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AGILE TRANSFORMATION BY ORGANISATIONAL DEVELOPMENT PROJECTS

The organisational development of project, programs and project portfolios management systems with drivers of agile transformation is considered. Fast changes in the environment require further research into the effectiveness of the application of existing agile methodologies, knowledge systems and competencies of project managers and their leadership. The foundations of environmental change lie in changing the decision-making paradigm in agile project and programs management. The article explores modern approaches to leadership formation when applying agile methodologies of its specificity from decision-making processes in project management. The problems of leadership creation and development in the application of agile project management methodologies for the implementation of Agile transformation of organisation are considered. The studies were conducted based on a competency-based approach modelled by the International Project Management Association. The content model of competency of the leader applying agile management is presented. The Agile leadership and leadership behaviour patterns are formed in a project management behavioural competency system based on agile technology methods and tools. These competencies included: Self-reflection and self-management, Personal integrity and reliability, Personal communication, Relationships and interaction, Leadership, Teamwork, Conflicts and Crises, Resourcefulness, Negotiation, and Orientation to results. The patterns of project managers' behaviour as agile leaders in project product creation and agile project management are explored. The differences in the behaviour patterns of leaders and agile leaders were examined by behavioural competencies within the identified key competency indicators. Such patterns allowed the authors to identify bottlenecks in the application of agile project management methodologies in the context of the development for Agile transformation of organization.

Keywords: Agile transformation, agile project management methodologies, leadership competences, behaviour pattern, project manager.

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AGILE ТРАСФОРМАЦІЯ НА ОСНОВІ ПРОЄКТІВ ОРГАНІЗАЦІЙНОГО РОЗВИТКУ

Розглянуто проекти, програми і системи управління портфелями проєктів організаційного розвитку, які є драйверами гнучких перетворень. Швидкі зміни середовища вимагають подальших досліджень ефективності застосування існуючих Agile (гнучких) методологій, систем знань і компетенцій керівників проєктів і керівництва організацій. Основи змін навколишнього середовища лежать в зміні парадигми прийняття рішень в гнучкому управлінні проєктами та програмами. У статті досліджено сучасні підходи до формування лідерства при застосуванні Agile методологій його специфіки в процесах прийняття рішень з управління проєктами. Розглянуто проблеми створення та розвитку лідерства в застосуванні Agile методологій управління проєктами для Agile трансформації організацій. Дослідження проводилися на основі компетентнісного підходу, запропонованого Міжнародною асоціацією управління проєктами. Представлена змістовна модель компетентності лідера, який застосовує Agile менеджмент. Моделі поведінки Agile лідерства формуються в системі поведінкової компетентності управління проєктами, яка заснована на методах і інструментах Agile технологій. Ці компетенції включали: саморефлексію і самоврядування, особисту цілісність і надійність, особисте спілкування, відносини і взаємодія, лідерство, командна робота, конфлікти і кризи, винахідливість, узгодження і орієнтацію на результати. Досліджено закономірності поведінки керівників проєктів як Agile лідерів у створенні продуктів і гнучкому управлінні проєктами. Були досліджені різниці у патернах поведінки традиційних лідерів і Agile лідерів по перспективним і поведінковим компетенціям з застосуванням ключових показників компетентності. Такі патерни дозволили авторам визначити вузькі місця в застосуванні гнучких методологій управління проєктами в контексті Agile трансформації організацій.

Keywords: Agile трансформація, гнучкі методології управління проєктами, лідерські компетенції, модель поведінки, менеджер проєктів

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Рассмотрены проекты, программы и системы управления портфелями проектов организационного развития, которые являются драйверами гибких преобразований. Быстрые изменения среды требуют дальнейших исследований эффективности применения существующих Agile (гибких) методологий, систем знаний и компетенций руководителей проектов и руководства организаций. Основы изменений окружающей среды лежат в изменении парадигмы принятия решений в гибком управлении проектами и программами. В статье исследованы современные подходы к формированию лидерства при применении Agile методологий его специфики в процессах принятия решений по управлению проектами. Рассмотрены проблемы создания и развития лидерства в применении Agile методологий управления проектами для Agile трансформации организаций. Исследования проводились на основе компетентностного подхода, предлагаемого Международной ассоциацией управления проектами. Представлена содержательная модель компетентности лидера, который применяет Agile менеджмент. Модели поведения Agile лидерства формируются в системе поведенческой компетентности управления проектами, которая основана на методах и инструментах Agile технологий. Эти компетенции включали: саморефлексию и самоуправление, личную целостность и надежность, личное общение, отношения и взаимодействие, лидерство, командная работа, конфликты и кризисы, изобретательность, согласования и ориентацию на результаты. Исследованы закономерности поведения руководителей проектов как Agile лидеров в создании продуктов и гибком управлении проектами. Были исследованы различия в паттернах поведения традиционных лидеров и Agile лидеров по перспективным и поведенческим компетенциям с применением определенных ключевых показателей компетентности. Такие паттерны позволили авторам определить узкие места в применении гибких методологий управления проектами в контексте Agile трансформации организаций.

Ключевые слова: Agile трансформация, гибкие методологии управления проектами, лидерские компетенции, модель поведения, менеджер проектов.

Introduction. The fast-paced world needs a new kind of leader and leadership. This thesis emphasizes the dynamism and agile orientation of projects and programs for the development of organizations based on the introduction of information and communication technologies. As the world transforms rapidly, a new generation of leaders is needed. That is individuals who can respond quickly to technological innovation, changing social relationships and creating new businesses and technologies for project implementation. The challenges faced by organizations in the development and implementation of information and communication technologies are becoming more complex than ever before. Thus, the application of proven best practice is no longer a way forward. The world has realized that planning everything makes us tough, not Agile. When a project begins to focus on what is valuable to our clients, we need to make use of the best practice. Complexity and uncertainty also require another form of organisational development project management. Responsibility will now be manifested at lower levels within the organization. Decision-makers are increasingly being held accountable to experts, and leadership is being replaced by leadership at all levels of the organization. This means that more and more project teams are choosing a holocratic, one-tier structure and principles of activity [14]. One of the answers to these challenges is the agile transformation with innovation, an important part of how we organize our activities. Increasingly, organizations are adopting a value approach and are learning to distinguish between what is valuable and what doesn't matter is a development that has been going on for the last decade [6]. Many organizations have taken the first, sometimes bold, steps in a cost-effective transition to becoming more adaptable to the environment. Today, there are practically no organizations that do not apply (at least at an intuitive level) Agile project and program management methodologies. Organizations that already have experience with agile methodologies know that more than just sending people to training is needed. They understand that agile methodologies are easy to learn but difficult to put into practice. In this case, we need specialists who lead the overall learning process and inspire employees in their organization to adopt agile thinking with agile transformational organisational development projects.

An analysis of recent research and publications shows that leaders in agile organizations are embracing change, and this has implications for the strategy they use to achieve their goals and vision. With an agile transformational strategy, organizations can take advantage of opportunities and avoid threats. Agile executives and leaders understand that such a strategy is blurry and is an early stage, a tool to make sense of the work being done by the organization [1, 15].

An increasingly complex world and an uncertain future present organizations with enormous challenges. On the one hand, they have to deal with waste as much as possible (the philosophy of thrift), and at the same time, they have to become more mobile. The latter is only possible if people are also universal [2].

Agile management methodology is focused on creating a balanced value, not a planned schedule. The work is performed in the form of short cycles, instead of implementing a waterfall approach, and constant attention is paid to development and quality [12].

While there are framework models that provide some direction for the development, each organization has its interpretation of agile work. Agile working is a philosophy. It is the foundations that support such a philosophy. Instead of adopting agile methodologies in transition organisation, people become Agile and this requires a fundamental change in thinking and leadership. Thus, even plan-oriented projects can also benefit from agility [6].

Agility determines how the structure of the organizations themselves changes greatly. In this case, each form has its frame of reference or development paradigm. Modern organizations no longer share power from top to bottom, but associate it with specific roles in such a way that there is a significant level of correction. An example is a transition to flat organizational structures with holocratic management. It is difficult for leaders who apply different development paradigms to share ideas. Therefore, the agile leader should be able to move freely between these paradigms [10].

Value creation, loss prevention and cost savings not stop at the boundaries of a team or organization. Agile executives know and take into account the context in which they function. Accordingly, compliance with laws and rules is a must for the leader. In addition to complying with laws and regulations, they are also aware of the interests of society [12].

Agile teams promote the culture and values in which participants enter into agreements with each other about how they will interact. They encourage individual members to adhere to this and do not always allow their interests to prevail.

Non-force interaction is the basis of agile leadership. If force is used, it is done with caution. If there is such a thing as power, it exists to serve a variety of stakeholders in the organization's activities. This does not mean that an Agile leader allows himself to apply pressure in all directions; on the contrary, it should provide influential and inspiring leadership [2].

Different influences and interests ultimately lead to equilibrium, and the agile leader unites the team rather than divides it. This can only happen when it demonstrates a genuine and honest interest in various stakeholders. The leader approaches differences with curiosity and thus develops the necessary sensitivity to engage those parties with him in agile thinking.

Culture is the result of the lessons learned by the organization over its lifecycle. This is the way she defends her core values. An organizational culture that is embedded in one (or sometimes several) national cultures (s) protects the organization against threats and ensures stability. Culture itself often changes complexity and, therefore, switches to agile methodologies [13]. Changing a leader is therefore almost always a devastating process. A leader who shapes Agile culture (change) is more important than processes and structures, by its nature

assumes an exemplary role for the promoters of that culture. Various Agile structures also relate to values such as commitment, courage, and focus on values, openness and respect. The basic, often unconscious, underlying assumptions within an organization do not always reinforce each other. Culture is changing gradually. It is not self-evident that everyone is comfortable with these changes. People leave the organization and new members join.

The purpose of the article is to discuss the problems of agile transformation of organisational culture by forming and supporting leadership in the application of agile project management methodologies for organisational development.

Literature Review. The competence approach is based on two concepts:

- competency is an area of activity or function performed by an employee;
- competence is a characteristic of a potential employee's ability to perform successfully within certain competencies [13].

Modern organizations are facing an urgent task: to unlock the competent potential of specialists in full, which is extremely important for making the right management decisions and conducting reliable expertise in the course of project implementation. However, it should be remembered that for every employee who develops his career in the organization, such development is, on the one hand, a motivating factor, on the other – a threat. In doing so, each employee is expected to learn how to manage and develop their competencies through Agile leadership. Successful implementation of innovative projects and programs for the creation of modern information and communication technologies is ensured by the creative application of a competent approach. This approach can be used as a common communication language that brings together the organization and employees, tasks and executives through agile leadership. In this case, the development of the organization and the development of staff occur at the same time. Personality develops when interacting with people. Some recognize themselves concerning others. Reflecting, we study the impact of our behaviour on others. The tension that sometimes arises motivates us to adapt, which is a value of self-management. Thus, this element of competence is the basis by which a person develops individual flexibility [13].

Studying different literature sources, a conclusion can be drawn that as of today, the mechanisms of creation of infrastructure project lack description in terms of global uncertainty environment [1]. Currently, project management under dynamically changing environment is studied as a part of the theory of convergence knowledge [2] and active systems in multi-project management [3], strategic planning [4], proactive development models, [5], sustainability and agility in project management [6] etc. A special place is occupied by the theory of project management based on emotional intelligence [7], organisation competence [8], values, which is understood as utility and benefit. [9]. Thus, the utility of an

infrastructure project as a whole is assessed by the degree of its attractiveness to all stakeholders, although the individual components of the utility of the project result for the environment may have different significance. Consideration of all the sorts of elements in one package that complement each other creates complimentary relationships between these model elements in the process of forming and managing infrastructure projects in this environment.

An agile leader has a growth mindset, a conviction that he or she can grow further because of the competencies he or she develops within the organization. This mentality is the responsibility of the individual, who must act based on his or her motivation and not through external pressure. The focus is on each person's personal development. There is an expectation that everyone will take these leadership behaviours. That is why it is important to provide workable levels of stress, and this work is an important source of happiness [3].

An agile leader will act following his or her internal motives, thus retaining his or her integrity. Empowering team members to do the same (act on internal motives) makes it reliable and inspiring. Nothing is more unpleasant than a leader who imposes agile methodologies but does not operate according to agile principles. The agile leader's professional values are rooted in agile thinking. Therefore, ethical behaviour operates following agile principles. The choice of agile methodologies means that management will accept its employees as they are unconditional. After this choice, managers should demonstrate agile leadership and leadership. This means that team members are given resources to do their jobs. Also, the overall interest of the team must take priority over the individual interests of its members. Only then will the management be credible and reliable.

One of the principles of agile work is the joint creation of project and program products. Therefore, personal communication is the most rational and effective way of sharing information with and within the team. This makes conversation the most important form of communication. The Agile leader does not represent but supports a group and creates a social network where people meet and talk to each other. This is one of the main tasks of an agile leader. It requires everyone to be actively present in the conversation, thereby limiting misunderstandings and making it debatable. Leaders set the example. Since it is not self-evident, it is not taken for granted. In doing so, it communicates to each other in a non-violent way because of certain behaviour. This creates an open space in which each person is involved in the process and can be present [1].

Open attitude to people and events makes information freely disseminated within the organization and leads to a flourishing relationship between team members. It is necessary to ensure self-determination and flexibility. Everyone in the organization must have the right information at the right time to make an empirically sound decision.

Openness is the clarity and transparency of the project and organizational goals to be achieved, the results and evaluations of progress. It is about cooperation and

agreements, as well as the beliefs and fears of individuals who influence relationships. Openness means giving transparency and asking questions while postponing judgment. It creates trust and privacy. Agile leaders are an example to follow. Self-knowledge enables one not to follow one's selfish needs to dominate one another. The ministries and aspects of relationship management must be in balance [5].

Self-management is effective when it is possible to use people's intrinsic motivation. This includes ensuring adequate organizational security of activities, removing obstacles and facilitating work. When people feel autonomy, power and purpose, they can give most of themselves. Developing this capacity is an important success factor for agile leadership.

Agile organisational transformation. Agile transformation of organisation management systems contains the following main steps:

- assessing the possibilities of motivating Agile behavior;
- analysis of experience and study of human creative activity;
- basic methods of organizing a Agile management process;
- development of algorithms and programs that can simulate and stimulate a Agile process;
- practical application and expert evaluation of the quality of the results, their scope;
- identification and development of new areas of Agile activity.

An agile organization is a social network that in turn leads to self-observation. The composition of this network is dynamic, but people make clear agreements about how they work together. Agile leaders give direction to part of the network, but not as a helper, not as a ruler. They build

relationships in which the other creates an understanding of what is happening around him or her to make his or her functioning online more valuable. This increases the social capital of an agile organization [12].

Agile leadres apply cognitive analysis and modelings are used in organizational systems development studies as one of the tools. The purpose of cognitive modeling is to generate and validate a model of the observed situation in the system before obtaining a model of the system capable of explaining its behavior in the observed situation and development. A poorly structured system means any dynamic, that is, a functioning system in time, in the structure and functioning of which the human factor plays an important role. It is the presence of the human factor, for which various manifestations of which it is almost impossible to construct accurate mathematical models, makes it possible to consider the system below as a weakly structured system. Often, dissatisfaction with the level of trust in an organization is recognized by management, but ideas about the causes and possible ways to change the situation in the system are unclear and controversial. If you can formalize these ideas, then you have the opportunity to develop models and methods of decision-making in poorly structured situations of confidence.

On the fig. 1. presented Scaled Agile Framework model version 5.0 [16]. Model defined 5 levels of project, pogram and portfolio management. On each level model presented sigense of steps with basic instruments, involeved stakeholders and services. SAFe allows team for implementing Lean-Agile software and systems in enterprise level. It's based on Lean and Agile principles. It gives detailed guidance for work at the enterprise Portfolio, Value Stream, Program, and Team. It's designed to meet the needs of all stakeholders within an organization.

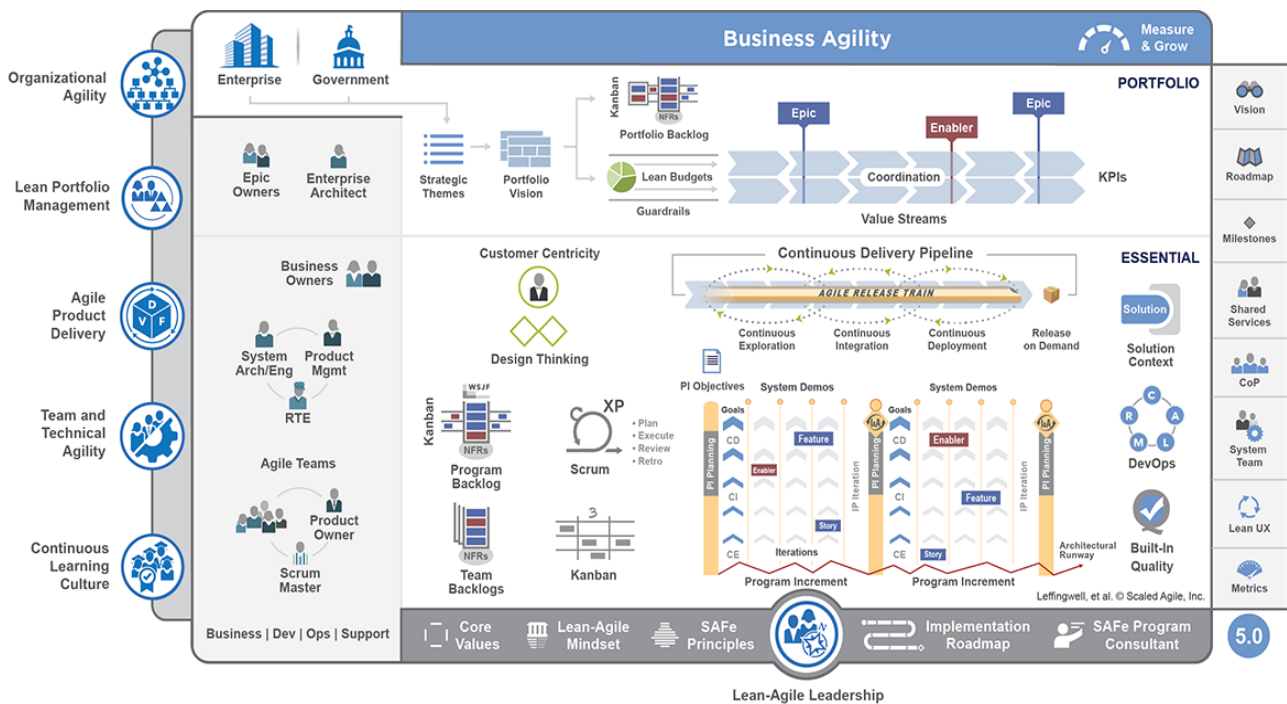


Fig. 1. Scaled Agile Framework (SAFe®)

Management is sometimes said to be a successful experience. But management experience is well accumulated under two conditions:

- the problematic situation has a verbal description, a formalized representation;
- there are many cases of validation of the experience for deducing the laws.

There is a difference between a manager and a leader, a manager has a hierarchical position, a leader has some skills to motivate people and, moreover, to get things moving. In this element of competence, leadership is defined as a characteristic, not a managerial function. Many people can demonstrate leadership, but only some are managers.

Consider the two key principles of Agile transformation in the organization.

First. Ignoring immunity to change.

Transformation in an organization occurs only when people in it change.

But people don't change, even if they want to. Remember your New Year's Promises. Many do not even make plans because they remember how bitter it was to realize that they had not activated their gym subscription or taken up their English in a year. People do not change, even if they are threatened with death. It turned out that when cardiologists warn patients that they will die if they do not change their lifestyle (do not diet, exercise, quit smoking), only one in seven patients changes their life. We are immune to change: we reject the new, the unknown and cling to our usual beliefs. Immunity protects against fears.

Second. Fear of becoming a needless company. Fear of losing authority and status. Fear of losing yourself.

When we try to change the mindset, behavior, culture in an organization, we are faced with this immunity, and therefore any change is difficult, painful and long.

Let's do simple, don't do important

Where will cross-functional teams come from if we have 1-2 independent professionals and an army of apprentices in each area?

Where will self-organization come from, if we still have strict subordination?

Where will teamwork come from if motivation and reward are individual?

Agile is based on equality, autonomy and self-determination. Personal leadership of people in such an environment is critical to choosing direction, motivation, and encouraging people so that they can achieve the desired organizational goals. The leader takes the position of assistant, whose interests are central to the group or organization. The leader does this primarily by setting an example and helping build relationships with, or work with, the people he leads. The degree of self-determination a team receives depends on their skills and abilities. Leadership quality is determined by the level of integration of specific team members to achieve project goals. An agile leader is one who proactively removes obstacles and allows teams to deliver value [8].

Within an Agile organization, we focus on collaboration between individuals, teams, and clients.

Team members are partners, not employees. Self-study groups play a crucial role in an Agile organization. Each team has its own goal, but its priorities are to always benefit the organization and its customers. This is manifested in trust, conflict resolution skills, commitment, accountability and commitment to common goals, and the willingness of individual team members to work flexibly. Without being imposed from above, they share certain goals and constantly make agreements about how they work with one another. This does not prevent the agile leader from challenging the team to continually improve [9]. In this case cognitive maps as a tool for providing agile management processes are very important. A cognitive map, allowing you to reflect subjective perceptions of the investigated situation, is a way of formalizing the perceptions of the investigated trust situation in the system. Instead of spatial relations in it, as a rule, stand out relations of influence, causality, the passage of events.

Investigation and reflection of changes in the situation over time (through the compilation of a sequence of cognitive models allows you to gain experience in analyzing and managing the situation).

Most often, the cognitive map is presented as a weighted graph, in which the vertices are compared by factors, and the edges - weights in a particular school.

$$G = [V, E],$$

where V is the set of vertices (concepts);

the vertices V_i belong to the set V ,

$i = 1, 2, \dots, k$ are elements of the system under study;

E is a set of arcs, arcs reflect the relationship between vertices.

The arcs are weighted by indicators of trust and communication.

The vertices V denote most often a qualitative representation of an element of the system.

Together, the team members have all the experience and skills to achieve the project's goal. Preferably, individual members are interdisciplinary, so teams are more independent, not very large, and therefore more agile and responsive. They challenge each other, share knowledge and teach each other, which makes them more deployable and Agile. For optimal team collaboration, diversity, as well as the different characters of team members, is an important factor.

An Agile leader takes care of a supportive work environment and holds the right types of meetings and workshops. During them, be it stand-up meetings, seminars, large-scale discussions, etc., he assumes a neutral position as a facilitator.

Conflicts arise within the team, but also in collaboration with other groups and stakeholders. Where people work together for a longer time, conflict is a means of strengthening relationships, perceived as inevitable, and seen as an opportunity to learn.

To turn conflict into a constructive channel, the agile leader provides an environment in which conflicts can be used to benefit the team. That is, they agreed in advance how the differences are motivated when they arise. Sometimes Agile principles and how they are used in

everyday practice become a source of conflict. An agile leader encourages people involved to find common ground. As a result, the team develops their conflict resolution skills.

Despite all preventative measures, it is sometimes impossible to avoid a crisis. Every crisis is a situation that requires optimal flexibility. The team looking back on its collaboration from iteration to iteration will also be well prepared for the next crisis. However, this is not enough; The threat of crisis requires a thoughtful critical plan. At the end of the crisis, there will be a need for a retrospective [12].

The ingenuity of agile work is expressed in the delivery of results with limited resources. The phrase "resourcefulness, not resources" is a great expression of this. Initially, people and teams look for the solutions or resources they need without expecting others (such as senior management). Agile leader stimulates creativity. For example, it does this by working in a safe environment where people can experiment, in addition to using known technologies. It is also inferior to people with different views that violate existing patterns to promote group blindness [1].

In particular, self-learning organizations expect individuals and teams to agree on solutions when there are differing views. This requires negotiation skills. The agile leader facilitates this process. Negotiations also aim to maximize the balanced value for all stakeholders. It is important to remind different parties of this over and over again.

In an Agile environment, people have to negotiate on various issues. Initially, the organization has different ideas about what "Agile work" is. Where an agile leader plays a facilitating role, he or she must constantly negotiate how to do it in this particular situation. Collaboration style is better than forcing style. There is no

single approach, but an individual approach must be developed for each new task. This is done through negotiation. The solutions found to define a new agile culture [4].

The result orientation is obvious because the agile organization operates cyclically for a short time (iteration) and must achieve results at a continuous pace. The context in which an organization operates is determined by several ways in which it can manifest itself. Determined planning-oriented projects can benefit from this approach by delivering results at each iteration [10].

The work environment (Gemba) should give people maximum support in creating project products. Also, employees create working conditions from which they constantly adjust the standards to higher levels. This stimulates the agile leader. In this way, a continuous improvement process is created that helps to achieve maximum productivity [9].

Agile leader, aware of the purpose and potential of the organization, contributes to the formation of effective new teams and increase the effectiveness of existing teams. The leader builds a network of business relationships that support their virtual organization. Existing Methods of Project creation

Today, the infrastructure project and program management field includes different approaches for the formation of industry and region development projects, but they tend to fail.

Agile leadership in organisational transformation projects. The studies were conducted within the competence model of ICB4 [13]. Flexible leadership is shaped by many factors and within behavioural competencies [13]. The list of such competencies of heads of organizations, project managers and flexible leaders is given in table. 1.

Table 1 – ICB 4. Perspective 3.6. Assess, benchmark and improve the organisational agility

№	Key Competencies indicators	Traditional	Agile
1	Identifies and assesses the relevant deficient areas of organisational competence in working agile.	5	7
2	Identifies and sets relevant benchmarks for the deficient areas.	4	8
3	Identifies the benchmarking baseline and best practice.	5	7
4	Benchmarks current performance against the best practice.	5	8
5	Identifies measures for the needed improvements.	4	7
6	Implements the identified measures and assesses the benefits gained.	5	6
7	Disseminates the acquired know-how throughout the organisation.	4	7

The studies were conducted based on assessors' assessments and self-assessments of a group of project managers who have been internationally certified under the ICB4 model by key competence indicators (KCI), which form the basis of the competency assessment model. The results of the study are shown in fig. 2.

The study involved 10 professionals who have been certified by the model ICB4 [13]. Individual assessments of flexible leaders 'and leaders' behaviour patterns were obtained.

From the results of the competency assessment, we can see that practically all the elements of competence of flexible leaders except for "Drive the organisational culture to better align with Agile values ". Key indicators

of the competence of the Drive the organisational culture to better align with Agile values of the Agile and

traditional leaders are given in table. 2.

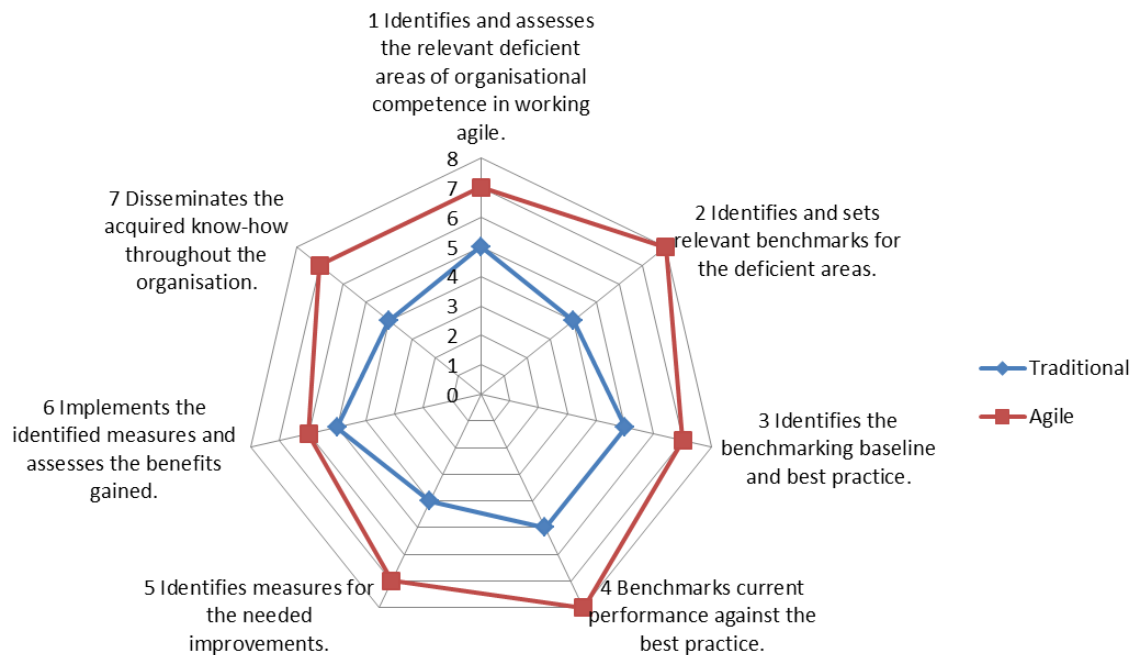


Fig. 2. The competence patterns of a Agile leader and leader in traditional organisation

Table 2 – ICB4. Perspective 5.2 Drive the organisational culture to better align with Agile values

№	Key Competencies indicators	Traditional	Agile
1	Offers agile alternatives to existing practices where appropriate.	6	8
2	Knows and applies the organisation’s corporate values and mission.	5	7
3	Helps direct the organisation to a more agile way of working where appropriate.	4	8
4	Knows and applies the quality policy of an organisation and translates the thinking behind it into agile practices.	5	8
5	Acknowledges the implications of formal norms, demands, corporate values and mission and quality policy for the agile working.	5	6
6	Acts sustainably by practicing corporate social responsibility.	6	7

The conducted analysis of the competence of Agile transformational leader and a Traditional leader in a sample of 20 persons allowed the authors to construct patterns of their behaviour, which are shown in fig. 3.

The analysis of the flexibilities of the Agile transformational Leaders and traditional Leaders behaviours identifies significant gaps incompetence across individual key competency indicators. For example, in the Agile leadership competency element by key competency indicator, Drive the organisational culture to better align with Agile values. There is a significant gap between the Agile Leader and the Traditional Leader (Fig. 3).

Conclusions and prospects for further research.

As a result of the study, the principles of Agile leadership based on the use of agile tools were identified and analysed. The application of these principles to the development of project management systems, programs and project portfolios enables the success of Agile transformation of development organisation projects based on well-formed behaviour patterns of Agile leaders and

heads of organizations. The Agile leadership and Traditional leadership behaviour patterns are formed in a project management behavioural competency system based on agile technology methods and tools. These competencies included: Self-reflection and self-management, Personal integrity and reliability, Personal communication, Relationships and interaction, Leadership, Teamwork, Conflicts and crises, Inventiveness, Reconciliation, and Orientation to results. The results of the studies showed a significant difference in the behaviour patterns of Agile project leaders and traditional organization leaders.

Further research should be conducted in the areas of analysis of all competencies of project managers, including groups of strategic and practical competencies by model [13]. In doing so, it would be necessary to investigate the differences in the patterns of flexible project leaders and heads of organizations for different project teams to create information and communication technologies and training systems within such technologies.

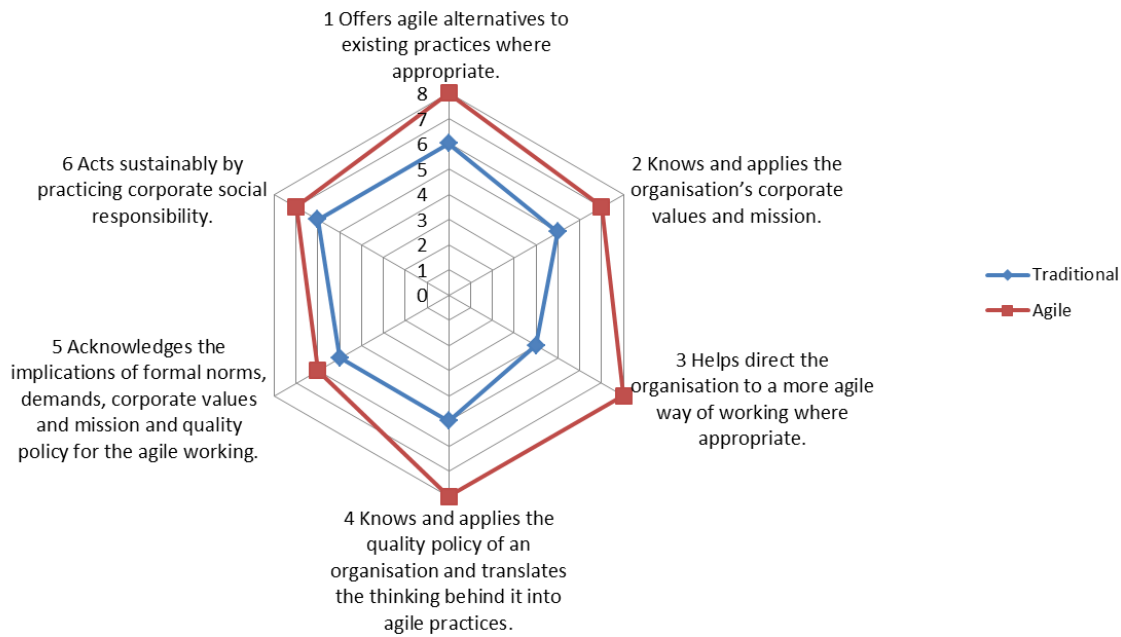


Fig. 3. Behavioural Patterns of Drive the organisational culture to better align with Agile values

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