



Zeszyty Naukowe Politechniki Częstochowskiej. Zarządzanie Research Reviews of Czestochowa University of Technology. Management

> No. 58 (2025), pp. 65-77, ISSN: 2083-1560, e-ISSN: 3071-9259 DOI: 10.17512/znpcz.2025.2.06, http://znz.pcz.pl

> > Received: 27.04.2025; Revised: 09.05.2025; Accepted: 20.05.2025; Published: 27.06.2025.

AGILE IN PUBLIC SECTOR UNIT IN POLAND BASED ON EXAMPLE OF NATIONAL INFORMATION PROCESSING INSTITUTE (OPI PIB)

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Abstract: Agile management methods have been used since the beginning of the 21st century, with solutions available in accessible and developing organizations; their implementation is generally identified with the organization of private corporations. Currently, Agile and its variants are among the most common approaches to create software and carry out research and development work, bringing many tangible benefits in relation to traditional Waterfall management. In recent years, we have observed an increased degree of implementation of agile methodologies in the public sector, but the pace of implementation should be described as slow; this fact is also reflected in the literature, because there is relatively little research relating to the adoption of Agile methodologies in the public sector. The aim of the article is to determine the possibilities of using Agile project management by public sector entities, as well as to compare Agile management with traditional management. The results obtained from a literature review and case study analysis illustrate the possibilities, threats, barriers and specific recommendations related to the use of Agile management in the public sector. The research entity is the Information Processing Center – the National Research Institute, which is one of the leading national research institutes that carry out research and development work, as well as work related to the creation and development of software.

Keywords: Agile, Scrum framework, Waterfall methodology, project management, public sector, National Information Processing Institute

JEL Classification: M10, M15, H83

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Introduction

Technological progress and digitization are currently characterized by remarkable dynamism. The development of new technologies, especially ICT (information and communication technologies), directly influences the need to implement effective management methods. The dynamics of digitization radically affect management methods across almost all sectors of the economy, introducing new, innovative possibilities while also requiring the adjustment and redesign of traditional approaches to project management and product development. Digital technologies enable rapid data acquisition and analysis almost in real time. Tools such as artificial intelligence (AI) and big data allow quick decisions to be made based on large databases of information, which significantly shortens the time for the organization to implement changes. Modern digitization enables the automation of a wide range of routine tasks, from organizational resource management to customer and stakeholder service. This allows managers to focus their attention on strategic goals while operational costs are reduced. The dynamic development of ICT technologies also impacts remote work models and the management of distributed teams, directly translating into the need to acquire new skills, such as trust-building and adaptation to virtual work environments. Modern digital systems enable precise monitoring of performance indicators and easier access to information for stakeholders, directly contributing to a significant increase in transparency, which has become one of the key elements of management, enhancing trust in organizations. The exceptionally dynamic growth of digitization fosters innovation, which largely determines the agile approach to development.

Agile management methodologies are widely and successfully used in the implementation of IT projects in the private enterprise sector. The public sector seems to recognize the benefits of applying Agile management methods and is increasingly adopting them. Traditional management methods prove ineffective in addressing the contemporary dynamics of digital and economic changes. The implementation of Agile management in the public sector seems to be a necessity. Like private enterprises, the public sector must quickly adapt to new regulations, legal changes, and unexpected crisis situations. Agile management enables public organizations to respond more swiftly, minimizing the time required to implement new solutions. The adoption of Agile management in the public sector directly contributes to an increase in the efficiency and quality of public services. In the digital era, the public sector is forced to introduce modern technologies to keep up with extremely dynamic changes. Agile management promotes the experimentation and testing of new solutions, which favors innovation.

Literature review

The history of Agile project management dates back to the early 1990s, when managers and developers began searching for alternatives to traditional, bureaucratic project management methods such as Waterfall. In the academic community, there is no clear definition of how to categorize Agile. Some management scientists tend

to define Agile as a philosophy. According to Alistair Cockburn (2004), one of the pioneers of Agile, agility refers to being effective and ready for continuous change. The Agile process should exhibit a high level of "lightness", which is key to quickly responding to changes and adapting to them. Boehm and Turner (2003) describe Agile as a method that is an outgrowth of rapid prototyping and rapid development experience, as well as a revival of the philosophy that software development is a craft rather than an industrial endeavor. Larman (2003) believes that agility cannot be clearly defined due to the wide variety of practices used. However, the core element uniting these approaches is the time-bound, relatively short, adaptive, and evolutionary refinement of plans and objectives. Many of Agile's principles are not new to management; iterative development has been used since the 1950s by organizations such as NASA, IBM, and the Federal Systems Division in the United States (Larman & Basili, 2003). A turning point in the development of Agile management methodologies was the publication of the Agile Manifesto in 2001 – the Manifesto for Agile Software Development (Kaczor, 2016). Since then, Agile methodologies have evolved, adapting to various industries and project types, and have also become the foundation for other practices, such as DevOps. The vast majority of the creators of the Agile Manifesto were individuals with significant experience in software development and production. Moreover, they had previously implemented their well--defined methods, such as Extreme Programming (XP) and Crystal (Abbas et al., 2008). The Agile Manifesto defined the key values and principles of the agile approach to project execution. The core values represented by Agile are: individuals and interactions over processes and tools, working software over comprehensive documentation, customer collaboration over contract negotiation, and responding to change over following a fixed plan (Stellman & Greene, 2015). For better understanding, the creators of the Manifesto supplemented their message with 12 principles that supplement and develop the basic assumptions of the method (Łazarz, 2023).

On the opposite side of the pole from Agile is the Waterfall model. The Waterfall approach owes its name to a diagram presenting five distinct and sequential phases. The work related to the implementation of the project, like water flowing down the rocky steps of a waterfall, "moves down" to the next phases of the process. The idea for such an approach to the software development process was taken from the organization of work in factories and construction projects. In this model, we always start the action by collecting the requirements, which is often time-consuming; the collected requirements are allocated to the given phases of project implementation, which are carried out one after the other. Each stage must be completed so that the next one can begin (Prywata, 2010). In the Agile approach, products are developed in relatively short time periods (typically two-week iterations), each resulting in a small but functional part of the product. The correctness of each iteration is verified continuously, enabling almost immediate adjustments to project assumptions and adaptations to changing business conditions. In the traditional approach, products are created within closed, typically relatively long stages, each dedicated to a single action (e.g., analysis, programming). The results of the work are verified for the first time only during the testing phase, focusing on the product as a whole rather than

allowing prior verification of its individual components. In the Agile approach to management, cooperation is continuous, permanent and ongoing. Communication often occurs ad hoc, as needed. Cooperation and communication are usually characterized by a low degree of formalism and "flattening", which allows the appropriate pace of information flow to be maintained, which translates directly into the pace of work performed. The traditional approach to management is characterized by the fact that cooperation is generally limited, highly formalized and often unsystematic. Communication usually occurs at specifically defined stages of project implementation, e.g. when discussing milestones or during the exchange of information within formal project management structures (e.g. a steering committee). Agile management accepts the occurrence of changes, even in the late stages of project implementation, as a natural environment. It is based on a systematic review of the work being done, taking into account both the quality of individual elements of the developed product and the quality of the entire production process, also taking into account the relationships prevailing in the team, the adequacy of the tools and technologies used, as well as the development of the team. The traditional management model focuses on delivering the originally planned result; change is not a natural or preferred state. The cascading nature of the performed work translates into the possibility of revealing changes only at an advanced stage of the work being carried out, often in circumstances in which the introduction of change is burdened with significant expenditures of time and money (Maruta - Kancelaria Radców Prawnych, 2017).

Modern Agile management practices go beyond software development, with which they are primarily identified (Cromley et al., 2022). Nowadays, a significant number of organizations that are not related to software development also benefit from the many advantages achieved by implementing an Agile approach to management. Compared to traditional project methodologies, the Agile approach translates primarily into an increase in the achievement of project goals, a decrease in the time needed to complete the project, better budget management, and increased effectiveness in achieving strategic initiatives (Ossowska-Nowakowska, 2023).

There is a stereotypical belief in the public sector that it tends to develop slowly and uses mainly traditional methods as well as practices of project management and product development. The vast majority of leaders of European countries, including Poland, see a new imperative: the need for a responsive, adaptive, flexible model open to innovative solutions, such as Agile (Eggers et al., 2021). Over the past few years, government agencies around the world have been implementing Agile management methods in their operations, such as procurement, policymaking, workforce deployment, financing, infrastructure construction, and R&D.

The most prominent European examples of project implementation in accordance with Agile methodology include the Harbour Master Management and Information System (HaMIS); the implementation of an IT system for managing the seaport in Rotterdam, the largest seaport in Europe (the Netherlands); the Prehospital Patient Record System: the implementation of an IT system that is a pre-hospital patient journal, as part of a comprehensive health sector computerization project (Denmark);

the Danish Business Authority: the implementation of a system that comprehensively supports the process of entrepreneur registration; the process of company registration as a fully digital process – supported by a dedicated IT system (Denmark); Heathrow Terminal No. 5: the implementation of a construction and infrastructure project in the form of Terminal No. 5 of Heathrow Airport – the project was implemented in 280 consecutive iterations (Great Britain) (Maruta - Kancelaria Radców Prawnych, 2017). In relation to Polish legal regulations, the provisions of the Act of 29 April 2004 – Public Procurement Law (Journal of Laws of 2015, item 2164, as amended), allow the implementation of projects in the public sector in the Agile model. This is possible primarily due to the amendment of Public Procurement Law, which took place on the basis of the Act of 22 June 2016 amending Public Procurement Law and certain other acts (Journal of Laws of 2016, item 1020). The examples described in the literature clearly show that it is possible to implement Agile in the execution of relatively large projects in public administration. Researchers specializing in Agile management often emphasize that the implementation of Agile does not have to be exclusively related to the execution of IT projects.

Among researchers specializing in the implementation of Agile in public sector institutions, there is consensus that the greatest challenge in effectively implementing Agile is the hierarchical organization and bureaucratization of public organizations (Neumann et al., 2024). Despite the presence of many significant barriers to implementing Agile in the public sector, a growing number of governments believe that adopting Agile is essential to build innovative economies that will meet citizens' needs (Australia and New Zealand School of Government, 2025). It may be reasonable to strive for full agility in public sector organizations by gradually adopting Agile and implementing hybrid techniques.

Research methodology

The case study method was used to conduct the research. A case study is a qualitative research approach that allows detailed analysis of a given case in relation to a specific organization. The aim of the case study method is to understand the specificity of the object being studied, its causes and effects. The case study method is characterized by an individual approach, focusing on one case or a small number of cases, which enables in-depth analysis. The research unit is the Information Processing Center – the National Research Institute. It is an entity that is part of the Polish public sector. The public sector is defined as a set of entities and organizations owned by the state or managed or supervised by public authorities, with the aim of providing public services, regulating economic activity and carrying out tasks of social and public importance (Kulesza & Sześciło, 2013). These units can be classified according to specific features and criteria, of which the key ones for specifying the definition for the purposes of the issues discussed in this article are: ownership and management – public sector organizations are owned by the state; local governments or other public entities - they are managed by public authorities and their activities are regulated by public law; the public sector focuses on providing social services, such as education, health care, infrastructure, public safety, judiciary and administration; the goal is not to generate profit, but to meet social needs; it is financed mainly from the state budget, local governments, taxes and public fees. The case study focused on the use of different management methods, with the main focus on the use of Agile management methodologies by the Information Processing Center – the National Research Institute. The analysis covered projects conducted by the organization over the past few years.

Results

The elements that determine the specificity of IT projects in the public sphere are its highly analytical and process complexity as well as compliance with legal regulations. Many IT systems are direct implementations of complex rules and complicated administrative processes. The principles of the Agile Manifesto emphasizing working software over detailed documentation are very often questioned in the case of such a specific category of solutions. Agile methodologies do not completely separate themselves from the documentation-oriented, formalized traditional methodologies, but they have their own individual properties and are more adaptive than predictive (Kos, 2019).

One of the leading institutions implementing projects and developing products for the public sector is the National Information Processing Institute (OPI PIB). The institution carries out its work mainly for the Ministry of Science and Higher Education as well as science agencies, such as the National Science Centre (NCN), the National Agency for Academic Exchange (NAWA), the National Centre for Research and Development (NCBiR), and the Council for Scientific Excellence (RDN). The Centre has existed since 1991, and in 2013 it gained the status of a State Research Institute supervised by the Minister responsible for Science and Higher Education. From the point of view of the status of OPI in the structure of state administration entities, its status is primarily determined by the Act on State Research Institutes (Act of 30 April 2010 on Research Institutes (Journal of Laws 2010, No. 96, item 618, as amended)). In addition, it is subject to a number of other regulations that affect the form of implementation of IT services and projects. Since its inception, the organization has been responsible for collecting data and performing analyses on the state of higher education and science in Poland, as well as digitizing processes in this area. The Information Processing Center – the National Research Institute, as an Agile and learning organization, draws directly from the latest and proven techniques, management methodologies: Agile and Project Management Body of Knowledge (PMBOK). The organization adopts an Agile approach as the basis for project implementation - Agile, which is closely tailored to a given project scope. The methodology, method or framework related to Agile will be used in the implementation of a given project depends primarily on the degree of its complexity and uncertainty of requirements. Key projects and IT products developed in OPI PIB include:

- POL-on System a central IT system that collects, processes and provides data on the Polish science and higher education system. The system supports public administration, scientific institutions and universities by providing information on, among others, research workers, students, research infrastructure and financing. POL-on is a key tool for monitoring and managing the Polish education and science sector, ensuring transparency and access to current data for all interested parties (Michajłowicz, 2021).
- NAVOICA System the Polish educational platform offering open online courses (MOOCs – Massive Open Online Courses). The initiative was created to promote knowledge and raise users' competences in various fields. The courses are created by Polish universities and educational institutions, and the platform allows one to obtain certificates confirming the completion of training (OSF System, 2025).
- NAWA System a public system for registering and processing applications for financing projects and research in the field of science – mainly intended for students, scientists and institutions of the higher education and science system (NAWA System, 2025).
- The Polish Science System (People of Science) the oldest database available free of charge on the Internet since 1999. It contains data on Polish science in terms of institutions, people, scientific works, publications and conferences. Since 2018, it has been part of the POL-on system in the archival dimension. Since 2024, the People of Science 2.0 system is being developed in place of the Polish Science database (Nauka Polska, 2025).

Since 2011, the organization has produced over 20 large nationwide systems for science and higher education, as well as a number of smaller applications for business and industry. All of them were based on the Agile approach in terms of implementation, in particular the Scrum framework. This enabled their effective implementation in terms of time, budget and scope, meeting the expectations of all stakeholders. However, for most, it was necessary to provide a detailed, methodical formula for settlement and the monitoring of progress. In practice, a model of coordination of project work was developed, where the actual implementation of the product takes place in teams that meet the criteria of self-sufficiency and autonomy necessary to carry out work in an incremental model. The overall implementation and measurement of project progress, both in terms of schedule and scope, is managed by a dedicated project management office (PMO). Within the adopted production methodology, the choice of the form of implementation depends on many criteria, such as the formal requirements of the project imposed by the project ordering party or its specific conditions, the key of which is the scale of the project (in the case of smaller projects, the Agile approach is almost exclusively used, where the designated product owner is responsible for all the work, and he is assisted in the reporting process by office staff). The adopted work methodology skillfully balances agility with the formal conditions of project implementation, providing a number of simple procedures describing and simplifying many formal activities, ultimately striving to automate them.

The first project developed by the National Information Processing Institute (OPI PIB), using an Agile approach, was the POL-on project. This is the IT system that collects data on science and higher education throughout Poland. The data is analyzed by the Ministry of Science and Higher Education (MNiSW). Thanks to this, the Ministry can effectively manage the science and education sector, for example, to plan expenses. As early as 2011, the Scrum framework was adopted as the basis for running the project. The project, at the strategic management level, met more traditional assumptions of project implementation and accounting (a top-down, rigid schedule and a scope resulting from the terms of the contract and legal regulations), but at the level of implementation of individual products (system modules) it fully referred to the assumptions of the Scrum framework. This model was then successfully replicated in subsequent IT projects, effectively combining the requirements of formal project organization at the strategic level with a focus on producing IT products based on an Agile approach. This approach proved effective enough that they were completed on time and on budget, and the scope was more aligned with the actual expectations of the stakeholders and end users. Despite the many rigid rules for the systems being created, in particular the implementation of standards resulting from legal acts, the Agile approach proved particularly beneficial in scope management. This approach ensured the avoidance of many problems resulting from difficulties in defining the shape of the IT system solely from the perspective of the regulator - the Ministry of Science and Higher Education. The Agile approach assumed a focus on the working product and learning the needs of all its stakeholders, thanks to iterative production and appropriate techniques encouraging dialogue and learning about internal motivations (user stories), instead of focusing solely on agreeing on specifications and the interpretation of legal standards. This allowed projects to be implemented faster and with greater emphasis on the actual experiences of end users (user experience). The method also proved beneficial from the point of view of the main project stakeholders, who thanks to this approach, were able to verify many of the adopted interpretation assumptions related to the shape of the regulations being created.

Another project developed by the National Information Processing Institute, which is implemented fully using the Agile approach, is the NAWA project. The system was created by the Centre in 2017 (first implementation 2018) and is intended to support processes related to applying for and awarding financial resources under grants and subsidies. The NAWA system supports the entire implementation of recruitment in the program – from the program configuration to the final settlement of the beneficiary from the funds received. Due to the specific nature of the NAWA System, a decision was made to divide the management methods used in relation to the main modules; for the application part, strictly related to software development, the Scrum framework was adopted, while for the part related to the generation of forms, which constitute an input, a source of data for the System, the ScrumBan method was introduced. This method is a synergistic use of the Scrum framework and Kanban approaches (Knapik & Werewka, 2022). ScrumBan was born from the application of the Scrum framework process extended with Kanban

practices. It allows the creation of a more Agile process that we can continuously improve. The combination of these two well-known methods brings many benefits. Iterations related to work on forms for the implementation of the NAWA project constitute a continuous process, characterized by relatively short planning periods and longer production cycles. Tasks carried out by the NAWA team are taken and assigned on an ongoing basis to individual team members. An important element in ensuring the efficiency and quality of the implemented process is setting a strict limit on work in progress. Due to the largely repetitive scope of work related to form production by the NAWA team, planning is only done when necessary, which directly saves time by reducing ineffective meetings and placing emphasis on meetings strictly related to form production work. In the adopted scheme of work on forms, an important factor that distinguishes it from work on the application version of the system is the fact that task estimation is optional, which is due to the fact that tasks are generally characterized by a similar size and level of complexity, which directly translates into the time required for their execution by the team. The team dedicated to developing forms is characterized by interdisciplinarity. The leading meeting for the NAWA forms development team is the daily one, during which key issues related to currently ongoing tasks are discussed. ScrumBan used in the NAWA forms development team places great emphasis on systematic and consistent improvement of the process and the team, which is largely facilitated by a cyclical event called the retrospective.

Through the prism of the implementation of many projects by the National Information Processing Institute in accordance with the Agile approach, a number of benefits and challenges associated with it can be distinguished. The most important benefits of adopting an Agile approach in the implementation of large IT projects by OPI PIB for the science and higher education sector include:

- flexibility in resource allocation for project implementation, which creates space for their optimization. The decisive element in assigning teams to implement specific tasks are stages such as backlog refinement and sprint planning, which verify the actual scope of work to be performed
- iteratively defining and verifying the effects of the manufactured product as well as the expectations and opinions of users
- using prototypes and demo versions to confirm assumptions and interpretations resulting from legal acts in addition to the expectations of public administration employees
- reducing the costs of implementing IT projects through the effective management of resources and project scope, the introduction of a system for monitoring work efficiency
- building a culture of trust through direct communication focused on the product instead of extensive specifications. Striving for simplicity in communication, operating on practical examples.

Table 1 presents the most significant barriers encountered by the National Information Processing Institute when implementing Agile management in projects and product development, as well as ways to reduce or eliminate them.

Barrier	Method of limitation or elimination
Top-down, rigid schedule and	At level of implementation of individual products
scope resulting from terms of the	(system modules), operational part refers fully to
contract and legal provisions	assumptions of Scrum framework
• on a wet and regar provisions	Training of members of production team in Agile
Lack of specialist knowledge	methods of project management and product
	development. Significant part of organization's
related to use of Scrum	members have Professional Scrum Master TM
framework and Kanban	certificates, from Scrum.org organization. Organizing
frameworks among development team members, necessary to	cyclical "guilds" and lectures – OPI Know How
effectively use advantages of the	Days, thematically related to best practices related to
hybrid approach	Agile management. Creating culture of continuous
	development and sharing knowledge, best practices
	in the organization
Lack of information flow throughout the organization due	Introduction of organization-wide Project Portfolio
	Management Policy and Projects in OPI PIB, which
to adoption of Agile or hybrid	transparently deals with the way projects are
model of project management	conducted and products are developed in the Center.
and product development	Promotion of knowledge sharing, best practices
	among members of the organization
Difficulty in selecting appropriate Agile method for given project or product	Introduction in 2025 of Project Portfolio
	Management Policy and Projects and procedures for
	selecting project management methods and product
	development at National Information Processing
	Institute. Each project before its commencement and during its implementation is closely analyzed in
	terms of relevance, effectiveness of the adopted
	work and development model. Adopted Policy and
	management procedures are systematically
	monitored and improved, based on PMBOK update,
	development, and self-improvement of the Institute
	based on acquired practice
	Adaptation of currently used tools (mainly Jira and
Tool constraints relating to	confluence – development with analytical elements,
	allowing work progress to be tracked and its
	effectiveness, application of simple and useful
	dashboards) to requirements of running projects and
efficient use of Agile project	product development in an agile way. Acquisition of
management and product	new tools that streamline the implemented process,
development	e.g. Parabol, Easyretro.io (mainly used in team
	retrospective meeting – Agile retrospective is
	a workshop format used for reflection and
	improvement of cooperation, as well as quality
	of entire production process

Table 1. Most significant barriers related to implementation of Agile management by the National Information Processing Institute and methods of limiting or eliminating them

Source: Authors' own study based on research

The barriers presented above have been largely limited or solved by adopting a systemic solution in the form of implementing the Project Portfolio and Project Management Policy – the National Research Institute. The aim of developing the document was to meet the identified needs and expectations related to improving the quality of project and project portfolio management at the National Information Processing Institute and to systematically and continuously improve the organization in terms of applying best management practices. The document includes the best practices and principles related to effective project management in OPI PIB aimed at increasing the efficiency and quality of work. The adopted solution is flexible in nature as it provides the possibility of using methodologies and frameworks consistent with Agile principles. When creating a document in the form of a management policy, a systemic solution is absolutely insufficient. It is necessary to systematically monitor the employed solutions and to continuously develop them, ensuring a balance between the possibility of using Agile management and rigidly imposed requirements for the implemented projects.

Conclusion

The public sector in Poland is increasingly reaching for Agile and hybrid approaches to project management and product development, which brings many tangible benefits, primarily related to greater flexibility in scope and resource management; meeting customer needs and expectations through iterative value delivery; increasing transparency in the scope of work being performed and trust among stakeholders. In many cases, it turns out to be very difficult to adopt a fully Agile way of running projects. Rigid regulations and deadlines introduced by state bodies do not support agility. It is then reasonable to introduce an agile way of managing at the operational level, or to use hybrid solutions, which also bring many tangible benefits. The element that facilitates the adaptation of Agile management in the National Information Processing Institute is the specific nature of the institution. The focus on practical effects, typical of research and development units, carried out by autonomous research teams based on experiments and the free exchange of ideas within the scientific discourse, meant that the choice of agility as a form of implementing even complex projects commissioned by government institutions was completely natural. The additional advantage is the relatively flat management structure and organization based on small cells and teams. Examples of effective implementations of systems such as POL-on, JSA or NAWA, show that with the right combination of flexibility and formal supervision, it is possible to achieve success in large-scale IT projects. The limitations related to legal regulations, the need for strict specification at the stage of public procurement and complex decision-making processes constitute significant challenges. The National Information Processing Institute, thanks to the adoption of a systemic solution in the form of implementation of the Project Portfolio and Project Management Policy, procedures dedicated to project management and product development, events conducted for the entire organization, such as OPI-Know-How Days, and adaptation of the tool workshop, significantly reduce or even eliminate the barriers related to the use of Agile management. A certain

research limitation related to the chosen topic was the relatively low number of scientific publications referring to the use of Agile in public administration, as well as the relatively low number of projects in relation to the overall number of projects that were fully implemented using Agile in the analyzed research unit. Future research directions planned by the authors will focus on exploring the optimal use of Agile management methods to enhance the efficiency of public administration entities.

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Authors' Contribution: Jakub Tomczak - 50%; Marek Michajłowicz - 50%.

Conflict of Interest: The authors declare o conflict of interest.

Acknowledgements and Financial Disclosure: No funding was received to carry out the study.

AGILE W JEDNOSTCE SEKTORA PUBLICZNEGO W POLSCE NA PRZYKŁADZIE OŚRODKA PRZETWARZANIA INFORMACJI – PAŃSTWOWEGO INSTYTUTU BADAWCZEGO (OPI PIB)

Streszczenie: Zwinne metody zarządzania towarzyszą nam od początku XXI wieku, z sukcesem sprawdzają się w nowoczesnych i rozwijających się organizacjach, na ogół ich implementacja utożsamiana jest z organizacjami prywatnymi, korporacjami. Obecnie Agile i jego odmiany stanowią jedne z najpowszechniejszych podejść do tworzenia oprogramowania, realizacji prac badawczo-rozwojowych, przynosząc wiele wymiernych korzyści w odniesieniu do tradycyjnego zarządzania waterfalowego. W ostatnich latach obserwujemy zwiększony stopień wdrażania metodologii zwinnych w sektorze publicznym, jednak tempo implementacji należy określić jako powolne, fakt ten znajduje odzwierciedlenie również w literaturze, ponieważ relatywnie niewiele jest badań odnoszących się do przyjęcia zwinnych metodyk w sektorze publicznym. Celem artykułu jest określenie możliwości wykorzystania zwinnego zarządzania projektami przez jednostki sektora publicznego. Dokonano porównania zwinnego sposobu zarządzania z tradycyjnym. Wyniki otrzymane dzięki przeglądowi literatury oraz analizie studium przypadku obrazują możliwości, zagrożenia, bariery oraz konkretne rekomendacje związane z wykorzystaniem zwinnego zarządzania w sektorze publicznym. Podmiot badawczy stanowi Ośrodek Przetwarzania Informacji - Państwowy Instytut Badawczy, który jest jednym z wiodących państwowych instytutów badawczych, które realizują prace badawczo-rozwojowe oraz związane z tworzeniem i rozwojem oprogramowania.

Slowa kluczowe: Agile, Scrum Framework, metodyka Waterfall, zarządzanie projektami, sektor publiczny, Ośrodek Przetwarzania Informacji – Państwowy Instytut Badawczy

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