Participate!

FOR SUSTAINABLE INNOVATORS

Enable metro freight transport

Develop a concept for fast container unloading

SIEMENS

FOR A SUSTAINABLE WORLD

Tech for Sustainability Campaign 2023

Tech for Sustainability is a global initiative for students, researchers, startups, and innovative individuals to leverage technology to solve real-world sustainability challenges and shape our future alongside Siemens.

Leverage technology to shape a sustainable future

Siemens AG is a technology powerhouse that brings together the digital and real worlds to benefit customers and society and thus people around the globe. The company - having shaped each of the four industrial revolutions - focuses on intelligent infrastructure for buildings and decentralized energy systems, on automation and digitalization in the process and manufacturing industries, on water solutions, and on smart mobility solutions for rail transport, but also in financial services and software development.

As a global ideation campaign, Tech for Sustainability is designed to engage innovators outside of Siemens in order to come up with unique solutions for problems with a focus on sustainability. In a hackathon, the innovators who have been particularly successful in the early stages of the Campaign will have the opportunity to create a proof-of-concept and proof-of-feasibility for their ideas. The different phases of the campaign and their timeline are shown in figure 1.

"Sustainability is in our very DNA. It is not an option. It is a business imperative."
Judith Wiese, Chief People and Sustainability Officer, Member of the Managing Board of Siemens AG

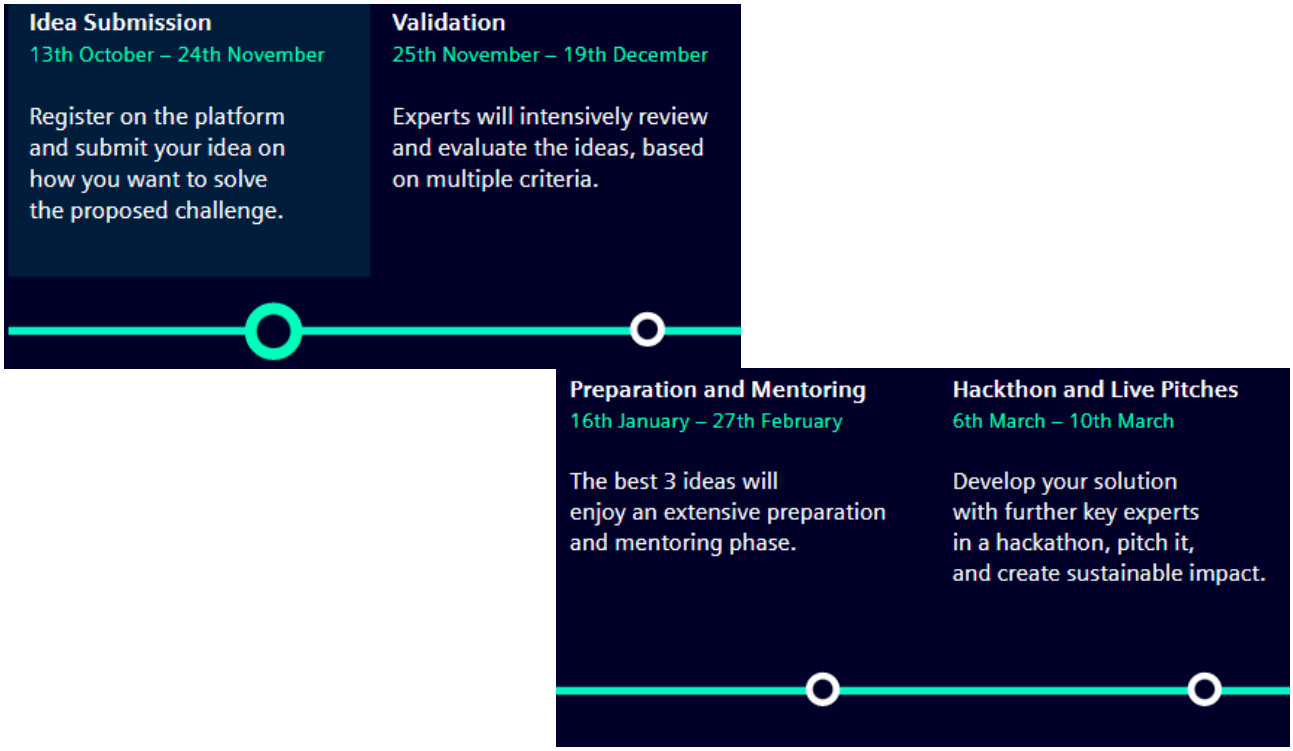

Figure 1 - Timeline and phases of the campaign

What's in for you?

1. Work with us - Let's solve real problems together to move towards sustainability.
2. Work on-site - The teams with the best ideas will develop their applications further during a hackathon. They will get to work on-site or remotely for the development of their proof-of-concepts.
3. Win Prizes - Three winning teams per challenge – 1st 5,000€, 2nd 3,000€ and 3rd 2,000€

How do you get to the next phase?

All ideas will be evaluated by Siemens experts based on the following criteria. So, keep them in mind:

a) Innovativeness: Incremental or disruptive innovation
b) Sustainability: DEGREE and impact on the UN Sustainability Development Goals
c) Feasibility: Degree of technical and/or economic feasibility
d) Potential: Fit to Siemens processes, products and markets
e) Implementation: General implementation efforts (Time to market, R&D costs, etc.).

Join the campaign and create impact on real problems together with go-getters and solution seekers of the world by submitting your ideas.

https://siemens.com/techforsustainability

SIEMENS MOBILITY NEOVAL CHALLENGE

Enable metro freight transport

Develop a concept for fast container unloading

Pollution due to road traffic in cities is a major contributor to global warming with a direct impact on people's health. But not only passengers need to be moved, also goods are sent and delivered. Transportation of light freight accounts for a big portion of the total road traffic, especially inside cities.

In 2020, road transportation was the largest source of carbon dioxide (CO2) emissions throughout the European Union, accounting for 27 percent of total CO2 emissions.

Metro trains and Automated People Movers (APM) already provide a sustainable alternative for people's mobility. But what about light weight freight? City logistics still rely mostly on polluting road freight traffic.

We are looking for ideas that enable existing metro facilities to transport light freight and passengers simultaneously. To achieve mixed traffic operation without a negative impact on the passenger experience, we need a solution allowing a fast freight transfer between platform and vehicle.

Our current product, the NeoVAL, is a fully automated, driverless metro, that is being implemented in modern cities and on international airports. The NeoVAL is a cost-efficient and sustainable solution to transport people. With its' short headways and a maximum speed of up to 80km/h it is very flexible. Usually, passenger flows and freight networks are separated. Due to short stopping times, maximum freight dimensions and various other system constraints it is a real challenge to combine them. Therefore, we are looking for your ideas to combine them efficiently!

How can you create impact?

To help you imagine a concept that will solve this problem, we have defined a few system constraints such as maximum freight dimensions, weight, doors system, train stop accuracy, acceptable transfer time and possible interior mounting location. To help you visualize the environment, we will arrange a virtual 3D-visit of the metro and the station areas.

Now that we have defined the system constraints it is your turn to imagine a concept for a fast freight loading/unloading solution. There are already many technological logistic solutions in various environments, such as maritime, factories or aviation.

Let's combine passenger and freight transport in an efficient and sustainable solution to transform the everyday TOGETHER!

Get inspired and help us to merge the world of passenger mobility and freight operation in one product. Be part of the future of transportation systems!

This combination has the potential to create new transportation hubs, expanding adoption in new cities and airports. This way, your future concept can help to reduce pollution in these cities and airports, providing a real alternative to existing logistic solutions while preserving the convenience of people and passenger transportation.

Do you want to be part of a sustainable transportation system with Siemens? What are you waiting for? Tune in on the kick-off event on the 13th of October at 4:30 p.m. (CET) and submit your solution!

Tech for Sustainability Campaign - For a sustainable world

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