Bartłomiej Oręziak, Joanna Repeć, Dorota Sobczak^{*} Academic conference 'Law, economy and technology for preventing the causes of crime'. Report^{**}

On 7 December 2018, an international academic conference 'Law, economy and technology for preventing the causes of crime' was organized by the Institute of Justice. The event was held under the auspices of Minister of Justice Zbigniew Ziobro, who officially opened the conference. The conference was devoted to both the problems encountered during the implementation of the research project and its hitherto results.

The event was attended by professors from the most important research centres in the world, including Paul M. Healey from the Harvard Business School, Roland Stephen from the Stanford Research Institute, Michael Siegel from the Massachusetts Institute of Technology, Mike Rosenberg and Mireia Las Heras from IESE Business School. The participants included persons holding the most important functions in their organizations, representatives of international institutions, highlevel managers of state-owned companies as well as representatives of government administration and law enforcement agencies.

The main topic of the event was modern technologies as well as legal and organizational solutions used by administrations of highly developed countries and the largest corporations in the context of preventing the causes of crime.

The discussion covered four thematic areas, that is, finance, energy, insurance, and human resources management in the organization. Issues such as strategic management, crime analysis, application of new technologies in operation management, global availability of solutions to crime-related problems, creation of strategic scenarios for the future, and innovative strategies for economic development as well as implementation of the developed solutions into the Polish legal system were discussed.

^{*} Bartłomiej Oręziak, Master of Law, doctoral student at the Chair of Human Rights and International Humanitarian Law of the Faculty of Law and Administration of the Cardinal Stefan Wyszyński University in Warsaw, holder of scholarship of the Minister of Science and Higher Education for achievements for academic year 2017/2018, Poland, ORCID 0000–0001–8705–6880, Email: boreziak@gmail.com; Joanna Repeć, Fourth-year student of the Faculty of Law and Administration of Cardinal Stefan Wyszyński University in Warsaw, Poland, Email: repecjoanna@gmail.com; Dorota Sobczak, A graduate of law at the Faculty of Law and Administration of Catholic University of Lublin named after John Paul II, Poland, Email: dorotasobczak94@gmail.com

^{**} The manuscript was submitted by the authors on 30 January 2019; the manuscript was accepted for publication by the editorial board on 15 February 2019.

Dr Marcin Romanowski, Director of the Institute of Justice, was the first to speak. On behalf of the Institute, he welcomed the attending representatives of government administration, the speakers, and all representatives of the academia, public administration, and legal protection authorities. Then, Dr Marcin Romanowski asked the Minister of Justice/Prosecutor General Zbigniew Ziobro to take the floor.

Zbigniew Ziobro, Minister of Justice and Prosecutor General welcomed all the guests and remarked that it was a great honour for him to appear in front of such outstanding academics, practitioners, and representatives of various sectors of Polish administration and business.

He emphasized that the event was extremely important, because it crowned an exceptionally important research project related to the sphere of law, economy, and modern technology. The head of the Ministry of Justice noted that these three planes naturally permeated and formed an inseparable relationship that required us to take a global approach to all these issues. What is needed is an approach more general than only from the perspective of one field which a given specialization concerns.

Minister Z. Ziobro argued that a good legal system meant such laws that could follow the modern economy and technology. He noted that it would of course be perfect if we could create this kind of law-making system, when the lawmakers, legislators, scientists, eminent professors, practitioners, would be able to anticipate the development of technology, anticipate the challenge of the economy. However, with the hindsight of his rich experience in the field of public action, he said that being the the Minister of Justice for the second time and participating in the legislative process in both the Polish parliament and the European Parliament, he felt it was the perfect state which we should strive to achieve, but rather an unattainable one. He argued that the most outstanding mind was unable to pre-empt the challenges that practice and reality bring. These meanders related to the challenges that arise for instance from the development of modern technology cannot be imagined even by the most outstanding lawyer or theoretician of law.

For these reasons he noted that a meeting of scientists, a meeting of lawyers, a meeting of people who are specialists in the field of modern technology development, a meeting of economic practitioners was important in order to make it possible for the law to keep up with the development of technology and the needs of the economy.

The Minister also observed that our legislative activities concerning not only the sphere related to those areas which were the subject of the conference and research project, but generally the legislative issues that we undertook were usually reactive. He emphasized that we usually responded to a certain diagnosis of reality that was ahead of legislation, ahead of the strongest legal minds, and required a response. At the same, whenever possible, we should attempt predict the effects of the future and anticipate them whenever possible, but with the knowledge it would often be impossible.

The Minister of Justice and Prosecutor General said that he greatly appreciated the project undertaken by the Institute of Justice and considered it extremely valuable. He stressed that he was convinced that combining these three disciplines, reflecting on modern technologies, showing the emerging challenges, as well as revealing the related risks, created opportunities for practitioners, for the theory of law, and for legislation, because it would enable developing solutions which would help make the economy more efficient and to simplify the system with the result that the economy would be based on clear and stable laws. On the other hand, this would also enable prevention of crime and pathologies.

The head of the Ministry of Justice reflected on the fact that the world's history was inhabited by people with different motivations: both noble and ready to think in terms of the common good, but also those who were ready to take advantage of opportunities, use others to achieve their particular goals (often contrary to the common good, which the legislator qualifies as criminal activity).

For this reason, the Minister noted that it was extremely important for the state that its structures and laws to be able keep the pace with the developments in the world of technology and react when needed. Adequate measures should be taken in terms of preparing a system of legal norms that would allow us to effectively protect the interests of the economy, those of enterprises, and those of ordinary citizens. All that in order for the free market to be really free, including freedom from pathology. He stressed that for us and for him as the Minister of Justice /Prosecutor General this was the basic point of view.

He emphasized that in this way the state tried to react, including by preparing legislation in various fields, responding to new forms of crime which use modern technologies, such as VAT carousels that government had been very successful in combating. The work of the Ministry of Justice played a key role here as well as in other areas associated with modern technologies, one of the examples being a bill that left the Ministry of Justice a few days prior, aimed to improve the principles of criminal liability of collective entities. In this context, he noted that many offences were related to cybercrime, that is, the sphere of activity of enterprises and the field of modern technologies, to which the state should respond effectively, protecting the interests of honest entrepreneurs and honest citizens.

The Minister of Justice and Prosecutor General stressed that computerization and modern technologies were present everywhere, in every sphere of the law of the present day. To prove the above, he used the example of how a few days before, in the National Prosecutor's Office, he had a meeting with the management and one of topics was the use of modern analytical methods. A decision had then been made to purchase modern analytical technology for such specialized departments in the prosecutor's office whose tasks included criminal analysis. Expanding access to those databases would enable them to respond more effectively to pathologies, eliminate possible crime detrimental to the public interest, the interests of the state, and the interests of individual citizens, including participants of business transactions.

The Minister emphasized that the subject of reflection of the conference and research project, thus also the subject of the related work, was also of great interest for the state administration in general, but also for the Ministry of Justice and the Prosecutor's Office.

Finally, Zbigniew Ziobro once again thanked for that work and commitment. He thanked eminent representatives of US academic centres, the universities which have established cooperation here, but also European ones. The Minister of Justice underlined that this was a very prestigious event for the Institute of Justice. He also expressed the hope that it was the beginning of a certain path: the project where Director Marcin Romanowski had played an important role. Finally, the Minister wished us that we could continue these studies to yield useful reflections and conclusions, including specific conclusions for legislative amendments necessary in the legal order of the Republic of Poland. The Minister of Justice/Prosecutor General Zbigniew Ziobro concluded his speech by thanking the audience and wishing them fruitful work.

Professor Michael Rosenberg from IESE BUSINESS SCHOOL was the next speaker at the international academic conference 'Law, economy and technology for preventing the causes of crime'.

Prof. M. Rosenberg presented the assumptions and challenges of the research project 'Law, economy and technology for preventing the causes of crime'. He noted that the project included four workshops held in 2018: the first in September (Assessing Foundations), the second in October (Improving Performance), the third in November (Transforming People & Organizations) and the fourth in December (Heading into the Future). He pointed out that each workshop comprised four different thematic groups with participants from various sectors of the Polish economy: Financial Sector, Insurance Sector, Energy Sector, and Managing Human Resources.

Then, Prof. M. Rosenberg explained what the methodology of the workshops was. The Assessing Foundations module consisted in identifying the problem of crime in Poland in the light of selected sectors of the Polish economy. The Improving Performance module was about finding solutions to these problems. The Transforming People & Organizations module involved presenting how these solutions could change organizations and human behaviour. The Heading into the Future module was spent debating about the future and future changes, e.g. in technology.

Then Prof. M. Rosenberg presented the profiles of the lecturers of all workshops and their affiliations. He also gave an overview of the main solutions developed: 1) Identification of sources of crimes in selected areas of economy; 2) Methods of crime prevention; 3) Implementation of methods and instruments for crime prevention; 4) Challenges for crime prevention in the future.

Professor Paul M. Healey – Dean of the HARVARD BUSINESS SCHOOL was another speaker at the international academic conference 'Law, economy and technology for preventing the causes of crime'.

During his lecture, Prof. P.M. Healey considered it appropriate to adopt the perspective of a person who does not regulate, but studies management and business. He indicated that during the speech he would focus on two types of risk and organization, i.e. the risk of non-compliance and operational risk, both of which may remain in a certain correlation, and thus be similar to and complementary with each other.

Prof. P.M. Healey began his address by discussing the issue of compliance, focusing also on the issues of regulations, which should be included in norms, in order to counteract corruption. He stressed that currently there are many challenges for enterprises: corruption, money laundering, fraud, and problems related to internal trade, which occur both in Poland and in the United States. In addition, he noted that there were some operational problems in the enterprises themselves, which concern product quality control, product safety, as well as employee safety. In addition, they can also affect the management of the company's processing in the operational process related to the structure and organization of the company, which can easily get out of control. He pointed out that the challenge in the company was also systematic and that it was inevitable for every large company to encounter compliance and operational failures.

The Dean of the Harvard Business School devoted part of his lecture to discussing a well-known example of Siemens management, which faced the problem of corruption. He showed that corrupt companies posed problems, Siemens not being the only example in this respect. Therefore, if the challenges and problems that appeared in Siemens were implemented for another example, it turned out that those were not only German problems, but they also appeared in other countries. He described the events that took place in this company. Siemens was initially charged in Germany and then in the United States. Depending on the estimates, the amounts allocated for corruption ranged from USD 800 million to USD 1.8 billion within 7 years. Those dealings covered multiple countries, including the United States. One of the manifestations of corruption in Siemens was employing and paying business partners, not a rare practice at all. In 1999, Siemens ignored many warning signals. It was still able to pay bribes outside of Germany, which resulted in a reaction on the New York Stock Exchange, which meant that Siemens was subject to both American and German law. Another aspect that Prof. P.M. Healey noted was the fact that there was no state where corruption would be lawful. Continuing, the main problems that Siemens did not notice, were present in a number of cases of corruption, as exemplified by the corruption cases in Italy. Corruption also happened in other countries such as Nigeria, Switzerland, and Liechtenstein. There were many situations in which Siemens could have spotted the problem and reacted appropriately, but it decided to ignore the problem.

Prof. Paul M. Healey noted that people who were involved in corruption were those involved in Italian affairs – including managers who subsequently retired. One of those accused of approving bribes by the CFO got \$ 1.8 million in settlement and then left the company. He explained that it also involved costs for Siemens in the form of \$ 2.2 billion penalties and the dismissal of over 500 employees, with many experienced and older contractors resigning from work.

As part of the lecture, a question was asked about the genesis of this type of cases and about the types of activities undertaken by companies in order to reduce the risk of their occurrence. In addition, it was noticed that the costs incurred by Siemens were relatively small, both for the company and for individual employees.

Prof. P.M. Healey noted that in order to create a crime environment, several factors had to be combined. The first of these was the pressure exerted on individuals to perform tasks. Obviously, every reputed organization exerts such pressure on people. Another issue is the organization's way of giving people the opportunity for corruption and allowing them to rationalize their activities.

An important aspect emphasized by Prof. Healey, as far as the pressure exerted by Siemens was concerned, was that the area in the company where crime was the most widespread was the least competitive area in relation to the clearly occurring pressure. In this case, the company gave a clear signal to employees, received from the top management, that profit was the most important thing, regardless of the adopted methods. Employees in this case were under pressure.

Prof. P.M. Healey stressed that an important problem in the case of Siemens was the fact that it operate in 190 countries around the world. Within this conglomerate there are geographical regions, where the fight against corruption is the most difficult. The system adopted by Siemens worked for and also included government clients. He noted that corruption usually continued until audits proved something, and those in Siemens were practically non-existent. There were 75,000 full-time employees in Siemens working in different countries, which created many possibilities.

Prof. P.M. Healey asked how to reduce system problems, when most people help make them worse and control them. He stressed that control and leadership were needed, no matter how critical we were. As for the role of leadership, he pointed to personal honesty because one of the things that he heard consistently in every company he visited and from people he talked to were 'we do not tolerate corruption', 'we do not tolerate scams', 'we have honesty in the company', 'people who work with us can quickly see how hard the work is'. He pointed out that this was why the problem in many companies he saw was the fact that people were becoming cynical, because they wanted to believe in the company's high standards of integrity and value, while they saw those standards regularly violated by individuals, and the standard of honesty did not seem to be widespread throughout the company.

He pointed out that when he talks about integrity in the leader group, he means conversation. He said the next thing the leaders can do is send a message to people that the crime does not end in benefits for the company or the employees. He cited facts that confirm that crime is not a profitable business practice. The argument to support this thesis was the conversation with the managing director and the director general of Siemens. During these talks, both pointed out that in the case of problematic transactions in the company, where both fraud and corruption occurred, the company does not earn much. Prof. P.M. Healey explained that the reason for this is that when a bribe begins to pay, less money is left for the company and automatically the profits are reduced. He emphasized that during his research the starting point was a broader perspective of the activity of as many as 180 international corporations located all over the world. In 2006, they were assessed in terms of transparency on the basis of declared actions to counteract corruption. He continued that after analysing the questions, it can be concluded that these companies indicate more activities than they actually do. He explained that looking at 2007–2010, it can be stated that countries rated as low-corruption countries grew faster than countries with high levels of corruption, which may suggest that paying bribes is not good for business.

He emphasized companies paid bribes because of their desire to gain an advantage, as a result of which the company does more, but also has higher costs and in general there are no clear differences. He explained that after the analysis, it turned out that the increase in sales in companies where corruption was rife did not generate higher profits. Prof. Healey observed that such companies could gain more for business, but less profitable business, resulting in a larger gap. Prof. Paul M. Healey pointed out that the research also drew attention to the perspective of shareholders who received a better assessment as regards the issue of bribes. This was so because at the end of the day shareholders, like top companies, take care of profits rather than sales. He stressed that he had analysed the behavior of companies with low ratings after they were transferred to international assessment. His studies showed that such a transfer of the companied with higher frequencies of media allegations of corruption worked against them, because they were more likely to appear in the press in connection with problematic transactions related to corruption. In addition, he explained that bribery was something to be avoided, because although one of the two people who gave bribes may have been promoted or received bonuses, for the shareholders such activities did not carry any benefit.

Prof. P.M. Healey stressed that the problem was interestingly addressed in a study which he conducted with people who had business education, and thus observed what was happening to people who worked for companies involved in criminal scandals. Researchers have found over 2,000 executive movements. They noticed that managers and companies that were involved in criminal scandals had 4% lower annual profits than their counterparts after moving to other organizations. These are employees who work for Volkswagen or Siemens. The speaker pointed out that 4% a year was a significant amount as a penalty for loss of reputation. In contrast, the effects were not felt only by people who were involved in the criminal dealings, but also by uninvolved workers who took on jobs with Volkswagen or Siemens, and actually had nothing to do with giving bribes. He explained that the impact of lost reputation was greater when it came to employees of a higher rank, because there the penalty was 6.5% lower pay or lower pay in the following years. In the case of women, the loss of pay equalled 7%. He pointed out that corruption was harmful not only to business owners, but it also appeared detrimental to employees, at least those not directly involved in the crime.

The speaker pointed out that there were many studies that discussed building a culture of responsibility. Their results indicated the need to provide people with mental safety so that they could report questions where they were uncomfortable. Giving tasks and not listening to questions does not create an atmosphere of a culture of mental safety. Good managers allow people to ask questions. He notes that Siemens had also found a problem that had to be solved to encourage new people to change this culture because the problems were inside the company: they needed new blood and people who thought differently about these problems.

As an example, Prof. Paul M. Healey mentioned a Norwegian waste management company that had internal problems. Thus, the new director-general stated that the identified problems went beyond the company and brought people together to change that. The speaker explained that the research indicated that to try to encourage people to behave well, one should not make important decisions individually, individuals being more prone to make mistakes. People working in teams and groups have a tendency to motivate each other. These problems are not unique only for one of the entities, but are common to the entire industry and concern the case of Siemens, as well as the case of the whole region or a waste management company in Norway. The Dean of the Harvard Business School noted that when we looked at what the company needed to do in terms of compliance, it was not just about internal control mechanisms, but also about the technical and organizational activities of the leader. Consequently, one did not need to look at what happened in the past, but what would happen in the future, and think about the types of incentives and organization to join in the next five years and about whether something would happen or whether we had prepared ourselves for it.

Prof. P.M. Healey also spoke about companies that had done through the financial crisis in the United States in 2008. He pointed out that those were mortgage companies that had extended loans to people that did not meet the specific criteria of such a mortgage. The above was a new financial type, operating as a subprime company. In this mechanism, Adidas sells a mortgage to an investment bank, and then the investment bank puts it in one bag depending on its security level. The third step is to keep some loans to their maturity. He stressed that when buying high-risk loans, we also had to deal with the risks associated with people. He indicated that if a loan was sold to an investment bank, the investment bank had the right to return it if there were any errors in the documentation and also had the right to return if there was evidence of fraud. Thus, before the end of the process, it was not possible to completely eliminate this risk. He emphasized how risky it was to ignore important warning signals. Over time, people start to take more risks and buy more and more risky loans. He pointed out that loans for 100% of the real estate value were high-risk loans. He noted that warning signals appeared indicating that the company's problems were being ignored. He also pointed out that another warning flag was the drop in the premium that was received from the sale of loans.

The speaker pointed out that the finances of the new century had responded to these challenges by keeping a higher mortgage to maturity. He explained that these had been mistakes in the way the reserve for loans for focus related to the loan had been measured. However, earnings from results dropped by 56%, as a result of which banks were for the first time asked to borrow money to fulfil some of their agreements.

Prof. Paul M. Healey asked a question about the cause driving this kind of systemic operational failures. He pointed primarily to rapid growth, being a priority, and two challenges in company management. The first challenge he identified was the difficulty in increasing the number of types of systems and processes of these organizations that needed to be controlled through in terms of risk, which is difficult with growth reaching 66% per annum. Problems arise with recruiting people with good skills to manage the company and ensure risk management, which is important for the company's behaviour.

The other challenge described by the Dean of the Harvard Business School was that for the majority of executives and managers, pressure was not about risk management, so they could easily focus on growth management and strive for faster growth, postponing the decisions concerning the risk they took by engaging in this business.

Prof. P.M. Healey stated that it was important to be aware that whenever there were certain measures in the organization measuring performance, they were

immutable and incomplete. These measures do not take into account important things that determine the company's success in the future, which is difficult to measure. He explained that maybe it would be possible in relation to today's profit or today's sales, but it was very difficult to say how a company contributed to customer satisfaction, what in fact would drive future sales and profits or how it should look after its staff who would be able to create value for the future. He also pointed out that it was very easy to recognize the prize and focus on the measures that drove productivity at the given moment, while ignoring the fundamental risks for the organization. He believes that companies at the beginning of the century were not concerned with risk, because they were really focused on measuring, monitoring, and assessing the risks they took, taking into account new transactions in these new loans.

Prof. P.M. Healey claimed that this was a challenge for those who faced this type of behaviour, with their own human mistakes. He pointed out that there had been many studies which showed that all people were overly confident and believed that their successes would last. He also emphasized that managers in top companies tried to identify with the company very closely and it was difficult for them to think that a company could do anything bad. He expressed the belief that there was a certain level that was a problem and that Facebook was struggling with. Mark Zuckerberg founded the company, so he sees it in a special way through the prism of what the company hopes to achieve, and intends to ignore and downplay the company's problems and costs associated with Facebook's activities. The speaker pointed out that the challenge for managers of top companies stemmed from perceiving their role and organization differently from outsiders.

Prof. P.M. Healey asked how to reduce the number of operational failures and how to measure key performance indicators for a company. He pointed out that at present companies had to measure key performance indicators related to operational risk, which should be monitored. He explained that it was necessary to respond quickly, although it was often easy to be reactive, and to introduce a new system when it became obvious that the company was heading for failure. He emphasized that it was important how systems could be introduced in new companies, stressing the importance of risk plans for overtime work, because new and mature systems in companies has to be added in a predictable way in which these new systems could be added to companies as an essential start-up. He explained he believed it important to understand that people were motivated not only by external rewards. Companies focus on recruiting people based on simple performance measures. He asked what really motivated employees and pointed to research that identified the factor people were guided by in choosing a job: the desire to win prizes, which could be achieved by a motivational reward system and a company culture thanks to which employees felt connected with people in the organization. Prof. Healey explained that it was worth understanding and dealing with in business, designing jobs that help people understand that they are contributing. He noticed that people had a tendency to defend themselves against external threats and that tendency could also be addressed, but in a fair and transparent way, rather than proving that people are guided solely by financial rewards. He emphasized that research showed people would give up 36%

of their remuneration to have a manager who trusts them or 21% of their salary to have a more satisfying job. He explained that when you thought about how to inspire loyalty in the organization and how to reward people, there were different ways of doing so than through financial rewards.

Prof. Paul M. Healey said he believed that companies needed to create ways to empower people. He explained that in most organizations there was a board overseeing the management, somewhat dependent on the company. As part of supervision over a company, there are also external and internal auditors, whose work is less dependent on the company and is therefore more objective. He stressed that one should trust and rely on these people to pass on messages, and not avoid generating negative news. He pointed out that this was a review of what systems were needed for management, such systems addressing both operational and compliance risk. Each organization must have internal control to protect its information, to manage property risk. He suggested, however, that this was not enough and those other systems were needed. The first of them, prof. Healey called the belief system. He said he was always amazed when he attended faculty meetings at the business school. The dean would come and start the meeting, saying why the participants were there – not at that meeting, but in business school – and what was the purpose. The second time round, he thought he had heard it before and the situation was repeated at every meeting. Prof. Healey asked why the dean did it. He explained that this was to make sure that everyone knew what the purpose was and understood that they were doing the last thing in this organization to build a commitment to cooperate, to get inspiration from what they were trying to achieve. The dean believed that every good organization needed a mission, but not just as a piece of paper to put on the wall.

The current Dean of the Harvard Business School noted that the second thing a good organization needed was limits and limitations, defining things that would result in failure. He pointed out that there was a lack of transparency in Siemens, that there were no clear boundaries for people, and during the problems they found themselves beyond such limits. He emphasized that although KPIs should be measured for the organization, this was not all and that the most important thing to achieve was the ability to measure many things that would inevitably contribute to the organization's success in the future. He explained that they would be imperfect, but nevertheless financial and non-financial indicators helped understand how the company managed to achieve the intended goal.

Finally, Prof. Paul M. Healey stressed that companies had to be aware of the developments in their competitive environment as quickly as in case of financial crises. He noticed that some people had not realized what was happening in their competitive environments and had not done their work by measuring KPIs. On that note, the Dean of Harvard Business School concluded his very interesting address.

Professor Mireia Las Heras from IESE BUSINESS SCHOOL was the next speaker at the international academic conference 'Law, economy and technology for preventing the causes of crime'.

During the speech, Prof. M. Las Heras told the conference participants about compliance culture, presenting its origin and evolution over the years. The aim of

compliance is to prevent the causes of crime and compliance culture is the main element in the company. Other elements include:

- 'compliance officer', whose aim is, put simply, to systematize, monitor, and control risks in the company;
- 'risk map' which helps to identify, rank, and determine the risks in the company.

One of the employer's challenges is to provide its employees with well-being. This concept is defined as motivation to work, which is closely related to the wellbeing felt by all employees. One should, therefore, strive to maintain a balance between work and private life. Conscious modelling of these two planes is necessary.

The goal of every company should also be to create an atmosphere of trust between employees and the employer. The employer should allow employees to care for their relatives and family (and therefore, not discriminate both mothers and fathers in the professional environment). An environment should also be created in which all employees are treated equally. No one may be discriminated against on the basis of sex.

Professor Michael Siegel from the MASSACHUSETTS INSTITUTE OF TECH-NOLOGY was yet another international speaker at the international academic conference 'Law, economy and technology for preventing the causes of crime'.

During his address he talked about cyber risk and cyber risk management. In his opinion, cyber risk today is one of the biggest risks that organizations and companies have to face. Some people think that cyber risk is the only risk that can completely destroy the entire company and organization. Moreover, cyber risk has also been one of the main problems in the area of financial services for over three years. Since 2016, it has been ranked first in the rankings (i.e. also in 2017 and 2018).

Cyber risk is a combination of several elements, namely:

- Uncertainty and,
- Exposure.

In conclusion, according to Prof. M. Siegel, risk management, risk, risk mitigation, transfer and acceptance are among the most significant and key issues that may occur in the future.

Professor Roland Stephen from STANDFORD RESEARCH INSTITUTE was the next to speak at the international academic conference 'Law, economy and technology for preventing the causes of crime'.

He observed that in the twenty-first century many devices had been created with the aim of collecting, saving and using any information obtained about their users. It allows us to improve the standard of living of every person, but it involves many dangers (for example, the information can be used to commit a crime). There are various methods of obtaining information, such as:

'Amazon echo' – a device with a built-in ALEXA voice assistant. All information that is passed to ALEXA is remembered by her and saved in the internal memory of the device. One of the consequences of this approach is the ads displayed when using the Amazon web browser, matching the individual needs of the user.

'Driver monitoring system for Toyota' – it is the use of state-of-the-art technology in the form of special sensors and cameras; the technology informs the driver and passengers about any threats and dangers, and takes actions to avoid an accident. The presented system also stores all information in its memory.

In the next part of the lecture, Prof. R. Stephen told the conference participants about robots. The presented films showed the transformation of robots over the years. In the 21st century, robots are so smart that they can run, jump and avoid obstacles. There are also robots that replace human work (for example in mass production). For this reason, the development of new technology is both exciting and frightening.

The climax of the international academic conference 'Law, economy and technology for preventing the causes of crime' was the discussion panel. The discussions were moderated by Prof. Michael Rosenberg and covered four different thematic areas: finance, energy, insurance, and human resources management in the organization. The panellists were: Prof. Mireia Las Heras, Prof. Paul Healey, and Prof. Roland Stephen. The panel began with a question asked by Prof. Michael Rosenberg, recalling a lecture by Prof. Michael Siegel and an example of 'falling coconuts' (in the context of cyber risk). Using this example, the panellists gave their own views on this subject. The participants of the conference could then ask questions they prepared. While answering the questions, the panellists expressed the following views:

- Prof. Mireia Las Heras described where in the compliance culture ethics is (how it ranks) and where we can look for this value (for example in legal regulations). Therefore, the term 'compliance' should comprise not only acting in accordance with legal regulations, but we should also act better and better: according to ethical standards.
- Prof. Roland Stephen talked about how in the present day all the information and data shared via the Internet (such as e-mails) could be used. He also reminded that criminals nowadays had much more time to prepare for commission of a crime, because they could steal from another person without leaving their home.
- In the future, work and work environment will be completely different, flexible. We will be able to have jobs of different character and in different categories. It will not matter where and when we will perform our professional duties. It is important that when we perform it, we will develop thanks to it (Prof. Mireia Las Heras). Prof. R. Stephen expressed his conviction that over time work that was worse or different would be done with the help of machines and robots (this being an optimistic vision of the future).

At the end of the international academic conference 'Law, economy and technology for preventing the causes of crime', Dr Marcin Romanowski – Director of the Institute of Justice thanked all conference participants for their participation in the meeting and in discussions. He also expressed the hope that such meetings would result in an efficient state and a quickly growing economy, thanks to modern management methods and the latest technological solutions. He stated that the most important thing, however, was to ensure that the dignity and freedom of individuals were not jeopardized.