

This presentation was live at:



Smart Buildings

SHOW

18-19 October 2023 • ExCel London



Tackling the demand for skilled professionals - building controls

Andy Reakes, Director of Growth and Development

Agenda

What is ECS?

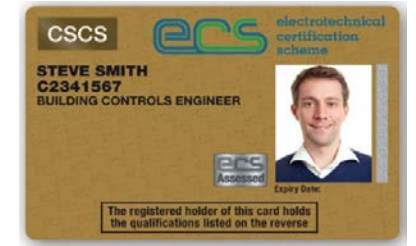
- Governance and Structures

Building Safety and competence – what's the link?

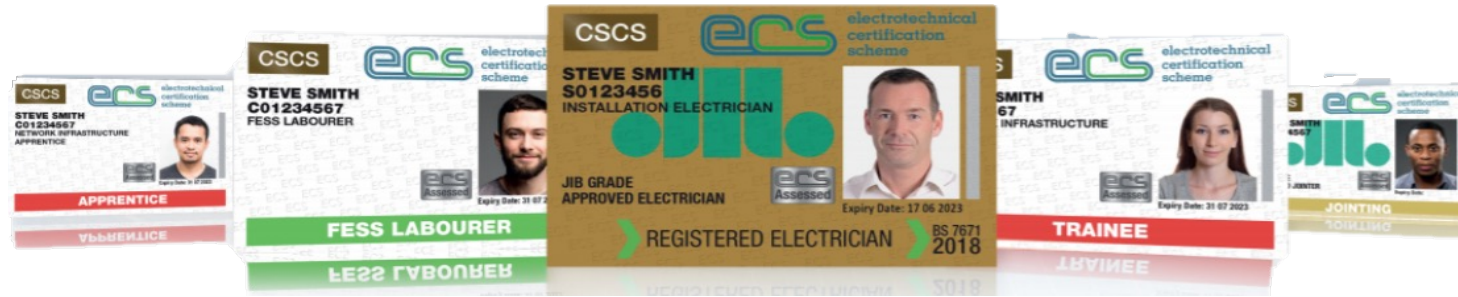
Building Controls – Sector Framework

Digital Solutions for verification of competence

- Visibility through the supply chain - ECS Check
- One App to check over 2m cardholders – CSCS Smart Check



What is ECS?



ECS is a digital personnel certification scheme giving visibility of competency in the electrotechnical industry

Holding an ECS card shows **verified**:

- Qualifications and apprenticeship status
- Occupations
- Experience and employer endorsements
- Identity and vetting
- Health, safety and environmental awareness
- Adherence to industry CPD requirements & codes of practice
- Professional memberships, CPS status and other accreditations



Industry leading smart technology scheme



Over 60,000 registrations each year



Over 4,000 companies using Employer Portal



Over 2000 organisations on ECS Check



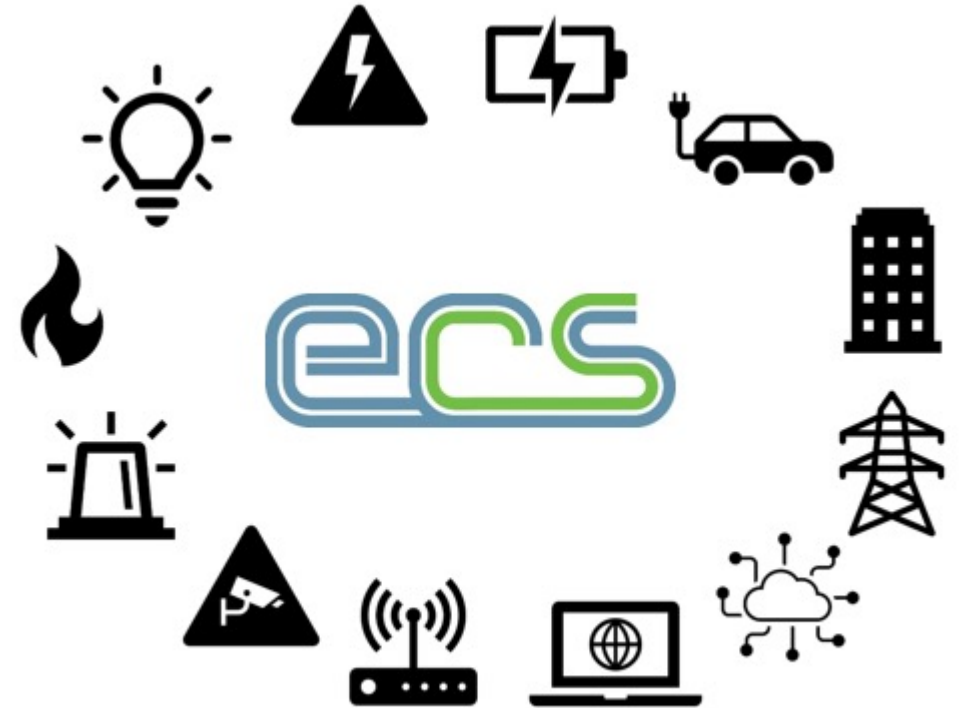
Over 170,000 valid ECS cards in UK



Represents over 60% of electrotechnical sector



CSCS Partner Scheme



Governance and Setting the Standards



Construction
Leadership
Council



Department for
Business, Energy
& Industrial Strategy



Department
for Education



Institute for Apprenticeships
& Technical Education

ECS Steering Committee



Example: Building Controls



Open Control
SOLUTIONS



Group Horizon
LIGHTING UP YOUR FUTURE



The Electrotechnical JIB
Setting employment standards



How are things changing?

“In response to Dame Judith Hackitt’s report, Building a Safer Future, the CLC’s ambition is that everyone involved in any aspect of the design, specification, delivery and maintenance of the built environment is competent to undertake their role and able to complete their work in line with the relevant standards. Individuals working in the built environment should hold, or be working towards, a suitable industry recognised qualification, and be able to demonstrate relevant, up to date skills, knowledge, and appropriate behaviours. In accordance with its position on Industry Card Schemes, a card, carrying the CSCS logo, will be required by those undertaking a construction occupation.

“The CLC will provide the leadership required to ensure the delivery of the recommendations in Setting the Bar which are expected to achieve this vision.”



Building Safety

Working Group 2 - Installers

Third party certification of business



Level 2 or 3 qualification

CSCS card (or partner)



CPD / reassessment / refresher training

Fire safety in buildings knowledge


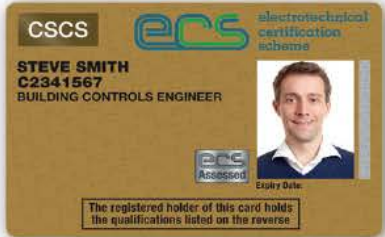
Updated Building Controls Framework

Card Type	Who is the card for and what is required?	Card Image
Building Controls Apprentice	<p>For those on an apprenticeship programme being undertaken for Building Controls, such as the Level 4 Building Energy Management Systems (BEMS) Controls Engineer apprenticeship</p> <p>Must hold a current ECS Health, Safety and Environmental Assessment (there are no exemptions that can be used when applying for this card)</p>	
Building Controls Associate	<p>For those who are generally working under supervision or deploying engineered elements and defined tasks and activities. Provides a progression route for people working in the BEMS sector</p> <p>BCIA BCM00 – Introduction to Building Controls and HVAC OR BCIA BCM01 – Fundamentals of HVAC and Building Technology, OR CIBSE Practical Controls for HVAC Systems AND ECS Electrical Safety Unit AND ECS Health, Safety and Environmental Awareness Assessment</p>	

Updated Building Controls Framework

<p>Building Controls Installer (Electrical)</p>	<p>For technical staff that need to support the installation of building control systems in areas of set up, programming and end user training of the installed system</p> <p>BCIA technical training modules in invigilated conditions - BCM01, BCM02 and BCM03</p> <p>AND Current edition of BS7671 qualification</p> <p>AND ECS Health, Safety and Environmental Awareness Assessment</p>	
<p>Building Controls Technician (Commissioning)</p>	<p>For technical staff that need to support the installation of building control systems in areas of software, fault finding, and commissioning, but do not undertake installation or electrical works</p> <p>BCIA technical training modules in invigilated conditions - BCM01, BCM02 and BCM03</p> <p>AND Approved electrical safe isolation course completed within the last 3 years</p> <p>AND ECS Health, Safety and Environmental Awareness Assessment</p>	

Updated Building Controls Framework

Building Controls Experienced Worker	<p>For applicants that have enrolled onto the BEMS EWA route and completed the BEMS EWA knowledge assessment (as a prerequisite for eligibility onto the EWA), but do not yet have a full industry qualification such as BEMS Controls Engineer apprenticeship</p> <p>BEMS EWA knowledge assessment</p> <p>AND</p> <p>ECS Health, Safety and Environmental Awareness Assessment</p>	 <p>A CSCS card for Sarah Smith, ID C2341567, titled 'BUILDING CONTROLS EXPERIENCED WORKER'. It features the CSCS logo, the ECS logo, and a photo of Sarah Smith. The card is white with a blue border.</p>
Building Controls Engineer	<p>For operatives who work unsupervised to install and maintain integrated building controls that manage the environmental services within a building, for the comfort of its users</p> <p>One of the following:</p> <p>Successful completion of the Level 4 BEMS Apprenticeship Standard</p> <p>OR</p> <p>Successful completion of the Level 3 NVQ in Building Management Systems (no longer available)</p> <p>OR</p> <p>Level 3 NVQ in electrical installation PLUS successful completion of the Building Controls Professional Assessment (BCPA) (no longer available),</p> <p>OR</p> <p>Successful completion of the BEMS Experienced Worker Assessment.</p> <p>AND (for all routes)</p> <p>ECS Health Safety & Environmental (HSE) Awareness Assessment</p>	 <p>A CSCS card for Steve Smith, ID C2341567, titled 'BUILDING CONTROLS ENGINEER'. It features the CSCS logo, the ECS logo, and a photo of Steve Smith. The card is gold with a blue border. A note at the bottom states: 'The registered holder of this card holds the qualifications listed on the reverse'.</p>



Experienced Worker Assessment



Route to a Building Controls Gold Card

Assessment method for those already working in the industry

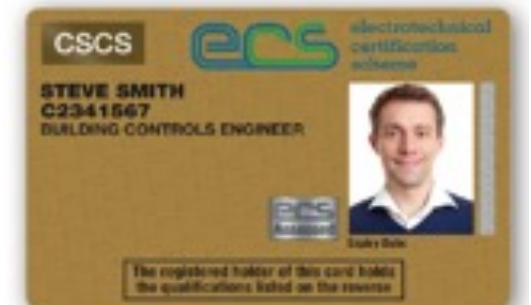
Haven't had chance to undertake apprenticeship / NVQ or similar

Doesn't require people to go back to college / retrain

Assessing to the same standard as the BEMS apprenticeship

Skills scan, knowledge test and work-based assessment

Expected development within Q4 2023



Almost 4,000 organisations using Employer Portal

Company level management of the workforce

- Add and remove employees
- View qualifications and certifications
- Apply or renew cards for employees
- Upload documentation to employee record
- Warnings when cards/ assessments / certificates are expiring
- Updates and progress on applications
- Full financial records

Plus – Remote Invigilation systems used by companies through the Portal

Access for free by downloading an application form from the ECS website





Validation of Qualified Personnel

Web-based verification of ECS cardholders

Identity, HS&E awareness, qualifications, employer endorsement & grade



Workforce demographics

- Set ratios / numbers for types of worker (e.g. apprentices)
- Identify and measure social value and skills gaps
- Reports on local labour

Contract compliance

- Ensure projects meet industry requirements
- LTP in Northern Ireland
- Construction Charters, direct employment – terms above Real Living Wage for all operatives, healthcare insurance etc.

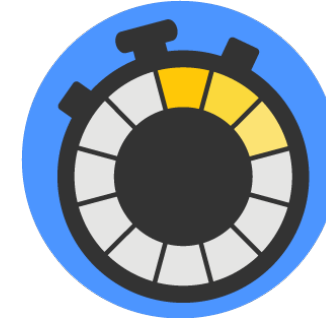


The Electrotechnical JIB
Setting employment standards

eCS CHECK

Real time auditing and reporting

- Supports due diligence & security measures
- Independent auditors function
- Generate reports as and when needed



Smartphone app

- Ease of reference for checking projects 'on-the-go'
- Logs results in audit reports

One system gives multiple site visibility

- Simplicity across sites, projects and across supply chains
- See who is working on sites through subcontractors



eCS CHECK

"ECS Check gives us necessary visibility on our supply chain to ensure the high standards for competence and qualifications to which we hold our employees are also true for our subcontractors."

Balfour Beatty
Kilpatrick

"The ECS Check service gives Mace, our clients and suppliers, confidence that the electrotechnical workforce engaged on our projects meet the high standards we expect."

mace
DRAGADOS



Over £30bn revenue and 400,000 employees globally



Implementation Group

Andy Reakes,
Group Chair



The 38 CSCS Alliance members



The CSCS Alliance brings a unique collective voice on issues relating to skills and competence by supporting a common vision of achieving a fully trained and qualified workforce.

The CSCS Alliance supports a construction workforce that helps to deliver over

£110 bn

annually to the UK economy

The cards provide assurance that over

2 million

UK CONSTRUCTION WORKERS

are trained and qualified for the job they do on site.

Using organisations that employ cardholders displaying the CSCS logo helps secure the

highest level of quality and standards

in the built environment.

Project Objective

CLC Guidance & One Industry Logo Requirements

“to enhance the credibility and recognition of all Card Schemes, increase the uptake of smart technology solutions, ensure a consistent approach and provide ease of access to checking systems for clients and others”

“By 31 March 2022, all card schemes must use smart technology which has the capability to electronically check agreed information relevant to a cardholder, using a common interface, without the need to manually enter data”

Aims:

- Safer workforce - ensure all cards are genuine & in date
- Raise standards - Workers hold the appropriate training and qualifications for their role
- Growth – enhance credibility and recognition of CSCS Partner Schemes
- Future proof – Increased use of smart technology

Results:

- Improved standards, productivity and safety in the built environment



How was this delivered?

CSCS Smart Check

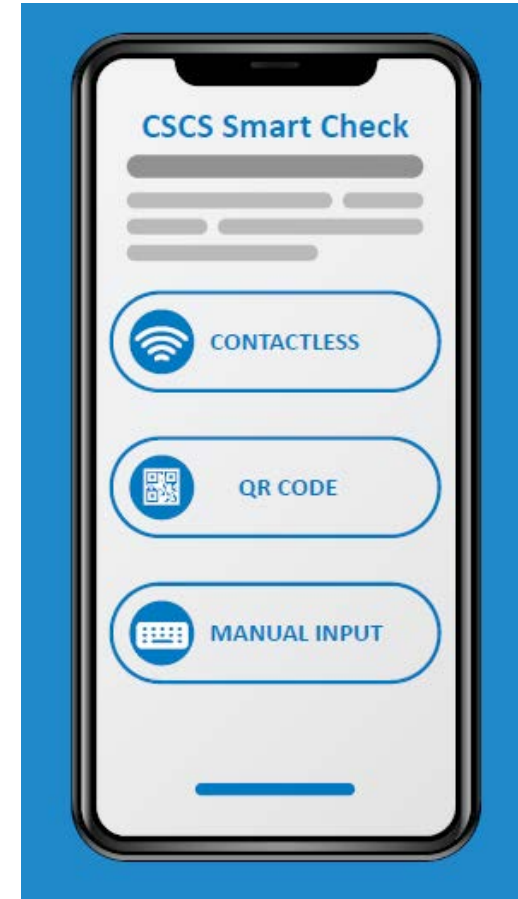
- Lots of systems and very complex to check workers
- Launched April 2022
- One App to check all 38 Partner Schemes – 2m plus cards

What happens at the site gates?

- Contactless
- QR code
- Manual input

Existing systems (security gates etc)

- Period of transition
- Employers expected/encouraged to migrate over time



Where are we?

Released on 1st April 2022

June Updates

- Fraud reporting function introduced

October Update

- 100% of cards checkable through system

Latest figures

- Over 120,000 App downloads
- Over 250,000 cards scanned
- Month on month growth in cards checked

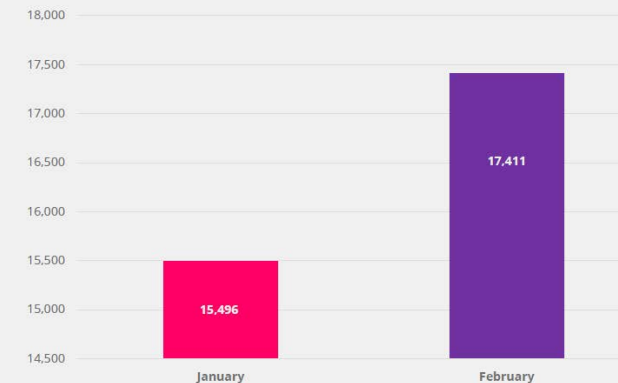
Focus and Comms

- Encouraging greater use
- Working with partners and clients



Scans per Month

12.4% ↑
Overall, card scans are **12.4% (1,915) up** from January.



Where do we want to be?

Agreed Priorities for Phase 2:

- IT Partner Integration
 - e.g. access control systems
- Management Information
- GPS locations – reporting insights
- Card read history / auditing reports or similar
- App maintenance and compatibility



Release of new App completed and integration into systems coming soon



ANY
questions?



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We look forward to seeing you in 2024