

Accreditations,
Standards and
Technology
Validation



Clean Heat Accelerator

02 September 2024

Agenda



Clean Heat
Accelerator

- CLT Intro – what are Standards and Accreditations for?
- Speaker – ES Catapult – Andy Perry. Standards for Clean Heat
- Speaker – OFGEM – Jack Loughlin and Eric Baster. ECO, BUS, RHI
- Speaker – MCS – Martyn Raine

THURSDAY: SAP and PAS. Neil Cutland

Why get certified?

Minimum Standards (REGULATIONS)

- Safety
- Performance / Efficiency
- formal certification to sell kit or service in a regulated market
- certification to access grant or subsidy

NB Engaging with standards bodies and regulators is just as important for tech cos bringing new tech to market as for installers

Evidence of Quality

- Scoring systems. Usually by trade associations, etc.
- Minimum standards then improvements.

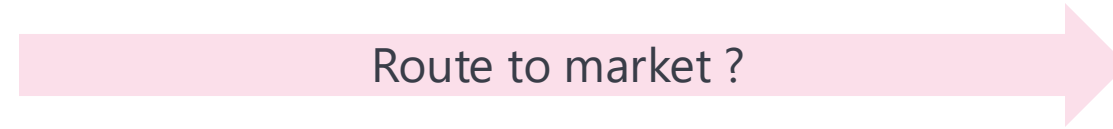
Standards for Clean Heat

Andy Perry





Innovator
with
innovation



2021 – Initial work by SEA to identify and characterise challenges and opportunities.

2022-23 – Workshops to deep dive approaches and way forward.

2024 – Project proposal, commencement, completion by Summer.

Six principal issues facing innovators were identified :

1. **No clear roadmap** exists for innovators to follow.
2. The existence of multiple organisations involved with regulating the sector means there is uncertainty with regards to **who is responsible for what**.
3. Current arrangements are blighted by slow decision making, with no overarching authority suitably empowered to provide **appropriate governance**.
4. Existing **SAP process** is designed for products that seek to provide energy savings. Innovative products that deliver energy efficiency benefits in alternative ways are more difficult to assess; especially where no product or testing standards currently exist.
5. An understanding of **time and financial resources** for completing the whole process cannot be defined at commencement.
6. A process for adding **innovative products into PAS 2030:2023** is absent.

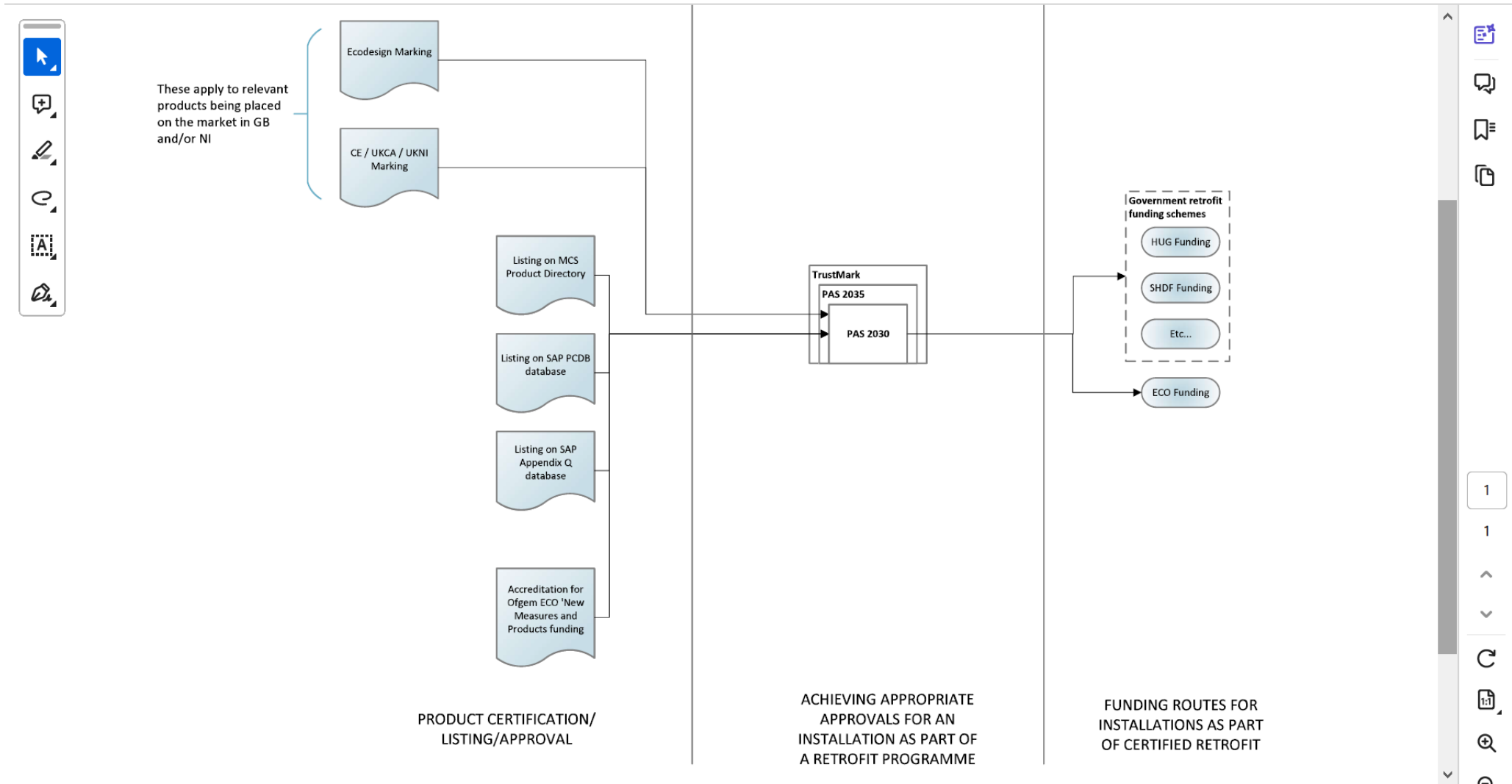
Navigating Standards and Compliance

An IUK accelerator project to support manufacturers and innovators by **developing a route map to overcome barriers** for businesses trying to get their innovations approved for inclusion in protected install schemes, **whilst continuing to meet existing policy requirements and maintaining the necessary consumer protection and controls.**

Way Forward

Step	Core requirement	Process / Award
1	Assess energy saving (via large scale field trial)	SAP Appendix Q (Stages 1-6)
2	Quantify risks (via large scale field trial)	Demonstration trial PAS 2035
3	Identify certification body	Apply to certification body Register product on MCS database
4	Agree installation standards	Identify PAS2035 Appendix
5	Ensure trained installers exist	Train installer base PAS 2035
6	Secure insurance backed guarantee	Financial protection panel Trustmark
7	Product recognised by Trustmark	

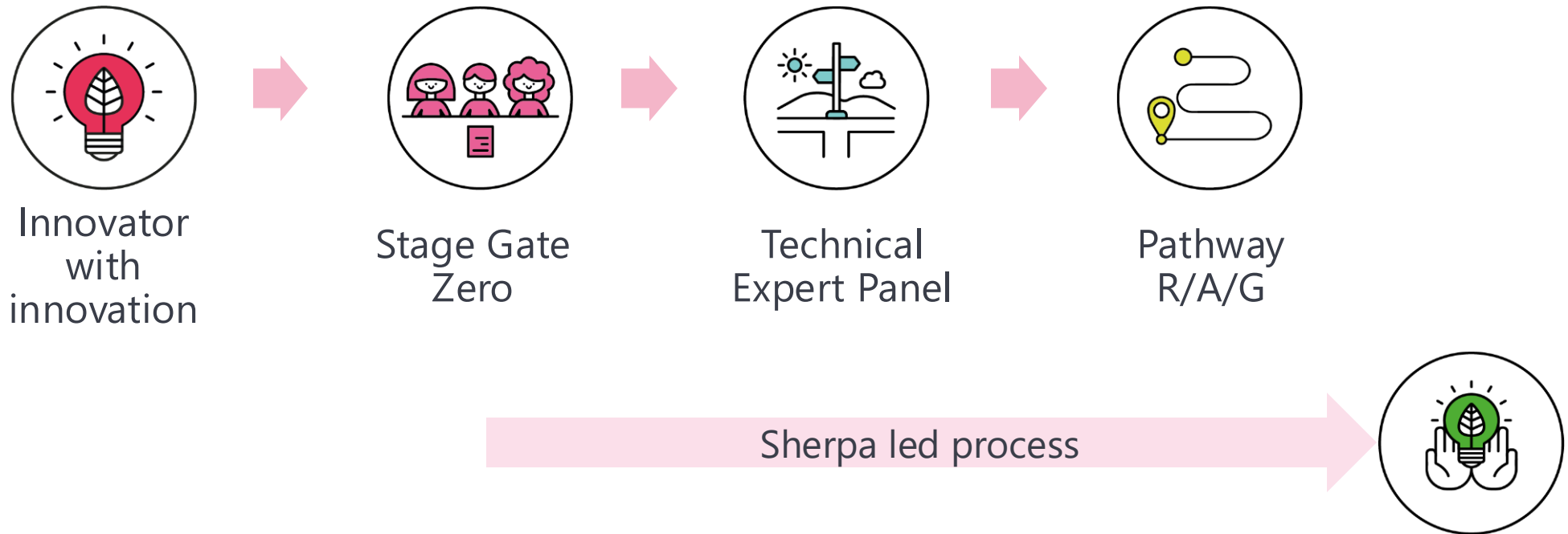
Process



Government response

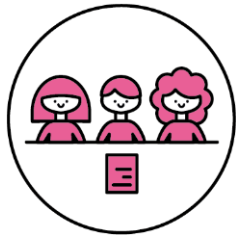
425. ECO4 projects are expected to be carried out in accordance with the latest PAS2035 standards and associated processes⁵⁴; this includes installation in accordance with latest version of PAS2030 and MCS standards where relevant. Government intends to proceed with removing reference to PAS2035:2019 and PAS2030:2019 from the ECO4 order. The published TrustMark Framework provides an overview of TrustMark's responsibilities. This Framework requires compliance and certification with PAS standards for all relevant ECO measures and has developed systems for checking that certification is current and in place for the measures being delivered by installers.

1. **Need for a Stage Gate Zero: Health Check.**
2. **Creation of a customer journey and easy-to-read guide.**
3. **Need for an independent third-party coordinator.**
4. **Need for intermediate steps in the processes:**
 - **Provisional accreditations:** Providing start-ups in the early stages with provisional accreditations (in SAP, for example). This would allow them to work towards full accreditation gradually, making the process more accessible.
 - **In-house installations:** Allow small businesses to undertake a limited install of the first 100 - 1000 products themselves (without the need for external installers) within the PAS process.



Stage Gate Zero

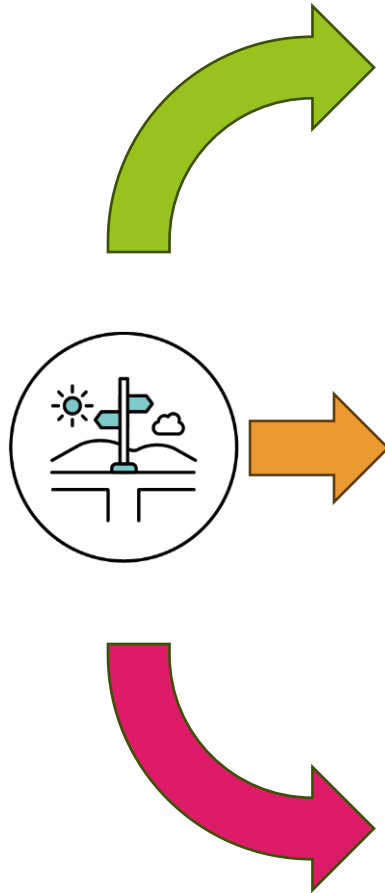
Pre-accreditation checks and sherpa led process familiarisation



- Gateway to the process
- Innovator can understand their readiness
 - Status of company
 - Status of innovation
- Map out the process
 - Activities
 - Timescales
 - Costs
 - Involved parties



- Transparent, government appointed panel with duty to safeguard buildings and their occupants
- Carries out:
 - Risk appraisal
 - Technical reviews



Green

- Innovation appears to fit into an existing product category within the current schemes
- Follow established process

Amber

- product and company are technically suitable for accreditation
- likely to encounter hurdles going through the existing process
- Would benefit from additional guidance

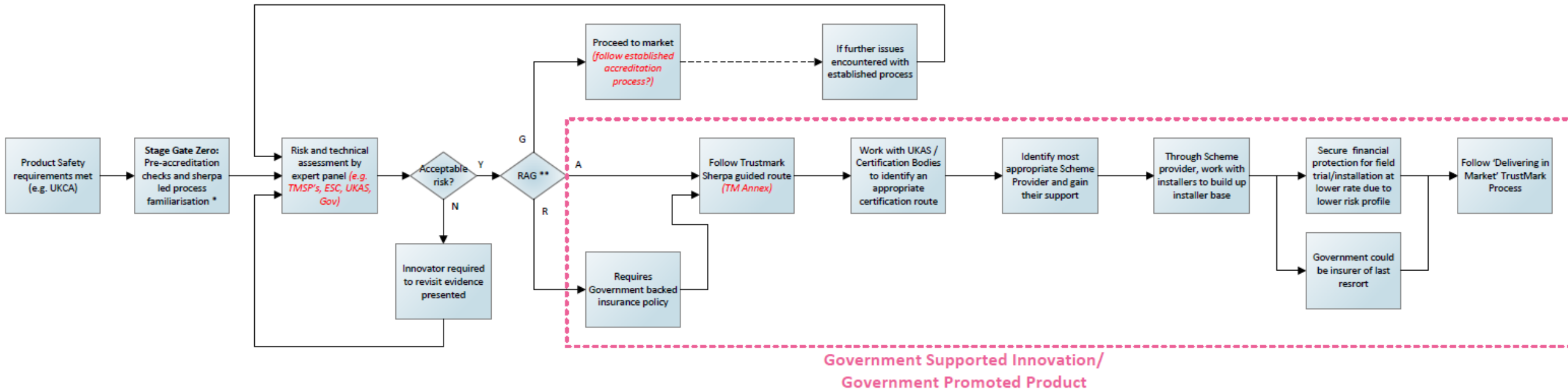
Red

- Similar to Amber
- Remaining product development and operational risks are such that the innovator would have difficulty securing financial protection through the established routes
- Government backed insurance required



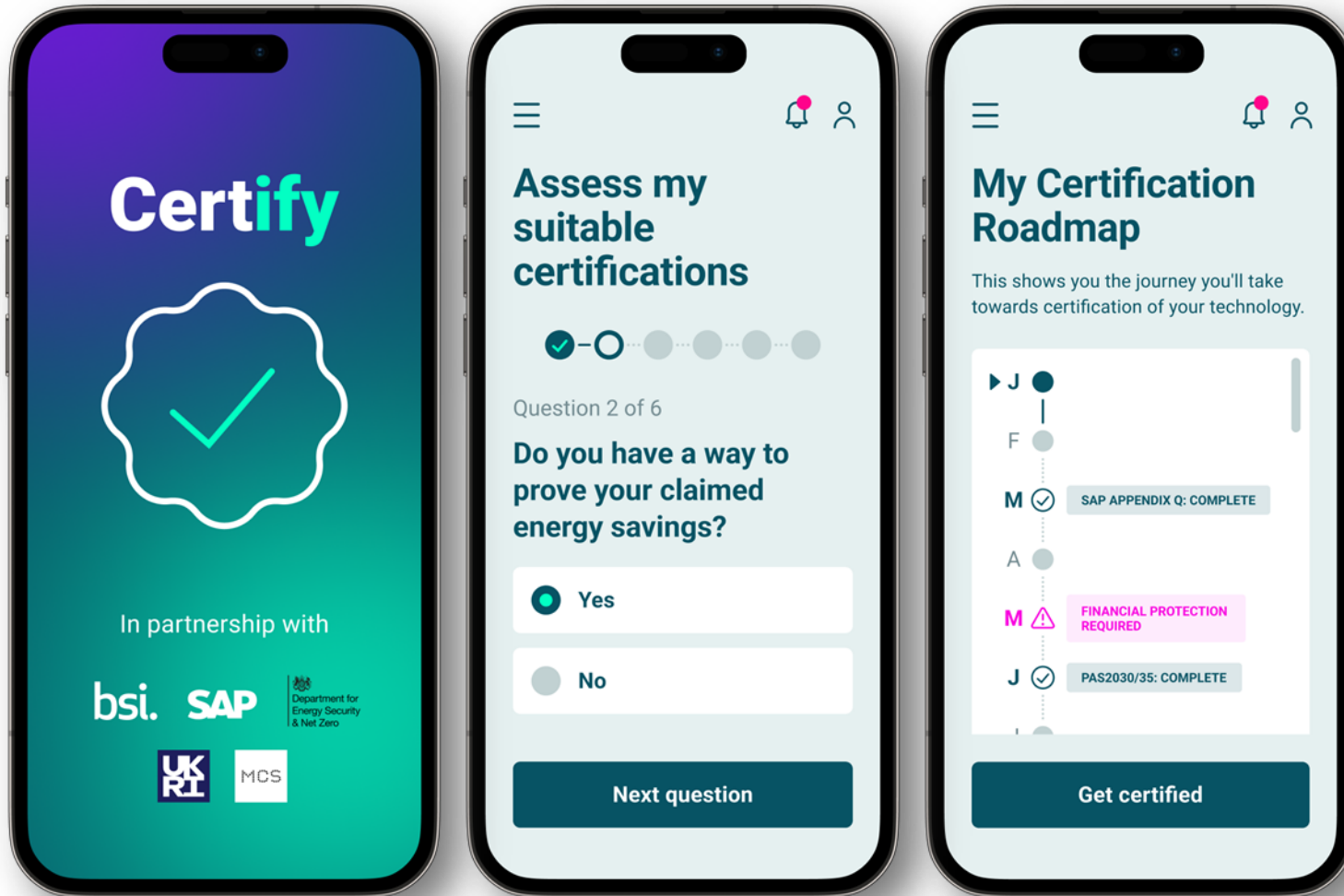
- The Sherpa organisation is the innovator's expert friend
- Helps innovator navigate floes of decision making and identification of key organisations
- Commitment to limit drop-outs and complete journey to successful endpoint.

Full process – Appendix 3 of overarching report



Continuous signposting available to Innovators

Future Direction ?



App concept to help innovators identify the right approvals pathway, and take them on the journey

- Assess the product to define what certifications it needs
- Provide a simplified and joined up journey towards regulatory approval



CATAPULT
Energy Systems

Thank you


es.catapult.org.uk
[@energysyscat](https://twitter.com/energysyscat)



SE Clean Heat Accelerator Topic 8

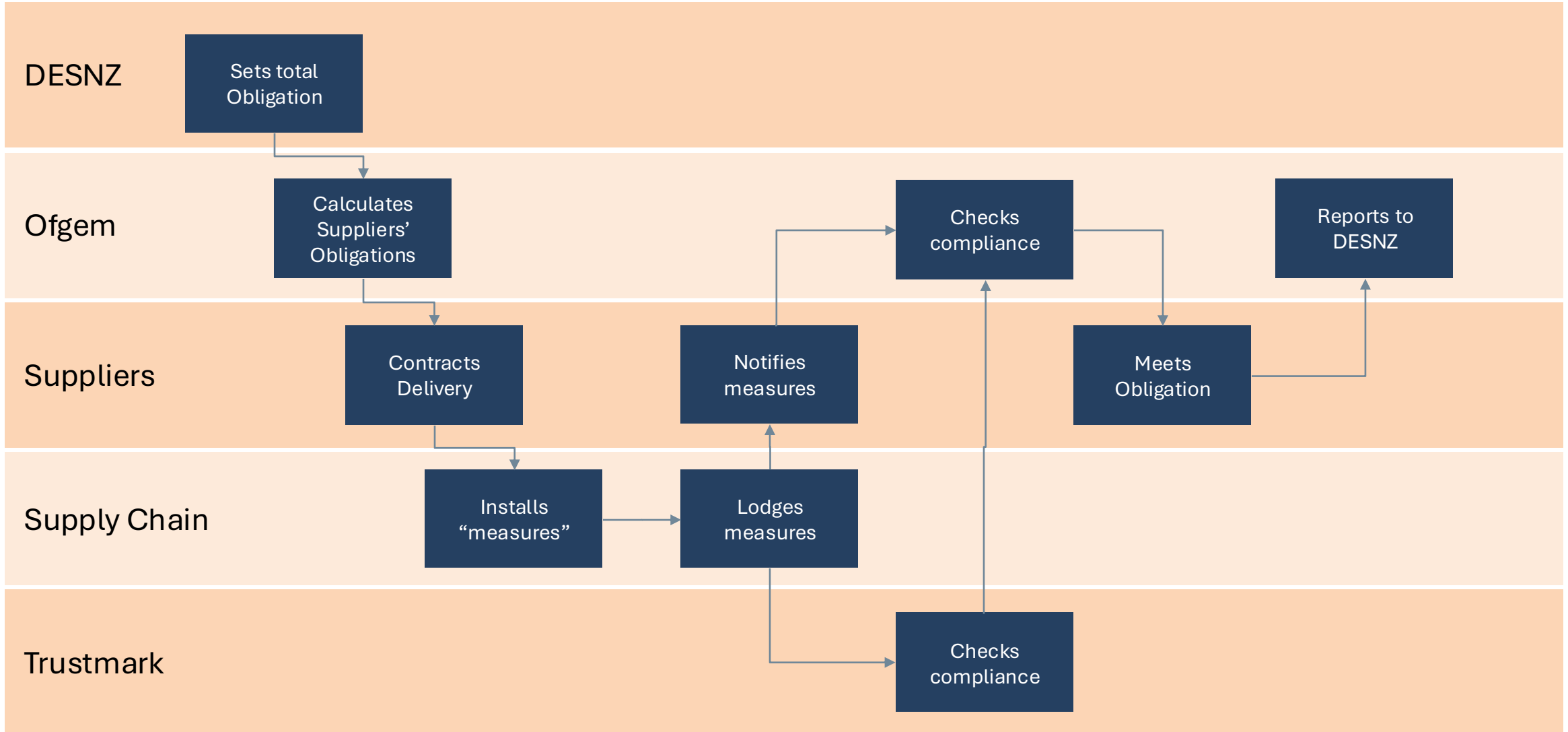
Ofgem-administered schemes: standards and accreditations



Jack Loughlin and Eric Baster
02/09/24

Scheme	Open	Eligible techs	Standard(s)	Notes
Domestic RHI	2014 - 2021	<ul style="list-style-type: none"> ASHP G/WSHP Biomass Solar Thermal 		<ul style="list-style-type: none"> Replacement product Scheme-specific rules See Essential Guide
Boiler Upgrade Scheme	2022 - 2028	<ul style="list-style-type: none"> ASHP G/WSHP Biomass 		<ul style="list-style-type: none"> Scheme-specific rules See Installer Guidance

Scheme	Open	Eligible techs	Standard(s)	Notes
ECO4	2022 - 2026	<ul style="list-style-type: none"> ASHP G/WSHP DHC Gas Boilers Solar PV Insulation Heating Controls 	 	<ul style="list-style-type: none"> Whole-house retrofit Scheme-specific rules See ECO4 Measures Table
Great British Insulation Scheme (GBIS)	2023 - 2026	<ul style="list-style-type: none"> Insulation Heating Controls 		<ul style="list-style-type: none"> Single measures Scheme-specific rules See GBIS Measures Table New measures and products



Our [ECO4 measures table](#) sets out the types of energy efficiency measure we currently consider to be eligible in the scheme (**red text** - measures also included in GBIS).

'Scores' associated with each measure are set out in the [ECO4 Partial Project Scores Matrix](#).

Measure category	Measure description
Boiler	Gas boiler, biomass boiler, heat pump or mCHP
Electric Storage heater	High heat retention electric storage heaters
District heating connection	Connection to district heating scheme
Heating controls	Programmer and room thermostat , smart thermostat, TRVs , Time and temperature zone control, compensation
Micro-generation	Solar PV
Cavity wall insulation	Cavity wall insulation, party cavity wall insulation
External/internal wall insulation	External, internal and hybrid wall insulation
Roof insulation	Loft insulation, flat roof insulation, pitched roof insulation, room in roof insulation
Floor insulation	Solid floor insulation, underfloor insulation
Other insulation	window glazing, high performance external doors, draught proofing, park home insulation

Three application routes for adding new measures to ECO4 ([guidance and application form](#)).

New measures already in SAP/RdSAP

Informal application

- Measure must meet standard eligibility criteria – e.g. deliverable under PAS 2030/MCS

New measures not already in SAP/RdSAP

Standard alternative methodology

- Evidence of energy saving to an equivalent standard as required by SAP appendix Q
- Measure meets standard eligibility criteria – e.g. deliverable under PAS 2030/MCS

Data light measure

- Evidence of energy saving can be less than that required by SAP appendix Q
- There must exist a suitable standard, designed to ensure the safety and efficacy of the measure on its installation, to which products can be certified by a person accredited to ISO/IEC 17065:2012.
- capped at 1,250 installations per annum

For all applications, where we are satisfied with the application, we will create a new measure type and scores.
Key issue is likely to be determining appropriate generic measure description – inclusive of similar products.

Energy suppliers can apply to Ofgem have a product recognised as an Innovation Measure (IM) in ECO4. When a supplier installs an approved IM, they receive a bonus – incentivises delivery.

'Standard' IM - additional 25% awarded on top of normal score.

'Substantial' IM – additional 45% awarded on top of normal score.

Products must

- be ECO4-eligible: existing measure type, deliverable under PAS 2030/MCS
- be an improvement over comparable products which would otherwise be installed
- hold relevant certification covering safety and performance (generally an agrément certificate)
- in the case of relevant insulation measures, be covered by a 25-year guarantee

Eligible improvements:

- Annual cost savings
- Installation costs
- Durability
- Environmental impact
- Disruption to householders

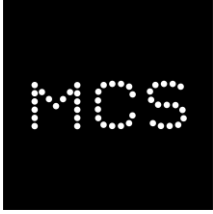
There are currently 30 innovation measures approved in ECO4.
Below some examples([full list](#)):

IM type	Relevant products	Characteristics of IM	IM type/uplift
External Wall Insulation (EWI)	K Systems EWI when specified with K Systems HP14 ECO for basecoat and adhesive layers	The production methodology of the basecoat and adhesive supports a reduction in embodied carbon of the EWI system.	Standard innovation measure: 25%
Solar PV	UKSOL MCS certified monocrystalline solar PV panels with built in Tigo optimisers	PV installations which may previously have been unsuitable due to shading, are now able to have PV installed. An optimised panel (using MCS approved technologies) increases electricity production.	Standard innovation measure: 25%
ASHP	Trianco Activair High Temp ASHP – MCS: BSI KM 785261	The system includes an MCS certified ASHP using R290 refrigerant. The features improve durability and reduce disruption to the end-user.	Standard innovation measure: 25%
Cavity Wall Insulation (CWI)	ARP CWI (BBA certificate 89/2294, product sheet 2. KIWA BDA Certificate Number BAW-17-071-S-A-UK)	The system involves the injection of mineral wool insulation into cavity walls in properties over 5 storeys using a rope access installation technique, avoiding the need for scaffolding. The technique reduces installation time and costs.	Substantial innovation measure: 45%
Smart thermostat	Switchee Smart Thermostats (Gen2 Smart Learning Thermostat and Switchee Econa)	The product uses GSM connectivity rather than Wi-Fi (which is not universally available in fuel poor households). The product can provide alerts to landlords to help manage building stock.	Standard innovation measure: 25%

Ofgem is the Office of Gas and Electricity Markets. We are a non-ministerial government department and an independent National Regulatory Authority, recognised by EU Directives. Our role is to protect consumers now and in the future by working to deliver a greener, fairer energy system.

We do this by:

- **working with Government, industry and consumer groups to deliver a net zero economy at the lowest cost to consumers.**
- **stamping out sharp and bad practice, ensuring fair treatment for all consumers, especially the vulnerable.**
- **enabling competition and innovation, which drives down prices and results in new products and services for consumers.**



Microgeneration Certification Scheme

MCS

- Certification scheme (UKAS) – small-scale renewables
- Certification of contractors
- Certification of products
- MCS Standards – by industry, for industry
- Mark of quality – giving everyone confidence in home-grown energy

Scheme operation

Certification bodies – contractors

The MCS certification scheme for contractors is operated by certification bodies.

Certification bodies carry out the day-to-day operation of the certification scheme.

Certification scheme – product .

The MCS certification scheme for products is operated by certification bodies.

Certification bodies carry out the testing and monitoring of products ensuring they are of suitable quality.

Contractors

MCS is a 'mark of quality'

Funding scheme access – across the UK

- Boiler upgrade scheme (BUS)
- Home Energy Scotland (HES)
- Energy Company Obligation (ECO4)

Website listing

Postcode search tool

MCS Foundation – giving back



Consumers

MCS is a 'mark of quality'

Performance & installation standards

Vetting of contractors

Consumer protection

Access government funding

Search tool – quality

The MCS logo is displayed in a white, dot-matrix font within a white square, which is centered on a black background. The letters 'M', 'C', and 'S' are formed by a grid of small black dots.

MCS Certification Scheme – Redevelopment

Industry consultation 2023

2025 – new scheme

Reduced focus on paperwork

Risk based assessments

Standardised assessments

Centralised complaint management

Closer relationship with MCS

Consumer codes

Thank you

hello@mcscertified.com

Questions?

Clean Heat Accelerator

02 September 2024