19th QMOD – ICQSS

International Conference on
Quality and Service Sciences

19th QMOD Proceedings

International Conference on Quality and Service Sciences

Building a Culture for Quality, Innovation and Sustainability

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Proceedings

19th QMOD-ICQSS Conference
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Welcome Address of the General Chairs of the QMOD Conference

Su Mi Dahlgaard-Park
Dr. Professor
Lund University

Jens J. Dahlgaard
Dr. Professor
Linköping University

It is our great pleasure to welcome all participants from about 30 countries and 5 continents to the 19th QMOD/ICQSS conference. The conference has attracted contributions from relevant fields of management, engineering, marketing etc. with many important empirical contributions helping us to understand limitations of existing knowledge and to develop new theories. The main theme of this 19th QMOD conference is:

<p align="center">'Building a culture for Quality, Innovation and Sustainability'</p>

The good question could be *is it really possible to build a culture covering the three different concepts quality, innovation and sustainability*? Before we can discuss whether or not possible to build such a culture we should reflect on the meanings or definitions on each key concept.

Regarding the concept of quality we find in the literature numerous definitions such as *Fitness for Use; Zero Defect; Conformance to Requirements; Value for Money; Meeting Expectations; Exceeding Expectations; and Customer Satisfaction* which all may have meaning in the specific context where those definitions were borne. The new 2015 version of ISO 9000 standard expresses this aspect clearly, because in this new version quality is defined as: *The quality of something can be determined by comparing a set of inherent characteristics with a set of requirements*.

When regarding *sustainability*, the most used and well known definition is that of the Brundtland commission (1987) stating that *sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs*.

Innovation has always been one of the central goals for quality management, because innovation is synonymous with improvement which is one of the key principles within the quality management field. For instance *incremental innovation* can be explained as small improvements in existing products, services, or processes, aiming to better satisfy the needs or requirements of current and potential new customers, while *radical improvements* can be explained as innovation in existing products, services, or processes.

Some critical factors needed for *building a culture* are leadership, vision, strategy, motivation, education/continuous learning and communication which promote, support, educate and encourage quality, innovation and sustainability. In order to build such a culture, the three elements of quality, innovation and sustainability has to be embedded in the company's shared vision and mission statement and be fully implemented based on values

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such as creativity, flexibility, cooperation, preservation, heritage, responsibility, co-creation, symbiosis etc.

We will not in this welcome address come up with a clear answer to the above "good question" but we just want to add that *quality and sustainability* are closely interrelated concepts which must be driven by *continuous innovation* in order to *meet the needs of the present without compromising the ability of future generations to meet their own needs*. A continuous cycle of improvements in quality and sustainability based on a strong learning, creative and innovative culture may be the way to satisfy existing as well future stakeholder needs which is the precondition for creating a better and more sustainable future.

The conference calls have resulted in more than 160 full papers and extended abstracts which more or less focused on this challenge. It is our hope that the presentations and discussions at this 19th QMOD conference will help and inspire participants to understand what should be the key elements when companies try to build such a culture.

Welcome Address of the Local Organizers

Maria Francesca Renzi
Dr. Professor
Local Organisational Chair

It is an honour and a pleasure for us to welcome you to the 19th QMOD/ICQSS conference at Roma Tre University. The QMOD conference has become one of the largest scientific conference within the multidisciplinary research fields on Quality Management, Service Management and related research areas. Quality, Innovation and Sustainability are three main concepts that must be considered in the global society and all the actors (industries, politicians, entrepreneurs, managers, scholars) have to consider them for building a new vision towards world growth following a framework of general well-being and peace.

People are the key to success. In any position and role, human resources always make the difference.

We strongly believe that as professors and researchers, nowadays we have the responsibility to understand and develop the meaning of Quality and all its future manifestations. Accordingly, we have to work jointly in order to identify opportunities for fostering innovation and for growing in a sustainable and responsible way all around the globe. In a few words *"We makeCulture"*.

In this respect, 'Building a Culture for Quality, Innovation and Sustainability' will be an opportunity for all the *Qmoders* to share researches on those fields.

Significant journals believed in this idea and decided to be committed to the 19th QMOD contributing with a special volume and various forms of collaboration.

Our team has attended QMOD conference since 2009 and it represented always a good platform for international, smart and informal networking. We hope that this conference will be a great chance to increase partnerships between relevant scholars and a starting point for future fruitful collaborations.

We would like to express our gratitude to all the authors of the papers submitted to QMOD conference. Special thanks goes to the members of the Scientific Committee for their valuable effort in reviewing all the papers.

I personally extend my gratefulness to all the people who were involved in the conference organization and have, directly or indirectly, helped in making it possible.

A special thanks goes to Roma Tre University, the Department of Business Studies and the national Academy of Commodities Sciences that, since the beginning, strongly supported this initiative.

Dear participants, it's our sincere pleasure to warmly welcome you all in Rome – we hope that our effort would be considered "qualitatively valid" in order to let you be able to fully enjoy the 19th QMOD-ICQSS in the Eternal City.

Jens J. Dahlgaard
Sweden

Dr. Dahlgaard became a chair professor in financial auditing at Aarhus University (1986-1991), and chair professor of a new established department of quality management in 1991 where he developed and was responsible for the first and only MSc program in quality management in Denmark from 1992 to 2000. He became later (2000) chair professor of the Division of Quality Technology and Management at Linköping University, Sweden. Dr. Dahlgaard is an academician of the International Academy for Quality (IAQ) since 1996, honorary professor at Zhengzhou Institute of Aeronautical Industrial Management, Zhengzhou, China (1997), honorary member of the Korean Society for Quality Management (2016) and Distinguished Visiting Professor at several international universities. He has received many awards among others Jorck-Prize (the most prestigious Danish prize for research in business administration (1984)), the Chinese Aviation Friendship Award (1998) for his contribution to quality management education and research in China, and the Lancaster Award by American Society for Quality (2005) "for his dedicated leadership and outstanding contribution to the international fraternity of Quality Professionals as proven, for example, by the yearly QMOD (Quality Management for Organizational Development) conferences".

Su Mi Dahlgaard-Park
Sweden

Is currently professor at Institute of Service Management, Lund University, Sweden, and she has been invited as distinguished visiting professor at several universities in Europe and Asia. She was elected as an academician of the International Academy for Quality (IAQ) in 2004, and honorary member of the Korean Society for Quality Management in 2016. As a management scholar and educator, Dr. Park gives courses and executive seminars on a range of management topics, and she has worked as an advisor for many private and governmental organizations around the world. She has published approximately 150 research articles and more than 25 books and edited volumes. Besides on her chief-editorship of the International Journal of Quality and Service Sciences she has been a general editor of the Sage Encyclopedia of Quality and the Service Economy (2010-2015), associate editor of the TQM & Business Excellence journal (2010 – 2015), and she serves on the editorial advisory boards of 10 renowned international journals. Dr. Park is a co-founder and co-chair of the yearly QMOD Conference (Quality Management and Organizational Development) since 1997. Home page: http://www.ism.lu.se/su-mi-dahlgaard-park

Maria Francesca Renzi

Italy

Is a full professor in the Department of Business Studies at the Roma Tre University. She teaches "Quality management", "Corporate social responsibility", and "Quality Systems. Currently, she is Vice Rector of the University of Roma Tre. Her areas of interest involve quality management in the public and private sectors, service quality, quality and environmental management systems, and corporate social responsibility. In these fields she has published 92 scientific contributions. She serves as   coordinator of many national and international research projects related to TQM diffusion. She is involved on several national committee as quality assessor. She is part of the NetMuse network and member of the Italian Academy of Commodity Science.

Conference Founders and General Chairs

- Dr. Prof. Jens J. Dahlgaard, Linköping University, Sweden
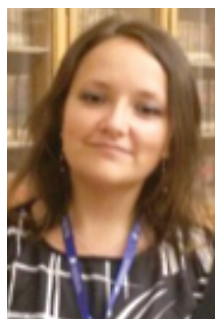- Dr. Prof. Su Mi Dahlgaard Park, Lund University, Sweden

Local Conference Chair

- Dr. Prof. Maria Francesca Renzi, University of Roma Tre, Italy

Local Conference Organizers

- Dr. Prof. Maria Claudia Lucchetti, University of Roma Tre, Italy
- Dr. Prof. Bruno Notarnicola, AISME Chairman, University of Bari "Aldo Moro", Italy
- Dr. Prof. Alessandro Ruggieri, Rector University La Tuscia, Viterbo, Italy
- Dr. Prof. Lucio Cappelli, University of Cassino and South Lazio, Italy
- Dr. Prof. Luigi Ciraolo, University of Messina, Italy
- Dr. Prof. Roberta Salomone, University of Messina, Italy
- Dr. Roberta Guglielmetti Mugion, Assistant Professor, University of Roma Tre, Italy
- Dr. Laura Di Pietro, Research Fellow, University of Roma Tre, Italy
- Martina Toni, PhD candidate, University of Roma Tre, Italy

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Scientific Committee

- Dr. Prof. Su Mi Dahlgaard Park, Lund University, Sweden (Chair)
- Dr. Prof. Jens J. Dahlgaard, Linköping University, Sweden
- Dr. Prof. Maria Francesca Renzi, University of Roma Tre, Italy
  + All session chairs (see Program)

Cooperating Journals

- **Total Quality Management and Business Excellence**
  (Special Editor: Dr. Prof. Jens J. Dahlgaard)

- **International Journal of Quality and Service Sciences**
  (Chief Editor: Dr. Prof. Su Mi Dahlgaard-Park)

- **Journal of Cleaner Production**
  (Editor: Dr. Ass. Prof. Rodrigo Lozano)

- **Journal of Service Theory and Practice**
  (Co-Editors: Dr. Ass. Prof. Chatura Ranaweera; Dr. Prof. Marianna Sigala)

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The role of Regulatory Compliance Governance in Strategic Management of Higher Education and Research Institutions

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THE ROLE OF REGULATORY COMPLIANCE GOVERNANCE IN STRATEGIC MANAGEMENT OF HIGHER EDUCATION AND RESEARCH INSTITUTIONS

Anita Straujuma, Researcher, Institute of Business Engineering and Management at the Faculty of Engineering Economics and Management of Riga Technical University
anita.straujuma@rtu.lv; Kalnciema iela 6, Riga, LV-1048, Latvia.

Modris Ozolins, Researcher, Institute of Business Engineering and Management at the Faculty of Engineering Economics and Management of Riga Technical University
modris.ozolins@rtu.lv; Kalnciema iela 6, Riga, LV-1048, Latvia.

Inga Lapina, Professor, Institute for Quality Engineering at the Faculty of Engineering Economics and Management of Riga Technical University
inga.lapina@rtu.lv; Kalnciema iela 6 - 304, Riga, LV-1048, Latvia.

Elina Gaile–Sarkane, Professor, Institute of Business Engineering and Management at the Faculty of Engineering Economics and Management of Riga Technical University
elina.gaile-sarkane@rtu.lv; Kalnciema iela 6, Riga, LV-1048, Latvia.

Bjørn Stensaker, Professor, University of Oslo, Department of Education
bjorn.stensaker@iped.uio.no; Box 1092 Blindern, 0317 Oslo, Norway.

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Abstract

Purpose - The nature and spectrum of regulatory compliance is getting broader due to impact of globalization and to expanding compliance expectations. Regulatory compliance governance (thereafter - RCG) is becoming a new emerging discipline that copes with the challenges of companies to follow all the rapid changes of regulatory requirements. Recently in European Union RCG often is understood as a tool for companies which are operating in regulated sectors. Higher education and research system is facing new challenges due to substantial changes in the business environment, as well as increasing regulatory impact. The strategic management process is becoming more complex, accordingly.

Methodology/Approach - Authors perform field research inquiring practice of HEIs management and paying particular attention to one part of it - regulatory compliance management. The research reveals the extent to which management apply RCG in the strategic management and proves that it is a component with growing importance. Several research methods, such as literature review, logical and comparative analysis and structured interviews, were applied in this research. NVivo, a qualitative data analysis computer software has been used for data organizing and analysis. The triangulation method is applied – theoretical background is formed on systematic literature review (state of art method). Theoretical investigations are approved by field research using qualitative research.

Findings - The results of research confirmed growing role of RCG in strategic management, especially in regulated sectors including higher education and research. Also it is confirmed that RCG becomes a part of strategic planning. Higher education and research institutions recognize impact of RCG on their further development. Further research can be performed to reveal role of corporate governance and synthesize most successful strategic management models that strengthen competitive capabilities.

8. **Full papers** • Anita Straujuma, Modris Ozolins, Inga Lapina, Elina Gaile - Sarkane, Bjørn Stensaker
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Research Limitation/implication - The research is based mainly on data acquired within the research project, *EU policies impact to the transformations of the higher education and research system in Norway and Latvia"* and has received funding from Norway Grants Programme 2009-2014 in accordance with the agreement No NFI/R/2014/006.

Originality/Value of paper - RCG as a holistic element of strategic management function is relatively new phenomenon. It is even less discussed in management of higher education and research area. RCG will play more and more important role as the industry is facing increasing regulation at the national as well as international levels. The findings can be applied in strategic management process of higher education and research institutions.

Keywords - Regulatory Compliance Governance; Higher Education and Science Institutions; Strategic Management, Bologna, Lisbon Process, Europe 2020.

Paper type - Research paper

Introduction

The nature and spectrum of regulatory compliance is getting broader due to impact of globalization and to expanding compliance expectations. It influences the content and structure of strategic management. Regulatory compliance governance (thereafter - RCG) is becoming a new emerging discipline that copes with the challenges of companies to follow all the rapid changes of regulatory requirements.

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Recently in European Union RCG often is understood as a tool for companies which are operating in heavily regulated sectors. Higher education and research management is facing new challenges due to substantial changes in the business environment, as well as increasing regulatory impact on the industry. The strategic management process is becoming more complex, accordingly. Nowadays proactive strategy toward regulatory compliance becomes a part of strategic management in almost all industries.

RCG as an academic area is mostly addressed in information technology research. This research approaches RCG from organization management perspective by focusing higher education institutions (hereafter HEI) and strategic planning. Authors perform field research which reveals the extent to which management applies RCG in the strategic management of higher education institutions and proves that it is a component with growing importance. Higher education and research institutions recognize impact of RCG on their further development. Further research can be performed to reveal role of corporate governance and synthesize most successful strategic management models that strengthen competitive capabilities.

The research is based mainly on data acquired from higher education and research institutions in Latvia and Norway.

Several research methods, such as literature review, logical and comparative analysis and structured interviews, were applied in this research. NVivo, a qualitative data analysis computer software has been used for data organizing and analysis. The triangulation method is applied – theoretical background is formed on systematic literature review (state of art method). Theoretical investigations are approved by field research using qualitative research.

Regulatory compliance management

Regulatory compliance management (thereafter - RCM) is ensuring that organization adheres to laws,regulations, guidelines and specifications relevant to the industry where it is operating

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(Rouse, 2012) , (Niemand, Feja, Witt, & Speck, 2015). The nature and spectrum of regulatory compliance is getting broader due to impact of globalization and to expanding compliance expectations. Regulatory compliance management is becoming a new emerging discipline that copes with the challenges of companies to follow all the rapid changes of regulatory requirements. RCM discipline is mostly addressed in information technology research. This research looks at RCM from company management perspective, as a part of organization strategic planning. Recently in European Union RCM often is understood as a tool for companies which are operating in heavily regulated sectors like financial services. Nowadays proactive strategy toward regulatory compliance becomes a part of strategic planning in almost all industries (Ernst&Young, 2011) (Viewpoint, 2013).

The total market value for RCM expenses are increasing year by year. In scientific literature it is mentioned 32 billion US dollars on 2008 (Hagerty, Hackbush, Gaughan, & Jacobson, 2008–2009) and it is continuing to increase. A lot of companies, especially in US, analysing costs of RCM and loses caused by lack of RCM in a company admit that there are not only substantial financial losses but also high risks of a damaged reputation, decreased shareholder value and severe fines (Abdullah, Sadiq, & Indulska, 2010). "The extrapolated average cost of compliance for 46 organizations is more than $3.5 million, with a range of $446,000 to over $16 million. The extrapolated average cost of non-compliance for 46 organizations is nearly $9.4 million, with a range of $1.4 million to nearly $28 million" (Ponemon_Institute, 2011). "78% of CEOs around the world view increasing regulation as the top threat to business growth" (PWC, Bernstein, & Falcione, 2015). "Almost a third of global executive respondents say that they spend more than 6% of their organization's annual revenues on governance, risk and compliance activities" (KPMG, 2012), (StateOfComplianceSurvey, 2015). Studies show that there is a recent tendency to move from reactive actions towards proactive, integrated, collaborative attitude in regulatory compliance. This is reasoned by understanding that reactive and fragmented solutions cost ten times more than rising regulatory compliance management to strategic level (Bace, Rozwell, Feiman, & Kirwin, 2006).

There is a high complexity to interpret the legal knowledge and integrate it in the business processes (Boella, Janssen, Hulstijn, Humphreys, & Van Der Torre, 2013). Ambiguity, complex traceability, overlapping functions and conflicting requirements are the reasons for looking at the regulatory compliance from wider perspective (Bonazzi & Pigneur, 2009), (Niemand, Feja, Witt, & Speck, 2015). Organizations must develop "beyond the law" thinking to be able to integrate the long term issues with industry needs (Friedman, 1997) since even in the absence of laws society expects that companies will act within the ambit of informal agreements and their social responsibilities thus RCM involves also dealing with ethical issues (Beardsley, Bugrov, & Enriquez, 2007). The tendency has shifted from hiring more and more lawyers and high investment in lobbying towards collaboration of all industry stakeholders in search of optimal solutions to global challenges. (Beardsley, Enriquez, & Nuttall, Managing regulation in a new era, 2009). RCM involves extensive knowledge in technical subject as well as detailed database of compliance requirements that are coordinated across all organizational levels to avoid duplication of planning, reporting and misleading priorities (Grand, 2005). Thus it is not anymore level of lawyers, risk and quality managers who lack a holistic view but a position at the strategic level whose tasks are to integrate risk management, ethics, company values at the stage of decision making and organizational culture within regulatory compliance management (KPMG, 2012), (Beardsley, Bugrov, & Enriquez, 2007). The culture of compliance includes "cooperative attitudes, providing information in a timely manner, availability of senior management, access to memos of employees, internal communication from senior management, consistent disciplinary action, compliance department funding" (Morton, 2005).

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The title of Chief Compliance Officer (CCO) has become widespread, particularly if we talk about huge multinational companies (Sadiq & Governatori, 2010). The CCO is implementing RCM in the company, framing company culture, serving the Board needs in order to make the proper complicated strategic development decisions like mergers and acquisitions, launching a new complex product, entering foreign markets and similar (Career Resources, 2016).

Regulatory compliance and quality assurance

Regulatory compliance and quality assurance functions sometimes overlap but should not be confused. The same applies to conformity assessment. It is a much narrower concept, actually being a subset of quality assurance activities. "The three main components of the quality infrastructure are metrology, standardization and conformity assessment" (ISO, 2010). Conformity assessment procedures are technical activities such as testing, verification, inspection, certification, and accreditation that directly or indirectly demonstrate that supplied products, system, processes, body or persons meet the specific requirements (Nemeroff & Bao, 2009), (BIS, 2012), (Delaney & Zande, 2000). Conformity assessment should be designed proportionally to the risks of regulatory noncompliance (ACUS, 2012). The quality assurance is defined by IEEE standards as a process providing appropriate assurance that "products and processes in the product life cycle conform to their specific requirements and adhere to their established plans" (IEEE, 2008). Whereas Feldman defines it briefly as measurably meeting expectations and conforming to requirements (Feldman, 2005). Quality assurance involves consistency with internal and external requirements, including legal compliance and customer expectations (AGCAS, 2014). Amaral suggests that due to low trust in institutions there is a tendency to shift quality assessment as a tool for improvement to accreditation as a tool of accountability and customer protection (Amaral, 2014). Quality and integrated management systems that have been used by businesses for several decades are playing increasing role in Higher Education Institutions (thereafter – HEI) and the overall goal is to exceed customer requirements applying the knowledge of global necessities and future development (Holm, Sammalisto, & Vuorisalo, 2014). It is also common that both, RCM and quality assurance need both, a broad strategy to target sustainable goals and a specific strategy to set up industry quality indicators and both require consideration of various stakeholder perspectives (Schindler, Puls-Elvidge, Welzant, & Crawford, 2015).

European policymaking in the area of education and research

In order to identify the impact of regulatory environment on operations of HEI and research the policymaking modes and EU policies in higher education has to be discussed.

Policymaking modes in Europe

On the EU level a distinct set of policymaking modes can be identified (Wallace H. , 2010)The traditional community method and regulatory mode have not been widely used neither for education or research. When it comes to (re)distributional politics, research policy has been an area where this has been used, mainly through Framework Programmes. While the actual amount of money that has been redistributed has been marginal in comparison to overall national research funding, this funding has over time become prestigious. Furthermore, in the context of difficult budgetary situations in some European countries, including Latvia, additional funding sources have substantial appeal.
However, European policymaking can also take place through intensive trans-governmentalism, where national policymakers are linked more closely in operational cooperation, with limited EU involvement through an agency of a separate strong collective executive, used in areas

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of national sensitivity, can provide a basis for more extensive cooperation (Wallace H. , 2010). Intensive trans-governmentalism best describes the approach that the Bologna process initially was based on, and also the first steps of coordinating research policy before the introduction of Framework Programmes.

Given the limited legal capacity, policy coordination mode has been one of the most important approaches to building Europe of Knowledge – through soft law and more recently Open Method of Coordination (OMC). Policy coordination is characterized by benchmarking, used initially by the OECD it has been used by the EU and in bilateral efforts to transfer policy experiences from one European country to another. Initially this was seen as a phase of transition from national to supranational policymaking but now becoming a mode in itself through the emergence of OMC (Wallace H. , 2010).

Policy coordination and softer approaches gaining prominence through the OMC. OMC was introduced within the Lisbon agenda. The Lisbon agenda was agreed upon at the European Council meeting in March 2000 with its focus being on stimulating economic growth along with social cohesion in the context of the knowledge economy. The overall procedural aspect of OMC was open and not clearly defined (Borrás & Jacobsson, 2008), but in the area of education it has created institutionalized space for action (Gornitzka, 2005). OMC entails that policymaking processes have a more intergovernmental nature than they would have in the case of directives and the main idea is that policies, instruments and targets are not enforced top down; rather, the focus is on coordination, benchmarks and soft law (Gornitzka, 2005). However, the instruments themselves are not value free and have normative implications (Bruno, Jacquot, & Mandin, 2006), creating both winners and losers (Borrás & Jacobsson, 2008).

Education has emerged as one of the key policy fields in the Lisbon era. The central characteristics of the Lisbon agenda is the use of OMC, which allowed the Commission to enter previously sensitive areas (Gornitzka, 2007). It has thus been argued that it would appear as if the EU has gone beyond the rules set in Maastricht treaty (Ertl, 2006). Gornitzka (2007) identified three main implications of Lisbon for higher education:

– Role of R&D was to provide for economic growth;
– Education as a core labour market factor and tool for social cohesion;
– Focus on *common* concerns and priorities.

One can identify a solution and problem driven rhetoric – a perceived performance crisis has been identified, creating a new balance between external and internal relations of authority and power, where the solution is based on "causal and normative beliefs that are taken as givens" (Olsen & Maassen, 2007). What this has created is a perceived necessity for common action.

EU policies in education – multiple logics

In the current project, two European processes have been identified as of particular interest for analysing impact: The Lisbon Strategy, followed by Europe 2020 and the Bologna Process. Although these processes are very different concerning EU "ownership" and influence, they are both intended as means for transforming European higher education and as stepping stones for building "the Europe of Knowledge" and have been described as the two "pillars" for this process (Maassen & Musselin, 2009), (Vukasovic, 2014). The novel approach launched by the current study is an attempt to examine the impact of Lisbon Strategy and the Bologna Process in an integrated way (Braun, 2008), (Gornitzka, 2007). This is of particular interest as these two overarching policy processes can be said to build on contradictory objectives. While the Lisbon Strategy can be said to be built on a policy logic related to excellence, the Bologna Process is more linked to a logic emphasising standardization (Maassen & Stensaker, 2011). Innovation is particularly high on the agenda in recent years, with emphasis of the so-called Knowledge Triangle (education, research

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and innovation), and also launching the so-called Innovation Union. Focus on entrepreneurialism is highlighted in the University Business Cooperation – that highlight new kinds of cooperation between universities and businesses, with the assumption that this will foster innovation.

Within the Lisbon Strategy, a number of new initiatives were proposed. The European Research Area (ERA) was suggested with more economic focus where both activity and funding have been increased, The European Research Council (ERC) and European Institute of Technology (EIT) were established, and there is an increasing emphasis on excellence (Beerkens, 2008). What should be noted is that activity within research policy is not new and is hardly as contested as in the field of education.Research has had also a link to the Treaty from the beginning and has experienced a substantial amount of policy activity and being a relatively large budget expense in the Community. Thus, the supranational executive activity is well established (Gornitzka, 2007). After the introduction of FPs in 1983 they became for a long time the main instrument for research policy with an ever increasing budget. By FP5 it had become third largest EU budget area after agriculture and structural funds and they have been considered highly institutionalized (Banchoff, 2002). The most recent FP was launched under the label Horizon 2020 and is in EU context fronted as a "flagship initiative" of Europe 2020. This has also raised considerable national interest as programmes such as ERC and Horizon2020 are high on the agenda in all countries, with very uneven success.

From the perspective of European integration in education, Bologna was first posed as an alternative and parallel process to the initiatives within the Community framework. What is important to highlight here is that after the introduction of the Lisbon agenda, there has been a gradual adaptation of the Bologna focus in both Prague and Berlin meetings (Neave & Maassen, 2007). Whereas in Prague there was still a cultural emphasis, new lines around lifelong learning and competitiveness were introduced, and in Berlin there was already a direct reference to an economic role of higher education (Neave & Maassen, 2007). This has led to arguments of a de facto convergence of the two processes (Beerkens, 2008). According to Huisman and van Vught (Huisman & Van Vught, 2009), whereas Bologna aims at harmonisation, it was "far from clear which aspects of diversity are worthwhile to pursue and which not, beyond general notions as language and cultural diversity". In addition, the Commission rhetoric was quite different – "instead of structural convergence, it takes institutional diversity as a point of departure" (*ibid.*). For example, some aspects of the Bologna Process are prescribed in quite detail, including degree structures, ECTS, Diploma Supplement, thus providing benchmarks to examine how national systems are adapting in the context of the Bologna Process. At the same time, the Bologna process may also open for mutual convergence which may lead to isomorphism in terms of funding and sideways shifts in governance arrangements (CHEPS, 2007). A number of the instruments and programmes found under Erasmus+ can also be seen to contribute towards this goal. One example can be found in the form of qualifications frameworks, introduced both in the context of EU and in the Bologna Process (Elken, 2015).

Erasmus+ was established in 2013 (European Parliament and the Council, 2013), after first being introduced under the label "Erasmus for All" in 2011 (The European Commission, 2011). What this marked was a process of coordination of various policy areas on EU level. In addition to education and training, Erasmus+ also concerns policies for youth and sport. The programme period is between 2014 and 2020. The programme covers various fields: "education and training at all levels, in a lifelong learning perspective, including school education (Comenius), higher education (Erasmus), international higher education (Erasmus Mundus), vocational education and training (Leonardo da Vinci) and adult learning (Grundtvig)" (European Parliament and the Council, 2013). The initiative emphasizes a lifelong learning perspective on education, a key element of this coordinated view on education and training. The programme concerns in

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particular three main elements for reform:
–   learning mobility of individuals;
–   cooperation for innovation and the exchange of good practices;
–   support for policy reform.

Learning mobility concerns primarily mobility of students and staff in EU, with also focus on third countries. Cooperation for innovation and exchange of good practices in the context of peer learning and joint initiatives, but also the increased linkages between world of work and education and training institutions (i.e. fostering entrepreneurship and university-business collaboration). This concerns emphasis on work-based learning and curricular innovation but also implementation of EU recognition and transparency instruments (see list below). Third element in this cooperation is focus on IT support platforms for peer learning.

Policy reform concerns a number of policy initiatives, and highlights specifically also the Bologna Process. Instruments that are highlighted in the decision include:
–   the single Union framework for the transparency of qualifications and competences (Europass),
–   the European Qualifications Framework (EQF),
–   the European Credit Transfer and Accumulation System (ECTS),
–   the European Credit System for Vocational Education and Training (ECVET),
–   the European Quality Assurance Reference Framework for Vocational Education and Training (EQAVET),
–   the European Quality Assurance Register for Higher Education (EQAR) and the European Association for Quality Assurance in Higher Education (ENQA),
–   the provision of support to Union-wide networks and European non-governmental organisations (NGOs) active in the field of education and training.

In general, the European policy initiatives in higher education and research have consistently called for a "modernised" European university (Olsen & Maassen, 2007). The extent to which this has already made an impact on universities is another matter. As possible "targets" of Europeanization of higher education institutions, one can identify: leadership, administrative structures, the internal organisation (primarily the relationship between the central level, constituent faculties and chairs or departments), the academic profession, students (recruitment or selection, assessment, mobility), the organisation of teaching and research (including curricular governance and structure, see Witte 2008), internal quality assurance mechanisms, patterns of cooperation with other institutions, etc.

The empirical question thus becomes how one tackles these multiple logics in national policy domain and the kinds of policy responses that have been developed for better performance. Based on these logics, we highlight a selection of specific instruments to be traced to national level. The main rationale is that they should be clearly articulated, as clarity of demand has been highlighted as an important element facilitating Europeanization (Vukasovic, 2014). Thus, we first focus on a brief summary of the main developments in the European policy domain, and then suggest specific instruments that have their main aim at standardization and excellence.

Analysis of higher education institutions' strategies

In order to evaluatethe role and importance of regulatory compliance governance in strategic management process of higher education institutions (HEI), documents of strategic development and internationalization strategies have been analysed. The authors completed higher education institution strategy document content analysis, by means of NVivo, a qualitative data analysis computer software.

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The main questions of the research are as follows:

1) At what extent European policy impact is reflected at HEI strategies?
2) What is the role of Regulatory Compliance in strategic management of HEI?
The content analysis consists of four stages:
1) Higher education institution selection the "Webometrics Ranking of World Universities" (CSIC, 2016). The authors selected 5 top Latvian universities and 2 university colleges, as well as one internationally oriented business school. Norway was represented by 7 leading universities, 3 university colleges and one business school.
2) 23 documents related to strategy were selected. After critical analysis, 21 documents were used for the next stage.
3) Selected strategy documents' content analysis using NVivo 10. The authors used a query for word frequency counting as a tool for coding. After that the authors created "8" nodes with "24" synonyms.
4) Results assessment.
The query was used as a tool for coding (see Fig.1). Due to the queryrunning 100 most frequent words are found from 21 selected strategy documents review. According to current research questions and query results the main words are selected: International, quality, cooperation, global, partners.

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Figure 1 Query results (100 frequently used words in the strategy documents) [created by authors]

The following step was text coding. Six nodes with 20 synonyms were created on the basis of query and critical document review. Some of the main nodes are: Internationalization; Mutual cooperation and collaboration; Europeanization; Quality assurance; Compliance.

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According to the analysis, the authors conclude:

1)   Internationalization plays significant role in operations and strategic development of higher education institutions, it is reflected in the relevant documents;

2)   Although Europeanization process is playing significant role in development of institutions, minor impact of European policy initiatives is reflected in the strategy documents;

3)   European finances play significant role in supporting research activities of universities. Researchers are interested in establishing joint projects and activities.

4)   Regulatory compliance issues are not explicitly indicated as a part of strategy of HEI.

5)   In order to get additional information, the field research has to be conducted. The most appropriate field research method is interviewing of top managers of HEI.

**Field research on RCM impact on management process of higher education institutions**

In order to discover the extent of RCM impact on management process of higher education institutions in Latvia, the structured interviews were carried out.   Experts - top managers - of 3 major HEI-s in Latvia: Riga Technical University (RTU), University of Latvia (LU) and Riga Stradins university (RSU) were interviewed. These three universities are largest state universities in Latvia by number of students. The total number of respondents is 12, involving all vice-rectors of RTU, directors of marketing and legal departments, development director, rector of LU and all vice-rectors of LU and two vice-rectors of RSU.

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The survey contained 12 main questions and consisted of three parts, the first of which includes questions about impact of RCM on the strategic management of the University. The second part of the survey inquired the impact of particular EU regulations on the strategic management of studies and scientific research of the universities and the final part of the questionnaire investigated the place of RCM functions in the university and impact on managerial functions.
None of institutions had implemented RCM function and separate CCO (Chief Compliance Officer) position, nevertheless all the interviews revealed that RCM is a substantial part of HEI strategic management and is performed in a decentralized manner by top management of the universities. Concerning EU recommendations, research is more impacted than study process since there EU project financing plays important role and financing regulations impact HEI who want to take active part in projects. They also influence future research directions by setting the priority sectors for financing.
Interviews examined the impact of Europe 2020 and Bologna process recommendations on Latvian HEI. Although they are not compulsory, all top level managers of the universities scored impact as significant because of necessity to operate in global context. Department directors' functions are more affected by local legislation on specific functional matters correspondent to their particular specialization. Interviews revealed that most regulated functions by local legislation in HEI are financial management and accountancy, human resource management and information technology department. General management, quality and risk management, internal and external audit, intellectual property management functions have moderate impact by local and international legislation and recommendation. Least regulated function is marketing and communications. RCM functions are performed by administrative or development directors of the universities.

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The experts interviewed identified various types of impacts of policy initiatives on higher education and research institutions. See Fig.2.
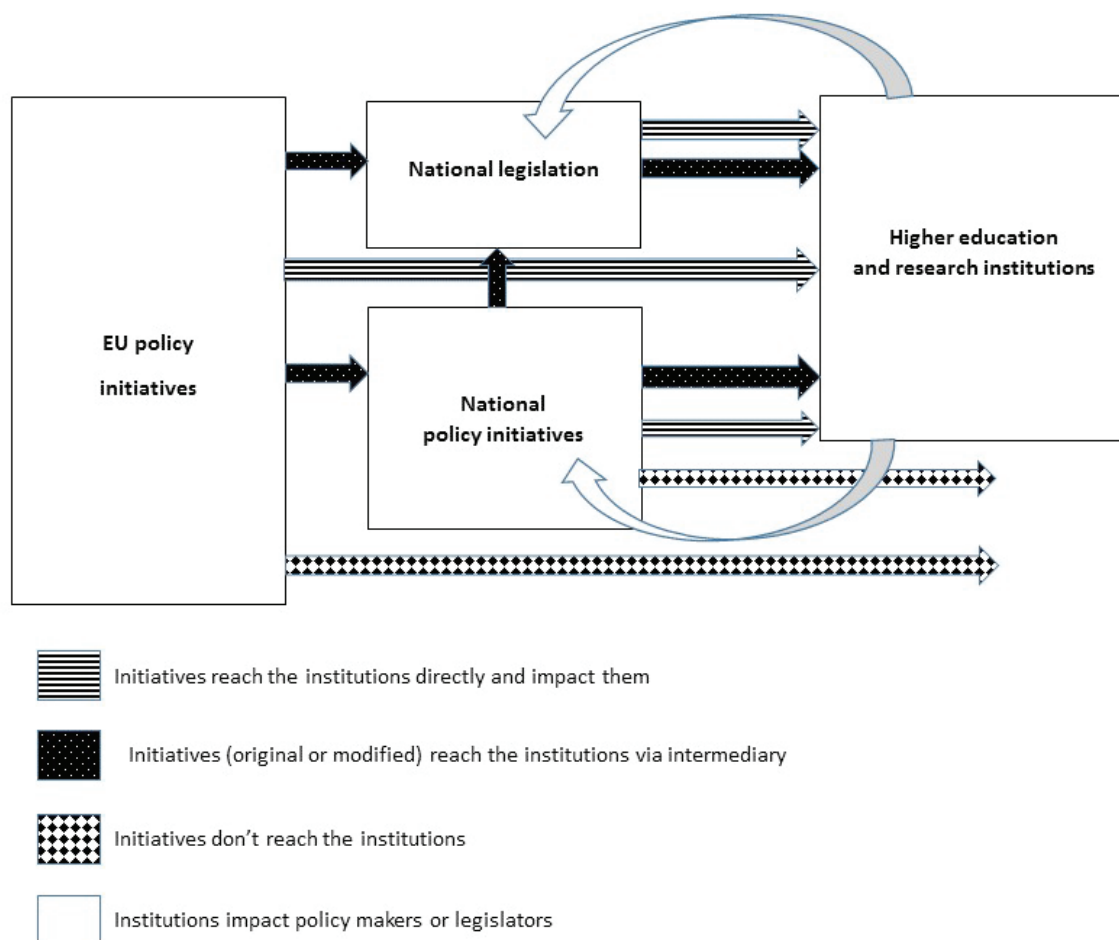
Figure 2. Impact of policy initiatives on higher education and research institutions [created by authors]

An interesting finding is that the biggest state universities go further in RCM - they play significant role in shaping the future of legislation by suggesting the recommendations that reflect the future needs and opportunities of HEI in local and global context.

Conclusions and discussion

The research revealed the main gap in understanding the impact of RCM on university management. Universities are fairly autonomous and on the first sight there is little regulation, especially by EU since there are no EU laws that directly apply to the HEI, all the above mentioned EU regulations are more as recommendations. Local governments may convert these recommendations into binding regulations for the universities but that is often not the main case. However, state owned HEI administrative and support functions are quite heavily regulated by local legislation mainly addressing financial management, procurement procedures and program accreditation.

Most of the universities are highly dependent on EU funding. In order to be able to get access to the EU projects, they must comply to the EU recommendations that are often integrated within the conditions of the EU financing. Thus strategic management of the universities is often quite heavily indirectly regulated by financial tools. Other instrument that brings to life EU recom-

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mendations are different kinds of HEI ratings. Conformity to the requirements or regulations of the ratings is a free choice for the universities. But in the times when a poor demographic situation sets a severe struggle for each potential student and researcher, especially for international ones, conformity to the ratings is a must. That makes RCM function an important part of HEI strategic planning since it involves more than local legislation or even EU regulations. Although none of surveyed HEI has implemented separate chief compliance officer position, the same functions are accomplished by highest level management, e.g. development manager. Biggest state universities go further in RCM - they play significant role by shaping the future of legislation – suggesting the recommendations that reflect the future needs and opportunities of HEI in global context.

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