



# Introduction to the Supply Chain Sustainability School with CPA

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# Agenda



1. About the Supply Chain Sustainability School
2. The Plant Group, Charter and Minimum Standards
3. Available Resources and Workshops
4. Discussion – What topics, resources and workshops would CPA members seek?
5. Eco-operations Training
6. Any Other Business



Serving our Members for 80 years



**Mentimeter**

Go to: [www.menti.com](https://www.menti.com)

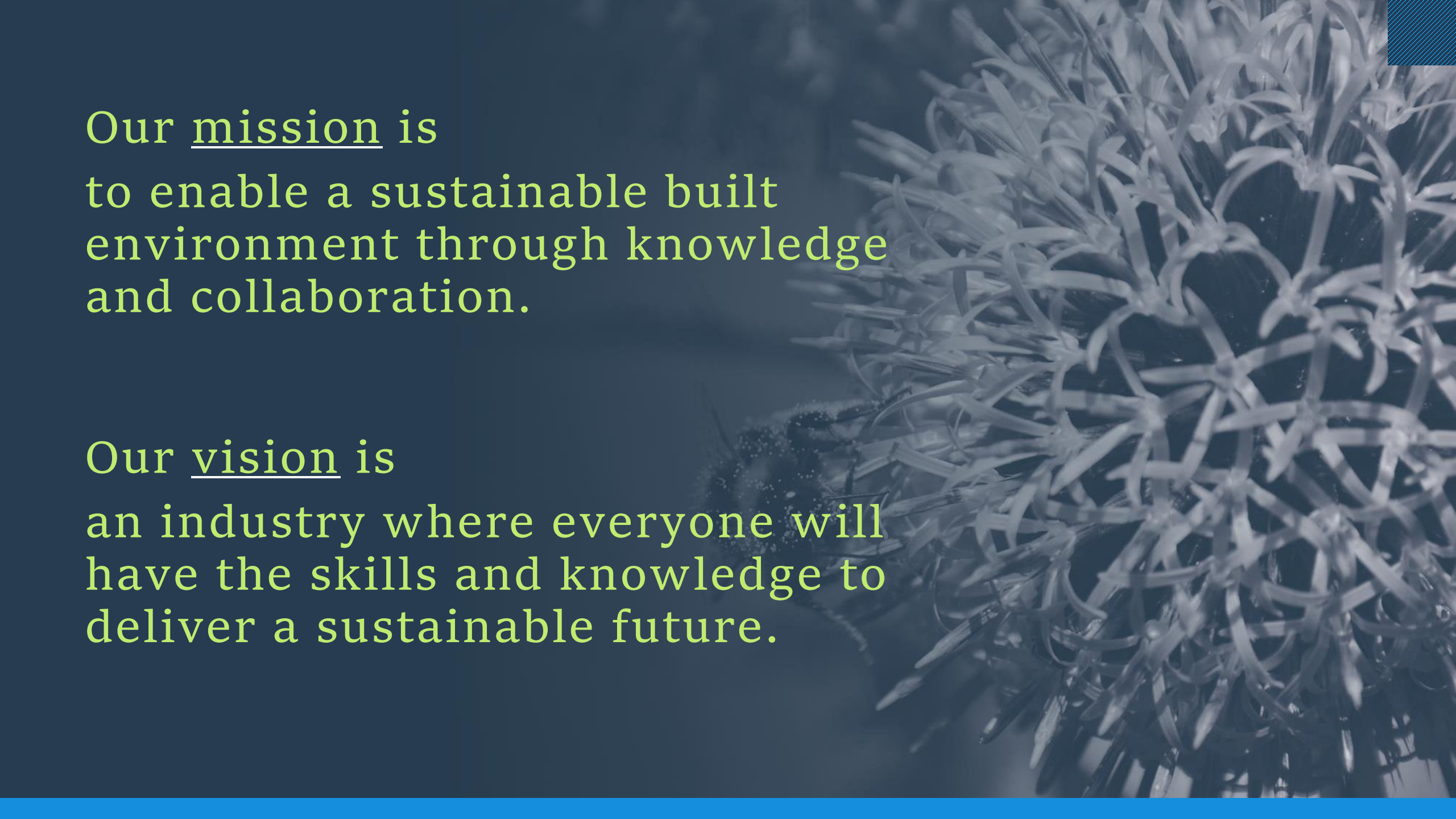
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Or scan here!



## MENTI

1. Introduce yourself – name, company and job role



Our mission is  
to enable a sustainable built  
environment through knowledge  
and collaboration.

Our vision is  
an industry where everyone will  
have the skills and knowledge to  
deliver a sustainable future.

# The School is a collaborative approach to...

1. Assessing sustainability competence
2. Developing sustainability skills and knowledge



**25,000+ companies**  
**100,000+ individual learners**  
**4,000+ resources**

**CPD**<sup>®</sup>  
The CPD Certification Service

**FREE**

# 225 Partners Leading Our Work



# Partners engaging in Plant





# Variety of learning resources

Video based toolbox talks, 300 selected videos, 100+ e-learning modules, 400+ training sessions per year

## CPD Virtual Training



## Fairness, Inclusion & Respect



## E-learning



## Learning Pathways



## Case Studies



Case Study: Helping Young People Get On The Career Ladder

## Sustainability Shorts



# New regulations

- / PPN 06/20
- / PPN 07/20
- / PPN 05/21
- / PPN 06/21

# COP 29

## Baku

### Azerbaijan

# 2024



## Construction 2025

# SCIENCE BASED TARGETS

# Modern Slavery Act 2015



HM Government

TOGETHER FOR OUR PLANET

# Net Zero Strategy: Build Back Greener

October 2021



# National Infrastructure Strategy

# New Plastic Packaging Tax from 1st April 2022

Cabinet Office

## Procurement Policy Note – Taking Account of Carbon Reduction Plans in the procurement of major government contracts

Action Note PPN 06/21

05/06/2021

Issue

1 The UK Government amended the Climate Change Act 2008<sup>1</sup> in 2019 by introducing

## MENTI

2. What are the first 3 words that come to mind when it comes to sustainability?

3. What are the biggest barriers / challenges to your organization in terms of sustainability?

## Enabling a more sustainable built environment



# Access to 100+ CPD e-learning modules worth £1.2 million+



Modern Slavery



Building the Business Case for Sustainable Construction



Air Quality for Plant and Equipment



Community Engagement



Sustainability On Site



Reduce Carbon, Reduce Costs



Introduction to Sustainable Construction



Sourcing Sustainable Plant For Your Construction Projects



Sourcing Sustainable Labour For Your Construction Projects



Introduction to Climate Change and Carbon

# And 25+ Sustainability Shorts / Toolbox Talks



## Waste Management - Sustainability Short

A short animation about how to reduce waste.



## Modern Slavery - Sustainability Short

Modern Slavery - Can you spot the signs?



## Sustainability at Work - Sustainability Short

An introduction to sustainability



## Energy Management Efficiency - Sustainability Short

Featuring Zap the Energy Sap.



## Waste in FM - Sustainability Short

Discusses the issue of waste in the FM sector.



## Air Quality - Sustainability Short

What factors can affect air quality, and how poor air ...



## Community Liaison - Managing Conflict - Sustainability Short



## Water - Sustainability Short

Why water is a significant issue



## Biodiversity - Sustainability Short

An introduction to the important



## Environmental Management in FM - Sustainability Short



## Sustainability Strategy - Sustainability Short



## Science Based Targets - Sustainability Short



## Business Ethics - Sustainability Short

Business ethics are central to how we run our organisations



## Wellbeing - Sustainability Short

What is wellbeing and why is it important?



## Social Value - Sustainability Short

What is Social Value? How can my business deliver Social ...



## Climate Change and Carbon - Sustainability Short

What do we mean by 'Climate Change' and how can we reduce



## Waste Management in FM - Facilitator Guide

For anyone working on waste in the facilities management ...



## FIR Toolbox Talk: 'Just a bit of Banter'

This Toolbox Talk describes Banter that is and is not, ...



**AIR QUALITY**

Supply Chain Sustainability School guide to alternative diesel fuels and efficient use of oils

DOCUMENT/PRESENTATION



27 RATINGS

Produced by the Supply Chain Sustainability School Plant Group, this is a useful starting point when considering alternatives to diesel fuels, efficient use of oils, and resulting business benefits.

BEGINNER

15 mins

LEARN MORE >



**ENERGY AND CARBON**

Case Study: Cutting Carbon, Cutting Costs In Groundworks

CASE STUDY



21 RATINGS

Learn how Groundworker, McDermotts, worked with Willmott Dixon to establish a baseline and identify opportunities to cut carbon. This case study looks at the increased efficiency and reduced expenditure of a number of interventions, including transition of plant fleet to machines less than 2 years old, site awareness campaigns for energy efficiency, ...

BEGINNER

5 mins

LEARN MORE >



**AIR QUALITY**

Air Quality for Plant and Equipment

E-LEARNING MODULE



47 RATINGS

This module will give you an introduction to the sustainability issues associated with air quality for plant and equipment and non-road mobile machinery.

INTERMEDIATE

30 mins

LEARN MORE >

# Plant specific resources



[HS2 Anti-Idling Video >](#)



UK Clean Air Zones and Low Emission Zones Map

Use the map to find locations and relevant information for clean air zones and low emission zones around the UK.

LEARN MORE >



Whole Life Approach Calculator for Plant and Machinery

Use the calculator to compare the whole life approach for both carbon and cost when procuring and hiring equipment.

LEARN MORE >



Plant Hierarchy

The Plant Hierarchy gives an overview of the steps to be taken to reduce emissions and the ease and beneficial impact of doing so.

FIND OUT MORE >



[The Eco-operations National Training Delivery Framework >](#)

# 300+ Virtual training sessions per year



What	Virtual Workshop	Webinars	Virtual Conferences
<b>Length</b>	Up to 4 hrs	30 mins- 1 hr	2-3 hrs
<b>Attendee limit</b>	15-25	500	500
<b>What</b>	Interactive session with break out groups and audience engagement	Build knowledge on specific topics	Multiple speaker presentation to engage on topics / strategies



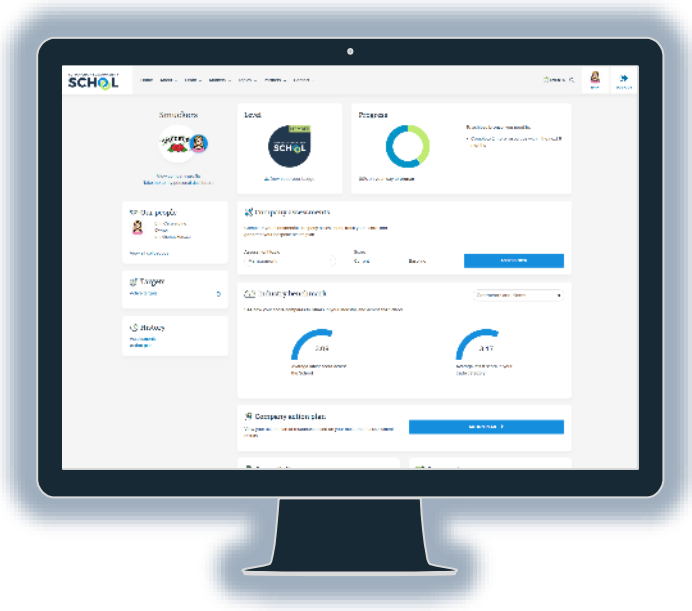
# Learning Pathways

## What are Learning Pathways?

A specific curriculum of resources, that CPA could explore compiling for their members

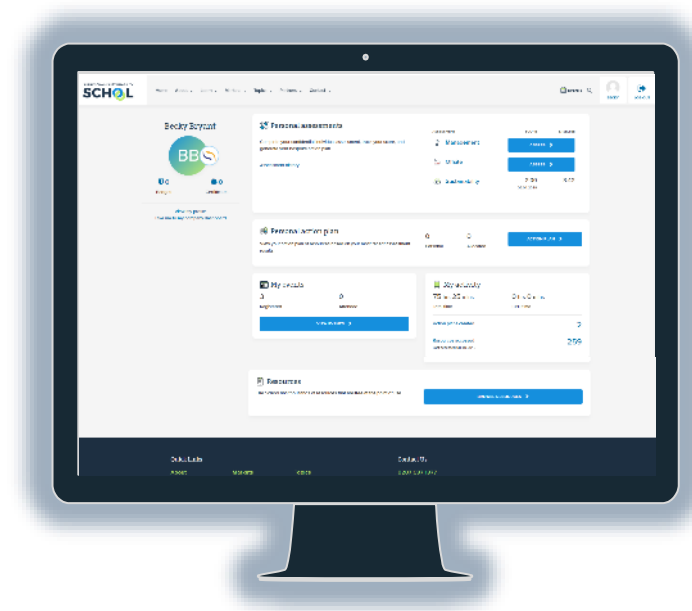
## 36 topic or trade specific pathways available, including:

- 📍 Sustainability: An Introduction
- 📍 Sustainable Procurement - Level 1 -5
- 📍 Procurement for Beginners
- 📍 Introduction to Climate Change & Carbon
- 📍 Carbon Reporting
- 📍 Carbon and Air Quality within Plant and Equipment
- 📍 Wellbeing & the Built Environment
- 📍 Modern Slavery: An Introduction
- 📍 Sustainability in Groundworks
- 📍 Waste and Resource Efficiency: An Introduction
- 📍 Social Value: Defining and Delivering



## Corporate Dashboards:

Each supplier who becomes a member gets their own sustainability dashboard to track progress and assign learning.



## Individual Learning:

Individuals can use the School for their own professional development, to assess their knowledge and export reports to demonstrate the learning taken.

MEMBER

SUPPLY CHAIN SUSTAINABILITY  
**SCHOL**

BRONZE

SUPPLY CHAIN SUSTAINABILITY  
**SCHOL**

SUPPLY CHAIN SUSTAINABILITY  
**SCHOL**

**PARTNER**



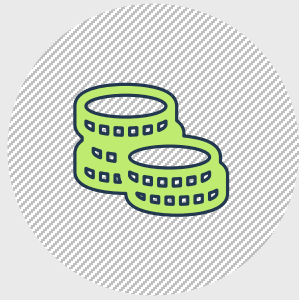
SILVER

SUPPLY CHAIN SUSTAINABILITY  
**SCHOL**

GOLD

SUPPLY CHAIN SUSTAINABILITY  
**SCHOL**

# School impact on business performance 2024



51%  
reduced costs



45%  
win new business



60%  
more collaborative



74%

better understanding of  
sustainability



38%

retained talent



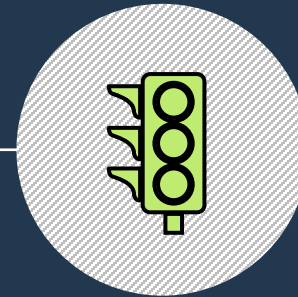
56%

better relationships  
with suppliers



53%

improved quality of  
bids



59%

reduced reputational  
risks



68%

measure carbon emissions



71%

report carbon emissions



51%

Develop & implement a Carbon Reduction Plan



58%

reduced waste



68%

increased modern slavery understanding



68%

increased understanding of FIR

43%

agree the School helped achieve this

34%

agree the School helped achieve this

39%

agree the School helped achieve this

41%

agree the School helped achieve this

70%

agree the School helped achieve this

62%

agree the School helped achieve this



63%

increased community engagement



49%

increased understanding of responsible sourcing



44%

increased apprentice numbers



37%

improved air quality



31%

reduced water consumption

46% agree the School helped achieve this

61% agree the School helped achieve this

29% agree the School helped achieve this

39% agree the School helped achieve this

41% agree the School helped achieve this

CPA are a key  
member of the  
Plant Leadership  
Group

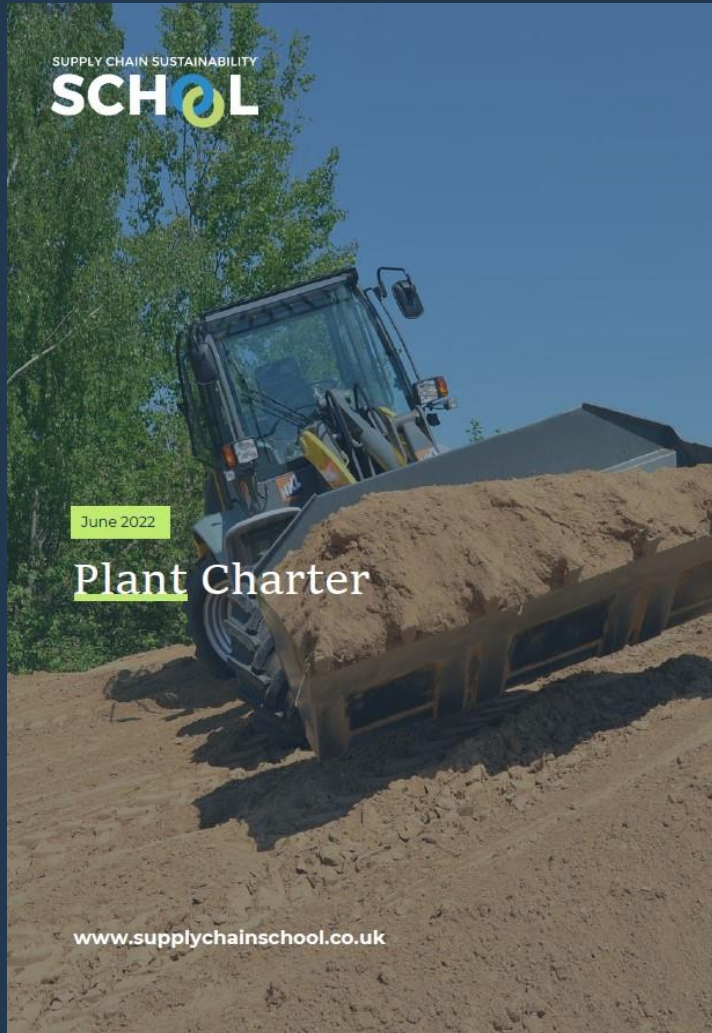
# The Minimum Standards



## The Minimum Standards v2.1: 12.05.2022

Plant Category	Examples	Min' Standards from 01.11.2021 for Contractors hiring plant in for use	Min' Standards from 01.11.2021 for Plant Hire Companies buying new equipment in to then hire out	Market Potential for next 5 years
Tools	Saws, whacker plates,	Cord/flex or battery	Cordless/battery	Cordless/battery
Lighting Towers	All LED lumieres	<75% Stage V hybrid ≥25% battery & PV	<50% Stage V hybrid ≥50% battery & PV	<20% Stage V hybrid ≥80% battery & PV
Small Plant <5t	Mini excavators, micro dumpers, mini skip loaders	Stage IIIB	Stage V Company purchasing profile will assess the availability and client uptake of low and zero emissions plant	Stage V Increasing levels of zero emission plant
Medium Plant 8t – 13t	Excavators, dumpers, telehandlers	Stage IV	Stage V Company purchasing profile will assess the availability and client uptake of low and zero emissions plant	Stage V Increasing levels of zero emission plant
Large Plant >13t	ADTs, Excavators, Wheeled Loaders	Stage IV	Stage V Company purchasing profile will assess the availability and client uptake of low and zero emissions plant	Stage V Increasing levels of zero emission plant
Generators <20kVA	Mobile and stationary	Stage IIIA	Stage V + battery (hybrid) Company purchasing profile will assess the availability and client uptake of low and zero emissions plant Welfare: Design EPC rating C for a fixed location, or better, with sensors/timers	Stage V + battery (hybrid) Increasing levels of renewable power, plus power management, and greater use if EC ratings
Generators >20kVA	Mobile and stationary	Stage IIIA	Stage V + battery (hybrid) Welfare: Design EPC rating C or better, with sensors/timers	Stage V + battery (hybrid) Increasing levels of renewable power, plus power management
Access	MEWPs and van-mounted access	MEWPs used outdoors: Stage IIIB or hybrid; MEWPs used indoors: electric, bi-energy (range extender), or hybrid  Vehicle-mounted: Euro 5-compliant engine	MEWPs: electric, bi-energy (range extender), or hybrid. If hybrid or electric unavailable at larger end, engine to be Stage V  Vehicle-mounted: Euro 6 engine; Company purchasing profile will assess the availability and client uptake of low and zero emissions plant	MEWPs: Zero emission plant  Vehicle-mounted: hybrid engine + increasing battery/ electric lift availability

# The Plant Charter





# Relevant Resources



## Carbon and Air Quality within Plant and Equipment Learning Pathway

This self-enrol learning pathway will help you to understand how Plant and Equipment impact air quality and carbon emissions, and help you to identify solutions that reduce carbon emissions and improve air quality.

[ACCESS THE PATHWAY >](#)



## Air Quality for Plant and Equipment E-Learning Module

This CPD accredited e-learning module will give you an introduction to the sustainability issues associated with air quality for plant and equipment and non-road mobile machinery. It will take you around 30 minutes to complete.

[START THE MODULE >](#)



## UK Clean Air Zones and Low Emission Zones Map

Use the map to find locations and relevant information for clean air zones and low emission zones around the UK.

[LEARN MORE >](#)



## Whole Life Approach Calculator for Plant and Machinery

Use the calculator to compare the whole life approach for both carbon and cost when procuring and hiring equipment.

[LEARN MORE >](#)

[Available here](#)

[Available here](#)

[Available here](#)

[Available here](#)

# Plant Group Business Plan 2024

To educate more people in the industry about reducing air quality and greenhouse gas emissions from plant and equipment.

## 1. Upskill the industry on air quality and carbon in plant and equipment

- Promote the content we have developed through a dedicated Plant marketing campaign and through Partner News.
- Support the School's HVO group and Climate Action Group and share findings related to alternative fuels (facts, benefits, risks, certifications etc): hydrogen, grid connection, hybrid, solar, electric, HVO
- Deliver webinars throughout the year on air quality and carbon emissions related to plant and equipment.

## 2. Developing new learning content

- Develop a new e-learning focused on 'Sustainable Site Setup' – to cover best practice for low carbon and air quality for plant and equipment, along with wider aspects such as wellbeing.
- Researching, collating and analysing data from innovative plant trails and telematic data and developing a summary report.

## 3. Progress and Measurement

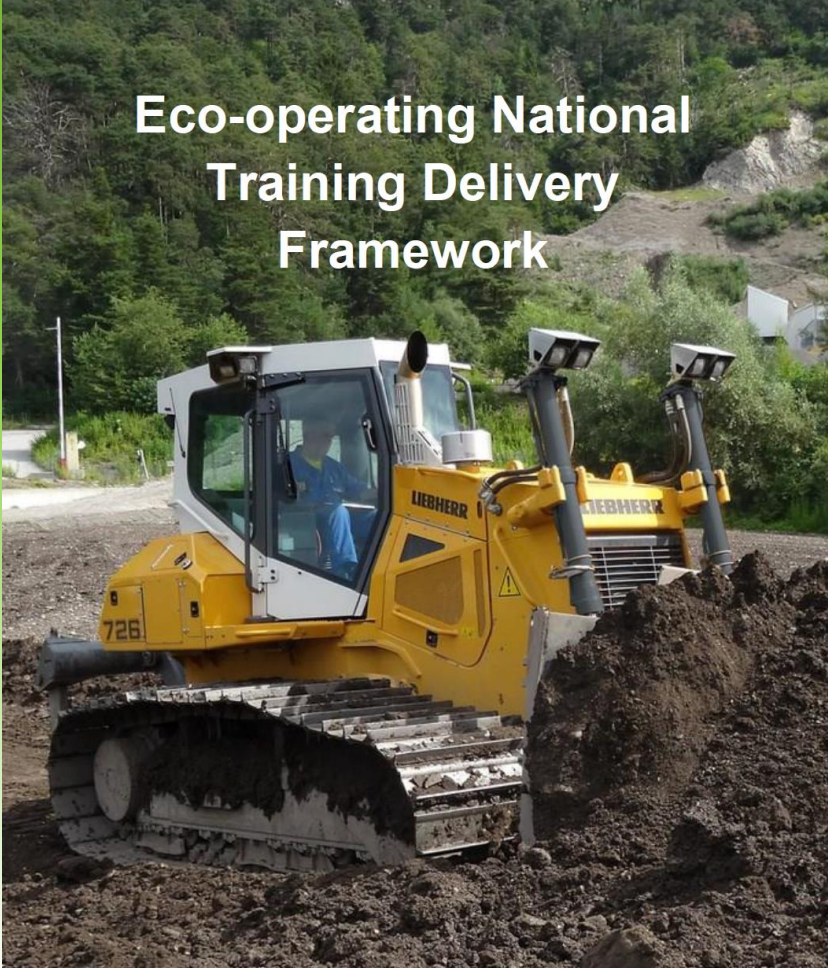
- Review evidence and award signatory status to the Plant Charter to 12 NEW signatories (aim) *(30 in total by end of year, as all signatories have to re-apply annually)*

## 4. Industry Engagement

- Engage with and attend partner events where relevant, to promote the Plant Group and the Charter.



Eco-operating National  
Training Delivery  
Framework



PSRO & SCSS  
Eco-operating  
Framework

An  
introduction



# PSRO/SCSS Eco-operating Framework

- Increasing development of eco-operating training programmes being offered by or devised by industry
- Due to absence of any overarching subject matter content means that courses may be:
  - too variable in content and delivery
  - inconsistent approach across industry
  - Maybe specific to an employer or machine type, or irrelevant to current needs
  - No control over who and how is delivered.
- Plant Sector Representative Organisation (PSRO ) and SCSS Plant Group devised a national training framework for eco-operations
- Aim is to change 'hearts and minds'

# PSRO/SCSS Eco-operating Framework

Sets out the parameters for consistent delivery including:

- a) Learning outcomes and learning content
- 18 topic areas inc.
- *Aims and challenges of Net Zero*
- *Factors of air quality & who is affected*
- *What comes out of the exhaust*
- *Ways and factors of reducing emissions etc.*

SUPPLY CHAIN SUSTAINABILITY		Eco-operations National Training Delivery Framework Part 3	
 			
<b>8. What constitutes 'tailpipe' emissions from IC-engined plant and how they vary according to machine componentry, usage and environment</b>	<i>Fuel quality</i> <i>Engine speed and loadings</i> <i>Fuel types</i> <i>Engine and ambient air temperatures</i> <i>Working efficiencies</i> <i>How heat alters unburnt fuel into gasses</i> <i>Constituent gasses exhaled from the combustion chamber inc. (dioxides/oxides/hydrocarbons/other compounds)</i> <i>Smoke 'types'</i> <i>Workload demand</i>		
<b>9. What is meant by low and zero-emission equipment and types of alternative fuels</b>	<i>Reduced tailpipe emissions equipment (Particulate filtration devices/Catalytic conversions. Fuel additives)</i> <i>Modern engine design e.g. stage 5</i> <i>Electric/Hybrid drives</i> <i>Fuel additives</i> <i>HVO and synthetic fuels</i> <i>Hydrogen/H2 fuel cells</i> <i>Higher-quality fossil fuels</i>		
<b>10. Other types of power sources that are available for construction plant and their effectiveness and efficiency</b>	<i>Electric driven equipment, power sources, durations/range</i> <i>Cycle of operation</i> <i>Methods of generating grid-supplied electricity</i> <i>Grid-based direct feed and battery charging supply</i> <i>Diesel generator effectiveness (when no alternatives exist)</i> <i>Variable, constant-supply and flywheel energy-storage generators</i>		
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		Eco-operations Framework Part 3 July 2023	

# PSRO/SCSS Eco-operating Framework


b) Extent and depth of delivery content across various occupations inc. operatives, supervisors, managers, planners, buyers, hire controllers, maintenance staff etc.

Scope of Occupations/Roles										
Plant Operative Introductory	Plant Operative advanced	Lead Plant Operative	Plant Supervisor Introductory	Plant Supervisor advanced	Plant Manager Introductory	Plant Manager advanced	Site Manager	Hire Controller	Plant Buyer/procurer	Plant Mech
POI	POA	LPO	PSI	PSA	PM1	PMA	SM	HC	PB	PF

Learning Outcome <i>Learners will know and understand in accordance with a given level:</i>	Learning Level for Occupations						
	POI PSI PF	POA LPO <i>additional to introductory</i>	PMI	PSA PMA <i>additional to introductory</i>	SM	HC	PB
1. The definition of and general factors that are considered causes of climate change	1		1	2	2	1	1
2. How climate change is affecting society at an international, national, local and personal level	2		2	3	3	2	2
3. The aims and challenges of the ConstructZero industry initiatives	1		1	2	3	1	2
4. The constituent parts of air and how various gases and particulates can affect air quality	n/a	2	1	2	2	1	1
5. Who is affected and how through plant operations on sites	1		2	3	3	1	1
6. How internal combustion (IC) engines (diesel) convert fuel into work	1	2	1		1	1	2
7. The principles of how power, torque and transmission of power creates 'work done' by plant	1	2	1		1	1	2
8. What constitutes 'tailpipe' emissions from IC-engined plant and how they vary according to machine componentry, usage and environment	2		2	3	2	3	3


# PSRO/SCSS Eco-operating Framework

- c) Methodologies of delivery and assessment strategies
- d) Recommended durations



SUPPLY CHAIN SUSTAINABILITY  
**SCHOL**

**Eco-operations National Training Delivery Framework Part 2**



**PSRO**  
PLANT SECTOR  
REPRESENTATIVE  
ORGANISATION

Learning Level			
Level	1	2	3
<b>Category</b>	Appreciation	Overview	Descriptive
<b>Description</b>	Provided with very general explanations of the essential features of the topic but not any details.	Provided with explanations of both the fundamentals and facts of the topic with some details, but not all of the details.	Provided with detailed explanations of the topic and how it relates to current and future situations

Typical Course Duration			
Assessment Level	1	2	3
<b>Suggested minimum course duration</b>	Not less than 3 hours	Not less than 3	Not less than 6 hours
<b>Suggested duration of combined courses (introductory and advanced)</b>		Not less than 6	

Assessment Specification				
Level	Level of Required Understanding	Delivery Method	No of questions	Grading
1	Has demonstrated a basic recognition of the fundamentals and context of the topic	Multi-choice questions	Bank of not less than 36 questions with a minimum of 15 presented to delegates	Pass – 50% Credit – 85%
2	Able to provide a thorough explanation of both the fundamentals and facts of the topic with some details, but not all of the details	Mix of multi-choice and open answer questions	Bank of not less than 36 questions with a minimum of 15 multi-choice questions and a minimum of 6 open answer questions presented to delegates	Pass – 50% Credit – 85%
3	Able to provide a detailed explanation of the topic and able to explain issues and relate to current and future situations	Open answer questions	Bank of not less than 36 questions with a minimum of 15 presented to delegates	Pass – 50% Credit – 85%

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Eco-operations Framework Part 2 July 2023

**Employers and industry encouraged to use the framework and is free to download from PSRO and SCSS**

## MENTI

4. What action has your business done to become more sustainable?

5. What aspects or topics do you want to explore further, or need help with?

6. What action will you take away today in terms of engaging in the School?





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