Press release

FORMULA SAE ITALY: THE STATIC EVENTS CONCLUDED YESTERDAY, AND THIS MORNING, THE RANKINGS AND FINALISTS OF THE BUSINESS PRESENTATION, DESIGN, AND COST EVENTS WERE PUBLISHED.

THE WINNERS OF THE STATIC TESTS WILL BE ANNOUNCED TOMORROW DURING THE CLOSING CEREMONY AT 8:30 P.M.

Varano de' Melegari, September 7th, 2024 - The **static events of Formula SAE Italy** concluded yesterday. This morning, the rankings for all classes of participation (1CV, combustion cars; 1EV, electric vehicles; 1DV, driverless cars; and Class 3, driverless car project) in the Business presentation event, Design event, and Cost event were published.

The podium positions of the finalists have yet to be revealed, as the event has yet to end. The winners of the static tests will be announced tomorrow at the 8:30 p.m. closing ceremony.

Students compete by presenting a simulated pitch for their proposed car to potential investors during the Business presentation event. The teams need to present a convincing business plan and showcase a vehicle that has the potential to succeed in the market. They must analyse the business model they plan to use, study the target market and clients, detail their marketing and communication strategies, and provide an economic-financial analysis including return on investment and break-even point. This year, they are also required to make a specific investment request to the jury, divided into four commissions, emphasising the importance of this additional requirement.

Two significant changes to the regulations have been made this year: the intermediate online stage has been removed, and the executive summary in stage 1 is no longer required.

In Phase 1, known as the 'Racing Elevator Pitch,' teams must present a 90-second video to convince the jury to explore their project further. The video will be evaluated based on its quality and the information it provides about the business case.

Teams that advance to Phase 2 will present their Business Plan, which will last for 10 minutes and will include a specific Deep Dive Topic. This topic, determined by the Jury Coordinators and communicated to the teams beforehand, is a key element that guides the teams' focus and encourages the development of innovative solutions regarding key issues in the

automotive market. Following the presentation, there will be a question-and-answer session. The delivery, visual aids, and the teams' ability to answer questions will all be crucial in the overall assessment.

The maximum score for this test is 75 out of the competition's total 1,000 points.

The electric car category exhibited high competition, with multiple teams qualifying for the finals based on their strong performance in previous events. In contrast, the endothermic car category had fewer teams and lower levels of technological innovation due to the mature nature of the technology. However, many teams in this category presented innovative business plans. There was also a noticeable increase in international participation, particularly from countries where combustion engine technology is still emerging, compared to the electric car category.

In the 1CV class, the finalist teams are **Bengawan Formula Student Team UNS** from Sebelas Maret University, **MoRe Modena Racing Hybrid** from the University of Modena and Reggio Emilia, and **Sapienza Corse** from Sapienza University of Rome.

In the Driverless Class (1DV), the finalists are the **Firenze Race Team** from the University of Florence, FS Team Tallinn from Tallinn TU/UAS, and **UniNa Corse - Racing Teams** from the University of Naples Federico II.

In Class 1EV (electric cars), the **Joanneum Racing Graz Team** from UAS Graz advances to the final along with the **ISC FS Racing Team** from ICAI-Comillas Pontifical University and **Dynamics e.V.** from OTH Regensburg.

In Class 3 (presentation of the car's design only), the finalists are the **AAM Driverless Racing Team** from the Arab Academy for Science, Technology and Maritime Transport, the **SalentoRacing Team** from the University of Salento, and the **UniBo Motorsport Hybrid** team from the University of Bologna. It is hoped that next year, these teams will be able to attend the event with the prototype car to showcase their achievements.

The **Design event** is a significant test for the students, with a maximum score of 150 points out of 1,000. It is judged by a panel of automotive experts comprising ten commissions, with 5 for Class 1EV, 3 for Class 1CV, and 2 for Class 1DV, all made up of top designers. The evaluation focuses on the engineering work behind the car, covering classic categories such as

suspension, chassis, and engine and the team's technical management model. Points are also awarded for the degree of creativity and innovation of the design idea.

The regulations of this event were harmonised with those of other European events last year, allowing teams to participate in several events in Europe without having to make changes to the technical documentation and the car. After the judges confront the students in the pits, three teams from Class 1CV and three from Class 1EV are selected to participate in the finals. This marks the culmination when the best cars are publicly presented, and all the judges can observe them up close and compare them directly.

In this edition of the Design event, the general technical level is high for both endothermic and electric teams. This indicates that the event, held at the end of the season, has seen many cars participate in other Formula Student events. Many teams have migrated into the electric category, considerably improving performance. Among the Italian universities, notable participants include the Universities of Rome La Sapienza, Modena and Reggio Emilia, Trento, and Bologna.

In the 1EV class, three historic teams achieved excellent results. They made it to the final: **TU Graz Racing Team** from the Graz University of Technology, **eForce Prague Formula** from the Czech Technical University in Prague—noteworthy for integrating an autonomous driving system into their car—and **FS Team Tallinn** from Tallinn TU/UAS.

Although many teams are moving towards electric cars in the 1CV class, the average level was slightly lower. Standout teams with traditional cars include **MoRe Modena Racing Hybrid** from the University of Modena and Reggio Emilia, **Aixtreme Racing** of UAS Aachen, and **Sapienza Corse** of the Sapienza University of Rome.

Since last year, non-plug-in hybrid engines have been allowed in the 1CV class. Compared to the 2023 debut, some interesting developments were seen, especially from the University of Rome La Sapienza, which made it to the finals after only submitting a car design last year.

In Class 3, the most exciting projects came from **UniBo Motorsport Hybrid** from the University of Bologna, **FSAE Driverless Padova** from the University of Padua, and the **AAM Racing Team** from the Arab Academy for Science, Technology and Maritime Transport.

Class 1DV's Design Event score is 200 points, 50 points higher than in the other classes. Points are awarded based on autonomous system development rather than vehicle design.

Significant growth has been compared to previous years, indicating that students increasingly invest in these technologies at the medium and top team levels. Additionally, introducing the option to compete in the dual participation class 1DV + 1EV has prompted top teams to enrol in the driverless class, thus raising the overall competition level.

Moving on to the finalists, **FS Team Tallinn** of Tallinn TU/UAS and **eForce Prague Formula** of the Czech Technical University in Prague presented two cars of a very high standard. The vehicle and the autonomous driving system demonstrated an excellent understanding of the car. **UniNa Corse - Squadra Corse** of the University of Naples Federico II presented a perfect car, showing a positive evolution from past ones.

In 2019, the Cost Event, valued at 100 points out of a total of 1,000, was renewed following the model of the FSG regulations. This event, which uniquely focuses on analysing cost reports produced by teams, is now based on their own costing processes rather than standard cost tables. The event includes a 'real case scenario' challenge related to the car the team has produced, assessing their technical-economic skills with an interdisciplinary approach. This year's challenge simulates the adaptation of the car to the new Formula 1 regulations for 2026, requiring students to estimate costs and carbon footprint.

The **Cost Event** test is similar to an economics thesis on the car, incorporating important technical and production aspects. Teams create their tables and must explain their methodologies to the judges, highlighting the verifiable and reliable sources from which they obtained the essential data. In addition to cost understanding, the event covers topics such as the car's environmental impact and its production and disposal, make-or-buy decisions, estimating the differences between prototype and mass production, and elements of resource planning and risk management.

The Cost jury consists of about thirty members, divided into five commissions, who visit each team directly at their box. For this edition, an international jury from four different continents - including judges from India, Croatia, Slovenia, Brazil, Pakistan, Cameroon, and, for the first time, Egypt - was also confirmed.

Strong competition in the electric car class, with many teams achieving high scores, led to intensive discussions among the jury during the calibration to validate the judgments made during inspections.

Italian teams made significant efforts, with an increasing number of universities participating for the first time. Many teams showed improvement compared to previous years, reflecting the feedback received from the judges in the last edition.

The top three finishers in Class 1CV are **Sapienza Corse** from the Sapienza University of Rome, **Bengawan Formula Student Team UNS** from Sebelas Maret University, and the Formula Racing Team from the University of Cyprus. In Class 1EV, the finalists include **HAWKS Racing e.V.** from HAW Hamburg, **FS Team Tallinn** from Tallinn TU/UAS, and **Joanneum Racing Graz** from UAS Graz. In Class 3, the finalists were the **Salento Racing Team** from the University of Salento, the **UniBo Motorsport Hybrid Team** from the University of Bologna, and the **AAM Driverless Racing Team** from the Arab Academy for Science, Technology and Maritime Transport. Lastly, in Class 1DV, the top performers were **FS Team Tallinn** from Tallinn TU/UAS, **CURE Mannheim e.V.** from DHBW Mannheim, and **eForce Prague Formula** from the Czech Technical University in Prague.

Additionally, it's important to note that Formula SAE Italy is more than a competition; it's considered an educational event. Therefore, the feedback session for the static events took place today from 9:30 a.m. to 12:45 p.m. During this session, judges from various teams conducted individual interviews with those who requested it to provide feedback for improvement. This feedback is valuable for the teams to implement in future competition proposals.

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ANFIA - Italian Association of the Automotive Industry

Founded in March 1912, ANFIA's mission has always been to represent the interests of its associate members and to ensure effective communication between the Italian automotive industry, on the one hand, and the public administration and Italian political bodies, on the other, in all technical, economic, fiscal, legal, statistical and quality matters relating to the automotive sector. The Association is divided into three product groups, each chaired by a President. Components: manufacturers of parts and components for motor vehicles; Car Coachbuilders and Designers: companies involved in the design, engineering, and

styling of motor vehicles and/or parts and components for the automotive sector; Motor Vehicles: manufacturers of motor vehicles in general, including trucks, trailers, camper vans, special means of transport.

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The automotive production chain in Italy

5,439 companies
272,000 employees (direct and indirect), representing 7.3% of the Italian manufacturing workforce
100.6 billion Euros of turnover, which represents 11.5% of the Italian manufacturing sector turnover and 5.6% of the Italian GDP
76.3 billion euros of tax revenue from motorisation

Formula SAE Italy

Formula SAE was established in 1981 on the initiative of the Society of Automotive Engineers (SAE) and requires the participating students to design and build a prototype single-seater racing car destined for eventual sale. They must follow specific technical and financial constraints as if a company in the automotive sector commissioned it for a non-professional user. During the event, the teams of students take part in static tests - Design, Business Presentations and Cost Events - and dynamic tests on the track (Acceleration, Skid Pad, Autocross, Endurance; for Class 1D, the Endurance has been replaced by the Trackdrive).
The event aims to focus not on the competition itself, but the skills acquired by the young people in terms of engineering knowledge, commitment, organisation and adherence to deadlines, design coordination and product presentation. Thus, the competition is an educational event in which young people can learn teamwork dynamics, with strict rules and deadlines that must be respected and be put to the test in the actual construction and design phases of a prototype and with all the difficulties that this entails.
Formula SAE arrived in Italy in 2005, organized by ATA (Associazione Tecnica dell'Autoveicolo). After 12 editions, since 2017, with the acquisition of ATA by ANFIA, the organization of the event passed to ANFIA, which organized 4 editions at "R. Paletti" Racing Track of Varano de' Melegari (Parma).

https://www.formula-ata.it/

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