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Overview Paper Smart growth in the EU budget: Modernising the EU

By Arnout Mijs & Adriaan Schout

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In June 2010 the European Council adopted the Europe 2020 strategy, delivering smart, sustainable and inclusive growth towards the year 2020. In June 2011 the European Commission published its proposals for a new Multiannual Financial Framework (MFF) called 'A budget for Europe 2020'. The MFF is the financial translation of the Europe 2020 strategy. One category in the new budget is 'smart growth' and contains themes such as competitiveness, education, research & innovation.

This seminar discusses 'smart growth' in relation to the efforts of the Commission, EP and member states to modernise the EU budget. In other words, to what extent can the long-term Europe 2020 strategy be translated into concrete financial plans? The focus is on what the EU budget can bring to achieve the objectives of the Europe 2020 strategy and on the potential added value of the EU. This can be looked at from different perspectives. Questions that need to be addressed include the extent to which the EU's flagship initiatives are supported by the MFF 2014-2020 and where national, EU and private sector budgets can be complementary. It will be of particular interest to examine whether and how industry, member states and opinion leaders see opportunities for maximising the output of the EU budget in enhancing the EU's competitiveness. In this way the seminar will contribute to the discussion on competitiveness, education, and research & innovation in the EU budget.

This seminar gathers representatives from industry, senior officials from the member states, EU officials, and opinion leaders. The meeting will take place under Chatham House Rule, aiming at free and open discussions.

1. Introduction

The consequences of the economic crisis, which transformed into the euro crisis, are being felt throughout the EU and the world. Member states are tightening their budgets. Crisis and budgets cuts will most likely continue in the years to come. In addition, the rise of the BRICS will continue to question the position of the EU as a global actor. To boost the economy, the EU needs to create growth and ensure global competitiveness.

The negotiations on the next EU budget, the Multiannual Financial Framework (MFF) 2014-2020, could be vital for the future of the EU's economy. The MFF is the financial translation of the Europe 2020 strategy as underlined by its motto 'A Budget for Europe 2020'. The budget however is – in the end - the result of profound struggles over policy priorities and instruments.

¹ European Commission (2011), A Budget for Europe. COM(2011) 500 final, Brussels, 29.6.2011.

Following the largely failed Lisbon agenda – aiming at making the EU the most competitive market in the world -, the EU formulated the Europe 2020 strategy² to ensure smart, sustainable and inclusive growth. This paper focuses on the first type of growth; smart growth. Smart growth contains three flagship initiatives: Innovation Union, Youth on the Move, and the Digital Agenda for Europe. In terms of the EU budget, smart growth corresponds with the 'competitiveness' heading 1A in the EU Financial Framework 2007-2013. The (relative) size of heading 1A can be found in Annexes.

How modern is the EU budget? In an ideal world, the goals presented in the EU2020 strategy will be transformed into policy priorities. These priorities will be matched with financial instruments. This paper will follow this line of realising a new budget. It explores the status of the EU's competitiveness and the added value of EU policy (section 2). The subsequent section will discuss the priorities in EU R&I policy (section 3). Section 4 relates the policy priorities to the MFF proposal of the Commission (focusing on the Horizon 2020 and the Education category).

2. EU competitiveness

There are two main questions on EU competitiveness. Firstly, how competitive is the EU? Secondly, what factors determine the EU's competitiveness? There are many different definitions and parameters of competitiveness. In general, agreement exists on that there is more to innovation than (R&D) laboratories; and that innovation is a multi-dimensional and increasingly 'democratic' process involving entrepreneurs and scientists, consumers and producers'. Measuring the total competitiveness and innovation-factor of a country is quite a challenge. However, there are some general conclusions that can be drawn.

2.1 EU competitiveness; a global perspective

Overall, the EU is losing ground to the US and the BRIC countries are catching up. In the Global Innovation Index 2011 it seems as if Europe is doing very well on innovation. Strikingly, Switzerland, a non-EU European country, tops the list. European countries occupy more than half of the top 20. The lowest ranked country is Greece at place 63. This seems as if there is little to fear.

However the Innovation Union Competitiveness Report (IUC) tells a different story. This report monitors the flagship initiative Innovation Union. The Innovation Union aims to:

- turn the EU into a world-class science performer (again);
- remove obstacles to innovation;
- revolutionise the way public and private sectors work together.

The difference between the EU and its global economic competitors result from differences in private R&D investments, innovation friendly framework conditions and the level of cooperation between public and private actors. The EU R&D target of 3% has reached 2,01% in 2009. The R&D investment rose by 50% in the EU over 1995-2008 against 60% in the US, 75% in the four most knowledge intensive countries in Asia (Japan, South Korea, Singapore and Taiwan), and 855% in China. Other figures relate to the number and skills of human resources. The EU has a large number of researchers and this is where its strength lies, however more than half work in the public sector (54%) as opposed to our global competitors,

² European Commission (2010), Europe 2020: A strategy for smart, sustainable and inclusive growth, COM(2010) 2020 final, Brussels, 3.3.2010.

³ Whyte, P. (2011), 'Introduction: Why does innovation matter?', in: Tilford, S. & P. Whyte (eds.), *Innovation: How Europe can take off*, Centre of European Reform. p. 2.

⁴ European Commission (2011), *Innovation Union Competitiveness report 2011*, Luxembourg: Publications Office of the European Union.

⁵ European Commission (2011), *Innovation Union Competitiveness report 2011*, Luxembourg: Publications Office of the European Union. p. 15.

⁶ European Commission (2011), *Innovation Union Competitiveness report 2011*, Luxembourg: Publications Office of the European Union. p. 3.

e.g. 20% in the US, 31% in China and 17% in Japan. This shows the challenges in cooperation between the public and private sector.

The indicators underline that our global competitors (i.e. BRIC countries) are also moving towards knowledge intensive economies. Determinants lay in comparative knowledge advantages such as GDP-R&D ratio, (scientific) excellence, knowledge production, and attracting talent.

2.2 The (changing) added value of the EU

Subsidiarity plays a major role in the EU budget. The arguments for centralisation and decentralisation are underpinned by fiscal federalism theory. There are two main reasons for having an EU innovation policy in economic terms: economies of scale and external effects. The significance of subsidiarity for the Commission can be deducted from an attachment to the MFF proposal 'The added value of the EU budget'.

On the added value of research there is widespread agreement that:

"EU funded research is found to have high added value by encouraging researchers to cooperate across national boundaries and to share complementary skills and knowledge, to promote competition in research, leading to higher quality and excellence and to make possible projects that, because of their complexity and scale, go beyond what is possible at national level." The public-public partnerships (P2P's) such as ERA-nets and public private partnerships (PPP's) such as the Joint Technology Initiatives (JTI's) are good examples of these common pool projects.

The added value of the EU budget is translated in an allocative, stabilisation and redistributive function. The size of the total EU budget is 2% of national government expenditure. Therefore it has limited impact on most policy fields. At the moment the ratio between EU R&D spending and national R&D spending is 7-93%, which is relatively big. This shows that it is too small to bring about a redistribution of funds such as agricultural policy does. However R&D spending does aim to make *all* the different regions of the EU more competitive. The EU-national R&D spending ratio also demonstrates that country-specific needs and preferences can be covered via national budgets. Lejour and Molle even express that, on the basis of economies of scale and externalities, it could even be argued to shift a share of national R&D budgets to the EU on specific categories such as defence, space, industry, exploration and infrastructure. On the other hand Lejour (et al.) also state the role of the EU is less obvious concerning R&D funding directed to SMEs also on the basis of economies of scale and externalities. The subsidiarity analysis of Lejour and Molle suggest that R&D expenditures at the EU level should be increased and Education and Culture should remain the same (see figure 1).

⁷ Oates, W. E. (1972), Fiscal Federalism, New York: Harcourt Brace & Jovanovich.

⁸ Horst, Av.d., A. Lejour, & B. Straathof (2006), *Innovation Policy: Europe or the Member States?*, CPB Netherlands Bureau for Economic Policy Analysis Publication, November 2006.

European Commission (2011), The added value of the EU budget, SEC(2011) 867 final, Brussels, 29.6.2011.

Cipriani (2007), Rethinking the EU Budget: Three Unavoidable Reforms, CEPS Publication. 30 November 2007.

Lejour, A. & W. Molle (2011), 'The Value Added of the EU Budget: Subsidiarity and Effectiveness', in: Tarschys (ed.), The EU Budget: What Should Go In? What Should Go Out? Swedish Institute for European Policy Studies.

May 2011. p. 93. ¹² Bertoncini, Y and Barbier-Gauchard, A. (2009), *Tableau de bord sur les dépenses publiques de l'Union européenne et de ses Etats membres*, Centre d'Analyses Stratégiques, Paris.

¹³ European Parliament (2011), TEN-T, Research and Innovation, SURE Committee Meeting written report, 1 February 2011. P.207.

Lejour, A. & W. Molle (2011), 'The Value Added of the EU Budget: Subsidiarity and Effectiveness', in: Tarschys (ed.), *The EU Budget: What Should Go In? What Should Go Out?* Swedish Institute for European Policy Studies. May 2011. p.92.
 Lejour, A. & W. Molle (2011), 'The Value Added of the EU Budget: Subsidiarity and Effectiveness', in: Tarschys

Lejour, A. & W. Molle (2011), 'The Value Added of the EU Budget: Subsidiarity and Effectiveness', in: Tarschys (ed.), *The EU Budget: What Should Go In? What Should Go Out?* Swedish Institute for European Policy Studies. May 2011. p.100.

Horst, Av.d., A. Lejour, & B. Straathof (2006), Innovation Policy: Europe or the Member States?,

Summary of the structural changes needed in the EU budget							
Increase	No significant change	Considerable decrease					
R&D and innovation	Competitiveness and internal	Agriculture and rural					
	market	development					
Stabilisation	Cohesion (convergence)	Cohesion (regional					
		competitiveness)					
Environment	Employment and social						
	protection						
External relations	Health and consumer						
	Freedom, security and justice						
	Education and culture						

Figure 1. 17

Possible questions for the opening session:

- Q: What are the main political and economic challenges towards 2020?
 - What is the EU's response?: the Europe 2020 strategy and flagship policies.
- Q: What is the added value of R&D and Education within the EU budget?
- Q: Can, from an EU perspective, the need for additional innovation efforts be identified?
- Q: How will the EU budget on R&D funding improve solidarity?

3. Priorities in Research, Innovation and Education

As the Innovation Union indicates, the EU wants to outsmart its global competitors via improvement of the framework conditions for innovation and the strengthening of the knowledge triangle. The latter consists out of research, innovation and education. 18 19 On the one hand, experts plead for a policy of lowering the entry level for young entrepreneurs as main source of boosting innovation.²⁰ On the other hand, people plead for increased basic or 'frontier' research to develop innovation (and competitiveness). The former concerns legislation and the latter financial instruments. Evidently, the single market and advancement with the European Research Area are vital. 21 This section will focus on the R,I&E priorities in the EU budget.

3.1 The race for talent

Education and excellence are key to the knowledge intensive economy. According to the Academic Ranking of World Universities there are only 3 European universities in the top 20, and 200 in the top 500. This position has not really changed over the last couple of years.²² Another alarming trend is that the percentage of people aged 25-34 that attained a tertiary degree is 32,2 % in 2009 (41,6% US, 57,9% South Korea, 55,1% Japan)²³ In the last ten years the number of European citizens obtaining their doctoral degree in the US increased by

¹⁷ Source: Lejour, A. & W. Molle (2011), 'The Value Added of the EU Budget: Subsidiarity and Effectiveness', in: Tarschys (ed.), The EU Budget: What Should Go In? What Should Go Out? Swedish Institute for European Policy Studies. May 2011.

Adviesraad voor het Wetenschaps- en Technologiebeleid (2011), Scherp aan de wind! Handvat voor een Europese strategie voor Nederlandse (top)sectoren, Quantes: Rijswijk, augustus 2011. p.19.

19 Expert Group (2010), Interim Evaluation of the Seventh Framework Programme: Report of the Expert Group, 12

November 2010.

²⁰ Bravo Biosca, A. (2011), 'New evidence on 'creative destruction' in Europe and the US', in: Tilford, S. & P. Whyte (eds.), Innovation: How Europe can take off, Centre of European Reform.

²¹ Expert Group (2010), Interim Evaluation of the Seventh Framework Programme: Report of the Expert Group, 12 November 2010. 22 http://www.arwu.org/

²³ European Commission (2011), Innovation Union Competitiveness report 2011, Luxembourg: Publications Office of the European Union. p. 23.

38%.²⁴ There is a deficit of students in tertiary education and especially students that choose technical studies. The private sector turns to other parts of the world for talent.

The EU lags behind its global competitors concerning education investments. The US invests 2.5 times more in higher education than the EU, mainly due to private spending. There is fear that education is becoming the "forgotten side" of the knowledge triangle. ²⁵ Potential is provided by the Erasmus (Mundus) programme, part of the Youth on the Move flagship initiative, and the Marie Curie programme under the Innovation Union flagship initiative. The European Institute for Technology (EIT) possibly gives opportunities to strengthen the education side of the knowledge triangle.

From (tertiary) education to R&I is a giant leap in terms of suitable institutional environment. The flagship initiatives as well as budget categories both separate the two. It is often more attractive and easier for top scientists to cross the Atlantic than to move across the EU. The EU has difficulty clinging on to their scientists. This is one of the main goals of the European Research Council (ERC). The 'ERC Starting Grant' is developed to make the EU attractive for top talent to carry out their research. Nowadays it even attracts researchers from the US, although in small numbers. ²⁶ However their rationale to move to Europe is difficult to assess.

3.2 Public-Private funding

The goals of the EU2020 strategy are that 3% of EU BNI will be spent on R&D of which 1 % is public expenditure. How much do companies themselves invest in R&D? This is also highly dependent on the economic crisis, although R&D investments often are the way out of an economic crisis. EU Industrial R&D Investment Scoreboard²⁷ shows that R&D investment of companies increased in 2010 with 6% after a dramatic year in 2009 of -2,6%. This may seem a reason for optimism, however the EU's competitors saw their 2010 R&D investments rise by 10% (US), 29,5% (China) and 20,5% (South-Korea). EU business R&D investment is weaker than that of our competitors already for a considerable amount of time.

A relevant question concerns the actual impact of innovation funds on the economy as a whole. Some conclude that results of public funding are hard to define in terms of effectiveness and efficiency.²⁸ Others assume that R&D investments in the past have brought us to the level of innovation where we are today. From a policy point of view however it is interesting to see to what extent public and private investments cooperate.

Public-private partnership (PPP's) and Public-public partnerships (P2Ps) are being explored in order to apply research and innovation solutions especially to the 'Grand Challenges' and Key Enabling Technologies, such as nanotechnology and biotechnology.²⁹ The European Innovation Partnerships, a form of PPP's, tries to bring together all stakeholders to work together on bringing research and innovation closer in order to tackle the grand societal challenges that Europe faces. Three main examples of the 'Grand Challenges' are climate change, scarcity of resources, and ageing populations. The pilot European Innovation Partnership (EIP) on Active and Healthy Ageing (AHA) is a test case for this new approach.³⁰ The result thereby strongly depends on the long-term (financial) investments in strategic partnerships.

²⁴ European Commission (2011), *Innovation Union Competitiveness report 2011*, Luxembourg: Publications Office of the European Union. p.8

²⁵ Expert Group (2010), Interim Evaluation of the Seventh Framework Programme: Report of the Expert Group, 12 November 2010. p. 11.

²⁶ Agence Europe (2011), Subsidies to stem brain drain. 9.9.2011.

²⁷ European Commission (2011), *The 2011 EU Industrial R&D Investment Scoreboard*, Luxembourg: Publications Office of the European Union.

²⁸ Algemene Rekenkamer (2011), *Innovatiebeleid*, TK 33009- 2011-2012, nr. 1. 28 September 2011.

²⁹ European Commission (2011), Partnering in Research and Innovation, Brussels, COM(2011) 572 final, 21.9.2011.

³⁰ European Commission (2011), The Pilot European Innovation Partnership on Active and Healthy Ageing (AHA) First experiences on governance and processes, SEC (2011) 1028, 01.09.2011.

3.3 Leveraging instruments

Public funding is meant to leverage private (R&D) investment. Financing of R&D has three types of funding. Basic research is generally financed via grants, because the projects are too uncertain and risky to finance via loans. Núñez Ferrer and Figueira refer to the next phase as 'bridge funding'. 31 In this phase the risks are too high and/or the time to commercialisation and profitability is too long. Blended loans and grants will accompany the new technologies to a position where it can attract venture capital (VC). 32 Most of the time this phase is financed by subsidies for applied research. The third type is loans and VC via private investment.

An example of a loans instrument is the Risk-Sharing Finance Facility (RSFF). This novel measure complements grants with loans in close cooperation with the European Investment Bank (EIB). It has a leverage effect of factor five for private investments. Debt financing of ℓ 1 billion from member states and € 1 billion from the EU budget generates a total loan € 10 billion.³³ This leverage factor is immense and no wonder that policy makers are very enthusiastic.³⁴ They want to apply this financial instrument to many other areas. However, there is also room for criticism. For instance, it has to be further examined whether this instrument leverages funds that private companies would not invest anyway. Another factor to take into consideration is the position of other actors such as Research and Technology Organisations (RTOs), universities, SMEs and others. Points for improvement focus on the (in) accessibility of the instrument to non-profit research organisations (universities and RTOs) and SMEs. 35 There is increased focus on SMEs, via loan financing, but also within the budget and how much they extract these funds.

Institutions such as the EIB have the potential for countercyclical responses. They give a degree of assurance to private investors. On the other hand, it remains a financial institution. Financial institutions are reluctant to give loans in times of crisis, and this could possibly also apply to the EIB.³⁶

Possible questions for the panel discussion (and/or break-out sessions):

- Q: How to incorporate education in R&I in order to attain a true knowledge triangle?
- Q: What are the main advantages of public and private sector funding?
- Q: How to create accumulating, long-term commitments from private R&D investments?
 - Why is it hard to motivate industry to invest in R&D expenditure?
- O: Are the opportunities for leverage national level, EU, and public private partnerships sufficiently exploited?
- How should new leveraging instruments directed towards not for profit research organisations and SMEs look like?

³¹ Núñez Ferrer, I. & F. Figueira (2011), Achieving Europe's R&D Objectives, Swedish Institute for European Policy Studies (SIEPS), Report no. 6, June 2011. p. 32.

Núñez Ferrer, J. & F. Figueira (2011), Achieving Europe's R&D Objectives, Swedish Institute for European Policy Studies (SIEPS), Report no. 6, June 2011. p. 32.

³³ Núñez Ferrer, J. & F. Figueira (2011), Achieving Europe's R&D Objectives, Swedish Institute for European Policy Studies (SIEPS), Report no. 6, June 2011. p. 33.

³⁴ European Parliament (2010), Working Document on Innovation Union: Transforming Europe for a post-crisis world,

<sup>12.11.2010.
&</sup>lt;sup>35</sup> Expert Group (2010), Interim Evaluation of the Seventh Framework Programme: Report of the Expert Group, 12

November 2010. p. 36.

November 2010. p. 36.

By Cartesian Policies of the Union (2010), Reform of the European Investment Bank: How to upgrade the EIB's role in Devleopment.

4. Smart growth in the MFF 2014-2020

The EU multiannual framework is based on the accomplishments of the previous negotiations. This makes it difficult to reform and/or modernise the budget. The Competitiveness Council conclusions of 26 May 2010 acknowledge that 'research and innovation policy has moved up in terms of EU policy priorities and become widely recognised as a key enabler of competitiveness, productivity growth and sustainability to tackle global and societal challenges'.³⁷ As shown in Annex III the relative size of Heading 1A is increasing.

4.1 Horizon 2020

The Commission proposal on the MFF explicitly claims to *modernise* the separate programmes for research and innovation and brings them together within a single programme. This Horizon 2020: framework programme for Research and Innovation (H2020 replaces:

- the 7th Framework Programme;
- the innovation part of the Competitiveness and Innovation Framework Programme (CIP); and,
- the European Institute for Innovation and Technology³⁸

As can be read in Annex II & IV the new H2020 budget is increased by almost \in 24 billion to \in 80 billion. An increase of 40% compared to the old programmes combined.

The CSF is structured around three Europe 2020 priorities:

- Excellence in the science base.
- Tackling societal challenges.
- Creating industrial leadership and competitive frameworks.³⁹

As can be seen from these priorities, the focus on public, demand-driven instruments for innovation has continued. However, the question remains if these (financial) instruments and priorities in the budget connect public and private R&D investment. It is interesting to see to what extent PPP's and P2P's will be incorporated in the detailed proposals on Horizon 2020.

Besides the scientific background there is also a voters' perspective. For them the added value lays in boosting economic growth and in getting out of the crisis. Since the Competitiveness Council of November 2010, R&I is seen as a new way to tackle 'Grand Challenges'. For the EU it is also a way of showing their relevance to the public.

Ouestions for break-out session 3A:

- Q: To what extent will Horizon 2020 help to meet the Innovation Union targets?
- Q: How will the Horizon 2020 category strengthen public-private cooperation?
- Q: How will the Horizon 2020 category (instruments) accumulate private sector investment?
- Q: Will the additional funds create additional value of EU R&P?

4.2 Education

The amount for 'Education Europe' has been set at \in 15,2 billion from close to \in 7 billion over 2007-2013. According to the Commission proposal the annual amount will more than double in 2020 compared to 2013 (Annex IV). The vast majority will go to the Erasmus programmes and the other programmes will undergo a change in name.

³⁷ Council of the European Union (2010), Conclusions on Creating an innovative Europe: 3016th Competitiveness Council meeting, Brussels, 26 May 2010.

³⁸ European Commission (2011), A Budget for Europe. COM(2011) 500 final, Brussels, 29.6.2011.

³⁹ European Commission (2011), A Budget for Europe: Policy fiches. COM(2011) 500 final, Brussels, 29.6.2011. p. 84.

 $^{^{40}}$ Expert Group (2010), Interim Evaluation of the Seventh Framework Programme: Report of the Expert Group, 12 November 2010. p. 10.

The programme will comprise of three main lines of action. Related to the field of R&I, one deserves special attention:

- 'Co-operation activities between education institutions and the world of work will be supported to promote the modernisation of education, innovation and entrepreneurship.' 41

This shows the vision of 'education' to engage the knowledge triangle. This goal is however not always put to the fore by the other two.

Questions for break-out session 3B:

- Q: What are the opportunities for excellence and youth mobility within the new policy set-up?
- Q: What part of the Education category should be directed towards R&I in both priorities and in budgetary terms?
- Q: How can financial instruments help to keep excellent European scientists 'at home'?
- Q: How can the industry be involved in strengthen European tertiary education and EU research?

5. Conclusion

Research, innovation and education and its interlinkages have stepped up on the priority list of politicians. Since the economic crisis there is more awareness of the precarious situation of the economies in the EU. Policy makers agree on the necessity of increased competitiveness compared to other global (rising) powers. Therefore improving the framework conditions for innovation is essential: strengthening the internal market, reduction of administrative burdens and increasing the accessibility to finance. The question concerning the MFF is how to develop a framework of financial instruments that will meet the targets set in the Europe2020 strategy.

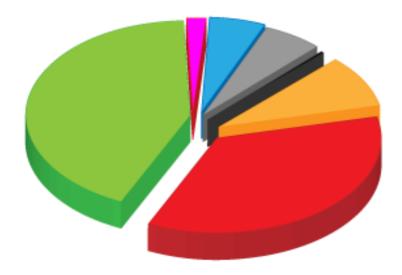
The MFF can add value to the Europe 2020 strategy. However the proposed instruments must work towards a better synergy in the multi-level system of knowledge (research, innovation and education), actors (public sector, private firms, research and technology organisations, universities, SMEs, financial institutions and other educational institutes), and economic growth. Therefore a transparent and accessible European Research and Innovation landscape is needed with a streamlined set of funding instruments.

As it seems there is a clear economic reason to increase EU public expenditure on research and innovation. The Education heading should not be increased because of the principle of subsidiarity. However it has been shown that it does play a significant role in the knowledge triangle.

In the last couple of years policy priorities have shifted towards Grand Challenges and especially leveraging of private investments. It seems like the current changes will lead to a more competitive and modern EU economy. This seminar will assess whether these changes in the budget are enough to attain the objectives as posed in the Europe 2020 strategy. On that basis further improvements and implementation of the present framework and its instruments will be discussed.

⁴¹ European Commission (2011), A Budget for Europe: Policy fiches. COM(2011) 500 final, Brussels, 29.6.2011. p. 29.

Annex I - Multiannual Financial Framework 2007-2013



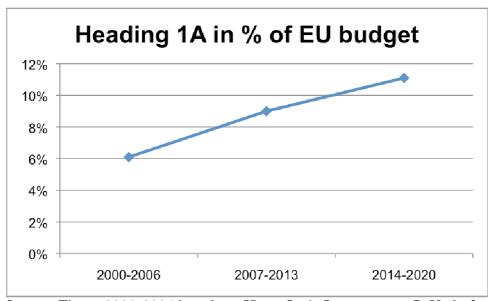
- 1a. Competitiveness for growth and employment: 9 %
- 1b. Cohesion for growth and employment : 35,6 %
- 2. Preservation and management of natural resources: 42,5 %
- 3 a. Freedom, security and justice: 0,8 %
 b. Citizenship: 0,5 %
- 4. The EU as a global player (excl. EDF): 5,7 %
- 5. Total administrative expenditure: 5,8 %
- 6. Compensations BG/RO: 0,1 %

Source: http://ec.europa.eu/budget/explained/budg_system/fin_fwk0713/fin_fwk0713_en.cfm

Annex II - Heading 1A of the MFF 2007-2013

Budget for Research and Innovation 2007-2013	Period	Total						
(current prices in EUR million)		Amount						
HEADING 1 A COMPETITIVENESS FOR GROWTH AND EMPLOYMENT								
Seventh Framework Programme for research and technological	(07-13)	50554						
development (FP7-EC)								
Competitiveness and Innovation Framework Programme (CIP)	(07-13)	3624						
European Institute of Innovation and Technology (EIT)	(08-13)	309						
Total (FP7-EC + CIP + EIT)	(07-13)	56918						
Seventh Framework Programme for nuclear research and	(07-11)	2740						
training activities (FP7 – Euratom)								
Framework Programme for nuclear research and training	(12-13)	1260						
activities ("Euratom 2012")								
Lifelong Learning Programme	(07-13)	6970						

Annex III - Heading 1A in the EU budget



Source: Figure 2000-2006 based on: Haug, J., A. Lamassoure, G. Verhofstadt (et al.) (2011), Europe for Growth: For a Radical Change of Financing the EU.

Annex IV – The MFF 2014-2020 proposal from the Commission for Heading 1 'Smart and Inclusive Growth'

Budget Heading 1 Smart and Inclusive Growth (2011 prices)									
	2013	2014	2015	2016	2017	2018	2019	2020	Total
Galileo	2	1.100	1.100	900	900	700	900	1.400	7.000
Nuclear safety +	279	134	134	134	134	55	55	55	700
decommissioning									
CSF research and	9.758	10.079	10.529	10.979	11.429	11.879	12.329	12.775	80.000
innovation									
New Competitiveness	177	235	270	305	340	375	410	445	2.380
/SME									
Single Education,	1.305	1.423	1.573	1.923	2.173	2.423	2.573	2.923	15.210
Training, Youth and									
Sport									
Social development	119	121	121	121	121	121	121	124	850
agenda									
Customs-Fiscalis-Anti	107	120	120	120	120	120	120	120	840
Fraud									
Agencies	258	237	291	290	291	265	326	331	2.030
Other	308	267	267	267	267	267	267	267	1.858
Margin	49	513	533	553	573	593	613	633	4.009
Connecting Europe	1.577	3.914	4.514	5.114	5.714	6.314	6.914	7.515	40.000
Facility									
Cohesion policy	52.405	45.554	47.029	47.428	47.895	48.484	49.041	49.589	335.020
H1 Total	66.354	64.696	66.580	68.133	69.956	71.596	73.768	76.179	490.908