

SEM Fast facts & FAQ's

What is the Shell Eco-marathon?

The Shell Eco-marathon is an educational project that challenges student teams to design and build the most energy-efficient vehicle to compete against other teams' vehicles. The winner is the vehicle that travels the farthest distance using the least amount of fuel.

How did the Shell Eco-marathon begin?

The Shell Eco-marathon started in 1939 at a Shell research lab in the U.S., with friendly wagers between fellow scientists to see who could get the most miles per gallon from their vehicles.

What are the details of the challenge?

Students build their own vehicles and compete to determine whose design will go the furthest distance using the least amount of fuel. Student teams work together to build prototype vehicles with three or four wheels, using conventional fuels, alternative fuels or energy sources such as hydrogen and solar.

What kind of fuels can the student teams use in the race?

Teams have a choice of: conventional fuels such as diesel, gasoline and LPG or alternative fuels such as fuel cells/hydrogen, bio-fuel, solar and Gas to liquid (GTL).

- The vehicles may use one of the following fuel or energy types:
- Shell Unleaded 95 (EU) / Shell Plus 89 (US) Petrol/Gasoline
- Shell Diesel
- Liquefied Petroleum Gas (LPG)
- Shell Gas To Liquid (100% GTL)
- Fatty Acid Methyl Ester (100% FAME)
- Ethanol E100 (100% Ethanol)
- Hydrogen
- Solar

Who are the students who participate in the Shell Eco-marathon?

Participants come from: colleges, technical institutes and high schools from around the world. Teams include faculty members.

How would you expect the students to fund this vehicle? Will Shell be helping them financially?

The aim is to give the students a sense of the real world - they will learn how to project manage as well as to handle their marketing and publicity and to raise their own funds and sponsorship.

The early bird incentive will be on the criteria of registering first and Shell Malaysia will announce the winners. They will also offer some travel subsidy to each team and organize discounted accommodation.

Shell Pakistan's role is a mentor and coordinator to the teams, you can approach us for any technical or logistic advise, but we will not be sponsoring any team.

What important skills and experiences do the competitors learn during the challenge?

From designing to financing the vehicle, student participants learn to manage the total project. Through their participation, students build up their skills in science, technology, mathematics, design and business.

How are the rules developed?

Rules are developed internally by our technical colleagues from Shell Global Solutions. The Official Rules are designed to enable safe, technically sound and fair competitions. They intentionally leave various design parameters, technologies and tactics unspecified in order to stimulate creativity and allow for the competition of novel ideas and solutions.

For more information: http://www.shell.com/home/content/eco-marathon-en/rules_09/2009_rules_081908.html

What benefits do you see from staging SEM?

It can be an excellent means for students to find future employment & for companies to recruit future talent.

What is the prize for the winning teams?

The Shell Eco-marathon prizes range from a grand prize of USD\$1,500, awarded to the educational institution in honor of their team, whose vehicle went the farthest distance using the least amount of fuel, to USD 800 for the other categories.

Why is Shell hosting the Shell Eco-marathon?

At Shell we recognize our role and our responsibility to do our part in the energy challenge. As an energy company, Shell is working to reduce the environmental footprint of its operations and products and to meet the world's growing demand for energy in secure and sustainable ways. The Shell Eco-marathon inspires everyone from companies to youths to think about energy efficiency and offers a platform to work on solutions in a very practical way.

When did the event take place in Europe & Americas for 09?

SEM Americas:

- Venue: Auto Club Speedway, Fontana, Calif.
- Date: 15 – 18 April 09

SEM Europe:

- Venue: Eurospeedway Lausitz (near Berlin)

•Date: 7 – 9 May 09

Why should students be interested in participating in the Shell Eco-marathon?

For students, it's an opportunity for a hands-on application of concepts learned in the classroom, a chance to meet new people and an excellent way to demonstrate skills to potential employers. For schools, entry into the Shell Eco-marathon brings benefits to specific areas of the curriculum as well as an interesting "lab" to reinforce concepts.

Why is the Shell Eco-marathon important?

The Shell Eco-marathon stimulates education and awareness about conservation and sustainable mobility. Participants are building the cars of tomorrow, with greater energy efficiency and cleaner combustion.

SEM Asia:

Why is Shell bringing this event to Asia now?

- Asia has tremendous capability and talent and by holding the SEM in Asia we enable more student teams in the region to participate.
- The Shell Eco-Marathon serves as an excellent platform for them to design and build fuel-efficient vehicles and to showcase their creativity and innovativeness in meeting the energy challenge.

Why did Shell choose Malaysia to host the inaugural event?

- Shell's operations in country – we are the most comprehensive energy company here
- Our large staff base
- MY's efforts with sustainable mobility & in environment
- International track
- Good engineering schools/student teams
- Strong support from all stakeholders

When is the Shell Eco Marathon Asia?

The inaugural Shell Eco Marathon Asia will be held from 9th to 10th July 2010 at the Sepang International Circuit in Kuala Lumpur, Malaysia. Teams should arrive a day early to register.

How long will it remain in Malaysia?

The plan is to hold it in one country for at least 3 years.

How many teams are you expecting for the inaugural event?

We are targeting at least 30 student teams from the region.

We have seen an increase in participation from Asia to the SEM Europe event – 3 teams from Singapore, 4 from Pakistan, 1 from Thailand and 1 from Malaysia and 1 from China competed this year in Berlin.

Where in Asia are you getting the teams from?

Asia includes countries in S Asia i.e. Pakistan/India to N Asia, i.e. Japan, Korea and China, SE Asia and Oceania. Participants can come from universities, colleges, technical institutes & high schools.

Is there an age limit?

We will accept applications from student teams who are 16 years and above.

Do they need a valid driver's licence to drive these vehicles?

These vehicles don't go fast so as long as they know how to operate a go-kart vehicle or a buggy they can take part in the challenge.

Can non-students participate?

The Shell Eco-marathon is only open to students who are at least 16 years of age and attached to an educational institution.

Can a team comprise students/friends from different universities?

No, the team should represent your school or institution.

Is there a minimum/maximum number of members needed to form a team?

There is no limit to the number of members per team. However, please note that each team will receive a travel subsidy for 5 persons based on the distance that they need to travel to the site (terms and conditions apply).

Can a team enter more than one car?

Yes, if your budget permits.

How will it be different from the SEM Europe and SEM Americas?

SEM Asia will not be very different from the other 2 events. The Rules are basically the same. We are applying the same safety processes, rules and criteria in the SEM events.

How much does it cost to build one of these vehicles?

It varies from team to team, and depends on the students' ingenuity and creativity to come up with the most fuel and cost efficient vehicle. Cars can also be modified for subsequent years and this makes it very cost-effective.

When and how do we register for the challenge?

Registration will be stages over the year. Interested parties should register online

http://www.shell.com/home/content/eco-marathon-en/asia/welcome_sem_asia.html

Where I can more information:

Visit our website at:

http://www.shell.com/home/content/eco-marathon-en/asia/welcome_sem_asia.html

What are the prizes?

Grand Prizes and Other Awards

On Track Awards				
		Prototypes	Urban Concept (UC)	
By engine type		USD		USD
		1st prize: \$1,500		1st prize: \$1,500
Combustion	Shell Eco-marathon Grand Prize	2nd prize: \$1,000	Shell Eco-marathon Grand Prize	2nd prize: \$1,000
		3rd prize: \$500		3rd prize: \$500
Fuel cells	Shell Hydrogen	1st prize: \$1,000	Shell Hydrogen	1st prize: \$1,000
		2nd prize: \$800		2nd prize: \$800
Solar	Solar Power Award	\$1,000	Solar Power Award	\$1000
All vehicles	CO2 Award	\$1000	CO2 Award	\$1000
By energy class				
	Gasoline Prize	\$800	UC Gasoline Prize	\$800
	Diesel Prize	\$800	UC Diesel Prize	\$800
	Alternative Gasoline Prize	\$800	UC Alternative Gasoline Prize	\$800
	Alternative Diesel Prize	\$800	UC Alternative Diesel Prize	\$800

Off Track Awards	
Safety Award	1st prize: \$1,000 2nd prize: \$500 3rd prize: \$300
Technical Innovation	\$800
Design	\$800
Communications & Marketing	\$800

Off Track Awards

Participating teams may also elect to compete for one or more off track awards: Safety (1), Safety Technical Innovation (2), Design (3), Communications (4).

Teams may register for the special awards by completing and returning the corresponding questionnaires as well as a complete entry form for the Communications, Design, Eco-Design, Technical Innovation and Safety Awards.

Safety Award

This prize recognizes the three teams having made the most extensive efforts to comply with the safety regulations set forth in the present document. The completed form must be submitted with Phase II explaining how the team has integrated safety concerns into vehicle design and construction.

Technical Innovation Award

This award is presented to the top three teams demonstrating outstanding initiative and technical ingenuity along with optimal use of new materials in the drive train, chassis, instrumentation and tires.

The completed form explaining the innovation concept, the team's approach, etc. must be completed during Phase II of Registration.

Auto-Desk Design Award

This category recognises innovative design research in terms of ergonomics, aesthetics, choice of materials and technical feasibility. The originality and overall coherence of the design are also taken into account. The term "design" includes: vehicle structure, driving position, the engine, steering, suspension, braking, etc.

The completed form explaining the team's design approach, the basis for their research and photos of the vehicle (front, rear and side views) must be completed during Phase II of Registration.

This Award is sponsored by Autodesk.

Communications & Marketing Award

This category recognizes the team who has made outstanding communications efforts concerning the Shell Eco-Marathon. All actions throughout the year are taken into account: participation at trade shows, creation of a Web site and all other activities that successfully promote the competition, its name, its founding principle, its educational aspects, etc. in the team's country of origin.

The completed form presenting all of the team's communications actions and their results must be completed during Phase II of Registration.