



REGIONAL  
INNOVATION STRATEGY  
FOR MAZOVIA

# AN ANALYSIS OF DEVELOPMENT PATHS OF LAUREATES OF INNOVATOR OF MAZOVIA AND START FROM MAZOVIA

Study report

Warsaw 2023

The project performed by the SWPS University to the order of the Mazowieckie Voivodeship.

Conducting a study and preparing a brochure entitled "An analysis of development paths of laureates of Start from Mazovia and Innovator of Mazovia competitions" for the needs of implementation of the project co-financed from the funds of the Mazowieckie Voivodeship Regional Operational Programme for 2014–2020, No. RPMA.11.01.00-14-0003/18-00, *A plan for technical support activities provided by the Office of the Marshal of the Mazowieckie Voivodeship in Warsaw for 2019–2023 concerning ensuring monitoring, evaluation and updating of the regional strategy for smart specialisation under MV ROP*, the Priority Axis 11 - Technical Support co-financed from funds of the European Social Fund.

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# Executive summary

The aim of the conducted study was to determine the development pathways of laureates of Innovator of Mazovia (Innowator Mazowska) and Start from Mazovia (Startuj z Mazowsza) competitions, organized by the Mazowieckie Voivodeship. The diagnosis of the development pathways was to cover subjects such as:

- characteristics of the current activities of laureates of all editions of the competition,
- determining the influence of winning the competition on development of the laureates' activities in various areas, including innovativeness,
- determining the level of cooperation between the business and science, as well as its characteristics,
- identification of good practices which inspire innovative as well as research and development activities,
- formulating recommendations for promoting attitudes supporting innovations and creating conditions favourable for establishing cooperation between the scientific and the business circles.

To meet the above assumptions, quantitative and qualitative studies on competition laureates' opinions were conducted, including a quantitative study performed using a standardised online questionnaire (CAWI), a qualitative study in the form of individual in-depth interview (IDI), and case studies.

42 laureates participated in the quantitative study, 17 laureates took part in qualitative interviews, and case studies were performed over 13 winners of Innovator of Mazovia and Start from Mazovia competitions.

Study participants were recruited in accordance with the adopted methodology, through telephone and e-mail contacts. The respondents were invited to participate in the study by the research team of the SWPS University in cooperation with the Office of the Marshal of the Mazowieckie Voivodeship in Warsaw (UMWM). The study was performed in November and December 2022.

The study respondents were scientists and representatives of companies, who won an award or distinction in the Innovator of Mazovia competition in 2008–2022, as well as those who won an award in the Start from Mazovia competition in 2018–2022.

The study participants represented various sectors of the economy including: medicine, cosmetology, education and training, aviation and aerospace industry, power industry (including renewable energy), agriculture, security, or IT.

The study results show that all laureates positively perceive the organisation of the competition and their participation in it. According to the respondents, awards in Innovator of Mazovia and Start from Mazovia competitions are a kind of “quality certificate” for innovative research results and innovative products and services. In the contemporary world, where promotion of one’s own products and services can be bought, competitions such as Innovator of Mazovia and Start from Mazovia are a rare and unique opportunity to receive a reliable and objective review of the value and innovation level of the conducted activities.

The laureates are very satisfied with the awards received in competitions. In their opinion, the amount of financial awards is adequate and satisfactory. Both the companies and the scientists generally use financial awards for further development of the company or for implementations, including production, modification of a product or a service, and for research aiming at improving implementation, as well as to pay for courses and training improving their qualifications. Some scientists use these funds to pursue their personal objectives, for example, for housing purposes. The financial situation of young scientists, who just completed their PhD courses, is frequently unstable and money awarded in the competition allows them to focus on their further scientific development.

For scientists recognised in the analysed competitions, winning the award also has another important dimension, as it proves “that their Homeland is interested in their inventions and appreciates them”. Young Polish scientists conduct research projects resulting in breakthrough inventions, so many foreign research centres of global renown are interested in them. To the laureates, winning an award in the Innovator of Mazovia competition was a clear sign that they were noticed and recognised. The awards are not the sole decisive factor in continuing research work in Poland. However, as answers of the respondents from the scientists’ group and their cooperators indicate, they represent an important argument contributing to their perception of the competition. Nearly all studied scientists (94%) indicated that for them the award was an encouragement to conduct further research and development work.

Participation in the competition and the received awards are also of considerable significance for the rewarded entrepreneurs. In the opinion of the studied companies, especially start-ups, winning the competition proved that they do something good, interesting, innovative, and valuable. Histories of the respondents show that for many entrepreneurs a period of creating innovations was associated with sacrifices and numerous hardships including financial ones that they had to overcome. Winning the competition meant not only a cash injection, enabling further development work, but also a proof that they were going in the right direction.

Apart from financial and non-financial awards as well as emotional and motivational gratification, the respondents indicate other benefits of winning the competition. The participation in the competition provided new knowledge to the entrepreneurs and scientists, which they used for their further development. In opinion of many (83%) of the respondents representing the companies, winning the competition increased attractiveness and recognition of their brands and this was reflected in the increase in the number of their customers.

During the competitions or in relation to them (e.g., through promotion after the competition), both entrepreneurs and scientists (71%), met representatives of the scientific and business circles with whom they later jointly implemented (short- or long-term) projects. However, it should be noted that the respondents indicated a certain shortage in networking opportunities accompanying the competitions. For example, only  $\frac{1}{4}$  of the winning scientists admitted that during the competition they had a chance to meet business representatives, with whom they later started to cooperate. Currently, only three examples of cooperation between the company and the researcher, the beginnings of which reach back to the competition, were identified among all respondents in the qualitative and quantitative studies.

A similar shortage is perceived by the study participants in the area of establishing relations between the laureates and representatives of public administration and non-governmental organisations. Although the competitions are an opportunity to meet each other and present one's own achievements, frequently no further cooperation/meetings take place afterwards. In the study participants' opinion, no clear systemic solution is available in this area. In the respondents' opinion, previous actions undertaken by the Mazowieckie Voivodeship focusing on development of an innovation ecosystem and connecting its stakeholders in the region should be continued and expanded.

According to the study participants, the Innovator of Mazovia and Start from Mazovia competitions promote and reinforce attitudes supporting innovations in the region. They also develop the social awareness on what innovations actually are. Some scientists noted that innovations are usually associated with new technologies, thus, when they conducted research using already existing technologies, though in a new area or in a way different than it had been applied previously, they had not always perceived themselves as innovators. The competitions encouraged them to think about themselves this way and that motivated them to create successive innovations.

The study participants also mentioned proposals for new activities that may reinforce development of attitudes supporting innovations, to be used during subsequent editions of both contests. Among the recommendations most often indicated by the respondents were:

- advertising successes of laureates of all editions of the competitions,
- continuing activities of the competitions' organiser aiming at establishing relations between representatives of different circles,
- support in finding an investor (who could finance development works and implementations of innovations),
- providing a networking support dedicated to the laureates,
- acquiring large companies as competition partners and potential clients for test implementations.

The obtained results can be summed up as follows:

The Innovator of Mazovia and Start from Mazovia competitions reinforce and promote attitudes supporting innovations and reflect current global trends while taking into account specific characteristics and needs of the region. The study participants perceive positively both the organisation of the competitions and their own participation in them. The laureates appreciate the received awards and distinction, both financial and non-financial, as well as encouragement and motivation associated with their win. The contests also contribute to continuation of research works and the process of implementing the innovative solutions. Furthermore, the competitions offer an opportunity to representatives of different communities: business, public administration and science, to meet, share ideas and start cooperation resulting in an effect of synergy. The contests change the economic and social reality of the region and should be continued and communicated as extensively as possible.

This report also presents recommendations that can be implemented in subsequent editions of the competitions.

# Information about the competitions

**Innovator of Mazovia** and **Start from Mazovia** are among the 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. The aim of these competitions is to strengthen attitudes and activities supporting innovations in the region, while influencing development of companies in Mazovia. A good cooperation between the business, scientific and public institutions represent an important determinant for creation of innovations, which results in economic growth.

## Innovator of Mazovia



Innovator of Mazovia is a competition for innovative companies and scientists from the Mazowieckie Voivodeship.

The competition has been organised since 2008, and as of the date of this report, **14** editions were held. Throughout these years, **687** people in total applied for participation, including **330** scientists and **286** companies<sup>1</sup>.

**The “Innovative Company” category** is designated for representatives of micro, small and medium enterprises that have a status of an independent company, registered and conducting their business activities in the Mazowieckie Voivodeship, whose innovative product, service or technology was implemented into a daily business practice or is before the sales stage, and the company obtained funds for its commercialisation<sup>2</sup>.

**The “Innovative Scientist” category** is addressed to scientists who completed their PhD course or obtained a degree of a doctor, whose dissertation was prepared or defended at scientific institutions in the Mazowieckie Voivodeship. The subject of the

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<sup>1</sup> Participants of the 5<sup>th</sup> edition of the competition were excluded from the analysis, as no data on individual categories is available.

<sup>2</sup> More information on website: <https://innowacyjni.Mazovia.pl/dzialania/innowator-mazowska.html>, accessed 19.12.2022.

PhD dissertation submitted in the competition is innovative solutions that can be implemented in the business practices<sup>3</sup>.

The competition applications are evaluated for formal and substantive aspects. The substantive aspects are evaluated independently by at least two experts that are selected taking into account relevant educational background and experience (scientific or business, according to the competition category). Then, based on independent substantive assessments, a ranking list is created that is presented and discussed at a meeting of the Expert Panel. The applications selected and assessed this way are submitted to the Competition Jury, who makes final decisions on granting awards.

Each year, the Competition Jury selects laureates of 1<sup>st</sup> to 3<sup>rd</sup> places in both competition categories, and awards of distinction.

All granted awards amounted to **PLN 1 million 234 thousand, including PLN 506 thousand for scientists and PLN 728 thousand for companies**. During last 14 years, 82 main prizes were awarded in total, including 43 for innovative scientists and 39 for companies, as well as **69** distinctions, including 46 for scientists and 23 for companies.

Apart from the awards granted by the Mazowieckie Voivodeship, the competition participants also received valuable **prizes from the partners**, including participation in industrial conferences, mentorship, or interviews in business programmes.

In 2008–2022, the following entities were the partners of the competition:

1. Agencja Promocyjna INVENTOR Ltd.,
2. Jan Wierzchoń & Partnerzy,
3. Biuro Patentów i Znaków Towarowych sp. J.,
4. Fundacja JWP Masz Pomysł? Masz Patent. Masz Zysk!,
5. Mazowiecki Inkubator Technologiczny sp. z o.o,
6. 4 CF Ltd.,
7. Instytut Kreowania Przedsiębiorczości Ltd. (Startup Academy),
8. Mazowiecki Inkubator Technologiczny S.A.,
9. Kancelaria JWP Rzecznicy Patentowi Dorota Rzążewska p. k.,
10. Fundacja Przedsiębiorczości Kobiet,
11. Przemysłowy Instytut Automatyki i Pomiarów,
12. YouNick Mint Ltd.,
13. „Koleje Mazowieckie – KM” Ltd.,

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<sup>3</sup> More information on website: <https://innowacyjni.Mazovia.pl/dzialania/innowator-mazowska.html>, accessed 19.12.2022.

14. The capital city of Warsaw,
15. University of Warsaw,
16. Warsaw University of Technology,
17. SGH Warsaw School of Economics in Warsaw,
18. AgriTech Hub Asi Ltd.,
19. Fundacja MOST,
20. Fundacja „Inkubator Technologiczny” (Youth Business Poland),
21. Warsaw University of Technology,
22. Collegium Civitas,
23. SWPS University,
24. Siemens sp. z o. o.,
25. iKsync Digital Izabela Kozakiewicz-Frańczak,
26. Fundacja Edukacyjna Przedsiębiorczości.

The competition **laureates** are scientists and companies from the Mazowieckie Voivodeship, that influence the development of the region and drive the progress in science and technology in Poland and in the world through their research and solutions.

## 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. The competition is a tool for promotion and support of the Mazovian start-up ecosystem<sup>4</sup>.

The competition promotes innovative activities of start-ups concerning the use of modern technologies, and introduction of new products, services and business models. Additionally, it offers an opportunity for development of cooperation between start-ups and enterprises, business<sup>5</sup> and scientific institutions and Mazowieckie Voivodeship.

Entities registered and conducting business operations in the Mazowieckie Voivodeship for no more than three years preceding the date of announcing the competition can

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<sup>4</sup> More information on the start-up ecosystem can be found at: <https://www.pb.pl/katalog-polskiego-ekosystemu-startupowego-814798>, accessed 23.01.2023.

<sup>5</sup> More information can be found at: <https://innowacyjni.Mazovia.pl/dzialania/institucje-otoczenia-biznesu.html>, accessed: 23.01.2023.

participate. Following the evaluation of contest applications, innovative start-ups with a potential for development and first successes in implementation of new business solutions are selected.

The process of application assessment consists of a formal assessment and a two-stage substantive assessment. During the first stage of the substantive assessment, members of the Assessment Committee individually review applications on the basis of criteria specified in the competition documentation. Then, they present individual initial assessments with their justification, and following a discussion, they agree on the result of the first stage of the substantive assessment of the competition application, creating a ranking list for each category. The second stage of the substantive assessment consists in presentations (so-called pitches) in front of the Assessment Committee by those start-ups which ranked highest at the first stage. The laureates are finally selected by the competition Jury on the basis of recommendations of the Assessment Committee Chairman.

Since 2021 (3<sup>rd</sup> edition), the competition is held in the following categories:

- INNO-TECH – start-ups that create new products and processes, as well as significant technological changes in products and processes, involving product, process and system innovations; start-ups at the growth stage at the sales stage;
- SOCIAL IMPACT – start-ups with a positive environmental or social impact, regardless of the stage of their development;
- START – start-ups that create an innovative project being at the Minimum Viable Product<sup>6</sup> or prototype stage, which has a chance for effective development and scaling<sup>7</sup>.

During the last 4 years, **200** start-ups have applied to the competition, including:

- 19 - in the first edition,
- 56 - in the second edition,
- 53 - in the third edition,
- 72 - in the fourth edition.

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<sup>6</sup> The Minimum Viable Product, created by Eric Ries, is understood as a “product of a crucial functionality”. According to the precursor, the above product must only have those functions that would represent the required minimum value for a test group of consumers. More information on website: <https://www.parp.gov.pl/component/content/article/52414:minimum-viable-product>; accessed: 21.01.2023

<sup>7</sup> More information on website: <https://innowacyjni.Mazovia.pl/dzialania/startuj-z-mazowsza.html>, accessed: 22.12.2022.



In 2018-2022, the Competition Jury granted **12 main prizes** of the total value of **PLN 285 thousand and 8 distinctions**.

The laureates also received non-financial awards from **the Partners of the competition**, such as free educational workshops, legal and accounting consultations, business counselling, access to a co-working space, a package of marketing services, and the participation in the city acceleration programme #Warsaw Booster or the one-week acceleration programme in the State of Nevada (U.S.A.).

The Partners of the competition in 2018–2022 were:

1. Orange Polska S.A.,
2. Fundacja JWP Masz Pomysł? Masz Patent. Zysk!,
3. JWP Rzecznicy Patentowi Dorota Rzążewska p. k.,
4. Mazowiecki Fundusz Poręczeń Kredytowych,
5. SWPS University,
6. The capital city of Warsaw,
7. University of Warsaw,
8. SGH Warsaw School of Economics in Warsaw,
9. Fundacja Przedsiębiorczości Kobiet,
10. Instytut Kreowania Przedsiębiorczości Ltd. (Startup Academy),
11. „Koleje Mazowieckie – KM” Ltd.,
12. AgriTech Hub ASI Ltd.,
13. Warsaw University of Technology,
14. SMOK Ventures sp. z o. o.,
15. VIGO System S.A.,
16. Startup Poland,
17. VIGO WE Innovation Ltd. (VIGO Ventures),
18. Assay Management sp. z o. o. Assay ASI S.K.A.,
19. Fundacja Przedsiębiorczości Technologicznej,
20. PFP Polska Fundacja Przedsiębiorczości,
21. Nevada Governor's Office of Economic Development - International Trade Department.

# Study methodology

## Quantitative study

The quantitative study was performed using the method of a standardised interview in the form of an online questionnaire containing open- and closed-ended questions (CAWI). Laureates of all editions of the Innovator of Mazovia and Start from Mazovia competition, who took the first, the second or the third place, or received the award of distinction were invited to participate in the study.

The study was conducted in November and December 2022, and 42 people took part in it.

Two variants of the questionnaire, for the companies and for the scientists, were used in the study. The questions in both questionnaires concerned the same or similar areas, taking into account the specific characteristics of business and research activities.

## Study sample characteristics

The group of 42 respondents consisted of 16 women and 26 men, of an average age of 41 years. 31 participants were laureates of the Innovator of Mazovia, and 11 people were laureates of the Start from Mazovia contest.

The study participants represented very different fields of science and business. In the case of the scientists, engineering and technological fields, such as nanotechnology and nanobiotechnology, electrotechnology, rocket technology, microbiology, chemistry, photonics and optics, haematology, and cosmetology predominated.

In the case of the companies, the respondents included representatives of sectors such as IT, biotechnology, agricultural technology, chemistry, consumer electronic, electromobility, power industry (including renewable energy), healthcare, education, security, and training.

Among the studied laureates of the Innovator of Mazovia competition, the respondents received the award as Innovative Scientists in 18 cases, and as the Innovative Company in 13 cases. Details on participation of individual laureates is presented in Table 1.

Competition	Category	Number of respondents
<b>Innovator of Mazovia</b>		<b>31</b>
	Innovative Scientist	18
	Innovative Company	13
<b>Start from Mazovia</b>		<b>11</b>
	Inno-Tech	4
	Social Impact	3
	Start	2
	No category	2

Table 1. Respondents' participation in individual competitions, own elaboration.

### Places taken and awards received in the competition

The study sample included 14 laureates that took the first place, 11 laureates that took the second place, and 6 laureates that took the third place in the Innovator of Mazovia or Start from Mazovia competitions. Additionally, 10 respondents who were awarded a distinction participated in the study. Three respondents received a special award in the form of participation in the acceleration programme in the State of Nevada (U.S.A.). Additionally, five respondents indicated that they received an award from the Partners of the competition (VIGO Ventures and Sieci Przedsiębiorczych Kobiet eng. Entrepreneurial Women's Network).

	1st place	2nd place	3rd place	Recognition	Special award - participation in the acceleration programme in the State of Nevada	An award from the Partner of the competition
<b>Companies</b>	9	6	2	6	3	3
<b>Scientists</b>	5	5	4	4		2

Table 2. Places taken and awards in the Innovator of Mazovia and Start from Mazovia competitions (number of respondents), own elaboration.

## Qualitative study

The qualitative study was performed using the method of individual In-Depth Interviews (IDI). Interviews were conducted with 12 laureates (7 scientists and 5 companies) of the Innovator of Mazovia competition and with 5 laureates of the Start from Mazovia competition.

The interviews were semi-structured. The starting point for the study was a planned list of questions, but a possibility of rejecting some of them (as they might prove inadequate in the case of a specific study participant) or adding some additional questions (to adapt the interview to subjects discussed by that study participant and to a specific character of activities conducted by them and outcomes of their participation in the competition) during the interview was taken into account.

The interview structure was planned separately for the studied scientists and for study participants representing companies.

Before the interview, the participants gave their informed consent to participate in it. At the beginning of each interview, they were asked to provide their name, age, the type of the competition in which the company/scientists took part, the place taken, and the year of winning the award.

## Study results

### Motivations for participation in the competitions

As the results of the qualitative study show, the prevailing majority of the study participants learnt about the competition itself, both Innovator of Mazovia and Start from Mazovia, from the Internet. The study participants indicate the organiser websites and other internet sources (websites of universities, or of organisations and foundations associating scientists and/or entrepreneurs) as their source of information. Two of the companies included in the study, the laureates of the Start from Mazovia, were invited to participate directly by the competition providers.

The study participants unanimously emphasised in the interviews that they had not planned earlier, i.e., before the competition notices were published, to participate in the competition. All of them declared that their decision to participate was spontaneous, after they read the competition notice. Only one of the study participants, who took part

in the Innovator of Mazovia indicated the financial reward as their motivation. The main type of motivation indicated by the study participants, both the laureates of Innovator of Mazovia and of Start from Mazovia, as a decisive for their participation in the competition was **a chance to check the direction of their activities and research achievements, and gain new opportunities, especially to promote their activities and expand channels of cooperation.**

“For a scientist, such a competition is a form of proving that they are going in the right direction. That is why I decided to take part in it.”<sup>8</sup>

“I learnt about this competition and took part in it because I was just curious. Such a competition definitely means benefits - a financial award and a possibility to meet other scientists, not to mention the prestige, when you can show your award eventually.”<sup>9</sup>

Some study participants indicated that earlier (i.e., before their win), they took part in other competitions, but without such successes as winning the main prize or recognitions.

## Awards received in competitions

The most frequently specified awards won in competitions were financial awards, in the amount between PLN 10 thousand and PLN 30 thousand. Apart from financial awards, the study participants mentioned diplomas, statues, gadgets, and a possibility to participate in the iENA Fair in Nuremberg<sup>10</sup>.

## Companies

In the case of companies, **financial awards received by the laureates were and still are mainly invested or used for needs associated with the functioning of the company.** The winning entrepreneurs used resources obtained in the competition to finance production, create a prototype, promote their company and its implementations and improving them with new functionalities, as well as for remuneration for their employees, or to cover current accounts payable. The representatives of companies considered the awards to be very useful, and none of the respondents chose an answer that the award was

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<sup>8</sup> Answers of the study participants - qualitative study.

<sup>9</sup> Answers of the study participants - qualitative study.

<sup>10</sup> The iENA Fair in Nuremberg is designated for inventors, innovative companies and licensees from all over the world; more information can be found at:

<https://www.targiwniemczech.pl/miedzynarodowe-targi-wynalazcow-innowacyjnych-firm-i-licencjobiorcow-iena-norymberga.html>, accessed: 16.01.2023.

useless. The results on satisfaction with the award were consistent in quantitative and qualitative studies.

#### USEFULNESS OF THE AWARD AS PERCEIVED BY RESPONDENTS - COMPANIES

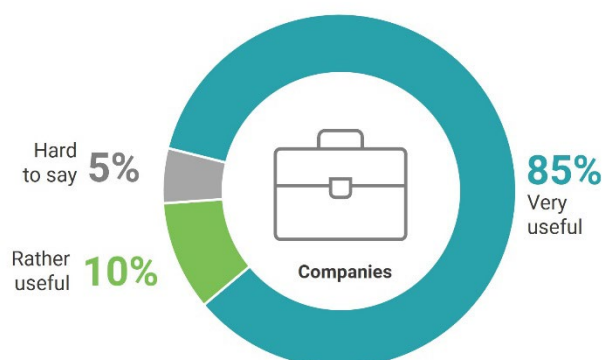


Chart 1. Quantitative study - the usefulness of the awards received in the competition according to the respondents' representing companies, own elaboration (a base of companies participating in the study, N = 20).

Additionally, as the qualitative study showed, **the representatives of the companies treat the award received in the competition as a confirmation of their success, especially in planning and developing the solution.** Their win in the competition also motivates them to continue activities contributing to the company development.

#### Scientists

The scientists mainly used the funds won in the competition for **their own development: courses, training, and educational materials.** Additionally, some people indicated that the award enabled them to also pursue their personal and non-professional objectives, e.g., housing needs. They perceived the awards as very useful.

#### USEFULNESS OF THE AWARD AS PERCEIVED BY RESPONDENTS - SCIENTISTS

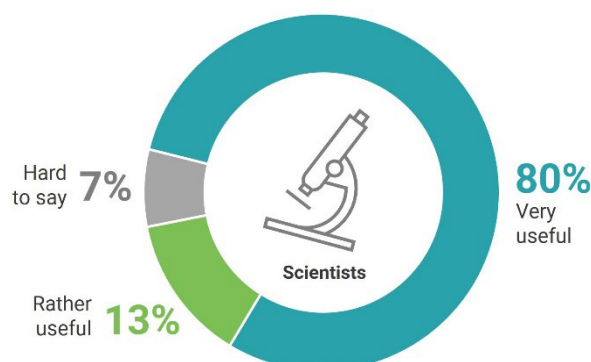


Chart 2. Qualitative study - the usefulness of the awards received in the competition according to the scientists, own elaboration (a base of scientists participating in the study, N = 15).

## **Participation of the study participants in other competitions or acceleration programmes**

After participating in the Innovator of Mazovia or Start from Mazovia competition, **75% of the companies took part in other competitions or acceleration programmes**. The following competitions were mentioned by the study participants:

- Polish Product of the Future of PARP,
- Microentrepreneur of the Year Competition,
- Akademicka Liga Startupów,
- Kozminski University Competition,
- The Green Eagle and the Eagle of Innovation competition organised by Rzeczpospolita,
- SWC Summit,
- Chivas Venture,
- InCredibles acceleration programme,
- EIT Food TeamUp,
- Hello Tomorrow,
- Gold Medal of the POLAGRA Fair,
- The Entrepreneur of the Year competition of the University of Warsaw,
- Mazovian Startup,
- Polish Innovation Award,
- Polish Product of the Future,
- CEE Startup Challenge,
- Warsaw Booster 2021,
- The Mazowsze Women of Success competition.

Of the **scientists** who were competition laureates, **61% decided to also participate in other competitions**. The study participants mentioned the following competitions:

- FNP Start,
- The award of the Rector of the Warsaw University of Technology,
- Forbes 30-under-30,
- Competition of Aviation/Aeronautical Associations IFAR/ICAS,
- A scientific award of Polityka weekly news magazine,
- European Inventor Award,
- Polish Smart Development Award,
- L'Oreal for Women and Science,
- Polish Product of the Future,
- Startup Med,
- Start Scholarship of the Foundation for Polish Science.

## The competition influence on further activities of its laureates - companies

The questionnaire contained questions focusing on the extent to which the participation in the competition influenced some areas of the laureates' activities, e.g., initiating cooperation with scientific and business (other companies) circles, public administration, and non-governmental organisations. The respondents were also asked whether their participation in the competition brought them knowledge useful for development of further activities. The obtained results are shown in charts below.

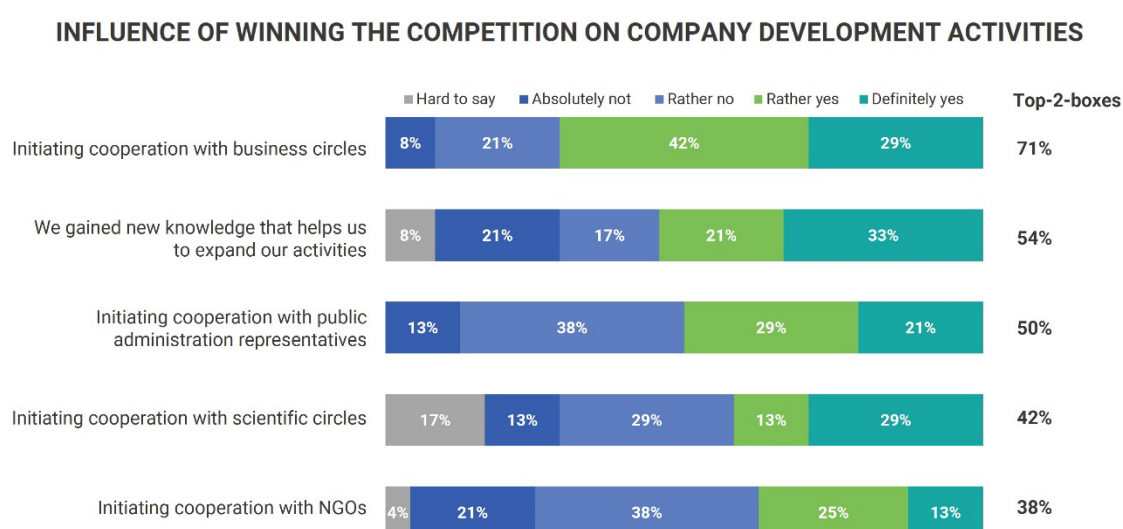


Chart 3. Quantitative study - influence of winning the competition on company development activities, own elaboration (a base of companies participating in the study, N = 24).

The most important result of winning the competition was **establishing business contacts - as many as 71% of the company representatives indicated that the competition had a significant influence on that area**. 54% of the study participants admitted that due to their participation in the competition they gained **knowledge that helped them to develop their activities**. Half of the companies noted that they initiated cooperation with representatives of the public administration. The participation in the competition also contributed, though to a slightly lesser extent, to initiating the cooperation of the companies with scientists and NGO's.

Additionally, in their answers to an open-ended question, the respondents also indicated other areas in which the competition influenced activities of their companies. Based on the answers of the study participants it can be said that the competition offered **possibilities for additional promotion, improved companies' credibility in the market, confirmed that they make interesting and valuable implementations, encouraged to participate in other competitions, resulted in a**



**sense of satisfaction and motivation for further work, as well as provided additional funds for their activities.**

The qualitative study also disclosed many positive outcomes of participation in both competitions, going beyond financial gratification. The following benefits for the companies were identified:

- confirmation of high value of undertaken activities,
- significant strengthening in the process of pursuing established objectives, motivating to continue business activities (including expanding them to new areas of operation),
- motivation to participate in other contests,
- marketing support,
- improving the company credibility,
- expanding business contacts,
- developing competencies in creating popular science presentations on implemented technologies and products.

Participation in the competition also significantly influenced the increase in the sense of purposefulness of undertaken business activities and implemented solutions:

“Our participation in the competition and winning were very important to us. Many years of hard work and sacrifices were finally recognised.”<sup>11</sup>

As the qualitative study showed, for two of the studied enterprises, the award in the competition was a direct **impulse for development of their activities - sales departments and employing new people**. The educational aspect associated with participation in the competition also proved to be of importance, as the respondents in the qualitative study indicated that **the need to prepare a presentation and a discussion on their implementation contributed to their development**.

In the quantitative study, the participating companies were also asked about business benefits they achieved due to their participation in the competitions. The questions concerned the increase in the number of customers, demand for their products and services, the increase in the brand attractiveness and recognition, the increase in innovative character of conducted activities, as well as expanding of the portfolio of products and services.

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<sup>11</sup> Answers of the study participants - qualitative study.

#### BUSINESS BENEFITS FOR COMPANIES RESULTING FROM THEIR PARTICIPATION IN THE COMPETITION

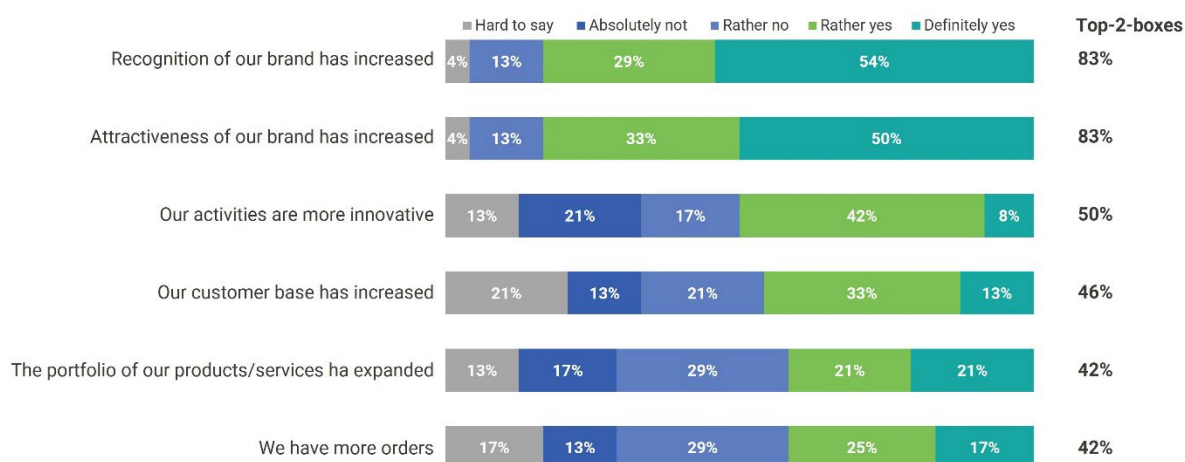


Chart 4. The quantitative study - business benefits for companies resulting from their participation in the competition (a base of companies participating in the study, N = 24)

**Participation in the competition had a very advantageous influence on the image of companies that won the award. As many as 83% of the studied companies admitted that recognition and attractiveness of their brand increased.** Half of the studied companies are of the opinion that their activities are more innovative as a result of their participation in the competition. According to 46% of the entrepreneurs, the competition resulted in expanding their base of customers, and slightly more than 40% of them indicate that the portfolio and number of their products/services increased, and that they also receive more orders.

After taking part in the competition, 11 companies tried to enter new, foreign markets, and two increased their previous export. The directions for expansion into new markets were very diverse: Czech Republic, Spain, Germany, Austria, Sweden, Belarus, Japan, Kenya, UAE, Singapore, the United Kingdom, Philippines, India, Taiwan, the United States, and Israel.

Data obtained in the qualitative study, similarly as the results of the quantitative study, showed that the studied companies-laureates cooperate with foreign companies and provide services to foreign customers (e.g. in the United Kingdom, Italy, or Czech Republic). The companies that currently do not cooperate with foreign entities are planning such activities.

## The competition influence on further activities of its laureates – scientists

The scientists emphasised that participation in the Innovator of Mazovia competition brought them many other benefits and a motivation for further work, apart from the satisfying financial award. Their participation in the competition reminded them that **science means more than just scientific publications alone, and it should be useful**. The study participants also think that winning the competition contributed to their later professional successes, such as getting grants for financing their research, receiving scholarships, or receiving other awards and distinctions for their research work. The scientists were also asked about the influence of their participation in the competition on specific areas of their further development activities. The chart illustrating the respondents' assessment is presented below.

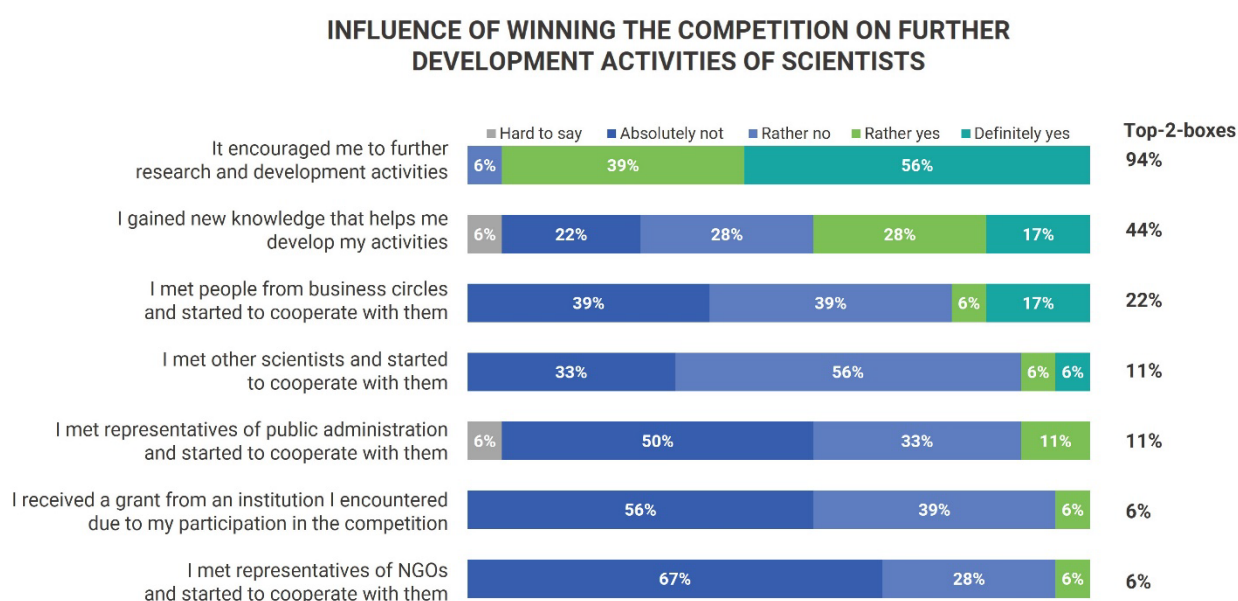


Chart 5. Quantitative study - influence of winning the competition on further development activities of scientists, own elaboration (a base of scientists participating in the study, N = 18).

The scientists indicate that winning the competition first of all **encouraged them to continue their research and development works**. As the scientists indicated in the qualitative study, winning the competition allowed them to believe that the **direction of research activities chosen by them is important and needed by society**. For nearly half of the interviewed scientists, the participation in the competition also provided **knowledge helping them to develop their activities**. However, it turns out that participation in the competition is an opportunity to establish contacts resulting in joint projects with other scientists, or with representatives of business, public administration or non-governmental organisations only to a small extent. Intensification of networking activities is a direction

that can be developed by the organiser of the competitions during their subsequent editions.

The study also analysed the extent to which, in the participants' opinion, taking a place in the competition contributed to the increase in innovativeness of their solutions and implementations. The analysis of answers provided by the respondents indicates that **innovativeness in the research and designing of implementations is primary to the participation in the competition, as the award is granted for creating innovations and not the other way round.**

However, the participation in the competition **changes perception of innovativeness by the scientists, who often think that the subject they research is interesting but not innovative, because it is not directly related to new technologies** ("The competition showed that innovation can also be in research in medical sciences, not only in technical sciences"<sup>12</sup>).

## **Implementations. Characteristics, stages and influence of the competition.**

All companies studied in the qualitative interviews conducted implementations. For most of them, the competition was not the direct reason for entering the implementation stage, but **winning the competition confirmed that "they do something cool, innovative". Therefore, it can be said that the competition encouraged companies to continue or to extend their conducted innovation and implementation activities.**

Only one of the studied companies had just a prototype when it entered the competition, and its participation contributed to development of the final version of the product. **Half of the companies indicated in the qualitative interviews that winning the competition increased the potential for commercialisation of conducted projects.**

**Nearly all technological solutions proposed by the entrepreneurs are characterised by a very high level of innovativeness and technology unique on the global level, thus they attract interest also outside Poland.** Financial resources obtained, among others, from the European Union funds, proved to be helpful for the studied entrepreneurs in execution of implementation projects. The studied entrepreneurs did not declare significant obstacles on their way to development of final versions of the products/services. In their opinion, these processes went quite efficiently in each case.

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<sup>12</sup> Answers of the study participants - qualitative study.

Winning in the competition was an additional motivation encouraging them to continue working diligently:

“The competition confirmed that concepts implemented by us are reasonable and so we got the wind in our sails - it encouraged us to continue with implementations”<sup>13</sup>.

**In the case of the scientists, the competition encouraged them to seek business partners and implement their solutions.** They indicate problems with initiating cooperation with business circles as the main obstacle on the way to implementation of their projects. For this reason, they establish micro-enterprises or spin-off companies at universities themselves, which enable them to start production and develop technologies.

## **Turning points and success of the laureates in last two years – companies**

Over half of the interviewed companies considered **meeting company partners or co-founders** as the most important turning point. A milestone that is second to that in importance is implementation of a product or a service for which they received the award in the competition. **Participation in the competition Innovator of Mazovia or Start from Mazovia was third on that list and was mentioned by 38% of the respondents.**

Other milestones listed by the study participants include: creating or developing a specific technology or application, creating a prototype, expanding the product range, positive scientific reviews of their implementations, employing people for the sales department, participation in the Mazovian Startup acceleration programme, generating income, winning an investor, and cooperation with companies and universities.

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<sup>13</sup> Answers of the study participants - qualitative study.

### MILESTONE - TURNING POINTS IN COMPANIES

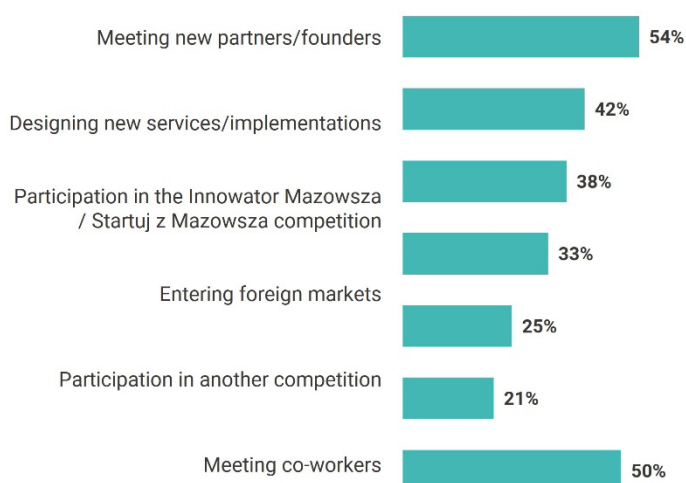


Chart 6. Quantitative study - milestones/turning points in companies' development, own elaboration (a base of companies participating in the study, N = 24).

**For the prevailing majority of the studied companies, the greatest success of the recent years is the increase in the number of contracts, customers, and contractors.**

### SUCCESSSES OF COMPANIES IN LAST TWO YEARS

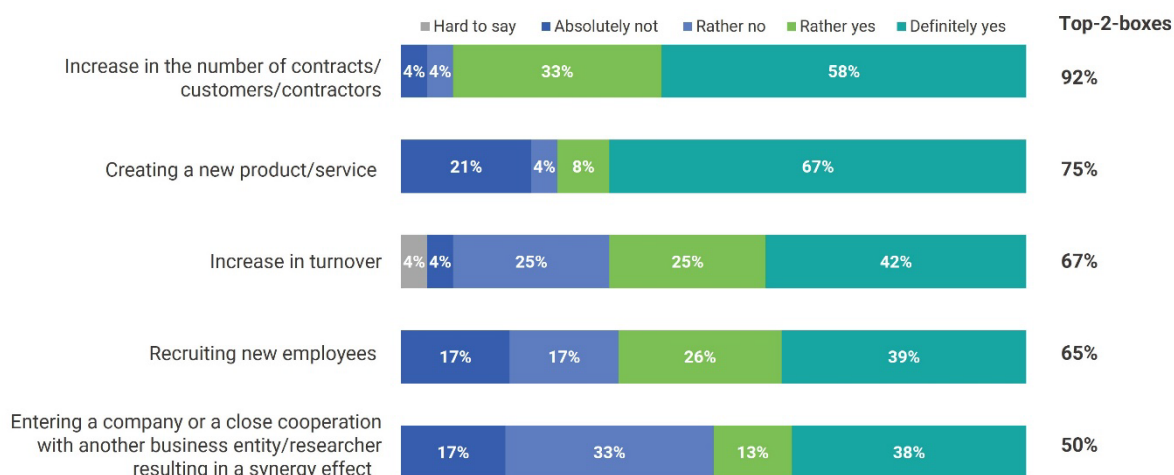


Chart 7. Quantitative study - successes of companies in last two years, own elaboration (a base of companies participating in the study, N = 24).

In last two years, 75% of the companies created a new product or a service, and 67% recorded an increase in their turnover. Most of the companies also recruited new employees, and half of them created a company or started a close cooperation with another company or a researcher, achieving a synergy effect.

Other successes mentioned by the studied representatives of companies concerned obtaining financing, promoting company activities and an increase in the brand recognition, opening offices abroad, and being awarded a patent.

**Of 10 companies analysed in the qualitative interview**, all reported successes achieved in various areas of their operations. **The studied companies became laureates of many other competitions or acceleration programmes** (e.g., Warsaw Booster), awards from various Ministries, also at the international level.

All entrepreneurs emphasise a relatively high level of **credibility and recognition of their companies**, as well as the fact that those components of the company image improved after winning the award in the Innovator of Mazovia and Start from Mazovia competitions.

As the qualitative study also implies, the large success of the companies is their flexibility and the ability to adapt to the changing environment. This is confirmed by the adaptation abilities displayed by the majority of studied microenterprises during the COVID-19 pandemic. The studied companies (which experienced difficult moments during the pandemic) managed to cope with restrictions and new challenges, frequently adapting their technological solutions. One of the studied companies lost about 90% of its customers during the first month of the pandemic, so it immediately initiated activities aiming at adapting the proposed solutions to the online work mode, creating an additional product group.

## **Cooperation with the scientific community – companies**

The vast majority of the companies who are laureates of the competitions cooperates with the scientific communities. **The most common model of that cooperation is implementation of projects together with a specific university or its researchers.** About one third of the interviewed companies cooperates only with a researcher, and not necessarily with a university at which they are employed. Lack of any form of the cooperation with scientists or universities is also declared by about one third of the studied companies.

As the representatives of the companies indicated in the qualitative study, winning the awards and a title of a laureate in the competition motivated them to initiate or expand cooperation with other companies and investors.

## COOPERATION OF COMPANIES WITH SCIENTIFIC COMMUNITIES

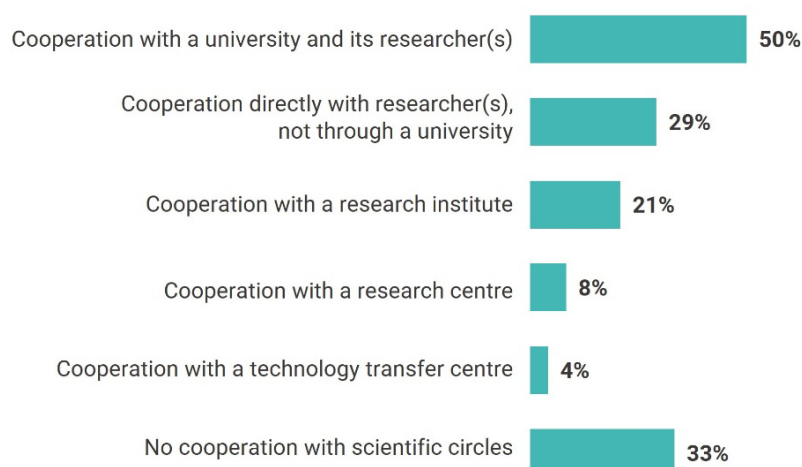


Chart 8. Quantitative study - cooperation of companies with scientific communities, own elaboration (a base of companies participating in the study, N = 24).

As the results of the qualitative study show, a cooperation of the companies with scientific communities is initiated at different stages of product or service development. Half of the companies subjected to the qualitative study initiated that cooperation already at the stage of preparing technologies or products evaluated in the competition. In the case of the other half of the companies, winning the competition was the beginning of searching for a more extensive and significant cooperation with business and scientific communities alike. One of the companies initiated a cooperation with a scientist that has lasted to this day due to its participation in the Innovator of Mazovia competition. In addition, one researcher initiated a cooperation with business that has lasted to this day.

The following universities were mentioned among those with which the companies-competition laureates cooperate: SWPS University, University of Gdansk, Warsaw University of Technology, University of Warsaw, Adam Mickiewicz University in Poznań, SGGW, Wrocław University of Technology, Białystok University of Technology, Military University of Technology, Nicholas Copernicus University in Toruń, Medical University of Silesia in Katowice, Medical University of Warsaw, Poznan University of Medical Sciences, FZU in Czech Republic (Institute of Physics), and CENER in Spain. **In all cases, the companies participating in the quantitative study initiated their formal cooperation with universities in a way other than during the Innovator of Mazovia or Start from Mazovia competitions.**

The representatives of the companies emphasise that they greatly need the cooperation with the scientific communities, both when seeking inspiration for successive technological solutions, and when testing already created products.



The companies-competition laureates perceive that cooperation to be very good. They greatly appreciate their good communication with scientists. **A possibility to create original and innovative solutions represents another enormous advantage of that cooperation.** Furthermore, the companies are satisfied with punctuality of conducted works and state that this cooperation is very smooth. In their replies to an open-ended question, the study participants additionally stated that their cooperation with science is a foundation of their activities and opens new opportunities.

The distribution of answers is presented in the chart below.

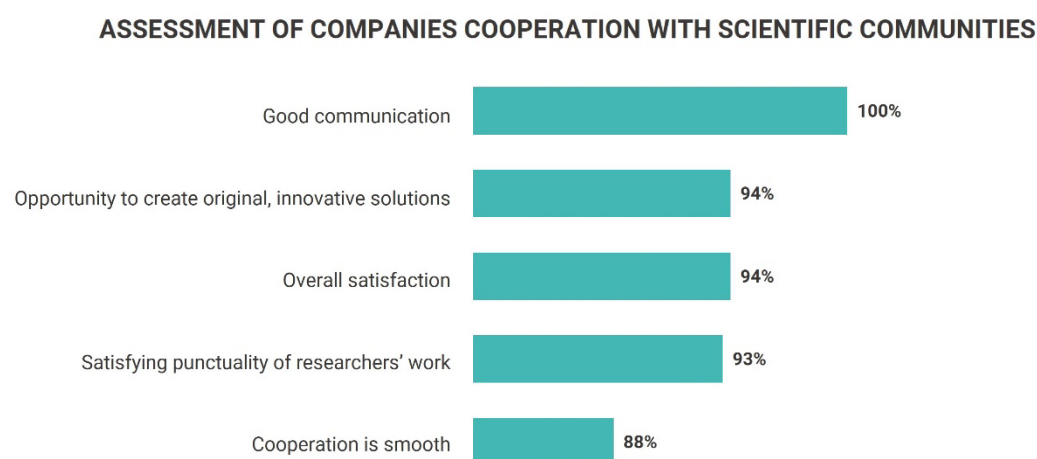


Chart 9. Quantitative study - assessment of companies cooperation with scientific communities, own elaboration (a base of companies participating in the study, N = 16).

At the same time, the study participants noticed certain problems in cooperation with universities themselves. Among the experienced problems, they listed issues with eligibility of indirect costs for companies, different levels of rates for scientists from a company and from a university, lengthiness and a great number of university procedures, longer time needed to make decisions, problems with implementing innovations at a university, as well as questions of allocating ownership of intellectual property rights.

## Professional situation and turning points in the career – scientists

Among the scientists - laureates of the Innovator of Mazovia competition, who participated in the quantitative study:

- 3 people conduct their own business activities,
- 5 people cooperate with business circles on commercial projects,

- 9 people cooperate with a research institute, a research centre, or a technology transfer centre,
- 6 people cooperate with an R&D department of a business organisation.

The areas of activities of the competition laureates who are scientists are very different, although **their common denominator is the desire to conduct research that is valuable in terms of not only knowledge gained, nor just the scientific terms, but also of implementation opportunities.**

The economic sectors mentioned by the laureates as those in which they conduct their research included:

- pharmaceutical industry,
- aviation and aerospace,
- power industry,
- photonics,
- nanotechnology,
- biotechnology,
- chemistry,
- electrotechnology,
- microbiology,
- cosmetic industry.

When asked about turning points (milestones) in their professional development, the scientists mentioned **defending their PhD dissertation** first. For half of the scientists, meeting their co-workers also represented a turning point. One third of the study participants consider choosing their university course as such a milestone. In the quantitative study, three respondents also indicated other factors, not included multiple-choice answers, i.e., receiving a degree of doctor habilitatus, internships abroad, or founding a start-up.

### MILESTONES - TURNING POINTS FOR SCIENTISTS

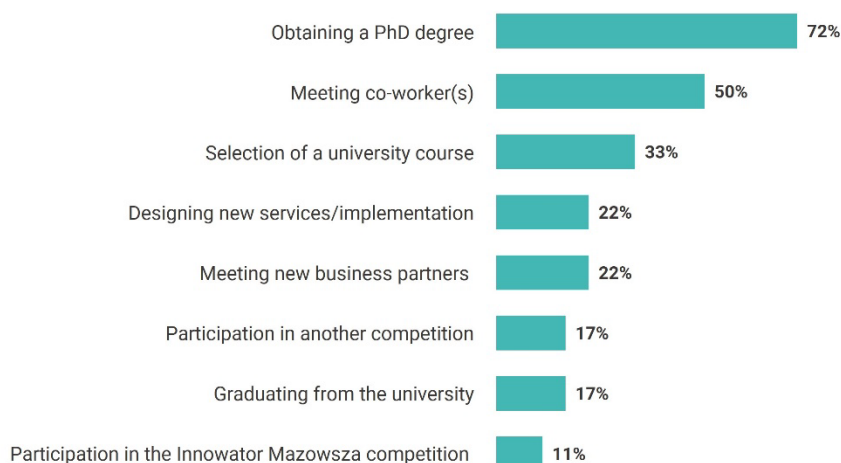


Chart 10. Qualitative study - milestones/turning points in scientists' development (a base of scientists participating in the study, N = 18).

The qualitative study also indicated that the laureates achieved many successes after their participation in the competition. Of 7 scientists that participated in the IDI, 3 now have the doctor habilitatus degree.

One of the scientists is now waiting to be awarded a title of full professor by the President of Poland. Only one of the interviewed scientists is now working in a private company. The remaining scientists work at Polish scientific entities (universities or research institutes). Two of them hold managerial positions (an Institute Director, a Head of a Department) at those entities.

**All studied scientists have published numerous scientific papers at an international level, in important journals on relevant subjects, mainly from the Philadelphia list<sup>14</sup>.** All of them spoke at international conferences. Some of them are currently considered renowned experts in media in the context of current social problems (e.g., the SARS-Cov-2 pandemic). All studied scientists with the doctor habilitatus degree participate in scientific promotion of PhD students; the study participants with a PhD degree act as auxiliary supervisors for PhD students. In one case, a PhD student supervised by one of the interviewed scientists also became a laureate of the Innovator of Mazovia competition.

Research subjects pursued by the studied scientists should definitely be recognised. In all cases, they are problems of a significant social and environmental importance.

<sup>14</sup> Thomson Scientific Master Journal List, more information on website: <https://mjl.clarivate.com/home>, accessed: 3.01.2023.

**None of the scientists interviewed during the qualitative study changed the direction of conducted research activities after their participation in the competition. The competition rather motivated them to continue on the chosen path.**

## **Cooperation with the business – scientists**

In the group of scientists, the nature of their cooperation with the business circles is varied, and is different in nearly every case. All studied scientists agree that an effective realisation of implementations requires a close cooperation with the business circles.

Currently, 88% of the competition laureates who are scientists that participated in the quantitative study, cooperate with the business circles. Three respondents (one case indicated in the quantitative study and two cases specified in the qualitative study) reported a cooperation (between a researcher and a business circle or business circles with scientists) that was initiated directly during the Innovator of Mazovia competition.

As the study results show, for the scientists their cooperation with the business is **satisfactory in various ways**. They value good communication with partners, an option to create original, innovative solutions, and punctuality of works for which the business circles are responsible. 60% of the interviewed scientists indicate that this cooperation is smooth.



Chart 11. Quantitative study - assessment of cooperation between scientists and business circles, own elaboration (a base of scientists participating in the study who cooperate with business, N = 15).

Possible problems with cooperation listed by the study participants include statements referring to:

- slight differences in the language used by scientists and by representatives of business, requiring certain adjustment of communication,
- business focus on a fast profit, which is not always possible in research work; low willingness of the Polish business to invest into scientific research, which is sometimes associated with risks,
- low rates offered by the Polish business when compared to companies abroad.

## **Future editions of the Innovator of Mazovia and Start from Mazovia competitions - suggestions of laureates representing companies and scientists**

In the quantitative study, the respondents were asked about actions of the organiser of the Innovator of Mazovia and Start from Mazovia competitions which, in their opinion, could facilitate establishing effective cooperation between the laureates and the business and scientific communities.

In the opinion of the highest percentage of the respondents representing **companies**, a factor that would really facilitate establishing such contacts would be increasing the participation of **foreign investors in future editions of these competitions, either as observers or as jury members (71%)**. More than half (54%) of the studied companies also indicated image campaigns with even greater reach than the current ones, and half (50%) of the respondents considered cyclic networking meetings for participants of all editions of the competition as an important factor.

38% of the study participants representing the companies were in favour of creating a profile on LinkedIn dedicated to the competitions. Concepts such as introducing training on pitch presentations or organising an annual event for the competition participants and observers found less support.

Furthermore, other forwarded proposals included organising mentorship or assisting participants in their search for mentors in the case of young entrepreneurs, as well as creating a base of contacts containing telephone numbers and e-mail addresses of start-ups and people responsible for cooperation with start-ups.

### ACTIONS FACILITATING INITIATING A COOPERATION BETWEEN REPRESENTATIVES OF BUSINESS AND SCIENTIFIC COMMUNITIES - COMPANIES

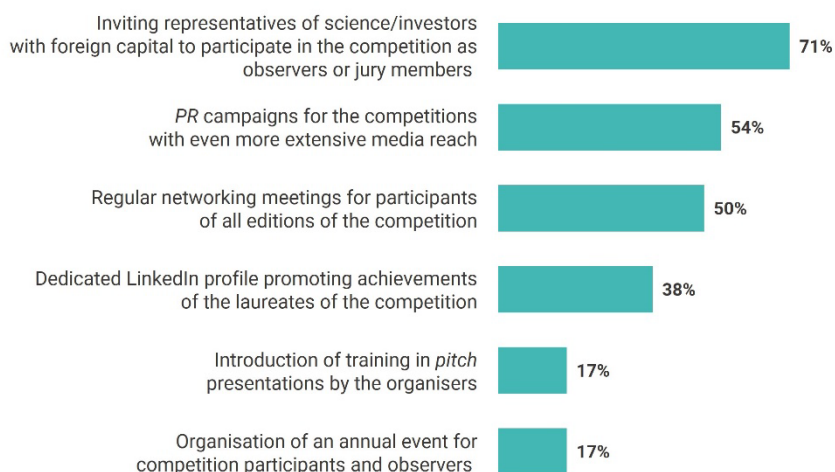


Chart 12. Quantitative study - actions facilitating initiating a cooperation between representatives of business and scientific communities, own elaboration (a base of companies participating in the study, N = 24).

Similarly, as the representatives of the companies, **the scientists mentioned inviting investors with foreign capital as observers or jury members to the competition** as the most important action facilitating initiation of a cooperation between representatives of science and business communities.

### ACTIONS FACILITATING INITIATING A COOPERATION BETWEEN REPRESENTATIVES OF BUSINESS AND SCIENTIFIC COMMUNITIES - SCIENTISTS

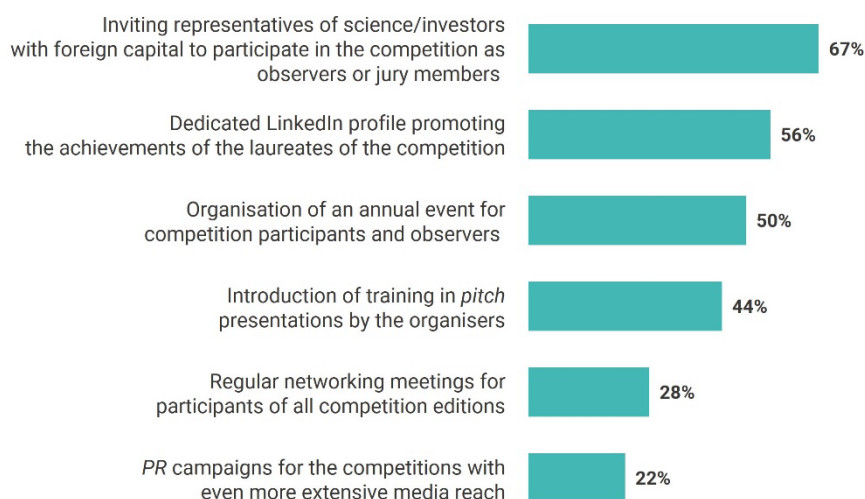


Chart 13. Quantitative study - actions facilitating initiating a cooperation between representatives of business and scientific communities, own elaboration (a base of scientists participating in the study, N = 18).

However, their further choices indicated slightly different priorities for actions facilitating initiation of such cooperation. In the opinion of over one-half (56%) of the scientists **a LinkedIn profile dedicated to the competition, promoting achievements of its winners** would be useful. Furthermore, the idea of organising an annual event for the competition participants and observers was supported by half of the interviewed scientists.

#### ACTIONS SUPPORTING PRO-INNOVATIVE ATTITUDES IN THE REGION - COMPANIES

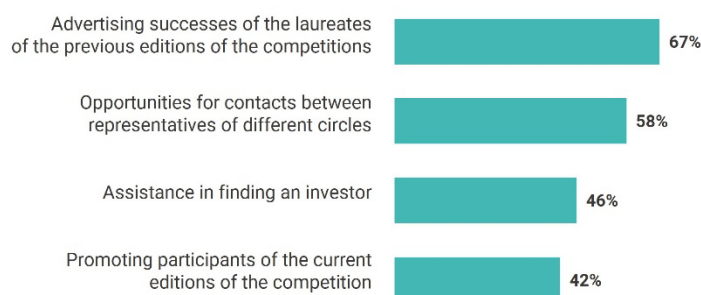


Chart 14. Quantitative study - actions that in the opinion of the studied companies may strengthen attitudes supporting innovations in the region, own elaboration (a base of companies participating in the study, N = 24).

The study participants also expressed their opinions on the way in which the Innovator of Mazovia and Start from Mazovia competitions can reinforce attitudes supporting innovations in the region.

#### ACTIONS SUPPORTING PRO-INNOVATIVE ATTITUDES IN THE REGION - SCIENTISTS

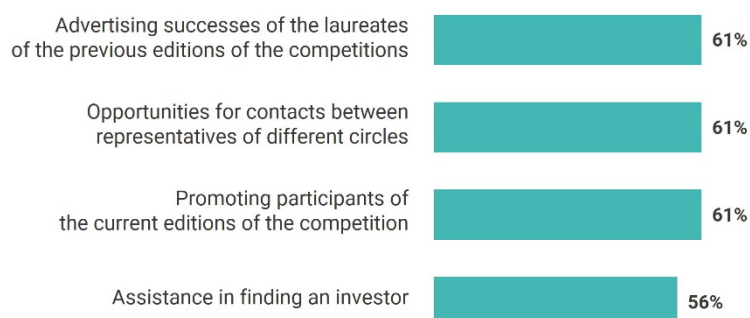


Chart 15. Quantitative study - actions that in the opinion of the studied scientists may strengthen attitudes supporting innovations in the region, own elaboration (a base of scientists participating in the study, N = 18).

According to 67% of the studied laureates-companies, **promoting successes of winners of previous editions of the competitions**, is an effective action. Over one-half of the respondents indicated **the option for initiating contacts between representatives of different circles**. A slightly smaller number (46%) of studied companies considered the assistance of the competition organiser in finding an

investor as a factor reinforcing support for innovations. Replying to an open-ended question, one of the respondents suggested **enabling the laureates to become members of associations and chambers of commerce on favourable terms.**

The scientists gave answers very similar to those provided by companies when asked about potential actions aiming at strengthening attitudes supporting innovations in the region. In their opinion, all proposed actions, including promoting successes of laureates of **all editions of the competitions, initiating contact between representatives of different circles and assistance in finding an investor** are reasonable.

**The respondents were also asked for their recommendations for future competitions and advice for potential participants.**

In the case of recommendations for further competitions, the answers of the laureates-companies focused on:

- greater networking support, when compared to its current level,
- winning large companies as competition partners and potential clients for test implementations,
- mentor's assistance following a win in the competition,
- a possibility to receive information on the Partners of the competition, their range and contacts.

As the advice for potential candidates for future editions of the competitions, the respondents representing companies indicated recommendations focusing on:

- preparing a detailed and clear description of their product or service,
- preparing an informative presentation that is easy to understand for a non-specialist,
- presenting innovative character of the project and its advantages over solutions already available in the market,
- finding time for contacts with other entrants in the competitions.

Furthermore, the scientists provided suggestions for the future competitions and recommendations for candidates in the future editions. **The recommendations for the future editions included:**

- adding an award for a research team - as the interviewed scientists noted, results of the research presented in a PhD dissertation are rarely an outcome of independent, individual research of one person, so it would be good to recognise work of teams,
- organising networking events,



- engaging investment funds (e.g., as observers or committee members),
- engaging laureates of previous editions in organisation of the competitions or as jury members,
- increasing the reach of promotion of laureates, showing what is innovative and breakthrough, as well as practical applications of inventions,
- promoting the competition at universities, e.g., by supervisors of PhD courses or PhD student councils,
- financing participation in prestigious scientific/industrial conferences of high importance for laureates.

Among **tips for candidates for future editions of the competition**, the scientists mentioned both those concerning daily research work and the participation in the competition itself:

- searching for scientific solutions to social and business problems with a high potential for implementation,
- persistence in pursuing concepts, confidence in one's own ideas and abilities;
- following one's own passion, while taking into account practical applications of a product and possibilities of launching it into the market,
- using popular science (and not scientific) language in promotional materials and preparing a polished up presentation (that is linguistically correct and visually attractive).

In the qualitative study, the respondents' recommendations concerning future competitions were similar to those provided in the quantitative study.

# Case studies - qualitative study

An analysis of cases of the career path of selected competition laureates was conducted as a part of the qualitative study.

The section below contains a description of **nine career paths of laureates of the Innovator of Mazovia competition** (including three from the “Innovative Scientists” and six from the “Innovative Company” categories), and **four career paths of Start from Mazovia laureates**.

The case study analysis consisted of four components: an in-depth interview (IDI), a desk research analysis, an interview with a co-worker, and an interview with a customer of the laureate/company.<sup>15</sup>

Additionally, in selected cases a cooperation between the scientific and the business circles was described.

## Innovator of Mazovia - Innovative Scientist

### Joanna Kowalska, PhD



fot. Mirosław Kaźmierczak

**Innovator of Mazovia**  
**- 3<sup>rd</sup> edition of the competition, 1<sup>st</sup> place**

Joanna Kowalska, PhD (habilitated doctor) is a laureate of the 3<sup>rd</sup> edition of the Innovator of Mazovia competition, held in 2011. Doctor Kowalska won the first prize in the Innovative Scientist category. Normally, she lectures and manages a research team at the Biophysics Department at the Faculty of Physics of the University of Warsaw.

In the Innovator of Mazovia competition, doctor Joanna Kowalska 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. As

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<sup>15</sup> Interviews with co-workers and customers of the laureates were conducted only when it was possible, i.e., the authors of this study received contacts to them from the competition laureates.

doctor Kowalska notes: "... we had been modifying mRNA before everybody learnt what it was..."

Currently, doctor Kowalska conducts research cooperation with ExploRNA Therapeutics<sup>16</sup> - a university spin-off established in 2019 by scientists from the Faculty of Physics at 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. It currently employs 31 people. The research conducted by the ExploRNA team has very extensive therapeutic application. It is used in areas such 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 a cooperation between the science and business.** In 2020, some of the company shares were purchased by an investor - the Black Forest company of Michał Sołowow. This investment enabled the company to pursue its research plans and increase the scope of therapeutic applications of mRNA modification, as well as to develop its infrastructure.

In December 2022, ExploRNA Therapeutics received **a prestigious grant of USD 800.000 from the Bill & Melinda Gates Foundation.** The financed research concerns development of mRNA modifications to make it an even better therapeutic agent than it currently is. The conducted research works aim at **finding solutions enabling application of a low-cost technology for production of effective vaccines for the Third World countries.**

Doctor Kowalska also works at the Laboratory of Chemical Biology and Biophysical Chemistry<sup>17</sup>, 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. One of the special areas of the scientists' work is the development of eukaryotic mRNA modifications with potential applications in the medicine.

**Participation of doctor Joanna Kowalska 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.** According to Joanna Kowalska, the financial aspect of the award is also

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<sup>16</sup> More information can be found at: <https://www.linkedin.com/company/exploRNA-therapeutics/?originalSubdomain=pl>, accessed: 17.01.2023.

<sup>17</sup> More information can be found at: <https://chembiobiochem.com>, accessed: 28.01.2023.

important. Although money is not a direct motivating factor for scientists, such cash injection at the initial stage of professional development may eliminate problems of the daily life for a young researcher.

In the laureate's opinion, the amount of the award is adequate, it is not symbolic, as it is sometimes the case in various competitions, and allows to really experience the value of this win. As doctor Kowalska says: "... the competition should be continued, because such support is invaluable for young people."

Professor Jacek Jemielity also emphasises the important role of the Innovator of Mazovia competition in the life of laureate. He notes that many distinguished, very promising young scientists at the beginning of their professional career have an opportunity to leave Poland and start their research abroad. **Winning an award in a competition such as Innovator of Mazovia may represent one of important arguments for staying in Poland and continuing their research at their Alma Mater.** Professor Jemielity: "... Poland needs wise people, and thanks to her win, Joanna felt noticed and appreciated, and saw a role she can play"

## Kamil Kwiatkowski, PhD



### Innovator of Mazovia - 6<sup>th</sup> edition of the competition, 2<sup>nd</sup> place

Doctor Kamil Kwiatkowski received the award for his thesis "Dynamics of gasification and combustion of obtained syngas".

In the past, doctor Kwiatkowski worked at the Faculty of Physics and the Interdisciplinary Centre for Mathematical and Computer Modelling of the University of Warsaw. In 2014-2017, he was a deputy director of the University Centre for Environmental Studies and Sustainable Development (UCBS UW) and a member of the Scientific Board of the Inter-Faculty Studies in Environmental Protection of the University of Warsaw. He was also a member of expert groups and teams, including The Local Dimension of Energy expert group operating within the Panel on Renewable Energy Sources Industry Development and the Benefits for the Polish Economy answering to the Minister of Climate, and the Economic Panel operating within the Competence Network on Distributed Energy Technologies.

Currently, doctor Kwiatkowski conducts and coordinates industrial research and development activities at Euros Energy Ltd., in the area of optimal use of heat pumps in the energy transition, integration of heat pumps with other technologies, in particular with BTES and PTES seasonal heat storage technology and short-term heat and cold storage using phase change materials. **His work focuses on conducting implementation projects associated with energy transformation towards renewable energy sources.**

**Doctor Kwiatkowski is involved in the process of transformation of the Polish heat engineering sector.** He participates in numerous conferences and discussion panels concerning these issues, also outside Poland, as he reports on his social media. In October 2022, he participated in the discussion panel on Twin Transition held in Brussels during celebrations of the 15<sup>th</sup> anniversary of establishing the National Centre for Research and Development. The company at which he works is recognised and receives awards for the innovative character of its operations. In 2022, it received, among others, the award of the Polish Green Building Council (PLGBC) - for the best environmentally friendly modernisation, i.e., for its design of energy-efficient retrofitting for a building in Zwoleń. Doctor Kwiatkowski emphasises: "For me, it is a beautiful moment, because a pilot project, practically of a research character, for which I created foundations, is rapidly transforming into one of the crucial tools of energy transition for housing associations."

Today, doctor Kwiatkowski, working in the business, focuses on energy transition towards renewable energy sources. His win in the competition did not significantly change the direction of his research activities. As he says, **he has always worked at the intersection of science and business.** He believes that science has relatively limited possibilities to influence and achieve practical application of projects. **"It is much more difficult to have a real influence on reality and conduct actual implementations. The aim of the research project is knowledge, but this has never been enough for me..."**. Therefore, he decided to work in a business project. His cooperation with the business circles is a source of his great satisfaction and significantly greater financial resources to conduct implementations, pilot installations or technology demonstrations, which are much more difficult to obtain in the research activities.

As a part of his cooperation with Euros Energy Ltd., doctor Kwiatkowski is also a Research Project Director for the *Heat Plant of the Future* project - a pioneering project for the deep decarbonisation of the heating industry. 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 exchangers, a seasonal low-temperature ground storage facility in BTES type, and a seasonal high-temperature water storage facility in PTES type. The full-scale Technology Demonstrator, funded by the National Centre

for Research and Development from the European Regional Development Fund, will be launched in autumn 2023 in Lidzbark Warmiński. The Heat Plant of the Future will power Veolia's district heating network for heating part of the buildings of the Astronomer Estate. **This highly innovative, pioneering project for the deep decarbonisation of the district heating sector, allows more than 90% of the heat to be obtained from RES.**

Doctor Kamil Kwiatkowski perceives his participation in the Innovator of Mazovia competition very positively. He submitted an application "out of sheer curiosity". **The research presented in his PhD dissertation that was assessed in the competition led to practical solutions.** A system for low-emission combustion of gas from biomass gasification based on this project has been constructed. Although the solutions themselves were implemented before the competition, winning **the competition confirmed that his research activities 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 the contacts established as the result of the competition. Doctor Kwiatkowski also emphasizes the **prestige associated with the award won.** In his opinion, it is important for development of further scientific career.

Winning the Innovator of Mazovia competition did not change doctor Kamil Kwiatkowski's attitude towards innovations. He always thought and acted in an innovative way. Nevertheless, he thinks that such competitions are greatly needed. As he says, **"competitions encourage people to act. It is an opportunity to show what you are working on"**. He also emphasises that in competitions of this type, the idea of forming and expanding contacts between their participants is also very important. He would like to encourage creators of the competition to expand that cooperation, and to create a programme integrating laureates and engaging them in the assessment of candidates in future competitions. As he says, "actions aiming at integrating the circle of laureates should be implemented to a greater extent."

## Małgorzata Wolska-Pietkiewicz, MSc, PhD



fot. Grzegorz Krzyżewski

**Innovator of Mazovia**  
**- 12<sup>th</sup> edition of the competition, 2<sup>nd</sup> place**

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 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 is protected by a patent awarded in 2021.

Apart from her work at the University, doctor Wolska-Pietkiewicz also works at **NANOXO Ltd.**<sup>18</sup>. a company established by professor Janusz Lewiński from the Department of Catalyse and Organometallic Chemistry. **In 2021 the company received the award in Innovator of Mazovia competition in the Innovative Company category, and in 2022 it was recognised in the Polish Product of the Future competition.**

Doctor Wolska-Pietkiewicz appreciates the possibility of working at the university, as it enables her to manage her time flexibly and combine her duties of a researcher, a lecturer, and, at the same time, a mother of two children. Due to her work at NANOXO she feels that her research is conducted not only to gain new knowledge, but also to implement the developed solutions.

The scientist is also **an inspiration for other younger scientists. For doctor Maria Jędrzejewska, who recently defended her PhD dissertation, doctor Wolska-Pietkiewicz is the role model of a scientist with very extensive knowledge and skills in solving problems and finding solutions.** So far, throughout her entire path of scientific development, doctor Jędrzejewska cooperated with doctor Wolska-Pietkiewicz, who was the supervisor of her PhD dissertation. They also work together in the NANOXO company. Both scientists emphasise the important role of the research team in creation of innovations - discoveries that are truly new and breakthrough usually result from cooperation of several people interested in a given subject.

Doctor Wolska-Pietkiewicz participated in the Innovator of Mazovia competition completely by accident. As she herself says: "... I saw information about the

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<sup>18</sup> More information can be found at: <https://nanoxo.eu/>, last accessed on 18.01.2023.

competition at the website of the Warsaw University of Technology, and decided to take a chance". **In her opinion, competitions of this type are extremely important for young scientists – "... they offer an opportunity to see that you do something that is innovative and valuable, and that your work can be commercialised in some way".**

**In the scientist's opinion, the competition stimulates people to search for practical applications of solutions developed during scientific research, encourages young people to change the character of their research from purely fundamental to more focused on applications. Such actions are extremely important from the point of view of promoting innovativeness in the region.**

Apart from the satisfactory financial award, the participation in the competition also offered other benefits to doctor Wolska-Pietkiewicz. She could get acquainted with presentations of other scientists and see **innovations designed in research fields other than her own**. She thinks that scientists frequently have a problem with presenting their research and ideas in a way that is understandable to an average recipient, and such competitions provide an opportunity, or **actually even force the scientist to write using simple, attractive and "marketing" language**. **During the competition, she was inspired by presentations of other participants, and currently uses that knowledge.**

**In the future, she would like to see the "research team" category added to the competition.** In her opinion, such 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 for promoting innovativeness in the region.



## Innovator of Mazovia - Innovative Companies

### Pracownia Gier Szkoleniowych Ltd.<sup>19</sup>



Company's copyright material

Innovator of Mazovia  
- 3<sup>rd</sup> edition of the competition, 2<sup>nd</sup> place



Pracownia Gier Szkoleniowych is a company that was born from a joint passion of friends studying sociology at the University of Warsaw – Joanna Średnicka, Filip Tomaszewski and Jagoda Gandziarowska-Ziołocka.

The implementation that received the award in the competition were games based on simulations, improved and developed to this day, which aim at creating and improving soft skills and competences of employees (so-called *experiential learning*).

The fact that the company founders met at the university, during their studies, was of significant importance in terms of perception of ways and directions for development of business activities. **As Filip Tomaszewski recalls: "...this was a source of our interest in the evidence-based practice, as well as the fact that currently we also cooperate with universities, such as SWPS, the University of Gdansk, or the UW Faculty of Management".** Supplying the best possible product in terms of its business characteristics, but which has its foundations in the science and is tested in accordance with methodological standards applying to scientific works, has become a mission of the company.

Currently, the company offers a wide range of services. These include: managerial training sessions, development and strategic processes, team building and training meetings, or education for non-business organisations. The company also offers an option of developing a simulation game tailored to specific needs, which is created according to current, individual requirements of customers.

To this date, the most important turning point in the company development was the period of the pandemic. In the first month of the lockdown, the company lost a significant number of its contracts, and this motivated it to change its previous methods of conducting activities and to create a range of online services. The

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<sup>19</sup> More information can be found at: <https://pracowniagier.com>, accessed 18.01.2023.

company achieved a success, and its activities currently involve both on-site and remote activities.

The company employs people passionate about creating and selling educational simulation games. **Patrycja Zielińska has been working at the company since 2015, and currently holds the position of marketing director.** The story of her joining the team is rather unusual - when she was a student at Collegium Civitas, founders of Pracownia Gier were lecturers there. She was fascinated with the method of training using games and simulation, and so she decided to join the team. Although at that time Patrycja Zielińska already had some experience of working in business, she was positively surprised with the company's organisational culture. **As she says: "... I started this cooperation, because it was something new, interesting, such a form had not existed before".**

However, not only employees are fascinated with products offered by the company. Products and services of Pracownia Gier deliver a real value to its customers - 9/10 of them want to continue their cooperation, and this year the satisfaction score (NPS<sup>20</sup>) reached more than 50 points.

**Winning the Innovator of Mazovia competition was an important moment for the company, quite young at that time. It provided a cash injection of PLN 15.000 and a sense that somebody recognised and appreciated them. They perceive positively their participation in the competition. In the opinion of the company 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. Those worth mentioning include the main prize in the Game Design Competition received in Washington in 2009, and the same award received in the subsequent year in Vancouver at the annual conference of the North American Simulation and Gaming Association (NASAGA), and award at the BEX International Business Learning Game Awards in 2016 and an award at MP Power Awards received a year later, as well as many other awards received in competitions all over the world, including in Thailand, Germany, Slovakia, Hungary or Brasil.

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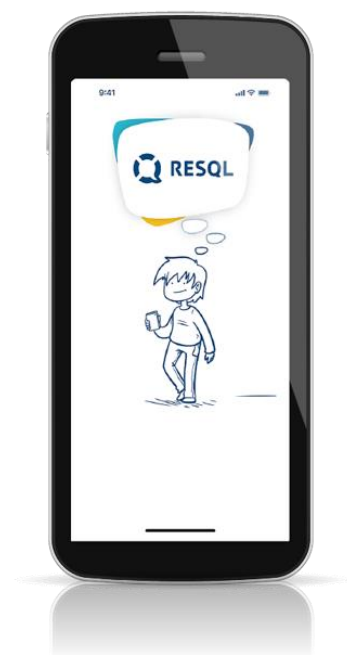
<sup>20</sup> Net Promoter Score.



Innovator of Mazovia  
- 13<sup>th</sup> edition of the competition, 2<sup>nd</sup> place



**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 pilot operation of the system, conducted by the team.



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. **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 reduces violence by creating a better school climate while at the same time implementing prevention and intervention tools for teachers.**

The RESQL system enables anonymous reporting of a case of violence or other incident. Additionally, the application is equipped with so-called "intervention kits", i.e., materials designed to facilitate reacting and making decisions or undertaking actions after receiving such a report. The recognition in the form of the Innovator of Mazovia title is not the first award received by this project - it was also recognised during the fair of social innovations, INTARG. Furthermore, in 2022, the company received the award of the Minister of Education and Science 2022 for "Achievements in

<sup>21</sup> More information can be found at: <https://resql.pl/>, accessed 18.01.2023.

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. **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 solution is appreciated both by people managing educational institutions and by teachers. According to Izabela Pielat-Świerczyńska – the Headmistress of the Lis-Kula Comprehensive Secondary School in Warsaw, it is a system that enables educational institutions to implement basic security principles and preventive actions. As the Headmistress emphasises, **“the added value of the RESQL system is definitely strengthening the awareness of potential aggressors that each young person at school has a tool enabling them to ask for help. RESQL is a safe and emotionally comfortable form for seeking help in cases of a threat to life and health.”**

This system proved to be particularly useful when Ukrainian children started to attend that secondary school after 24 February 2022, who had numerous problems with adapting to conditions of the Polish education system. As Ms Izabela Pielat-Świerczyńska notes, Ukrainian students notice and strongly appreciate novel solutions implemented in Polish schools, including the application supplied by RESQL. The Headmistress is also of the opinion that the RESQL holistically contributes to developing in young people new methods of thinking about all forms of exclusion. **“Such solutions help young people to approach other people with greater awareness”** – noticed the Headmistress.

The satisfaction with very useful practical solutions created by RESQL also accompanies the company employees. As Monika Wajda (one of the first people employed at RESQL as the Operating Director) says **“for me, the RESQL project means a feeling that I am participating in something that is socially valuable, that supports not only mental well-being of children and adolescents, but maybe also their lives”**. In her statements, Monika emphasises a very good atmosphere at work and commitment of all members of the team.

It should be emphasised that RESQL is an affiliate of the University, which achieved assumed financial and business outcomes in a relatively short time. The current operations and development of the company are financed from own capital on a regular basis. **The RESQL team highly values both the Innovator of Mazovia competition and the financial award won in it. It was used to adapt the application to different languages (English, Ukrainian, Russian, and Czech)** and indirectly

contributed to the company development, including creation of a new product - Signalink<sup>22</sup>.

The creators of this solution are convinced that **the award increased the credibility of the company itself, as well as of the product offered by it.** It also increased its willingness to participate in other competitions and to strengthen the cooperation with scientific partners as well. The award received by RESQL from a **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 resulted in initiating contacts that have been stimulating the company's development to this day.

## KOORDYNACJA Mariusz Strzecha<sup>23</sup>



Innovator of Mazovia – 10<sup>th</sup> edition, 2<sup>nd</sup> place



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. Koordynacja offers products that are technologically modern and provide solutions to many current problems and challenges in medical diagnostics and treatment of chronic diseases. **In 2018, the company took the second place in the Innovator of Mazovia competition for products offered in the rehabilitation, orthopaedic and podiatry sectors.** However, the award in the competition organised by the local government of the Mazowieckie Voivodeship is not the only achievement of Koordynacja. **To this day, it was awarded as many as 30 medals and recognitions for the best equipment at rehabilitation and medical fairs. This way, Koordynacja has become one of the most frequently rewarded Polish companies in this sector in last five years.** The company operates at the international level. It sells its products mainly to EU states (Italy, Germany, France), and cooperates with foreign companies in the process of development of technologies.

<sup>22</sup> More information about the product can be found at: <https://signalink.pl/>, accessed: 31.01.2023.

<sup>23</sup> The analysis of this case was prepared solely on a basis of the data found and provided by the company owner. More information can be found at: <https://koordynacja.com.pl> accessed: 18.01.2023.

**The area of Koordynacja in the field of business is extremely wide. The main areas of the company activities include sales of diagnostic and rehabilitation equipment, services of comprehensive equipment of medical, rehabilitation and podiatry facilities, computer-assisted examinations of postural and feet defects, production of customised (computer designed) orthotic insoles and designing and manufacturing innovative diagnostic and medical devices.**

The company has special achievements in podoscopy and development of a production technology for orthotic insoles. Its technological solutions in this area are innovative at a global level. They are created, among others, in cooperation with Italian companies. One of the indisputable successes of Koordynacja was also launching Scolioscan 3D, a device for non-invasive examination of the spine curvature, into the Polish market. Using the ultrasound technology and a specialist software algorithm, Scolioscan 3D registers the real shape of the spine. This method represents an excellent alternative to a standard X-ray scan. Scolioscan 3D is the first system in the world for assessment of scoliosis using the 3D ultrasound technique, i.e., radiation-free.

In 2019, the company implemented a proprietary project called Wkładki online<sup>24</sup>. This project assumes that every physiotherapy, orthopaedic, podiatry practice with computer diagnostics of feet and posture can make personalised orthotic insoles for their patients in cooperation with the company. As part of the project, the company cooperates with dozens of facilities in Poland, and in less than 4 years has made more than 25.000 pairs of personalised orthopaedic, sports, comfort and prophylactic insoles.

Koordynacja 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. The company conducted examinations for athletes such as Monika Hojnisz, Małgorzata Glinka, Kamil Stoch, Piotr Żyła, Paweł Zagumny, Ryszard Wolny, Sebastian Świdorski, Gabriela Wojtyła, Daniel Wall, Mateusz Radecki, Rod Camphor, Albert Odzimkowski, Włodzimierz Zawadzki, Robert Maćkowiak, Daniel Górak, Sylwia Krzemień, Justyna Mospinek and many other. The medical equipment manufactured by the company is used by many world champions and Olympic medallists. Koordynacja also conducts specialist examinations to orders of 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.

**The company's founder has progressed in his career from an athlete (Polish Wrestling Championship medallist), academic lecturer and scientist with close ties to several universities (including Radom University of Technology, European Socio-**

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<sup>24</sup> More information about the project on website: <http://www.wkladki.online> accessed: 2.02.2023.

Technical University, Radom Higher School) to the owner of a company that is successfully developing Polish medical diagnostics and therapies for chronic diseases.

Koordynacja cooperates with many other companies, e.g. ordering manufacturing of components for its products or audits from them.

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

### Salloytech Ltd.<sup>25</sup>



Innovator of Mazovia - 10th edition, 3rd place



Salloytech supplies technological solutions for the aerospace industry. **The company won the 3<sup>rd</sup> place in the Innovator of Mazovia competition in 2018 for implementing technology for processing of difficult-to-machine materials, such as nickel- and titanium-based superalloys used mainly in rocket engines.** Salloytech supplies technological solutions for the aerospace industry.

**The company won the 3<sup>rd</sup> place in the Innovator Mazowska competition in 2018 for implementing technology for processing of difficult-to-machine materials, such as nickel- and titanium-based superalloys used mainly in rocket engines.**

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. Salloytech has the AS9100D certificate

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<sup>25</sup> More information can be found at: <https://salloytech.com> , accessed 18.01.2023.



for the production of aviation parts and the Ministry of Interior and Administration 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).

Dariusz Oleba is a graduate of Mechanics and Machine Building at the Warsaw University of Technology. He personally developed a method for which the company received an award in the Innovator of Mazovia competition, and successfully sells its products to an extensive group of customers.

**Winning the competition greatly influenced the further development of Salloytech. Thanks to event, Dariusz Oleba met Adam Okniński, PhD, the winner of the first place in the Innowator Mazowsza in the Innovative Scientist category,** who passed the Salloytech leaflet to the Institute of Aviation. This networking resulted in the initiation of cooperation between Salloytech and the Institute of Aviation, which resulted in about 9 joint projects his company produced for the Institute rocket propulsion components and, in particular, rocket fuel injectors with 0.1 mm holes.

Apart from starting the cooperation 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 Dariusz Oleba's opinion, you cannot "buy" promotion of this type, you can only earn it by having an innovative idea and working diligently. Contrary to sponsored articles, in the Innovator of Mazovia competition the implementation is evaluated by independent experts, so the award has real meaning confirming high quality of the invention.

In his opinion, the competition is also an excellent opportunity for networking, exchange of thoughts and ideas between the business circles and the scientists, offers an opportunity to meet partners for future research and further development of innovative implementations.





**Innovator of Mazovia - 14<sup>th</sup> edition, 1<sup>st</sup> place**



BD Polska started as a branch of the international consulting company Business&Decision SA (now Orange Consulting Services). In 2014, as a result of global M&A, the Polish branch proceeded with management buyout, creating a separate Polish company under the name of BD Polska.

Dariusz Wierzba is a company director responsible for product development and investments in Data Science & AI. He combines analytical and managerial competences. He holds PhD from University of Warsaw and is an alumni of the Batory-Chevening Foundation Fellowship (at Oxford University, SBS) and the Fulbright Commission Fellowship (at the University of Illinois at Urbana-Champaign). He is also a co-author of scientific publications in the field of Data Science.

Marcin Żółtkowski is a director of the Data Science, Risk & AI area. He is responsible for system architecture, functional design and implementation. He is an author of predictive models in areas of credit risk, machine learning, computer vision and natural language processing. He holds a master's degree in mathematics from the University of Warsaw and in banking and finance from the Warsaw School of Economics.

Since 2019, with the support of R&D grants from European Funds, BD Polska team has created AI-based solutions. The company's leading product is the Virtual Clinic but the company is also the author of other solutions, including EPOKa<sup>27</sup> - an electronic loan servicing process. The system uses credit data to automate and optimize decision-making process for financial products. The company has also developed the SMart Vision<sup>28</sup> platform. It is an AI based system used for selective extraction of information from visual data. All the above-mentioned services are provided in the form of (SaaS) subscriptions.

<sup>26</sup> More information can be found at: <http://bdpolska.com/>, accessed: 18.01.2023.

<sup>27</sup> More information can be found at: <http://epoka.bdpolska.com>, accessed 8.02.2023.

<sup>28</sup> More information can be found at: <https://bdpolska.com/produkt/platforma-maszynowego-widzenia/http://epoka.bdpolska.com>, accessed: 8.02.2023.

**BD Polska with their app the Virtual Clinic (Wirtualna Klinika)<sup>29</sup>** – an intelligent education platform supporting teaching medical examination and treatment planning, **won first place in the Innovator of Mazovia competition held in 2022, in the Innovative Company category.** As Dariusz Wierzba hinted, the Virtual Clinic has already been implemented at top medical schools in Poland, including the Medical University of Silesia, the Medical University of Warsaw and the Medical University of Poznań. The application has been accepted into the Ministry of Health Register of Innovations and is recommended in the process of educating medical practitioners. The system introduces case-based, problem-solving teaching focused at quick acquisition of practical skills to a number of medical problems. The app has many unique functionalities. The users are not restricted to pre-defined scenarios. They can ask different questions or order any medical examination. One of key features of the solution is that it provides an intuitive wizard which helps experienced users to create or modify simulation cases.

**The Virtual Clinic is created with the use of state-of-the-art AI and Data Science technology. The application was designed to ensure that each interaction with a user leads to algorithm improvements in providing correct contextual answers.**

The solution recognised in the competition currently attracts significant interest from doctors, nurses, paramedics as well as students. As the company co-founder Dariusz Wierzba emphasises, winning the Innowator Mazowska competition is of great importance for the Virtual Clinic, especially in terms of promoting the use of this technological solution in academia. **“The 1<sup>st</sup> place that we won in the competition leads to a greater interest in our product. It gives a certain additional value”** – quoted after Dariusz Wierzba. The company has used the financial award to promote the solution in social media.

It should be noted that currently the company is conducting extensive meetings, aimed at implementation of the Virtual Clinic in the process of medical education. As Dariusz Wierzba indicates, the Virtual Clinic has received numerous positive opinions from medical institutions. According to the authorities of the Medical University of Silesia, **“an innovative approach to communication and the system’s ability to ‘learn’ by analysing activities of its users is a distinguishing component of the Virtual Clinic from other similar solutions. The innovative elements of this application represent a new quality for students and lecturers alike.”** According to authorities of the Medical University of Warsaw, **“simulation of the physical examination conducted using a natural language**

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<sup>29</sup> More information can be found at: <https://wirtualnaklinika.com/>, accessed: 18.01.2023.

represents a unique functionality of the Virtual Clinic. The examination imitates a conversation between a doctor and a patient, teaches correct ways of performing a medical interview and asks questions which are easy to understand for the patient.” The innovativeness of the solution is also noticed by students, who tested the app during the 10<sup>th</sup> edition of the Summer Camp of the International Federation of Medical Students Associations (IFMSA-Poland). In their opinion, this application allowed them to learn a lot and tested their knowledge in practice.

### **Autilius Kinga Wojaczek<sup>30</sup>**



**Innovator of Mazovia - 7<sup>th</sup> edition, 2<sup>nd</sup> place**

**AUTILIUS**

Kinga Wojaczek, in 2013. The company produces computer games for 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.**

**The laureate won the 2<sup>nd</sup> award in the 7<sup>th</sup> edition of the Innovator of Mazovia in 2015 in the Young Innovative Company category.** The award was granted for an **innovative computer programme supporting the therapeutic process for children with autism spectrum disorder. It 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 creating that invention the use of this technology, especially in the area of psychotherapy, was a very innovative activity.

How was the idea for therapeutic games created? The laureate, a graduate of psychology from the University of Warsaw, was interested in issues related to the autism spectrum disorder already during her studies, and belonged to the Students Society for Support of People with Autism. The idea came from her collaboration with Mateusz Kruszyński - a computer scientist who told the laureate about new

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<sup>30</sup> More information can be found at: <https://www.autilius.pl/>, accessed: 18.01.2023.

technology opportunities. Kinga Wojacek came up with the idea of implementing it in games, and this is how their collaborative work on the first prototype began. In a later stage, Kinga Wojacek invited a colleague from her studies - now a PhD in psychology, Mateusz Płatos - to join her.

Doctor Płatos recalls the moment of starting research and development works on this innovation as follows: **"... this idea was very interesting for me, and fit into my career plan - creating various tools and forms of support for people with autism spectrum disorder. I also found the technological aspect, specifically, the use of the motion caption solution, attractive and interesting."**

At the initial stage of creating an innovation, the work involved a close cooperation between the circles of science and business. While she was creating games, Kinga also worked on her PhD at the University of Warsaw. The grant from the National Centre for Research and Development made it possible to conduct research on the use of different types of interfaces for therapeutic work.

Today, Kinga Wojacek further develops her activities concerning autism spectrum disorder. **The innovator, also in cooperation with doctor Płatos, is currently involved in activities in the third sector - they manage Stowarzyszenie Innowacji Społecznych Mary i Max, designated to help people with autism spectrum disorder in establishing friendly relations.**

Kinga sees her participation in the competition in a very positive light. She admits that the financial award was an important motivation for her to participate in it. **She won PLN 15.000 in the competition, which she used to pay for the liabilities resulting from her work on the innovation and managing the company. Additionally, she felt that she was appreciated - for a young scientist, this was a significant gratification for her work on this solution.** After the competition, Kinga Wojacek's 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 was also a laureate of the Mazowsze Women of Success competition in 2019.

Games designed by Kinga are used by psychologists conducting classes and therapies with children with autism spectrum disorder. Dominika Krupa is one of the psychologists using Autilius games in her work. These games are a very important element of work with her patients. They are interesting and engaging, and children treat working with games as a kind of gratification. **The psychologist admits: "Autilius supports my therapeutic work with children with autism spectrum disorder. Thanks to it, children come to the meetings more often, as there is an additional motivation of performing exercises on the computer. Interesting exercises are, at the same time, real therapeutic tools."**

## Start from Mazovia

### Solhotair Ltd.<sup>31</sup>



Start from Mazovia - 2<sup>nd</sup> edition, 2<sup>nd</sup> place



Solhotair is an innovative company from the renewable energy sources sector, which developed and implemented high performance air solar heating collectors. In 2019, the company became a laureate of the 2<sup>nd</sup> edition of the Start from Mazovia competition (2<sup>nd</sup> place). In the same year it won a recognition in the Innovator of Mazovia competition.

The history of the company reaches back to 2016, when Mariusz Jeschke, the chief engineer of the company, constructed the first air solar heating collector. In 2019, the company transformed into a limited liability company. Today, the Solhotair team consists of four people - Małgorzata Stangreciak, Dorota Jeschke, Mariusz Jeschke and Grzegorz Maciaszek. Since October 2022, the company has been selling its products. It manufactures them in cooperation with other companies, and this significantly reduces the costs of production. Currently, it operates mainly in the Polish market, but it also robustly develops its international contacts. It employs six people and cooperates with many companies on a regular basis.

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<sup>31</sup> More information can be found at: <https://www.solhotair.pl/>, last accessed on: 18/01/2023

With the Solhotair 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 heat practically any type of utility rooms. In the technological solution applied by the company, the cold air enters the collector, in which it is heated by, among others, solar energy, and then supplied into a building. The product solves problems associated with high costs of obtaining utility and process heat, high carbon dioxide emissions, and air contamination caused by burning fossil fuels. The use of Solhotair solar collectors means savings on a level of 30 to 40% a year on expenditures on heat energy, which in the case of industrial facilities translates into a noticeable reduction in costs of enterprise operations. The technology proposed by Solhotair can also be used in dryers in the agricultural sector.

**The company cooperates with scientific institutions on a regular basis. Innovativeness and great efficiency of the proposed technological solution are confirmed, among others, by results of scientific tests conducted at Fraunhofer Institute for Solar Energy System ISE and by scientists working at the Bialystok University of Technology under supervision of Professor Mirosław Żukowski.** The tests conducted by these institutions demonstrated an extraordinary **83%** efficiency of the collectors. As the owners of the company emphasise, cooperation with the scientific communities is based on partnership and almost completely trouble-free. It enables the company to search for successive, new technological solutions and to improve the existing ones, and is a perfect example of synergy between business activities and science. Currently, the company is preparing production on a more extensive scale, in cooperation with external entities. Simultaneously, negotiations are conducted to complete the portfolio of orders. The offer is dedicated, first of all, to institutional customers with the necessary environmental awareness, who, at the same time, want to improve their competitiveness through savings on the costs of heating.

The company perceives its participation in Start from Mazovia and Innovator of Mazovia competitions positively, and appreciates the awards won. The financial award was used for the current operations of the company. As Grzegorz Maciaszek, one of the founders, emphasises, the Start from Mazovia competition is **“a perfect opportunity to test yourself, verify your ideas. It is also an opportunity to meet important people. This competition opens different doors. It is one of the most important aspects motivating companies to participate in competitions of this type.”** The creators of Solhotair think that the award improved the company credibility in the market and promoted its solution. Both of these factors significantly facilitated the process of finding investors. As Grzegorz Maciaszek notes **“thanks to the competition, investors came to us of their own initiative”**. The award also encouraged shareholders to participate in successive competitions, in which they were also



successful (Business Insider, Incredibles, or Green Eagle “Rzeczypospolitej”). In 2020, the company was among finalists of the American acceleration programme Acceli City, to which entries were submitted by 50 companies from all over the world.

On the basis of the experience gained by Solhotair in the Start from Mazovia competition, Grzegorz Maciaszek, the company co-founder, strongly encourages other entrepreneurs to participate in such projects. **“Apply to competitions and accelerators. This greatly accelerates the development of a company and is highly motivating. Others see and appreciate this. And when you do not win any award, this frequently provides you with good feedback on what can be changed or improved.”**

### SmartBerries Ltd.<sup>32</sup>



Smart Berries is a company who won the first place in the Start from Mazovia competition in 2019. It was created by three women: two scientists from the Medical University of Warsaw: Katerina Makarova, PhD and Katarzyna Zawada, PhD, together with Olga Stefaniak. The innovation recognised in the competition is a quick and mobile test

for evaluation of the polyphenol content in fruit and fruit juices.

The test kit developed as a part of this solution consists of a paper test, a reagent and a user-friendly mobile application for results interpretation. It should be emphasised that by significantly simplifying the procedure, the applied solution is very useful for the production process and promotion of healthy food. It can be used by any manufacturer of food products, e.g. an orchard owner. In the test technology developed by the company, the user applies juice from the crushed fruit onto a paper strip, adds the reagent, and then the application reads the result out. **The innovativeness of this solution is mainly associated with transforming a relatively complex test used previously and performed in laboratory conditions into a procedure**

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<sup>32</sup> More information can be found at: <https://smartberriestest.com/>, accessed: 18.01.2023.

**that is user-friendly and can be applied 'here and now' using a smartphone application.**

Thus, the solution becomes available to a wider group of users and can be used in nearly all conditions, without the need to know chemistry or perform complex laboratory techniques. The recognised product was patented.

From its very beginning, the company was created and strengthened by a strong cooperation between business and science. Olga Stefaniak is responsible for the business side of the company. She handles administration and coordinates marketing activities, and searches for potential business partners. She joined this project because she was attracted by its interesting concept, and wanted to create something from scratch. However, the concept of the company and technological solutions offered by it was born in the heads of the scientists from the Medical University of Warsaw. Institutions and private companies approached the university, at which they both work, seeking assistance in finding solutions that would simplify food tests.

**“Developing such solutions directly at a scientific institution is not easy, mainly due to financial and bureaucratic restrictions. Hence the idea to transform the scientific knowledge and a specific concept into a business activity”,** says doctor Makarova.

From the moment of participating in the competition, Smart Berries has been developing robustly. 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 development of a system for classification of food products and to promotion of so-called functional food which is to support health improvements when eaten regularly.

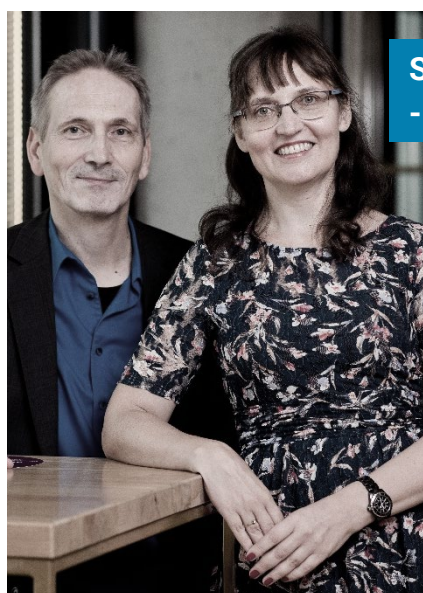
Doctor Makarova views the participation in the competition in the positive light. The financial award enabled the company to develop two prototypes of its products and start a procedure of their testing. As doctor Makarova notes, **“participation in the competition also offered to our company an opportunity to present our technological solutions to a wider audience, talk with other specialists and, in consequence, receive extensive interesting feedback”.**

Smart Berries undertakes active cooperation with Polish food producers. One of the current partners of Smart Berries is Bioone Natural Ltd., the owner of the “atodobre!” brand and a manufacturer of natural and healthy organic food. Although to this date they have only tested and evaluated one product (blue honeysuckle juice), they plan to continue this cooperation. **„An opportunity to cooperate with Smart Berries represents a new quality for Polish food producers”** says Małgorzata Wierzbińska-Rydel, Marketing and Development Director at Bioone. **„We know that we have good products, and when we**



also receive a positive opinion of an independent testing body, for us this means a perfect confirmation of quality and publicity for the product, a possibility to show our customers that our products are more than just empty promises, and that the quality guaranteed by us is scientifically proven!” adds Małgorzata Wierzbńska-Rydel. As the Bioone representative adds, reports prepared by Smart Berries are a ready-to-use product characterised by high quality of applied scientific approach, good communicativeness, and a message friendly for a typical consumer. It is a product ready to give to your customers.

## SeekStorm Ltd.<sup>33</sup>



**Start from Mazovia**  
**- 3<sup>rd</sup> edition, 1<sup>st</sup> place in the Inno-Tech category**

SeekStorm is a start-up founded by a married couple, Małgorzata and Wolf Garbe. In 2021, the company won the 1<sup>st</sup> place in the Start from Mazovia competition for its innovation, Search as a Service, a new technology for searching and indexing documents in real time. The company also took the 2<sup>nd</sup> place in the Warsaw Booster accelerator.



A concept for creating a browser appeared relatively long ago - it reaches back to the 1990s - however, since that time, this solution underwent numerous changes and improvements. Wolf Garbe, a PhD in IT and a graduate of Universities in Dresden and Wrocław, an enthusiast of his profession and a visionary, is the originator 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, for example, a lack of external financing of their works.

The beginnings of their company were not easy - before SeekStorm, the couple had already launched two other start-ups, BINGOOO and FAROO; however, despite certain successes of these projects, only the final service provided by SeekStorm, which received the award in the Start from Mazovia competition, brought them real satisfaction and well-

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<sup>33</sup> More information can be found [at the website](#), last accessed on 18/01/2023

paid commercial orders. The final SeekStorm browser technology is faster and less expensive than other available solutions, and its innovative feature is the fact that it will browse content not on the basis of key words, but using a vector method, i.e., seeks words with a similar meaning.

Małgorzata and Wolf Garbe received the award of PLN 30.000, and it represented the first significant financial resources obtained with this innovation.

This is how Małgorzata Garbe recalls the years of working on the innovative technological solution and a breakthrough moment of the competition: "For many years we supported development of our technology by working somewhere else, without any current resources coming from our browser. However, we deeply believed in the sense of our activities, and winning Start from Mazovia proved that we had been right. To us, this award was a kind of positive verification that our solution makes sense and is liked."

The main motivation was an opportunity to show their solution to the world and obtain reliable and credible feedback. For laureates, an important value resulting from taking the 1st place in the competition is the quality mark **granted to innovations recognised in Start from Mazovia**. According to the founders, the amount of the award in the competition is very satisfactory. **However, the company is not focusing on consuming awards, and also has a similar approach to significant funds currently coming from contracts with customers from Israel and the United States. The funds earned are mainly invested in the further development of the solution.**

For Mr and Mrs Grabe, participation in the competition meant one more thing - an encouragement to return to Poland. Małgorzata and Wolf currently live in Germany, but they registered their company in Mazovia, because they seriously contemplate 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 couple has an important message for other innovators who want to develop their solution: **"... follow your ideas and dreams, develop them and participate in competitions such as Start from Mazovia"**.



Start from Mazovia – 1<sup>st</sup> edition, 2<sup>nd</sup> place



The activities of Solace focus on production of prefabricated houses. A house is then assembled on a customer's plot of land within 3 months. The company offers houses of different sizes, from 35 to even 260 sqm. The common features of all of them include excellent thermal insulation and electricity supplied by a photovoltaic system, so the house can be self-financing in the area of power supply, heating and water heating.

**In the Start from Mazovia competition, the company received the 2<sup>nd</sup> prize in 2018, in the amount of PLN 15.000. The award was granted for the innovation in the form of plus-energy buildings ("no bills") that enable their owners to minimise payments for electricity, due to the technology applied, based, among others, on photovoltaic solutions. The enormous market advantage of these houses results precisely from their economical character.**

However, before a mature product suitable for commercial sales was created, the company conducted extensive research and development activities using EU funding. Solace experts tested various solutions and components of the building. Among others, the company received a grant from the Horizon Europe programme for development of its method for the production of houses.

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 company has been known in the market for years at the level of components, the concept of combining them is an innovation introduced by Solace.** Each aspect of the building is monitored for energy effectiveness, including 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.

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<sup>34</sup> More information can be found at: <http://solace.house/>, accessed: 18.01.2023

For the company, the award received in competition was an incentive to continue work. Apart from an ad hoc cash injection, it also brought long-term advantages in the form of PR activities and networking. **Due to the competition, many people saw this solution and gave positive feedback indicating that they like these houses, and that the applied technological solutions are useful and valuable. The award also improved the company reliability, as for Solace the information about it is a quality certificate for offered services, and the company has been showing to the world the materials from the competition to this date.**

Its participation in the competition also brought another important advantage to Solace. The participation in Start from Mazovia was one of the factors that helped to establish contacts with the Capital City of Warsaw, to implement **a project involving the construction of an example house in the centre of Warsaw. The house stands to this day near the Politechnika metro station, at Rektorska 4, and is officially open to potential customers.** The city provided a plot of land to show to its inhabitants sustainable and energy efficient housing solutions. Solace houses prove that a house can consume zero energy, and that it is worthwhile to break patterns and move towards sustainable solutions.

# Conclusions and recommendations

## Conclusions from the study

1. The laureates perceive the Innovator of Mazovia and Start from Mazovia competitions positively, both in terms of their organisation and the awards that can be won. The laureates appreciate the financial aspect of the award, as well as indicate that it is, in itself, a quality certificate for implementations/projects/services designed by them.
2. Professional activities of laureates of the Innovator of Mazovia and Start from Mazovia competition, both the scientists and the companies, fit well into a very extensive range of social and economic areas and technological specialisations. Innovativeness, high internal motivation, and persistence in pursuing objectives are factors common to all laureates. The leading theme for all winners is the creation of innovations that address current and future problems on the domestic and global scale. The laureates operate in areas such as environmental pollution, epidemics of infectious diseases, diagnostics and treatment of cancers and immunological diseases, reduction of energy resources, violence and harassment in social relations, or new technologies in the aeronautical industry. The competition winners conduct research, obtain financing for these activities from grants or investment funds, and then implement new products and services, getting patents and licences. The vast majority of laureates who are scientists cooperate with business, and laureates who are companies work with scientific community.
3. The subject of activities for which the laureates received awards in the competitions did not change, although in most cases they went through successive stages of research and development. Participation in the competition and winning the award represented a positive reinforcement and motivator for further implementation works. Each laureate continues development and improvement of their innovations at their own pace, adapting them to the current social problems (for example, the pandemic) and the market needs. For them, the competition also confirmed that innovativeness has a purpose, and efforts aiming at implementation of innovative activities are noticed and recognised by public institutions.
4. Furthermore, participation in the competitions was very important in terms of further development paths of the laureates. 71% of the companies which were the laureates indicate that due to their participation in the competition, they initiated

cooperation with another company, and over one-half of the studied entrepreneurs think that participation in the competition brought them new knowledge. The competition was also an opportunity to meet representatives of public administration, and of non-governmental and research organisations. The vast majority of the studied respondents representing companies also note that winning the competition increased recognition and attractiveness of their brands, and half of the studied companies say that their activities are more innovative. Some of the study participants also admit that the base of their customers or the portfolio of their products or services has increased, and that they have been receiving more orders. The scientists also note the influence of winning the competition on their further careers. As many as 94% of them indicate that this win encouraged them to conduct further research and development works. Slightly less than one-half of them says that due to their participation in the competition they gained new knowledge, and about  $\frac{1}{4}$  of the scientists indicate that they met people from business, with whom they initiated cooperation.

5. Participation in the competition contributes to a large extent to initiating cooperation between the business and science, not only directly through contacts established during the competition, but also by promoting information about inventions and implementations, so recognition of the scientists and the companies increases. As the analysed quantitative data shows, 42% of the companies met and undertook a cooperation with a scientist during the competition. In the opposite direction, such situations were less common, as only 22% of the scientists' met representatives of the business with whom they started to cooperate. This area requires further development in future editions of the competitions. The study participants, and the scientists in particular, remarked that a certain "follow-up" is missing after the competition, in the form of connecting the scientists having specific competencies with institutions or organisations that have problems requiring solving). Currently, all companies are satisfied with their cooperation with the scientists, and the scientists are content with their cooperation with the business circles. The results clearly show mutual benefits of such cooperation.
6. Currently,  $\frac{2}{3}$  of the companies that were the laureates cooperate with the scientific community. However, they do not include the scientists met during the competition. In the case of the scientists, 88% of them cooperate with the business, but there was only one case of cooperation that was initiated directly thanks to the Innovator of Mazovia competition and has been maintained to this day.
7. In the opinion of the study participants, many activities may contribute to a more effective initiation of cooperation between the scientific and business circles during the competition. The respondents mentioned: inviting foreign investors to

the competition as observers or the jury members, image campaigns of even more extensive reach than those conducted today, and regular networking meetings for the participants in all editions of the competition. In addition, the idea of creating a LinkedIn profile dedicated to the competitions and the laureates was met with a positive response, especially of the scientists. In fact, practically all innovations presented in the competitions were somehow implemented. In the case of the scientists, the implementations were completed already 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.

8. 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. In the respondents opinion, additional activities that could be undertaken by the organisers of the competitions include: promoting the achievements of the laureates of all editions of the competitions, establishing contacts between representatives of different circles, assistance in finding an investor, networking support that is greater than currently available, winning large companies as partners of the competition and potential clients for test implementations, mentor's assistance following a win in the competition, and an opportunity to obtain more extensive information about partners of the competition, their product range and contacts.

## Recommendations

Item	Conclusion (including the page in the report)	Recommendation associated with the conclusion	Implementation method (succinct presentation of a way of the recommendation implementation)	Entity/person responsible for implementing the recommendation	Recommendation level (strategic or operational)	Implementation priority (low, medium, high)
1.	Continuing activities related to organising the Innovator of Mazovia and Start from Mazovia competitions (p. 64-65)	Maintaining current tasks, activities and methods for organising the Innovator of Mazovia and Start from Mazovia competitions, which significantly contribute to the promotion of attitudes supporting innovations in the region.	Organising competitions and further monitoring of their effects during audits and studies on further careers of the laureates of the competitions.	Office of the Marshal of the Mazowieckie Voivodeship in Warsaw	Strategic and operational	High



Item	Conclusion (including the page in the report)	Recommendation associated with the conclusion	Implementation method (succinct presentation of a way of the recommendation implementation)	Entity/person responsible for implementing the recommendation	Recommendation level (strategic or operational)	Implementation priority (low, medium, high)
2.	A lack of or insufficient representation of foreign investors as observers or jury members in the Innovator of Mazovia competition. (p.65)	It is recommended to ensure participation of foreign investors and representatives of commercial/industrial organisations which are active in the international markets in the jury of the Innovator of Mazovia competition (as jury members or experts/observers in an advisory capacity). <sup>35</sup>	<p>Three ways for ensuring participation of foreign investors are recommended:</p> <ol style="list-style-type: none"> <li>1. Establishing contacts with foreign public administration and through these contacts reaching potential investors, as observers or members of the competition jury.</li> <li>2. Active seeking and establishing contacts with foreign investors by the competition provider.</li> <li>3. Sending an announcement about recruiting partners of the competitions for their organisation, and companies active in the Mazowsze region with experience in the international markets, and inviting their representatives to work in the competition jury and assess applications.</li> </ol>	Office of the Marshal of the Mazowieckie Voivodeship in Warsaw /Competition Manager	Strategic and operational	High

<sup>35</sup> The recommendation consistent with the Strategic Objective No. 6 of the Regional Innovation Strategy for Mazowsze until 2030 - An increase in the international character of the Mazowiecki ecosystem of innovations.

Item	Conclusion (including the page in the report)	Recommendation associated with the conclusion	Implementation method (succinct presentation of a way of the recommendation implementation)	Entity/person responsible for implementing the recommendation	Recommendation level (strategic or operational)	Implementation priority (low, medium, high)
3.	The reach of information and marketing campaigns focusing on the competitions and careers of the laureates (post-competition activities - Innovator of Mazovia and Start from Mazovia) could be increased (p.65)	Implementation of post-competition information and marketing campaigns aiming at increasing recognition and developing brands of the competitions and their laureates, with even greater reach than the current level (optionally, with an international reach) <sup>36</sup>	<p>Planning and implementation of a campaign informing about the results of the competition and innovative activities of its laureates by the Competition Provider. The campaign should be planned for ca. 3 months following the end of the competition.</p> <p>The materials should be published both using channels of the Competition Manager and official channels of the Office.</p> <p>The Manager should deliver materials for publications.</p> <p>In the case of an international campaign, messages should be posted on dedicated profiles, in English.</p>	Competition Manager/ Office of the Marshal of the Mazowieckie Voivodeship in Warsaw	Strategic and operational	High

<sup>36</sup> The recommendation consistent with the Strategic Objective No. 1 of the Regional Innovation Strategy for Mazowsze until 2030 - An increase in the innovation activities in Mazowsze.

Item	Conclusion (including the page in the report)	Recommendation associated with the conclusion	Implementation method (succinct presentation of a way of the recommendation implementation)	Entity/person responsible for implementing the recommendation	Recommendation level (strategic or operational)	Implementation priority (low, medium, high)
4.	The number of networking meetings for the participants of all editions of the competitions (Innovator of Mazovia and Start from Mazovia) could be increased (p.65)	Increasing the number of networking meetings for all laureates of the previous editions of the competitions (post-competition activities). An option of merging laureates from both competitions (Innovator of Mazovia and Start from Mazovia) to be considered.	Organising a networking meeting (e.g., a dinner, a gala) for all laureates of the previous editions of the competitions.  Additionally, an option of inviting representatives of partners of the competitions, and local and foreign investors, to be considered.	Office of the Marshal of the Mazowieckie Voivodeship in Warsaw /Competition Manager	Strategic and operational	Medium

Item	Conclusion (including the page in the report)	Recommendation associated with the conclusion	Implementation method (succinct presentation of a way of the recommendation implementation)	Entity/person responsible for implementing the recommendation	Recommendation level (strategic or operational)	Implementation priority (low, medium, high)
5.	The Innovator of Mazovia competition does not include the Innovative Research Team category (an implementation conducted by at least two people having at least a degree of doctor). (p.43)	Creating a new competition category "Innovative Research Team" in the Innovator of Mazovia competition.	Adding a new category to the Innovator of Mazovia competition, and including that new category in the competition assumptions and terms and conditions (Innovator of Mazovia).	Office of the Marshal of the Mazowieckie Voivodeship in Warsaw /Competition Manager	Strategic and operational	Medium

Item	Conclusion (including the page in the report)	Recommendation associated with the conclusion	Implementation method (succinct presentation of a way of the recommendation implementation)	Entity/person responsible for implementing the recommendation	Recommendation level (strategic or operational)	Implementation priority (low, medium, high)
6.	A scope of information about the partners of the competitions (Innovator of Mazovia and Start from Mazovia) could be expanded, especially with information about awards offered by them (p.65)	More extensive and comprehensive description of the partners of the competitions (Innovator of Mazovia and Start from Mazovia), taking into account information about awards offered by them.	Informing the participants about awards offered by the partners of the competitions at the following websites: <a href="https://innowacyjni.Mazovia.pl/dzialania/innovator-mazowska.html">https://innowacyjni.Mazovia.pl/dzialania/innovator-mazowska.html</a> <a href="https://innowacyjni.Mazovia.pl/dzialania/startuj-z-mazowska.html">https://innowacyjni.Mazovia.pl/dzialania/startuj-z-mazowska.html</a>	Office of the Marshal of the Mazowieckie Voivodeship in Warsaw /Competition Manager	Operational	Low

Item	Conclusion (including the page in the report)	Recommendation associated with the conclusion	Implementation method (succinct presentation of a way of the recommendation implementation)	Entity/person responsible for implementing the recommendation	Recommendation level (strategic or operational)	Implementation priority (low, medium, high)
7.	The extent of the laureates integration with other stakeholders of the Innovation ecosystem of Mazowsze could be extended (activities more extensive than those of working groups for smart specialisations) (p.65)	Informing the laureates of the competition about activities of the Local Government of the Mazowieckie voivodeship about the extent of the innovation ecosystem created in the region.	Inviting the participants of the competitions to partake in the creation of the BASE mapping IOB project (e.g., at the testing stage) in Mazowsze <sup>37</sup>	Office of the Marshal of the Mazowieckie Voivodeship in Warsaw	Operational	Low

<sup>37</sup> <https://innowacyjni.Mazovia.pl/dzialania/instytucje-otoczenia-biznesu/baza-mapujaca-mazowieckie-iob.html>, accessed: 24.01.2023.

# Appendices

## Appendix No. 1 - quantitative study questionnaire



Rzeczpospolita  
Polska



Unia Europejska  
Europejski Fundusz Społeczny



Badanie ścieżek  
laureatów konkursów

#MAZOWSZE  
**INNOVATOR**  
MAZOWSZA

**STARTUJ**  
Z MAZOWSZA



**We invite you to participate in the study of the development paths of competition winners**

**Start from Mazovia and Innovator z Mazowsza**

### **What is the purpose of this study?**

The aim of the study is to learn about the development paths of the winners of the Start from Mazovia and Innovator of Mazovia competitions.

We will ask you about your education and professional history, career path since participation in the competition, cooperation with the business and scientific community, implementation of the competition solution and recommendation regarding the implementation of competitions in the future. The results of the quantitative study will be described collectively and anonymously in a report, presentation and brochure.

### **Who is the study aimed at?**

To the winners of the competitions (1st-3rd place and honorable mentions):

Innovator of Mazovia and Start from Mazovia.

**How long will the study take?**

Approx. 20 minutes

**Is participation in the study remunerated?**

Yes, people who have completed the survey and meet the recruitment condition (they are winners of the Innovator of Mazovia or Start from Mazovia competitions) will receive a PLN 30 voucher for the Allegro online store. After the examination, you will be contacted by the research team in order to transfer your remuneration.

**Can I withdraw from the study?**

Yes, anytime. Participation is voluntary and there are no consequences for refusal. Also after consent has been given, consent can be withdrawn at any time during the study without giving any reason.

Contact address: badanie.mazowsze@swps.edu.pl

**INFORMATION CLAUSE**

We kindly inform you that the administrator of personal data is the Management Board of the Mazowieckie Voivodeship, contact details: Office of the Marshal of the Mazowieckie Voivodeship in Warsaw, ul. Jagiellońska 26, 03-719 Warsaw, phone: (22) 5979-100, email: [urząd\\_marszalkowski@mazovia.pl](mailto:urząd_marszalkowski@mazovia.pl), ePUAP: /umwm/esp. The administrator has appointed a data protection officer who can be contacted at the following e-mail address: [iod@mazovia.pl](mailto:iod@mazovia.pl).

Your personal data:

1. will be processed in connection with a task carried out in the public interest, resulting from art. 11 sec. 2 point 6 and sec. 5 of the Act of June 5, 1998 on the provincial government (Journal of Laws of 2022, item 547, as amended) and art. 4 sec. 1 and art. 9 point 3 of the Act of December 6, 2006 on the principles of development policy (Journal of Laws of 2021, item 1057, as amended), in order to carry out the study entitled "Research on the development paths of winners of the Start with Mazovia and Innovator Mazowska competitions" for the purposes of the project co-financed by the Regional Operational Program of the Mazowieckie Voivodeship for the years 2014 - 2020 No. RPMA.11.01.00-14-0003/18-00 entitled: "Action Plan Technical Assistance of the Marshal's Office for the years 2019-2023 in the scope of ensuring monitoring, evaluation and updating of the regional strategy for smart specializations under the ROP WM", Priority Axis XI - Technical Assistance co-financed by the European Social Fund.
2. may be made available to entities authorized to receive them under the provisions of law and entities providing administrative and organizational services to the Office.
3. will be stored no longer than it results from the provisions on archiving - available e.g. on the website [www.mazovia.pl](http://www.mazovia.pl), in the "Privacy Policy" tab. Within the limits and on the terms described in the law, you have the right to request:



4. access to your personal data, rectification, deletion, processing restrictions.
5. lodge a complaint with the supervisory body, which is the President of the Office for Personal Data Protection (details on the website <https://uodo.gov.pl>).
6. raise an objection for reasons related to your particular situation.

Submission of personal data is necessary to conduct the examination referred to in point 1. Failure to provide data will make it impossible to conduct the study.

I have read the objectives of the study, the information clause and agree to participate in the study of the career paths of the winners of the Innovator of Mazovia and Start from Mazovia competitions

☐ YES

☐ NO

Q1 Please indicate gender

☐ Woman

☐ Man

☐ Non-binary person

☐ Refuse to answer

Q2 How old are you?

---

Q3 Which competition are you the winner of?

☐ Innovator of Mazovia

☐ Start from Mazovia

Q3a Which category?

- ☐ Innovative scientist
- ☐ Innovative company

END OF BLOCK

---

Start of Block: COMPANY

Q3bF In which category?

- ☐ Innovative Company
- ☐ Inno-Tech
- ☐ Social Impact
- ☐ Start
- ☐ no category

Q4F Place in the competition (you can choose more than 1 answer):

- ☐ 1st place / main prize
- ☐ 2nd place
- ☐ 3rd place
- ☐ Distinction
- ☐ Special award - participation in the acceleration program in the State of Nevada
- ☐ Award from the Competition Partner
- ☐ Other - what? \_\_\_\_\_

Q4aF From which Competition Partner did your company receive the award?

\_\_\_\_\_

Q5F What award(s) has the company received? Please list all prizes received in the competition. Please enter 1 prize in 1 answer box. If you have received 1, 2 or 3 prizes, please leave the remaining answer fields blank.

- ☐ Prize No. 1 \_\_\_\_\_
- ☐ Prize No. 2 \_\_\_\_\_
- ☐ Prize No. 3 \_\_\_\_\_
- ☐ Prize No. 4 \_\_\_\_\_

Q6F Were the prize(s) useful?

	Completely useless	Rather useless	Rather useful	Very useful	Hard to say
Prize No. 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prize No. 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prize No. 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prize No. 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q7F How did you use the prize received in the competition?

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---

Q7aF How did you use the prize from the Partner received in the competition?

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Q8F In which edition of the competition did the company win the award?

---

Q9F After receiving an award in the competition, did your company participate in other competitions?

☐ Yes - please specify in which:

---

☐ NO

Q10F What sector of the economy does your company operate in?

---

Q11F How did winning the competition affect the further **development** of the company?

	Not at all	I don't think so	Rather yes	Definitely yes	Hard to say
She encouraged us to cooperate with the scientific community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We met people from business with whom we established cooperation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We met representatives of public administration with whom we established cooperation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We met representatives of NGOs with whom we established cooperation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We gained new knowledge that helped us develop our business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other - what? - please enter your answer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q12F What **business benefits** did participation in the competition give your company?

	Not at all	I don't think so	Rather yes	Definitely yes	Hard to say
Our customer base has increased	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The attractiveness of our brand has increased	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The recognition of our brand has increased	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our activities are more innovative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We have more orders - the demand has increased	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The portfolio of our services/products has increased	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other - what? - please enter your answer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q12aF What exactly is the increase in innovation in the activities of your company?

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Q13F After participating in the competition, has your company tried to enter new markets? (both answers are possible - a and b)

- ☐ Yes, we have started to export our products/services
- ☐ Yes, we have increased exports
- ☐ NO

Q13aF What new markets has your company tried to enter?

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Q13bF In which markets has the company increased its exports?

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Q13cF Were these activities successful?

- ☐ Yes
- ☐ NO
- ☐ Hard to say

Q14F What have been the most important turning points (milestones) in the company's development so far? Please indicate the three most important:

- ☐ Getting to know the partners / founders
- ☐ Getting to know colleagues
- ☐ Participation in the competition Innovator of Mazovia / Start from Mazovia
- ☐ Participation in another competition - which one?
- 
- ☐ Service design / implementation - what kind?
- 
- ☐ Entering foreign markets
- ☐ Other - what? – please enter your answer
- 

Q15F What **successes** has the company achieved in the last two years? Please respond to the following statements:

	Not at all	I don't think so	Rather yes	Definitely yes	Hard to say
Increase in the number of contracts/customers/contractors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Turnover increase	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hiring new employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Entering into a company or close cooperation with another economic entity / scientist, which resulted in a synergy effect	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Creating a new product / service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other - what? - please enter your answer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q16F Does your company currently cooperate with the scientific community?  
(possible choice of more than 1 answer)

- ☐ Yes, with the university and its scientist(s).
- ☐ Yes, with a research institute
- ☐ Yes, with a research center
- ☐ Yes, from a technology/knowledge transfer center
- ☐ Yes, directly with the scientist(s) without the intermediation of the university
- ☐ No, we do not cooperate with universities or scientists

Q16aF What kind of scientists / universities / research institutes / research centers / technology transfer centers does the company cooperate with?

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Q16bF Did this cooperation start as a result of your company's participation in the Innovator of Mazovia/Start from Mazovia competition?

- ☐ Yes
- ☐ NO

Q16cF How do you assess your cooperation with representatives of the scientific community?

	Not at all	I don't think so	Rather yes	Definitely yes	Hard to say
It is generally satisfactory	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It runs without problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The communication between us is good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The timeliness of the scientists' work is satisfactory	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It gives us the opportunity to create solutions that are original and innovative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other - what? - please enter your answer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q16dF What problems does your company experience when cooperating with the scientific community? If there are none, please enter "none".

---

Q16eF How do you assess the cooperation with the university / universities / research institutes / research centers / technology transfer centers in the following dimensions:

Q17F What actions, in your opinion, could contribute to making participation in competitions such as Innovator of Mazovia / Start from Mazovia easier or more effective to establish cooperation between the winners and the business / scientific community? Please choose the 2 most important:

- ☐ PR campaigns of competitions with even wider media coverage
  - ☐ Inviting representatives of science / investors with foreign capital to participate in the competition as observers or jury members
  - ☐ Organization of an annual event for participants and observers of competitions
  - ☐ Regular networking meetings for participants of all editions of the competitions
  - ☐ A dedicated profile on LinkedIn promoting the achievements of the winners
  - ☐ Introduction of pitch training by the organizers (a pitch is a presentation of an idea in a verbal form, a short business plan)
  - ☐ Other - what? - please enter
-

Q68 In your opinion, how can competitions support the promotion of pro-innovation attitudes in the region?

- ☐ by publicizing the successes of winners of previous editions
- ☐ by promoting participants of current editions of competitions
- ☐ by helping to find an investor
- ☐ through the possibility of establishing contacts, getting to know each other representatives of different backgrounds
- ☐ Other - what? \_\_\_\_\_

Q18F Do you have any other suggestions for the future of competitions? Eg recommendations what should be added or changed?

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Q19F What suggestions or advice could you pass on to the participants of future editions of the competition? What should they pay special attention to?

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End of block: COMPANY

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Start of Block: SCIENTIST

Q4N Place in the competition (you can choose more than 1 answer):

- ☐ 1st place
- ☐ 2nd place
- ☐ 3rd place
- ☐ Distinction
- ☐ Award from the Competition Partner
- ☐ Other - what? \_\_\_\_\_

Q4aN From which Partner of the Competition did you receive an award?

\_\_\_\_\_

Q5N What award(s) have you received? Please list all prizes received in the competition. Please enter 1 prize in 1 answer box. If you have received 1, 2 or 3 prizes, please leave the remaining answer fields blank.

- ☐ Prize No. 1 \_\_\_\_\_
- ☐ Prize No. 2 \_\_\_\_\_
- ☐ Prize No. 3 \_\_\_\_\_
- ☐ Prize No. 4 \_\_\_\_\_

Q6aN Were the prize(s) useful?

	Completely useless	Rather useless	Rather useful	Very useful	Hard to say
Prize No. 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prize No. 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prize No. 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prize No. 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q7N How did you use the prize you received in the competition?

---



---

Q7aN How did you use the prize from the Partner received in the competition?

---



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Q8N In which edition of the competition were you a laureate?

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Q9N After receiving the award in the Innovator of Mazovia competition, did you participate in other competitions?

☐ Yes - please specify in which:

---

☐ NO

Q10N What is your professional situation? (you can give more than 1 answer)

☐

I run my own business

☐

I work on commercial projects with business / public administration

☐

I work / cooperate with a research institute / research center /  
technology transfer center

☐

I work / cooperate with the R&D department of a business organization

☐

I conduct strictly scientific activities, exclusively within the framework  
of the university

☐

Other - what? \_\_\_\_\_

Q10aN Was participation in the competition an impulse to start a business?

- ☐ No - I have run a business before
- ☐ Yes, I started my business under the influence of participating in the competition
- ☐ Other - what? \_\_\_\_\_

Q10a1N What type of business have you started?

- ☐ A spin-off company
- ☐ daughter company
- ☐ Sole proprietorship
- ☐ Another - what? \_\_\_\_\_

Q10bN What sector of the economy does your business fall into?

\_\_\_\_\_

Q10cN What sector of the economy does this work/cooperation fall into (with business/administration/research centers and institutes/technology transfer centers/R&D departments of a business organization)?

\_\_\_\_\_

Q10dN What scientific field do you deal with?

Q11N What have been the most important turning points (milestones) in your professional development so far? Please indicate the three most important:



- ☐ Choosing a field of study
- ☐ College graduation
- ☐ Doing a PhD
- ☐ Getting to know the co-worker/s
- ☐ Getting to know business partners
- ☐ Participation in the Innovator of Mazovia competition
- ☐ Participation in another competition - which one? - please enter your answer \_\_\_\_\_
- ☐ Designing the service / implementation
- ☐ Other - what? – please enter your answer \_\_\_\_\_

Q12N How did winning the competition influence your further development activities?

	Not at all	I don't think so	Rather yes	Definitely yes	Hard to say
She encouraged me to further research and development activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I met people from business with whom I started cooperation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I met representatives of public administration with whom I started cooperation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I met representatives of NGOs with whom I started cooperation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I met other scientists with whom I started cooperation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I gained new knowledge that helped me develop my business.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I received a research grant from an institution / company that got to know me thanks to the competition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other - what? - please enter your answer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q13N How did the competition contribute to the increase in innovation of your solutions / implementations / research?

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Q14N Are you currently working with a business?

- ☐ Yes
- ☐ NO

Q14aN Was this cooperation established as a result of your participation in the Innovator of Mazovia competition?

☐ Yes

☐ NO

Q14bN How do you assess cooperation with business?

	Not at all	I don't think so	Rather yes	Definitely yes	Hard to say
It is generally satisfactory	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It runs without problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The communication between us is good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The timeliness of the work on the business side is satisfactory	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It gives me the opportunity to create solutions that are original and innovative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other - what? - please enter your answer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q14cN What difficulties do you see in cooperation with business? If not, please enter "none"

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Q14dN Why do you not cooperate with business?

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Q15N What activities, in your opinion, could contribute to making participation in competitions such as Innovator of Mazovia easier or more effective to establish cooperation between the winners and the business / scientific community? Please choose the 2 most important:

- ☐ PR campaigns of competitions with even wider media coverage
- ☐ Inviting representatives of science / investors with foreign capital to participate in the competition as observers or jury members
- ☐ Organization of an annual event for participants and observers of competitions
- ☐ Regular networking meetings for participants of all editions of the competitions
- ☐ A dedicated profile on LinkedIn promoting the achievements of competition winners
- ☐ Introduction of pitch training by the organizers (a pitch is a verbal presentation of an idea, a short business plan/implementation idea)
- ☐ Other - what? \_\_\_\_\_

Q66 In your opinion, how can competitions support the promotion of pro-innovation attitudes in the region?

- ☐ by publicizing the successes of winners of previous editions
- ☐ by promoting participants of current editions of competitions
- ☐ by helping to find an investor
- ☐ through the possibility of establishing contacts, getting to know each other representatives of different backgrounds
- ☐ Other - what? \_\_\_\_\_

Q17N Do you have any other suggestions for the future of competitions? Eg recommendations what should be added or changed?

---

---

Q18N What suggestions or advice could you pass on to the participants of future editions of the competition? What should they pay special attention to?

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Q67 Thank you very much for your answers.

If you are interested in receiving remuneration for participation in the study (voucher worth PLN 30 to the Allegro online store), please answer the following questions.

The data provided below will be used only for verification when paying out remuneration and will not be analyzed with your previous answers.  
Remuneration will be given to persons who are winners of the "Innovator of Mazovia" or "Start from Mazovia" competitions and have completed the study.

The research team will contact you at the e-mail address provided within 3 working days.

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Q75 Name and company name (if applicable)

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Q73 E-mail address

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## **Appendix No. 2 - the scenario of the quantitative study and the case study**

### **SCENARIO FOR A QUALITATIVE STUDY IDI - SCIENTIST**

#### **Information about the respondent:**

1. Name:
2. Gender of the respondent:
3. Age of the respondent:
4. Type of competition in which the respondent was awarded (including category of competition):
5. Year and or edition of receiving the title of laureate:
6. Exact award, place taken/awarded (I, II, III):

At the beginning of the interview, the moderator introduces himself/herself to the respondent, indicates the purpose and scope of the interview and obtains consent to participate in the study.

+ recording question

### **Block 1: Experience, qualifications and professional achievements of the laureate**

#### **1A: EDUCATION**

1. What is your educational background and academic title?
2. Do you work at a university or other form of research and scientific centre? If so, which one? At which university are you currently working?
3. How many and which degrees have you completed?
4. What motivated you to study your chosen educational pathway (extrinsic, intrinsic motivation)? Are you still in education?  
If respondent indicates more than one element →  
4a. Which of these elements was crucial in the process of achieving your educational goals?

#### **1B: work activities (scientific)**

5. What is your current scientific activity?
6. How long have you been engaged in this type of scientific activity?
7. How did you come to be involved in this particular area (personal interest, economic factor)?
8. What played a significant role in this decision (conscious effort/pressure/coincidence)?
9. Please list the factors that motivate you to pursue your chosen career path in science?  
If respondent lists more than one element →  
9a. Which of these factors would you rate as the most important?

#### **Block 2: Career path of the laureate since taking part in the competition**

1. How did it happen that you took part in the (here the name of the competition)?
2. Has your scientific activity changed since you participated in the competition?  
If yes →  
9a. How has it changed? (change in direction, change in ways of achieving scientific goals, change in ways of communicating scientific results)  
9b. What was the reason for this change (please list the critical moments and turning points that determined this)?

9c. How do you assess this change (change for the better/for the worse, change was not very significant, hard to say)?

3. What benefits did you gain from taking part in the competition?
4. Has participation in the competition influenced your path of further development in the scientific field:  
If yes →.  
4a. In what way?
5. Has your participation in the competition influenced the development of your research career in innovation/innovation creation?
6. What important goals in the development of your scientific career have you achieved by participating in (here the name of the competition)?  
6a: Which of the listed goals was most important to you in the further development of your scientific path?

### **Block 3: Cooperation with business and academia**

1. Has your participation in the competition helped to establish or strengthen existing cooperation between the scientific and business communities?

If yes →

1a. How have you established contacts with the scientific community (other research centre) and or business?

1b. Over what period of time since your participation in the competition has this collaboration been established?

1c. What did this collaboration consist of? What were its important stages? (bidding, interactions)?

1d. Do you notice any effects of this collaboration? If yes, which ones?

1e. Does this cooperation continue? Will it continue?

1f. What factors (own predisposition, education, external factors e.g. support programmes) do you consider important in cooperation with business /science?

1g. Has your cooperation with business or the world of science (other research centre) undertaken after becoming a laureate changed the direction of development/nearest goals to be realised in your area of activity?

1i. How do you assess your cooperation with business (level of satisfaction) in terms of:

- the development of your own business,
- its economic effects,



- the flexibility of cooperation

- its prospectiveness?

1j. In which of these areas did you experience the most difficulties? Which ones?

2. What actions, implemented as part of the competition execution, can contribute to more effective cooperation between the scientific and business communities?

**Block 4: Implementation of solutions presented in the competition - refers to the Innovator of Mazovia (where the programme assumed implementation)**

3. Has your participation in the competition led you to take any specific implementation action?  
If so →  
3a. Please describe briefly the implementation you have carried out, or give and briefly characterise one selected example of implementation if there were more.
4. On what scale your solution has been implemented? Where has it been implemented?
5. In your opinion, would this implementation have been possible without participation in the competition? Why?
6. If participation in the competition has contributed to this implementation, how? (e.g. dissemination, establishing cooperation with a company, establishing cooperation with an R&D centre)  
If the respondent answers no →  
6a. Why do you think participation in the competition has not contributed to the implementation of the solutions proposed in the competition?
7. Did the deployment process change and modify during the implementation?
8. Would you change anything in the implementation process(es)?
9. What difficulties/obstacles did you face during the implementation phase?
10. What impact did/does your cooperation with business/science have on the implementation process and/or its modifications?

## **Block 5: Experiences and follow-up from the competition and recommendations for future competitions**

1. Has your participation in the competition prompted you to further research and development activities? How did it influence your level of innovation in further scientific and/or business activities?
2. Have you also participated in an accelerator programme (Mazovian Startup) or other similar competitions for innovators?
3. Based on your own experience, resulting from your participation in the competition, please recommend which activities, implemented as part of the competition implementation, could contribute to supporting the promotion of pro-innovative attitudes in the region?
4. Have you set up a new business as a result of participating in a competition? When? What kind of profile?
5. What do you think about the idea of competitions? Do they encourage innovators?
6. What factors do you think are associated with participation in a competition that might encourage innovators in the region to participate and develop further?
7. Do you see a need for changes in the way the competition is organised to make it more attractive to future potential participants? If so, which ones?
8. What would you like to communicate to future participants? What advice would you have for them?
9. Would you like to be able to establish contacts/cooperation with other competition winners (previous, later editions)?

## **SCENARIO FOR A QUALITATIVE STUDY IDI - COMPANY**

### **Information about the respondent:**

1. Company name:
2. Type of competition in which the company was a winner (including competition category):

3. Name of interviewee:
4. Year and/or edition of receipt of laureate title:
5. Exact award, place taken/awarded (I, II,III):

At the beginning of the interview, the moderator introduces himself/herself to the respondent, indicates the purpose and scope of the interview and obtains consent to participate in the study.

+ recording question

## **Block 1: Experience, qualifications and professional achievements of the laureate**

### **1A: BUSINESS ACTIVITIES**

1. What does the company's activity consist of? What area of business does it fit into?
  - 1a. What is the scale of the company - local, national, international market?
  - 1b. How big is the company - how many people are employed?
  - 1c. What services/products does the company offer?
  - 1d. What innovative activities does the company currently carry out?
2. How long has the firm existed? How did the company come to be involved in this particular area of business? What played a significant role in this decision (conscious desire/pressure/coincidence)?
3. Please list the factors that motivate the company to pursue its chosen business path?
 

If respondent lists more than one element →

  - 3a. Which of these factors seems to be the most important?
4. Have there been any obstacles in the path of the company's chosen business activity so far?
 

If yes → 4a: Which ones?

  - 4a. Which ones?
  - 4b. How have you dealt with them? Are you still struggling with any obstacles?

If no →

  - 4c. What caused you to fail?

## **Block 2: Development path of the company from the moment of participation in the competition**

1. How did it happen that your company took part in the (here the name of the competition)?
2. Has your business changed since you took part in the competition?  
If yes →
  - 2a. In what way has it changed?
  - 2b. What was the reason for this change (please list critical moments and turning points that determined this) ?
  - 2c. How do you evaluate this change (change for the better/for the worse, change did not make a big difference) ?
3. What long-term benefits (prestige, new customers, new business solutions) has the company gained by participating in the competition?
4. Has participation in the competition influenced the company's path of further development in the business area, in particular:
  - a) increased recognition,
  - b) establishing business cooperation,
  - c) gaining an investor,
  - d) Increased level of confidence in the company,
  - e) change of business model
  - f) Change in competitive position
  - g) Change in the range of products and services offered
  - h) a change in the targeting of your business
  - i) Other - which ones?

If yes

4a. In what way?

5. What important objectives on the path of business development have you achieved by participating in (here the name of the competition)?

5a: Did achieving these goals mean having to overcome difficulties and obstacles and/or experiencing failures? Which ones?

5b: Which of the objectives listed was most important to you in the further development of your career path?

### **Block 3: Cooperation with the business and scientific communities**

1. Has participation in the competition helped to establish/strengthen cooperation between your company and the scientific and business community?

If yes →

1a. How have you established contacts with the scientific/business community?

1b. Over what period of time since participating in the competition has this collaboration been established?

1c. How did this collaboration take place (stages, bidding, interactions)?

1d. Do you see the effects of this collaboration and, if so, what are they?

1e. Is this collaboration still ongoing? Will it continue?

1f. What factors (characteristics of the business, specifics of the innovation, other objectives of your company) do you consider important in cooperation with business /science?

1g. Has your cooperation with business/science changed the development direction/nearest objectives for your business?

1h. What actions do you think implemented as part of the implementation of the competitions can contribute to more effective cooperation between science and business?

1i. How do you assess your cooperation with business/science (level of satisfaction) in terms of:

- the development of your own business,
- its economic effects,
- flexibility of cooperation,
- its prospectiveness?

1j. In which of these areas have you experienced the most difficulties? Which ones?

#### **Block 4: Implementation of the solutions presented in the competition**

1. What implementations evaluated in the competition has your company completed? Please briefly describe them.
2. Is the solution being offered externally in the form of e.g. a patent or licence?
3. Has the implementation influenced the environment in any way, e.g. has it been copied by other companies?
4. How has participation in the competition contributed to the dissemination of the implementation?

#### **Block 5: Block 5 - Recommendations for future competitions**

1. Has participation in the competition encouraged your company's further development activities? How did it influence the level of innovation in further business activities?
2. Has your company also participated in an acceleration programme (Mazovian Startup) or other similar support programmes for innovative companies/start-ups?
3. Has participation in the competition (Innovator of Mazovia or Start from Mazovia) influenced your decision to also participate in other such competitions?
4. Based on your own experience of participating in the competition, please recommend what activities, implemented as part of the implementation of the competitions, can help to support the promotion of pro-innovative attitudes in the region?
5. What do you think about the idea of competitions? Do they encourage innovators and in what way?
6. In your opinion, what factors associated with participation in a competition can encourage innovators in the region to participate and further develop?
7. How do you evaluate the competition prizes? What was the prize in your case? Did you find this prize useful/attractive?
8. Do you have any ideas for changes in the way the competition is organised to make it more attractive to future potential participants? If so, what are they?
9. What would you like to pass on to future participants in the competition? What advice would you have for them?
10. Would you like to be able to establish contacts/cooperation with other competition winners (previous, later editions)?

## SCENARIO - CASE STUDY - SCIENTIST

### Information about the respondent:

1. Name:
2. Gender of the respondent:
3. Age of the respondent:
4. Type of competition in which the respondent was a winner (including category of competition):
5. Year of receiving the title of laureate:
6. Exact award, place taken/awarded (I, II,III):

### The study consists of 3 stages:

1. Qualitative IDI study
2. Research into the laureate's online and social media activities
3. Interview with one/one of the laureate's colleagues/co-workers

At the beginning of the interview, the facilitator introduces himself/herself to the respondent, indicates the purpose and scope of the interview and obtains consent to participate in the study.

### Stage 2 – desk research

The analysis is to include an examination of the laureate scientist's online and social media activity.

The analysis is intended to lead to answers to the following questions:

1. Is the laureate scientist's professional activity linked to any specific website and what information does this website contain? Does this website describe the form and nature of the implementations carried out as a result of participation in the competition?
2. What social media channels are significant for the specific laureate-scientist in terms of promoting his/her own professional activity on social media (Facebook, Instagram, Tiktok, Youtube, LinkedIn, Twitter, Reaserchgate)?
3. What is the laureate-scientist activity on the mentioned websites/portals, what goals does he/she pursue there?
  - Image,
  - Sales,
  - Employer branding,
  - Directing traffic to the website (promotion of own website),

- Educational,
- Research, including promotion of scientific achievements

3b. Which specific activities are related to achieving the above objectives?

4. What is the activity of the laureate scientist on other significant (from a company and promotional perspective) channels (LinkedIn/Twitter)? Which activities are predominant?
  - a. Networking activities (confirming professional competence, seeking collaborators, obtaining recommendations);
  - b. Sales activities, including advertising and product targeting;
  - c. Forms of organic activities undertaken (publishing statuses, sharing content).
5. How often does the winner/awardee become active on the internet/social networks?
6. What is the response to the Laureate's activities on social media (number of followers, number of contacts, likes on posts)?

### **Stage 3: Interview with 1 colleague/co-worker of the laureate.**

At the beginning of the interview, the facilitator introduces himself to the interviewee, indicates the purpose and scope of the interview.

1. How did you begin working with the laureate?
2. In your case, what was the reason for your start of cooperation with the laureate?
3. What is/was your cooperation about? What area of the laureate's business (if more)?
4. For how long have you been cooperating? On what basis? Is the cooperation continuous or rather incidental? Is the cooperation of a business (monetary)/scientific nature?
5. What motivates you to cooperate with the awardee?
6. How do you evaluate this cooperation? To what level is it satisfactory?



If positive evaluation →

6a. Please list some particularly strong aspects of this cooperation. What do you value most in this cooperation?

If negative evaluation →

6b. What obstacles have arisen in the course of your cooperation (motivational difficulties, objective difficulties), and whether and how were they overcome?

7. What do you think about the laureate's professional achievements?

8. Did you cooperate with the awardee as part of the implementation process?

If yes →

8a. How do you evaluate the effect of the implementation process carried out by the awardee?

## **SCENARIO - CASE STUDY - COMPANY**

### **Information about the respondent:**

1. Company/Name:
2. Company interviewer's position (preferably: company owner)
3. Type of competition in which the respondent company was a winner (including category of competition):
4. Year of receiving the title of laureate:
7. Exact award, place taken/awarded (I, II,III):

### **The study consists of 4 stages:**

1. Qualitative IDI study
2. Research into the laureate's online and social media activities
3. Interview with one/one of the laureate's associate/co-workers of the company
4. Interviews with one/one of the company's customers/clients

At the beginning of the interview, the facilitator introduces himself/herself to the respondent, indicates the purpose and scope of the interview and obtains consent to participate in the study.

## **Stage 2 - desk research**

The analysis is to include an examination of the successful company's online and social media activity footprints.

The analysis is to lead to answers to the following questions:

1. Is the company's activity linked to any specific website, and what information does that website contain? Does the page describe the form and nature of implementations carried out as a result of participation in the competition?
2. In the case of a particular company, what social media channel is significant in promoting its own professional activity on social media (Facebook, Instagram, Tiktok, Youtube, Linkedin, Twitter, Reaserchgate)?
3. What is the company's activity on the aforementioned portal/portals, what goals does it achieve there?
  - a) Image,
  - b) Sales,
  - c) Employer branding,
  - d) Related to directing traffic to the site (promotion of one's own site),
  - e) Educational,
  - f) Research, including promotion of scientific achievements
- 3b. What specific activities are related to achieving the above-mentioned goals?
4. What is the company's activity on other significant (from the perspective of company promotion) social channels (LinkedIn/Twitter)? What activities are predominant?
  - a) Networking activities (confirming professional competence, seeking colleagues, obtaining recommendations);
  - b) Sales activities, including advertising and product targeting;
  - c) Forms of organic activities undertaken (publishing statuses, sharing content).
5. How often does the company or its representatives undertake activity on the Internet/social networks?
6. With what kind of response is the laureate's/laureate's activity on social networks (number of observers of the page, number of contacts, likes of posts)?

### **Stage 3: Interview with 1 associate/co-worker of the awardee company.**

At the beginning of the interview, the moderator introduces himself to the interviewee, indicates the purpose and scope of the interview.

1. How did you establish cooperation with the company?
2. In your case, what was the reason for starting cooperation with the company?
3. What is/was the subject of your cooperation? What area of the awarded company's business (if more)?
4. For how long have you been cooperating? On what basis? Is the cooperation continuous or rather incidental? Is the cooperation of a business (monetary) nature?
5. What motivates you to cooperate with the company?
6. Is your cooperation satisfactory to you?

If yes →.

6a. Please list some particularly strong aspects of this cooperation. What do you value most in this cooperation?

If no →

6b. What obstacles have arisen in the course of your cooperation (motivational difficulties, objective difficulties), and whether and how were they overcome?

7. What do you think about the company's business performance?
8. Did you cooperate with the company as part of the implementation process evaluated in the competition?

If yes →.

8a. What are the results of this cooperation? What were you responsible for?

#### **Stage 4: Interview with 1 customer of the laureate**

1. How did you begin working with the company? What guided you in choosing a service/product provider.
2. What does your cooperation relate to? What type of services did/does your company provide?
3. For how long have you been cooperating? On what basis?  
Is the cooperation continuous or is it more incidental?
4. What motivates you to cooperate with the company?
5. How do you evaluate this cooperation? How satisfactory is it?

If positive evaluation →

5a. Please list some particularly strong aspects of this cooperation. What do you value most in this cooperation?

If negative evaluation →

5a. What obstacles have arisen in the course of your cooperation (motivational difficulties, objective difficulties), and whether and how were they overcome?

6. How do you evaluate the results of the services/product quality provided to you by the company?

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