

Models of HR management in security-oriented systems (on the example of civil defense)

Abstract. *Human resource management is one of the management areas that has undergone significant changes in project-oriented organizations. Project organizations have to plan and develop alternative methods of human resource management, find modern strategies of how to manage employees or how they should be managed. Like all other strategies of organizations, the HR management strategy of civil protection is aimed at helping the organization to increase productivity. Project human resource management in civil protection intends to define the main objectives and determine the leadership of the project team to successfully achieve these objectives and successfully complete the project. The paper presents processes of components and interactions between project team members that will allow team members to stay focused and motivated. To this end, the paper describes the processes of human resource management planning, obtaining a project team, and developing and managing a project team.*

Keywords: personnel management, project human resource management, human resources, HR management.

Project human resource management in civilian protection is the main element of project management related to the organization, management and leadership of the project team. The team includes everyone who has been assigned roles and responsibilities to complete the project. Project human resource management in civilian protection can help every team achieve better results. Project management includes the processes that organize, direct, and manage a project team. The project team consists of people who are assigned roles and responsibilities for the execution of the project. Project team members can have different skill sets, can be assigned full-time or on a daily rotation, and can be added or removed from the team as the project progresses. Project team members can also be referred to as project staff. Although project team members have specific roles and responsibilities, it is

beneficial to involve all team members in project planning and decision-making. The participation of team members during planning adds their expertise to the process and strengthens their commitment to the project. Linking HR management to project management (fig.1), we see that this function plays a strategic role. It turns out that HR management focuses on the people who lead a particular project, managing and organizing them. The potential value created is related to project success and project achievements. This area of knowledge includes the processes required to organize, manage, and lead a project team. Team members' commitment to the project can be strengthened if they are involved and participate in the project planning process. The project management team is a subset of the project team and is responsible for initiating, planning, executing, monitoring, controlling, and closing the project phases.

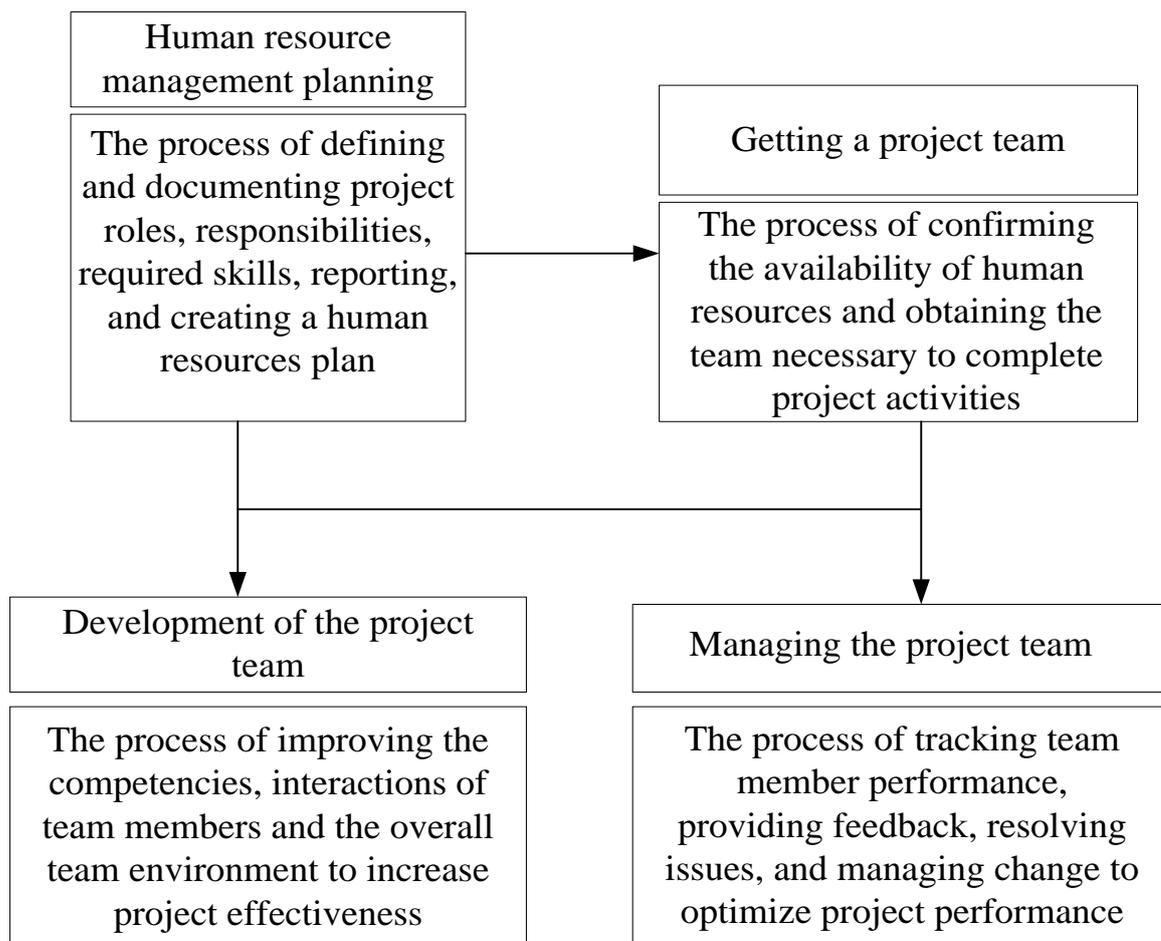


Fig. 1 shows the processes of components and interactions between team members

Human resource management planning. Before starting any project, you need to define the project team. A major part of this initial planning phase involves determining the number of people needed and writing their job descriptions (fig.2). In addition, the project's human resource management plan, part of the overall project management plan, contains human resource issues, such as how performance will be measured, where the project team will work, how conflicts will be resolved, and so on.

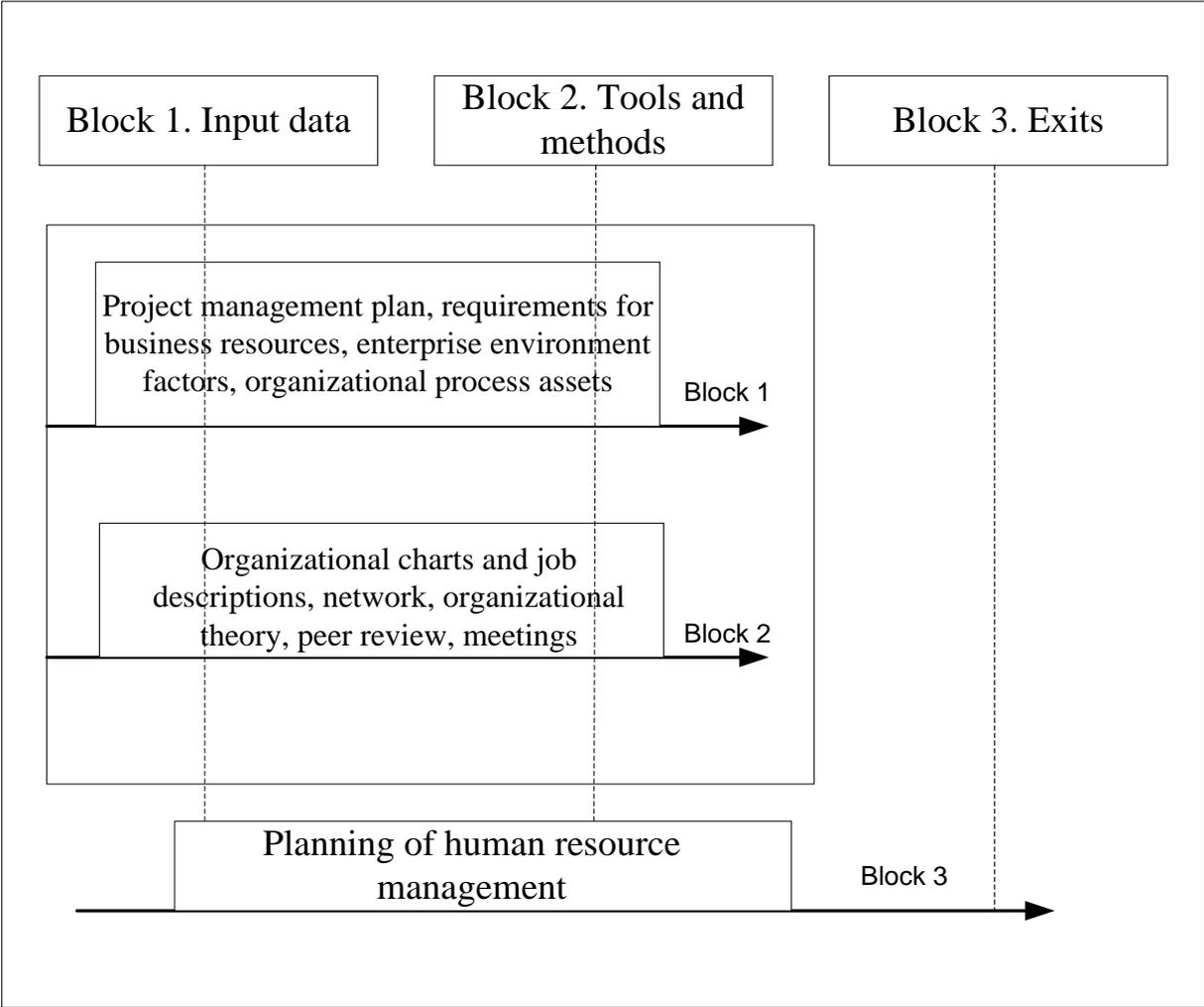


Fig. 2 the process of planning the human resource management of a project in civil protection.

Getting a project team. Hiring employees is often time-consuming. Tasks related to posting job openings, interviewing candidates, and making hiring decisions fall under this process in the project execution process group, regardless of whether the project team member is internal or external (fig.3). After hiring, a resource calendar is developed for each new project team member, which indicates the time available to

work on the project or specific project tasks. Also, the project manager (human resource manager) assigns roles and responsibilities to employees who must successfully complete the project.

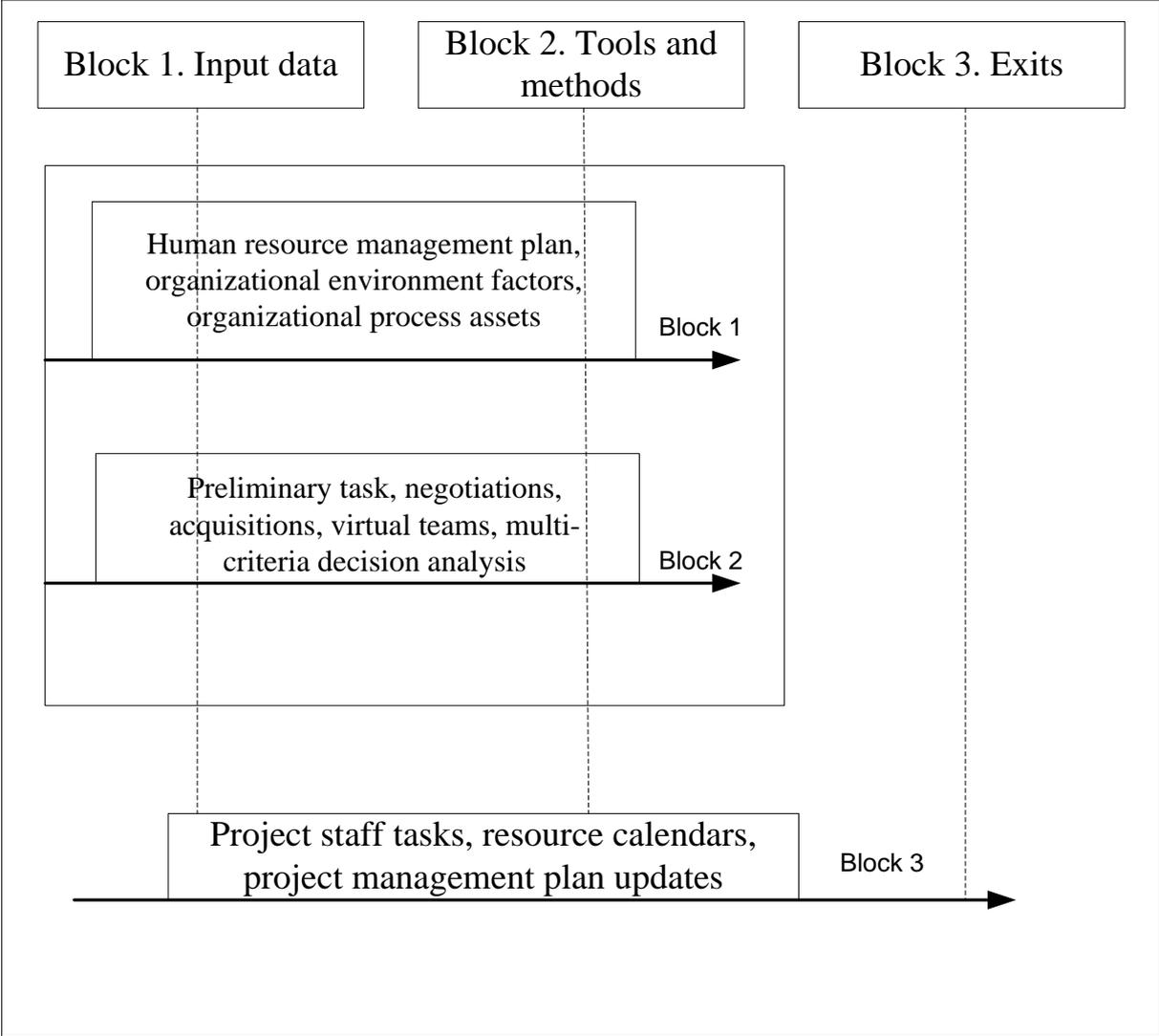


Fig. 3 the process of getting a project team

Developing the project team. It's not enough to hire a project team and expect them to know everything they need to know to execute a project to perfection. Developing a project team includes performance reviews, team building activities, recognition, and rewards (fig.4). Every manager realizes the importance of additional training and coaching to improve the quality of the team's work on a project. So, this process is about understanding what the team needs and maintaining good cooperation between colleagues while working on the project. Team development activities may include:

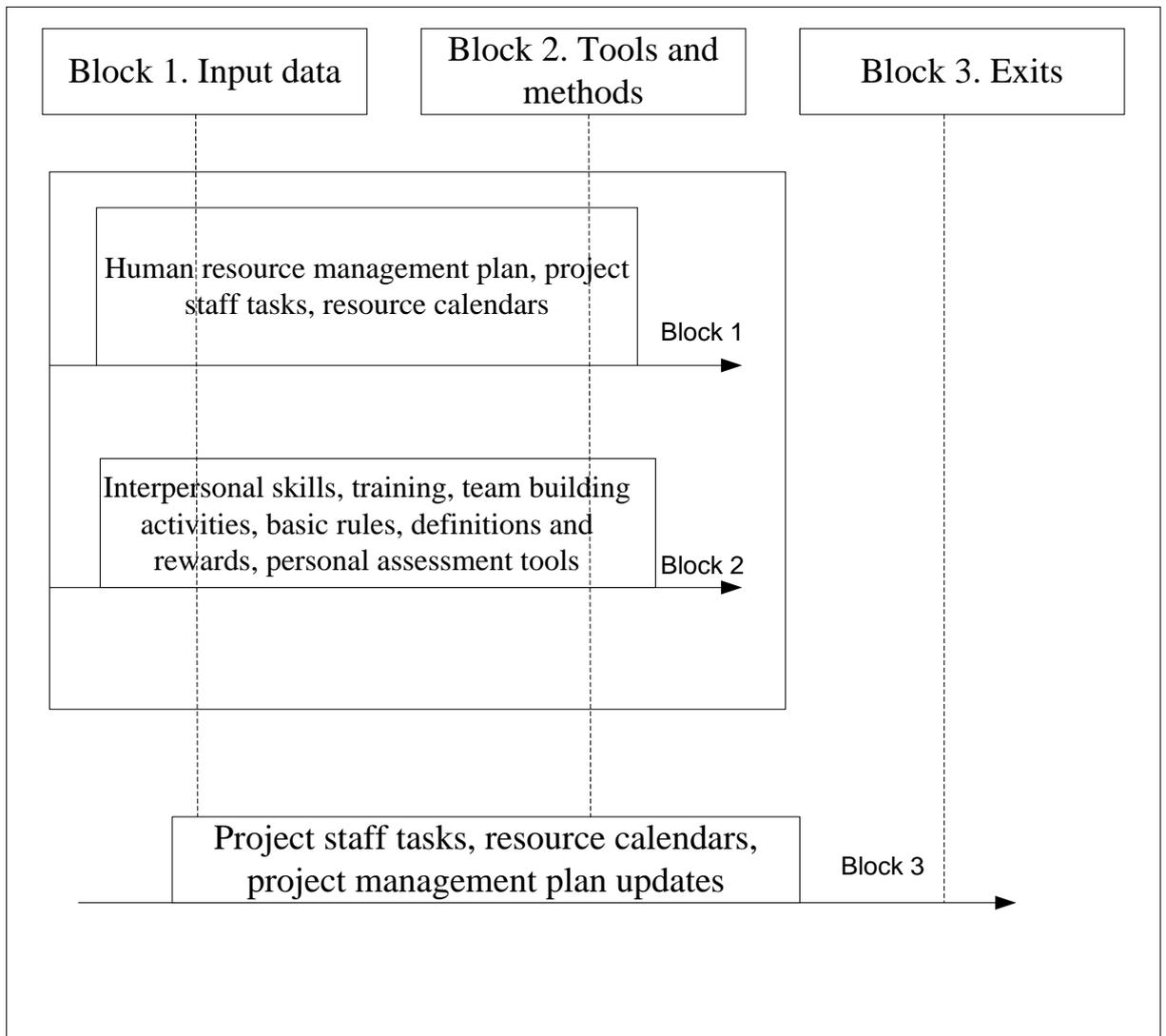
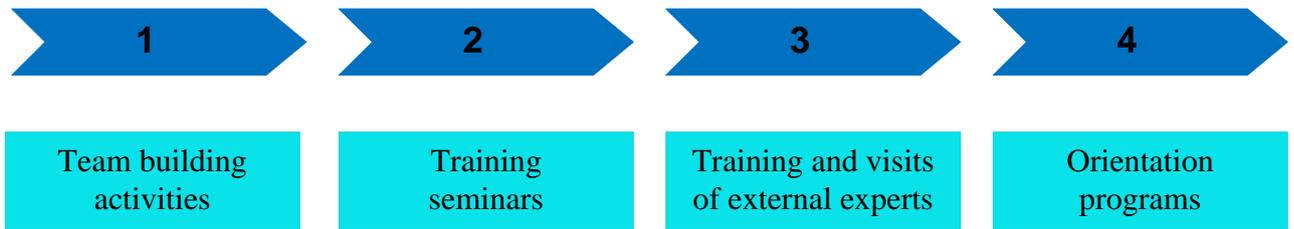


Fig. 4 the process of project team development

Project team management. Many books have been written on the topic of managing project teams. But it's clear that project success depends heavily on managing the changing roles, responsibilities, and performance criteria of the team (fig.5). Project problems test the competence of the project manager and the project team and threaten to undermine project success. The project manager and project team's response to these issues is essential to ensuring the completion of a successful project.

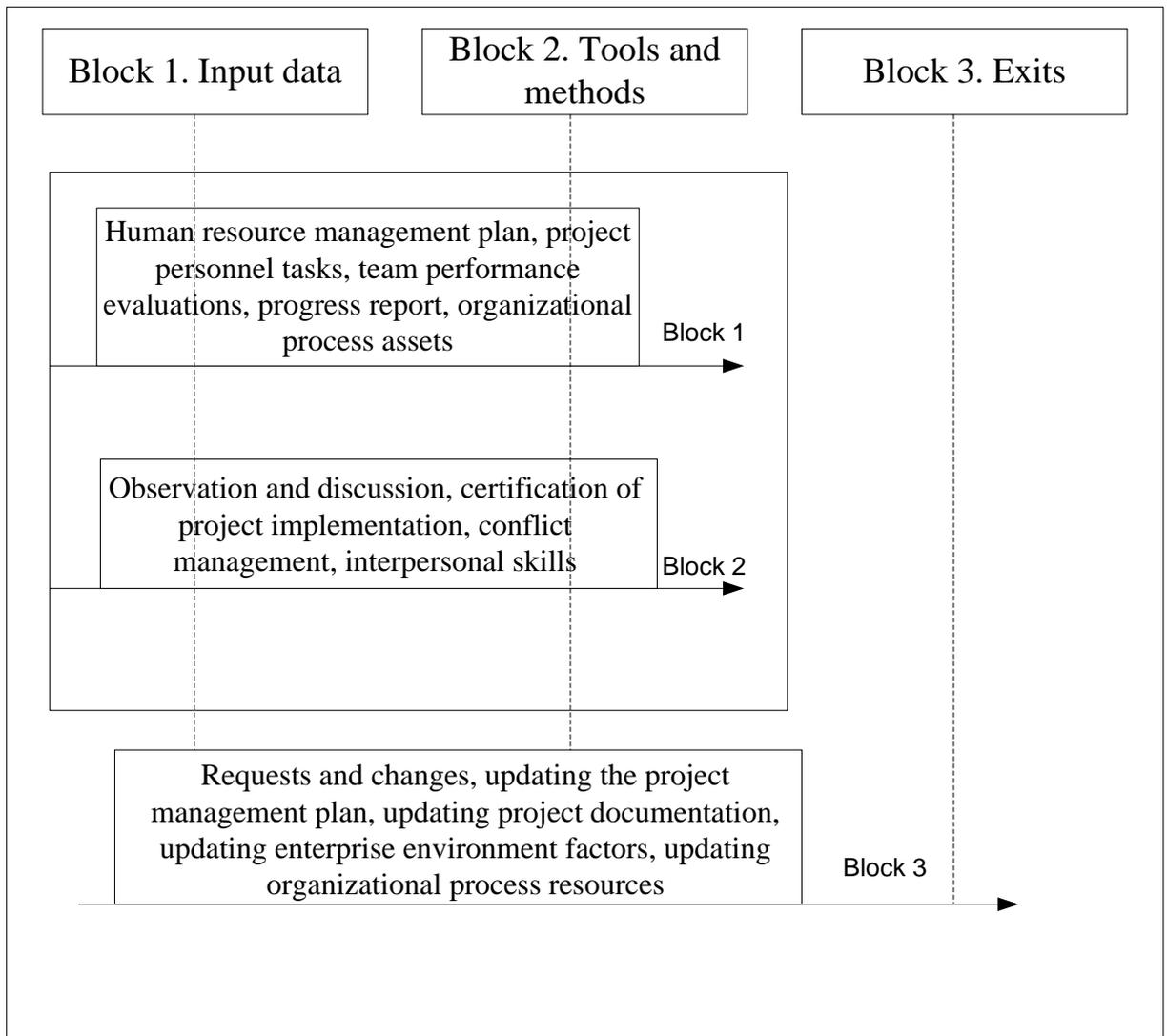


Fig. 5 shows the process of managing a project team in civilian defense.

Information technology has expanded the methods of communication available to the project team. Analyzing social media and mobile applications allows you to make communications within the team visible. You can see who is working with whom, the strength of the ties between team members, who the key players in the project are, and how information flows within the team (fig.6). Teams can be analyzed in two ways: centered on one key project team member, where you can analyze the connections of this key player with other team members and establish the range of influence between them, or you can view the entire communication network and identify several key project participants.

To ensure successful project management in civilian protection, the team must regularly provide and receive updates on progress at various stages of the project.

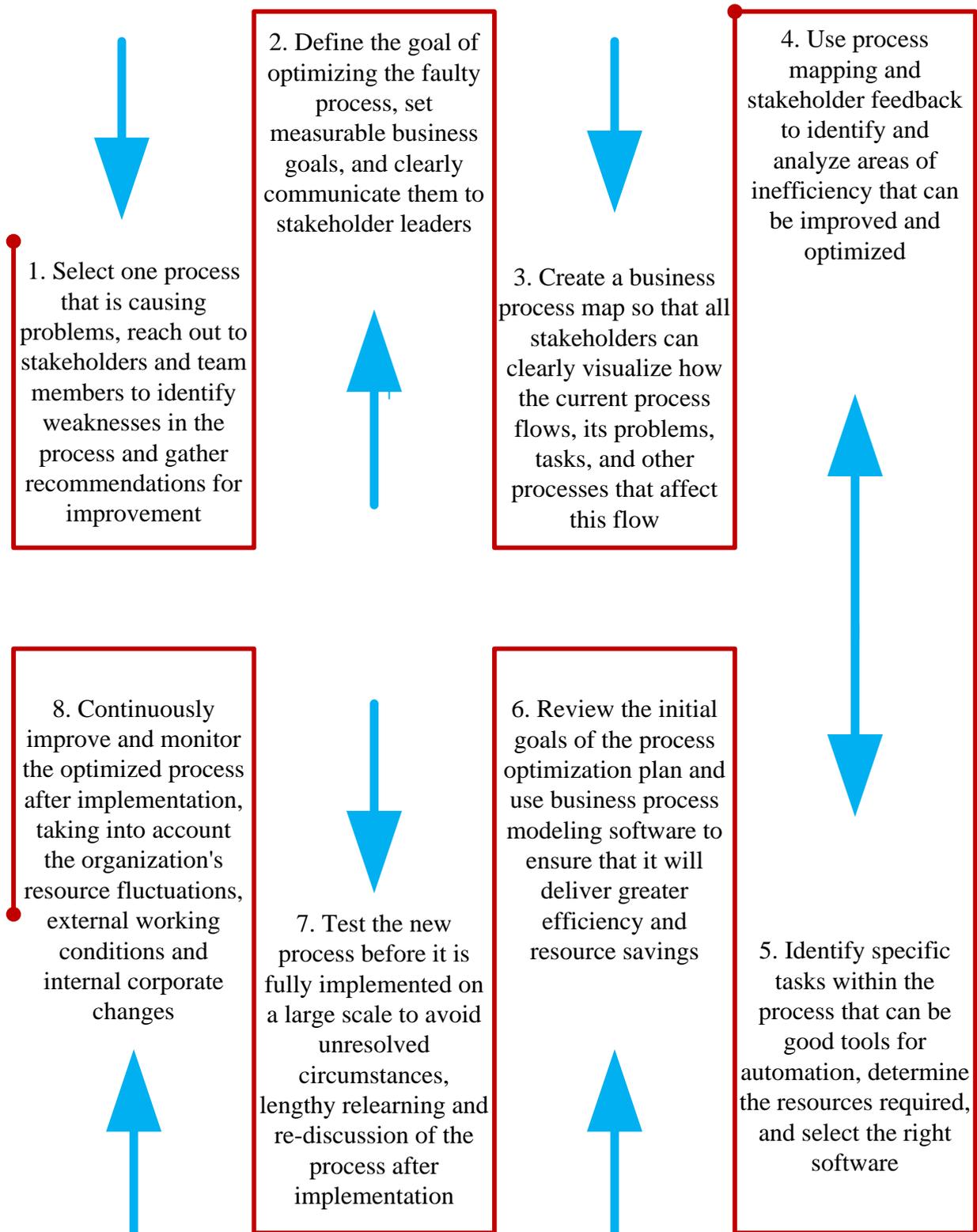


Fig. 6 shows a map of optimization of project human resource management in civil protection.

Just one dysfunctional process among hundreds of project processes in civil defense can create bottlenecks and impede the company's agility. This is where a well-thought-out step-by-step optimization plan can eliminate weak links and improve the flow of processes.

Conclusions. Project human resource management in civilian protection provides a clear overview of the project and its objectives, enabling you to prioritize where and when you invest limited resources, including time and money. This helps human resources teams stay on schedule and on budget and utilize resources in the most efficient way. Project management will also have a positive impact on hiring and onboarding new employees. Agile project management principles can help create inspired hiring programs and increase the number and quality of candidates, with new employees starting their roles after proper training and better equipped for the job. Having a clear understanding of timelines and progress allows HR to keep management informed about projects and gain valuable insight into team priorities when dealing with conflicts or limited resources. HR professionals can see how project goals align with the broader goals of the organization and communicate this to management.

REFERENCES:

1. Voytushenko, A., Bushuyev, S. (2020), "Development of creative potential of project managers: Determination of components and results of research, achievements in the field of intelligent systems and computing" ["Rozytok tvorchoho potencialy kerivnykiv proektiv: Vyznachennja skladovyh ta rezyltativ doslidjen, dosjahnen v haluzi intelektualnyh system ta obchysluvanoi techniky"], 1080 AISC, P. 283 - 292.

2. Zasukha, I., Bushuyev, S., Bushuyeva, V. (2021), "Concentric model of the digital footprint of projects" ["Koncentrychnha model cyfrovoho slidu proektiv"], *International scientific journal "Grail of Science"*, No 8, P. 193-201.

3. Zachko, O., Rak, Y., Rak, T. (2008), "Approaches to the formation of a portfolio of projects to improve the life safety system" ["Pidchody do formuvannja portfelja proektiv z udoskonalennja bezpeky zhyttjedijalnosti"], *Project management*

and production development: Collection of scientific papers, Luhansk, V. Dahl East Ukrainian National University, No. 3 (27), P. 54-61.

4. Kovalchuk, O., Kobylkin, D., Zachko, O. (2022), "Digitalization of personnel management processes of project-oriented organizations in the field of security" ["Dydzitalizacia procesiv upravlinnja personalom proektno-orientovanyh orhanizacij u sferi bezpeky "], ITPM, P. 183 - 195.

5. Bushuyev, S., Bushuyev, D., Rusan, N. (2017), "Emotional intelligence - a driver of the development of breakthrough project competencies" ["Emocijnyj intellect – drajver rozvytku proryvnyh proektnykh kompetencij"], Materials of the 12th International Scientific and Technical Conference on Computer Science and Information Technology, CSIT, 2, article No 8099418, P. 1- 6.

6. Bushuyev S., Dorosh, M., Shakun, N. (2016), "Innovative thinking in the formation of new project management methodologies" ["Innovacijne myslennja u formuvanni novykh metodologij upravlinnja proektamy"], *Management of complex systems development*, P. 49 - 57.

7. Bushuyev S., Bushuyev D., Bushuyeva V. (2020), "Interaction of a multilayer model of emotional contagion with the Earn Value method in the process of project management" ["Vzaemodija bahatosharovoi modeli emocijnoho zarazennja z metodom Earn Value v procesi upravlinnja proektamy"], Materials of the International Scientific and Technical Conference on Computer Science and Information Technology, No 2, P. 146 - 150.

8. Filatov, A. (2010), "Features of the formation of cross-functional teams for the management of innovative projects" ["Osoblyvosti formuvannja kros-funkcionalnykh komand dlja upravlinnja innovacijnymy proektamy "], *Project management and production development, Collection of scientific papers*, Luhansk, publishing house East Ukrainian National University, No. 3(35), P. 72-82.

9. De Resende Francisco, E., Kugler, J., Kahn, S., Silva, R., Wigem, P. (2019), "Challenges of management in the era of big data" ["Vykylyky upravlinnja v epochu velykykh danych"], *RAE Revista de Administracao de Empresas*, No. 6, P. 375 - 378.

10. Bushuyeva, N., Bushuiev, D., Bushuieva V., Achkasov, I. (2018), "IT Projects Management Drivingby Competence" ["Upravlinnja IT-proektamy drajvovi

kompetencii"], IEEE 13th International Scientific and Technical Conference on Computer Sciences and Information Technologies, No. 2, P. 226- 229, 8526680. DOI: 10.1109/STC-CSIT.2018.8526680

Відомості про авторів:

Matkivska Hrystyna Stepanivna (Матківська Христина Степанівна) - adjunct full-time student Lviv State University of Life Safety, <https://orcid.org/0009-0007-6044-2387>, matkivskahrystyna@gmail.com, 0988502954

Zachko Oleg Bogdanovich (Зачко Олег Богданович) - honored Worker of Science and Technology of Ukraine, Doctor of Technical Sciences, Professor Lviv State University of Life Safety, <https://orcid.org/0000-0002-3208-9826>, zachko@ukr.net, 0676880060

Відомості про авторів:

Матківська Христина Степанівна- ад'юнкт денної форми навчання докторантури / ад'юнктури Львівського державного університету безпеки життєдіяльності, <https://orcid.org/0009-0007-6044-2387>, matkivskahrystyna@gmail.com, 0988502954

Зачко Олег Богданович - заслужений діяч науки й техніки України, доктор технічних наук, професор Львівського державного університету безпеки життєдіяльності, <https://orcid.org/0000-0002-3208-9826>, zachko@ukr.net, 0676880060