

### KFE Guidance Note – KFE4Skills21 Hybrid Online Event:

This document provides the KFE competition specification outline for the 2021 hybrid format competition round detailed below. It sets out the expected elements of each industry round's competition. It is designed to ensure each competition within **KFE4Skills 2021** is similarly framed and that essential information is uniformly provided.

As every industry round differs, where such differences require amendments to the overall Competition Rules & Guidance, relevant specifications will include such details (for example entry criteria, pre-qualification submissions and competitor or team numbers for some industry rounds).

Registration for the competition rounds must be completed by the closing date by college staff via the KFE website's Skills Competitions Page:

<https://www.kentfurthereducation.org/skills-competitions-1>

Competition Rules & Guidance and all other information about KFE4Skills can also be found here. The overall Competition Rules & Guidance must be read in conjunction with this specification document.

2021 is a hybrid event whereby competition skills are demonstrated at local colleges and linked to others through digital tools and an event platform Arrivals and sign-in for each round may vary slightly. Competition day is from 9am-5pm with most industry rounds commencing from 9:30am following local sign-in and event launch on the main event platform.

Familiarisation time and health and safety briefings may be necessary and will be included in relevant rounds' schedule. All competitions should be completed by 4pm and all awards and the event overall by 5pm.

Good luck if you are competing and thank you if you are supporting delivery of, or entering this competition! Further information about KFE4Skills: [www.kentfurthereducation.org](http://www.kentfurthereducation.org) or email: [kentfurthereducation@gmail.com](mailto:kentfurthereducation@gmail.com)

### Competition Outline – Automotive Technology (L3)

This **KFE4Skills** competition is designed to prepare competitors for real life scenarios in the industry. It is also intended to hone and improve skills and the ability to make decisions and resolve challenges which could be faced in a typical day or in exceptional circumstances.

Participants will benefit from gaining not only an exciting competition experience that stretches and challenges them, but also a chance to enhance CVs and a greater opportunity to find work in the industry of their choice.

The rest of this outline provides the general guidance including entry criteria and competitor numbers for this industry skill.

### Criteria for entry

Entrants must be in education and/or employment with training, at one of the KFE college organisations (EKC Group, MidKent College and North Kent College (including West Kent College and Hadlow College), and/or have completed or be undertaking a relevant Level 2 or 3 or above programme within the last 12 months. **Note NKC/WKC will not be competing in 2021.**

At the time of entry the entrants must have been challenged at the level of the competition. This means that entry is only possible through a selection process at the entrants local college and with the endorsement and verification of the lead staff from that college.

Each college organisation (not campus) may enter 3 competitors. This means this industry competition may have up to 6 KFE4Skills finalists participating on the day (3 per KFE college organisation (MKC and EKC)).

### KFE Competition Specification for Automotive Technology – Level 3

#### Preparatory Brief

The skills competition is intended to reflect best practice across a range of tasks. In the competition, assessment of knowledge and understanding will take place through the assessment of performance.

Competitors will be expected to be proficient in “Auto data”, various testing principles and measuring devices. This competition is aimed at Level 3 skills.

Competition rounds will take place simultaneously with each competitor moving around each task. There will be 8 vehicles set up (2 for each task). Each competition round will last 1 hour.

Despite the impact of Covid-19 Safe procedures and guidelines it is hoped that for this industry round KFE4Skills will be able to deliver a virtually connected online competition. Should the situation nearing the time of the event require it this round may be adapted to include pre-event prep tasks that can still be shared for judging purposes. Skill tests are all to be conducted at home colleges.

### Core Competences

The individual needs to know and understand work organisation and time management which will include Health and Safety, correct selection and use of appropriate equipment, correct process of diagnosis and fault finding and comparison to manufacturer specifications.

The core competences to be demonstrated via the competition rounds are:

- Full braking system inspection (vehicle will have discs and drums)
- Diagnosis of abnormal tyre wear
- Diagnosis of a misfire

### Overall Competition Timings

KFE4Skills 2021 will be undertaken in a hybrid format. This requires competitors from each college organisation to participate from their respective college campus sites. An overall online event platform will be used to support the day and for engagement with each industry competition at key points during the day. Individual industry competitions will link participating colleges using other online conferencing tools.

Competitors should arrive on the day at their colleges as detailed below from **9am to 9:15am when competitors will sign-in at their college's industry round desks or work stations.**

Competitions will commence from 9:30am including any familiarisation period required by all competitors. All competitions should be completed by 5pm including all judging announcements of winners and awards ceremonies.

**Note:** A free lunch voucher option will be available to competitors. The venue's commercial food outlets and the event's rest areas may be used additionally if required and if open in accordance with any Covid-19 safe requirements in place at the time.

The event lunch period will be between 12 noon and 2pm and competitors should be given time during that window for lunch and relaxation up to maximum of 1 hour. For practical reasons how this is undertaken is at the discretion of the industry skills competition organisers.

### The Skills Competition

#### Competition Round 1 – Full Braking system inspection and adjustment (Time allowed 60 minutes)

- Open to all levels of students
- A job card with inspection information will be provided.
- A vehicle will be placed on a two post ramp with all four wheels removed. The vehicle is to have disc brakes on the front, drum brakes on the rear and ABS.
- Competitors are to carry out a full braking system inspection, taking measurements where necessary and comparing them to manufacturers data.
- Measuring equipment to be used may include: Engineers rule, Micrometer, Internal Vernier for drum diameter, brake fluid boil tester, suitable diagnostic tool.
- Any components removed must be refitted in the correct safe manner.
- The handbrake must be adjusted to a professional standard and a report produced.

#### Competition Round 2 – Diagnosis of abnormal tyre wear (Time allowed 60 minutes)

- Open to all levels of students
- Competitor will be given a job card explaining that the customer has had two new tyres fitted to the front of their vehicle and they were told that the old tyres had abnormal wear.
- Vehicle is to be placed on a two post ramp with the wheels still attached.
- Competitors will be expected to carry out the necessary checks of wheel and tyre, suspension and steering components which could lead to abnormal tyre wear before checking the wheel alignment using laser wheel alignment equipment such as "Supertracker" or "Sealey". Link for equipment here: <https://www.supertracker.com/products/str1-lctr24>
- Adjustments to the wheel alignment do not need to be made, however all findings to be recorded.

### Competition Round 3 – Diagnosis of a misfire (Time allowed 60 minutes)

- Open to all levels of students
- A petrol vehicle is to be on the floor with a mechanical engine fault causing a misfire. (For example a poorly adjusted valve clearance)
- Competitor will be expected to carry out all necessary diagnostic checks to locate the cause of the misfire.
- Specialist equipment will be made available including, suitable diagnostic equipment, compression tester and cylinder leakage tester, multimeter, fuel pressure.
- Competitors will be expected to write a report on their findings and compare to manufacturers data.

### Order of Competition

These timings are provisional and will be reflected by the overall event schedule.\*

- 9:00-9:15am - Arrival and event registration at local home college
- 9:15-9:30am - Competitors (and staff) log in to REMO Event hosting platform
- 9:30-9:40am – Event Welcome and Launch via REMO
- 9:40-9:45am – Local colleges link using online conferencing tools (Zoom or Teams TBC)
- 9:45-10:15am – **Work station familiarisation & prep time / health & safety briefing**
- 10:15-11:15am - **Competition Challenge 1**
- 11:15-11:30am - Refreshment and Comfort Break
- 11:30-12:30pm - **Competition Challenge 2**
- 12:30–1:15pm - Lunch
- 1:15-2:15pm - **Competition Challenge 3**
- 2:15-2:35pm – Judging Panel
- 2:35-2:45pm – Judging confirmation – Link to REMO
- 2.45pm – REMO winner announcements
- 3.00pm – Industry Round Closes

### Resources & Attire

Home college venues will be used for 2021 and must have all the usual industry equipment suitable for completion of the challenge tasks. Competitors will ideally be already familiar with the health and safety requirements of the venue.

Where applicable Covid-19 Safe requirements are in place these must be followed.

Competitors will be required to wear their college uniform / overalls. They must bring their overalls and steel toe cap foot wear. Gloves and safety glasses where necessary will be provided. All tools and equipment will be provided.

Automotive competitors will be expected to as a minimum to:

- Wear appropriate overalls
- Conceal any college name on overalls (this may be possible on the day)
- Wear/bring suitable industry standard protective footwear and other PPE

Any other requirements will be confirmed before the event.

Two vehicles for each competition will to be provided with space for all 8 competitors to be able to compete at once. All tools and specialist equipment will be available next to each of the competition vehicles. This is subject to amendments in scope, entrant numbers and Covid-Safe considerations.

### Marking & Assessment

Assessment/observation and marking will be carried out throughout the competition. Each competition round will be assessed and marked independently of any other competition activity, using objective and judgement criteria or a combination of both during each task.

It will be necessary to link online to other competing colleges and their staff teams and judges to conduct each competition challenge stage, discussion of results and final judging.

Judging Criteria	Marks
Health and Safety	5
Use of technical data	10
Logical approach	15
Accuracy and thoroughness of work	15
Housekeeping	5

### Judges Marking Sheets

The KFE competition will use marking guides best suited to the industry event. The example scoring sheet is below. Judges will be selected from the expert KFE staff drawn from various colleges.

Judges will be selected from the expert KFE staff drawn from various colleges. Panels will normally number three to five judges and in some cases may include an external judge from the industry sector or an awarding body. Judges' decisions are final in all instances, although scoring will be open and transparent.

### Local College Contacts

The following names staff are the identified leads at each college for this industry competition. They may be contacted in the first instance for information pertaining to each colleges' entry, selection process and preparations for their students:

- EKC Group – Stuart Cumming
- MKC – Michael Nevitt
- NKC – Andy Stevens
- WKC – Andy Joyce

### Competition Awards

Each industry competition will select three overall winners with judging scores defining the overall first, second and third places as gold, silver and bronze. Medals will be provided to the three winners and a participation certificate of commendation will be provided to all that take part. Additionally, those that do not win gold, silver or bronze will receive a finalists medal

### Event Contact

For general information about the competition please contact KFE via the 'contact' form on the KFE site at [www.kentfurthereducation.org](http://www.kentfurthereducation.org) or speak to your college's local competition lead.

Event information and specification updates are available at [www.kentfurthereducation.org](http://www.kentfurthereducation.org). It is recommended that the Skills Competitions page is checked regularly as specifications may be modified up to a week before the event.

## KFE Competition Specification #KFE4Skills 2021

### JUDGE MARKING SHEET: Automotive

Competitor	College	Score Task 1 Brake Inspection	Score Task 2 Abnormal Tyre wear	Score Task 3 Misfire		Total Score
	<b>Comments:</b>  <i>Use this space for any specific comments noting the competitors as appropriate.</i>					