Round 10 of the ORLEN Skylight accelerator

Applications can be submitted until 2 April 2024:
https://www.orlen.pl/en/about-the-company/innovations/accelerator

ORLEN Skylight – the Polish tech market pathway

Rebels Valley invites international ecosystem partners engaged in startup development to explore the opportunity for young technological companies to apply for the largest corporate startup program in Poland- ORLEN Skylight.

Rebels Valley supports ORLEN Group as the program operator, and we are available to address any inquiries you may have.

FAQs:

Who is ORLEN Group?

ORLEN Group is a multi-energy conglomerate, recognized as the largest capital group in the CEE region. It engages in various activities including the production and sale of fuels and energy, logistics, recycling, plastics production, and fertilizers. With annual revenues reaching approximately 70 billion euros, ORLEN products are distributed across over 100 markets worldwide.

What is ORLEN Skylight Accelerator?

ORLEN Skylight is an implementation-acceleration program designed to provide startups with a streamlined pathway to commercialize their products and services within the ORLEN Group. Participating technological companies have the opportunity to address quarterly challenges spanning various business domains within the Group, such as petrochemicals, energy, green technologies, digitization, HR, marketing, and retail. The program initiates with pilot projects, typically valued at around 60,000 EUR, which can later evolve into full-scale implementations.

What kind of companies are we looking for?

ORLEN Skylight embraces a flexible definition of startups. It seeks companies that have been operational for no more than 10 years and possess technology ready for testing and implementation. Startups that have successfully validated their business hypotheses, both within ORLEN's areas of interest and in other economic sectors, hold an advantage. The program welcomes applications from startups worldwide.

What is the format of the program?

The program operates on a challenge-based model, where applying startups submit their value propositions for specific challenges. ORLEN Skylight evaluates the potential benefit that ORLEN Group

and the startup can achieve together, rather than focusing solely on investor pitch decks. The acceleration process is non-equity based, and the intellectual property associated with the pilot project remains with the startup.

How long does the evaluation process take?

From the close of applications to the Steering Committee meeting, the evaluation process typically spans around 2 months. During this time, startups have the opportunity to engage with business owners of the challenges, gathering feedback and refining their proposals before final decisions on collaboration are made. Direct communication with ORLEN managers is a key value of the program.

Does Skylight provide investment opportunities?

ORLEN Skylight operates on a non-equity basis, with activities being commercially settled after the completion of milestone steps in the pilot projects. Additionally, information about applying companies and the progress of pilot projects is shared with the investment team at ORLEN VC, the largest corporate venture capital fund in the CEE region.

The most up to date list of published challenges:

Category: Digital organisation

1.	**Data analysis tools for marketing** In response to the need for increased personalization and efficiency in advertising campaigns, we are looking for analytical tools that support the creation of data-driven marketing strategies. We aim to better understand our customers through precise segmentation of target groups and persona creation, using parameters such as age, location, interests, preferences, or activity profile. We want our campaigns to be personalized and to take into account trends and seasonal factors. We would also like to forecast the results of advertising campaigns based on the analysis of variables and historical data.
2.	**Modern tools for creating and testing marketing content** We are in search of professional tools that will facilitate the process of creating creative marketing campaigns and the creation of engaging marketing content on social media, including texts, scripts, presentations, graphics, and audio and video materials. The ability to easily optimize content for SEO and advanced processing of product photos will be crucial. We are equally interested in the ability to quickly test multiple content variants and the engagement they generate among audiences.
3.	**Tools to support communication with business partners from different cultural zones** To strengthen the ORLEN Group's image in the global market and support the implementation of strategies for development in foreign markets, we are looking for tools that will increase the effectiveness of establishing and maintaining relationships with customers, suppliers, and business partners from different cultural zones. We expect that our project teams will receive knowledge and practical tips that will improve the effectiveness of their daily work with partners in foreign markets and address challenges related to cultural and language barriers. We are particularly interested in the potential of using interactive educational formats, such as simulation games, virtual reality, and gamification.

4.	E-commerce market monitoring system and optimization of sales processes We are looking for a system to monitor the e-commerce market that will track prices in online stores, inventory levels, demand and supply structure, trends, seasonality, and the impact of external factors. The system should segment customers according to price sensitivity and response to market changes. We are interested in the ability to conduct comparative analyses by integrating with sales data. Ultimately, we want to provide the ability to work with store platforms and other systems (ERP, logistics, sales, marketing) to automate processes.

Category: Efficient and low-carbon power generation

1.	Management and reduction of CO2 emission We are looking for solutions that make sustainable use of carbon dioxide in refinery or petrochemical production. Solutions should comply with existing regulations and contribute to lowering the carbon footprint of our products. We are particularly keen to reduce emissions in the production of RFNBO synthetic fuels in the context of the RED III directive.
2.	Innovative energy storage technologies We are looking for new solutions in the area of electricity, heat and hydrogen storage with high efficiency and stability. We are particularly interested in products that are compatible with renewable energy sources. In addition, we are interested in intelligent management systems for stored energy.
3.	Reducing electrical energy consumption in industrial plants We are looking for solutions capable of reducing electrical energy consumption in the diverse operational areas of petrochemical and refinery plants, such as the operation of process equipment (including pumps and compressors), lighting, energy demand management etc.
4.	Renewable source productivity forecasting tool based on weather data We are looking for solutions to forecast the productivity of photovoltaic panels and wind turbines based on meteorological data.
5.	Utilising waste heat and low-temperature production heat Throughout the ORLEN Group, we are looking for solutions to manage waste heat or low-temperature production heat that would be able to bring economic benefits or improve process efficiency. We are keen to find technologies that enable the conversion of waste heat into a useful medium or other business benefit. We have a number of heat sources in the petrochemical and refinery area, including condensate heat (70-120 °C), low-pressure steam near atmospheric pressure) and heat from hydrocarbon streams (60-100 °C). We are open to diverse solutions such as heat exchangers, heat pumps, ORC and others.

Category: Modern petrol station and customer of the future

1.	Small wind turbines for fuel stations We are looking for innovative wind turbines that could be installed in the area of fuel stations. The design should overcome the limitations associated with the low placement of the turbine and efficient electricity generation in conditions of low windiness. The power plant construction (vertical or horizontal) should be durable and allow for safe installation on residential/commercial buildings without posing a threat to people.

2.	**Green energy tracking tool for EV chargers** To ensure that the users of our electric chargers are confident that their electric vehicles are powered by green energy, we are looking for a tool that allows for energy tracking, which will verify that it comes from low-emission sources. We are open to various solutions, and we see particular potential in blockchain technology.
3.	**Monitoring and diagnostic tool for electric vehicle charging stations** To ensure high availability and reliability of our electric vehicle charging stations, we are looking for an integrated tool that allows for monitoring and automatic diagnostics of EV chargers from various manufacturers. We want the system to be capable of detecting and predicting failures (predictive maintenance), and support auto-healing processes.
4.	**Artificial intelligence solutions in the retail** We are looking for innovative solutions leveraging the potential of artificial intelligence in the retail sector and fuel stations. We are interested in tools that increase sales volume, automate customer service, and streamline operational activities.

Category: Industry 4.0 and safe and innovative organisation

1.	**Non-invasive monitoring of fuel in rail tank cars** In order to facilitate on-demand inspections of rail tank cars, we are looking for tools capable of non-intrusive rail tank car (RTC) fuel measurement. We are keen for the solution to identify the time and locations of unauthorised access and pumping of fuel from the tank.
2.	**Tools for detecting fluid leaks in installations** In response to the need to improve the safety and operational efficiency of energy infrastructure, we are looking for modern methods that enable quick detection of fluid leaks in pipelines and valve fittings. An additional advantage will be the capability for inventory management.
3.	**Mobile solutions for flow measurements in unmeasured locations** We are seeking tools capable of precise flow measurements in areas that have not been previously equipped with appropriate measuring devices. We are particularly interested in solutions that can be applied without the need to interfere with existing industrial fittings. We expect that the proposed methods will be effective for both liquid and gaseous fluids. ATEX-qualified solutions are desirable.
4.	**Automation of dewatering in storage tanks** We are interested in acquiring an automatic dewatering system for storage tanks holding refinery products, such as fuels and heating oils. Due to the tendency of water to accumulate, which being denser settles at the bottom of the tanks, we are seeking an innovative solution that will automatically detect and remove the accumulated water, while ensuring the efficiency and safety of the storage process.
5.	**Utilization of excess production gases burned by flares** Planned startups and shutdowns as well as emergency shutdowns of production installations generate excess batches/products in gaseous state, which are currently disposed of by burning through a flare. To reduce costs and environmental impact, we are looking for methods to manage these streams, which will be independent of the current operation of the production plant. The challenge concerns various industrial installations, and the mixtures of batches/products can consist of hydrogen, nitrogen, hydrocarbons from C1 to C10, as well as inert and refinery-origin pollutants (sulfur, ammonia, hydrogen sulfide, carbon monoxide, carbon dioxide). We see potential both in using a given mixture, liquefying the gas, as well as burning gases and recovering heat.

6.	**Robotization of handling tank car hatches** To increase the safety of our employees, we are looking for solutions that will allow for the automation of handling tank car hatches at the Automatic Filling Station (AFS). We want to automate activities such as opening and closing hatches mounted on 4 butterfly nuts, sealing, and interior inspection (including the presence of liquids and solids, condition of gaskets). It must be taken into account that the weight of tank hatches ranges from 10 to 20 kg, and in the winter season, the tool will have to work at negative temperatures. We see particular potential in the use of robotic arms or Cartesian XYZ robots in an explosion-proof execution (ATEX).

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