



Conclusions of the 23rd International Symposium on Quality
held in Poreč, Croatia, 16th – 18th March 2022

The 23rd international symposium on quality organized by the Croatian Quality Managers Society (CQMS) was held in the traditional time (around the first day of spring) from 16th to 18th March 2022. in Poreč, at the Diamant Hotel. Due to the epidemiological situation, the symposium was held at the so-called hybrid way, so that in Poreč, in the hotel, around 45 participants took part physically, and the same number online, who got involved in the work of the symposium from four continents. The co-organizers of the symposium were: 1) MSEECQI – Middle and South East European Countries Quality Initiative; 2) Herzen State Pedagogical University, Faculty of Management, St. Petersburg, Russia; 3) Department of Production Engineering and Safety, Faculty of Management Czestochowa, University of Technology, Czestochowa, Poland; 4) University North, Varaždin – Koprivnica, Croatia; 5) University of Žilina, Žilina, Slovakia i 6) Juraj Dobrila University of Pula, Pula, Croatia.

The symposium was held under the working title,
"QUALITY - YESTERDAY, TODAY, TOMORROW"

The patrons of the symposium were: MSEECQI – Middle and Southeast European Countries Quality Initiative, Ministry of Economy and Sustainable Development, Croatian Chamber of Economy, Croatian Accreditation Agency, State Bureau of Metrology, Croatian Business Council for Sustainable Development, University of Zagreb, Juraj Dobrila University of Pula, Faculty of Economics and Business in Zagreb (Postgraduate specialist study in Quality Management), Croatian Quality Award Foundation. Media patrons were: Poslovni savjetnik, Suvremena.hr, Kvalitet & izvrsnost, Belgrade; Portal Kvalitet, Belgrade; PoslovniFM, scientific journal Production Engineering Archives, Poland. There were donors and sponsors: University North Varaždin – Koprivnica, Zračna luka Zagreb d.o.o., Gradska plinara Zagreb d.o.o., Zagreb; BDO Savjetovanje d.o.o., Croatian Chamber of Economy, Zagreb, FINA – financial agency, Oskar – Centre for development and quality, Zagreb i Oskar Edukos, Zagreb.

As part of the first day of the symposium on 16th March 2022 a Round table was held on the topic: "The role of quality in the stabilization of supply chains", which was moderated by Prof. Krešimir Buntak, Ph.D. The panellists of the Round Table were: Assist. Prof. Miroslav Drljača, Ph.D. – CQMS, Assist. Prof. Saša Petar, Ph.D. – University North, Assoc. prof. Ines Dužević, Ph.D. – Faculty of Economics and Business in Zagreb and Krunoslav Škrlec, Ph.D. – University of Economics in Križevci. A Steering Committee meeting of the MSEECQI which consists of fifteen institutions and organizations from ten countries, was held. At the meeting, reports were submitted on what had been done in the past year, the most significant of which was the adoption of declarations on the acceptance of the "Quality Manifesto for the 21st Century" issued by the IAQ - International Academy for Quality. Thanks to the involvement of MSEECQI, the "Quality Manifesto" was adopted by the majority of MSEECQI members, and the text of the Quality Manifesto was translated into the languages of the members: Croatian, Hungarian, Polish, Romanian, Russian, Slovak, Serbian. Declarations on the acceptance of the "Quality Manifesto" with the translation into the listed languages of MSEECQI members are also available on the IAQ website, which significantly contributes to the global visibility of MSEECQI member organizations. The next significant activity, which was reported on at the MSEECQI Steering Committee meeting, is the implementation of the new EFQM model in the national quality award models of the MSEECQI member countries. At the end of the first day of the symposium, the organizer prepared a welcome cocktail for the guests.

On the second day of the symposium, 17th March 2022 the president of the Organizing Committee of the Symposium and the President of CQMS, Assoc. Miroslav Drljača Ph. D had an appropriate speech. After that, for the third time, the Prize of Dr. sc. Josip Čiček, for the best student paper in the field of management systems, was awarded to Ivana Rod, a regular student at the University North, Croatia. The mentor for the award-winning paper was Prof. Krešimir Buntak, Ph. D. After that, there were presentations of received peer-reviewed papers that will be published in the Proceedings. A total of 44 scientific and professional papers were received. 85 authors from 19 countries of the world, from four continents participated in the symposium: Argentina, Bosnia and Herzegovina, Czech Republic, Finland, Hong Kong-China, India, China, Lebanon, Hungary, Poland, Romania, Russia, USA, Slovakia, Serbia, Thailand, the United Kingdom, Vietnam, and Croatia. Among the authors and participants were students and professors from numerous universities, colleges, and polytechnics. Presentations at the symposium were simultaneously translated from Croatian to English and vice versa, and the online broadcast was managed by a professional organization for online management, so that the participants in the hall could see online participants around the world, and the online participants could see at any moment what was happening in halls. Symposium participants present in the hall in Poreč were from four countries: Bosnia and Herzegovina, Poland, Serbia, and Croatia. In the afternoon, a guided tour of the city of Poreč was organized for the participants of the symposium. In the evening, a joint dinner was organized for the participants of the symposium at the Diamant Hotel.

On the third day of the symposium, March 18th, 2022, work continued in the plenary part of the symposium with the presentation of scientific and professional papers. After the presentation, the participants of the symposium were addressed by Assoc. Prof. Miroslav Drljača, Ph. D, thanking all the authors, reviewers, members of the Organizing Committee, patrons, media sponsors, donors and sponsors and guest participants and announced the next, 24th international symposium on quality, somewhere in Croatia, in 2023, around the first day of spring.

Proceedings of the symposium will be published as a book, CD, and electronic version later. After the papers presented and the discussions held, the Board of Directors of CQMS formulated the following conclusions of the symposium:

1. The development of socially responsible practices in business is unthinkable without adopting the principles of business ethics because when making business decisions, it is necessary to consider the impact on all key stakeholders: employees, customers, owners, shareholders, suppliers and other members of the public.
2. The SARS CoV-2 virus caused a pandemic and the emergence of quarantine. Because of this, educational institutions were forced to switch from face-to-face to online classes. Students are significantly more satisfied with face-to-face teaching and believe that it is of higher quality and that they can communicate with the professor more easily, and that it prepares them much better for taking exams, compared to online teaching.
3. Agriculture is an important economic branch of every country. Therefore, it is necessary to work on the development and digitization of Croatian agriculture because digital agriculture is the future. The level of quality of digitization of agriculture should be constantly raised, especially the central agricultural information system, with the aim of developing agriculture that has outgrown the traditional boundaries and requires new knowledge and skills, as well as innovations in the education system.
4. Quality 4.0, i.e. quality management due to the fourth industrial revolution, deals with the process of managing large amounts of data (big data), uses prescriptive analysis algorithms for quality

metrics, deals with effective vertical, horizontal and complete (end-to-end) integration of quality 4.0, uses digital tools to gain strategic advantage, transfers continuous innovation to employees, adapts to new technological discoveries in order to gain competitiveness, creates a new organizational culture and supports top management in implementing new strategies.

5. A new debate on whether "purpose" should come before profit is gaining momentum. The competitive environment is such that it forces leaders to accept complex and challenging issues related to legislative, social, and environmental factors. The ability to sustain and compete in this environment requires a holistic approach to strategy.
6. The classic approach to the improvement audit closes the organization within the framework of meeting the requirements of the ISO 9001:2015 standard and narrows the purpose of the continuous improvement process, which has broad connotations. The lasting success of the organization should be the result of a process of permanent improvement, which the auditors should determine when auditing the organization, and their report should indicate the situation and the path to lasting success. To achieve this, modern methods, and criteria for proving the lasting success of the organization should be applied.
7. Croatian exporters are extremely interested in state measures that would, among other things, encourage investments in research and innovation and digitization to improve the quality of their business, which would result in an increase in Croatian competitiveness.
8. With the increase in the income of the world population, the demand for quality products is increasing. The movement of the quality of agricultural and food products changes with time, groups of people, technological development, changes in the social environment. In addition to the quality of the product, the quality of related services such as packaging, delivery, behaviour (courtesy) of the seller is important for the consumer's purchase decision. Two significant social influences on the perception of quality recently are the global COVID-19 pandemic and especially in Europe - the new Common Agricultural Policy (CAP) for the period 2023-27.
9. Achieving climate neutrality and a sustainable circular economy with low carbon emissions is only possible through synergy between different sectors. The energy sector continues to represent the largest source of greenhouse gas emissions, contributing more than three quarters of total emissions. According to the principles of the circular economy, the use of wood biomass waste ash (WBWA) in construction products as a partial replacement of cement or aggregate shows great potential, since it reduces waste generation, increases recycling and waste recovery.
10. Body literacy is a term that refers, on the one hand, to physical competence, motivation, self-confidence, and knowledge, and on the other hand, to appreciation and taking responsibility for purposeful physical activities throughout life. All this contributes to the quality of life, that is, to the understanding of the principles of integrated health. The WHO (World Health Organization) "Healthy City" project does not oblige local communities to measure the effects of the actions they carry out with the aim of promoting and encouraging the physical activity of residents, and there is no mention of physical literacy as a strategic determinant.
11. The Pareto (ABC) diagram is a graphical method for analysing phenomena by ranking sizes/phenomena or errors and their causes in descending order. It can be applied in sports where it is possible to identify a problem and, based on the results of the analysis, take corrective actions to eliminate them. Athletes and sports workers who think 80/20 are successful.

12. The modern world is becoming more complicated and changing rapidly. The digital revolution and technological advances have radically affected the way we work and establish relationships. Along with global changes and ongoing social and generational changes, existing business paradigms have also changed, and the portrait of effective top management has also changed. The market today needs a new model of top management competencies. Potential top managers are required to have a wide range of social skills and high emotional intelligence.
13. Automation and robotization of production processes is becoming more and more popular in the economy of developed countries, which means the liquidation of some (estimated around 45%) occupations by 2030. Changes in market conditions lead to changes in the requirements for employee competencies.
14. Quality management is a component of every organization, a combination of interconnected tools and solutions that can be used to reach a higher level of quality in transportation services. In the area of cargo transportation services, customers have a choice of several types of transportation services. The research results show that road and rail transport are among the most preferred types of freight transport.
15. Companies that have an ISO 9001 quality management system have somewhat better profitability indicators. Companies that previously introduced the ISO 9001 quality management system are more "resistant" to the emergence of the crisis in 2020 caused by the COVID-19 pandemic, because their profitability indicators are better.
16. The terms quality management and quality management system are established in international standards ISO 9000. Quality management is a problem of organizational management. However, for many years the primary interest has been quality assurance, which is only the part of quality management that relates to the requirements for achieving trust among external customers. When a system approach to the implementation of quality management was recognized, quality experts began to talk about quality systems as specialized systems for quality issues in the organization. However, this broke the natural connection between quality management and the organization's business management. Now there is a trend that quality management should be integrated as an organic seamless part of the organization's business system, and therefore a specific quality management system is no longer necessary. However, quality management remains a professional key concept for quality implementation in all organizations. Ultimately, the quality management system represents the quality management of the organization.
17. The world of aviation is changing. Airplanes are becoming more autonomous, more connected, more intelligent, and more versatile. Air travellers increasingly expect environmentally friendly, smart, and personalized mobility options that enable them to travel seamlessly and efficiently. Technologies such as biometrics, interactive navigation and artificial intelligence offer contactless solutions and are therefore equally relevant in a post-COVID-19 world.
18. Quality costs are included in all organization costs. I can point to insufficiently good management quality, that is, management competence. Since logistics and transport processes are responsible for ensuring all the necessary resources for the normal functioning of society, the appearance of costs due to poor quality, which are determined by poor mitigation plans, can result in an increase in the total cost price of the product or service.
19. Transformation – and similar names used to answer the question of how organizations should approach the evolution they face – is not just a question of technology. The consequences of transformation are almost always in the cultural sphere.

20. The role of quality in logistics is of particular importance because it ensures the development of supply chains and contributes to the balance between supply and demand as one of the fundamental economic laws. The role of quality in logistics should be viewed on the one hand, layered because it involves numerous participants and logistics processes, and on the other hand, holistically, because it is about global processes, with a strong influence on the quality of life of everyone on the planet.

The framework for making these conclusions was presented to the participants of the 23rd International Symposium on Quality at the closing of the symposium on March 18th, 2022, and the conclusions were adopted by the Board of Directors of CQMS at the 6th meeting held on May 9th, 2022, held in Zagreb.

Zagreb: May 9th, 2022

Board of Directors CQMS: