

FORMULA STUDENT NETHERLANDS

Competition Handbook 2025 v1.0

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Changelog:

V1.0 | Release for publication

Preface

Almost 10 years ago, Formula Student Netherlands was born out of sheer passion, enthusiasm and dedication. An ever increasing group of international volunteers from over 40 nationalities have worked incredibly hard to organize 7 fantastic editions of FSN and one edition of FS Online.

2025 will mark the end of an era, as we will organize the best, but final edition of Formula Student Netherlands.

One more time, we will organize the event with the same standards in competition quality, fun and safety, in which we take great pride since the first edition back in 2017.

To be able to celebrate the 2025 edition with as many of you, we will simplify the registration procedure and we will also organize special awards and events during “our week”, including an alumni cup at the Cathedral of Speed.

We’d love to welcome you all in Assen in July!

On behalf of all the FSN Volunteers

FSN Event Management

NL1 General Information

NL1.1 Formula Student Netherlands

Formula Student Netherlands (FSN) is part of the Formula Student competition series and is open to entries for open-wheel vehicles from student teams. Participating teams are eligible for WRL points and results will be published on fs-world.org

NL1.2 Applicable Rules

The competition will be held in compliance with the “Formula Student Rules 2025”. Changes and additions specific to FSN are located within this document and supersede the respective sections of the published “Formula Student Rules 2025” document. The FSN Competition Handbook is to be considered part of the rules. In case of any contradiction between this document and “Formula Student Rules 2025”, the FS rules are to be considered valid.

NL1.3 Competition Format & Organizer

Formula Student Netherlands 2025 (FSN2025) will consist of two classes: Internal Combustion Vehicle (CV) Class and Electric Vehicle (EV) Class. Both classes can be identified as separate competitions with separated classifications. The competition will be open to:

- 20 CV Class teams
 - Including ‘Hybrid Vehicles’
- 50 EV Class teams
 - including Hydrogen Prototype teams
- 10 Alumni Cup teams (see NL1.13)
- There will be no Autonomous/Driverless Class or Cup at FSN2025

The competition organizer is Tilt Works Events. Formula Student Netherlands is a registered trade mark from Tilt Works B.V.

Tilt Works B.V.
Egersundweg 6
9723 JM
Groningen
The Netherlands

CoC: 66930308
VAT: NL856757226B01

NL1.4 Competition Dates and Place

FSN2025 will be held from Saturday 12th until Thursday 17th of July 2025, at the TT Circuit in Assen, The Netherlands. Please refer to the time schedule for detailed timing.

Venue address:

TT Circuit
De Haar 9
9405 TE
Assen
The Netherlands

The official competition website is: www.formula-student.nl

The official competition e-mail address is: info@formula-student.nl

NL1.5 **Competition Language**

The competition language is English.

NL1.6 **Rule Exemptions and Alterations**

Due to the lack of autonomous events at FSN2025, the scoring table and some rules are altered or void. In particular:

- A1.2.6 to A1.2.8: void
- A1.3: the scoring table is altered to:

Static Events	Maximum Points (CV & EV)
Business Plan Presentation	75
Cost & Manufacturing	100
Engineering Design	150
Dynamic Events	
Skid Pad	75
Acceleration	75
Autocross	100
Endurance	325
Efficiency	100
Overall	1000

- A4.1.1: no team will participate in DC
- A4.4: void
- A5.6: all points marked [DC only] are void
- A6.3.2: void
- T14: void
- T15: void
- CV1.2.2 to CV1.2.4: void
- IN6: void - T14.7 may be inspected if autonomous system components are mounted.
- IN11.2: void
- S2.4.6: the Autonomous System is not considered a “system”

- S3: Autonomous System will not be considered in the Engineering Design Event but Autonomous System components may remain in the car.
- S3.7: Scoring table will be altered to exclude Autonomous Functionality.
- D1.1.1: In total, a minimum of four and a maximum of six drivers are allowed for each team.
- D2.2: void
- D2.3.8: void
- D2.4.1: There will be no practice track for vehicles in autonomous mode
- D2.5: void
- D2.6: void
- D2.7: void
- D2.8: void
- D4: No Driverless SkidPad Procedure, scoring table will be altered to Manual Procedure only
- D5: No Driverless Acceleration Procedure, scoring table will be altered to Manual Procedure only
- D6: No Driverless Autocross Procedure, scoring table will be altered to Manual Procedure only
- D8: void

NL1.7 **Team Members & Registration**

Team members must comply with section A4.2 of the FS rules. Team members with professional experience will be considered eligible to participate if they comply with all rules.

Every team must fill out a Team Member Registration Form (TMRF) prior to the competition. A format will be available on the competition website.

All individuals are responsible for their own Health Insurance, the FSN organization may perform random checks to ensure an individual has a valid health insurance.

If your team or team members require an invitational letter to obtain a VISA, please send an e-mail to info@formula-student.nl

NL1.8 **Team Manager & Team Manager Meetings**

Each team is required to assign one person as team manager. The team manager must attend all team manager meetings. A team manager is responsible for the distribution of official competition information as presented in the team manager meetings to their team. A handout of a team manager meeting will be available on the website after the meeting.

Team Managers are required to join a WhatsApp community for general competition announcements. Joining the community will be done on site, during registration at the Welcome Centre.

NL1.9 **Faculty Advisors**

For FSN2025 Faculty Advisors must be registered as Team Members on the TMRF. Faculty Advisors may stay on the campsite with the team. Faculty Advisors may not

participate in any events or perform any tasks related to the competition that can be done by students.

NL1.10 **Vehicle Numbers**

All registered teams will be invited to choose a car number for the competition via their MyTeam account after payment confirmation of the entry fees.

EV Class: 01-99, with an E added in front of the number. (i.e. E99)

CV Class: 101-899

Alumni Cup: 900-999

NL1.11 **COVID-19 Regulations & Restrictions**

Due to the uncertainty of the COVID-19 pandemic, procedures and regulations as presented in this competition handbook might change.

NL1.12 **Vehicle Shipping**

All teams using an (external) shipping company or freight forwarder must coordinate the transport with the FSN Organization. Vehicles must arrive between July 11th and 13th and must be removed from the event site on July 18th before 18:00 CEST. For each crate that is transported by a freight forwarder (air/sea transport) a security deposit of €500,- must be made. The deposit will be returned if the crate is removed from the venue within the set time limits.

Additional logistic support for teams from outside of the European Union.

Contact the FSN Team on info@formula-student.nl

NL1.13 **Alumni Cup**

To celebrate the past editions and participants in Formula Student Netherlands, a 2025 Alumni Cup will be part of the event. Only technical inspection and dynamic events will be held for the Alumni Cup Class. Teams and cars that have participated in previous editions of FSN will be given priority in the registration procedure.

NL2 **Registration**

NL2.1 **Registration Procedure**

Registration for FSN2025 takes place via a new, simplified procedure. There will be no registration quiz. Registration will be done on a first come first served basis. Slots for the top-5 finishers in each class from FSN2024 will be reserved until the registration deadline.

To register for FSN2025, teams should create a 2025 FSN MyTeam account and fill out the registration form on the competition website. Within 24 hours of filling the registration form, an invoice will be send for the registration fee. Registrations are

only final after payment of the invoice. Once a registration is final, the team will be published as registered on the competition website.

Registration forms must be received before the registration deadline on **February 7th 2025 23:59 CET**.

Payment of the entry fee must be received before the payment deadline on **February 14th 2025 23:59 CET**

All Registrations are subject to [general terms and conditions](#)

NL2.2 **Team Accounts**

A team should create an FSN MyTeam account to be able to participate in the competition and upload documents. A team should also have a valid FSG account for uploading documents. A team does not have to be registered for FSG.

NL2.3 **Registration Fee**

For FSN2025, the registration fee includes **an unlimited number of team members**. The registration fee also includes **all handling fees**.

For CV Class, the 2025 registration fee is €2.500,- including 9% VAT

For EV Class, the 2025 registration fee is €3.250,- including 9% VAT

For the Alumni Cup, the 2025 registration fee is €750,- including 9% VAT

Payments can only be made via bank transfer. In exceptional cases, payments via PayPal can be made at a surcharge.

NL2.4 **Campsite Fee**

For FSN2025, the campsite fee covers a 10m x 10m campsite pitch which accommodates a maximum of 15 team members. A team is required to book the minimum amount of pitches according to their team members registration form. (i.e. a team consisting of 16-30 team members must book at least 2 pitches)

For all classes, the 2025 campsite fee is €1200,- , including 9% VAT per 15 team members. Payments can only be made via bank transfer. In exceptional cases, payments via PayPal can be made at a surcharge.

NL2.5 **VAT Policy & Reclamation of VAT**

The FSN organization is legally required to invoice 9% VAT to all teams, regardless of the origin of the team. Teams with a valid EU VAT number may reclaim their VAT at the Dutch Tax Authority [via this link](#). A direct 0% reverse charge is legally not possible.

NL2.6 **Pit Garage & Campsite Deposit**

To ensure all teams return their transponders and leave their Pit Garage and Campsite spots in clean condition a cash deposit of €200,- must be made upon arrival at the event site.

NL2.7

Cancellation & Refund Policy

In case the **organizer** cancels the event at any date before April 1st 2025, registration fees, campsite fees and deposits are 95% refundable.

In case the **organizer** cancels the event at any date after June 1st 2025 registration fees, campsite fees and deposits are 60% refundable.

In case a **team** cancels their participation for any reason, at any date, registration fees ,campsite fees and deposits are not refundable.

NL3 Documents & Deadlines

NL3.1

Deadlines

<u>Date (yyyy/mm/dd)</u>	<u>Deadline</u>	<u>Class</u>
2025-03-14 13:00 CET	Fuel Type Order (FTO)	CV
2025-03-14 13:00 CET	Impact Attenuator Data (IAD)	ALL
2025-03-14 13:00 CET	Structural Equivalency 3D Model (SE3D)	ALL
2025-03-14 13:00 CET	Structural Equivalency Spreadsheet (SES)	ALL
2025-03-14 13:00 CET	Accumulator Structural Equivalency Spreadsheet (ASES)	EV
2025-03-14 13:00 CET	SES Approval (SESA)	ALL
2025-03-28 13:00 CET	Electrical System Form (ESF)	EV
2025-03-28 13:00 CET	Hybrid System Description (HSD)	CV (Hybrid)
2025-06-16 13:00 CEST	Magazine Uploads (MU)	ALL
2025-06-16 13:00 CEST	Design Spec Sheet (DSS)	ALL
2025-06-16 13:00 CEST	Team Member Registration Form (TMRF)	ALL
2025-06-16 13:00 CEST	Business Plan Pitch Video (BPPV)	ALL
2025-06-16 13:00 CEST	Engineering Design Report (EDR)	ALL
2025-06-27 13:00 CEST	Electrical System Officer Quali. (ESOQ)	EV
2025-06-27 13:00 CEST*	Cost Report Documents (CRD)	ALL
2025-07-04 13:00 CEST	Vehicle Status Video (VSV)	ALL

**different from FSG*

NL3.2

Documents

All teams must submit the documents mentioned in NL3.1 before the mentioned deadlines. A specific instruction on each document and how to submit is given in the following articles of the FSN2025 Competition Handbook. All documents and deadlines are subject to section A5 of the 2025 Rules.

All documents must comply with a maximum of 40 MB. In any case, if a document upload fails. Please contact the FSN Team via info@formula-student.nl

NL3.3

Impact Attenuator Data (IAD)

Format: See FSG website, PDF

Method of submission: Upload file in FSG Account

NL3.4

Structural Equivalency 3D Model (SE3D)

Format: IGES File (may be zipped)

Method of submission: [Upload file in FSG Account](#)

NL3.4 **(Accumulator) Structural Equivalency Spreadsheet (A)(SES)**

Format: See FSG Website (The FSAE-style SES is not allowed), xls(x)

Method of submission: [Upload file in FSG Account](#)

NL3.5 **Electrical System Form (ESF)**

ESF must be submitted in accordance to section EV9 of the 2025 Rules. Teams that are registered for FSG 2025 have the option to let their ESF be checked from FSG. All other EV Teams have to use the FSN ESF template on our homepage. The ESF has to be submitted to esf@formula-student.nl and the topic of the E-mail has to at least contain the team number.

Format: PDF, see template on FSN website.

Method of submission: Upload at FSG or send ESF to esf@formula-student.nl

NL3.6 **Hybrid System Description (HSD)**

HSD must be submitted in accordance to section 7 of the FS Hybrid Rules 2025. All Hybrid Teams have to use the FSN HSD template on our homepage. The ESF has to be submitted to esf@formula-student.nl and the topic of the E-mail has to at least contain the team number.

Format: PDF, see template on FSN website.

Method of submission: Send HSD to esf@formula-student.nl

NL3.7 **SES Approval (SESA)**

Format: PDF, see FSG website for template

Method of submission: [Upload file in FSG Account](#)

NL3.8 **Business Plan Pitch Video (BPPV)**

If the file is too large, please send a link to info@formula-student.nl

Format: common video format (avi, mpg, mp4, wmv)

Method of submission: Upload file in FSN MyTeam

NL3.9 **Design Spec Sheet (DSS)**

A template will be available on the competition website

Format: xls(x)

Method of submission: Upload file in FSN MyTeam

NL3.10 **Engineering Design Report (EDR)**

Format: PDF

Method of submission: Upload file in FSN MyTeam

NL3.11

Magazine Uploads

All teams are invited to write a description of their team (max 125 words). An isometric render or image with a neutral or no background of their 2025 vehicle must be added to the file.

All DSS data may be used to publish in the magazine. If a team fails to submit MU, the organizer may base a text on other available resources.

Format: DOC(X)

Method of submission: Upload file in FSN MyTeam

NL3.12

Electrical System Officer Qualification (ESOQ)

An example of appropriate training is for Dutch standards is NEN 9140. Further examples can be found on the FSG Website [via this link](#)

Format: PDF(s)

Method of submission: Upload file(s) in FSN MyTeam

NL3.13

Fuel Type Order

CV Class teams will be invited to select a Fuel: RON98 or E85.

Format: Online form

Method of submission: Online FSN Form via FSN MyTeam

NL3.14

Team Member Registration Form (TMRF)

A TMRF must be submitted, including all participating team members.

A format will be provided on the competition website.

Format: xls(x)

Method of submission: Upload file in FSN MyTeam

NL3.15

Vehicle Status Video (VSV)

Format: Any common video format (preferably .mp4)

Method of submission: Upload file in MyTeam, or send a link to info@formula-student.nl

NL3.16

Cost Report Documents

Teams must use the FSG online form to fill out the BOM, DBOM and CBOM and use the export function. The exported files should be zipped and must be uploaded via MyTeam to FSN.

Format: Exported FSG Online Form, .zip

Method of submission: Upload file in FSN MyTeam

NL4 Technical Inspection

NL4.1 Technical Inspection Order

The Technical Inspection Order (TIO), or scrutineering queue is based on the order of submission of vehicles status videos. A complete schedule will be published prior to the event or after all VSVs have been submitted.

CV Class:

TIO is only valid for the first attempt at mechanical scrutineering. If the order is in conflict with the static event schedule you may redeem your place in the queue at a later moment of your choice.

EV Class:

The TIO will be the basis for the assigning of the timeslots for Accumulator Inspection and Electrical Inspection.

NL4.2 Technical Inspection Procedure

The technical inspection procedure will take place in the scrutineering area.

Apart from Accumulator Inspection and Electrical Inspection, which use a system of timeslots, with rescrutineering timeslots, all inspection are based on a line-system without timeslots.

CV Class:

1. Mechanical Inspection, including pre-inspection
2. Driver Egress
 - Fuel
3. Tilt Test & Vehicle Weighing
4. Noise Test
5. Brake Test

EV Class:

1. Accumulator Inspection
2. Electrical Inspection
3. Mechanical Inspection, including pre-inspection
4. Driver Egress
5. Tilt Test & Vehicle Weighing
6. Rain Test
7. Brake Test

NL5 Static Events

NL5.1 **Business Plan Presentation Event**

The BPP event will be held according to section S1 of the 2025 FS Rules. A TV screen is available in each BPP room to use. Connection via HDMI cable.

Locations:

BPP Room A “Press Conference Room, 1st Floor” & BPP Room B “Meeting Room 2A2B, 2nd Floor”

NL5.1.1 **Deep Dive Topic**

To be announced

NL5.1.2 **BPP Finals**

The top 2-5 teams from each class will be invited for the BPP Finals

NL5.2 **Cost & Manufacturing Event**

Each team will have a back-to-back session for the Cost & Manufacturing and Engineering Design Event, with a 5 minute break in between to switch team members and equipment.

Both the C&M and ED Event take place in the Static Event Area, which is located near the scrutineering area. A 5m x 5m space is provided for the team to present in. All walls are flexible material. A team should bring their own tape if they want to use the walls to hang any material.

NL5.2.1 **Real Case**

A real case may be part of the C&M event and will be published before the CRD deadline.

NL5.2.2 **C&M Finals**

The top 2-5 teams from each class will be invited for the C&M Finals

NL5.3 **Engineering Design Event**

Each team will have a back-to-back session for the Cost & Manufacturing and Engineering Design Event, with a 5 minute break in between to switch team members and equipment. A 5m x 5m space is provided for the team to present in. All walls are flexible material. A team should bring their own tape if they want to use the walls to hang any material.

NL5.2.1 **ED Finals**

The top 2-5 teams from each class will be invited for the ED Finals

NL6 Dynamic Events

NL6.1 Driver Briefings

All partaking drivers must attend the mandatory driver briefings. An online briefing may substitute the driver briefings.

NL6.2 Skid Pad Event

Each team has four runs, driven by two drivers with two runs each.

$$SKIDPAD\ SCORE = 71.5 \left(\frac{\left(\frac{T_{max}}{T_{team}} \right)^2 - 1}{0.5625} \right)$$

NL6.3 Acceleration Event

Each team has four runs, driven by two drivers with two runs each. The vehicle will be staged so that it breaks the timing beam after 0.30m of travel. There is no “Top X Shoot-out”.

$$ACCELERATION\ SCORE = 71.5 \left(\frac{\frac{T_{max}}{T_{team}} - 1}{0.5} \right)$$

NL6.4 Autocross Event

Each team has four runs, driven by two drivers with two runs each.

NL6.5 Endurance & Efficiency Event

The Autocross finishing order will form the basis for the endurance running order. However, the running order creation can deviate from a speed-based approach to accommodate organizational needs. Officials may allow or require cars to run out of order if needed to finish the endurance event within the given time limits.

In addition to the running order, teams will be assigned a “ready-by” time in the published running order document. This is the earliest time the team may be required to run (i.e. enter the track). From this time, a team must be ready to enter the pre-inspection area.

Running out of order occurs when (1) all teams ranked before the team in the running order either ran or forfeit their run and (2) the teams’ Ready-By time has passed. Running OOO will be penalized according to D9.2.1

A track map will be released prior to the competition

25 points are awarded to every team that finishes endurance without DNF or DQ. The formula given in D7.8.4 will be used to calculate the additional endurance points, however the number “225” will be substituted by “300”. The formula given in D7.9.6 will be used to calculate the efficiency score, however the number “75” will be substituted for “100”

NL7 On Site Information

If you have an emergency that requires the police, fire department or an ambulance, you should call the emergency number 112. If you don't have an emergency, but you still need to contact the police, you can call: +31(0)9008844.

Always inform event officials about your emergency.

NL7.1 **Campsite**

All teams are required to use the on-site campsite facility. The campsite is located on the venue premises and allows for easy access to all venue facilities.

The Campsite fee includes the use of campsite facilities such as power, drinking water, sinks, toilet facilities and shower facilities.

A campsite pitch is approximately 10m x 10m. Pitches will be assigned to teams by the event organization, there is no free choice or first-come-first-serve system.

Earliest arrival: July 11th 18:00 CEST

Latest departure: July 18th 12:00 CEST

NL7.1.1 **Campsite Rules & Safety**

No music speakers or devices with a total power over 20 W are allowed on the campsite at any time during the competition. Teams generating more noise may be excluded from the competition.

The use of motorcycles, quads, bicycles, scooters, skateboards or other similar mobility devices as well as self-propelled devices in general by team members and spectators is prohibited. Teams utilizing any of the listed mobility devices may be penalized

No vehicles are allowed on the campsite, except for loading and unloading on arrival and departure days. Campervans or caravans are not allowed. Teams with vehicles on the campsite on other days may be penalized.

The use of alcohol is allowed on the campsite. The use of drugs is prohibited. The use of drugs may lead to immediate exclusion from the competition.

Running Vehicles and working on vehicles on the campsite is strictly prohibited, except for the following operations:

- Cleaning
- Applying stickers/decals
- Changing rims and tyres
- Fitting and removing bodywork and aerodynamic devices

The use of power tools, running of tractive systems or work on high voltage systems may lead to immediate exclusion from the competition. Any other offense may lead to a penalty or immediate exclusion from the competition.

NL7.2 **Event Site**

The event site consists of all paddock areas, including the static event area, the scrutineering area, the pit garages, all dynamic event locations including spectator areas, the media centre, the business plan presentation rooms and the welcome centre.

NL7.2.1 **Event Site Rules & Safety**

The use of motorcycles, quads, bicycles, scooters, skateboards or other similar mobility devices as well as self-propelled devices in general by team members and spectators is prohibited. Teams utilizing any of the listed mobility devices may be penalized

No vehicles are allowed on the event site, except for loading and unloading during pit construction and deconstruction times. Teams with vehicles on the event site outside of these timeslots may be penalized.

The use of alcohol or any other drug is strictly prohibited. Team members may be asked to perform a breath analysis if doubts arise.

Running on the event site is prohibited

NL7.3 **Arriving at the venue & Parking**

Upon arriving at the venue, a team must proceed first to the Welcome Centre to register the team. An official will guide you to the campsite from the Welcome Centre, this process must be coordinated due to limited access roads on the campsite.

After unloading campsite gear on the campsite, smaller vehicles such as cars can be parked on the adjacent grass parking. Heavier vehicles, such as trucks or trailers will be guided for temporary parking until the event site opens. Heavy vehicles may be parked on the event site, close to the team pit garage once pit garage construction has commenced.

NL7.4 **Drivers & Driver Registration**

Driver registration will take place at the Welcome Centre. All drivers must have their government issued driver's license and national ID card as well as their student ID ready for inspection.

NL7.5 **ESO Registration**

Electrical System Officer registration will take place at the Welcome Centre. All drivers must have their national ID card as well as their student ID ready for inspection.

NL7.6 **Pit Garages**

All teams will have access to a pit garage on the event site. A standard 6x12m pit garage is shared amongst two teams. Therefore each team has approx. 6x6m of space available in their pit garage. A list of pit garage allocations will be published before the event on the competition website

Pit Garages will only be available from July 13th 19:30 . Teams that are eligible for early scrutineering on July 12th and 13th will be accommodated in the paddock parking and are advised to bring portable tents.

NL7.7 Media Centre

Depending on the applicable COVID-19 regulations at time of the event, the media centre will be available. More information will follow closer to the event.

NL7.8 Team Manager Meetings

Team Managers are required to attend Team Manager Meetings (TMM). Team Manager Meetings will take place in the Media Centre. Please see the time schedule for exact times.

NL7.9 Driver Briefings

Driver Briefings will take place in the Media Centre. A separate briefing will be organized for each dynamic event. Please see the time schedule for exact times. Depending on room availability, driver briefings might be combined for different dynamic events.

NL7.10 Trucks & Transportation Vehicles

Trucks and other transportation vehicles are allowed to enter the event area on advice of the event officials. Max. speed within the paddock is 15 kph. There are no restrictions on size of vehicles. During July 12th and 13th, there may be a limit on the amount of vehicles for selected teams. There is no limit on truck and transportation vehicle dimensions.

The use of motorcycles, quads, bicycles, scooters, skateboards or other similar mobility devices as well as self-propelled devices in general by team members and spectators is prohibited.

NL7.11 Warnings & Penalties

Any violation of the rules may lead to a warning or penalty. Warnings can be issued in writing or verbally by event officials. Any penalties will be issued in writing and will be published publicly after the event.

NL7.12 Grandstand & Visitors

More information will follow closer to the event. Depending on the applicable COVID-19 regulations at time of the event.

NL7.13 Live Streaming & Timing

Live streaming will be available via YouTube. All dynamic event will be live streamed. Live timing is available through the MyLaps Speedhive app.

NL7.14 Event Photo

All teams are required to attend the event photo. Final timing and instructions will be published before the event

NL7.15

Fuel Station

Please refer to the time schedule for opening times.