Revolutionize Insurance through Mobile Gaming

Project type	Expertise	Engagement	Project duration	Challenge duration	Prize
Theoretical	Insurance	26 teams	7 months	2 months	5 000€

Noove helped Asseco Central Europe engage with young innovators to find a new way of building an insurance risk model based on in-game player data correlated to behavioral traits. By leveraging crowdsourcing, the client received 5 top-level creative solutions.

Who is the seeker?

Asseco Central Europe is one of the leading providers of technological information and modern IT solutions for both the commercial sector and governments. They operate in Slovakia, the Czech Republic, Hungary, Germany, Austria, Switzerland and Poland.

What is the problem?

Insurers rely on understanding risk factors — attributes that increase the likelihood of adverse events, such as genetics, lifestyle choices, and environmental conditions to accurately assess future claims and set appropriate rates. However, traditional methods overlook key behavioral aspects rooted in personality traits that significantly impact risk.

What's the Challenge?

The innovative solution should leverage mobile gaming to capture and analyze individual behaviors and personality traits, offering a fresh approach to risk assessment. By integrating an advanced algorithm with popular mobile games, insurers could collect data on reaction times, problem-solving skills, stress response, or moral reasoning.

Challenge Design

The challenge, as mentioned eariler was centered around fining whether the insurance industry could benefit integration of mobile gaming. In co-operation with the seeker and after multiple versions, we have established the parameters for the expected outcomes. The participants were tasked with developing a research paper – a solution that utilizes game mechanics to capture behavioral data, which could then be leveraged by insurers for more accurate and personalized risk assessments. The goal was to use gaming as a medium to analyze traits like decision-making, problem-solving, and stress response, offering a fresh approach to traditional risk models.

The challenge expected expertise in data analytics, machine learning, and behavioral science to accurately interpret gaming behaviors and translate them into meaningful risk profiles. Additionally, solvers will need a strong understanding of game mechanics to select appropriate games that capture relevant traits. Expertise in algorithm development, particularly with techniques like neural networks, regression models, and decision trees, is crucial for processing complex behavioral data.

The ideal solver for the challenge was identified as a university student with a strong background in IT and data science. This individual should excel in problem-solving, possesses technical expertise in data analysis and software development, and demonstrates leadership qualities.

Deliverables and requirements

The target was to submit source code as well as documentation wrapped in a PDF document containing detailed research and actionable advice tailored to the challenge seeker's needs.

The solution required selecting traits, identifying game mechanics to infer them, and choosing a suitable game for data collection. Solvers had to include a plan for data analysis and show how insurers can use the data for personalized plans, plus an integration strategy.

Judging criteria

Definition of studied behavioural traits	30 pts
Game selection	20 pts
Quality of proposed algorithm	25 pts
Usability & relevancy of data by insurers	15 pts
Integrability	10 pts
Total	100 pts

Outcomes

Over a two-month period, the challenge and its marketing efforts drew over 2,300 new users to the Noove platform. This led to the creation of 26 teams, each working to submit a solution. The majority of participants matched the "ideal solver profile," primarily consisting of students from European universities and individuals with prior hackathon experience. While the majority of solvers were from the CEE region, some came from US, Canada or Asian countries like India or Malaysia. All of the submitted solutions have largely met the objective of exploring how mobile gaming behaviors can inform insurance risk assessment.

Most of the teams predominantly focused on games from the Real-Time Strategy (RTS) and Strategy genres as the chosen key behavioral traits such as strategic planning and risk management, impulsivity, and social interactions where proven to be most reliable within these game environments. Participants proposed using either advanced machine learning models (Random Forests, Neural Networks, RNNs) or simpler statistical models (Linear Regression, Weighted Geometric Mean), or their combination to capture player behaviors.

Keywords and trends

- Statistical Analysis
- MBTI Personalities
- Real Time Strategy
- Random Forests

Types of games presented

- Real-time Strategy
- Tycoon
- Arcades
- Turn-based strategy

100 %
Solutions scoring meeting 80% criteria

Results and impact

The winning team has managed to outline a model for defining, analyzing and interpreting the game data based on in–game user data. The seeker of the challenge have decided to award a solution that presents a technically feasible and financially viable solution for real–time insurance risk assessment. Thanks to its broad target group and easy implementation this solution offers potentially the biggest market with reasonable accuracy. With proper development, strategic partnerships, and compliance with data regulations, it holds potential for high ROI, especially in vehicle and health insurance sectors.

Asseco Central Europe should be able to leverage the theoretical research in the winning solutions and integrate it into their strategy for building new solutions for their corporate customers. To learn more about the individual outcomes of the solutions, feel free to contact us.

Project Timeline Overview

Client Mandays
5 MD

Problem to delivery
4 months

PD - 2 months

CD - 2 months

CDu - 2 months

JIP - 1 month

Problem definition - Outline of the specific problem that the project aims to solve. This sets the foundation for the entire project; **Challenge design** - Development of the challenge structure including the brief, objectives, and criteria for judging and success; **Challenge duration** - The time frame for participants to work on and submit their solutions to the challenge; **Judging & IP transfer** - Evaluation of the submitted solutions based on predefined criteria, winners selection, and handling the transfer of intellectual property rights;

Client testimonial

Lenka Hritzová
Asseco Stakeholder

I was amazed by the creativity and innovation from the participants of the challenge. The collaboration with Noove was seamless. Now we can see a direct path for mobile gaming utilization in insurance. Our future product and service decisions will be based on data and it's analysis from the challenge. It was amazing to see how Noove could bring ideas from groups of teams scattered around the world.

Solver testimonial

Adam Donoval
Challenge Participant

Taking part in the challenge was an incredible journey. The challenge structure allowed us to brainstorm freely and look at various angles of the problem. It was rewarding to see our ideas evolve from concepts into feasible solutions. I'd be thrilled to participate in more challenges like this – it's an experience I'd recommend to anyone passionate about innovation!"

Start your innovation journey today!

Noove is an open innovation crowdsourcing platform which aims to disrupt market leaders by empowering the young unheard talent. We are creating a world where your background does not condition the size of your impact.

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