



**REGIONAL
INNOVATION STRATEGY
FOR MAZOVIA**



ON THE ROAD TO SUCCESS - DEVELOPMENT PATHS OF LAUREATES OF **INNOVATOR OF MAZOVIA** AND **START FROM MAZOVIA** COMPETITIONS

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Ladies and Gentlemen,

ensuring the uniform development of the entire Voivodeship is one of the main tasks entrusted to the Local Government of Mazowsze. However, development is not possible without innovations and introduction of new solutions and ideas. For this reason, for years we have been ensuring that conditions in Mazowsze are favourable for innovativeness: we offer an acceleration programme, promote the use of new technologies, encourage networking among members of the innovation ecosystem and reward and promote creators of innovative designs.

The brochure, which I have the pleasure to present to you, shows the stages of development and successes of solutions recognised in the Innovator of Mazovia and Start from Mazovia competitions for the last 14 and 4 years, respectively.

During that time, we granted awards in the total amount of nearly PLN 1.5 million to 43 scientists, 39 companies and 12 start-ups. Many innovators also received distinctions and awards from partners of these competitions, which included business counselling, participation in a mentorship programme, support in promotional activities, presentation during industrial conferences or the acceleration programme in the State of Nevada.

I am convinced that the presented projects will attract your interest and will be a source of inspiration for creating new innovative solutions in Mazovia Region. The described development paths of the laureates of the competitions recognise the intellectual and business efforts of specialists in various areas of the technology. In many cases, they are also a result of a fruitful cooperation between the scientific community and business.

It should be emphasised that the previous editions of the competitions were characterised by very diversified subjects of the innovative projects, reflecting the potential of Mazovia Region. Analysing the development paths of the winners, it can be said that activities undertaken by the Mazowieckie Voivodeship contribute to elimination of developmental and mental barriers, as well as allow pursuing the demanding course to innovativeness more efficiently.

Using this opportunity, I would like to invite everyone interested in these competitions to participate in the future editions of Innovator of Mazovia and Start from Mazovia and to create the ecosystem of innovations in the region together.

Marshal of the Mazowieckie Voivodeship

ABOUT THE COMPETITIONS

The Innovator of Mazovia and Start from Mazovia competitions belong to development initiatives pursued by the Mazowieckie Voivodeship. They are an important component of the policy supporting entrepreneurship and innovativeness, implemented under the Regional Innovation Strategy (RIS). The aim of these competitions is to reinforce attitudes and activities supporting innovations in the region, while influencing the development of companies in Mazovia. Good cooperation between business, science and public institutions is an important determinant of creating innovation which translates into economic growth.

Innovator of Mazovia

The Innovator of Mazovia (Innowator Mazowsza) was designated to support and promote attitudes which strengthen innovativeness and to develop awareness of the role of innovation among the inhabitants of Mazovia Region, in particular, in the scientific and business community. The competition has been organised since 2008, and to this date, 14 editions were held.

The competition is held in two categories:

- The “Innovative Company” category is designated for representatives of micro, small



and medium enterprises registered and conducting their business activities in the Mazowieckie Voivodeship, whose innovative product, service or technology was implemented into a business practice or is before the sales stage, and the company obtained funds for its commercialisation¹.

1 More information on Innovator of Mazovia website, accessed: 19.12.2022

- The “Innovative Scientist” category is addressed to scientists who completed their PhD course or obtained a degree of a doctor, whose PhD dissertation was prepared or defended

at scientific institutions in the Mazowieckie Voivodeship. The entries contain descriptions of innovative research solutions with a potential for implementation².

Innovator of Mazovia in numbers

14	editions between 2008 and 2022	82	main prizes, including 43 for the scientists and 39 for the companies	687	applications, including 330 scientists and 286 companies
69	recognitions, including 46 for the scientists and 23 for the companies	1.234.000			
The total amount of awards is PLN 1.234.000, including PLN 506.000 for the scientists and PLN 728.000 for the companies					
28	Partners of the competition and special awards				
<div><div><ul style="list-style-type: none">/ Agencja Promocyjna INVENTOR Ltd.,/ Jan Wierchoń & Partnerzy,/ Biuro Patentów i Znaków Towarowych sp. j.,/ Fundacja JWP Masz Pomysł? Masz Patent. Masz Zysk!,/ Mazowiecki Inkubator Technologiczny Ltd.,/ 4 CF Ltd.,/ Instytut Kreowania Przedsiębiorczości Ltd. (Startup Academy),/ Mazowiecki Inkubator Technologiczny S. A.,/ Kancelaria JWP Rzecznicy Patentowi Dorota Rzążewska p. k.,/ Fundacja Przedsiębiorczości Kobiet,/ Przemysłowy Instytut Automatyki i Pomiarów,/ YouNick Mint Ltd.,/ Koleje Mazowieckie – KM Ltd.,</div><div><ul style="list-style-type: none">/ Miasto Stołeczne Warszawa,/ Uniwersytet Warszawski,/ Politechnika Warszawska,/ Szkoła Główna Handlowa w Warszawie,/ AgriTech Hub Asi Ltd.,/ Fundacja MOST,/ Fundacja Inkubator Technologiczny (Youth Business Poland),/ Politechnika Warszawska,/ Collegium Civitas,/ Uniwersytet SWPS,/ Siemens Ltd.,/ iKsync Digital Izabela Kozakiewicz-Frańczak,/ Fundacja Edukacyjna Przedsiębiorczości.</div></div>					

2 More information on Innovator of Mazovia website, accessed: 19.12.2022

Start from Mazovia

The competition for start-ups, **Start from Mazovia**, was organised for the first time in **2018** and **4 editions** were held to this day. It is a tool for promotion and support of the Mazovian start-up ecosystem.

The competition promotes innovative activities of start-ups concerning the use of modern technologies, launching new products or services and business models into the market. Additionally, it offers an opportunity for the development of cooperation between start-ups and enterprises, business and scientific institutions, and the Mazowieckie Voivodeship.



Entities registered and conducting economic activity in the Mazowieckie Voivodeship for no more than three years preceding the date of announcing the competition can participate in the competition. Innovative start-ups with development potential and having first successes in implementation of new business solutions are selected in the process of evaluation of competition applications.

Since 2021, the competition is held in three categories

INNO-TECH – start-ups that create new products and processes, as well as significant technological changes in products and processes,

SOCIAL IMPACT – start-ups with a positive environmental or social impact,

START – start-ups that create an innovative project which is at the Minimum Viable Product³ level or prototype stage, which has a chance for effective development and scaling.

³ More information on Start from Mazovia website, accessed: 22.12.2022

Start from Mazovia in numbers

4	editions between 2018 and 2022	200	applications received	200.000	Total amount of awards of PLN 200.000
23	Partners of the competition and special awards			12	main awards and 8 distinctions
<div><div><div>/ Orange Polska S.A.,</div><div>/ Fundacja JWP Masz Pomysł? Masz Patent. Masz Zysk!,</div><div>/ Kancelaria JWP Rzecznicy Patentowi Dorota Rzążewska sp. j.,</div><div>/ Mazowiecki Fundusz Poręczeń Kredytowych,</div><div>/ Uniwersytet SWPS,</div><div>/ Miasto stołeczne Warszawa,</div><div>/ Uniwersytet Warszawski,</div><div>/ Szkoła Główna Handlowa w Warszawie,</div><div>/ Fundacja Przedsiębiorczości Kobiet,</div><div>/ Instytut Kreowania Przedsiębiorczości Ltd. (Startup Academy),</div><div>/ Koleje Mazowieckie – KM Ltd.,</div></div><div><div>/ AgriTech Hub ASI Ltd.,</div><div>/ Politechnika Warszawska,</div><div>/ SMOK Ventures Ltd.,</div><div>/ VIGO System S.A.,</div><div>/ Startup Poland,</div><div>/ VIGO WE Innovation Ltd. (VIGO Ventures),</div><div>/ Assay Management Ltd. Assay ASI S.K.A.,</div><div>/ Fundacja Przedsiębiorczości Technologicznej,</div><div>/ PFP Polska Fundacja Przedsiębiorczości,</div><div>/ Biuro Gubernatora Nevady ds. Rozwoju Gospodarczego – Wydział Handlu Międzynarodowego.</div></div></div>					

AN ANALYSIS OF CAREERS OF THE LAUREATES OF THE COMPETITIONS

Methodology

The aim of the conducted study was to determine the development paths of laureates of Innovator of Mazovia and Start from Mazovia competitions. Under the conducted project, the following analyses were undertaken

- quantitative study, using a standardised on-line questionnaire (CAWI);
- qualitative study, in the form of in-depth interviews (IDI);
- case studies.

The analyses focused on careers of the winners and, in selected cases, cooperation between business and science.



42 laureates took part in the quantitative study, including:

31 laureates of Innovator of Mazovia (The Innovative Scientist – 18, and the Innovative Company – 13);

11 award winners of Start from Mazovia.



The quantitative interviews were conducted with 17 laureates, including:

12 laureates of the Innovator of Mazovia competition,

5 laureates of Start from Mazovia.



The case study analysis covered 13 laureates, including:

9 laureates of Innovator of Mazovia,
4 laureates of Start from Mazovia.

The most important conclusions

Data obtained during the study using all three types of the specified research methods consistently indicates that professional activities of the winners of the Innovator of Mazovia and Start from Mazovia competitions fit into a very extensive range of social and economic areas. The common factors to all laureates are: **innovativeness, high internal motivation and persistence in pursuing objectives**. The leading theme of building the careers of the winners is creating innovations that address current social and economic problems (e.g., environmental pollution, mental abuse, or pandemic of infectious diseases). The laureates

effectively obtain financing for their activities from grants or investment funds, and then implement new products and services, getting patents and licences. **The vast majority of laureates-scientists cooperate with business and laureates-companies work with scientific communities.**

As the collected data indicates, the subject of activities for which the laureates' received awards in the competitions did not change after their win. **However, participation in the competition and winning the award represented a positive reinforcement on their path towards further development, as well as a confirmation that efforts aiming at implementation of innovative activities are noticed and recognised by public institutions.**

The representatives of the studied companies consistently indicate that **the competition indirectly contributed to initiating their cooperation** both with

other companies and with scientists, was a source of additional knowledge and an opportunity to meet interesting people. The competition also increased **the recognition and attractiveness of their brands and the base of their customers**. As many as 94% of the scientists indicate that this win encouraged them to conduct further research and development works. Slightly less than one-half (45%) of them say that due to their participation in the competition they gained new knowledge and about 1/4 of the scientists indicate that they met people from business, with whom they initiated cooperation.

The study results confirm that participation in the competition contributes to a great extent to initiating cooperation with both scientific and business communities. At this moment, 67% of the laureates-companies cooperate with the scientific community and 88% of the scientists declare cooperation with the business. As the competitions evaluate innovativeness and recognise cooperation between the world of science and of business, such cooperation frequently starts even before participation in competition. However, establishing contacts during the competitions themselves represents a significant “added value” of participating in them.

In the opinion of the study participants, undertaking additional actions in the future editions could contribute to a more effective initiation of cooperation between the science and the business. Suggestions

forwarded by the respondents included inviting foreign investors as observers or the jury members, image campaigns of an even greater reach than is currently the case, and regular networking meetings for the participants of all editions of the competitions.

In fact, all innovations presented by the winners have been implemented. In the case of the scientists the implementations were already completed at the competition stage while in the case of the companies the solutions were commercialised or entered another stage of development and implementation. The competition encouraged the studied companies and scientists to continue or extend the conducted innovation and implementation activities.

The study participants, both the companies and the scientists, are of the opinion that the competition fits well into the promotion of attitudes supporting innovations in the region. According to the respondents, additional activities that could be undertaken by the organiser of the competitions include: promoting the achievements of the laureates of all editions of the competitions, establishing contacts between representatives of different environments, assistance in finding an investor, greater than currently networking support, attracting large companies as partners of the competition and potential clients for test implementations, and an opportunity to obtain more extensive information about the partners of the competition, their product range and contacts.

Good practices concerning organisation of the competitions

- 1 Inviting representatives of science and business who are established authorities in a given field to the competition jury or observers/guests to award conferences/networking meetings.
- 2 Initiating contacts between business and science communities that lead to an increase and promotion of innovative solutions in the region.
- 3 Rewarding and recognising implementations of practical and useful nature that respond to the current social and environmental needs.
- 4 Implementing promotional activities, both concerning the competitions and the innovative activities of the laureates.
- 5 Ensuring accessibility to participate in the competition for all interested persons/companies, because participation in the competition is free of charge.
- 6 Organising the competitions that offer an option to receive reliable feedback about the innovation/implementation (the competition entries are assessed by highly qualified experts and members of the competition jury).
- 7 Providing a financial prize adequate to the current market conditions and satisfying for the winners (the prize enables investing in the further development of the scientist/company).
- 8 Inviting partners representing a very extensive range of economic and business fields to the competitions.
- 9 Organising a final conference (networking meetings), which represents a unique opportunity for participants to show their projects and initiate new contacts.



CASE STUDY

– an analysis of career
paths of selected
laureates of the
competitions

Innovator of Masovia – Innovative Scientists



Science
improves lives

Małgorzata Wolska-Pietkiewicz, MSc, PhD

Innovator of Mazovia
– 12th edition of the competition (2020)

2nd place

in the Innovative Scientist category,
the award for the paper “**Alkyl zinc derivatives of organophosphorus compounds: synthesis, structure, and transformations to nanocrystalline ZnO**”.

Science–business synergy

Małgorzata Wolska-Pietkiewicz, PhD works at the Department of Catalyse and Organometallic Chemistry at the Faculty of Chemistry of the Warsaw University of Technology. **Her unique**



fot. Grzegorz Krzyżewski

discoveries were a starting point for a production method of safe oxygen-zinc nanomaterials, together with a new synthetic approach to the production of zinc oxide nanoparticles. The pioneer solution of doctor Wolska-Pietkiewicz has been protected by a patent since 2021.

Apart from her work at the University, doctor Wolska-Pietkiewicz also works at **NANOXO Ltd.**, a company founded by professor Janusz Lewiński from the Department of Catalyse and Organometallic Chemistry. **In 2021 the company received the award in the Innovator of Mazovia in the Innovative Company category, and in 2022 it was distinguished in the Polish Product of the Future competition.**

For the laureate, her participation in the competition was an opportunity to get acquainted with presentations of other scientists and see **innovations implemented in research fields other than her own.** In her opinion, the competition offers an opportunity to young scientists to talk about their inventions in an easy-to-understand way, using the language of popular science. **During the competition, she was inspired by the presentations of other participants, and currently uses that knowledge when she prepares various materials.**

Doctor Wolska-Pietkiewicz suggests adding a new category to the competition, recognising the research teams. In her opinion, such an award would make people cooperating with the scientist also feel appreciated and motivated for further cooperation, which, according to doctor Wolska-Pietkiewicz, represents a crucial component of promoting innovativeness in the region.

Kamil Kwiatkowski, PhD

Innovator of Mazovia
– 6th edition of the competition (2014)

2nd place

in the Innovative Scientists category for the thesis “**Gasification dynamics and incineration of obtained gas.**”

Science–business synergy

In the past, doctor Kamil Kwiatkowski worked at the Faculty of Physics and the Interdisciplinary Centre for Mathematical and Computer Modelling of the University of Warsaw. Currently, he conducts and coordinates industrial research and development activities at Euros Energy Ltd. His research and implementation activities are mainly concerned with the optimal use of heat pumps in the energy transition and their integration with heat and cold storage technologies. As a Research Project Director, he is responsible for the Heat Plant of the Future project – a full-scale Technology Demonstrator which will be launched in autumn 2023 in Lidzbark Warmiński. In the technology of the Heat Plant of the Future, high-capacity reversible heat pumps were integrated with three bottom sources: air-to-air heat



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Storage of heat energy – necessity and innovation

exchangers, a seasonal low-temperature ground storage facility in BTES type and a seasonal high-temperature water storage facility in PTES type. This highly innovative, pioneering project for the deep decarbonisation of district heating produces heat from more than 90% RES (renewable energy sources).

Doctor Kwiatkowski is involved in RES energy transition processes of many sectors, including heating, industry, construction, in particular in the project of massive deep energy retrofiting

of multi-family buildings. He participates in numerous conferences and discussion panels dedicated to these subjects, organised in Poland and abroad.

He perceives his participation in the Innovator of Mazovia competition positively. The research presented in the rewarded PhD dissertation was applied in practice. A system for the low-emission combustion of gas from biomass gasification based on this project has been constructed. **Winning the competition confirmed that his research activities, focusing on RES technology for the energy transition, were important and needed.** He appreciates both the title of the laureate and the financial award received. **However, what was particularly important for him were contacts that he initiated during the competition.**



fot. Mirosław Kaźmierczak

”
mRNA
modifications
as a chance in
therapies for
diseases of
civilisation

Joanna Kowalska, PhD

Innovator of Mazovia

– 3rd edition of the competition (2011)

1st place

in the Innovative Scientist category, an award for the thesis **“Synthesis and properties of 5’ mRNA cap analogues (KAPU) with modifications in the phosphate chain and their use in studies on mechanism of mRNA degradation and protein translation)”**.

Science–business synergy

In the competition, Joanna Kowalska, PhD (habilitated doctor), received an award for her work on the first generation of mRNA modifications. The results of her studies were commercialised by selling them to BioNTech for the needs of their research on developing anti-cancer immunotherapy conducted at that time.

Currently, the laureate works at the Department of Biophysics at the Faculty of Physics of the University of Warsaw (UW), where teaches and leads a research team. She is also involved in research and commercialisation activities. She is a part of research cooperation with ExploRNA Therapeutics – a university spin-off established

in 2019 by scientists from the Faculty of Physics, the UW Centre of New Technologies and the Medical University of Warsaw (WUM). The company works on commercialisation of new mRNA-based therapies and develops intensively. Research conducted by the scientific team has very extensive therapeutic application. It is used in such fields as: regenerative medicine, immunotherapy, therapeutic cancer vaccines, and in therapies for rare genetic or immunological diseases. **ExploRNA activities are an excellent example of a synergy achieved due to cooperation between the science and business.**

In December 2022, ExploRNA Therapeutics received **a prestigious grant of USD 800.000 from the Bill & Melinda Gates Foundation** and some of its shares were purchased by an investor – the Black Forest company of Michał Sołowow. The financed research concerns development of mRNA modifications to make it an even better therapeutic agent than it currently is. The con-

ducted research works aim at **finding solutions enabling application of a low-cost technology for production of effective vaccines for the developing countries.**

Doctor Kowalska also works at the Laboratory of Chemical Biology and Biophysical Chemistry, which operates at the Centre of New Technologies in the Faculty of Physics at the University of Warsaw. The Laboratory associates scientists interested in research in the areas of chemical synthesis, and of properties and application of modified nucleotides and nucleic acids.

Doctor Kowalska’s participation in the Innovator of Mazovia competition and taking the first place was very important for her, in terms of her professional situation at that time. The award was a crucial strengthening factor – **information that what she did was reasonable and that she should continue her research work and create new inventions.**

Innovator of Mazovia – Innovative Companies

PRACOWNIA GIER
SZKOLENIOWYCH

Pracownia Gier Szkoleniowych Ltd.⁴

Innovator of Mazovia
– 3rd edition of the competition (2011)

2nd place

in the Innovative Company category, **the award for innovative activities of the company manifested in its products and their applications (simulation-based games).**

Business–science synergy

⁴ More information on Pracownia Gier Szkoleniowych website, accessed: 18.01.2023.



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Games
supporting teams



foto credits Pracownia Gier Szkoleniowych

Pracownia Gier Szkoleniowych is a company that was created from a joint passion of friends studying sociology at the University of Warsaw – Joanna Średnicka, Filip Tomaszewski and Jagoda Gandziarowska-Ziołocka. The company was established in 2004, and the product offered by it, i.e., simulation-based games, has been improved and developed to this day. In the opinion of its creators, the training games are an effective way of integrating employees and building the energy in the team.

Currently, the company offers a wide range of services. These include: managerial training sessions, development and strategic process-

es, team building and training meetings or education for non-business organisations. The company also offers the option of developing a simulation game tailored to specific needs, which is created according to current, individual requirements of customers.

Products and services of Pracownia Gier deliver real value to its customers – 9/10 of them want to continue their cooperation, and in 2022 the satisfaction score (NPS⁵) reached more than 50 points.

⁵ Net Promoter Score.

Winning the Innovator of Mazovia competition was an important moment for the company, quite young at that time. It provided a cash injection and a sense that somebody appreciated them. The company representatives perceive their participation in the competition positively. In the opinion of the company’s representatives, an opportunity to present your solution and receive feedback is also a certain form of reward in the Innovator of Mazovia competition.

Pracownia Gier Szkoleniowych also won many other prestigious awards, such as Game Design Competition, BEX International Business Learning Game Awards or MP Power Awards.

An analysis of development paths of laureates of Innovator of Mazovia and Start from Mazovia

RESQL Ltd.⁶

Innovator of Mazovia
– 13th edition of the competition (2021)

2nd place

in the Innovative Company category, **the award for the RESQL system, an application for anonymous reporting of an incidence of violence**

Business–science synergy

RESQL is an innovative system supporting schools in solving problems of peer violence, created in full cooperation with the school community (students, teachers, headmasters and parents), based on studies, workshops with teachers and students and the pilot operation of the system, conducted by the team.

⁶ More information on RESQL website, accessed: 18.01.2023.



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**Violence-free school?
It is possible!**

The theoretical basis and the application were created by a team of psychologists from the SWPS University – Radosław Kaczan, PhD, Małgorzata Wójcik, PhD, and Piotr Rycielski, PhD, together with their technological partner Speednet Ltd.

RESQL operates as a spin-off company of the SWPS University, managed by Piotr Ciszek, Krzysztof Rzeńca and Tomasz Reda.

Currently, the system is working in 60 schools in Poland and is also applied outside our country, for example, in the Czech Republic, the United



Kingdom and Ireland. Moreover, the system will expand into the market of international (English-speaking) schools throughout the European Union. **The RESQL creators believe that their solution has a potential to make a real difference in the educational environment by improving children's psychological well-being and enhancing communication with adults. The RESQL system effectively eliminate violence by creating a better school climate while at the same time implementing prevention and intervention tools for teachers.**

The start-up used the award Innovator of Mazovia to finance the language adaptation of the application (English, Ukrainian, Russian, and Czech). Furthermore, it indirectly contributed to the company development, including creation of a new product, Signalink⁷.

The creators of the solution are convinced that **the award increased their credibility**. It also motivated them to participate in other competitions and to strengthen cooperation with scientific partners. The award received by RESQL from the **Partner of the competition, the SGH Warsaw School of Economics, offered to the company an opportunity to present its technological solutions at the EU Local Self-Government conference in Mikołajki**. This opportunity resulted in initiating contacts that have been stimulating the company's development to this day. The company was also recognised during the International Inventions and Innovations Show INTARG and received the Award of the Minister of Education and Science 2022 for “achievements in implementation activities”. RESQL is also the first-place winner of the 8th edition of Warsaw Booster'21, an acceleration programme for start-ups from the Mazovia region.

⁷ More information about the product on Signalink website, accessed: 31.01.2023.

KOORDYNACJA Mariusz Strzecha⁸

Innovator of Mazovia
– 10th edition of the competition (2018)

2nd place

in the Innovative Company category, **the award for products offered in the rehabilitation, orthopaedics and podiatry sectors.**

Koordynacja is a manufacturer and distributor of rehabilitation and medical equipment of renowned Polish and foreign companies. It has been operating in the market since 2009.

Apart from the award in the Innovator of Mazovia competition, to this day, Koordynacja received **30 awards**, including 24 medals and prizes for the best rehabilitation equipment and

⁸ The analysis of this case study was based exclusively on the existing data and sent by the owner of the company. For more information see Koordynacja website, accessed: 18.01.2023.



4 economic awards for the best product of the year and company of the year, as well as 2 science and technology awards for innovation.

The company sells its products abroad and co-operates with foreign entities in the process of developing its technologies. Its creator, Mariusz Strzecha, strongly believes that the treatment process depends on the extent to which medicine makes use of technological progress. In other words, no progress in medicine is possible without technology.

The company is particularly active in the field of supporting Polish sports. To this date, it performed tests for **19 national teams**, including 4 Olympic ones, e.g., volleyball, wrestling, table tennis, ski jumping, biathlon, archery, judo, or basketball teams. Koordynacja also conducts specialist examinations

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Medical technologies improve the quality of life



to orders of various educational institutions all over Poland, e.g., balance and coordination tests for pilots of the Polish Airforce University in Dęblin or tests for Medical Universities.

Due to the implementation on the Wkładki online⁹ project – the company cooperates with dozens of institutions in Poland, resulting in the production of more than 25,000 pairs of individual orthopaedic, sports, comfort and prophylactic insoles in less than 4 years.

The company's founder has progressed in his career from an athlete (Polish Wrestling Championship medallist), academic lecturer and

⁹ More information about the project on Wkładki Online website, accessed: 2.02.2023.

scientist with close ties to several universities (including Radom University of Technology, European Socio-Technical University, Radom School of Higher Education) to the owner of a company that is successfully developing Polish medical diagnostics and therapies for chronic diseases.

For the company, participation in the Innovator of Mazovia competition was another factor motivating further activities and supporting the development of innovative thinking. Mariusz Strzecha is a shareholder of Prototyp24, a company constructing prototypes of devices that can be tested and implemented into regular use at further stages.

BD Polska Ltd.¹⁰

Innovator of Mazovia
– 14th edition (2022)

1st place

in the Innovative Company category,
**the award for the Virtual Clinic project,
of an education platform supporting
teaching of medicine students and
young physicians.**

BD Polska has been implementing IT and analytical projects since 2010. The company has clients among large and medium-sized enterprises, mainly in the financial sector, industry and healthcare. Managing Directors of the company, Dariusz Wierzba and Marcin Żółtowski, have knowledge and expertise in design and implementation of Cloud & AI solutions.

¹⁰ More information on BD Polska website, accessed: 18.01.2023.



Artificial Intelligence in service of medical education

The Virtual Clinic¹¹ helps in teaching medical examination and treatment planning. As Dariusz Wierzba indicates, the awarded solution responds to the current challenge in teaching medicine and medical sciences. The application implements concepts of case-based learning, problem-solving and evidence-based medicine. It teaches users to solve practical medical problems. Virtual Clinic applies state-of-the-art technology in AI and Data Science. The system provides real-feel simulation of doctor-patient interaction. Users communicate with virtual patients in a natural language, conduct physical and additional examinations in order to provide a complete diagnosis and order adequate treatment. **The heart of application is the knowledge base developed with academics and independent medical experts. The solution had been well received by the Innovation Team at the Ministry of Health, which resulted in the system being included in the Innovation Register with strong recommendation to utilize this technology in educating medical professionals.**

¹¹ More information on Wirtualna Klinika website, accessed: 18.01.2023



The Virtual Clinic currently attracts a lot of attention. As Dariusz Wierzba emphasised, winning the Innovator of Mazovia competition is a great importance for the authors, especially in terms of promoting this technological solution for the use in academia. **“The 1st place in the competition led to a greater interest in our product. It gave us a certain additional value.”**

Apart from medicine and healthcare, **the company**

activities focus on designing IT solutions for the financial sector. BD Polska created systems for servicing loans¹² and automating sales. Also, the company has done work on computer vision technology which is used for acquisition of selective information from visual data. What is evident is that all of the above solutions are based on data and AI technology.

¹² More information on EPOKa website, accessed: 8.02.2023

Autilius Kinga Wojaczek¹³

Innovator of Mazovia
– 7th edition (2015)

2nd place

in the Innovative Company category,
**the award for a software application
supporting the therapy of children with
autism spectrum disorder.**

Business–science synergy

Autilius is a company established by a psychologist, Kinga Wojaczek, in 2013. The company manufactures computer games supporting children 3–7 years old with autism spectrum disorder. **Using fairy tales, stories and interactions, a therapeutic game teaches children how to focus on elements of human behaviour that provide important information for social relations.**

¹³ More information on Autilius website, accessed: 18.01.2023.



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**Technology as
a support for
therapists**



The award was granted for an innovative computer application intended to be used during therapy, which uses *motion capture* technology. This technology involves rapidly capturing people’s movement and reflecting it on the screen. Using a simple webcam, the child sees themselves on the screen and interacts with elements of the programme. Although currently this solution is increasingly more common, at the stage of its development the use of this technology – especially in the area of psychotherapy – was a very innovative activity.

Kinga Wojaczek is currently involved in activities in the third sector – she manages Stowarzyszenie Innowacji Społecznych Mary i Max, designated to help people with autism spectrum disorder in establishing friendly relations.

The winner sees her participation in the competition positively. She admits that the financial award was an important motivation for her to participate in it. **She won PLN 15.000 in the competition, from which she paid off various liabilities resulting from her work on the innovation and managing the company. Additionally, she felt appreciated – for a young researcher, this was a significant gratification for her work on this solution.** After the competition, the company started to cooperate with a large group of distributors, so she could discontinue her own marketing activities, which took a lot of her time. Kinga Wojaczek was also a laureate of the Mazowsze Women of Success competition in 2019.

Salloytech Ltd.¹⁴

Innovator of Mazovia
– 10th edition (2018)

3rd place

in the Innovative Company category, **the reward for the production technology for processing nickel superalloys and titanium alloys using non-conventional methods and special processes for the needs of the aviation industry.**

Business–science synergy

Salloytech supplies technological solutions for the aerospace industry. The technology invented by the company's founder, Dariusz Oleba, can be used where other manufacturing methods do not allow production of parts according to the assumed technical and quality requirements.

¹⁴ More information on Salloytech website, accessed: 18.01.2023.



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Technology solutions for the aerospace industry

The company has the AS9100D certificate for the production of aviation parts and the Ministry of Interior and Administration (MSWiA) license for manufacturing and sales of products for military and police applications. The portfolio of Salloytech services also includes a method called hybrid processing, which is particularly useful in the aeronautical industry. Additionally, the company offers numerous types of high-temperature laboratory accessories and instruments made from metal superalloys to individual customer specifications (operating at temperatures as high as 1,300°C). The company founders strongly emphasise high quality of proposed solutions and products, paying particular attention to Salloytech in this area.

Winning the competition greatly influenced further development of Salloytech. Thanks to the competition, Dariusz Oleba met Adam Okniński, PhD, the winner of the first place in the Innovative Scientist category. This networking influenced the establishment of cooperation between Salloytech and the Institute of Aviation which continues to this day and which has resulted in about 9 joint projects. The company produces for the Institute rocket propulsion

components and in particular rocket fuel injectors with 0.1 mm holes.

Apart from starting the cooperation with and implementing projects with the Institute of Aviation, **participation in the competition brought other significant advantages to the company. As its founder emphasises, although some time has already passed from that win, the information about the award is still visible on the Salloytech website.** This information is a kind of **brand quality certificate**, because, in the laureate's opinion, you cannot “buy” promotion of this type, you can only earn it by having an innovative idea and working diligently. Unlike sponsored articles, in the Innovator of Mazovia competition the project is evaluated by independent experts, so the award has real meaning confirming high quality of the invention.

In Dariusz Oleba's opinion, the competition is an excellent opportunity for networking, exchange of thoughts and ideas between business and the science, offers an opportunity to meet partners for future research and further development of innovations.

Start from Mazovia



Smart Berries Ltd.¹⁵

Start from Mazovia
– 2nd edition (2019)

1st place

the award for the fast and mobile test
for evaluation of polyphenol content in
fruit and fruit juices.

Business–science synergy

Smart Berries is a company created by three women: Katerina Makarova, PhD and Katarzyna Zawada, PhD, together with Olga Stefaniak.

¹⁵ More information on Smart Berries website, accessed: 18.01.2023.



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Test the quality of your fruit
at home

The test for evaluation of the polyphenol content developed by the team consists of a paper test, a reagent and a user-friendly mobile application for results' interpretation. The user applies juice from the crushed fruit onto a paper strip, adds the reagent and then the application reads the result out. It should be emphasised that by significantly simplifying the procedure, the applied solution is very useful in the production process and promotion of healthy food. **The innovativeness of this solution is mainly associated with transforming a previously used test, relatively complex and performed in laboratory conditions, into**

a procedure that is user-friendly and can be applied “here and now” using a simple smart-phone application. Thus, the solution becomes available to a wider group of users, who can use it in nearly all conditions, without knowledge of chemistry or perform complex laboratory techniques. The recognised product was patented and the financial reward allowed the prototype to be developed and tested.

From the moment of participating in the competition, Smart Berries has been developing robustly and winning new customers. Since September 2022, it prepares objective reviews of food products, based on tests exceeding verification of polyphenols. The review system used by the company is competitive for other solutions available in the market in this category. It can significantly contribute to the development of a system for classification of food products and to promotion of so-called functional food, the regular consumption of which is supposed to help improve health.

The financial award won in the competition enabled the company to develop two prototypes of its products and start a procedure of their testing. As Katerina Makarova notes, **“participation in the competition also offered our company an opportunity to pres-**



ent our technological solutions to a wider audience, talk with other specialists and, in consequence, receive extensive interesting feedback”.

Solhotair Ltd.¹⁶

Start from Mazovia
– 2nd edition (2019)

2nd place

the award for high performance air solar heating collectors to generate heating energy for universal applications.

Business–science synergy

Solhotair is an innovative company from the renewable energy sector, which developed and implemented high performance air solar heating collectors. The start-up team consists of four people – Małgorzata Stangreciak, Dorota Jeschke, Mariusz Jeschke and Grzegorz Maciaszek. Apart from the award received in the Start from Mazovia competition, the company

¹⁶ More information on Solhotair website, accessed: 18.01.2023.



also received a recognition at the 11th edition of the Innovator of Mazovia competition.

By applying the rewarded technology, heat can be effectively generated by converting solar energy into heat in solar collectors. This technology is protected with Polish and European patents. Solar collectors manufactured by the company are a low-cost, zero-emission and energy efficient source of heat that can be used to warm practically any type of utility rooms, also in dryers in the agricultural sector. The use of the Solhotair solar collectors means savings on a level of 30 to 40% a year on expenditures.



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Sun in every
home

The company cooperates with scientific institutions on a regular basis. Innovativeness of the proposed technological solution and its great effectiveness are confirmed, among others, by results of scientific tests conducted at Fraunhofer Institute for Solar Energy System ISE and by scientists working at the Białystok University of Technology under supervision of professor Mirosław Żukowski.

The company positively evaluates its participation in the competitions Start from Mazovia and Innovator of Mazovia. The founders appreciate the received financial award, which was used for the current operations of the company. The

founders of Solhotair believe that the award in the Start from Mazovia competition increased their credibility in the market and promoted their solution. Both of these factors significantly facilitated the process of finding investors. As Grzegorz Maciaszek notes, thanks to the competition, investors came to them of their own initiative. The award also encouraged them to participate in other competitions, in which they were also successful (Business Insider, Incridibles, or Green Eagle “Rzeczypospolitej”). In 2020, the company also took part in an American acceleration programme Acceli City, and became one of its finalists, among 50 companies from all over the world.



SeekStorm Ltd.¹⁷

Start from Mazovia
– 3rd edition (2020)

1st place
in the Inno-Tech category, the award
for the Search as a Service innovation,
a new technology for searching and
indexing documents in real time.

SeekStorm is a start-up founded by Małgorzata and Wolf Garbe. SeekStorm’s browser technology is faster and less expensive than other available solutions and its innovative feature is the fact that, unlike key word searches, it will also allow vector searches, i.e. through similar words in terms of relevance.

Wolf Garbe, a PhD in IT, an enthusiast of his profession and a visionary, is the originator

17 More information on SeekStorm website, accessed: 18.01.2023.



and creator of the new technology. After graduating from the University, he gained experience working in large European corporations. Together with his wife, Małgorzata Garbe, they became a duo of extremely gifted, hardworking and persistent people who believe in their solution and implemented it against all odds.

Currently, the company is developing and focuses on the commercialisation of its solution. Since its participation in the competition, it has been actively seeking partners for cooperation. These activities have already resulted in winning 2 important contracts with foreign clients from the United States and Israel.



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How to find
your way in
a labyrinth of
data

The main motivation of the company owners to participate in the competition was to show their solution to the world and obtain reliable and credible feedback. For the laureates, an important value resulting from the received award is the quality mark granted to innovations recognised in Start from Mazovia. For Mr and Mrs Garbe, participation in the competition meant one more thing – an encouragement to

return to Poland. Małgorzata and Wolf Garbe currently live in Germany, but they registered their company in Mazovia, because they are seriously considering relocation. To them, this award proves that there is a place for modern companies here and encourages them to return to this region of Poland one day. The solution created by the company also took 2nd place in the Warsaw Booster accelerator.

Solace Ltd.¹⁸

Start from Mazovia
– 1st edition (2018)

2nd place

the award for creating an all-year house that generates more energy than it consumes.

Solace is a start-up founded by Bartłomiej Głowacki and Piotr Pokorski. The company has been operating in the Polish market since 2016, and its operations focus on manufacturing of prefabricated houses. A house is then assembled on a customer's plot of land, within 3 months of placing an order.

The award in the Start from Mazovia competition was granted for creating energy-plus buildings ("no bills") due to the technology applied based

¹⁸ More information on Solace website, accessed: 18.01.2023.



among others on photovoltaic solutions. The enormous market advantage of these houses results precisely from their economical character.

Solace operates in the house construction market in an innovative and comprehensive way. The company experts pay a lot of attention to all components of the construction process, starting with selection of materials with which the plus-energy standard can be achieved. **Although the components of the houses have been known in the market for years, the concept of combining them is an innovation introduced by the company.** Each aspect of the building is monitored for energy effectiveness, including the insulation of walls, the thermal



conductivity and door and window joinery. Solace also supports the customer in selection of electrical devices, so they are as sustainable and energy efficient as possible.

For the company, the award received in competition was an incentive for further work. Apart from an ad hoc cash injection, it also brought long-term advantages in the form of PR activities and networking. The award also improved the company reliability, as for Solace the information about it is a quality certificate for offered services.

Its participation in the competition also brought another important advantage to Solace, the



company established cooperation with the Capital City of Warsaw and implemented a project involving a construction of an example house in the centre of Warsaw.

Currently, the company focuses on developing the portfolio of its products and plans to enter foreign markets.

Apart from participation in the Start from Mazovia competition, the start-up also took part in other acceleration programmes and competitions: WWA.ac – Warszawski Akcelerator dla Startupów or KIC Climate 2018.

