Introduction
The EU is currently a key actor in producing policy and taking policy-initiatives in the area of higher education, research and innovation (Chou & Gornitzka 2014). When studying the impact of the EU as a policy actor, studies have in general found that the impact of EU policy-making differs across Europe (Börzel & Risse 2012). While studies also have found that EU policies certainly can be traced in national regulations and in national rule making, there are fewer studies looking at how EU and other European policy initiatives (e.g., the Bologna process) are reflected at the institutional level – in universities and colleges.

Given the trend towards increased institutional autonomy in higher education across Europe (Maassen & Musselin 2009), it is also a question to what extent formal regulations and rules are sufficient as governance tools for spreading the European gospel beyond national borders. Hence, soft law initiatives – including capacity building, more open coordination mechanisms and the use of information – have often been used as a way to promote European policy-initiatives (Borras & Jacobsson 2008; Kassim and Le Galés 2010). In general, soft law initiatives can be said to be based on the use of normative and cultural-cognitive diffusion mechanisms assuming that due to the legitimacy and economic importance of the EU and other policy initiatives, most institutions will pay much attention to these initiatives and adapt to them accordingly (Papedimitreou et al 2015). However, even though diffusion indeed can be found in higher education and research area (Chou & Gornitzka 2014), we need to recognize that the EU has diverse formal competence, and that it should not be taken for granted that EU policies are spread evenly across all policy areas and institutional settings. Hence, the current article is based on the assumption that specific national and institutional characteristics may influence the institutional attention and consequently the institutional interest in adaptation to EU and European policy initiatives. More specifically we investigate 1) the attentive impact of EU policy competency in different policy areas (research, innovation, and higher education), 2) the role EU national membership may play for institutional agenda setting, 3) whether economic dependence of Europe matters for institutional agenda-setting and 4) whether administrative capacity matters with respect to how European policies are paid attention to at the institutional level.

To shed lights over these issues the strategic plans of a sample of higher education institutions in Norway and Latvia are analyzed in detail. Norway and Latvia are very relevant cases for the current article as these countries have a number of characteristics that makes a comparison interesting: they have different membership status to the EU, and they are also in a somewhat different economic situation which should theoretically impact their dependence of Europe.
A theoretical reflection on European policymaking in the area of education and research

At the EU level, distinct sets of policymaking modes can be identified (Wallace, 2010). The traditional community method and formal regulatory mode have not been widely used for either 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 very prestigious (Chou & Gornitzka 2014). Furthermore, in the context of difficult budgetary situations in some European countries, 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 of national sensitivity, can provide a basis for more extensive cooperation (Wallace, 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. Hence, research, innovation and education can be said to fall under somewhat different regulatory modes of operation, with different prospect concerning their spread and impact at the institutional level. While the Lisbon Strategy addressing research and innovation issues in particular is an area where EU policy-making has a more formal and legitimate role (Neave & Maassen 2007), the Bologna Process which mainly addresses issues concerning higher education is an inter-governmental process which in principle could be seen as reducing the potential impact of any EU policy initiatives (Maassen & Stensaker 2011). 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 central “pillars” for this process (Maassen & Musselin 2009, Vukasovic 2014). The approach launched in the current study is to examine the impact of the Lisbon Strategy and the Bologna Process in an integrated way (Braun 2008; Gornitzka 2007).

The Lisbon Strategy and the opening up for more regulatory compliance

Within the Lisbon Strategy, a number of new initiatives have been proposed over the years. 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, these programs 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 Horizon 2020 are high on the agenda in all countries, with very uneven success.

Based on this, one could argue that in the research and innovation area, one might expect to find considerable institutional interest with respect to the formal regulations framing these policy areas, and the need for adaptation to them at the institutional level. Regulatory compliance management is often seen as a way to ensure that an organization adheres to laws, regulations, guidelines and specifications relevant to the industry sector it operates in (Rouse, 2012), (Niemand, Feja, Witt, & Speck, 2015). Within the EU the nature and spectrum of regulatory compliance is getting broader due to the impact of globalization and to expanding compliance expectations. As such, regulatory compliance management is becoming a new emerging discipline that copes with the challenges of public and private companies to follow all the rapid changes of their regulatory requirements, not least in information technology research – one of main priorities in Horizon 2020.

Given the political importance attributed to Horizon 2020, one could assume that much strategic attention is paid to demonstrate their ability to comply with external requirements (Beardsley, Bugrov, & Enriquez, 2007), and to take steps regarding implementation (Grand, 2005). As a consequence, one might assume that higher education institutions would prioritise an adaptation to current EU policy initiatives in research and innovation in their strategic plans (Morton, 2005).

**The Bologna process as voluntary adaptation**

From the perspective of European integration in education, the Bologna process 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), although it should be underlined that the Bologna process must still be characterized as an inter-governmental and thus far more voluntary process than the Lisbon Strategy. While the Bologna process also is aimed at harmonisation, it is also a process where language and cultural diversity is prioritised (Huisman & Van Vught, 2009). In addition, the Commission’s rhetoric has been quite different acknowledging the need for institutional diversity. Still, some aspects of the Bologna Process have been prescribed quite in detail, including degree structures, ECTS, Diploma Supplement, thus providing benchmarks to examine how national systems are adapting in the context of the Bologna Process.

Acknowledging its voluntary nature, the Bologna process may still 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 the 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 at the EU level. In addition to education and training, Erasmus+ also concerns policies for youth and sport and 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 particular three main elements for reform: learning mobility of individuals; cooperation for innovation and exchange of good practices; and support for policy reform. However, given the strong national traditions and the emphasis on institutional diversity linked to the organization and governance of higher education, one could still expect less institutional attention being paid to Bologna related issues and similar European policy initiatives in strategic plans at the institutional level.

**Other factors potentially affecting institutional strategic attention**

One could expect that formal membership of the EU matters with respect to how countries and institutions pay attention to EU policy initiatives. While much national and institutional interest in EU policies also may be given by countries not being members of the union, such attention should not be taken for granted (Sissenich 2007). Controlling for national EU membership status is thus important to shed light on whether this impacts the institutional attention given to EU policies. In general, one could expect that EU membership would positively influence strategic plans in areas where the EU has formal competence (research and innovation).

The economic situation in Europe is also very different from country to country. This could potentially impact general interest in European policies (Chou & Gornitzka 2014). This argument is more related to economic dependence of Europe rather than formal membership of the EU. As European funding represents an alternative funding source for struggling countries and institutions, one could assume that institutions in countries with demanding domestic budgetary situations would look to Europe for possibilities of extra funding, and that this would be reflected in the strategic plans at the institutional level. It is also possible to argue that institution-specific characteristics may impact the attention span of universities and colleges. This aspect provides potential for understanding in the context of the relationships among university–industry–government elements, notably regional economic growth (Erina et.al. 2017). Not least, one could assume that larger (and often more disciplinary broad) institutions would have considerably more interest and more administrative capacity to scan and have an interest in European policy initiatives than smaller (and more disciplinary narrow) institutions (Maassen &
Olsen 2007, Stensaker et al. 2014). Such large institutions tend to be universities that normally have a strong tradition for international collaboration, not least in research. Hence, we expect that larger institutions have strategic capacity and thus a larger potential to follow up and adapt to European policy initiatives.

Empirical design, data and methods
To shed light on the research questions identified, the current study has systematized and analysed the strategic plans of a sample of higher education institutions in Norway and Latvia. The selection of countries is based on their different EU membership status – Latvia is a member of the EU, while Norway is not a member of the EU (although Norway as a member of the European Economic Area has full access to funding from EU Framework programs). Their economic situation is also somewhat different with Norway scoring better than Latvia on several economic indicators. Hence, the socio-economic contexts surrounding the selected case institutions are quite different.

Although the population in Norway is almost three times larger than the population in Latvia (5.4 million vs. 1.9 million in 2017), the number of higher education institutions (HEIs) is quite similar not least due to a rapid growth of private higher education institutions in Latvia in the 1990s. During the last years, consolidation of higher education sector in Latvia is taking place. There are a total of 38 accredited HEIs in Norway (January 2017), of which 8 are universities. In Latvia there are currently 30 accredited HEIs, of which 6 are universities.

Within Norway and Latvia, a total of 18 institutions were identified as relevant cases. As a primary criterion for case selection, we wanted to identify institutions that could be expected to have an interest in EU policy-making in general. Hence, cases were identified using the “Webometrics Ranking of World Universities” (CSIC, 2016). The Webometrics was chosen as it is the largest academic ranking of higher education institutions. The ranking provides multidimensional and reliable information about the performance of HEIs from all over the world based on their web presence and impact. Based on institutions listed by the Webometrics, we selected 5 major Latvian universities and 2 university colleges, as well as one internationally oriented business school. Norway was represented by 7 major universities, 3 university colleges and one internationally oriented business school. All the institutions chosen offer at least bachelor and master programs, and the majority of them also offer doctoral programs. In total, we identified 21 strategic documents for the analysis of the 18 HEIs selected. Based on the discussion above, the following expectations can be identified regarding the two countries and the characteristics of the strategic plans of the selected institutions:

- With respect to policy areas, we expect that both Latvian and Norwegian HEIs pay more attention to research and innovation (the Lisbon Strategy) than higher education (Bologna).
- With respect to EU membership, we expect Latvian HEIs to pay more attention to research and innovation than Norwegian HEIs.
- With respect to economic dependency, we expect Latvian HEIs to pay more attention to all European policy areas (research, innovation and higher education) than Norwegian
HEIs.

- With respect to administrative capacity, we expect larger HEIs (universities) in both countries to pay more attention to all European policy areas (research, innovation and higher education) than smaller institutions.

To analyse the strategic plans of the institutions, a careful qualitative design was developed to identify potential important EU policy initiatives and actions that could be expected to be reflected at the institutional level. Here, we not only searched for specific initiatives, but also the policy instruments that are linked to them.

In the content analysis of strategy documents, we also searched for possible indirect influence of EU policy-making. In general, European policy initiatives in higher education, research and innovation have consistently called for a “modernised” European university (Olsen & Maassen, 2007). The extent to which these modernisation attempts are reflected in institutional strategies is another matter. However, as possible links to EU policy-making we also searched for words that addressed 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 also Witte 2008), internal quality assurance mechanisms, patterns of cooperation with other institutions, etc. The content-analysis of the strategic plans of a sample of higher education institutions was conducted using prescriptive coding approach.

To identify the possible links of these plans to EU policy-making, a set of predefined categories, or codes, was created. Codes for reflecting EU policy-making in higher education institutions were defined based on the Modernization Agenda of Europe’s Higher Education System. Particularly, the code “increasing number of higher education graduates” reflects one of the targets of the Europe 2020 strategy – by 2020, 40% of young people should have completed higher education studies. Another code “quality and relevance of studies” reflects intentions to develop study content according to the market needs, new study technologies, as well as incentives to reward excellence for institutions to attract and retain high quality teaching and research staff. The increasing role of “entrepreneurial university” is included under this code as well. The next code “promoting mobility and cross-border cooperation” reflects the target set by European higher education ministers to increase the number of students completing a period of study or training abroad up to 20% by 2020. Building mobility into curricula, improving the recognition of diplomas and credits, consistent use of ECTS and the Diploma Supplement, and linking qualifications to the European Qualifications Framework are included under this code. Finally, the fourth code “governance of higher education institutions”, reflects necessity to increase cost-effectiveness of public investment in higher education, to diversify funding sources, investing in professional management, thus making funding and governance systems more flexible.

In order to define the codes for “Research” field the guidelines from the European Research Council and Innovation Union, as well as European Research Area were combined. The code “research excellence” reflects the need to foster high quality research – the best of the best in
Europe. The code “frontier research” reflects the ERC aims to encourage the work of the established and next generation of independent top research leaders in Europe. Promoting wholly investigator-driven or “bottom-up” frontier research supporting new research directions, promoting creativity is strongly supported by ERC. The focus on internationalization of research activities and necessity to coordinate cross-border cooperation, thus strengthening and shaping the European research system, has been coded under “international research”. Finally, triple helix concept, cooperation between academia and industry, turning scientific results into commercial output is coded under the code “innovation”.

According to Philipp Mayring’s guidelines for qualitative content analysis, three units need to be specified: the coding unit, the context unit and the recording unit (Mayring, 2014). In this study the coding unit, or “the smallest component of material which can be assessed and what the minimum portion of text is which can fall within one category”, is a specific word or phrase. The context unit, or the unit that “determines the largest text component which falls within a category”, is a document page. The recording unit, or the unit that “determines which text portions are confronted with one system of categories”, is the strategic plan of higher education institution.

Two coders, working independently, proceeded to code the pages manually and using the text search function in the NVivo11 software.

To acquire the count of coding references for the separate groups of analysed documents (Policy area, Norwegian HEI/Latvian HEI; Large HEI/Small HEI) the Matrix Coding Query was applied. To verify, if there are essential differences between proportions of coding references in the compared groups of the analysed documents, Z-ratios were calculated.

**Results**
The 21 strategy documents reviewed cover comprehensive strategic issues related to institutional development. All of them can be said to have characteristics seen as important for successful competition in national and international markets. In general, the strategic documents pay attention to the three main pillars of operation of higher education institutions: education, science and valorisation. Much attention is paid to internationalization as well as cooperation with academic and industrial partners. Based on the first descriptive analysis the 100 most frequent words found in the 21 selected strategy documents were identified (see Figure 1).

**Figure 1** Query results (100 frequently used words in the strategy documents)

How the strategic plans match particular codes is reflected in Figure 2. The fact that the number of identified codes in Latvian documents is higher than in Norwegian documents can partly be explained by the different length of the strategy documents. The Latvian strategy documents are in general much lengthier that the Norwegian strategy documents.
Figure 2 Count of coding references acquired by content-analysis of the strategic plans of HEI

If we take a look at which policy area is highlighted in the strategic plans, we can see from Figure 3 that institutions in both countries pay more attention to education than to research and innovation in their strategic documents.

Figure 3 Proportion of coding references related to education and science acquired by content-analysis of the strategic plans of HEI

To validate the major findings, statistically significant differences have been identified. The significance of the difference between proportions of coding references ($Z_{crit} = 1.96; p=0.05$) (see Table 1).

Table 1 Significant differences related to key research assumptions.

One of the expectations developed for the study was that characteristic of the policy area would matter with respect to institutional attention. Specifically, we expected that the Lisbon agenda would matter more that the voluntary Bologna process in the strategic plans. The result is not in line with this expectation. Both Latvian and Norwegian HEIs pay considerably more attention to educational issues than to research and innovation issues. Our second expectation was more supported by the data; EU membership seems to positively influence the institutional attention given to research and development issues, and Latvian institutions had twice the number of references in these areas compared to the Norwegian institutions. Also our third expectation, that economic dependency would increase institutional attention to EU and European policy initiatives was supported by the data. The results showed that in all policy areas (research, innovation and education) Latvian HEIs had more than twice the number of EU/European references in their strategic plans than their Norwegian counterparts. With respect to our final expectation regarding administrative capacity, a more mixed result emerged. While large institutions in Norway had higher number of references to European policy areas than smaller ones, the opposite was true for Latvia, where smaller institutions had more references to European policy areas than larger ones.

Discussion and conclusion
The aim of the current article has been to contribute to the discussion about how European policy is diffused throughout the European higher education and research area. By a thorough analysis of the strategic plans of 18 higher education institutions in two countries, our ambition has been to investigate factors that potentially may mediate the institutional attention to European policy initiatives. Based on the assumption that institutional attention may be conditioned by a range of
factors, the current study has identified and analysed factors related to policy area characteristics, political and economic dependency, and institutional capacity.

As illustrated in Figure 1, the strategic plans of the selected institutions pay in general much attention to issues that can be said to match the European policy agenda. The analysis also shows that strategic plans overall contain considerable overlaps in themes and issues addressed, suggesting an existing “global script” concerning how such plans are written and the factors considered important to instigate strategic development at the institutional level (Stensaker et al. 2014). However, the fact that the institutions give much attention to internationalization, quality, cooperation, globalization and external partners (Lapiņa et al., 2016) cannot in itself be seen as a measure for European policy impact as the internationalization and globalization of higher education is an agenda that reaches far beyond the borders of Europe.

The more detailed analysis of the strategic plans still demonstrates a considerable overlap of what we might label as European policy vocabulary, and not least, to specific EU and European policy initiatives in education, research and innovation. The fact that our analysis finds numerous references to specific EU and European policy initiatives may suggest that European policy initiatives are given considerable institutional attention, a finding in line with earlier studies on European policy diffusion (Vukasovic 2014).

A surprising finding is that educational issues are given such a prominent place in the strategic plans of HEIs in both Latvia and Norway. This fact is especially surprising given the existing funding opportunities that exist through European research and innovation initiatives. However, the result is perhaps not so much related to the lack of attention to research and innovation issues, but perhaps to the substantial agenda setting potential of European ideas in the educational area. For example, the result may be linked to the fact that the Bologna agenda has often resulted in national reform efforts that again are mirrored in the strategic plans of the institutions. As shown in Figure 2, there is quite frequent mentioning of cross-border collaboration, governance, and quality and relevance in the strategic plans – themes that are often associated with educational reform and the Bologna process. This explanation hints at the importance of European policy as normative ideas and not only economic opportunities and that the national policy level is an important filter for the diffusion of European policy initiatives.

Our results also suggests that EU membership matters for institutional attention as Latvian HEIs had double the number of references to research and innovation issues as compared to their Norwegian counterparts. Regarding economic dependency, we can see the same pattern, where Latvian HEIs had more than double the number of references to research, innovation and education as compared to Norwegian institutions (see table 1). When interpreting these results, it should be noted that the strategic plans of Latvian HEIs in general were much longer than Norwegian ones, and that our result merely could be seen as an expression of the national traditions and different styles concerning how strategic plans are written. At the same time, and as underlined earlier, the domestic economic resources allocated to research, innovation and education are at quite different levels in Latvia and Norway; which potentially could affect the eagerness in Latvian HEIs to find alternative funding possibilities. Interestingly though, and when comparing large and small Latvian HEIs, we see that it is in the smaller institutions we find the most references to European policy initiatives, and not in the larger ones as we expected. In
Norway, the situation is opposite and more in line with our expectation since larger institutions are far more attentive to European policy initiatives than smaller ones. The fact that larger and smaller institutions differ in this respect may be interpreted as an indication that national traditions and styles regarding how strategic plans are written may be a less relevant explanation, and that other national and institutional characteristics are at play.

While much attention has been given to how the spread and uptake of EU policy initiatives can be related to supra-national characteristics such as the use of “soft-law”, the open method of coordination, and other instruments (Gornitzka 2005; Bruno et al. 2006; Borràs & Jacobsen 2008), more recent contributions have started to look into how policy diffusion perspectives may offer complementary explanations for policy adaptation (Börzel & Risse 2012; Papadimitreou et al. 2015). The current study contributes to the latter perspective in that it draws attention to how national and institutional characteristics may filter the uptake of EU policy initiatives. The fact that, for example, large Norwegian universities pay more attention to the EU research and innovation policies and that small Latvian universities seem to have the same strategic preference, suggest that further analysis in this area need to focus stronger on how the European policy “menu” (Elken 2015) corresponds to the diverse European higher education and research landscape. For those responsible for developing higher education and research policy at European level, this is perhaps the most important an implication of the current study, and underlines the importance of a more differentiated European policy space in higher education and research matching what seems to be the quite diverse needs of the European higher education landscape.

The research findings raised interest in further study of influence of policy factors on functioning of higher education and research sectors in other countries. It would be particularly interesting to learn and compare further the factors and the extent of influence at which European and national policy-makers impact higher education and research. If we look at the policy issues/factors affecting efficiency of operations of higher education and science models, the factors can be divided into factors affecting input and output. Most research so far has been focusing on studies of output created by higher education and research. However we consider that deeper study of input factors is vitally needed, as by changing input factors the model could be influenced accordingly and the output could be optimized.

References


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