



# Competitiveness

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## Introduction and 'State-of-the-art'

Understanding how the sustainable management of ecosystem services and natural capital relates to EU competitiveness at local, national and global scales is a key operational challenge. For, on the face of it, the goals of sustainability and competitiveness appear to come from opposing world views. While sustainability is, for example, presented as taking the long-term view, competitiveness is often seen as being about gaining short-term advantage and succeeding now, with little regard to future consequences.

Within the EU and elsewhere, ideas about competitiveness entered the public discourse chiefly in terms of economic interests. 'Competitiveness' has been presented as something to be actively encouraged, as it sparks innovation, generates trade, enhances market share, creates employment, and fosters growth. Economic competitiveness thus requires access to resources and markets, and an appropriate pro-business regulatory framework that supports economic development and innovation, and minimises obstacles to productivity. In such a context, environmental conservation and regulation is often seen as the enemy of economic growth. However, by no means all would agree that sustainable management of natural capital and competitiveness are polar opposites.

As early as 1991 Porter argued that environmental stewardship and competitiveness could go hand in hand. The so-called 'Porter Hypothesis' which claimed that competitiveness and productivity could actually be enhanced by environmental regulation became a cornerstone of environmental economics and policy. Whilst more recently the hypothesis has been contested, -there is evidence that environmental regulation can reduce capital expenditures and investment in R&D in some situations (Ambec *et al.*, 2013). Other studies have also shown that ecosystem degradation can be anti-competitive with a recent study from Finland (Mattila, 2013) finding that sectors that damage the natural environment do not drive economic growth.

Thus today, there is a wider acceptance that the environment (and living natural resources in particular) underpin all economic activity. As a result of initiatives such as the Millennium Ecosystem Assessment and TEEB, for example, and other follow-up projects (e.g. Hanson *et al.*, 2012; and WBCSD, 2011) many in business have come to recognise both their impacts and their dependence upon biodiversity (BD), natural capital (NC) and ecosystem services (ES), and that this knowledge can be used to generate significant competitive advantage. Indeed many now argue that economic competitiveness cannot be achieved while social and environmental factors influencing human well-being are compromised. There is a sense that we must go beyond measuring our wealth by GDP (EC, 2009).

The idea of going 'beyond GDP' has been echoed in recent work on social competitiveness indicators as used by the UN Development Programme (see also WEF, 2010), and World Economic Forum's (WEF) discussion of 'sustainable competitiveness', the latter being seen as "the set of institutions, policies and factors that make a nation remain productive over the longer term while ensuring social and environmental sustainability" (Bilbao-Osorio *et al.*, 2013: 55). It is argued that measures of sustainable competitiveness need "to gauge not only whether a country has the potential to grow over the medium and long term, but whether the national development process is producing the kind of society in which we want to live" (Bilbao-Osorio *et al.*, 2013: 60). These wider perspectives thus lead us to consider future threats to competitiveness arising from climatic and demographic change, or issues related to health, migration and urbanisation, and hence start to address notions of social, economic and ecological resilience (Bristow, 2010).

Whilst economic concerns still dominate the competitiveness narrative at global, regional, national or local scales, it can be argued that it needs to be considered against, or balanced with, social competitiveness (e.g. support for social innovation, strong social networks, social justice and equity) and environmental competitiveness (e.g. conservation and sustainable use of heritage, community engagement in

conservation, and equitable access and benefit sharing of ecosystem services). Indeed this view is promoted under the Lisbon Treaty, which sets out the goal of a highly competitive social market economy founded on social progress and “a high level of protection and improvement of the quality of the environment” (EU, 2007). Recognising, however, that the Lisbon Strategy for Growth and Jobs (2000-2010) did not give sufficient importance to social and environmental dimensions of development, the Europe 2020 Strategy now aims to work towards a more sustainable competitiveness, with “a resource efficient Europe”. Natural capital is one of the seven flagship initiatives under the Strategy (EC, 2011), which also commits to an industrial policy which reduces resource use and promotes sustainability in resource management. Most recently, Horizon 2020 links sustainability and competitiveness across its societal challenges as a means of promoting raw materials security, improving well-being, and enhancing resilience to future social and economic shocks (EC, 2014; <http://ec.europa.eu/programmes/horizon2020/h2020-sections>).

Competitiveness in Europe is therefore increasingly viewed in this holistic framework. A useful exploration of this approach is the EU LEADER programme. LEADER aimed to help strengthen connections between urban and rural areas, building on the notion of territorial competitiveness (i.e. competitiveness of regions and their component businesses) to highlight the unique traits and elements of social, human, economic and NC which differentiate between regions, thereby encouraging innovation and development (Fig.1).

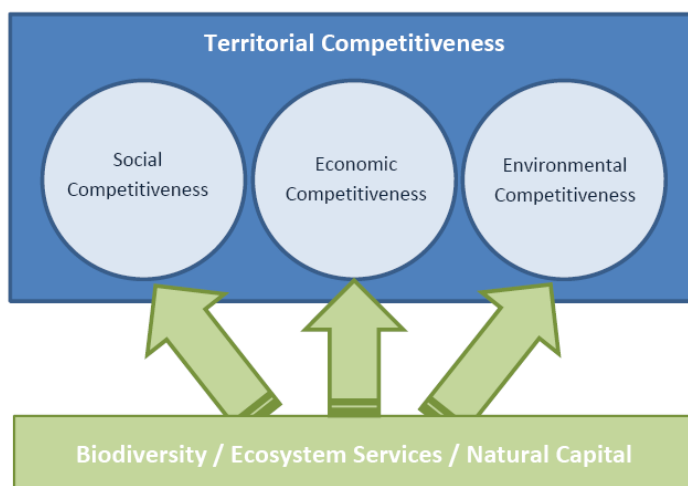


Figure 1: ES/NC and the elements of place-based competitiveness

The outputs of the LEADER Project suggest an even greater complexity in the relationships between social, environmental, economic and cultural aspects of productivity. For example, social competitiveness includes notions of good health status and access to health services, as well as the strength of civil institutions and civil society/non-governmental bodies, and also accounts for issues of social justice and equity such as gender roles, mobility and social care. Being socially competitive can confer not only social but economic advantages for a region and its business interests, e.g. by providing a more socially sustainable environment for investment. Similarly, environmental competitiveness includes recognition of the importance of NC, of cultural and archaeological heritage, and environmental quality. Recognising the intimate linkages between ecosystems and human well-being, including issues of health, justice, and quality of life, then it is clear that the conservation and sustainable use of living natural resources – biodiversity and ES – are important aspects of competitiveness. This is perhaps particularly true for businesses or regions whose economies are closely linked with certain ecosystem services. These issues were recently explored by the EU CLAIM project, which examined the contribution of landscape management to socio-economic development and agricultural competitiveness in rural areas and included a specific focus on the connections between ES from landscapes and competitiveness (CLAIM 2014). The project examined several definitions of competitiveness in the literature and from various policy contexts, and determined that regional competitiveness should be defined by both regional economic performance and by regional social welfare; for CLAIM, the social element includes standards of living and quality of life, which is linked to issues of environmental quality, natural and cultural heritage, and equality. If the competitiveness challenge is to be explored in OpenNESS, then we must unpack these different elements to understand how these relationships work, and can be leveraged across policy domains.

### Open Problems/Issues to be discussed

While as a Consortium we shall debate the concept of ‘competitiveness’ and its needs in general terms, it is one of the four societal challenges which OpenNESS needs to consider through the lenses of ES and NC.

Therefore developments in research, policy and society need to be clear. Given that competitiveness is increasingly considered in terms of social, environmental issues as well as economic ones OpenNESS can usefully explore their interactions at local, regional and global scales, and within different cultural contexts. Beside identifying key trade-offs (e.g. between promoting competitiveness in business with potential impacts on environmental sustainability) (see forthcoming SP 'trade-offs') the Project should further seek to define how these notions of competitiveness relate to the context of resilience – again, not just economic, but also social and environmental resilience. Whilst the connections between resilience and aspects of competitiveness may be clear (e.g. regions that are most resilient in the face of economic shock, environmental change or resource scarcity having an advantage over competitors), the lack of a standard definition of social or economic resilience presents a problem, as does the fact that interpretations of those connections are varied (Bristow, 2010; Kitson *et al.*, 2004).

### Significance to OpenNESS and specific Work Packages<sup>1</sup>

- WP1 (Key challenges and conceptual frameworks)** has unpack the components of competitiveness (across social, environmental and economic themes) and explored how they might relate to the different conceptual frameworks under consideration, and the project will need to explore how various elements of well-being are related to competitiveness – either supporting it or depending upon it, or perhaps conflicting with it. This has informed much of WP1's work in developing guidelines for testing draft conceptual frameworks in case study areas (see Potschin *et al.*, 2016).
- WP2 (Regulatory frameworks and drivers of change):** OpenNESS explored how concepts of ES, NC and sustainable ecosystem management (SEM) can promote policy coherence on 'sustainable competitiveness' across EU institutions and in Member states. WP2 had to address competitiveness under various policy arenas, and look for opportunities for mainstreaming the ES/NC concept. Rural areas are key providers of ES related to competitiveness (e.g. ES that provide marketable commodities or enhance population health), so perhaps EU rural cohesion and development policy is a useful place to start.
- WP3 (Biophysical control of ecosystem services):** How does sustainable management of ES & NC affect competitiveness across the pillars of sustainability? E.g. can ecosystem management boost NC stocks that that sustain economic activities? Conversely, can competitiveness in one arena (e.g. economic competitiveness) result in impacts on ES / NC in ways that negatively affect other dimensions of competitiveness?
- WP4 (Valuation of the demand for ecosystem services):** Can valuation methods be used to improve measures of competitiveness? Can valuation be used to enhance competitiveness across each competitiveness theme? For example, we know that valuation can support business innovation; can it support efforts at community empowerment or development of public-private partnerships for SEM?
- WP5 (Place-based exploration of ES and NC concepts):** Can case studies try to identify how various social, economic and environmental factors acting within their focus area relate to notions of competitiveness, how they further relate to BD, ES and NC, and whether SEM offers an opportunity to enhance competitiveness across of those areas.
- WP6 (Integration: Synthesis and Menu of Multiscale Solutions):** Two common issues with the link between environmental regulation and competitiveness are the design of regulations and the limited uptake of green innovation solutions. How can ES/NC/SEM be used to improve design/acceptance of regulation, and encourage greater engagement from sectors and regions?

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<sup>1</sup> For a brief description of the OpenNESS Work Packages see: <http://openness-project.eu/about/work-packages>

## Relationship to four challenges<sup>2</sup>

<p><b>Human well-being:</b>          Social competitiveness –links with equity, justice, health, livelihoods          Environmental competitiveness – linked with access to / sharing benefits from ES / NC, e.g. through biodiversity conservation.          Economic competitiveness – linked with livelihood security, potentially also linked with quality of life, where business acts to secure wider societal benefits.</p>	<p><b>Sustainable Ecosystem Management:</b>          Management can enhance flow of / access to important ES for various beneficiaries: challenge is to ensure that management promotes equity, reduces trade-offs, enhances resilience. Competitiveness connects also to ecological footprinting, particularly in terms of reliance on external resources.</p>
<p><b>Governance:</b>          Governance structures to address links between ES/NS and the other dimensions of competitiveness as a way to develop in the SD strategy</p>	<p><b>Competitiveness:</b>          Self-evident</p>

## Recommendations for the OpenNESS consortium

1. The focus for OpenNESS is on competitiveness in the context of the territory of the European Union (i.e. how the EU and its constituent territories compete internally and in the global context). We therefore should consider competitiveness primarily from a place-based, rather than solely from a business-based (i.e. referring to a specific company or sector) perspective. Assessments of competitiveness should account for social, economic and environmental factors, which includes sectoral and corporate productivity but gives equal weight to social and environmental sustainability. We therefore recommend that the consortium amends its definition of competitiveness, based on an adaptation of the World Economic Forum definition of sustainable competitiveness; we further recommend that the consortium adopts a separate definition for territorial competitiveness:

**Competitiveness** (after Bilbao-Osorio *et al.*, 2013): “The set of institutions, policies and factors across social, economic and environmental spheres that make a business, sector or territory productive over the long term while ensuring social and environmental sustainability.”

**Territorial competitiveness:** “The set of institutions, policies and factors across social, economic and environmental spheres, which in combination confer long term productivity on a specific urban or rural area, or province, state or region, and constituent businesses and sectors (?) while ensuring social and environmental sustainability.”

The consortium should further consider whether additional definitions of social competitiveness, environmental competitiveness and economic competitiveness would be useful.

2. Holistic measures of competitiveness that capture the values of BD/ES/NC/SEM are elusive. The project should identify core indicators for territorial competitiveness at different scales and under social, environmental and economic competitiveness headings. e.g. social competitiveness can include equity issues in gender and socio-economic status, as well as access to public services, recreational space etc.; economic competitiveness can include security of/monopolised access to resources and human capital, lower overheads, favourable regulatory environment etc. What are the key indicators for each core component? We could perhaps start with the WEF benchmarks for sustainable competitiveness (Bilbao-Osorio *et al.*, 2013).
3. The consortium should also explore the relationships between the resilience of ES/NC to economic and social change in the context of place-based competitiveness; can the notion of resilience (as linked to ES / NC) enhance our understanding of the links between ES/NC and competitiveness?

<sup>2</sup> There are certainly more societal challenges; the reduced number presented here is due to the four major challenges mentioned in the work programme of FP7 to which OpenNESS responded.

### Three 'Must Read' Papers:

Bilbao-Osorio, B.; Blanke, J.; Crotti, R.; Hanouz, M. D.; Fidanza, B.; Geiger, T.: ... & C. Serin (2013): *Assessing the sustainable competitiveness of nations*. The Global Competitiveness Report 2013–2014.

Bristow, G. (2010): *Resilient regions: re-'place'ing regional competitiveness*. Cambridge Journal of Regions, Economy and Society, rsp030.

LEADER European Observatory (1999): *Territorial competitiveness. Creating a territorial development strategy in light of the LEADER experience, "Rural Innovation"*. Dossier N° 6 – Part 1.

### Further cited references

Ambec, S.; Cohen, M.A.; Elgie, S. & P. Lanoie (2013): *The Porter hypothesis at 20: can environmental regulation enhance innovation and competitiveness? Review of Environmental Economics and Policy* res016.

CLAIM (2014): *Thematic task 5.2: Landscape as a driver of competitiveness. Deliverable D5.22*. EC FP7 Grant Agreement no. 289578. Available via: [claimproject.eu/download.aspx](http://claimproject.eu/download.aspx)

EC (2009): *A roadmap for action, 'GDP and beyond — measuring progress in a changing world; COM(2009) 433*. EC, Brussels.

EC (2011): *A resource-efficient Europe – Flagship initiative under the Europe 2020 Strategy; COM(2011) 21*. EC, Brussels.

EC (2014): *Horizon 2020 In Brief*. European Commission, Brussels.

European Union (EU), (2007): Treaty of Lisbon amending the Treaty on European Union and the Treaty establishing the European Community [2007] OJ C306/01.

Hanson, C. et al. (2012): *The Corporate Ecosystem Services Review: Guidelines for Identifying Business Risks and Opportunities Arising from Ecosystem Change. Version 2.0*. WRI, Washington DC.

Kitson, M.; Martin, R.L. & P.Tyler (2004): Regional competitiveness—an elusive concept? *Regional Studies* **38**:991–999.

Matilla, T.J. (2013): *Input-output analysis of the networks of production, consumption and environmental destruction in Finland*. Aalto University publication series: Doctoral Dissertations 124/2013. Aalto University, Helsinki.

Millennium Ecosystem Assessment (2005): *Ecosystems and Human Well-being: Opportunities and Challenges for Business and Industry*. World Resources Institute, Washington DC

Potschin, M. et al. (2016): Final Conceptual frameworks for the analysis of ES and NC in relation to the challenges of HWB, SEM, governance and competitiveness., and how these issues can be communicated and resolved in different place-based context". EU FP7 OpenNESS Project Deliverable 1.2. European Commission FP7.

World Business Council for Sustainable Development (WBCSD), (2011): *Guide to Corporate Ecosystem Valuation A framework for improving corporate decision-making*. WBCSD, Geneva

World Economic Forum (WEF) (2010): *Everybody's business: strengthening international co-operation in a more interdependent world*. WEF, Geneva

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**Disclaimer:** This document is the final version of the Synthesis Paper on the topic within the OpenNESS project. It has been consulted on formally within the consortium in 2015 and updated in 2016.