

Warsaw, January 11th, 2021

The Łukasiewicz - Institute of Aviation and GE extend the strategic cooperation for the next 15 years

On January 11th, 2021, an agreement was officially signed by representatives of the Łukasiewicz - Institute of Aviation and GE. The signed agreement extends the companies' strategic cooperation for the next 15 years, further developing the Engineering Design Center, one of the largest technological centers in Europe.

Engineering Design Center (EDC) is one of the most well know GE design centers located in Warsaw's Okęcie, at the campus of the Łukasiewicz Research Network - Institute of Aviation. The center houses over 1,300 engineers, with over 40 percent being the employees of the Łukasiewicz Research Network - Institute of Aviation, focused on global projects for three different industries: Aviation, Gas Power and Renewable Energy. For more than 20 years, EDC engineers have been creating innovative industry solutions.

"Our relationship with GE dates back two decades. It is a unique example of a public-private partnership that works well in the demanding market reality. EDC combines the organizational culture of one of the largest companies in the engineering industry with the best laboratory and scientific facilities. This combination allows the acquisition and use of practical engineering knowledge on the large, international projects. I am glad that, together with our partner GE, we will continue this cooperation for the next years" says Paweł Stężycki, PhD Eng, Director of the Łukasiewicz Research Network - Institute of Aviation.

"The signing of the contract between GE and the Łukasiewicz - Institute of Aviation is a proof of how much GE appreciates the skills of Polish engineers and cooperation with the Polish scientific circles" adds Marian Lubieniecki, President of the Management Board of General Electric Company Polska Sp. z o.o. and EDC Site Leader.

To celebrate this event, deputy prime minister of Poland Jarosław Gowin sent an official letter to the signatories and EDC employees. In this letter he emphasizes that Engineering Design Center engineers are world-class specialists who use their knowledge and experience with the support of the Polish institute that is part of the Łukasiewicz Research Network. *"Their engineering competences are highly appreciated by business customers due to the quality and innovation of the proposed solutions. I am convinced that the future of the engineering industry will be created in Poland"* – points out the deputy prime minister Gowin.

"New technologies created in international partnership, thanks to the potential of Polish scientists and engineers focused in Łukasiewicz, may become not only a remedy for this troubled times, but also a flywheel for changes that will make the Polish economy a pioneer of solutions that have a chance to change the world for the better. The development of the

Polish economy and increasing the level of investments are crucial for strengthening Poland's position in the world. I am sure that taking up such challenges as those on which Engineering Design Center specialists are working will be the realization of Polish ambitions to actively participate in the global technological race” – adds deputy prime minister Gowin in the letter.

EDC's global competencies

EDC combines 125+ years of GE innovations with the Polish technical thought and scientific background of the Łukasiewicz - Institute of Aviation, founded in 1926.

GE and Łukasiewicz Research Network – Institute of Aviation continuously invest in the EDC research and development infrastructure and in the development of the employees' competencies, to make sure that their engineers have access to the latest and most advanced research opportunities, making EDC successful on both national and international levels.

“At EDC, we have 10 state-of-the-art research laboratories that enable our engineers not only to design innovative solutions, but also to test them here in Warsaw. Many of the devices that EDC teams design and support after production are used in the industrial plants in Poland including world-class aircraft engines designed in Warsaw that are used by LOT Polish Airlines” emphasizes EDC Site Leader, Marian Lubieniecki.

EDC engineers have also engineering successes on a global scale, such as co-creating the latest GE engine - Catalyst (the first GE engine designed entirely outside the United States) and designing a wing trailing edge part for the Airbus A350XWB-1000. The team also helped design and implement a turbine for production for the GENx, one of the world's largest aircraft engines. The GENx is used in the Boeing 787 Dreamliner and is the sole propulsion of the four-engine Boeing 747-8 aircraft.

EDC also developed components for the most modern class H gas turbine (GE 9HA.01), that was installed at Dolna Odra Power Plant in Poland. Finally, the EDC engineering team specializing in renewable energy participated in the design and testing of the world's most powerful working offshore wind turbine - Haliade X.

“We are extremely proud of the EDC team and our successful partnership with the Łukasiewicz Research Network - Institute of Aviation. Over the past 20 years, our teams have grown, and the scope of their projects have expanded significantly. Today, they design some of the most advanced products and services for GE's global customers. Together, we see new opportunities for cooperation including addressing carbon emission reductions for the aviation and energy industries. Extending the contract for the next 15 years allows us to execute for today while developing projects aligned to long-term strategic innovations in new areas”- adds Gary Mercer, Engineering Vice President, GE Aviation.

Łukasiewicz supports the agreement with GE

This agreement is also important for the entire Łukasiewicz Research Network, of which the Warsaw Institute has been part since 2019. Long-term cooperation with the American

technology concern, such as GE, is an opportunity for Łukasiewicz to increase the scientific and research potential of the entire network.

“Łukasiewicz, using the unique competences of 4,500 scientists and engineers, already implements scientific and research projects with global brands. They include representatives of manufacturing, biotechnological, commercial, energy, electrotechnical and telecommunications industries. The alliance between General Electric and Łukasiewicz’s institute gives us wide opportunities to cooperate on the most significant and advanced projects for the aviation and energy industries, because innovative solutions co-created by Łukasiewicz-ILOT engineers are used in industry all over the world. This agreement also opens the possibility of cooperation between the entire Łukasiewicz and GE at the design as well as research and development levels. We are ready to jointly search for the development opportunities and invest in the latest technologies, while at the same time looking for the sources of their financing, which we could commercialize to benefit of the Polish economy” – says Piotr Dardziński, Director of the Łukasiewicz Research Network.

As the example of EDC shows, innovative solutions co-created by Łukasiewicz's engineers are used in the industry all over the world. It is the workplace of many talented engineers who do not have to leave the country looking for interesting job opportunities.

Plans for the future

Despite the pandemic, EDC operations are expected to remain stable due to the growth in European grant projects, a rich portfolio of laboratory research, and more.

As part of EDC, the Łukasiewicz Research Network - Institute of Aviation and GE see many development opportunities. EDC engineers will continue to participate in GE’s strategic projects. Cooperation will also be developed in the area of the key industry technological challenges including the move to zero carbon emission aviation (including hybrid drives) and the context of renewable energy sources within the energy industry.

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Łukasiewicz Research Network – Institute of Aviation is one of the most modern research facilities in Europe, with traditions dating back to 1926. The Institute closely cooperates with global tycoons of the aviation industry, such as: GE, Airbus, Pratt & Whitney, and institutions from the space industry, including the European Space Agency. Strategic research areas of the Institute are aviation, space and unmanned technologies. It also provides research and services for domestic and foreign industries in the field of materials, composite, additive, remote sensing, energy mining technologies.

The Łukasiewicz Research Network provides attractive, complete and competitive technological solutions. It offers a unique system of “challenging” to business, thanks to which a group of 4,500 scientists in no more than 15 working days accepts the business challenge and proposes the entrepreneur to develop an effective implementation solution. At the same time, it involves the highest competences of scientists in Poland and a scientific apparatus

unique in Poland. What is most important – the entrepreneur does not bear any costs related to the development of an idea for research work. Łukasiewicz meets the expectations of business in a convenient way. The entrepreneur may decide to contact us not only through the form at <https://lukasiewicz.gov.pl/biznes/> but also in more than 50 locations: the Łukasiewicz Institutes and their branches throughout Poland. They will receive the same – high quality – product or service everywhere. The Łukasiewicz potential is focused around such research areas as: health, intelligent mobility, digital transformation and sustainable economy and energy.

GE drives the world forward by tackling its biggest challenges. By combining world-class engineering with software and analytics, GE helps the world work more efficiently, reliably, and safely. For more than 125 years, GE has invented the future of industry, and today it leads new paradigms in additive manufacturing, materials science, and data analytics. GE people are global, diverse and dedicated, operating with the highest integrity and passion to fulfill GE's mission and deliver for our customers.

GE in Poland. GE entered the Polish market as an investor in 1992. In addition to the Warsaw engineering center EDC – an alliance between General Electric and the Łukasiewicz Research Network - Institute of Aviation, GE manages, among others, such facilities as aircraft engine factories in Dzierżoniów and Bielsko-Biała, the XEOS aircraft engine service center in Środa Śląska, the Polonia Aero laboratory in Zielonka, a turbine factory and foundry in Elbląg, and a generator factory in Wrocław. Last year, the GE Group in Poland was joined by the LM Wind Power, with its headquarters in Goleniów, which produces blades for wind farms.