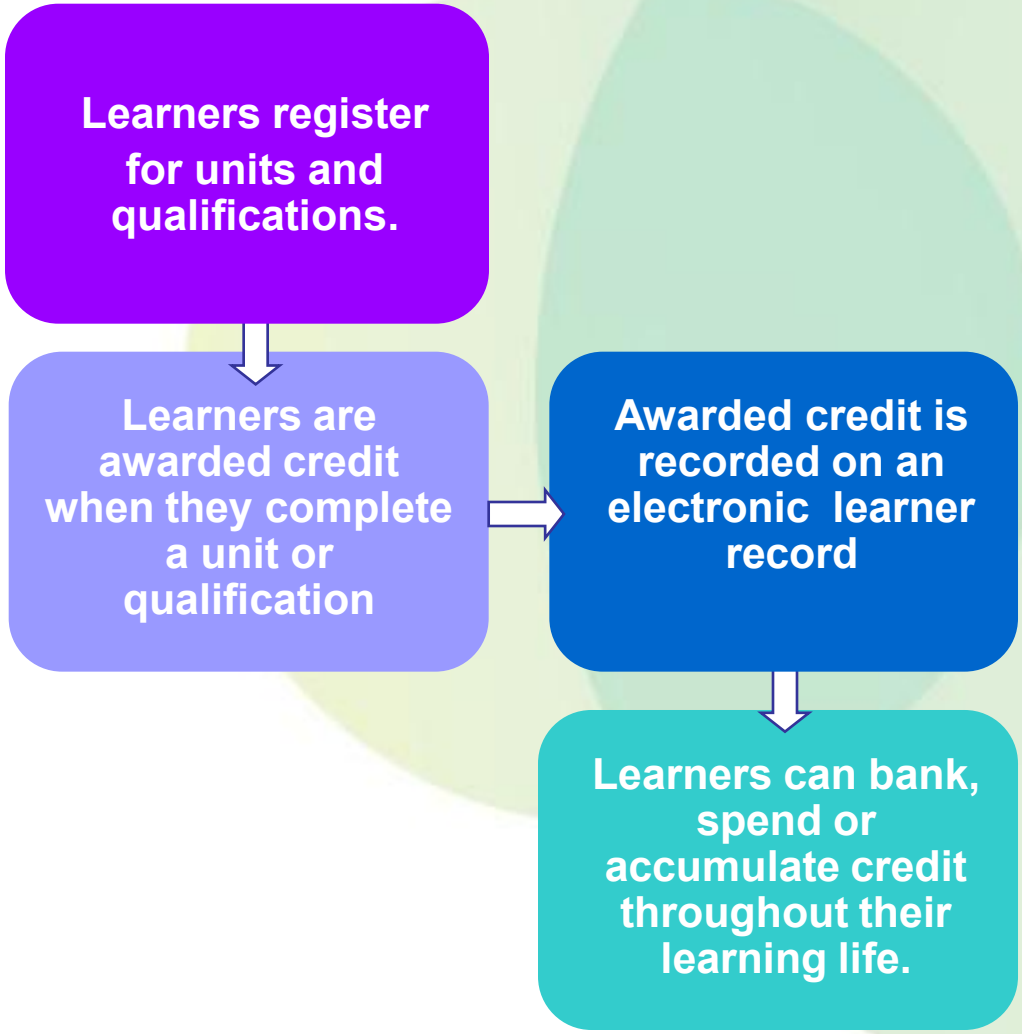
Framework


Challenge
8
7
6
5
4
3
2
1
Entry
1 – 12 credits
13 – 36 credits
Above 36 credits
Level
Award
Certificate
Diploma
Size

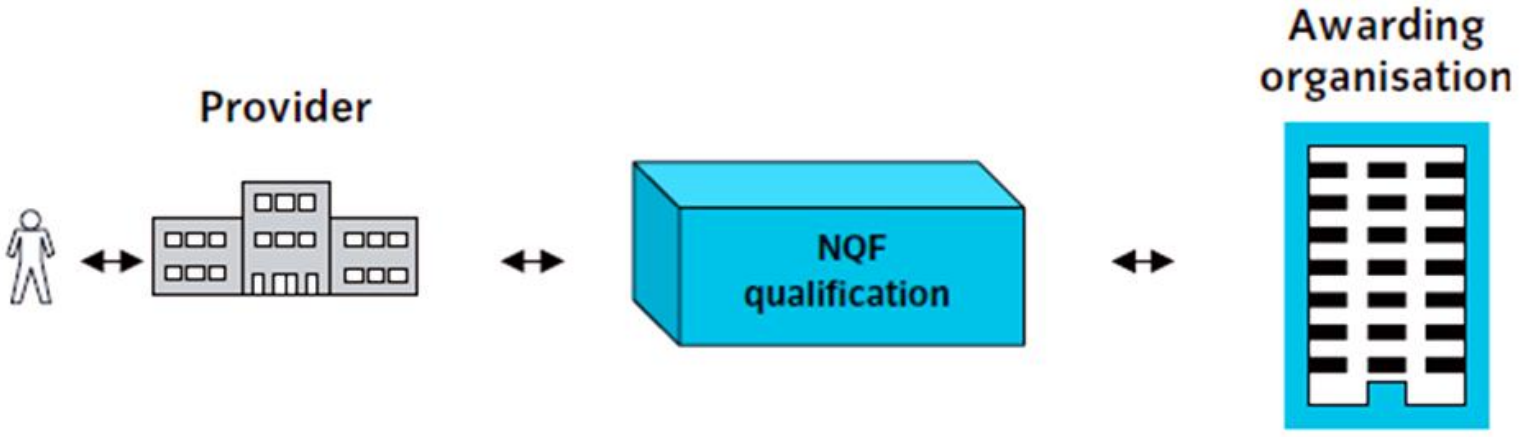
Operating principles

*Credit Value: 1 Credit = 10 notional hours learning

Operating principles

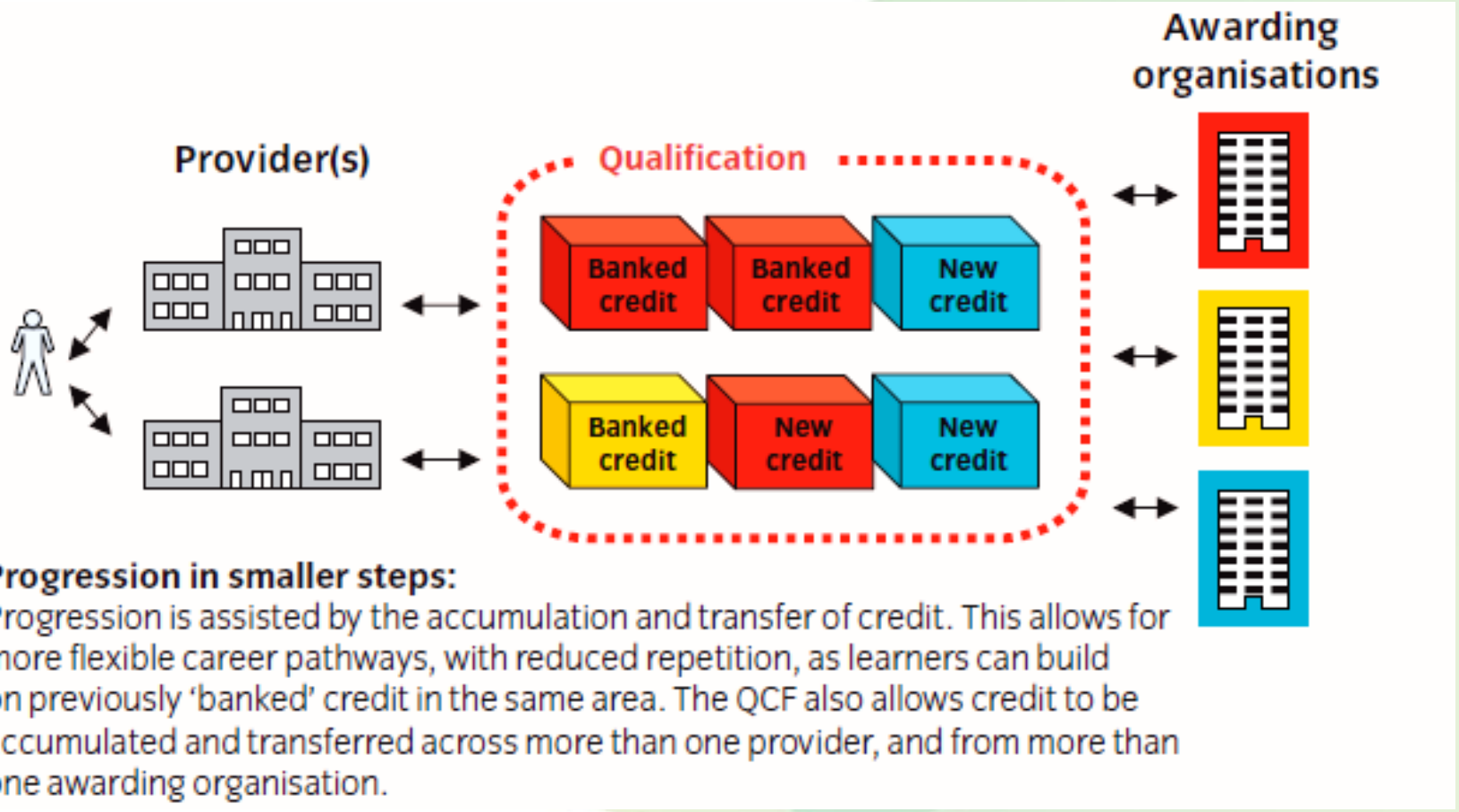


NQF



A simple, but inflexible 1-1 relationship:
Under the National Qualifications Framework (NQF), a learner almost always completed a large qualification, with one learning provider, through one awarding organisation. This often restricted a learner's choice in the 'what', 'where' and 'when' of their own skills development. It is thought that this would have restricted the UK in its aim to be a world leader in skills by 2020.

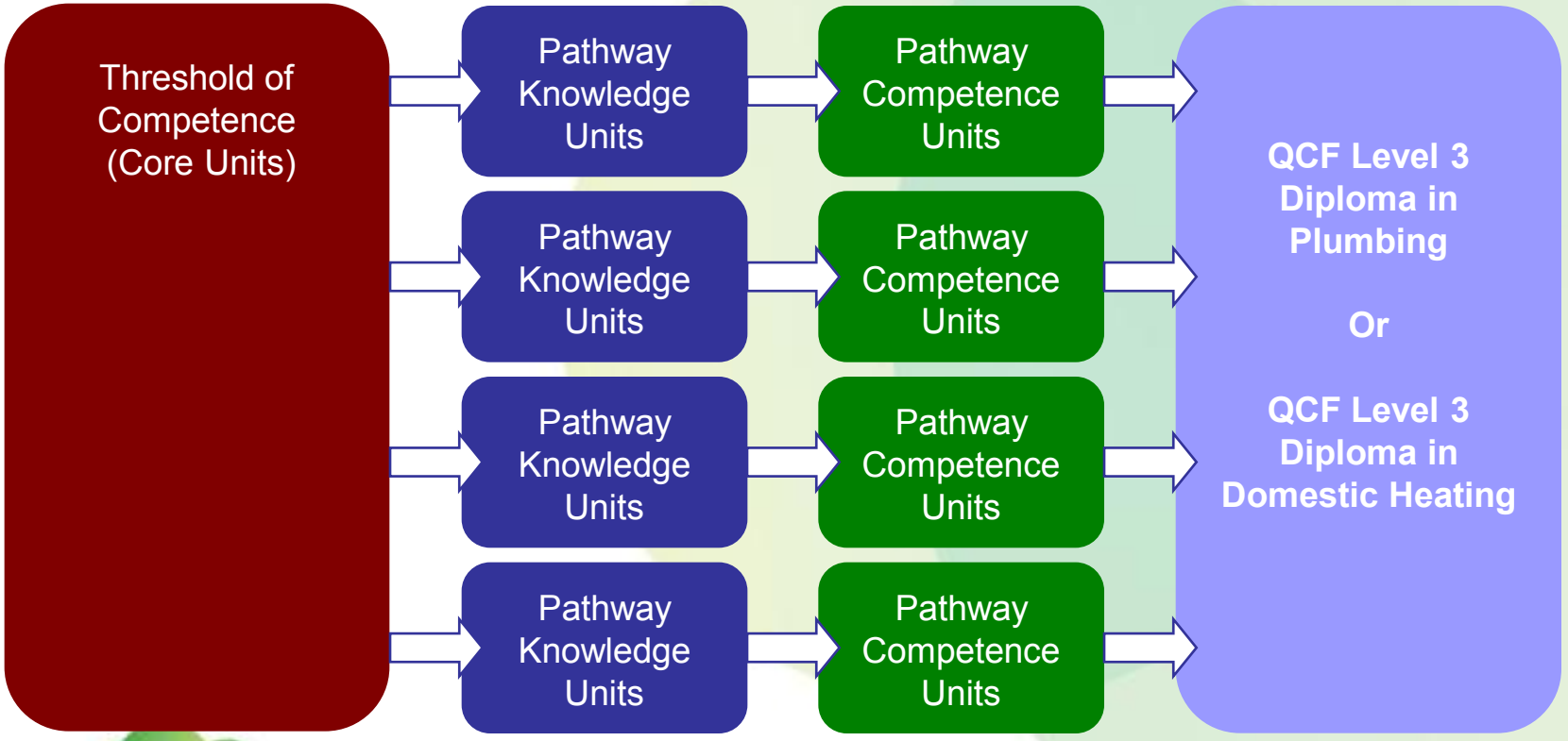
QCF



Progression in smaller steps:

Progression is assisted by the accumulation and transfer of credit. This allows for more flexible career pathways, with reduced repetition, as learners can build on previously 'banked' credit in the same area. The QCF also allows credit to be accumulated and transferred across more than one provider, and from more than one awarding organisation.

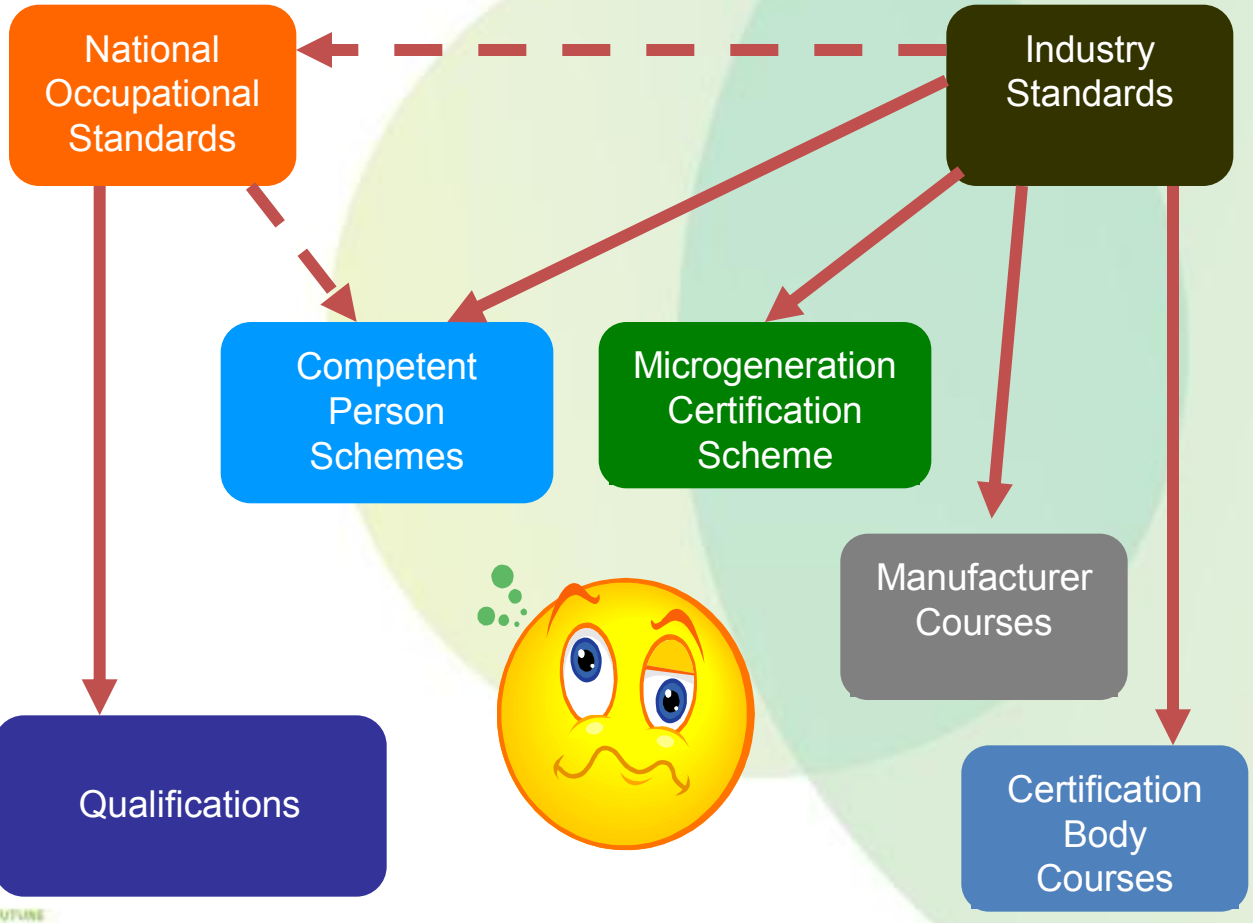
QCF – possible pathway route (within a competence based qualification)



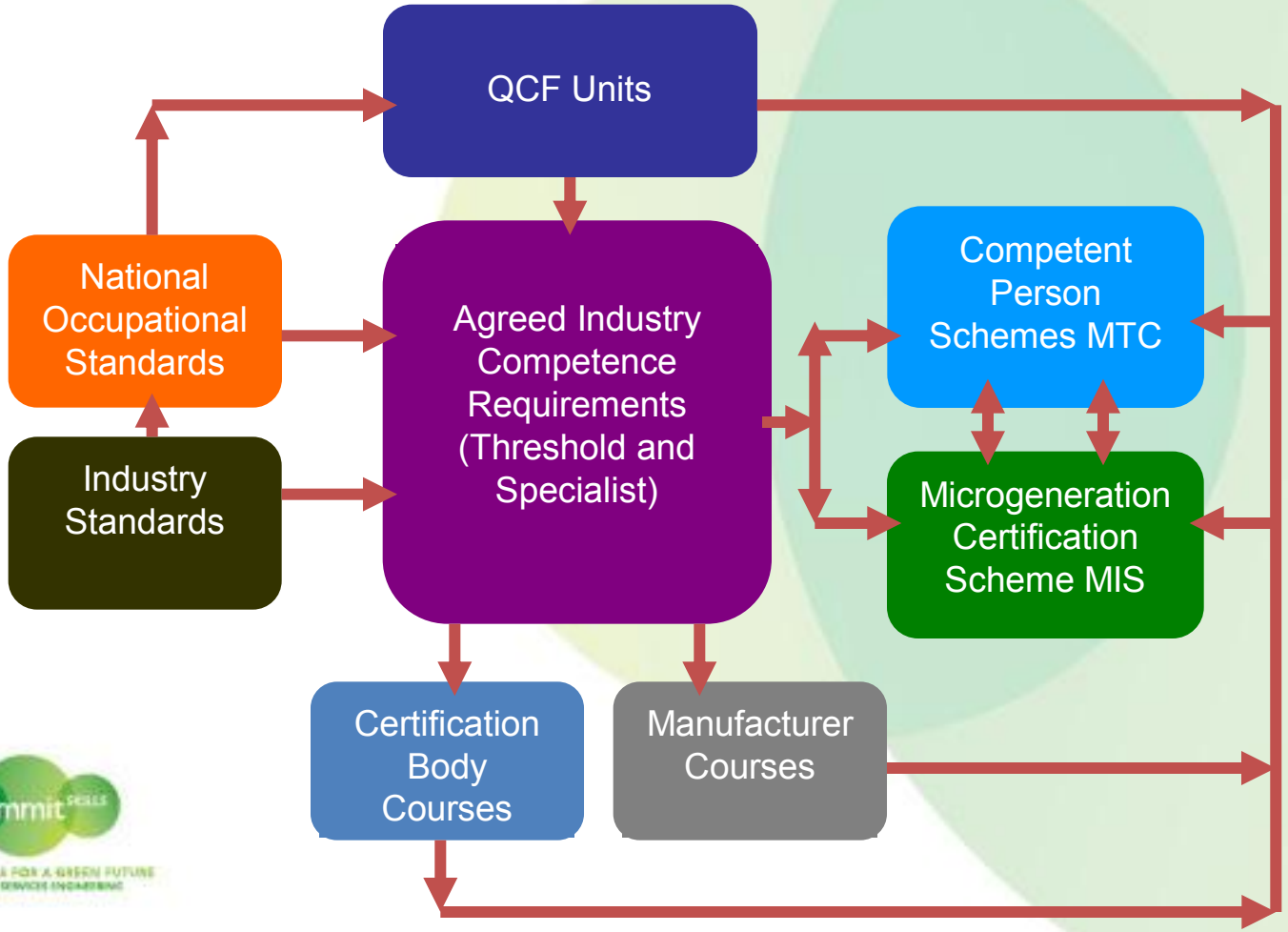
Pathways = Gas, Oil, Solid Fuel, Environmental Technologies

To be available within and outside of apprenticeship frameworks

QCF and competence schemes

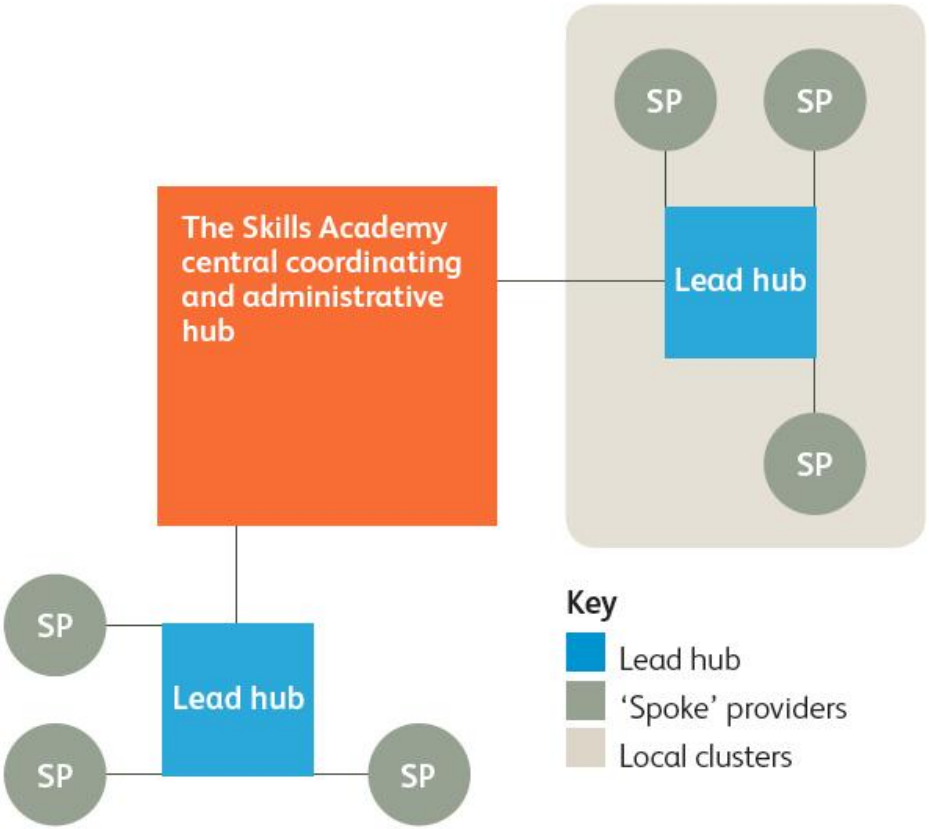


QCF and competence schemes

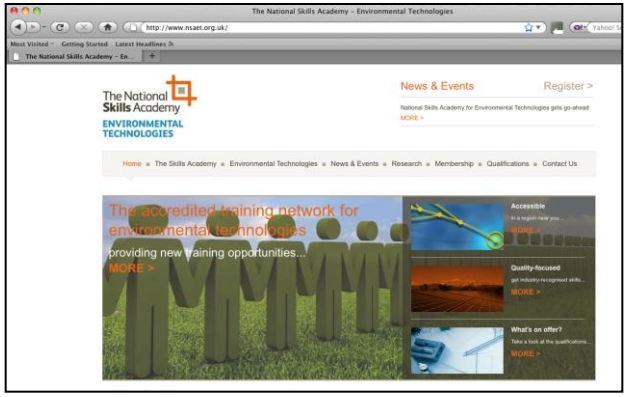


The National Skills Academy
ENVIRONMENTAL TECHNOLOGIES

Skills Academy Governance



Development to date



- News releases
- Initial website – to be developed further
- Literature production
- Corporate templates
- Tailored qualifications factsheet for hubs
- Train the trainer and learner support material

Scope of the Skills Academy

Launched to date

- Level 3 Award in Understanding the Fundamental Principles and Requirements of Environmental Technology Systems
- Level 3 Award in the Installation and Maintenance of Solar Thermal Hot Water Systems
- Level 3 Award in the Installation and Maintenance of Small Scale Solar Photovoltaic Systems
- Level 3 Award in the Installation and Maintenance of Heat Pump Systems (Non-Refrigerant Circuits)
- Level 3 Award in the Installation and Maintenance of Water Harvesting and Recycling Systems

Ongoing communications strategy

Head office:

- Awareness raising amongst govt and industry stakeholders
- Regional LEP partnerships
- Internal communication across the network
- Trade press activity for ‘blanket’ employer coverage
- Nationwide partnerships to target employers
- Central regular e-newsletter
- Central literature production

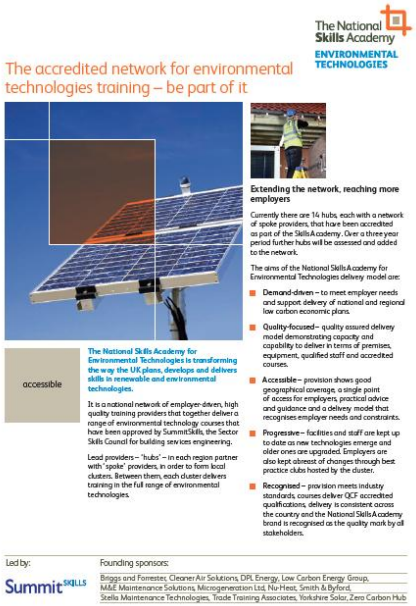
Ongoing communications strategy

Hubs:

- Direct local employer contact and recruitment onto courses
- Employer forums
- Communication across the hub cluster
- Communication between hubs where relevant
- Implementation of marketing plans submitted during tender process

Future Development

- Extension of the Skills Academy
- Phase 2 launch April 2011
- Continued quality products development
- Access to funding
- National Launch


The National Skills Academy
ENVIRONMENTAL TECHNOLOGIES

The accredited network for environmental technologies training – be part of it

Extending the network, reaching more employers

Currently there are 14 hubs, each with a network of spoke providers, that have been accredited as part of the Skills Academy. Over a three year period further hubs will be assessed and added to the network.

The aims of the National Skills Academy for Environmental Technologies delivery model are:

- Demand-driven – to meet employer needs and support delivery of national and regional low carbon economic plans.
- Quality-focused– quality assured delivery model demonstrating capacity and capability to deliver in terms of premises, equipment, qualified staff and accredited courses.
- Accessible– provision shows good geographical coverage, a single point of access for employers, practical advice and guidance and a delivery model that recognises employer needs and constraints.
- Progressive– facilities and staff are kept up to date as new technologies emerge and older ones are upgraded. Employers are also kept abreast of changes through best practice clubs hosted by the cluster.
- Recognised – provision meets industry standards, courses deliver QCF accredited qualifications, delivery is consistent across the country and the National Skills Academy brand is recognised as the quality mark by all stakeholders.

accessible

The National Skills Academy for Environmental Technologies is transforming the way the UK plans, develops and delivers skills in renewable and environmental technologies.

It is a national network of employer-driven, high quality training providers that together deliver a range of environmental technology courses that have been approved by SummitSkills, the Sector Skills Council for building services engineering.

Lead providers – 'hubs' – in each region partner with 'spoke' providers, in order to form local clusters. Between them, each cluster delivers training in the full range of environmental technologies.

Led by: Summit SKILLS

Founding sponsors:
Briggs and Forrester, Cleaner Air Solutions, DPL Energy, Low Carbon Energy Group, M&E Maintenance Solutions, Microgeneration Ltd, Nu-Heat, Smith & Byford, Stella Maintenance Technologies, Trade Training Associates, Yorkshire Solar, Zero Carbon Hub