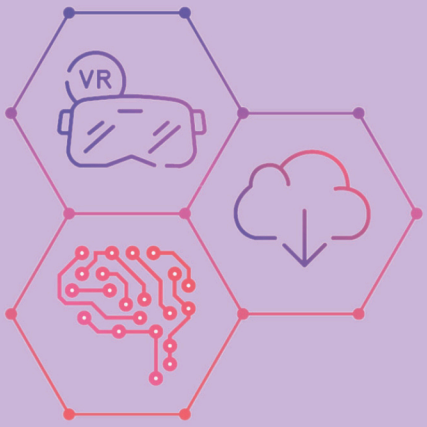
РАНХиГС
РОССИЙСКАЯ АКАДЕМИЯ НАРОДНОГО ХОЗЯЙСТВА И ГОСУДАРСТВЕННОЙ СЛУЖБЫ ПРИ ПРЕЗИДЕНТЕ РОССИЙСКОЙ ФЕДЕРАЦИИ
ИНСТИТУТ ОТРАСЛЕВОГО МЕНЕДЖМЕНТА
Издательский дом ДЕЛО



Цифровая трансформация: IoT, AI, VR, Big Data / Digital Transformation: IoT, AI, VR, Big Data

Сборник докладов
XII международной студенческой
научно-практической конференции

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| Издательский дом ДЕЛО |
Москва | 2019

УДК 338.48
ББК 65
Ц75

Ответственный за выпуск:
Иванова М.А., начальник отдела международных связей Института отраслевого менеджмента РАНХиГС

Цифровая трансформация: IoT, AI, VR, Big Data /
Ц75 Digital Transformation: IoT, AI, VR, Big Data: сборник докладов XII международной студенческой научно-практической конференции. — М. : Издательский дом «Дело» РАНХиГС, 2019. — 256 с.
ISBN 978-5-85006-171-5

18–19 апреля 2019 г. в Институте отраслевого менеджмента РАНХиГС при Президенте РФ состоялась XII международная студенческая научно-практическая конференция «Цифровая трансформация: IoT, AI, VR, Big Data», объединившая более 150 студентов РАНХиГС и других вузов.

В работе конференции приняли участие российские и зарубежные эксперты таких компаний сфер IT, цифровых технологий и инноваций, как «Atos» (Франция), «Билайн» (Россия), «МШУ СКОЛКОВО» (Россия), «Cisco» (США), «Neurotrend» (Россия), «FESTO Didactic» (Германия), «EligoVision» (Россия), «ЭСКО СВЕТ» (Россия), было представлено более 40 студенческих докладов на английском и русском языках.

В сборнике представлены научно-исследовательские работы студентов и аспирантов в рамках следующих тем: «Умный город», «Новые технологии в индустрии гостеприимства», «Индустрия 4.0» и «Стратегии цифровой трансформации в туризме и спорте». Авторами работ были проанализированы вызовы для современных отраслей и компаний, основные риски и препятствия для развития цифровой трансформации, примеры и концепции использования цифровых технологий в различных отраслях и сферах деятельности, а также даны прогнозы будущего развития бизнеса в новой цифровой реальности.

Публикуется в авторской редакции

УДК 338.48
ББК 65

ISBN 978-5-85006-171-5

Этьен Янев / Etien Yanev
Глобальный директор по контент-маркетингу
и потребительской лояльности
Atos IT Solutions and Services

Today smart companies do business not FOR people, but WITH people. The importance of staying hand in hand with his majesty the customer has been greatly explained by Steve Jobs: "You cannot ask customers what they want and then try to give it to them. By the time you create it, they will want something else". Certain trends stayed relevant over years of digital revolutions and one of them is making people's life easier. However, we all have been already involved in discussions regarding whether we will be replaced by robots or not but it is better to leave this to the futurists. My journey in digital transformation begun a couple of years ago when I started playing video games. A digital industry that evolved so exponentially that today it offers to professional gamers events with prize pools of millions of dollars. Who could expect that some 15 years ago?

For me, digital transformation happens when taking small steps towards improving customers' experience. Such could be the implementation of a communication system for a pet clinic that allows medical staff to track and monitor the condition of the animals, and even greet by name the owners of the pets. Digital transformation, in my opinion, is more about providing, meeting needs and personalization, rather than writing big newspaper headlines. Industries that could profit from digital transformation today are healthcare, manufacturing, and education, and we can already see some great examples of projects using Artificial Intelligence and Internet of Things. Our mission as professionals is to stay relevant to the market by observing how big players are changing the business today and start taking small but crucial steps towards innovation.

Владимир Гребнев / Vladimir Grebnev
Региональный представитель
FESTO Didactic RUSSIA

The Fourth Industrial Revolution is a predictable event, a wide introduction of cyber-physical systems in industrial production and servicing human needs, including life, work and leisure.

The changes will span all aspects of life, including the labor market, the living environment, political systems, the technological paradigm, human identity and others. Today, many developed countries are active participants in the Fourth Industrial Revolution. Special state programs are being created around the world to remove any barriers to Industry 4.0 development; business associations and non-profit organizations are working on it as well.

From my point of view, in their effort to maximize profits, many states and organizations underestimate risk of the possible social consequences of the new wave of progress. People need to find new ways of applying technology for their own development and for society as a whole.

What is important to understand is that only people can not only remember the responsibility of their use of new technologies, but also take new risks in a smart way that can be never done by robots or machines driven by artificial intelligence.

СОДЕРЖАНИЕ

ИСПОЛЬЗОВАНИЕ ИНСТРУМЕНТОВ И ТЕХНОЛОГИЙ БЕРЕЖЛИВОГО ПРОИЗВОДСТВА В УСЛОВИЯХ ЦИФРОВОЙ МИКРОЭКОНОМИКИ (ИНДУСТРИЯ 4.0)

TALENT MANAGEMENT IN INDUSTRY 4.0: CASE SBERBANK

Алиева А. Э./A. Alieva,
Седракян О. М./O. Sedrakyan
студенты РАНХиГС

Abstract. Nowadays globalization is making it harder for companies to compete in the technology and financial sphere. That is why in this situation the potential of the staff becomes a competitive advantage for companies and this is where Talent Management joins the game. The article gives full and clear description of what "Talent Management" is, its genesis and functions. And also describes the process of evolution of Talent Management in Industry 4.0 with the help of BigData. To illustrate the information, Sberbank company and its internal processes are analysed.

Keywords: Talent Management, BigData, SberBank Agile.

Nowadays because of globalization it is becoming harder and harder for companies to compete in the technology and financial sphere. That is why in this situation workforce is becoming a competitive advantage for companies. And here Talent Management joins the game.

The term "Talent Management' was first used by McKinsey & Company following a 1997 study [1]. And the reason this term appeared was that in the late 1990s, stocks and options became the main instrument of encouraging employees instead of salary and cash bonuses. As a result of this policy, in many technologically advanced companies such as Microsoft and Cisco many millionaire employees appeared and that is why disputes began about how to retain financially independent young employees in the company.

Talent management is the science of using various instruments that help to recruit, retain, develop and reward employees of the company. The main aim of talent management is to constantly identify the real and potential talents of staff and then use them in the best possible way for the company. Talent management is really important part in running the company, because it involves such significant processes as [2]:

- Recruiting;
- Employee performance management;
- Working-out and evaluating key performance indicators (KPI);
- Staff retention;
- Outlining individual career plans of staff members;
- Staff and team development;
- Employee engagement management.

And the enormous problem that talent management is facing is that ALL these points require a big deal of information processing. That means that in a company there should be someone who will gather, analyze, assess all the information and make the conclusions that will help to improve the performance of company staff. What will happen if we turn this 'someone' into 'something', to be precise into the group of tools that will help us to do all these tasks? And, fortunately, there is such instrument: BigData.

As has been mentioned above, BigData is a variety of tools, approaches and methods for processing both structured and unstructured data in order to use it for specific tasks and purposes [3]. Current usage of the term BigData tends to refer to the use of predictive analytics and employee behavior analytics.

BigData is described by three "V" characteristics:

1. Volume — huge amounts of information;
2. Velocity — both the speed of growth and frequency of updating data, and the need for high-speed processing and obtaining results;
3. Variety — various formats of information, such as numeric, textual, or images/videos.

Nowadays there are loads of programmes that help companies to process huge amount of information, manage logistics, analyze information on websites, manage risks, provide forecasts and here there are the most commonly used of them [4]:

- SAP HANA;
- Hadoop;
- Oracle Exadata;
- IBM SPSS;
- EMC;
- Yandex Data Factory;
- CleverData.

These programmes also can be used in HR departments in companies in order to create a clear and full portrait of their employees. By using BigData programmes companies will enormously decrease the amount of work that HR departments ought to do as this instrument was created to do quick operations with big amount of information.

Algorithm of usage:

1. Fill in all the information about every potential and existing employee of the company.
2. Carry out research or analyses.
3. Make changes in the company according to received information.

Of course, in addition to reducing the time that is used for processing information, BigData has a lot of other advantages. For example, BigData helps to:

1. Forecast employees that will quit their job (are less loyal to the company) in1 the nearest future and towards whom the company should develop a retaining course of actions.

2. Work out KPI.
3. Analyze all the qualities and skills of the workers in order to find the most appropriate position in the company.
4. Optimize the usage of workforce.
5. Increase the productivity and output of the workers by optimizing usage of their skills and knowledge.
6. Accurately and precisely choose candidates for the position.
7. Improve motivation system.

As you can see, benefits of BigData are really significant and that is why many big Russian companies start to implement this instrument and Sberbank is a good example of such a company.

Motivation one of the most important keys in talent management. The work of managers is to ensure that staff works efficiently in an organization. To achieve this, managers must know what motivates people. By understanding the factors influencing motivation, they can create the conditions in which employees will perform to their maximum potential.

Instilling motivation isn't easy, but it's necessary if CEO wants his / her employees to grow and stay satisfied with their jobs. It's the driving factor that leads people to work harder, meaning more productivity for your organization, and the most important contributing factor to overall satisfaction, which leads to higher employee retention.

Students always cite as examples of companies with high employee motivation different international companies such as Apple, Google, Samsung. They believe that Russia has no successful companies. This is a very incorrect statement that cannot be accepted. Sberbank is an excellent example of a successful Russian company which implements Talent Management tools across all its functions.

Analyzing the activities of Sberbank, every person can easily understand that this company cares about its employees. For them, the staff is a great value. That is why all young professionals tend to get to Sberbank. This company uses modern methods of motivation and remuneration, which affect the productivity and efficiency of their employees.

Mission statement of Sberbank says: "*No matter what you look like, it's how you work!*" Sberbank is an employer that takes the best tools and uses them in work:

- Process optimization and flow building.
- Changing values and behaviours.
- Building a management system.

"We create the future today so that tomorrow you can realize your dreams".

The company keeps up with the times by using modern technologies that help clearly monitor the workflow of each employee and increase the productivity of the company. Sberbank is an employer, which takes the best and uses in work:

DMAIC-define, measure, analyze, improve, control. DMAIC is a highly effective, data-driven, five-step approach to business that is one of the many useful components of the Six Sigma toolkit. The main goal of DMAIC is to eliminate expensive variation from business and manufacturing processes.

Gemba—a place where products(value) are formed or services are provided.

Lin-laboratory is a division that is the center of development of initiatives and changes.

Kaizen-continuous improvement.

Lean manufacturing is a management concept based on the constant elimination of all types of losses.

Sberbank has a lot of different activities that help to build strong teams.

1. Sberbank Summer — Winter. Show me what you can do! This is the annual sports festival of Sberbank, where the strongest athletes-employees of Sberbank demonstrate their skills. This year the Event will be held in Sochi.
2. Youth Union of more than 400 people. This is an annual event of Sberbank, which is aimed at Innovation in the development of the Bank and charity.
3. The big Sberbank race. Every employee of Sberbank can take part in the big Sberbank race. This is a big event with different sport activities.

The programme of Graduate Recruitment of Sberbank is very progressive and useful for qualified staff. Attracting employees with the highest qualifications and retaining the best staff is one of Sberbank's top priorities.

Sberbank also runs a paid internship program for the best students.

Program objectives:

- Acquaint participants with industry.
- Provide basic professional knowledge.
- Create a single team.
- Introduce participants to the corporate culture.

To summarize, it's important to point out that talent management is really important thing in any company. BigData helps to analyze the productivity of workers. Sberbank helps employees to gain confidence in the future and build a bright future. Implementing innovations and rapidly developing. This company is open wide prospects for career growth.

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INTERNET OF THINGS IN RUSSIA: FEATURES, PROSPECTS AND THREATS OF IMPLEMENTATION

Даниелян С. С. / S. Danielyan,
Николаева Д. Д. / D. Nikolaeva
студенты РАНХиГС

Abstract. This article discusses how the Internet of Things is developing nowadays worldwide, especially in Russia, what features it has and what prospects and threats it can bring to our world. Moreover, some most successful Russian projects on the Internet of Things were considered. Based on this research the authors concluded that, nowadays, the Internet of Things is on the stage of development and overcoming difficulties, however after that period this system will be successfully operated in Russia.

Keywords: IoT, Russian and Global IoT market, prospects and threats of implementation, Russian IoT projects.

In the EU, South Korea, China and India, the deployment of smart city technologies has enabled more efficient management of energy consumption and vehicle traffic. The United Kingdom and the United States have carried out large-scale programs that encourage the use of smart meters that help households manage their energy use remotely.

The Internet of Things (IoT) has the potential to push digitalization to a new level.

The expansion of IoT has been driven by four key technological trends:

- Computing has become less expensive, including processors, memory and data storage systems.
- Data transmission has become more affordable.
- Thanks to big data and cloud technology, flexible systems for storing and analysing data now have more capacity to cope with the ever increasing amounts of data.
- The number of connected devices is rapidly growing.

So, we can see that there are favorable conditions for the implementation of IoT around the world, and it can be concluded that the sphere of IoT has every chance of successful development around the world [3].

What about Russia?

Russia is carrying out extensive research in the area of IoT and Big Data seeking to stay part of this global trend.

The internet of things (IoT) ecosystem is growing in Russia on the back of economic recovery of the country along with huge investment in manufacturing sector and smart infrastructure.

The Russian IoT market is expected to expand. **Compound annual growth rate** of 19,62% is forecasted during the period of 2016–2023. (**CAGR** is a business and investing specific term of a useful measure of growth over multiple time periods.) Further, the Russian IoT market is expected to reach $74 Billion by 2023. The advancement in communication technology and rise in digitalization of businesses and systems in Russia will cause the market growth. Moreover, the private and government corporate agencies are adopting innovative digital technologies which are expected to increase the demand for the Russian IoT market.

The supply of internet of things (IoT) is likely to increase on the back of introduction of advanced and security enabled connectivity devices. The enhancement in smart devices in terms of design, efficiency and weight of the devices is one of the major factors which are responsible for the rising popularity of smart gadgets, so, the IoT ecosystem is rising in Russia allowing market players to focus towards the advancement in connectivity services. These initiatives further boost the demand of internet of things (IoT) industry in Russia.

Russian and global IoT market in numbers [1]:

IoT market	Russia	Global
number of connected devices	>16 million	6,4 billion devices
market size	$527 million (in 2015)	$151 billion
expected market size in 2020	$980 million	$300 billion
profit from implementation by 2025	$200 billion	$11 trillion

This analysis allowed us to conclude that the IoT is developing rather quickly both in the world market and in Russia. Day by day we are getting closer to the world of innovative systems.

How to apply the IoT in real business in Russia or even worldwide [1]:

To whom:	What for:
Plants	To monitor serviceability and optimize equipment utilization
Logistics and transport companies	To optimize transportation
Retailers and production	To optimize logistics
Shops and cafes	To analyse customer behavior and customize services
Agricultural producers	To monitor field conditions and livestock health
Insurance companies	To analyze the driving style in order to prevent crashes and accidents
Food industry, pharmaceutical companies and machine builders	To control the authenticity of parts, drugs and products
Oil and gas companies	To decrease the percentage of hydrocarbon emissions
Others	To automate business processes without wires

2 most successful Russian projects on IoT [2]

GO+

This project, launched in May 2013, allows you to combine various devices operating in the IoT format. GO+ has become one of the most talked about IoT projects this year. Its main feature is the management of absolutely any devices with Internet access.

The main objective of the GO+ project is to untie people's hands when choosing devices and help expand their functionality. For example, if you connect popular services for tracking cars and motorcycles with a modern crash sensor that reports an accident, the service will automatically call an ambulance and transmit the coordinates of the accident site.

The best conclusion we can make about this is that GO+ makes it possible to save more people at the time of the accident. In addition, the platform can serve as a good tool for business: companies will have the opportunity to create their own client services for managing devices.

X-Turion

This is a technological startup that develops a mobile robot with an advanced navigation system for monitoring apartments, country houses and office space. The project started in mid-2012.

The team does not just make the robot but integrates its control system with the "smart home" system. There are temperature, humidity and smoke sensors on the robot, there is even a water leakage sensor. This set can be changed at the request of the client. The robot independently travels around the premises and draws up his plan-map. The map is informative: it shows the values of temperature, humidity, noise and pollution.

There is currently a significant number of solutions to monitor home security on the market, but compared to other similar projects, this robot can reduce consumer costs and simplify the process of use.

These two mentioned projects are the best examples of how IoT is developing in Russia.

After analyzing the content of IoT in Russia we've defined some opportunities and threats that this up-and-coming system can bring.

1. Opportunities [3]

IoT provides an extensive range of opportunities to companies that want to provide new goods and services and improve existing ones and a number of them are used in Moscow which remains the first to introduce innovations in the sphere of IoT in Russia unlike other regions where this process is slower.

New goods and services

Thanks to the growth of distributed power generation in the electricity sector, IoT can help to create virtual power plants.

In healthcare, IoT will enable smart systems that monitor patients remotely, which will help doctors to collect and analyse critical information in real time. The market already offers cutting-edge devices (micro- and nano-sensors, nano-biochips) that are capable of detecting signs of stroke or heart failure and then notifying healthcare providers.

Logistics companies can offer new services, including fleet management systems that make use of connected sensors and automatic routing systems to manage traffic flows and keep records of goods and vehicles throughout the supply chain. Such services as GoCargo and iCanDeliver are already helping customers to do business without relying on intermediary agents like forwarding companies.

In urban environments, IoT is helping to develop unique services, such as automated resource consumption monitoring systems that collect, process, share, and store data on hot water use.

In the area of security, IoT is making it possible to implement centralised surveillance systems that can recognise unlawful activity.

In addition to the above, Moscow has already integrated and automated environmental control systems to analyse and evaluate noise levels, as well as air, soil and water quality across 26 different variables.

Quality improvements for existing products and services

Many new IoT solutions seek to improve existing products and services, and to enhance the consumer experience, for example, by ensuring continuous operation, preventing malfunction, optimising raw material consumption, and mitigating the impact of human error.

For example, smart grid technology significantly improves the robustness of power grids and guarantees that people will always have power in their homes. IoT technologies also help to increase the capacity of existing grids, to detect diseases earlier and with better accuracy, to increase harvest yields, and to enhance livestock productivity and quality. In cities, IoT is creating a more secure and comfortable living environment, while letting homeowners redefine the quality of life and levels of convenience, functionality and security.

Cost reduction

Reducing costs is one of the key drivers of the IoT market. The industrial use of new technology helps to cut expenditures and achieve unprecedented productivity levels. Cutting costs is an important factor for consumers as well, as they can now decide, for instance, whether they want to install a smart meter that will make their water (and eventually, power) consumption more efficient which has been done in several regions across Russia.

2. Threats [3]

All the benefits of IoT being mentioned, there certain threats connected with implementation and use of IoT. The threats faced by both producers and consumers of new technology can be grouped into several categories.

Cyber-security

For companies and consumers alike, cyber security is one of the most serious threats presented by the widespread adoption of IoT technology. That kind of threats, which could affect vehicles, urban infrastructure, private homes and flats, or even entire production facilities, are expected to prevent the growth of Russian IoT market during 2016–2023. Security systems need to keep pace with technological innovation. As a result, however, these IoT solutions could become more expensive and less market ready.

Legal threats

According to experts, one factor that could hamper the adoption of IoT in Russia is the lack of an appropriate legal framework, including such critical matters as data protection and privacy rights, and the presence of barriers to the introduction of new technologies.

It is obvious that new laws should be developed as soon as possible. And policymakers not only need to remove legal barriers to new technology adoption in particular sectors, they also need to develop new industry standards.

Lack of standards

Technology standardisation poses yet another barrier. The government needs to make a systematic effort to update technology standards and protocols. Comprehensive cost plans for IoT solutions and accurate estimates of the potential impact of specific projects can help achieve better results (so far, this has not happened).

As we see the Internet of things covers many areas of our life (health, transportation etc.) and helps to cut costs and achieve unprecedented productivity. However, the issue of privacy concerns is still open and is not fully developed. The IoT technology needs to be standardised and new laws should be drafted.

Conclusion

We can already observe the emergence of smart cities, smart cars, smart factories and many other smart objects. Now, the IoT is at the stage of infrastructure formation, and its limits of applicability are gradually expanding. The IoT Things has lots of advantages — this technology is able to solve most problems that we face daily, offering unique solutions. Even though this system still has unsolved issues, we are sure that they will be solved soon and all obstacles to its full application in Russia will be overcome.

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LEAN INDUSTRY 4.0: CASE SIEMENS

Дешевых А. Е. / A. Deshevykh,
Кирсанова Т. А. / T. Kirsanova
студенты РАНХиГС

Abstract. This article discusses the use of various tools and technologies of lean production in the digital microeconomics environment on the example of Siemens and focuses on the main advantages of 3D printing and the necessity of using this technology in lean manufacturing culture to achieve the maximum economic efficiency. On the basis of the research and the involvement of various sources, the authors concluded that Lean Manufacturing and Industry 4.0 are closely connected, which allows the company to maximize its potential.

Keywords: 3D printing, lean production, manufacturing, Siemens.

3D printing

3D printing is one of the potential game changers that could completely disrupt the manufacturing value chain, allowing a shift from mass production to full customization, from centralized to distributed production. In the future 3D printing technologies will provide an alternative to "conventional" manufacturing technologies in many situations. It will deeply impact the way products are manufactured, delivered and maintained [7].

3D printing is a transformational technology that offers a potential to change the supply chain as we experience it today. It extends the current concept of product development and enables people not only to develop products, but also to manufacture them. The traditional 3D design tools have become tools for designing products to be printed. This has an impact on the design process by adding flexibility to the prototyping of products [7].

Even more striking is its ability to exceed limits in product design, nobody would have believed possible a few years ago. It is possible to create new geometries and integrate parts into the overall product that with the use of subtractive technologies would have to be produced separately and mounted to the original product by using bolts or screws [7].

Furthermore, additional raw materials are adopted to be used by 3D printing. The time where it was only possible to use polymers has passed. Today steel, aluminum and titan are being considered for the material development for 3D printing [7].

3D printing technologies can be used throughout the production cycle, from prototyping to full-blown production. Mass production of standard products is not a favorite application though. 3D printing is the production methodology of choice, when it comes to producing low volume, highly customized products, by offering high manufacturing flexibility, on demand capabilities and fast delivery. Its capability to manufacture a part as a whole also makes it more cost efficient than traditional manufacturing technologies apart from the fact that it can produce parts that could not be produced with the latter [7].

The flexibility of 3D printing will also open up opportunities to share production capacities between different companies, thereby better utilizing assets, but also supporting growth by accepting customer orders that otherwise could not have been taken due to capacity restrictions [7].

3D printing will also change the distribution of products since they can be produced everywhere, where you have the base material and a printer available. This will be disruptive to the way we produce today. Theoretically a product manufacturer will not need any large production facilities anymore, since the product he designed can be “printed” in suitable locations worldwide. This will

also keep the distribution costs low and will make distribution and production planning more predictable. We already see initiatives in the manufacturing of spare parts, where airlines want to reduce spare stocks and inventory cost by substituting costly spare parts to be stored by parts that are produced when needed. Projects like RePair involving airlines and plane manufacturers are already exploring these possibilities and thereby show the new business opportunities arising with 3D printing [7].

Case Siemens

The world's first component, designed for a nuclear power plant, was printed and installed by Siemens experts in Slovenia. Now at Krško NPP there is a fully functional fire pump impeller, created using 3D printing technology [8].

The old component was installed at the station in 1981, so the need to replace it was long overdue, but it was rather difficult to do, because the manufacturer of original spare parts no longer exists. Therefore, Siemens engineers produced a three-dimensional virtual copy, which was then printed on one of their factories. After the impeller was manufactured, it was tested for several months to ensure its suitability before installation. The results are impressive, because the printed component has surpassed the original in its properties. Siemens says it shows how digital technology can contribute to the traditional industry. The component not only turned out to be more qualitative than the original—it also took much less time to produce [8, 9].

This is an important scientific breakthrough and proof of trust that 3D printing turns out to be—after all, the details of nuclear power plants must meet the highest standards of safety and reliability [9].

The Krško power station has been cooperating with Siemens for more than ten years, but this is the first project related to 3D printing of parts. The Siemens plant in Sweden, in turn, has been engaged in the development of 3D printing technology since 2009—gas turbine parts are made there, which are installed in power plants. The development in Krško is associated with important prospects for 3D printing—it not only proves the reliability of additive manufacturing, but also strengthens the position of large companies, such as Siemens, in this sector [9].

All these achievements would be impossible without motivation and full engagement of people in the work process. Siemens possess the belief that "an engaged workforce drives innovation, growth and profitability". How do they engage a workforce of that magnitude? [3]. The fact is that the company actively follows the principles of one of the tools of lean manufacturing—kaizen.

The motivation of Siemens technicians is achieved by evaluating their work, as well as by providing opportunities for growth, regardless of the level from which they began their careers in this company. This approach has turned Siemens into an open source company. Siemens employees can develop not only in technical developments, but also in such areas as research, manufacturing, sales and marketing, finance and project management. Siemens provides almost continuous training of its personnel, which is offered both in Russia and abroad. In the context of globalization, when technologies are changing, and the flow of information is growing at an incredible speed, learning is the most important success factor [1].

Delegation of specialists to the company's representative offices in other countries, rotation of personnel, horizontal movement between departments, development of the institute of mentors, as well as talented pupils and students as potential employees are integral elements of the corporate culture in Siemens [1].

It is vital to mention that for the field of digital technology, there might be quite different motivating factors, for example, the very creative nature of work related to technical developments. Some Siemens employees like to take on challenging tasks, others try their hand at other positions in the company. The company uses one principle of kaizen such as suggestions for improvement, therefore, people working in this company understand that they can apply their ideas in their work—Siemens motivates employees by giving them the opportunity to improve processes themselves, learn new things and grow in the company. Such a corporate culture proves that Siemens values its employees and contributes to the development of a new generation of IT specialists. Motivated employees make more efforts to achieve the desired results. They are sure that they are doing something special, and they are proud of what they are doing. The company has a very low level of absenteeism, as employees go to work with joy. They are very loyal to the company and remain in it for a long time, because their needs are met [1].