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A possible coordination mechanism for an Innovation Area

The possibility of using the OMC in an Innovation Area

Elke ter Beek

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Author	: Elke ter Beek
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Graduation Committee:

CHEPS, University of Twente :	supervisor, Dr. H. de Boer
	supervisor, Dr. P. Benneworth
Place of Graduation :	University of Twente
	Center for Higher Education Policy Studies,

University	:	University of Twente
Faculty	:	School of Management and Governance
Master	:	European Studies

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Preface

This master thesis is a result of a research to the possibility of using the OMC as a coordination mechanism in an Innovation Area. With this master thesis I will graduate for the study European Studies.

After some problems concerning my first and second master thesis assignments, I didn't imagine that I would successfully graduate for my study. However, after some necessary consultations, I had a fresh start with this master thesis with new supervisors.

I would like to thank my supervisor's mister De Boer and mister Benneworth. Despite of their own health problems, they have given my their time for deliberation and support. Their advice and guidance ensured that I successfully complete my master thesis. Finally, I would like to thank my friends and family. Despite the frequently ask questions: "When are you finished yet?" and "How is your master thesis going?" their love and support made me not to give up.

Elke ter Beek

Abstract

Innovation is important for economic growth in Europe and the knowledge society. However in terms of innovation, Europe does not perform well. Europe suffers from an 'innovation problem' and 'innovation gaps'. One possibility for improving Europe's performance in the field of innovation is the creation of an Innovation Area. An Innovation Area will provide a platform for each member state to promote and support innovation. Such an Innovation Area must contain an coordination mechanism.

This thesis will analyse the opportunity to use an OMC for an Innovation Area. The central question for this master thesis will be: **Is the OMC a suitable coordination mode for an Innovation Area?**

The central question will be analysed in two ways. The first way focuses on the type of coordination. It compares the OMC with the three traditional coordination modes of hierarchy, market and network. Based on this description possible strengths and weaknesses of the OMC will be detected. The second way will analyses the applicability of the OMC. Three ideas about the applicability of the OMC will be discussed.

Key words: innovation, OMC, coordination modes, Innovation Area, hierarchy, network, market, applicability

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Introduction

Innovation is seen as an important driver to economic growth and of the knowledge economy. Innovation refers to the creation of new or better products, services, processes and technologies. (Fagerberg, 2005) The European Union has several problems around the subject of innovation. Europe falls behind in terms of innovation with their global competitors, like the US and Japan. Differences in innovation performance levels also exist between member states. The lag in innovation affects the competitiveness of Europe in a negative way. The increase of the innovation level of Europe, and as assumed consequently the increase of Europe's competitiveness, stands high on the policy agenda of Europe.

The European Commission has developed several initiatives to deal with the problem of insufficiently usage of knowledge to create new products and technologies. One of the most important initiatives was the Lisbon Strategy. In the Lisbon Strategy, innovation performances of the member states were pushed. A target was set for each member state for a total R&D expenditure of 3% of the GDP in 2010. (Johansson, 2007) Several years after the introduction of the Lisbon Strategy it became clear that the target would not be reached. (High Level Group, 2004) A new and more refined strategy was developed in 2010, the Europe 2020 Strategy. Within the Europe 2020 Strategy, seven flagships are distinguished. One of these flagships is the Innovation Union. This flagship aims to "*improve framework conditions and access to finance for research and innovation so as to ensure that innovative ideas can be turned into products and services that create growth and jobs*." (EC, 2010b)

At face value, an Innovation Area is somewhat similar to the European Higher Education Area and the European Research Area. An important question is how to realise such an Innovation Area? Which mode of coordination can be helpful to make the Innovation Area successful? Does it make sense to make use of the traditional coordination modes or to make use of a new coordination mode, the OMC? The Open Method of Coordination (OMC) has become a popular coordination mode in Europe. The OMC is a method of 'soft control', using guidelines and benchmarks to affect behaviours, in order to make change happen. Next to governments, other stakeholders like the civil society are involved in creating common ideas within the OMC process.

In this thesis, I will assess the potential of the OMC in an Innovation Area. The central question in this paper will be:

Is the OMC a suitable coordination mode for an Innovation Area?

In the first chapter, the definitions of the 'innovation problem' and the 'innovation gap' will be explained. The two important initiatives by the European Commission concerning innovation are addressed. Several reasons why the 'innovation gap' still existed will be explored. Next to this, a definition will be given about the concept of an Innovation Area and the reason why the Innovation Area will be important.

The second chapter will explore the definition of the Open Method of Coordination (OMC). This exploration will be supported by an example of an OMC, the TEN-T.

The third chapter will give an exposition of the two methods that will be used for analysing the OMC. The first method analysis the OMC based on three ideal coordination modes. The three ideal types of coordination modes will be explained through a table by Meuleman (2008). The second method analysis the OMC based on its applicability. This applicability of the OMC will be discussed based on the research done by von Homeyer e.a. (2004), Borras and Jacobsson (2004), and Kaiser and Prange (2004).

The fourth chapter will analyse the OMC based on three ideal coordination modes. An answer will be given on the question to which ideal coordination mode the OMC belongs to. The possible strengths and weaknesses of the OMC are determined based on the available literature and the strengths and weaknesses of the ideal coordination mode to which the OMC belongs to. Based on this analysis, a statement will be formulated about the possibility of using the OMC in an Innovation Area.

The fifth chapter will analyse the OMC through three ideas on the applicability of the OMC in certain policy fields. Through research done by von Homeyer (2004), Borras and Jacobsson (2004), and Kaiser and Prange (2004) a statement will be formulated about the applicability of the OMC in an Innovation Area.

The sixth chapter will give a general statement whether the OMC is suitable to use in an Innovation Area.

1. The Innovation Problem

Innovation is an important element in the creation of a European knowledge-based economy. "*Innovation enables European industries to position themselves at the upper end of the global value chain*." (EC, 2009, p. 3) However, Europe is experiencing some problems surrounding the field of innovation. It is not the case that Europe lacks potential in the field of innovation. Europe has, for example, world leading researchers and European businesses are actively engaged in both emerging and developed economies around the world. (EC, 2010a) Europe experiences difficulties in translating scientific knowledge into marketable innovations. The problems surrounding innovation are affecting the competitiveness of Europe. It is assumed that if Europe will not improve in terms of innovation capacity of businesses and industry, Europe will estrange from its main competitors like the USA and Japan, and will lose its leading position on states like China, Brazil and India.

1.1 The innovation problem and the innovation gap

It is argued that Europe has an 'innovation problem' and there is an 'innovation gap'. The definitions of the 'innovation problem' and the 'innovation gap' are often mistaken as the same thing. However, this is not the case. The innovation problem results in innovation gaps. These two definitions will be discussed in this section.

1.1.1. The definition of the 'innovation problem'

The 'innovation problem' can be divided up into two kinds of innovation problems. The first kind of innovation problem is the 'European Innovation Paradox'. The 'European Innovation Paradox' is defined as in the fact that "*Europe is at the leading edge of R&D activities internationally, but it is nevertheless unable to maximize this potential successfully through increased innovation (for example, in the form of new firms and increased high quality jobs), particularly in comparison with other global competitors such as the US*." (Boekema e.a., 2000, p. 79) In other words, Europe is not sufficiently able to translate scientific knowledge into marketable innovations. This is due to the fact that the knowledge chain – discovery, application and commercialisation - in Europe does not function properly. The knowledge chain in the US functions better and this results in higher levels of innovation.

The second kind of innovation problem is the 'regional innovation paradox'. This paradox refers to the contradiction between the greater need to invest in innovation in less developed regions with their low capacity to absorb public funds for the promotion of innovation, in comparison with the more developed regions. (Boekema e.a., 2000) The difference in innovation between the European regions increases because the more developed regions are using more public money for the promotion of innovation than the less developed regions do. "*One might have expected that once the need has been identified (the innovation gap) and the possibility exists of responding to it through public means, these regions would have a greater capability of absorbing the resources destined to meed this need, since they are starting from a very low level ('everything is still to be done'*)" (Boekema e.a., 2000, p. 80) Two factors explain the regional innovation paradox. The first factor is that in less developed regions the regional innovation system is underdeveloped and there is a lack of consistency and integration. In less developed regions there is no focus on the multidisciplinary approach in planning of funding. Focus is, for example, only in research and science and not on the economic aspect of innovation. The second factor is the poor institutional setting in less developed regions. In less developed regions there is a lack of understanding of innovation process, there is no proper institutional framework, and there is public sector inefficiency. (Boekema e.a., 2000) Less developed regions are also isolated from international R&D networks. This results in difficulties in accessing sources and partners. Less developed region also lack of cooperation mechanisms because there is no tradition in cooperation and trust by businesses.

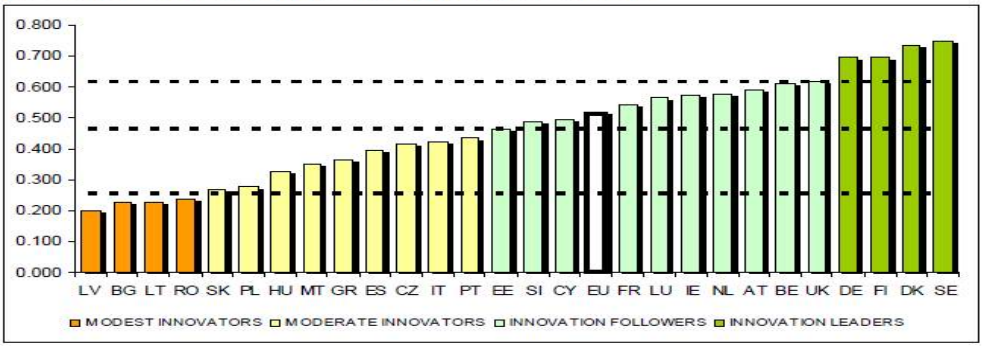
1.1.2. The definition of the 'innovation gap'

As mentioned before, the 'innovation gap' is not the same thing as the 'innovation problem'. The 'innovation gap' is the difference between Europe and its main competitors, like the USA and Japan, in terms of innovation performance. The USA and Japan have better innovation performances in comparison to Europe. It is assumed that Europe cannot catch up with its main competitors and may lose its leading position to states like China, Brazil and India. Next to the innovation gap between states, there is also an innovation gap between the member states in Europe.

The 'innovation gap' between member states

When looking at the 'innovation gap' between member states, four performance groups can be recognized. These performance groups are: innovation leaders, innovation followers, moderate innovators, and modest innovators. The best performing member states in the field of innovation, the innovation leaders, are Sweden, Denmark, Finland and Germany. Member states with the lowest level of innovation performance, the modest innovators, are Romania, Lithuania, Bulgaria and Latvia.

FIGURE 1: EU MEMBER STATES' INNOVATION PERFORMANCE



Source: INNO METRICS, 2011

According to the Innovation Union Scoreboard 2010, member states that fall into the innovation leader's performance group have several aspects in common. The first aspect is the good performance of these member states in Business R&D expenditures and other indicators related to firm activities. The second aspect is the good linkage in these member states between the science base and industries. This relate among other things to the higher than average scores on private-public co-publicators. A third aspect is the good performance in commercialisation of their technological knowledge. "*Furthermore, the overall good performance of the innovation leaders reflects a balanced national research and innovation system*." (INNO METRICS, 2011, p. 5)

1.2 Innovation policies

The European Commission recognizes the importance of the problems around the field of innovation. For this reason European policies are developed aiming at solving the innovation problem and therefore solving the innovation gap. To see innovation as an important driver for competitiveness has not always been the case. In the early years of the European Union, the focus of research policy was on developing cross-national research groups and later on the coordination of the national technological policies rather than on developing a consistent research policy. Developing a consistent research policy started in the 80s and the 90s. During these years, emphasis on research and innovation increased. At the time the European Commission developed several different policies concerning research and innovation. One of the major policy initiatives was the Lisbon Strategy.

1.2.1 The Lisbon Strategy

The Lisbon Strategy intended to provide a platform for deeper economic cooperation. The strategic goal of the Lisbon Strategy was to make Europe before 2010 the most competitive and dynamic knowledge economy of the world to provide for better growth and jobs. One of the targets for this strategy was set during the Barcelona 2002 summit and set a goal on reaching a 3% of GDP expenditure on research and development and better coordination of European research through the development of the European Research Area (ERA). During the midterm evaluation of 2005, it became clear that Lisbon Strategy targets would not be reached. (High Level Group, 2004) In 2005, the Lisbon Strategy was relaunched with the main focus on job creation and economic growth. Due to the economic crisis and implementation problems, the relaunched programme of the Lisbon Strategy also failed.

1.2.2 Europe 2020 Strategy

The successor of the Lisbon Strategy is the Europe 2020 Strategy. The strategic goal of the Europe 2020 strategy is to "*turn the EU into a smart, sustainable and inclusive economy delivering high levels of employment, productivity and social cohesion*." (EC, 2010b, p. 3) Three priorities are formed. The first priority is 'smart growth'. A European economy must be developed based on knowledge and innovation. The second priority is 'sustainable growth'. There must be more promotion of a more resource efficient, greener and more

competitive economy. The third priority is 'inclusive growth'. This means that a high employment economy must be promoted which delivers social and territorial consistency. As representatives of these three priorities, five headline targets are formulated. Two of the formed headline targets of the Europe 2020 Strategy are investments of 3% of EU's GDP in R&D, and the number of school leavers should be under 10% and a minimal of 40% of the younger generation should have tertiary education. (EC, 2010b) The targets of the European Commission represent a general view that the European Commission would like to see on the key parameter by 2020. (EC, 2010b) The European Commission established seven flagship initiatives to streamline the processes with respect to the three priorities. These seven flagships will commit the EU and member states to the Europe 2020 objectives. One of these flagship programmes is the Innovation Union. This Union will "*improve framework conditions and access to finance for research and innovation so as to ensure that innovative ideas can be turned into products and services that create growth and jobs*." (EC, 2010a) The Innovation Union focuses on the innovation gap. The flagship Innovation Union falls under the priority 'smart growth'.

Flagship Initiative: "Innovation Union"

The aim of this is to re-focus R&D and innovation policy on the challenges facing our society, such as climate change, energy and resource efficiency, health and demographic change. Every link should be strengthened in the innovation chain, from 'blue sky' research to commercialisation.

At EU level, the Commission will work:

– To complete the European Research Area, to develop a strategic research agenda focused on challenges such as energy security, transport, climate change and resource efficiency, health and ageing, environmentally-friendly production methods and land management, and to enhance joint programming with Member States and regions

– To improve framework conditions for business to innovate (i.e. create the single EU Patent and a specialised Patent Court, modernise the framework of copyright and trademarks, improve access of SMEs to Intellectual Property Protection, speed up setting of interoperable standards; improve access to capital and make full use of demand side policies, e.g. through public procurement and smart regulation);

– To launch 'European Innovation Partnerships' between the EU and national levels to speed up the development and deployment of the technologies needed to meet the challenges identified. The first will include: 'building the bio-economy by 2020', 'the key enabling technologies to shape Europe's industrial future' and 'technologies to allow older people to live independently and be active in society';

– To strengthen and further develop the role of EU instruments to support innovation (e.g. structural funds, rural development funds, R&D framework programme, CIP, SET plan), including through closer work with the EIB and streamline administrative procedures to facilitate access to funding, particularly for SMEs and to bring in innovative incentive mechanisms linked to the carbon market, namely for fast-movers;

– To promote knowledge partnerships and strengthen links between education, business, research and innovation, including through the EIT, and to promote entrepreneurship by supporting Young Innovative Companies.

At national level, Member States will need:

– To reform national (and regional) R&D and innovation systems to foster excellence and smart specialisation, reinforce cooperation between universities, research and business, implement joint programming and enhance cross-border co-operation in areas with EU value added and adjust national funding procedures accordingly, to ensure the diffusion of technology across the EU territory;

– To ensure a sufficient supply of science, maths and engineering graduates and to focus school curricula on creativity, innovation, and entrepreneurship;

– To prioritise knowledge expenditure, including by using tax incentives and other financial instruments to promote greater private R&D investments.

Source: COM Europe 2020, p. 10/11

1.2.3 Innovation capacity

How states perform in the field of innovation is influenced by the innovation capacity of a state. According to Veugelers (2006), R&D is an important element in the innovation capacity of a state. It is defined as "*the ability of a nation to not only produce new ideas, but also commercialize a flow of innovative technologies over the long term*." (Veugelers, 2006, p. 12) Veugelers (2006) argues that the innovation capacity of a state depends on a sufficient developed supply side of R&D and a sufficient demand side. A sufficient supply side of R&D consists of a high amount of R&D investment, a large number of skilled researchers and a well structure Science and Technology infrastructure. According to Veugelers (2006), a sufficient demand side requires important users who are willing to pay for innovations, well established intellectual property rights schemes, a favourable macro-economic environment and effective competition. The most important element in a successful innovation is the interconnectedness of its agents. New ideas are distributed through the economy by a network of businesses, researchers and governments.

National Innovation Capacity: An integrative framework

- Common Innovation Infrastructure: cross-cutting institutions, resources and policies
  - Existing Stock of Technological Know-how
  - Supporting Basic Research and Higher Education
  - Overall Science and Technology Policy
- Technology/Cluster Specific Conditions:
  - Technology specific know-how: specialized R&D personnel
  - Incentives for innovation: lead users, appropriation (IPR) and output market
  - Presence of related/supporting industries (clusters)
- Quality of Links bt clusters & common factors
  - Industry-Science Relationships

Source: Veugelers, 2006, p. 12/13

1.3 Why does the innovation gap still exists?

Despite all the efforts of recent years and attempts of converging the national research policies of the different member state, the 'innovation problem' and as a results of that the 'innovation gap', still maintains to exist. The innovation problem is a persistent problem. There are several reasons for this persistence that can be divided up into five problem groups: Research, Human Resources, Finance and Market, Legal and Regulatory environment, and Culture.

1.3.1 Existing problems in the field of Research

The first reason is existing problems in the field of Research. The innovation performance in the field of research is often expressed in R&D spending. In Europe, the level of R&D expenditure is lower compared to its competitors. In 2008, the level of GDP to R&D of Europe was 1,92%. (Eurostat) Compared to the US with 2,77% and Japan with 3,44%. It is also the case that in Europe the R&D expenditures are more concentrated in the traditional manufacturing industries than in comparison with the USA, where the R&D expenditures are more concentrated in ICT industries. The total R&D infrastructure of the USA is dominant compared to Europe. Next to the fact that the USA has a higher R&D intensity in comparison to Europe, the production in the USA is more concentrated in R&D intensive sectors. (Veugelers, 2006) Europe is also "wasting" its resources on too many priorities that are seen as important for competitiveness. No strategic choices are being made in Europe. The USA and Japan are concentrating their resources on a limited number of priorities. (EC, 1995) It is also the case that in Europe there is a low level of industrial research and a lack of anticipation on trends and techniques. In comparison with the USA and Japan, less industrial research is carried out in Europe and there is a lower level of industrial research supported by businesses. In the case of the lack on anticipation, "*Europe fails to anticipate trends and techniques sufficiently well, nor does it predict the constraints and conditions connected with exploiting new technology*." (EC, 1995, p. 24) Main criteria for monitoring and assessing research and development projects are the transfer possibilities of results to actors who are not directly involved in the research.

1.3.2 Existing problems in the field of Human Resources

The second reason why the 'innovation problem' still exists is problems in the field of Human Resources. In Europe, science and technology are insufficiently covered in basic teaching, technical disciplines are often not given the recognition they deserve, businesses often do not see training of workers as a valuable investment (EC, 1995), and there is a lack of focus on entrepreneurship in higher education systems (RSC, 2011). All these things result in a lower level than desired of technical education. Also the proportion of the population in Europe with tertiary education is lower than desired. "*General weaknesses of higher education system are often mentioned to explain weaknesses on the capabilities' side, with poor governance of universities and research centres, rigid structure and lack of reward, autonomy and accountability in a non-integrated education and research market*." (Veugelers, 2006, p. 13) The investments in higher education in Europe are of a lower level than in comparison to the investment levels of the USA and Japan. *"The combination of higher US investment in higher education with existing gaps in R&D investment and in the capacity to generate, attract, and retain top scientists is reflected in a growing gap in the standing and influence between American and European universities."* (Crescenzi e.a., 2007, p.6) Next to this, Europe suffers from 'brain draining' and the main focus of governments in Europe still exists on research itself and not enough attention is paid on the relationship between education, research and businesses. (Schuurmans, 2011) This lack of attention is also to be found back in the lack of support for industry – education cooperations. Boekema e.a. (2000) argues that innovation is bound up with tacit knowledge that is highly personal and specific and because of this, communication is difficult. The learning organizations should be at a close distance from each other to shorten the communication lines. In Europe there is in general no close proximity to knowledge of learning organizations. Solving the innovation problem also suffers from problems in the field of researchers. The attractiveness of the USA for businesses is linked to the excellent quality of the USA research base and the concentration of large number of highly skilled researchers in a limited number of hot spots. Europe has a smaller pool of highly skilled researchers available in comparison to the USA and Japan. Researchers in Europe also experiences limitations to their personal mobility and to the transfer of ideas between people and businesses.

1.3.3 Existing problems in the field of Finance and Market

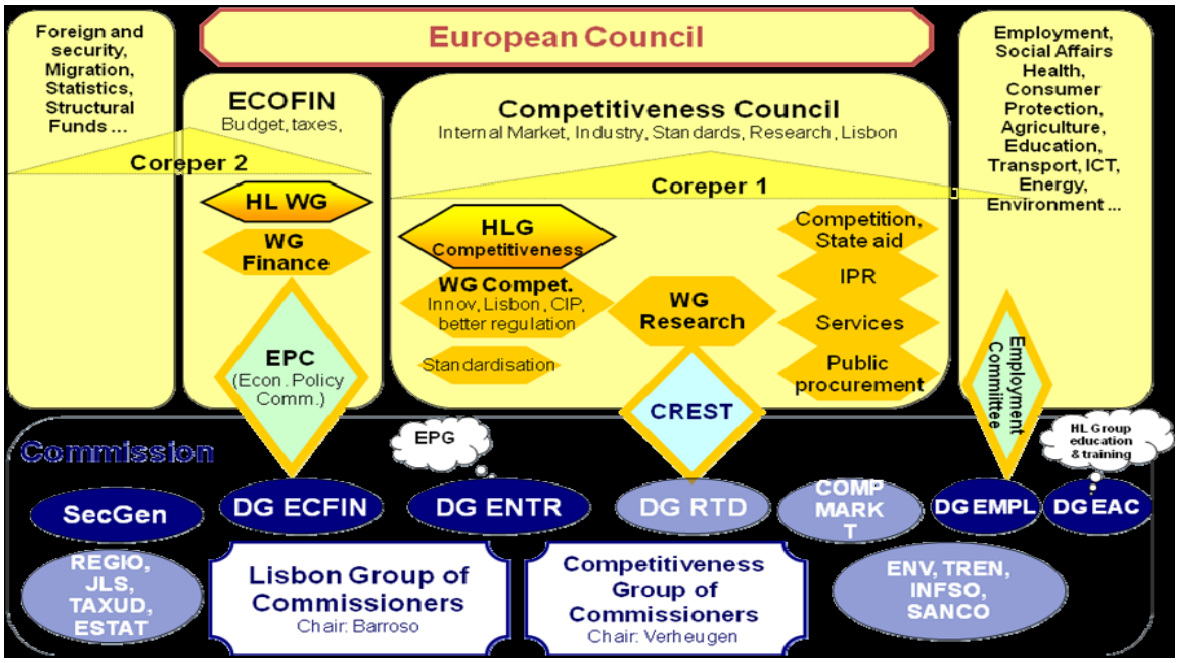
The third reason why the 'innovation' problem still exists is problems in the field of Finance and market. One aspect of the European market is fragmentation in several ways. It is lacking sufficient and competitive dynamics, and the environment is not lead user friendly. (Veugelers, 2006) The European industry is suspicious and avoids risks that go together with innovations. The structure of the European market is also different than the structure of the USA market. "*However the problem for the EU is that most of these industries, not being the high-growth sectors, are not making big contributions to overall productivity growth or do not have a large enough share of EU output to alter the EU's overall productivity performance.*" (Veugelers, 2006, p. 6) Next to this, Europe is only dominant to the USA in the communications industry. In other industries, the USA is dominant. Next to this, the finance system in Europe for innovations is ineffective.

1.3.4 Existing problems in the field of Legal and Regulatory environment

The fourth reason why the 'innovation problem' still exists is in the field of legal and regulatory environment. In Europe there is too little use of protection rules, like patenting. According to the rapport by AMCHAN EU, a large part of Europe's innovation gap can be explained by lagging EU performances in the fields of patents. In the current situation with respect to patenting the legal action system is fragmented within the member states and there are conflicting interpretations of patents. Reasons for this are the high costs of applying for and maintaining patents. The design of an innovation is influenced by the standards. According to the report by AMCHAN EU, Europe lacks harmonised international standards. Interpretations of documents differ between the member states. Also the complex regulatory and administrative environment in Europe hampers levels of innovation. The complex regulatory and administrative environment results in extra costs for business and extra time spend on administration which cannot be spend on innovation. Also the legal environment for the European cooperation does not encourage firms to cooperate on a European scale. Even through the creation of a Single Market, European businesses "*still have to operate through a complex and costly network of subsidiaries established in other member states.*" (EC, 1995, p. 37) Europe also lacks in harmonisation, resulting in lower levels of innovation. "*Thus, there still exist important 'costs' of 'non-Europe': costs related to inadequate harmonisation within the EU and specially the non-realisation of European*

economies of scale due to differences in national regulation." (Soete, 2002, p. 15) Europe has no general European wide innovation system that could harmonize and incorporate existing national innovation systems. Europe suffers from fragmentation, small-scale projects and highly government policies. (Crescenzi e.a., 2007) The current European innovation system lacks synchronisation. The institutional competences are still too fragmented and as a result of this there is a lack of policy consistency. Also, within the member states, there is duplication of efforts and weak links between Europe and the member states research and innovation programmes. Next to this, the European landscape for innovations is complex due to the fact that many organizations involved. "*Against this background, for the potential beneficiaries there is no single information or entry point to the different EU support programmes and a panoply of different application forms and management rules at EU, national and regional level*." (Anvret e.a., 2009, p. 22) A result of this is a lack of a clear political leadership.

The complex decision-making system of EU innovation policy



Source: Innovation Policy, boosting EU competitiveness in a global economy

1.3.5 Existing problems in the field of Culture

The fifth reason why the 'innovation problem' still exists is problems in the field of culture. The European Social Welfare model is also a bottleneck for innovation. This social welfare model imposes obstacles to the entrepreneurship and innovation culture of Europe. An example of such an obstacle is the difficulty to dismiss employees. An argument is raised that the innovation gap is the price that has to be paid for wanting a social European welfare model. Another cultural difference is the fact that Europe is more risk averse than the USA. Europe is more aware of the consequences of personal and business failures.

1.4 The Innovation Area

To create a more competitive Europe, the innovation performance of Europe must improve. One possible way to accomplish this is the establishment of an Innovation Area that bundles all efforts in the field of innovation. By creating an Innovation Area, the European Commission suspects to have an effective instrument to increase the innovation performance of Europe. This would result into solving the 'innovation problem' of Europe and decreasing the 'innovation gap' between Europe and its main competitors.

The Innovation Area will be an area that provides fundamental conditions for innovation and promotes the innovation culture. The Innovation Area concept combines: "*a European 'internal market' for researchers, where researchers, technology and knowledge freely circulate; effective European-level coordination of national and regional research activities, programmes and policies; and initiatives implemented and funded at European level*." (de Taxis du Poët, 2007, p. 1) The Innovation Area will function within the flagship Innovation Union of the Europe 2020 Strategy. The idea behind the Innovation Area concept is instead of trying to tackle all the existing causes of the innovation problem, only to tackle a couple of these causes to create better results due of the limited resources of Europe. The problems that the Innovation Area will tackle are the difficulties concerning the complex decision-making environment in the field of innovation, the access problems to tertiary education, and the problems for researchers to move freely within Europe. The Innovation Area will be an umbrella for the member states. The Innovation Area action strategy can be summarised in four headings.

- The Innovation Area must attract more researchers and improve the mobility of these researchers in Europe.

- The second heading will focus on creating a world-class research infrastructure. The Innovation Area must result in getting rid of bureaucracy and provide advice and support to SME's for financing innovation. The Innovation Area will provide a better platform for the coordination of regional, national and European innovation policies. Better coordination will lead to less duplication by member states and Europe. Through the Innovation Area, conditions for innovation in Europe will improve. This will include the creation of "*the single EU Patent and a specialised Patent Court, modernise the framework of copyright and trademarks, improve access of SMEs to Intellectual Property Protection, speed up setting of interoperable standards; improve access to capital and make full use of demand side policies, e.g. through public procurement and smart regulation*". (EC, 2010, p. 10)

- The third heading will focus on public-private cooperation and partnerships between universities and industries. This cooperation and partnership is necessary for effective knowledge sharing. Another result for this cooperation and partnership is speeding up the developments and exploitations of technologies. (EC, 2010)

- The fourth heading will focus on tertiary education. People in Europe must be encouraged to follow tertiary education. Better access to tertiary education to reach higher levels of participation in higher education is required.

1.5 The challenges of an Innovation Area

For the Innovation Area several challenges await. One of these challenges is the difference in national innovation policies. The member states have their own innovation policies with differences in focus and measures. To improve the European innovation performance it would be better to have a more uniform national innovation policy that also takes into account the specific national differences in environmental factors that affect innovation.

A second challenge for an Innovation Area is to ensure the high level of innovation performance of the better performing states and to boost the innovation performances of the worse performing states. The different innovation performances of the member states must become more even. This will result into a better innovation performance of Europe in general and improve Europe's competitiveness.

A third challenge is an important challenge about the choice of coordination mechanism of an Innovation Area. Should the traditional Community Method be selected for an Innovation Area or is another coordination mechanism a better choice? A central question for this challenge is whether the 'innovation problem' can be seen as a coordination problem. As mentioned in the previous section, the surrounding environment for innovation is complex. This is due to the fact that innovation has to deal with different national innovation policies and European innovation policies. Because the European Commission has no full competences in the field of innovation, member states establish their own innovation policies with national differences. The European innovation environment contains many different organizations and there is no single information and entry point for innovation. Because of the complexity in the environment of innovation, coordination is difficult but desirable. Coordination in the field of innovation on the European and national level is needed, or at least preferred, to decrease the differences between the member states innovation performance levels and to make Europe better in translating scientific knowledge into marketable innovations throughout Europe. I would argue that the innovation problem is a coordination problem. The Innovation Area should have a coordination mechanism that can handle coordination problems and contribute to a successful establishment of the innovation area. A new and popular coordination mechanism, the OMC, is a possible solution to this challenge. This will be the key focus of this thesis.

1.6 Conclusion

Europe has problems in the field of innovation and the competitiveness of Europe suffers from that. There is a 'innovation gap' between Europe and its main competitors, Japan and the USA. Next to this, there are differences in innovation performances between member states. Several policies are adopted to address the innovation problem, with the latest attempt the 'Europe 2020 Strategy'. One possibility within this strategy is the establishment of an Innovation Area to support and promote aspects subject to innovation. To make the Innovation Area successful joint efforts of several actors are required and this calls for coordination.

This thesis will research the question whether the Open Method of Coordination (OMC) can be used in an Innovation Area. This Innovation Area will be established to decrease the innovation gap that exists in Europe. The potential of the OMC in this Innovation Area will be discussed through two methods. The first method will discuss the potential of the OMC by looking at the three ideal types of coordination mode. Based on the table by Meuleman (2008) I determine which elements of the three ideal types can be found in the OMC and which strengths and weaknesses of the OMC has. The second method discusses the potential of the OMC in an Innovation Area based on the policy side or applicability of the OMC. This part of the research will focus on the statements made by Von Homeyer e.a. (2004), Borras and Jacobsson (2004), and Kaiser and Prange (2004) about the applicability of the OMC. This thesis is conducted through empirical research based on secondary research.

2. The Open Method of Coordination

As mentioned earlier, there is a challenge of choosing the right coordination mechanism for the Innovation Area. There exist many different coordination modes. An example is the much used traditional Community Method. This coordination mode is primarily a top down approach. Since several years, a new coordination mode has become popular. This new coordination mode is the Open Method of Coordination (OMC). The OMC has in contrast to the traditional Community Method less top down elements and more bottom up elements. The OMC is seen as a positive element to create better strategies with fewer problems around the implementation and decision making processes in Europe and it is expected that the OMC has a positive influence of this instrument on the effect of the new European strategy, Europe 2020. This chapter will further discuss the elements of the OMC and will give an example of an OMC in practice.

2.1 Introduction

Since several years, more and more member states have recognized that European action in certain policy fields is important. However, even with this recognition, member states are reluctant to give the European Commission competences in certain policy fields. Next to the reluctant to give up any competences, Europe has legitimacy problems. There is still a gap between the political elite and the public. These problems stand in the way for a well functioning European strategy. Europe is under pressure to solve these problems for future strategies. As a possible solution, the OMC was established. The OMC is a flexible and open method to eliminate the reluctance for transferring competences. The purpose of using the OMC is to reduce the gap between the politic elite and the public. This is done by involving all actors, public or private, in the deliberation process.

The OMC became particularly popular because of problems around the Amsterdam Treaty (1999). The Amsterdam Treaty did not solve institutional problems covering, for example, the enlargement of Europe and the reform of European policies. The first major strategy in which the OMC was used was the Lisbon Strategy. After the failure of the Lisbon Strategy, the OMC flourish to become a very popular instrument in Europe and is used in a wide range

of subjects like employment and education. (Goetschy, 2005) The possibility of the introduction of a European Constitution that might create new competences for the European Commission created opposition towards Europe and also created more popularity for the OMC. An advantage of the OMC compared to the possible European Constitution was that the OMC allowed action without requiring new competences.

The OMC is an EU governance approach that is based on repeating benchmarking and organized mutual learning. It is primarily used in the fields of economic, fiscal and social policies. It provides a flexible way to work towards European objectives and, instead of using legislation, attempts to define policy priorities, outcome and framework for actions. It is intended to improve transparency and deepen democratic participation. (de la Porte e.a., 2001)

2.2 An overview of the OMC

On the national, regional and local government level and the European level, there is a shift notable from a traditional hierarchical policy making towards with its top down approach, to a more consensual policy making with an emphasis on the inclusion of all important stakeholders. The reason for this shift is the realization that the traditional policy making with hard law is not the best way for policy making in a new and more complex multi layer Europe. Within this shift, there is a preference for delegating competence to collective actors and organizations. (Pagoulatos e.a., 2007) This delegation process is found back within the OMC. The OMC prescribes that next to the member states and the EU, regional and/or local governments, social partners, and the civil society must be consulted. Because of this, the OMC can be analysed as a multi level process.

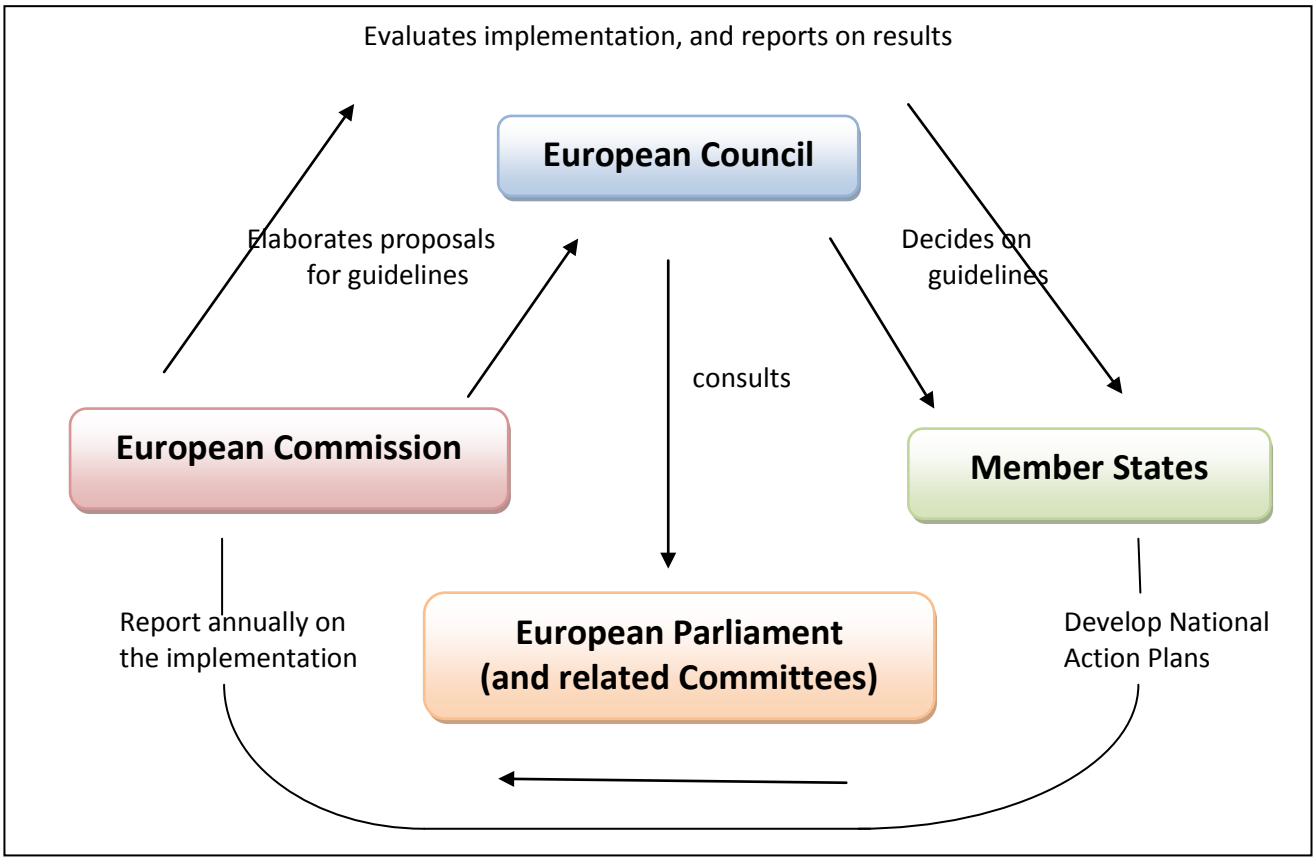
2.2.1 The functions of the OMC

The OMC has a basis of a mutual learning process. The member states have the opportunity to learn from each other. National action plans are drawn up as a tool for a mutually learning process. The OMC was defined by four key elements. These four key elements are:

- fixed short, medium and long-term guidelines and specific timetables

- quantitative and qualitative indicators and benchmarks which allow comparison of best practice
- translation European guidelines into national and regional policies by setting specific measure and targets
- periodic monitoring of the progress in order to achieve the mutual learning processes between Member States. (Investing in European Research)

The Council has the final say about the guidelines, the Joint Reports and the Community Action Plans within the OMC. The European Commission identifies important issues and actors, coordinates actions and endorses the Council's decisions. The European Commission also has an input in assessing the National Action Plans, it draws up new guidelines and undertakes direct actions. Next to this, the European Commission organizes the peer review and the mutual learning process, and it coordinates the information exchange to and from participants. Through committees, the European Parliament has an advisory role within the OMC. The national actors and stakeholders spread knowledge and modify indicators. (Pagoulatos e.a., 2007)



Source: Schmid (2004)

2.2.2 Variations on the four key elements

The OMC evolved during the years which results in the emerge of different kind of OMC's. Variations can occur due to specific characteristics of the policy fields that are addressed, due to the competences of the European Commission in the specific field, and due to the willingness of the member states to take joint actions. "*Other variations concern the use of indicators and benchmarks, review and evaluation, the role of committees and the Council, as well as the degree of participation*." (Von Homeyer e.a., 2004, p. 4) An example of these variations is the empowerment of the European Commission and the European Council to issue joint recommendations on the implementation process to the member states in only the European Employment Strategy (EES) and the Broad Economic Policy Guidelines (BEPG). Another example is the formally required consultation of the European Parliament in only the EES. (Zeitlin & Pochet, 2005) The fixed guidelines in the OMC process involve only detailed information for the realisation by member states in the case of the EES and the BEPG. Variation can also occur in the structure of the OMC. The OMC process in the case of the EES and the BEPG can be seen as more closely structured in comparison to other OMC processes. The more loosely structured OMC processes involve only selective elements of the four key elements of an OMC. The possibility for many variations is often seen as a positive aspect of the OMC. It reflects flexibility and dynamic orientation. However, the OMC is generally applied to address broad concerns instead of single issues.

2.3 The surrounding environment of the OMC

Several new governance mechanisms are established as alternative of the traditional Community Method. Examples of these new governance mechanisms are the concept of partnership, the Social Dialogue and the OMC. The OMC has a novel way to expand the participation by the public in policy making. (Scott & Trubeck, 2002) Policy making is seen as a process of mutual problem solving. It also brings together actors of different levels of government for a dialogue and coordination. The OMC focuses on supporting and coordinating member states policies instead of creating a uniform European Union policy. In the case of the OMC, the European Commission establishes guidelines and leaves some room free for the member states to determine the best way for their states to meet to these

guidelines. The OMC leaves room free for deliberation among the different stakeholders. The traditional Community Method is based on 'hard' law, the reliance on binding legislation. The OMC uses 'soft' law. 'Soft' law "*emphasis flexibility, voluntary compliance, incentives, information, co-ordination (rather than harmonisation), and the participation of societal, regional, and local stakeholders and actors*." (Von Homeyer e.a., 2004, p. 6) As a control mechanism, 'naming, shaming and blaming' is used. There is no legal compulsory instrument to force non-complying member states to comply. Instead, the European Commission publicly indicates when a member states is non-complying. The idea is that due to this public indication, the member state in question is so ashamed that it will do everything to correct its mistakes. The reliance on 'soft' law makes it possible to respond easier on diversity, revision of strategies and standards. It makes the policy making more flexible. (Scott & Trubeck, 2002)

2.3.1 The OMC and democratic politics

As mentioned earlier, the introduction of the OMC was partly a reaction on the democratic deficit of Europe. There is a large gap between the political elite and the public. A positive effect of using the OMC is the strengthening of the democratic process in Europe. (de la Porte & Nanz, 2004) There are five normative criteria that can be seen as ideals of democratic politics and which can be found back within the OMC process.

The first criterion is transparency. Transparency means that everyone, including regional and local actors and interested citizens, has access to information and documents of a particular OMC process. Within the OMC process, there must be actively communication from the EU institutions and the member states towards all the interested people.

The second criterion is public debate. This criterion is linked to the first criteria of transparency. For a public debate, transparency is required. The consideration of European and national policy makers flows through the media and national and European parliaments for the opportunity to be discussed and debated. The OMC does not completely fulfil this criterion. There is exchange of information among actors, but this does not include public debate.

The third criterion is participation. Participation requires the opportunity for citizens who affected by decisions to make their concerns known on an equal and effective manner. (de la

Porte & Nanz, 2004) Although the OMC fulfils the criteria of participation, it does not mention which mechanism will make this happen.

The fourth criterion is learning. This criterion requires lesson drawing by decision-making actors from past successes and failures and uses these lessons for solving new problems. *"The OMC process should institutionalize intensive consultations among actors at various (European, national and regional) levels, and thus allow for mutual learning from their respective experiences."* (de la Porte & Nanz, 2004, p. 273) The criterion learning is explicitly mentioned within the OMC and it allows for mutual learning experiences.

The fifth and last criterion is of responsiveness. This includes the communication through institutionalized arrangement of political decisions to citizens. *"'Responsiveness' is only implicitly suggested in the OMC template through the mention of 'democratic participation' which assumes that organized civil society and social partners as well as European and national parliaments give voice to the concerns of affected citizens in the decision-making process."* (de la Porte & Nanz, 2004)

2.3.2 The OMC and the subsidiarity principle

There is also a discussion about the effect of the OMC on the subsidiarity principle of the European Union. The subsidiarity principle prescribes that political decision should take place at the lowest possible political level. In policy fields where the European Commission has no competence, the EU can only act if it would be better to implement a political decision at EU level rather than on national or regional level. The concern is that the OMC brings the EU decision making process into areas where it has no competences. This means a violation of the subsidiarity principle. However, some researchers argue that the OMC does not violate the subsidiarity principle; it even extends the subsidiarity principle. Within the OMC action is allowed without the need for formally approved competences. There will not be a breach of the subsidiarity principle as long as there is not a way to achieve the goals without open coordination. The OMC is then seen as a collaborative mode of governance. Each level contributes with their own characteristic knowledge and resources to solve the common problems. According to Borras (2004), the OMC leaves the subsidiarity principle intact in formal terms. However, "*beneath this formal surface, a series of apparently minimalistic changes (underpinned by a new understanding of collective action) might have*

deep effects on EU politics, particularly regarding the institutional set-up and the mechanism of accountability." (Borras & Jacobsson, 2004, p. 197)

2.4 Example of an OMC

The Trans-European Network

An example of an OMC is the Trans-European Networks. Trans-European Networks are seen as key elements of the internal market and concerns the sectors energy, transport and telecommunications. A good working Single Market requires excellent transport links, energy infrastructure, and telecommunication networks. However, these requirements are unequally distributed within Europe. "*.., the Trans-European Networks (TENs) is a programme to help develop a system of top-quality road, rail, telecommunications, and energy networks throughout the EU.*" (Dinan, 2005, p. 438) The underlying idea behind the TEN is that a common infrastructure policy in Europe will lead to more economic integration, will increase competitive pressure and therefore improve the functioning of the Single Market. This example only refers to the TEN transports (TEN-T).

In the beginning of the European Union, there was no competence for Europe in the field of infrastructure. The fear existed that the Single Market could not fulfil its full potential because of the infrastructure bottlenecks. The existing infrastructure networks were segmented and the cross-border cooperation was at a low level because the infrastructure competences remained by the national governments. The national governments only gave money for infrastructure development project of national interests, because the main focus was on national priorities. (Sichelschmidt, 1999) And within the national states, money for infrastructure mainly went to projects around the central regions. Peripheral regions were seen as unimportant.

A successful Single Market requires that the infrastructure of all member states should be of high quality and cross-border projects should connect correctly with each other. The TEN-T is a project that will promote and develop this priority. The TEN-T consist of four elements:

- *"establish guidelines which identify projects of common interests*

- *implement any measures necessary to ensure the interoperability of the networks, in particular in the field of technical standardisation*
- *support the financial efforts made by the Member States for projects enumerated in the guidelines, particularly through feasibility studies, loans guarantees or interest rate subsidies or through the Cohesion Funds set up pursuant to Art. 130d*
- *decide to cooperate with third (i.e. non-EU) countries to promote projects of mutual interests and to ensure the interoperability of networks."* (Sichelschmidt, 1999, p. 171)

Elements of the OMC in the TEN-T

As already pointed out in an earlier section of this thesis, the OMC prescribes the establishment of guidelines. For the TEN-T, these guidelines are set up by Decision No 0298/2007/EC. The guidelines aim at linking the peripheral regions with the centre regions in Europe and take care of the safety and efficiency of the existing networks. The Decision No 0298/2007/EC includes the obligation of member states to provide the European Commission with national plans and programmes. Next to this obligation, these guidelines include criteria for identify projects of common interests. Within these guidelines, several projects are pointed out as priority projects and the decision is made to start these priority projects before 2010. Every five years, these guidelines are examined whether or not they should be adapted. The OMC elements prescribe the translation of European guidelines into national and regional policies by setting specific measures and targets. The established TEN-T guidelines are transformed in National Action Plans. As mentioned earlier, an element of the TEN-T is the implementation of any measures necessary to ensure the interoperability of the networks. Article 4 of the Decision No 0298/2007/EC lists a broad line of measures. This includes, for example, adaptation of existing networks, identification of common interest projects and the cooperation with third countries. (EC, 2008) The last OMC element is the periodic monitoring of progress. This happens within the TEN-T through mid-term review documents. Every two years, the European Commission will send a report on the implementation to the European Parliament and the Council, the Economic and Social Committee and the Committee of the Regions. Art. 22 of the Decision No 0298/2007/EC refer to this mid-term review.

The OMC within the TEN-T is to be recognized within the on advance established European objectives and criteria, benchmarking and best practices. The OMC provide the TEN-T a common knowledge base for all actors involved and it will establish a common working framework for the European Commission. Because the TEN-T is based on advance established objectives and criteria, it is argued that the TEN-T provide a flexible approach to project development. The Green Paper (2009) explains that benchmarking within the TEN-T would encourage the member states to invest in the TEN-T. A result of benchmarking is the establishment of performance standards. The Green Paper (2009) also explains that the exchange of best practice will provide a well established basis for the facilitation of project implementation.

2.5 Conclusion

The OMC is a mutual learning process. Instead of relying on the traditional 'hard' law of directives and regulations, the OMC relies on 'soft' law. There are no compulsory regulations because the OMC is based on voluntary agreements. An OMC contains four key elements: fixed guidelines and specific timetables, quantitative and qualitative indicators and benchmarking, specific measures and targets, and periodic monitoring.

In the following chapters, the OMC will be analysed in two different ways. The first way focuses on the type of coordination. The OMC will be compared with three traditional modes of coordination that are being found in the scientific literature. Based on the description of the three traditional modes of coordination, possible strengths and weaknesses of the OMC will be detected. The second way will analyse the OMC by looking at the applicability of the OMC. Different ideas about the applicability of the OMC in certain policy fields are discussed.

3. Two methods about the OMC

When formulating a statement about the possibility of using the OMC in an Innovation Area, you can look at two different methods to judge the OMC. The first method will focus on the different coordination modes which can be found in the scientific literature. This chapter will focus on the three ideal types of coordination modes. These three ideal types of coordination modes are: the hierarchical coordination mode, the network coordination mode, and the market coordination mode. The three ideal types of coordination modes are the basis of all existing mixture modes of coordination. The characteristics of the three ideal coordination modes are described and compared through an alternated table by Meuleman (2008). The exposition of different modes of coordination will help to analyse the OMC in a following chapter.

The second method will focus on different statements about the applicability of the OMC. The researchers Von Homeyer e.a. (2004), Borras and Jacobsson (2004), and Kaiser and Prange (2004) all have different ideas about how to determine the applicability of the OMC in certain policy fields. The exposition of these different ideas about the applicability of the OMC will help to determine, in a next chapter, whether the OMC is a good method to be used in an Innovation Area.

3.1 Different coordination modes: Introduction

The Lisbon Strategy and its successor Europe 2020 are the results of cooperation between the European Commission and the member states. The supranational Lisbon Strategy was established in the year 2000 and had a full top down character. The European Commission decided to take a path which the member states needed to implement in their national policies. However, the Lisbon Strategy failed partly through implementation problems. The successor of the Lisbon Strategy, Europe 2020, rejects the full top down character of the Lisbon Strategy and uses the OMC as part of its strategy to become "*a smart, sustainable and inclusive economy with high levels of employment, productivity and social cohesion*." (EC, 2010, p.3) The Europe 2020 strategy builds on lessons that are drawn from the Lisbon

Strategy. There is a new focus on growth, on building stronger governance and a tighter economic coordination.

At the European level, the different modes of coordination are visible in decision making processes. As explained earlier, the focus in this chapter is on the three ideal types of mode of coordination. The first ideal type of coordination is the hierarchical mode of coordination. Here, the decisions in Europe are only made by only the main authority, the European Commission. The second ideal type is the market mode of coordination. Decisions are made by everyone involved at the European level. The third ideal type is network. In this type of coordination, decisions at the European level are only made by the member states.

3.2 General framework of the three ideal type coordination modes

Each of the three ideal types of mode of coordination has its own characteristics which can be compared to each other. A summary table presents a better view in these differences. This summary table is an altered version of the table by Meuleman (2008) to describe the three ideal types of coordination modes. The summary table compares the three ideal types of coordination modes through 23 dimensions. The table of Meuleman (2008) is used because it provides a complete and extensive exposition of the three ideal types of coordination. Some dimensions of the original table of Meuleman (2008) are excluded because of the limited length of this thesis and because the opinion is that for this thesis it is not relevant to discuss all dimensions of the original table.

Table 1: General Framework of the three ideal types of coordination

Governance style **Dimension**	**Hierarchy**	**Network**	**Market**
Vision			
1. Culture	Hierarchism	Egalitarism	Individualism
2. Key Concept	Public goods	Public value	Public choice

Table 1: (continued)

3. Common motive	**Minimising risk**	**Satisfying identity**	**Maximising Advantage**
4. Motive of subordinate actors	Fear of punishment	Belonging to group	Material benefit
5. Roles of delivers government	Government rules society	Government partner in a social network	Government services to society
6. Style of strategy	Planning and design; compliance to rules and control	Learning style; chaos style; coping with unpredictability; deliberation	Power style; getting competitive advantage
7. Governors' responses to resistance	Use of legitimate power to coerce rebels to behaviourable conformity	Persuasion of rebels to engage, or expel them	Negotiate deals with rebels, using incentives and inducement
Orientation			
8. Orientation of organisations	Top-down, formal, internal	Reciprocity, informal, open-minded, empathy, external	Bottom-up, suspicious, external
9. Actors are seen as	Subject	Partners	Customers, client
10. Choice of actors	Controlled by written rules	Free, ruled by trust and reciprocity	Free, ruled by price and negotiation
Structure			
11. Structure of organisations	Line organisation, centralised control systems, project team, stable/fixed	Soft structure, with a minimum level of rules and negotiations	Decentralised, semi autonomous units/agencies/teams; contracts
12. Unit of decision-making	Public authority	Group	Individual

Table 1: (continued)

13. Control	Authority	Trust	Price
14. Coordination	Imperative; ex ante coordination	Diplomacy; self-organised coordination	Competition, ex post coordination
15. Flexibility	Low	Medium to high	Medium to high
16. Commitment among parties	Medium to high	Medium to high	Low
17. Roles of knowledge	Expertise for effectiveness of ruling	Knowledge as a shared good	Knowledge for competitive advantage
18. Context	Stable	Continuous change	Competitive
People			
19. Leadership	Command and control	Coaching and supporting	Delegating, enabling
20. Relations	Dependent	Interdependent	Independent
Results			
21. Affinity with problem types	Crises, disasters, problems that can be solved by executing force	Complex, unstructured, multi-actor issues	Routine issues, non-sensitive issues
22. Typical failures	Ineffectiveness; red tape	Never ending talks; no decisions	Inefficiency, market failure
23. Typical types of output and outcome	Laws, regulations, control, reports, procedures, decisions, output, compliance	Consensus, agreements, covenants	Services, products, contracts, out-sourcing, voluntary agreements

Reference: Meuleman (2008)

The table above is divided into five high level characteristics. These characteristics are vision, orientation, structure, people, and results. These five characteristics are for each of the ideal type of coordination mode very different.

3.3 The hierarchical mode of coordination

In a hierarchical mode of coordination, decisions are made only by one superior actor. All the decisions are made and enforced at the highest level. The principle behind hierarchy is that the world can be ordered and improved by the social control of the government. The top authority provides and regulates the relation between actors. At a European level, the European Commission can be seen as such a superior actor.

3.3.1. Vision

The hierarchical mode of coordination uses hierarchism. A key aspect of hierarchy is the use of central planning for coordination. This means that coordination happens only by one actor, in this case the central government. In a hierarchical mode of coordination, the central government rules the society and has complete control on public goods. It establishes written rules that should be obeyed by strong control systems for coordination which reduces risks. (Thompson, 2003) Meuleman (2008) argues that the reason why people use hierarchy is for reducing the risks within society. This is, for example, risks concerning the availability of public goods. The government uses legitimate forces when people do not obey the imposed rules. The reason why people agree on hierarchism is the fear of punishment when they have arguments against the central government. It is argumented that the use of hierarchical mode of coordination is necessary to protect and deliver public goods. An example of a public good is knowledge. In a hierarchical mode of coordination knowledge is scarce and is concentrated in specialized units.

3.3.2. Orientation

The hierarchical mode of coordination has a top down perspective. The top-down perspective states that "*the executor commits to the goals of and the intentions behind the policy. Least the degree in which they do that can be considered as the degree of loyalty to the democratic elected politicians and administrators*." (van de Graaf & Hoppe, 1996, p. 334) At the base of the top-down perspective is the principle of what according to the policy should happen. The top-down perspective has a formal character and is internally focussed. In the case of hierarchy by the European Commission, the decision about a subject is made by the European Commission and enforced to the governments of the Member States. Actors are seen as subjects that have to obey the written rules.

3.3.3. Structure

In a hierarchical mode of coordination, the central authority is the decision making unit and has complete control over the society. A hierarchical organization has a pyramidal structure. Each lined layer is linked to other layers and there is a centralized control mechanism. (Thompson, 2003) There is a classification of authority. "*Each level of a hierarchy directs the actions of those lower down, ultimately authority resides with those at the top, and at each level those involved carry out more narrowly defined tasks with less and less autonomy*." (Thompson, 1991, p. 105) Between these different levels of actors there is a clear division of tasks. A hierarchical mode of coordination is very stable. The stability is explained by the way how organizations are organized. Hierarchical organizations are organized to function like a machine, with routines and standard of procedures. Because of this, there is a low level of flexibility in a hierarchical mode of coordination. Because of the fear of punishment for not complying, the commitment level of actors to hierarchy is medium to high. The hierarchical mode of coordination uses ex ante control mechanisms, like authoritative orders. (Lindblom, 1977) The framework of a hierarchical mode of coordination is very stable. This is due to the fact that there is only one superior actor that is not switched after a short period of time. This superior actor stays in his place for a long period of time.

3.3.4. People

In a hierarchical coordination mode there is one superior actor. Each of the underlying layers has their own senior official which responds to the superior actor. The leadership in a hierarchical coordination mode is characterized by command and control. As mentioned before, in a hierarchy every actor has his own task. The superior actor gives commands to the senior officials. And these senior officials have to make sure that lower placed actors implement the commands given by the superior actor. The change of catching and punishing lower placed actors who do not execute their task sufficient is high. The fear for punishment and the high probability of detection result in a high level of commitment by the actors involved in a hierarchy. The relationships between actors could be characterized as dependent. All lower placed actors are dependent to their senior official. And these senior officials are dependent to the superior actor.

3.3.5. Results

The hierarchical mode of coordination has empathy to situations where there is a crisis or disaster happens. In other words, this type of coordination mode can well be used when problems occur and can only be solved when executive forces are used. The hierarchical mode of coordination is well controllable. This means that the outcomes of hierarchies, like laws, reports, procedures and regulations can be controlled on compliance. The outcomes are determined in advance and can be divided into several secondary processes. A result of this is task specialization and rationality. A typical failure of the hierarchical mode of coordination is ineffectiveness. Because of the lack of flexibility, on any kind of change the respond is almost non-existing.

An extreme form of a hierarchical mode of coordination is central planning as used by traditional communist regimes. The central government determines the input and output of all products, however assisted through payment and price. The price of products does not reflect the market value of these products. The direction of the economy is determined by the central government. The power of the central government lays in the part of the power of control.

3.3.6. The strengths and weaknesses

There are several positive aspects of using a hierarchical mode of coordination. The first positive aspect is that hierarchies have the ability to "*pursue selected goals and to control their anticipated consequences*." (Börzel, 1998, p. 261) The goals in a hierarchy are clearly formulated and the results of these goals are determined in advance. A second positive aspect is that hierarchy is successful in producing efficient uniform, general services for improving the life situation of citizens. (Keast & Mandell, 2006) The hierarchical mode of coordination is also effective through the vertical separation of routine tasks. In this case there is downward communication of knowledge and orders. The last important positive aspect is the accountability, due to the line organization and the clear divided tasks within hierarchy: it is not difficult to decide who is accountable.

However, there are several negative aspects of the hierarchical mode of coordination as well. First, it is assumed that the government has a large scope of social knowledge. (van Vught, 1987) This involves central planning. If the government needs to plan everything, it

has to have the knowledge about everything, which is simply impossible. The second negative aspect of hierarchy is the low degree of flexibility. The government is a complexity of different institutions which have a high level of routinized problem solving. When a new problem occurs, a new institution is created with the main focus on solving this problem. (van Vught, 1987) The third negative aspect of the hierarchical mode of coordination is its ineffectiveness. It is possible that hierarchical organizations become slow because of its fascination of procedures and even if the organizations operate like a machine, the output may not have the effect what was expected. (Meuleman, 2008) Another cause of ineffectiveness of the hierarchical mode of coordination is the vertical separation of hierarchy. This may lead to ineffectiveness if routines that must be implemented are nonroutine, "*because of lower levels lack both the knowledge needed to create new knowledge and the incentives to transmit new ideas upward*." (Adler, 2001, p. 216) The last negative aspect of a hierarchical mode of coordination is what Börzel (1998) defines as "*exploitation of the minority by the majority*". There are people, the 'losers', who have to bear the costs of the political decision made by the superiors.

An example of a hierarchical mode of coordination within Europe is the Lisbon Strategy. The Lisbon Strategy has a full top down character. For the Lisbon Strategy, the European Commission formulates initiatives in the field of economy. The European Commission controls also the implementation of these initiatives and conducts many programmes under the flag of the Lisbon Strategy.

3.4 The network mode of coordination

Next to the hierarchical mode of coordination with its one superior actor, decisions can also be made by different subordinated actors. An example at the European level is decisions made by member states alone. Within this context, there is a network. The common understanding or basic definition of a policy network is "*a set of relatively stable relationships which are non-hierarchical and interdependent nature linking a variety of actors, who share common interests with regard to a policy and who exchange resources to pursue these shared interests acknowledging that co-operation is the best way to achieve common goals.*" (Börzel, 1998, p. 254) According to Sursock & Smidt (2010), institutions

choose to create networks as a strategy to boost the institution's visibility and to combine strengths. These networks provide the mutually dependent actors with face-to-face opportunities for exchange and partnerships. Next to this, networks also provide a better understanding of the service field worldwide.

3.4.1. Vision

Within the network mode of coordination, the focus is more on the horizontal organizing principle, rather than on the vertical organizing principle as in hierarchy. The main principle used in a network mode of coordination is egalitarism. This means that the actors within a network are all placed on the same level. There is no superior-subordinate relationship between the actors. Even the government is seen as a partner in a network society. Even though the equivalent position of the government with respect to other actors, the government has a special position in a network due to availability by the government of special resources, wanting special goals and the government's position cannot be replaced by any other actor. (Klijn & Koppenjan, 2000) However, the government is limited to use special resources in order to reach its goals. A reason for establishing a network is the fact that a network is value-driven. "*The outcome of a networking process should reflect the shared values of the community that forms a network*." (Meuleman, 2008, p. 330) Therefore, an argument for using the network coordination mode is the protection of shared values and identity of a group of actors. People create networks because of the need to belong to a certain group of actors. The government, and the rest of actors involved in a network, can persuade a rebellious actor to either join a network or expel him from a network.

3.4.2. Orientation

Actors within a network have some degree of freedom. They have the choice to join a network. In a network, actors are seen as equivalent partners. The relations between actors relies on equality and collegiate and are based on trust and mutuality to force collective action. Networks are established around specific fields of expertise with shared leadership. A network is formed when actors require resources from other actors. Aspects of a network are open-minded and informal. Because of these aspects, actors within a network can establish common ideas.

3.4.3. Structure

A network has a soft structure. This implies that there is a minimum level of rules and decision are made based on negotiations in the group of actors involved in a network. There is a bargaining process between actors with different interests to establish common decisions. The coordination within a network happens through diplomacy. At the European level, bargaining among the state executives determine the decision-making process. A feature of a network is the voluntary cooperation with multiple actors with a decision making authority. The success and failure of a network is based on the level of succeeding cooperation and the commitment of the actors. There is a medium commitment level of actors in a network. A medium commitment level is the minimal commitment level for a network to succeed. Cooperation within a network is not established without conflict. "*Cooperation cannot be achieved when interactions between actors stagnate, are blocked or have led to undesired or unforeseen consequences, or because interactions are influenced by institutional characteristics*." (Klijn & Koppenjan, 2000, p. 143) Because there is no dominant actor, resources are not equality distributed among all the actors in a network. Next to the absence of a dominant actor, conflict can occur because the rules that are established through earlier interactions result in the fact that the rules operate to some advantage of one actor and to the disadvantage of another actor. (Klijn & Koppenjan, 2000) The framework of a network is continuous changing. Actors leave a network and other actors join that network. Trust is needed as a control mechanism. Because of the minimum level of rules, there is a minimal basis for legal control actions. Control happens in a network by trust between the actors. The degree of flexibility within the network coordination mechanism is of medium level. Networks provide the opportunity to their actors from all kinds of sectors to work together to respond to different issues.

3.4.4. People

In a network coordination mode, there is no superior actor. In a network there is equality. Actors are seen as partners. Even the government is seen as partner in a network, but with a special task. The government is the only actor that establishes rules. The leadership in a network is characterized by coaching and support. Leadership characterized by coaching is based on the knowledge intensity of other actors. The term coaching is defined as "managing without a boss." Coaching leaders have no own agenda, goals or views. They are

interested in opinions of others and will put other actors central in the supporting process and not himself. Relationships between actors in a network are characterized as interdependent. The actors are engaged in an exchange relationship and become interdependent actors. (Klijn & Koppenjan, 2000) In a network, a common strategy must be composed. This is only possible when every actor agrees with this strategy. If this is not the case, a network will not function properly. Only on the basis of cooperation, interdependent actors can realize pleasing results. Actors are interdependent for a well functioned network.

3.4.5. Results

Networks are often used in cases where problems are complex and unstructured. Trust is needed to overcome these types of problems. Trust that a network can provide. Typical outcomes of the negotiation process in a network are agreements and covenants. The danger of a network lies in the facts that the negation process can end up in never-ending talks. When this is the case, there is no possibility of establishing an agreement between actors.

3.4.6. The strengths and weaknesses

There are several positive aspects of a network mode of coordination. First, there is the medium towards high level of flexibility. The flexibility of a network is determined by the firmness of the established rules in a network. Loose rules in a network will create a more flexible network, rather than strict rules. The second positive aspect is the open structure of networks. However, this has an impact on of level of trust. The third positive aspect is the effectiveness of a network mode of coordination. Networks are sometimes portrayed as alternative forms of governance to hierarchy and market. However, networks do not completely replace hierarchy and markets. It complements and supports hierarchy and markets with a result of more effectiveness.

The network mode of coordination is not perfect and has limitations. First, in contrast with the hierarchical mode of coordination, the network mode of coordination has accountability problems. Because of the lack of real leadership and the superior-subordinate relationship between the actors, the case of who is accountable becomes more difficult. The second negative aspect of a network is the difficulty to control and navigate a network that results in being less efficient than the hierarchical and market mode of coordination. Getting to an

agreement can be a long process, because of never ending discussions that may lead to the fact that there cannot be made a decision. (Keast & Mandell, 2006) The last negative aspect of a network is the possibility of stagnation because actors may lose interest in the policy game. This is a result of low priority of policy problems with individual actors. The cooperation process is not always easy because of conflicts about, for example, costs and benefits. (Klijn & Koppenjan, 2000) This conflict can occur because of the tension between dependency and the diversity of goals and interests. (Klijn & Koppenjan, 2000) The sharp edges of the conflict can be solved by rules and resources, only the main tension will still exist.

An example of a network mode of coordination within Europe is the European Patent Network. This is a network of Intellectual Property Offices of 38 states, including the EU member states. The cooperation initiatives are intended to improve the efficiency of the European patent system. (EPN, 2011)

3.5 The market mode of coordination

The third possible form of coordination is the market coordination mode. Within this type of coordination mode, decisions can be made independently. Within a market system, there is a government which coordinates with an 'invisible hand'. This means that the government will determine preconditions for a framework in which the different actors can move freely around. These preconditions are often constitutional limitations. Within a market, information is transferred based on supply and demand and based on price. There is competition for information. According to Lindblom (1977), within a market system, mutual adjustment occurs. Mutual adjustment is required when there is interdependence among the authorities at any level. "*Mutual adjustment will sometimes be disorganizing, will create conflicts rather than solve them. Yet it carries much of the loud of coordination in any government*." (Lindblom, 1977, p. 30) The most common form of mutual adjustment is exchange.

3.5.1. Vision

A market is an arena where choices of individual actors determine sharing and distribution. The idea behind a market is that individuals are the best judges of their own welfare. (Thompson, 1991) The market system brings together actors, also seen as buyers and sellers, to engage them in mutually beneficial interactions. Competition is important in a market. There is competition between different administrative units for available resources and between individual actors. The individual itself is the main decision making unit in the market mode of coordination. Public choice is an important aspect of a market. People are free to choose which services and products are needed. The market mode of coordination makes the performance of the public administration better by using the efficiency principles, procedures and measure of the private sector and market mechanisms. The market mode of coordination promotes competition and stimulates benchmarking and contract management. (Meuleman, 2008) An argument to use the market mode of coordination is the motivation to maximise advantages within a society. Partners are chosen on the basis of their contribution to competitive advantage. The market governance mode relies on price signals and formal legal contractual relations. The role of the government in the market mode of coordination is delivering goods and services and taking care of market failures. The government in a market mode of coordination leaves the implementation of a purposed result up to the actors within the society that are bounded by some established rules.

3.5.2. Orientation

The market coordination mode has a bottom-up character. The bottom-up perspective is a reaction on the top-down perspective. The basis of the bottom-up perspective is "*what in the policy field really is done by all kind of actors who have a role, or fit on a role, by the implementation of the policy. The policy-as- determined is seen as a collection of intentions, which are at the base of the negotiation process. Within these negotiations the subjects pursue their own interests and priorities, which can be adjusted over time*." (van de Graaf & Hoppe, 1996, p. 335) The implementers are placed at the same level with the policy- and decision-makers. Because of the bottom-up character of the market coordination mechanism, a spontaneous decision to cooperate can occur. "*Markets offer choice, flexibility, and opportunity. They are a remarkable device for fast, simple communication*." (Powell, 1990, p. 302) Self-interest is important within a market mode of coordination. Self

interest in combination of the competition character of a market mode of coordination makes it that there is a certain level of suspicion within the market. Because of the fact that competition is important in this type of coordination mode, actors are seen as clients or customers. Actors within a market coordination mode are free to choice and are only restricted by price levels and the negotiation about the price.

3.5.3. Structure

Decentralization occurs within a market coordination mode. This allows the persuasion of individual and group goals rather than bigger national goals. As mentioned before, an important aspect of the market coordination mode is individualism. The unit of decision making is therefore the individual. Price is a major control mechanism in a market. The market coordination mode uses ad hoc control mechanisms, like threats and other manipulations. (Lindblom, 1977) The control mechanism of the market is rivalry of prices through competition and benchmarking. (Meuleman, 2008) 'Naming and shaming' is used for some kind of control instrument. If an actor does not respond well to the implementation of the purposed rule, this actor will be publicly blamed for that. However, the case is that not all actors are impressed by this control mechanism. They do not feel responsible for the implementation of the purposed result. The market coordination mode has a medium to high level of flexibility. This is a result of the limited number of rules within the market coordination mode. Only the commitment level of actors within the market coordination mode is of a low. A reason for the low commitment level is that actors see themselves as most important and go for personal competitive advantage.

3.5.4. People

In a market coordination mode, the leadership is by the government. Only the government leaves some room free for own decisions by other actors. The government establish rules for a certain policy field. These rules can be seen as boundaries for a playing field. Within these boundaries or rules other actors are free to decide on how certain procedures, like implementation, should look like. The relationship between actors within a market coordination mode is characterized as independent. Every actor stand on his own and will not change for the benefit of somebody else. The relationship between actors is based on voluntary exchange.

3.5.5. Results

The market mode of coordination is seen as the best option when routine problems occur. General outcomes of a market coordination mode are produced services and products, voluntary agreements, and contracts. A failure of the market coordination mode is market failure. Market failure is defined as not achieving an efficient allocation of resources. A current example of a market failure is the start of the credit crisis in the United States. The banks took high risks offering mortgages to people how couldn't pay it. When the people couldn't pay the mortgages, houses where put up for sales and the houses prices decreases. If the government did intervene at an early time period, it wouldn't have this kind of impact.

3.5.6. The strengths and weaknesses

The first positive aspect of a market mode of coordination is that it makes it possible to deal with fragmented knowledge in the world. The fragmented knowledge is at the beginning stage of a market mode of coordination divided among many different actors. The market takes care of an alignment of the fragmented knowledge to promote decisions and actions based on this knowledge. The second positive aspect is the cost reduction of the better availability of the fragmented knowledge. The third positive aspect is the flexibility. There is a high degree of flexibility within the coordination mechanism. Because of the competition element of the market, actors are always looking for new opportunities. The flexibility is somewhat reduced if there are contracts involved. The last positive aspect is that the market mode of coordination provides autonomy for agencies and decentralization. The high degree of autonomy of actors is also a positive aspect in a market mode.

There are several negative aspects of the market mode of coordination. The first negative aspect is that no market is perfect and therefore the results are somewhat unpredictable. The second negative aspect is that the focus on efficiency leads to not enough attention to the expected results. (Meuleman, 2008) With a result of not meeting up with the expected end results. Third, the market mode of coordination generates negative externalities. The fourth negative aspect is the possibility that the market mode of coordination will lead to extreme fragmentation of the economic decision-making process. (Lindblom, 1977) The last negative aspect is the structure of a market mode of coordination. This type of mode of

coordination is instable. It tends to fall apart or convert in formal organizations (Meuleman, 2008)

An example of a market mode of coordination in Europe is the anti-trust policy. The European anti-trust policy provides limitations in the field of competition in Europe. The first limitation is that agreements between multiple businesses with limited competition are prohibited. (EC, antitrust) An example of such prohibition is cartel formation. The second prohibition is abusing a dominant position. The European Commission has the competence to control the compliance and has the power to impose powers to end it.

3.6 The applicability of the OMC

Many researchers have tried to formulate statements about the question when an OMC can successfully being used in a policy field. Hereby a closer look is taken to the applicability of the OMC. This section will discuss three different views on the applicability of the OMC. The discussed views are of: Von Homeyer e.a. (2004), who developed eight criteria for using an OMC, Borras and Jacobsson (2004), who claim that there are three circumstances in which an OMC will work, and Kaiser and Prange (2004), who claim that an OMC in the field of innovation is only possible when certain conditions are met.

The eight criteria of Von Homeyer e.a. (2004)

The first researchers that will be discussed are Von Homeyer e.a. (2004). According to Von Homeyer e.a. (2004), a policy area must comply with eight criteria when looking for an opportunity for introducing an OMC. To set criteria on the introduction of an OMC is a good manner to reach a well measured decision about an introduction of an OMC without too many actions. These eight criteria are:

1. Because the OMC reliance on co-ordination, the use of the OMC must be avoided in policy fields that are essential for maintaining the Internal Market. (Von Homeyer e.a., 2004) This is because of the high degree of harmonisation of these policy fields, and the focus of the OMC is not so much on harmonisation on the European level. The OMC tries to harmonise the wishes of the different actors involved. Only the endpoint is known in advance. Another aspect is that this endpoint cannot be

specified by a single top-down actor as it is in policies concerning the Internal Market.

2. The need to address structural rooted national differences. When there is a structural rooted national differences, harmonisation is undesirable or politically unrealistic. The use of an OMC can be suitable in these cases because the OMC provide a solution that maintains the national diversity and enhances national practices.
3. The actors involved are under political pressure or are committed to learning and change. Because of the learning process within the OMC, quick results are excluded.
4. The problem must have a multilevel dimension.
5. There must be a learning aspect. Only when learning creates significant benefits, the OMC can be applied.
6. "*Successful application of the OMC requires the possibility iterative, temporary depoliticisation to allow actors to develop more long-term perspectives which are not dominated by political negotiation strategies*." (Von Homeyer e.a., 2004, p. 9)
7. The problems that must be solved by using an OMC should not be premium on immediate results. This is because the OMC does not deliver quick results due to the fact of the iterative learning aspect of the OMC.
8. For solving the problem, quicker decision-making is needed.

<u>The three circumstances of Borras and Jacobsson (2004)</u>

Next to Von Homeyer e.a. (2004), Borras and Jacobsson (2004) also set limits to the use of an OMC. Borras and Jacobsson argue that an OMC only can be used in three different kinds of circumstances. This division in suitable circumstances make the decision whether to use an OMC in a certain policy field easier to make. You only have to look if certain policy field meet up to one of these three circumstances. The first circumstance is that the OMC can be used in policy fields where attempts to develop forms of coordination has failed. In these policy fields, a single harmonized solution is too problematic. The second circumstance is the use of the OMC in relatively new policy fields of public involvement. In these new policy fields the choice for traditional regulatory instruments is not obvious. The third circumstance where the OMC can be used is when national policy fields have strong interdependencies with the

EU level. An example is the national economic policies and there relation to the European monetary policy. (Borras & Jacobsson, 2004)

The view of Kaiser and Prange (2004) on the use of an OMC in innovation

Kaiser and Prange (2004) argue that there are major stumbling blocks in the application of the OMC in innovation policy. These stumbling blocks are the diversity of the national innovation policies and the multi-level character of innovation policies. The multi-level character of innovation policies means "*that there are significant variations among EU member states and regions according to legislative and budgetary powers leading to different policies, institutions and national co-ordination mechanisms*." (Kaiser & Prange, 2004, p. 250) Vertical co-ordination is also different in the field of innovation compared to other policy fields. This is because the main performing actors are private organizations and not the state, and these private organizations enjoy a certain degree of autonomy. Kaiser and Prange (2004) argue that because of this, there is tension between market co-ordination and political co-ordination. You can see diversity in national innovation policies in the structure of national research and innovation systems and in the performance of these systems. "*This assessment is highly relevant for estimating the impact of the OMC since the diversity of policies and institutions constitutes special conditions for mutual learning*." (Kaiser & Prange, 2004, p. 251) Kaiser and Prange argue that the OMC can only give some positive effects in innovation policies when several preconditions are met. The national and regional specifications must be taken into account, actors in each territorial level must be considered during the entire policy process, and benchmark indicators must be developed that take into account the diversities of the national innovation systems.

3.7 Conclusion

This chapter discusses two different methods for analysing the OMC. The first method analyses the OMC through the three ideal types of coordination modes: hierarchy, network and market coordination mode. The characteristics of these three ideal types of coordination modes are discussed in this chapter. In chapter 4 the OMC will be analysed

along these characteristics. The second method analyses the OMC through its applicability. When discussing the applicability of the OMC in a certain policy field, several different statements can be formulated. In chapter 5, I will analyse the applicability of the OMC in the Innovation Area through these three different theories.

4. The OMC analysed through different coordination modes

This chapter will analyse the OMC based on the three ideal types of coordination modes. As mentioned in an earlier chapter, Meuleman (2008) developed a table to describe the elements of the three ideal coordination modes. In this chapter this table by Meuleman (2008) will be used to describe the OMC. A statement can then be formulated to which ideal type coordination mode the OMC has the most resemblance with. Based on this statement several possible strengths and weaknesses of the OMC can be formulated and an answer can be given to the question whether the OMC will fit in an Innovation Area.

4.1 The five dimensions of the OMC

As mentioned in an earlier chapter, Meuleman (2008) described the three ideal coordination modes according to five dimensions. These dimension where: vision, orientation, structure, people, and results. This section will discuss the characteristics of the OMC according to these five dimensions of Meuleman. The characteristics will be matched to one of the three ideal coordination modes. The characteristics of the OMC will be set out in a summary table in the next section.

4.1.1 First dimension: Vision

The first dimension is Vision. This dimension contains elements like the culture and the strategy style of the OMC. An interesting feature of the OMC is that it contains elements of both hierarchism and individualism. These elements are characteristics of on the one hand the hierarchical coordination mode and on the other hand the market coordination mode. The OMC can be defined as "*an iterative, non-hierarchical, multi-level mechanism to achieve political co-ordination in the face of structural or cultural diversity based on learning*." (Von Homeyer e.a., 2004) Although the definition of Von Homeyer e.a. (2004) declares that the OMC is non-hierarchical, there are elements of hierarchism within the OMC. The hierarchical elements of the OMC include the top down decision-making process and control process. The European Commission establishes the guidelines and controls the implementation

process performed by the member states. The elements of individualism are to be found within the aspect that the different individual involved actors can propose and present their own ideas about a subject. These ideas reflect their self-interest.

Material benefits are the main motive of actors to get involved within an OMC. When looking at the example explained in the earlier section of the TEN-T, getting involved with the TEN-T provide better transport links resulting in better competitiveness of the member states involved.

An important aspect of the OMC is the possibility of mutual learning. The idea is that learning from each other faults and best practice, benefits their own performance. The opportunity to learn is a high priority of the OMC.

Because the OMC uses 'soft' law instead of the traditional 'hard' law, sanctions will happen through naming, shaming, and blaming. Member states try to comply with the established guidelines, in order to avoid negative criticism in the period reviews. The idea behind this is that member states will try to avoid possible negative publicity. (Trubek & Trubek, 2005) Because of the absence of compelling sanctions, there is not a real incentive for not complying with the established guidelines.

4.1.2 Second dimension: Orientation

The second dimension is called Orientation. This dimension includes the type of orientation, how actors are seen within the OMC and what is influencing choices of actors. The type of orientation of the OMC consists of both hierarchical top down elements and market bottom-up elements. The market bottom-up element of the OMC is its attention for consideration, learning and experimentation (Trubek & Trubek, 2005) Among the involved actors within the OMC there is a deliberation process. This deliberation process is necessary for modelling common ideas. Another bottom-up element within the OMC is the decoding of guidelines according to national differences, implementation of these policies and providing feedback by national actors. (Pagoulatos e.a., 2007) There is a decentralization aspect present within the OMC. The potential to be decentralized is also recognized by Smismans (2004). According to him, the OMC can get even more decentralized if the objectives should not be defined in detail at the European level. Objectives that are not defined in details should promote a better opportunity for learning, innovation and experimentation at the national

and regional level. More decentralization should also occur when more flexible constitutional values rather than constantly policy standards are created and when there is more participation of all involved actors. (Smismans, 2004) Smismans (2004) also suggests that more parliamentary involvement is needed. This increased parliamentary involvement concerns that national parliaments and the European Parliament. It is now often the case that the European Parliament does not really participate in the OMC process. A result of the increased involvement is potentially a higher level of legitimacy of the OMC. More participation of civil society, social partners and sub-national governments will create a better opportunity to draft up guidelines that are better based on local experiences.

The top down hierarchical coordination mode element of the OMC is the development of ideas that take place at the European level. New ideas that are developed at the European level influences developments at the national and/or regional level. Smismans (2004) argues that the OMC with his specialised committees is more a top down process rather than bottom-up process that recognizes national diversities and ensures national participation. The different top-level committees that are established within the OMC have a steering role in the discussions about common objectives and the analysis of national policies which lead to the mutual sharing of knowledge. "*The presence of top-level experts on these committees naturally reinforces mutual knowledge and trust between national policy makers*." (Dehousse, 2002, p. 10) According to Smismans (2004), "*the OMC should be dubbed 'the Open Method of Centralisation': 'centralisation' since it leads to the definition at the central European level of policy choices that otherwise would be taken at lower levels; 'open', not in terms of participation of stakeholders or public scrunity, but in terms of flexible – or 'unpredictable' – policy outcomes*." (Smismans, 2004, p. 17)

The actors in the OMC have the same type of relationship as in a network coordination mode. The relationships between actors are based on equalization and actors are seen as partners. Even the government is on the same level of every other actor. Dehousse (2002) argues that one of the main characteristics of the OMC is the absence of a hegemonic player with formal authority.

4.1.3 Third dimension: Structure

The structure of the OMC in terms of competences of involved institutions is based on hierarchism. According to a hierarchical coordination mode, as explained in an earlier chapter, there is a pyramidal lined structure with a centralized control mechanism. The European Commission is located at the top of the OMC process. The European Commission establishes guidelines and controls the implementation process of these guidelines. The middle level locates the member states. The member states draw up national plans on how to implement the EU guidelines. At the lower level, regional/local governments and organisations are located that implement these EU guidelines. However, next to the hierarchical element, elements of the network and market coordination modes like negotiations and decentralization also occur within the structure of the OMC. This is unusually within a lined organization. This is due to the fact that the central control mechanism has an exclusive right to determine the strategy without taking into account the desires of other actors. Negotiations are not necessary in a lined hierarchical structure. However, in the OMC these negotiations are necessary to establish common interests between the member states, social partners and the society. These common interests are the starting point of an OMC process.

For control within the OMC, the network control mechanism 'trust' is used. The OMC is often used in policy fields where the competences of Europe are limited; in policy fields where there are no agreements among the member states to ratify binding directives; and in policy fields that are too complex. Because the OMC is used in such policy fields, trust is needed to bind this complexity. This is due to the fact that in these special policy fields there are a limited number or no legally binding control mechanisms. Trust must replace this lack of legally binding control mechanisms.

The OMC uses the market coordination mode ex post mechanisms for coordination. This happens through exchange of information, best practice and the periodic monitoring reports of the implementation progress in order to achieve the mutual learning processes between member states. However, the OMC also uses the hierarchical ex ante coordination mechanism by establishing guidelines in the beginning the OMC process. The coordination within the OMC is decentralized and open. This openness means that the coordination process is accessible for a wide range of actors.

The OMC uses the market coordination mode sanction mechanism of naming, shaming, and blaming. However, not all actors are necessarily impressed by this mechanism. They do not feel responsible for the implementation of the purposed result. Important for the naming, shaming, and blaming mechanism are national policies at play. If a guideline, established by the European Commission, is not endorsed by national politicians and interest groups, a national minister can be challenged to take action. So, unpopular guidelines can result in not complying with these guidelines. The commitment level of the actors is in these cases low.

Because the OMC is a learning process, knowledge is important. As is the network coordination mode, in the OMC knowledge is seen as a shared good. Learning happens through benchmarking and mutual learning. There are annual reports about the progress of the implementation drawn up by the Commission. Member states have the opportunity to learn from the knowledge of other member states.

4.1.4 Fourth dimension: People

Within the OMC, the leadership is by the European Commission. The European Commission establishes guidelines and the member states are free to choose an implementation form for these guidelines. The member states draw up National Action Plans where the plans for the implementation are captured. The characteristics of leadership of the OMC resample the leadership characteristics of a market coordination mode. As mentioned in an earlier chapter, within the market coordination mode the government establishes preconditions in which the actors are free to move within.

The relationship between actors in the OMC is interdependent. This matches with the type of relationships in a network coordination mode. Within the OMC, cooperation is needed for creating common ideas and realizing pleasing results.

4.1.5 Fifth dimension: Results

The OMC has, just as the network coordination mode, affinity with problems that are complex and involve a large pool of actors. It is often the case with complex problems, that using the traditional Community Method is not the best solution. One possible solution is than using an OMC.

Outcomes of the OMC can be seen as a combination of results flowing from both the network coordination mode and the market coordination mode. A result of the OMC is a voluntary agreement on common ideas.

A typical failure of an OMC comes from all the three ideal coordination modes, the 'Matthew Principle'. This principle states that "*in each of the different fields, it referred to a situation in which those already in position of advantage are better able to extend that advantage or to enjoy disproportionate rewards in comparisons to the disadvantaged or those with lesser rewards.*" (Gal, 1998, p. 44) This principle states that persons who are performing the best are also the persons who do all the work.

4.2 The summary table

This section sets out the general framework of the OMC in a table. The different elements of the OMC are put in a table that is based on the table used in an earlier chapter by Meuleman (2008). This table shows that the OMC is a mixed coordination mode of a network and market coordination mode. The 23 dimensions that are used are the same dimensions that are used for explaining the ideal coordination modes hierarchy, network and market.

Table 2: General Framework of the OMC

Dimension	**OMC**	**Coordination mode**
Vision		
1. Culture	Hierarchism, Individualism	Hierarchy and Market
2. Key Concept	Public value	Network
3. Common Motive	Protecting shared values	Network
4. Motive of subordinate actors	Material benefit	Market
5. Roles of delivers government	Government partner in a social network	Network
6. Style of Strategy	Learning style	Network

Table 2: (continued)

7. Governors' responses to resistance	Using incentive and inducement	Market
Orientation		
8. Orientation of organisations	Top Down and Bottom-up	Hierarchy and Market
9. Actors are seen as	Partner	Network
10. Choice of actors	Controlled by written rules	Hierarchy
Structure		
11. Structure of organisations	Line organisation, centralised control, negotiations, decentralised	Hierarchy, Network and Market
12. Unit of decision-making	Public authority	Hierarchy
13. Control	Trust	Network
14. Coordination	Ex post and Ex ante	Hierarchy and Market
15. Flexibility	Medium to high	Network and Market
16. Commitment among parties	Low	Market
17. Roles of knowledge	Knowledge as shared good	Network
18. Context	Continuous change and competitive	Network and Market
People		
19. Leadership	Delegating	Market
20. Relations	Interdependent	Network

Table 2: (continued)

Results		
21. Affinity with problems types	Complex, multi actors issues	Network
22. Typical failures	Matthew Principle	Hierarchy, Network and Market
23. Typical types of output and outcome	Consensus, agreements, covenants, products, voluntary agreements	Network and Market

Reference: based on Meuleman (2008)

All three ideal types of coordination are to be found back within the OMC. There are seven hierarchical elements, twelve market elements and fourteen network elements. Based on these results, a conclusion can be drawn that the OMC is especially a market/network hybrid coordination mode.

It is not strange to conclude that the OMC is especially a market/network coordination mode. The OMC is intended to go beyond the traditional hierarchical methods of the hierarchical coordination mode. However, to still find several hierarchical elements within the OMC can be seen as a surprise. The OMC is created to function as an 'open' system. This means that in theory, every interested actor is free to participate within the OMC and there are no vertical lines between the actors. However, the OMC does have some vertical lines. It still has some hierarchical elements and you may conclude that the system in the OMC is not as 'open' as it was intended.

Another interesting element is the mix of ex ante and ex post coordination mechanism. Guidelines are established and naming, shaming and blaming is used as a control mechanism. This is a combination of control mechanisms that are based on 'hard' and 'soft' law. This is interesting because the OMC is established to avoid 'hard' law and its control mechanisms.

The dimension structure of the OMC is also an interesting feature. According to the table, the structure of the OMC has elements of the hierarchical, network and market coordination mode. It is remarkable because structure elements of the three ideal type of coordination

mode are contradictory. To have an instrument that is a lined hierarchical organization, which deals with negotiations and have special committees that are decentralized, is very unique.

4.3 The strengths and weaknesses of the OMC

As every coordination mode, the OMC has its strengths and weaknesses. Because of the fact that the OMC is a relatively new method and it relies on learning for the desired adaptation and convergence, we cannot draw on extensive experiences. The OMC is not yet researched enough to give clear and well underpinned statements about the effects and functioning of the OMC in reality. Several researchers though assessed the possible strengths and weaknesses of the OMC. In the remainder of this chapter, I will address the possible strengths and weaknesses of the network and market coordination modes, that have been described before. Looking at the already established strengths and weaknesses of the network and market coordination modes will give more plausible statements about the possible strengths and weaknesses of the OMC. Next to this I will discuss how these strengths and weaknesses of the OMC are likely to affect an Innovation Area.

4.3.1 Strengths of the OMC

Strengths found in scientific literature

The first theoretical strength is also the OMC's most important strength, namely its flexibility. The high degree of flexibility of the OMC is a well-recognized positive feature of the OMC. According to Von Homeyer e.a. (2004), the OMC is flexible with respect to preservation of national and regional diversity and to the problem specific design and the possibilities to adapt to changing circumstances. Dehousse (2002) argues that flexibility of the OMC takes care that guidelines are drawn up in accordance to specific situations, which are than translated into specific action plans. Pagoulatos e.a. (2007) argues that through its flexibility and repetitive character, the OMC provide the opportunity for constant adjustments and learning. (Pagoulatos e.a., 2007)

The second theoretical strength is the high degree of information exchange, the learning process and the space for experimenting. The OMC provides the space for experimenting

that results in new solutions to existing problems. (Pagoulatos e.a., 2007). It pushes the member states to exchange information and learn from each other in order to promote experimental learning. Von Homeyer e.a. (2004) argues that the OMC provide an opportunity for the involved actors to learn and to innovate. The OMC involves a mutual learning aspect. The process of mutual learning is an important element of the OMC and provides the member states the opportunity to learn from other member states.

The third theoretical strength is that the OMC can be seen as a new and alternative method which can open up a new way between a fragmented Europe and a European Super state. (Zeitlin & Pochet, 2005) This new way contains strengthening of the multi-level nature of the EU policy. Different levels of government are all the time consulted and the OMC allows the participation of social actors and regional/local governments. (Borras & Jacobsson, 2004) That the OMC strengthens the multi-level nature of the EU is also recognized by Von Homeyer e.a. (2004).

The fourth theoretical strength is the positive contribution of the OMC to leadership, participation and accountability. The OMC helps to build a strong political leadership of the European Council by positively influence the coordinating and guiding role of the European Council within the OMC process. (Borras, 2004) The OMC also increases the democratic participation and accountability of the EU. Because the OMC prescribes that every stakeholder should participate in the decision-making process, the democratic participation will increase. Next to the national and European governments, the civil society and social partners are given voice to the concerns of citizens and are therefore involved in the decision-making process. All these actors in the decision-making process take with them their own cultural differences. The OMC deals with European concerns with respect to the structural and cultural diversity within Europe. The OMC is not established to harmonize but to come to common ideas and interests with the preservation of national cultural and structural diversity.

The fifth theoretical strength of the OMC is the positive influence on the implementation process and legislation, and the fact that the OMC is in some cases a better choice in comparison with the traditional Community Method. As mentioned in an earlier chapter, problems in the field of legislation and implementation help with the introduction of the

OMC. Improvements in the legislation and implementation process are made by using 'soft' law. (Von Homeyer e.a., 2004). Another result of using 'soft law' is the speed of adopting measures. This adaptation process is quickly because the OMC is not subject to a legislative process. (Von Homeyer e.a., 2004) In some cases is using the traditional Community Method of hard law not desirable. In these cases, the OMC will provide a better solution because of the fact that it contains 'soft' law. Pagoulatos e.a. (2007) argues that in policy fields where normally unwillingness is to hand competencies to the EU, the OMC has potential to invite the national governments to make commitments without handing over competences. A result of this is progress without new EU legislation in these policy fields. Von Homeyer e.a. (2004) calls the use of the OMC instead of the traditional Community Method the 'second best option' of the OMC. The '*"Second best" option to work towards a level playing field/comparable conditions across Member States and regions in cases in which it is undesirable or politically particularly difficult to apply the Community Method (CM)"* (Von Homeyer e.a., 2004, p. 5)

Strengths resulting from the network and market coordination modes

Looking at the network and market elements of the OMC, four strengths of the OMC can be formulated. The first possible strength is the flexibility of the OMC, as mentioned before. The network coordination mode has a high level of flexibility because of the loose rules of a network. The flexibility of the market coordination mode element comes from the competitive element within the OMC. There are guidelines that must be followed. How to implement these guidelines will be decided by the member states. The implementation decision by the member states and the possibility to adjust it to the local situation makes the OMC flexible.

The second strength is the character of the OMC. The character of the OMC can be seen as 'open'. All different kind of actors are involved within the OMC. Not only the national governments and the EU are involved in the OMC process, also social partners, civil society and regional governments are involved. Within this 'open' character of the OMC actors involved are seen as partners. There is no hierarchy between the different actors. All actors are even important. Even the government stands on the same level as non-governmental actors. Another aspect of the character of the OMC is that, when the OMC is working well, the effectiveness is of a medium to high degree.

The third strength is a strength coming from the market coordination mode aspect of the OMC. The OMC is well equipped to deal with a great number of fragmented knowledge. The OMC take care of an alignment of the fragmented knowledge to promote decisions and actions based on this knowledge. This availability of fragmented knowledge within the OMC results in cost reduction.

The fourth strength results from the market coordination mode aspect of the OMC. The fourth strength is the opportunity that the OMC provides to be more decentralized. The OMC is a bottom up process. However, the OMC has also elements of a top down process. Next to bottom up elements, the top down elements within the OMC are also seen as positive. The EU established fixed guidelines and alongside these guidelines the performers are controlled. The use of a mix of bottom up and top down elements leads to better coordination. Coordination happens through ex post and ex ante coordination mechanisms. A result of this is that the OMC process is coordinated during many time frames.

4.3.2 Weaknesses of the OMC

Weaknesses found in scientific literature

The literature also provides, next to possible strengths, several theoretical weaknesses of the OMC. The first theoretical weakness is the character of the OMC. The OMC has a competitive dynamic character with a lack of effect of the OMC on the member states. Because of the lack of 'hard law', the OMC uses 'naming, shaming and blaming' as a control mechanism. Because of the competitive dynamics of the OMC, member states try to avoid 'shaming' by attempting to establish target and objectives that are easy to achieve. (Von Homeyer e.a., 2004) Next to this, the absence of 'hard law' creates the possibility that the OMC can be seen as a symbolic mechanism. The OMC can be seen as symbolic politics because national governments repackage existing policies to demonstrate their compliance to the EU objectives.

The second theoretical weakness is the limited commitment and participation of the OMC. Idema (2006) argues that due to the limited participation by national policy makers and the availability of many other sources of learning, like EU networks, research literature and policy think tanks, the role of the OMC in the policy making process is marginal. Von Homeyer e.a. (2004) also argues that the commitment in the OMC process is limited. This

limited commitment results is a weak basis for coordination. "*.. There is tension between the logic of peer cooperation, on which the OMC is based, and the desire stated in Lisbon to entrust the European Council with a centralized steering role."* (Dehousse, 2002, p. 16) The dynamics of the OMC is based on voluntary cooperation. Outside control within the framework of voluntary cooperation can bring a risk of being seen as an illegitimate interference. Also according Dehousse (2002) is the idea of a European Council with a general coordination role not feasible.

The third theoretical weakness of the OMC involves the risk of untransparency and unaccountable policy making. (Von Homeyer e.a., 2004) The risk of untransparency and unaccountable policy making is due to the fact that expects and high placed actors have more important role than the European and national parliaments.

The fourth theoretical weakness is the effectiveness and efficiency of the OMC. The OMC has no visible effects on the effectiveness in the short run. In the medium to long term, the effectiveness of the OMC affects indirectly the national policy processes. (Hatzopoulos, 2007) If change occurs, it often seems to be stemming from the member states themselves and not from the EU. Hatzopoulos (2004) also argues that the OMC has uncertain efficiency. "*Their 'openness' does not allow for the achievement of specific pre-determined objectives, especially not within prescribed timetables*." (Hatzopoulos, 2007, p. 338) This is followed by the case that the OMC is a medium or long-term process. Quick results within the OMC process are therefore excluded. (Von Homeyer e.a., 2004)

The fifth theoretical weakness is the political appropriation in combination with processes of scapegoating. "*This refers to the situation where countries complying with the criteria/guidelines/goals might not want to express overtly that changes have been induced by EU policy, but rather present them as their own policy. The EU is only mentioned and blamed when there are unpopular decisions to take*." (Borras & Greve, 2004, p. 332)

The sixth theoretical weakness of the OMC is the use of its peer review system and the instruments. Within the peer review system, there is not enough encouragement to name and shame other member states and there is also not enough encouragement to abstain from an uninterestingly self-evaluation of their own NAP goals. According to Dehousse (2002), the used instruments in an OMC process are often not adapted to the defined object.

Pagoulatos e.a. (2007) argues that there are too many benchmarking and targets and they are often also too naive. A negative of benchmarking is that there is a risk of ignoring important differences between national states with a result of backfiring of the learning process. Pagoulatos e.a. (2007) also argues that next to benchmarking and the targets, the subsidiarity principle may be threatened by the OMC. The subsidiarity principle may be threatened because of the absence of a clear institutionalized bottom up participation within the benchmarking process. The feedback mechanisms are also a weakness. These feedback mechanisms are Eurostat and the national government themselves. They provide vague and contradictory data. Precise data is important because the OMC relies heavily on statistical data in order to be able to develop indicators, benchmarks and targets.

The seventh theoretical weakness is the implementation in the OMC. As mentioned before, the OMC leaves the member states free to choose their implementation form. According to Von Homeyer e.a. (2004), the free choice of implementation form decreases the potential for creating comparable conditions.

The eight theoretical weakness of the OMC is the threat to the traditional Community Method. The OMC can be seen as a threat because 'soft' law options may displace 'hard' law instrument even in domain where the EU has legislative powers. However, this weakness is contradicted by Von Homeyer e.a. (2004). According to Von Homeyer e.a., the OMC should not compete with the traditional Community Method of 'hard' law. The OMC could even complement the Community Method in several ways. One of these complementing ways is the function of the OMC as a forerunner to EU legislation. The OMC can define common objectives along the member states and support the shift in policy making from the national level towards the European level. (Von Homeyer e.a., 2004) More policy making action on the European level may create added value in certain policy fields. Another complementing way is the insurance of better implementation by the OMC. The traditional Community Method experiences problems around the implementation process in the member states. Only a small amount of directives and regulations are implemented on time, which stands in the way of a good working European Union. The introduction of the OMC will have a positive influence on taking care of implementation problems and will make the implementation process more smoothly. Other complementing manners concern areas where majority decision-making, the traditional Community Method, is not legitimate and policy fields

where flexibility is required. Because the OMC reliance on 'soft' law, it is much more flexible than the Community Method.

The ninth theoretical weakness is the possibility to see the OMC as a Trojan horse. The OMC allows "*the EU to encroach illegitimately into policy domains reserved by Treaties entirely or primarily to the Member States through the adoption of common European objectives and performance indicators, backed up by peer pressure*." (Zeitlin & Pochet, 2005, p. 23)

The tenth theoretical weakness is the creation of imbalance by the OMC. Pagoulatos e.a. (2007) argues that because of the fragile role of the European Parliament within the OMC process and the bureaucratic character of the OMC, you may conclude that the OMC is more a top down approach rather than a bottom up approach as it was intended. Hatzopoulos (2004) also recognizes the created imbalance as a weakness of the OMC. He argues that the OMC creates institutional imbalance. The OMC weakens all the traditional institutions and the institutional balance is altered by the OMC. The European Parliament and the European Court of Justice are left out of the OMC procedure.

Weaknesses resulting from the network and market coordination modes

Based on the weaknesses of both the network coordination mode and the market coordination mode, weaknesses of the OMC can be determined. The first weakness is the low level of efficiency of the OMC. Because there are negotiations involved with the OMC that may lead to never ending discussions. This has a negative impact on the efficiency of the OMC.

The second weakness is the structure of the OMC. This structure is competitive and because of this competitive structure the OMC is instable. Next to the competitive structure of the OMC, the structure is a mix of a hierarchical lined organizations and a network structure with negotiations. The mix of these elements makes the structure of the OMC confusing.

The third weakness is the response to resistance of the OMC. Because the OMC only uses 'soft' law, the only mechanism to deal with non-compliance is 'naming, shaming, and blaming'. However, member states can decide to not comply with this mechanism without any real consequences. The weak response to resistance is associated with the absence of a real control system. The control is provided by trust between the member states and the EU.

And trust is not a strong mechanism. A result of this is the low commitment degree of actors involved. With a low commitment degree by the actors, the OMC will not work to its full potential.

The fourth weakness is the Matthew Principle. "*It referred to a situation in which those already in positions of advantage are better able to extend that advantage or to enjoy disproportionate rewards in comparison to the disadvantaged or those with lesser rewards*." (Gal, 1998, p. 44) According to Merton (1968), the Matthew Principle in the field of science refers to the fact that researchers with a higher status will receive more credit than they deserve. This in contradiction with lower placed researchers. They will receive less credit as they deserve. A result of this will be status-enhancing and status-repression feedback loops. This amplifies the existing status differences in the field of science. A similar Matthew Principle is seen in the field of innovation. When businesses step into a network it will increases their innovativeness and these businesses will move to a more central position within the network. A result of this is that these businesses become even more innovative and get an even more centralized position. (Grodal, 2004) An elite is created who constantly increases their innovativeness, position and status. In the long run this development will create a closure of the network because new information will not get through to these businesses. In the field of education, the Matthew Principle will lead to a widening of the income gap between more and less educated persons. No approach will solve the complete problems with the Matthew Principle, but important signals can be detected to offer advantages in the case of the Matthew Principle.

4.4 The OMC and the Innovation Area

The previous section discussed the various strengths and weaknesses of the OMC. The question rises whether the OMC can be used in an Innovation Area based on the formulated strengths and weaknesses?

4.4.1 Why the OMC will be desirable to use in an Innovation Area

Based on the strengths that are put forward in the previous sections, several reasons can be mentioned why the OMC will be desirable to use in an Innovation Area. The first reason is that the OMC is much more flexible compared to the traditional Community Method. The problems concerning innovation are complex of nature. This complexity originates from the

overlap of policy fields in innovation. Also the environment of innovation is complex. As mentioned in an earlier chapter, different organizations are active in the field of innovation. There is also no general European innovation policy. Each member states have their own national innovation policies with differences in structure and focus of subjects. There will be common European guidelines concerning innovation, only the choice for the implementation form will be put down by the member states. This will result in better innovation policies with respect to national differences. The coordination mode to be used in an Innovation Area must be flexible enough to deal with the complexity of innovation and national differences. Compared to the traditional Community Method, the OMC is more flexible and therefore more desirable to use in an Innovation Area.

The second reason for using the OMC in an Innovation Area concerns decentralization. To be able to handle the national differences in innovation, decentralization is desirable. Because of decentralization, the member states have more input in the innovation policy and the implementation can be focussed on national problems in the field of innovations. This kind of 'ownership' may facilitate compliance during the implementation stage. The Community Method is a top down approach and does not provide the opportunity for decentralization. All the power will be placed at the top of the organization. The OMC is more desirable to use in an Innovation Area. The OMC is a more bottom up approach and facilitates decentralization.

The third reason to use OMC in an Innovation Area is the high degree of information exchange possible. Better information exchange will be possible if the public-private partnerships in Europe will improve. By improving these cooperation's and partnerships, information can be better transferred between public and private sectors and a better platform will be created to innovate. Another problem is the high level of fragmented knowledge in Europe. Knowledge will remain fragmented if the cooperation rate between universities and industries will remain low. An Innovation Area must, among other things, ensure that through information exchange between the member states the innovation performance of the member states will be equalized. In other words, the existing 'innovation gap' between member states must decrease through the establishment of an Innovation Area. In an Innovation Area the learning aspect is important. The coordination mode to be used in an Innovation Area must be able to handle a high level of information exchange,

mutual learning and fragmented knowledge. The OMC is more appropriated in comparison to the Community Method. The Community Method does not provide a learning aspect as the OMC does and the Community Method will provide information exchange to lesser extent than the OMC. The OMC promotes networks and information exchange and stimulates public-private partnerships.

4.4.2 Why the OMC will not desirable to use in an Innovation Area

Based on the weaknesses formulated previous in this chapter, several reasons why the OMC is not desirable to use in an Innovation Area can be formulated. The first reason is the use of 'soft law' in the OMC. Innovation is important for the competitiveness of Europe. Because of this importance there must be strict compliance to the established European guidelines for innovation and appropriated punishment for non-compliance in an Innovation Area. The OMC uses 'soft law'. The 'soft law' control mechanism is 'naming, blaming and shaming' with no compulsory function. A negative of using 'soft' law control mechanism is the fact of less effectively. Due to a lack of compelling legitimate measures, member states can withdraw from the control mechanism 'naming, blaming and shaming'. The OMC does not have a control system based on binding legal measures. The Community Method uses 'hard law' and has a control system based on binding legal measures. The Community Method is therefore more desirable in comparison to the OMC to use in an Innovation Area.

The second reason why the OMC will not be desirable to use in an Innovation Area is that the OMC creates incomparable conditions. Member states are free to choose their implementation form to achieve the European guidelines. This results in difficulties for comparisons. Without good comparisons, learning effects will not be optimal. The Community Method prescribes the implementation form and therefore creates comparable conditions for analysing.

The third reason why the OMC will not be desirable to use in an Innovation Area is that the OMC is a long-term process. When using the OMC in an Innovation Area it will become very difficult to improve the innovation performance and decreasing the 'innovation gap' in a short time period. This short time period is desirable because when a measure take a long time to get an effect, more time the 'innovation gap' has to get bigger and more difficult to

solve. It becomes even more difficult to connect with the main competitors of Europe, the US and Japan.

The fourth reason why the OMC will not be desirable to use in an Innovation Area is its weak peer review system and feedback mechanism. A possibility is to extent the current peer review system of the OMC to obtain more incentives to 'name and shame' other member states. Also the number of feedback mechanisms must increase in order to provide better and precise data for developing more suitable indicators, benchmarks and targets.

4.5 Conclusion

The OMC has elements of the hierarchical, the network and market coordination modes. The hierarchical elements are especially remarkable because the OMC is introduced as a method that goes beyond the traditional hierarchical elements. However, the OMC has more network and market coordination mode elements than hierarchical coordination mode elements. The OMC is a hybrid of a network and market coordination mode. Based on the strengths and weaknesses that are known of the network and market coordination modes and the possible strengths and weaknesses of the OMC that are found in the scientific literature, strengths and weaknesses of the OMC can be formulated. Is the OMC given the strengths and weaknesses that can derived from the traditional modes of coordination, a suitable coordination mode to make the Innovation Area a success? The OMC has of course its weaknesses, like any coordination modes has. I would argue that the strengths of the OMC outweigh the weaknesses of the OMC. One of the reasons is that I believe that the strengths provide good support to reach the goals of an Innovation Area. These goals of an Innovation Area are offering support and to promote innovation, to provide a platform for information exchange and to provide a learning process for all stakeholders of innovation. These strengths are that the OMC can deal with a great number of fragmented knowledge, can deal with a high level of information exchange and it provides a learning process. Another reason why I believe that the strengths outweigh the weaknesses is the fragmentation of innovation policies in Europe. The European Commission has no competences in the field of innovation and therefore there are different national innovation policies. The EU lacks powers to overcome this fragmentation. Another reason is the

complexity of innovation as a policy field. Problems in innovation are complex and there are existing structural and cultural differences between member states innovation policies. Because of this, flexibility is recommended. I would argue that the flexibility of the OMC is its main strength. Because of its flexibility, the provided opportunity of decentralization and the high degree of information exchange, the OMC is suitable for an Innovation Area, despite a number of shortcomings.

5. The OMC analysed by its applicability

In order to determine whether an OMC is applicable in an Innovation Area, you can look at, beside the type of coordination mode, to different statements made at the applicable of the OMC in certain policy fields. This section will discuss the different statements exposed in an earlier chapter about the application of an OMC. By discussing research carried out by von Homeyer e.a. (2004), Borras and Jacobsson (2004), and Kaiser and Prange (2004), a statement will be formulated about the applicability of the OMC in an Innovation Area.

5.1 Von Homeyer e.a. (2004) and the Innovation Area

Von Homeyer e.a. (2004) introduced eight criteria that need to be fulfilled in order for a successful introduction of an OMC in a certain policy field. Will these eight criteria be fulfilled in an Innovation Area? The first criterion of avoiding policy fields that are essential to the Internal Market is fulfilled. Policies concerning the Internal Market have a high degree of harmonisation on the European level. The European Commission have full competences in these policy fields. Policy fields that are essential for maintaining the Internal Market are, for example, the policies for fair competition and policies concerning the free movement of person in Europe. Policies concerning innovation do not belong to the policy fields that are essential for maintaining the Internal Market and the European Commission has no full competences in the field of innovation.

The second criteria of needing to address structural rooted national differences are also fulfilled in an Innovation Area. Innovation is a sensitive policy field where the European Commission has no complete competences. As a result, there is no general European innovation policy and only national innovation policies. These national innovation policies differ in focus and measures to improve the national innovation performance because problems in innovation will have different causes between the member states. It is even the question whether harmonisation in the field of innovation is desired. A result of harmonisation is the transfer of competences to the European Commission in areas where the member states don't want to lose their sovereignty. This is a delicate issue because

innovation overlaps different policy fields like education and taxation. The Innovation Area will provide a platform for innovation respecting the national differences of innovation.

The third criterion of having political pressure and commitment to learn and change is not fulfilled in an Innovation Area. Innovation is still a national issue and not a European issue. Europe will put some pressure on the member states to improve their innovation performance and learn from other member states. Only this pressure is not of a high level. If this pressure was high enough, the Lisbon Strategy goal of increasing the R&D expenditure to 3% GDP was achieved. And the level of pressure between the Lisbon Strategy and the new Europe 2020 strategy is not changed.

The fourth criterion of having a multilevel problem is fulfilled in an Innovation Area. Innovation has a multilevel dimension because innovation happens at each level of society. Innovation is not only for businesses, even at the government level innovation is carried out. It even expand outside the national borders. When the national innovation performance of a member state are low, this will have a negative effect on the innovation performance of Europe in general.

The fifth criterion of having a learning aspect is also fulfilled in an Innovation Area. A major goal of introducing an Innovation Area is that a platform is provided where the member states can learn from other innovation policies and the results of these national innovation policies. The innovation leaders, like Denmark and Sweden, can provide information about their national innovation policies and reasons why the innovation performance is so high in their states to other member states that have a lower innovation performance. Question that can be ask are: How are the policies with respect to researchers and education in member states that are considered innovation leaders? And can these policies be implemented in other member states?

The sixth and seventh criteria of an iterative, temporary depoliticisation and the premium on immediate results are not fulfilled in an Innovation Area. Because innovation is a sensitive area, temporary depoliticisation is not desirable. What is desirable are quick results in the field of innovation. This is because the competitiveness of Europe depends heavily on the innovation performance of the member states. A decrease of this competitiveness of Europe will result in a decrease of Europe's position in the world economy. However, because a goal

of an Innovation Area is learning, and a learning process is a long-term process, quick results are ruled out.

The eight criterion of a desirable quicker decision-making process is fulfilled in an Innovation Area. In the policy field of innovation, changes occur in a fast pace. It is desirable that in the field of innovation, policy makers can react immediately on these changes. It is therefore desirable that the decision-making process is not a slow process.

The table below set out which criteria are fulfilled and which criteria are not fulfilled in an Innovation Area. You may conclude that, based on the statements of Von Homeyer e.a. (2004) about these eight criteria, the OMC is not well applicable in an Innovation Area.

Table 3: eight criteria of von Homeyer e.a. (2004)

8 criteria Von Homeyer e.a. (2004)	Innovation Area
1. Avoid policy fields for maintaining Internal Market	YES
2. Need to address structural rooted national differences	YES
3. Actors under political pressure + commitment to learn	NO
4. Problem with multi-level dimensions	YES
5. Must have a learning aspect	YES
6. Possibility iterative, temporary depolicisation	NO
7. Not be premium on immediate results	NO
8. Quicker decision-making is needed	YES

5.2 Borras and Jacobsson (2004) and the Innovation Area

Borras and Jacobsson (2004) have another view about the applicability of an OMC in certain policy fields. Borras and Jacobsson (2004) argue that only in three different circumstances an OMC can be successful be introduced within a policy field. These three circumstances are: policy field where attempts to develop forms of coordination has failed, new policy fields of public involvement, and policy fields who have strong interdependencies with the EU level.

Will the Innovation Area complies with one of these three circumstances? The second circumstance that the OMC can be used in a relatively new policy field with public involvement is not the case for the Innovation Area. The policy field innovation is not a relative new policy field. Innovation as policy field is established for nearly thirty years. In the 80s and 90s, the European Commission begins to have more emphasized on research and innovation and starts to introduce policies with the focus on these subjects. A major strategy that involves innovation was the Lisbon Strategy.

Also the circumstance of a policy field with strong interdependence is not the case in the Innovation Area. The national innovation policies have no strong interdependence with EU policies with respect to innovation. Innovation is seen as especially as a national case.

Does an Innovation Area eligible to the first circumstance where the OMC can be used in policy fields where attempts to develop forms of coordination has failed? A difficult aspect of innovation is that it consists of several other policy fields, like economy and research. In the field of economy, cooperation among member states is already established. In the field of Research and Development, cooperation was a bit more difficult. In the 1990s, the European Commission tried to coordinate national R&D policies to each other and to policies that tried to avoid duplication of efforts. (Borras & Jacobsson, 2004) However, several member states resisted and wanted to maintain their national technological sovereignty. In the Lisbon Strategy a common goal was formulated for the expenditure in R&D. But the Lisbon Strategy has failed. The reason why the Lisbon Strategy has failed is because there were problems around the subject coordination. The coordination of the implementation process by the member states did not functioned well. As a result of the troubles around the coordination, policies were not implemented on time.

The following table summarises the fulfilment of the three circumstances by Borras and Jacobsson (2004) in an Innovation Area. You may conclude that, according to the statement by Borras and Jacobsson (2004), the OMC is well applicable in an Innovation Area.

Table 4: three circumstances Borras and Jacobsson (2004)

3 circumstances Borras and Jacobsson (2004)	Innovation Area
1. Policy fields where attempts to develop forms of coordination has failed	YES
2. New policy fields of public involvement	NO
3. Policy fields with strong interdependencies with the EU level	NO

5.3 Kaiser and Prange (2004) and the Innovation Area

Kaiser and Prange (2004) argue, however, that there are major stumbling blocks in the application of the OMC in innovation policy. These stumbling blocks are the diversity of the national innovation policies and the multi-level character of innovation policies. Another important aspect of innovation is that the main performing actors are private organizations and not, as usually, the state. This will lead in the field of innovation to a collision between market interests and political interests.

Kaiser and Prange (2004) argue that the OMC can only give some positive effects in innovation policies when several preconditions are met. These preconditions are: the national and regional specifications must be taken into account, actors in each territorial level must be considered during the entire policy process, and benchmarks indicators must be developed that take into account the diversities of the national innovation systems. Are these preconditions met in the Innovation Area? The first precondition is fulfilled in an Innovation Area. The Innovation Area will be established in the light of differences between member states and its regions. It is argumented that a general innovation policy would not work because innovation needs differences between the member states.

The second precondition of considering all actors of each territorial level is partly fulfilled in the Innovation Area. It is attempted to considering all actors involved in the innovation process of each level. However, the number of actors is so large that it is not workable to consider each actor. A solution would be to consider only a specific number of actors of each

level. Because of this, the discussions about the innovation strategy in an Innovation Area would be more manageable. Each territorial level would be considered, only by a limited number of actors.

The third precondition of benchmark indicators is also fulfilled in the Innovation Area. The goal is indeed to establish benchmark indicators that take into account the diversity of innovation systems. However, these benchmark indicators are not determined yet.

You may conclude that, based on the statements by Kaiser and Prange (2004), it is still not very clear that the OMC is well applicable in an Innovation Area. The following table will summarise the preconditions by Kaiser and Prange (2004) that are fulfilled and not fulfilled in an Innovation Area.

Table 5: Preconditions by Kaiser and Prange (2004)

Preconditions for using OMC by Kaiser and Prange (2004)	Innovation Area
1. National and regional specifications must be taken into account	**Yes**
2. Actors of each territorial level must be considered during the entire process	**Partly**
3. Benchmark indicators that take into account the diversity of innovation systems	**Partly**

5.4 Conclusion

On the basis of the analysis about the applicability of the OMC in an Innovation Area, a conclusion can be drawn up that the OMC cannot automatically be applied in an Innovation Area. This is because a number of conditions cannot be fulfilled and due to this, the success of the OMC in an Innovation Area cannot be guaranteed. According to Von Homeyer e.a. (2004), there are eight criteria that must be fulfilled for a successful introduction of the OMC in a certain policy field. The Innovation Area cannot fulfil all these eight criteria. Therefore I draw the conclusion that according to the ideas of von Homeyer e.a. (2004) it does not make sense to apply the OMC into an Innovation Area. Or, there are at least some serious doubts about its applicability. This is in contrast to the ideas of Borras and Jacobsson (2004) about the applicability of the OMC. They argue that the OMC can be successful in a certain policy

field if this policy field complies with one of three circumstances. The Innovation Area does complies with one of these three circumstances. Therefore the conclusion can be drawn that, according to Borras and Jacobsson (2004) ideas, using the OMC in an Innovation Area will be successful. Another idea about the applicability of the OMC with a different approach is of Kaiser and Prange (2004). They argue that because of existing stumbling blocks in the field of innovation, the OMC can only be applicable if certain preconditions are met. It is not really clear that the Innovation Area will meet up to these preconditions. Therefore I draw the conclusion that according to the ideas of Kaiser and Prange (2004), it is not clear if the OMC is well applicable in an Innovation Area.

It will be clear that, if the choice is made to use the OMC in an Innovation Area, it would not immediately lead to a great success. This is because the disadvantages of using the OMC cannot be absorb enough.

6. Conclusion

Europe has problems in the field of innovation: it suffers from an 'innovation problem'. This refers to the fact that Europe is not sufficiently able to translate scientific knowledge into marketable innovations. This is due to the fact that the knowledge chain – discovery, application and commercialisation - in Europe does not function properly. There are also problems in the choice where to invest in innovation. There is a tension between the need to invest in less developed regions, with low capacity problems to absorb public funds, or in more developed regions, with high capacity to absorb public funds. Europe also suffers from an 'innovation gap'. An 'innovation gap' refers to the difference in innovation performances between Europe and their global competitors and between the member states themselves.

There are several reasons why these problems in the field of innovation still exist. For example, the level of R&D expenditure in Europe is smaller than in the US and Japan. There are also existing problems in the fields of Human Resources and Legal and Regulatory environment. The proportion of people with tertiary education is too low and Europe suffers from 'brain drain'. Europe also uses too little protection rules and it has a complex innovation environment. All these problems in different fields contribute to the 'innovation gap' and the 'innovation problem' of Europe. However, innovation suffers also from a coordination problem. The European Commission has limited competences in the field of innovation. Member states have their own national innovation policies with structural and cultural differences, like differences in focus and measures of policies. Because of this, coordination between the member states in the field of innovation is important. Better coordination could reduce the innovation gap. However, such coordination hardly exists and it makes sense to see how coordination can be improved.

Innovation Area and the OMC

A possible solution for the innovation problems in Europe is the establishment of an Innovation Area. An Innovation Area intends to bundle all efforts made for innovation. The Innovation Area will be an area that provides fundamental conditions for innovation and promotes the innovation culture. The Innovation Area concept combines: "*a European 'internal market' for researchers, where researchers, technology and knowledge freely*

circulate; effective European-level coordination of national and regional research activities, programmes and policies; and initiatives implemented and funded at European level." (de Taxis du Poët, 2007, p. 1) The Innovation Area action strategy can be summarised in four heading: attract more researchers and improve mobility of these researchers; creating a world-class research infrastructure; promote public-private cooperation and partnership between universities and industries; and increase the number of people with tertiary education in Europe.

When working together in a partnership, coordination is necessary. So, an Innovation Area must contain a coordination mode. The central question in this master thesis is whether the OMC is a suitable coordination mode for an Innovation Area. The traditional coordination mode used in Europe, the Community Method, is a top down approach that makes use of 'hard' law and has a control system based on binding legal measures. Nowadays, the OMC is a popular new coordination mode. The OMC is a more bottom up approach compared to the Community Method, and the OMC makes use of 'soft' law. The OMC has no control system based on binding legal measures. The OMC makes use of the voluntary control system 'naming, shaming and blaming'. The suitability of the OMC in an Innovation Area is discussed through two different methods.

First method based on three ideal coordination modes

The first method focuses on three traditional modes of coordination that may shed light on the possibilities of the OMC to overcome coordination issues in Europe with respect to the establishment of its Innovation Area. The possible strengths and weaknesses of the OMC are examined and to answer the question whether the OMC is a suitable coordination mode for an Innovation Area. This analysis shows that the OMC can be seen as a hybrid of a network and market coordination mode. Several strengths and weaknesses emerges out of the analysis. An important strength is the flexibility of the OMC. The OMC also provides an opportunity for decentralization. Decentralization is necessary because the European Commission has limited competences in the field of innovation – it cannot force member states to embrace a common European-wide policy. One of the weaknesses is the absence of a legally binding control system. Despite the fact that there are more weaknesses than strengths appointed in this analysis, I believe that the OMC can be successful in an Innovation Area. This is due to the fact that I assign the weaknesses minor importance than

the strengths. Reasons for this assignment is that the strengths will support the goals of the Innovation Area, the EU lacks power to overcome the fragmentation of national innovation policies and the flexibility is important due to the complexity of innovation.

Second method based on applicability

The second method to asses the applicability of the OMC focuses on the ideas of three researchers. Von Homeyer e.a. (2004) argues that an OMC is applicable in a policy field if this policy field meets eight criteria. Not all these eight criteria are fulfilled in an Innovation Area. Therefore I would argue that based on the criteria put forward by Von Homeyer e.a. (2004), the OMC is not suitable for an Innovation Area. Borras and Jacobsson (2004) argue that the OMC is applicable if one of three circumstances are met. One of them concerns coordination modes that have been used before and failed. This happens to be the case in the innovation field. Therefore I would argue that based on the possible three circumstances by Borras and Jacobsson (2004, the OMC is suitable in an Innovation Area. Also Kaiser and Prange (2004) argue that an OMC in the field of innovation will only be successful if certain preconditions are met. Some elements of these preconditions are part of an Innovation Area while others are partly present. Therefore I would argue that based on the preconditions by Kaiser and Prange (2004) it is not clear whether an OMC is suitable in an Innovation Area.

Looking at the second method, a definitive conclusion about the applicability of the OMC in an Innovation Area cannot be formulated. While some criteria and circumstances are met to make the OMC a successful mode of coordination, and hence would contribute to reduce the innovation gap, others do not. The latter implies that the innovation gap remains to be a persistent problem that conserves imbalances within Europe and that jeopardises Europe's innovative capacity, and economic prosperity.

General conclusion

Different methods to determine the suitability of an OMC in an Innovation Area have been used in this thesis to answer the research question. The outcomes differ between the different methods. They provide a mixed bag. A definitive conclusion about the applicability of the OMC to contribute to solving the problem of the innovation gap is hard to give. The first method, in which three traditional modes of coordination serve as the analytical tool, clearly reveal both strengths and weaknesses of the use of the OMC. Because Europe has

fragmentation of national innovation policies and the EU lacks powers to overcome this fragmentation, I would argue that the positive characteristics of the OMC outweigh its limitations and shortcomings. By the same token, the second way to develop a sound argument in favour or against the OMC to support the emergence of the Innovation Area, leads to a similar conclusion. Where some of the criteria to successfully use the OMC, there are also preconditions and criteria that might seriously hamper the OMC's success. Once again, my analysis demonstrates how hard it is to develop the means to solve the innovation problem. The OMC could be a 'productive' mode of coordination but not be all means. Serious attention should be paid to (potential) pitfalls and where possible these should be avoided, for instance by adapting certain characteristics of the OMC – if that is possible without taking away its strengths – or by supporting policies that would create a more favourable circumstances.

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