

Virtual Static Events **April 2020**

Overview

Following our decision to cancel the FS2020 live event, scheduled to take place in July at Silverstone, we have been working on options for delivering those elements of the traditional FS event format which could be continued with or offered as virtual or simulation events to provide the fullest possible educational benefit to competing teams whilst complying with the social distancing regulations in force around the world due to COVID-19.

This document provides an overview of our plans for Virtual Static Events which are:

	FS Teams	Concept Class Teams	FS-AI ADS Teams	FS-AI DDT Teams
Engineering Design	✓	✓	✓	
Cost & Manufacturing	✓	✓		
Business Plan Presentation	✓	✓	✓	✓
Autonomous Design			✓	✓
Real World Autonomous			✓	✓
Simulation Development (NEW)			✓	✓

Purpose

- To respect social distancing regulations from the World Health Organisation and governments around the world in the fight against COVID-19 by removing the requirement for students and judges to physically meet in order to participate in the Formula Student competition
- To allow teams to demonstrate the engineering work they have completed to date as well as how they have worked as a team to overcome the organisational challenges resulting from current lockdown restrictions.
- To retain the educational benefits associated with the opportunity to present work for peer review, receive feedback and the transfer of knowledge between industry and academia
- To provide the opportunity for engagement and networking with industry professionals and potential future employers

Rules and Regulations

- It is accepted that there will be little difference between the FS and Concept Class teams' virtual static events due to the inability to manufacture a complete vehicle. Universities with FS and Concept Class entries with the same powertrain wishing to enter as a single team will be permitted to do so
- We must stress that although the virtual events will be hugely beneficial to teams, they are essentially 'unofficial'. There will be no opportunity for appeals or protests and judges' decisions are final. We do not expect any results to be counted in any FS worldwide rankings. 2020 designs/vehicles will be accepted in 2021 at the UK competition

- Draft revised Rules documents providing further detail on the specific presentation and judging format for each event, along with supporting documentation and guidance for each event will begin to appear on the FS website from w/c 20 April
- Teams will need to refer to the specifics for each event to ascertain whether there are entirely new rules, changes or extensions to existing rules. If you require further clarification, please submit a question via the FSQD
- Details of the Engineering Design and Cost & Manufacturing Finals will be communicated at a later date

Virtual Events

Static Events

The virtual static events will **all** follow the same basic format:

- **Pre-event submission(s) via FS Team Account**
 - Some events will require document submissions as per the existing Key Dates and this will be detailed in the event specific information that follows
 - Pre-submitted presentations are required for all events, the only acceptable formats are:
 - Microsoft Powerpoint presentation (.pptx)
 - Microsoft Powerpoint show (.ppsx)
 - MP4 video
 - PDF for supporting documentation where permitted/requested
- **Scheduled Q&A with judges via Microsoft Teams**
 These sessions will be with a team of industry expert judges from each event discipline. These will all take place within the original FS live event dates, **22-24 July 2020**. Your Q&A slots will be scheduled, where practicable, to ensure all teams are allocated slots within local-time business hours. Individual team members will require a computer with audio and preferably a webcam along with reliable internet connection. Both judges and students will be expected to observe their national social distancing rules at the time of the event – teams should plan on the basis they will not be co-located.
- **Feedback and results**
 Written feedback will be provided where appropriate and/or possible via email to Team Leaders as soon as practicable.

It is our intention that final results for each event will be available by end of **Sunday 26 July 2020**.

The following provides an overview for each of the Virtual Static Events. Please also refer to the revised draft Rules documents which accompany this overview document for full details:

- **Engineering Design event (FS and Concept Class teams only, FS-AI ADS teams see Autonomous Design)**
 - Pre-event submission(s) via FS Team Account
 - Teams upload Design Report and Design Spec Sheet as per the FS2020 Rules and Key Dates.
 - Design Judges review the above and provide feedback to teams by **20 June 2020**
 - Teams to upload 5 separate presentations of maximum 10 minutes duration each by **30 June 2020** on the following subjects corresponding to the Design Score Sheet (available on the FS website in due course)
 - Overall vehicle concept

- Structural design including SSB
 - Powertrain
 - Overall timing, manufacturing, procurement plan and team organisation
 - Design for manufacture & profit, customer respect, innovation and prototype parts
 - Teams may also (optional, not mandatory) include 5 separate pdf files (max 5MB) comprising maximum 5 pages of images and/or text to support each presentation. The deadline for these is also **30 June 2020**.
 - In summary for each of the 5 categories of the Design Score Sheet we mandate the submission of a presentation and optionally request a short pdf file to support each of those
 - Judges to review presentations ahead of Q&A with judges which will take place **22-24 July 2020**
- Scheduled Q&As with judges via Microsoft Teams **22-24 July 2020**
 - 20 minute time slot allocated to each team
 - Q&As based on the pre-submitted Design Report plus Engineering Design presentation
 - Separate calls/video calls scheduled for each relevant Score Sheet category expert team members and judge(s) within the 20-minute time slot and the separate calls will take place simultaneously. In order to make the best use of the time we strongly advise that a single (1) student is made responsible for each of the Score Sheet categories so that each expert team member is paired with a judge 'one to one'. We will, however, allow a maximum of 3 team members on each of the Design Q&A calls.
 - For clarity, each team will receive 5 meeting invites for the Design Q&As
 - Feedback and Results
 - Collated Design Score Sheets feedback will be provided to all participating teams by **26 July 2020**
 - There will be a Design Final on **Sunday 26 July** and teams qualifying for this will be notified by end of **Saturday 25 July 2020**
- **Cost & Manufacturing event**
 - Pre-event submission(s) via FS Team Account
 - Teams to complete the online CBOM tool for Frame and Body only (but including aero if included in designs) accompanied by an appropriate Cost Support Document and Drawings File to form a Cost Report zip file. This is to be uploaded as per existing Key Dates
 - Teams may also include in their zip file one page of feedback on the online CBOM tool. This will be used to further develop the tool (which was new for 2020) ready for the 2021 competition.
 - SPECIAL TASK: Produce a 7-slide presentation, 10 minutes max duration and submit by **1 July 2020**, on your solution to the following:

You are a successful race team that also manufactures bespoke race cars for exclusive clients and you have been approached by your country's / region's government in a time of crisis to support the European effort to overcome a virus Pandemic. Please make a

proposal for how you will ramp down vehicle manufacture and ramp up production of PPE and ventilator parts to help with the pan European efforts.

- This is also to be uploaded by **1 July 2020**
- Further details and a steer on what the judges will be looking for will be published on the FS website in due course
- Judges to review presentations ahead of Q&A with judges which will take place **22-24 July 2020**
- Scheduled Q&A with judges via Microsoft Teams
 - 30-minute time slot allocated to each team
 - 10-15 minutes feedback and Q&A on Cost Report
 - 10-15 minutes Q&A on Special Task presentation
- Feedback and Results
 - Written Score Sheets will be provided to all participating teams within 7 days of the event
 - There will be a Cost & Manufacturing final on **Sunday 26 July** and teams qualifying for this will be notified by end of **Saturday 25 July 2020**
- **Business Plan Presentation event (FS and Concept Class teams only, FS-AI teams see FS-AI Business Plan Presentation event)**
 - Pre-event submission(s) via FS Team Account
 - Submit a presentation based on the role play scenario presented in FS2020 including the [Special Condition](#) with a duration of maximum 10 minutes by **30 June 2020**
 - Printed material may be submitted along with the presentation in a PDF format also by **30 June 2020**
 - Judges to review presentations ahead of Q&A with judges which will take place **22-24 July 2020**
 - Scheduled Q&A with judges via Microsoft Teams
 - 20-minute time slot allocated to each team
 - Q&A based on the pre-submitted Business Plan presentation
 - The Business Plan Presentation Q&As will be recorded (see Feedback and Results)
 - Feedback and Results
 - Verbal feedback will be provided to all participating teams as part of the Q&A with judges
 - There will be no Business Presentation final but up to 5 top scoring teams' presentations and recorded Q&As will be reviewed by separate panel of judges and an overall Business Plan Presentation winner will be chosen and announced by **Sunday 26 July 2020**
- **Autonomous Design event (incorporating Engineering Design for ADS teams)**
 - Pre-event submission(s) via FS Team Account
 - Autonomous Design Report (ADS and DDT) and Engineering Design Report (ADS only) to be submitted as per the FS-AI 2020 Rules and Key Dates via FS Team Account
 - Design Judges review and provide feedback to teams by **31 May 2020**

- Teams to upload presentation on their Autonomous Design as per the FS-AI 2020 Rules S3.5 and of maximum 15 minutes duration each by **30 June 2020**
 - Judges to review presentations ahead of Q&A with judges which will take place **22-24 July 2020**
- Scheduled Q&A with judges via Microsoft Teams
 - 15-minute time slot allocated to each team
 - Q&A based on the pre-submitted Autonomous Design presentation
- Feedback and Results
 - Verbal feedback will be provided to all participating teams as part of the Q&A with judges
 - There will be no Design finals for FS-AI but a winner from each class (ADS and DDT) will be determined following the Q&A with judges and will be announced by **Sunday 26 July 2020**
- **Real World AI event**
 - Pre-event submission(s) via FS Team Account
 - Teams to upload their Real World AI presentations, as per FS-AI Rules 2020 S4 and of maximum 15 minutes duration each by **30 June 2020**
 - Judges to review presentations ahead of Q&A with judges which will take place **22-24 July 2020**
 - Scheduled Q&A with judges via Microsoft Teams
 - 20-minute time slot allocated to each team
 - Q&A based on the pre-submitted Real World AI presentation
 - Feedback and Results
 - Verbal feedback will be provided to all participating teams as part of the Q&A with judges
 - There will be no Real World AI finals for FS-AI but a winner from each class (ADS and DDT) will be determined following the Q&A with judges and will be announced by **Sunday 26 July 2020**
- **FS-AI Business Plan Presentation event**
 - Pre-event submission(s) via FS Team Account
 - Teams to upload their FS-AI Business presentations, as per FS-AI Rules 2020 S4 and of maximum 10 minutes duration each by **30 June 2020**
 - Judges to review presentations ahead of Q&A with judges which will take place **22-24 July 2020**
 - Scheduled Q&A with judges via Microsoft Teams
 - 20-minute time slot allocated to each team
 - Q&A based on the pre-submitted FS-AI Business presentation
 - Feedback and Results
 - Verbal feedback will be provided to all participating teams as part of the Q&A with judges

- There will be no Business Plan Presentation finals for FS-AI but a winner will be determined following the Q&A with judges and will be announced by **Sunday 26 July 2020**

- **AI Simulation Development event (optional)**

- Pre-event submission(s) via FS Team Account
 - Teams to upload their Simulation Development presentations, as per FS-AI Rules 2020 S4 and of maximum 15 minutes duration each by **30 June 2020**
 - Judges to review presentations ahead of Q&A with judges which will take place **22-24 July 2020**
- Scheduled Q&A with judges via Microsoft Teams
 - 30-minute time slot allocated to each team
 - Q&A based on the pre-submitted Simulation Development presentation
 - Team members will need a computer with webcam and audio and a reliable internet connection
- Feedback and Results
 - Verbal feedback will be provided to all participating teams as part of the Q&A with judges