

Urbanization and Growth Management in Europe

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I. The European Challenges

URBANIZATION IS ONE OF THE SERIOUS CHALLENGES facing governments all over the world. Europe is one of the most urbanized regions. More than a quarter of the territory of the European Member States is directly affected by urban land use. The prognosis for the European Union (EU) is that approximately 80% of Europeans will be living in urban areas in 2020. The proportion of urbanization in some of the Member States will be 90% or more.¹ Urban areas in Europe face the challenges of making transport sustainable in environment (CO₂, air pollution, noise), as cities need efficient transport systems to support their economy and the welfare of their inhabitants. Use of fossil fuels for energy and transportation adds greenhouse gas (GHG) problems to other environmental problems. It is the growth in consumers and in the levels of consumption, travelling activities etc. that drives the growth in GHG emission. The two most important activities that impact climate are the increase of GHG emissions and the changes in land use—urbanization is consequently an important issue in the climate policy. Traffic in European urban areas is responsible for 40% of CO₂ emissions and 70% of pollutants from road transport.² Transport related noise and poor air quality in urban areas can reinforce the negative effect of sprawl³ and create a vicious circle by encouraging migration of people and enterprises from cities to suburbs.

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1. EUROPEAN ENV'T AGENCY, REPORT NO. 10, URBAN SPRAWL IN EUROPE: THE IGNORED CHALLENGE 5 (2006), available at http://www.eea.europa.eu/publications/eea_report_2006_10/eea_report_10_2006.pdf.

2. *Impact Assessment of the Communication from the Commission to the European Parliament, the Council, the European and Social Committee and the Committee of the Regions, Action Plan on Urban Mobility*, at 8, COM (2009) 490 final (2009) 1211 final (Sept. 30, 2009).

3. See JULIAN CONRAD JUERGENSMEYER & THOMAS E. ROBERTS, *LAND USE PLANNING AND DEVELOPMENT REGULATION LAW* 476 (2d ed. 2007) (“Sprawl refers to a particular type of suburban growth—it is development that expands in an unlimited and non-contiguous (leapfrog) way outward from the solidly built-up core of a metropolitan area.”).

The sprawling nature of European cities is critically important because of major impacts that are evident in increasing energy, land, and soil consumption as well as pressure on resources such as water, biodiversity, and coastal zones. A large percentage of all European nature conservation sites can be considered at risk due to new development projects.⁴

The conflict between traditional economic interests and the protection of natural heritage is especially apparent in coastal zones, as these seem to accommodate important industry/harbors, attractive housing areas, and biologically interesting habitats and species. The coasts in the EU are being urbanized at an accelerating rate. They are increasingly intertwined with the hinterland and more dependent on tourism and secondary homes.⁵ People living in low elevation coastal zones are at the same time exposed to the consequences of climate induced rising sea levels, coastal erosion, and frequent storm. The mentioned challenges and the relationship between urbanization and the environmental degradation have profound implications for the European approach to governance. An important challenge for the European institutions is how to ensure that growth and urban GHG emissions—due to the growth in consumptions and dominance of car transportation in the EU's sprawling cities—do not undermine the EU environmental, climate, and energy policy and law.⁶

This article addresses smart and sustainable growth as important approaches in the European reform policy. They are two of three priorities in the proposal of the Commission on future strategy—titled *Europe 2020. A European Strategy for Smart, Sustainable and Inclusive Growth*.⁷ On March 26, 2010, the European Council⁸ agreed to the proposed reform strategy. The Commission followed up with a recommendation to the Council on broad guidelines for the economic policies.⁹

4. EUROPEAN ENV'T AGENCY, *supra* note 1.

5. *Id.*

6. *Id.* at 7.

7. COM (2010) 2020 final (Mar. 3, 2010) [hereinafter *Europe 2020*]. It has been designed as the successor to the current Lisbon Strategy, which has been the EU's reform strategy for the last decade.

8. The European Council consists of the Heads of State or Government of the Member States, together with the President and the President of the Commission. It provides the Union with the necessary impetus for its development and shall define the general political directions and priorities thereof. Treaty on European Union art. 15, Mar. 3, 2010, 2010 (C 83) 11 [hereinafter TEU].

9. *Part I of the Europe 2020 Integrated Guidelines*, SEC (2010) 488 final (Apr. 27, 2010).

Julian C. Juergensmeyer's publications on growth management and smart growth have been an important source of inspiration for my work on this article. In his latest book, Juergensmeyer and his co-author Thomas Roberts hypothesized that it is "quite possible that growth management and its evolved form—smart growth—provide the primary theme and coherence for land use regulation and environmental protection in the twenty-first century."¹⁰

Growth management encompasses all aspects of land use planning, environmental strategies, and structural considerations. Maintaining a sufficient amount of undeveloped land is critically important when designing a growth management program. Sustainable development, which is the overall idea behind growth management, is described in Part II. Part III explains the concept of sustainability in the EU treaties. The general approaches to smart and sustainable growth are introduced in Part IV. In general, they are concepts of strengthening knowledge in growth management, innovation, and infrastructure development. Part V explains the important principles for the competences of the EU institutions, principles ensuring that the Member States have the primary competence in respect to growth management. Part VI focuses on concrete examples of EU political and legal acts of relevance for growth management. The article concludes with short remarks in Part VII.

II. Sustainable Development at All Levels

The concept of sustainable development addresses the need to balance and coordinate widely divergent collective interests, while protecting the regenerative capacity of nature in a concerted effort to synthesize and integrate environment and development issues. Most fundamentally, sustainable development would have governments—including the EU institutions, the national as well as the local governments—to protect the entire range of natural resources and ecosystems as well as the atmosphere from every significant threat, including the threat from GHGs.¹¹ In its broadest context sustainability is

a concept of social urban in which the population and intended functions of a community can be maintained into the indefinite future without degrading community institutions, the means of production, systems of infrastructure, the resource base, and natural and man-made environments. Sustainable development embraces the

10. JUERGENSMEYER & ROBERTS, *supra* note 3, at 473.

11. John C. Dernbach, *Sustainable Development as a Framework for National Governance*, 49 CASE W. RES. L. REV. 1, 26 (1998).

environment as a mainstream scientific and economic factor in all policy, planning, and decision-making.¹²

The concept of sustainability was described in the 1987 United Nations (U.N.) report "Our Common Future"¹³ and was a focal point at the U.N. Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992.¹⁴ The nations of the world agreed at UNCED to important environmental principles, the Rio Declaration on Environment and Development (Rio Declaration). They also agreed to an ambitious global action, "Agenda 21."¹⁵ The U.N. Convention on Biodiversity and U.N. Framework Convention on Climate Change (UNFCCC) were other important results of UNCED.

The principle of integration is the most fundamental legal aspect of sustainability.¹⁶ The holistic approach in organizing the concrete implementation of different policies is a consequence. In a holistic approach, the authorities in their decisions on urban and suburban development have to facilitate growth management conditions, which are based on respect for carrying capacity,¹⁷ making human activities more environmentally friendly, socially responsible and economically sound in the long run.¹⁸ Access to environmental information and public participation in decision making are other important aspects.

Agenda 21 calls the parties (the states as well as the EU) to delegate sustainable development responsibilities to the lowest level of public authority consistent with effective action.¹⁹ Thus, subsidiarity is an important aspect of sustainability. Self determination and accountability are other important aspects in sustainable development. The local and regional governments have very central roles within their jurisdiction, although it is obvious that they need a supportive institutional, regulatory, and financial framework from international bodies and from higher

12. JUERGENSMEYER & ROBERTS, *supra* note 3, at 474-75.

13. WORLD COMM'N ON ENV'T AND DEV., *OUR COMMON FUTURE* (1987).

14. U.N. Conference on Environment and Development, June 3-24, 1992, *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/5/Rev.1 (June 1992) [hereinafter *Rio Declaration*]; see Dernbach, *supra* note 11, at 30.

15. Dernbach, *supra* note 11, at 3.

16. See CHRISTINA VOIGT, *SUSTAINABLE DEVELOPMENT AS A PRINCIPLE OF INTERNATIONAL LAW: RESOLVING CONFLICTS BETWEEN CLIMATE MEASURES AND WTO LAW* 48-88 (2009).

17. Carrying capacity, an important condition, refers to the extent to which land in its natural or current state can be developed without destruction of the ecosystems.

18. See, e.g., English Parliament and Council Recommendation 2002/413/EC of 30 May 2002 Concerning the Implementation of Integrated Coastal Zone Management in Europe, 2002 O.J. (L 148) 24.

19. Dernbach, *supra* note 11, at 38.

levels of government (in the EU, this includes support from the EU institutions as well as from the national governments).

Many local governments have ambitions that far outpace the lumbering international negotiation for a new climate regime.²⁰ They are driving the “Local Government Climate Roadmap,”²¹ a process that started in December 2007 at the U.N. Conference in Bali under UNFCCC. The Roadmap was facilitated by ICLEI,²² UCLG,²³ Metropolis, C40 Cities²⁴—Climate Leadership Group, and the WMCCC²⁵ in cooperation with international, regional and national partners. It was stated in the 2009 status report that local governments see themselves as very important actors as they represent half of the world’s population, consume eighty percent of all energy, offer national-local partnership to limit global warming, and have a significant role to drive development, for example by investment in low carbon public transport infrastructure.²⁶ The Roadmap advocates for a strong and comprehensive post-2012 global climate regime.

III. Sustainability as Part of the EU Constitution

Sustainability as a part of the EU constitution can be understood in light of the development of international environmental law. In 1972, a change of the Treaty on the European Economic Community (EEC) added a focus on environmental issues by introducing a quantitative and a qualitative economic development approach.²⁷ The same year, the U.N. Conference on the Human Environment (the Stockholm Conference) began global development of a new international environmental law. The Single European Act, from January 1, 1987, changed the EEC Treaty again—and this change included new treaty rules on environmental protection in a separate chapter. The same year, the U.N.

20. International negotiations are actually moving very slowly from the Copenhagen Accord. See Conference of the Parties Fifteenth Session, Copenhagen, Den., Dec. 7-18, 2009, *Copenhagen Accord*, U.N. Doc. FCCC/CP/2009/L.7 (Dec. 18, 2009) (signed in January 2010). Conference of the Parties 16th session will be held in Cancun, Mexico in 2010 and the 17th session will be in South Africa in 2011.

21. ICLEI—Local Governments for Sustainability, The Local Government Climate Roadmap, <http://www.iclei.org/climate-roadmap> (last visited Nov. 5, 2010).

22. Local Government for Sustainability.

23. United Cities and Local Governments.

24. C40 Cities is set-up by London and Toronto.

25. World Mayors Council on Climate Change.

26. JUERGENSMEYER & ROBERTS, *supra* note 3, at 487ff.

27. However, the term “environmental protection” was not included in the EEC Treaty.

Commission—the Brundtland Commission—presented its report “Our Common Future,” a guiding international concept for sustainability. The Treaty on European Union (TEU), which included an explicit reference to environmental protection on a sustainable basis, became effective on November 1, 1993, one year after the UNCED in Rio.

The Treaty of Amsterdam was the next step forward.²⁸ The preamble of this treaty stressed that the European Community shall promote a harmonious, balanced, and sustainable development of economic activities. The Treaty of Nice from 2001 did not address the environment. The Treaty of Lisbon²⁹ amended the TEU and the EEC Treaty. The EEC Treaty was renamed the “Treaty on the Functioning of the European Union” (TEUF).³⁰ The TEUF includes new rules on energy policy and climate policy as new important aspects of the environmental policy—both issues are among the most important global challenges. The two treaties—the TEU and the TEUF—are legal sources at the same level. Within the EU, the highest ranking legal sources are obviously enjoyed by the treaties’ articles. The articles bind the EU institutions and some of the rules are also binding on the Member States.

Article 3, paragraph 3 of the TEU states that the Union shall work for a sustainable development of Europe. The intent behind the Union’s policy is to facilitate sustainable development by use of means respecting trade as well as environmental policies. As the most important aspect of sustainability, the principle of integration³¹ legally defines the design of EU policy and law. Article 11 of the TEUF states that “[e]nvironmental protection requirements must be integrated into the definition and implementation of the Union policies and activities, in particular with a view to promoting sustainable development.”³²

A traditional, narrow approach has been replaced by a holistic approach, first advocated in the Fourth Environmental Action Programme (1987-1992).³³ As part of this approach, the program announced its plan for improving public access to information, resulting in the adaptation of the first Directive on Access to Information on the Environment in June 1990.³⁴

28. This Treaty came into effect on May 1, 1999.

29. The Treaty was signed on December 13, 2007, and came into effect in November 2009.

30. Treaty on the Functioning of the European Union, May 9, 2008, 2008 O.J. (C 115) 49 [hereinafter TEUF].

31. VOIGT, *supra* note 16.

32. See TEUF, *supra* note 30, art. 11.

33. Fourth Environmental Action Programme, 1987 O.J. (C 328) 1.

34. Council Directive 90/313/EEC of 7 June 10 on the Freedom of Access to Information on the Environment, 1990 O.J. (L 158) 56 (EC).

According to article 3, paragraph 5 of the TEU, the EU is also committed to promoting sustainability internationally. In its relations to the wider world, the EU is obligated to uphold and promote its values and interests, as well as contribute to sustainable development of the Earth.

IV. Organizational Principles Laid Down in the EU Treaties

Conferral is a fundamental principle of EU law, as provided in article 5 of the TEU. According to this principle, the EU is a union of Member States, and all its competences are voluntary conferred on it by the states. EU's legislation takes the form of the treaty rules, regulations, directives, and decisions. Regulations and decisions are "directly applicable" and as such part of the national law in all Member States.³⁵ Directives need to be implemented by secondary national legislation in order to become applicable against private firms/persons.³⁶ The EU obligations may be integrated into the existing national law and procedures on decision making. All regularly adopted regulations, directives, and decisions take precedence over national law that is incompatible with it: the principle of supremacy.³⁷

Agenda 21 calls on subsidiarity as a part of the concept of sustainability. In exercising its powers, each institution must ensure compliance with the two organizing principles of the treaties: the principles of subsidiarity and proportionality. There is a close relationship between the principles.³⁸ Under the proportionality principle, the EU institutions' involvement must be limited to what is necessary to achieve the objectives of the treaties.³⁹ In other words, the extent of the action must be

35. TEUF, *supra* note 30, art. 288. Regulations are normally adopted when uniform provisions are sought because of trade interests. Member States, singly or collectively, or individuals can be addressed by a decision. It is binding in its entirety upon those to whom it is addressed.

36. In a series of landmark decisions, the European Court of Justice (now the Court of Justice of the European Union) has extended *the principle of direct effect* to directives, treaty articles, decisions made by the Council, and provisions of international conventions to which the Union is a party. The principle of direct effect is a means to ensure that the EU law is enforced uniformly in all Member States; even in cases where the states have not themselves complied with their obligations. Direct effect increases the level of enforcement and compliance with EU law.

37. TEUF articles 288 and 289 have consequences for the hierarchy between EU law and national law (the principle of supremacy of EU law) and the priorities between directly effective EU law and domestic law. TEUF, *supra* note 30, arts. 288-89.

38. Birgitte Egelund Olsen, *The Subsidiarity Principle and Its Impact on Regulation*, in REGULATION IN THE EU 35-79 (Birgitte Egelund Olsen & Karsten Engsig Sørensen eds., 2006).

39. See TEU, *supra* note 8, art. 5, ¶ 4.

in keeping with the aim pursued. This means that when various forms of intervention are available to the EU, it must, where the effect is the same, opt for the approach that leaves the greatest freedom to the Member States and individuals. According to the principle of subsidiarity any action by the EU shall not go beyond what is necessary to achieve the objectives of the treaties.⁴⁰

Growth management is part of the competences of both the Member States and the EU where the subsidiarity principle has to be respected by the EU institutions because environmental, energy, climate, and transport competences are shared between the EU institutions and the Member States.⁴¹ The shared competences mentioned in article 4, paragraph 1 are: (a) internal market; (b) social policy for the aspects defined in the TFEU; (c) economic, social and territorial cohesion; (d) agriculture and fisheries, excluding the conservation of marine biological resources; (e) environment; (f) consumer protection; (g) transport; (h) trans-European networks; (i) energy; (j) area of freedom, security, and justice; and (k) common safety concerns in public health matters, for the aspects defined in the TEUF.

Urban mobility and transport fall under article 80 of the TEUF, which provides for a common transport policy. The subject of environment, energy, and climate falls under article 192 of the TEUF. Such laws enable a minimum level of harmonized environmental requirements.⁴² Decisions on use of green tax incentives, change of energy supply, planning, and land use are taken first and foremost by the Member States.⁴³

The principle of sincere cooperation regulates the obligations of the Member States.⁴⁴ National Parliaments are to contribute to the good functioning of the EU through receiving draft EU legislation, seeing to it that the principle of subsidiarity is respected,⁴⁵ taking part in the evolution mechanisms for the implementation of EU policies, and taking part in the inter-parliamentary cooperation between national parliaments and

40. *Id.* art. 5, ¶ 3. The section states:

Under the principle of subsidiarity, in areas which do not fall within its exclusive competence, the Union shall act only and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States, either at central level or at regional and local level, but can rather, by reason on the scale or effects of the proposed action, be better achieved at Union level.

Id.

41. TEUF, *supra* note 30, art. 4, ¶ 1.

42. *Id.* art. 193.

43. *Id.* art. 192, ¶ 2.

44. TEU, *supra* note 8, art. 4, ¶ 3.

45. *Id.* art. 5, ¶ 3, § 2.

the European Parliament. The principle of loyalty requires the Member States to ensure the correct implementation of EU legislation.

V. Smart and Sustainable Growth as Priorities

Smart and sustainable growth is a central priority presented in the Commissions⁴⁶ communication *Europe 2020: A Strategy for Smart, Sustainable and Inclusive Growth* accepted by the other EU institutions as the new reform policy.⁴⁷ Inclusive growth is the third priority for reforms of the general policy and regulation. Together they offer a vision of Europe's social market economy for the 21st century.⁴⁸

Some of the important priorities of sustainable growth programs presented in *Europe 2020* are achieving the climate and energy goals and targets in the "EU Climate and Energy Package." In March 2007 the EU's leaders endorsed an integrated approach to climate and energy policy that aims to combat climate change and increase the EU's energy security while strengthening its competitiveness. They committed Europe to transforming itself into a highly energy efficient, low carbon economy. The important targets are:

- a reduction in EU GHG emissions of at least 20% below 1990 levels,
- 20% of EU energy consumption from renewable resources, and
- a 20% reduction in primary energy use compared with projected levels, to be achieved by improving energy efficiency.

Collectively the initiatives are known as the 20-20-20 targets. It means reducing emissions significantly faster in the next decade than in the last and exploiting fully the potential of new technologies, transforming the energy use from a conventional to a renewable energy basis, which means use of nonfossil energy sources such as wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plant gas, and biogases.⁴⁹

Smart growth means strengthening knowledge and innovation as drivers of future growth. The recommended guidelines on smart growth given by the European Council include:⁵⁰

46. The Commission shall promote the general interest of the Union and take appropriate initiatives to that end. *See id.* art. 17. It ensures the application of the Treaties and measures adopted by the institutions pursuant to them.

47. *Europe 2020*, *supra* note 7.

48. *Id.* at 9-10.

49. *Id.* at 12-13.

50. Council Decision 2006/702/EC of 6 October 2006 on Community Strategic Guidelines on Cohesion, 2006 O.J. (L 129) 17 [hereinafter Cohesion Guidelines].

- addressing the significant needs for investment in infrastructure to comply with environmental legislation in the fields of water, waste, air, nature, and species protection and biodiversity,
- ensuring that attractive conditions exist for business and their highly skilled staff, which will be ensured by promoting land use planning, which reduces urban sprawl, and by rehabilitating the physical environment,
- promoting, in addition to the investment in sustainable energy and transport covered elsewhere, investments that contribute to the EU-Kyoto⁵¹ commitments, and
- undertaking risk prevention measures through improved management of natural resources, more targeted research and better use of ITC, and more innovative public management policies including, for example, preventive monitoring.

Smart growth is an umbrella term for a set of tools that communities can use to ensure that the growth they get is the growth they want. Smart growth values long range, regional considerations of sustainability over a short term focus—for example by investment in new greener infrastructure, renewable energy, and public transportation systems.

Smart growth is, however, first and foremost known as an American growth management theory. The smart growth approach in this context means:

using comprehensive planning to guide, design, develop, revitalize and build communities for all that have a unique sense of community and place, preserve and enhance valuable natural and cultural resources, equitably distribute the costs and benefits of development, expand the range of transportation, employment and housing choices in a fiscally responsive manner, value long range, regional considerations of sustainability over short term incremental geographically isolated actions; and promotes public health and healthy communities.⁵²

As a general characteristic, the smart growth approach represents everything that sprawl is not. The goals of smart growth in the American growth management theory are to:

- Achieve a unique sense of community and place by mixed land uses,
- Establish communities where transportation options include walking, biking, and mass transit,

51. Conference of the Parties to the United Nations Framework Convention on Climate Change, Kyoto, Japan, Dec. 1-10, 1997, *Kyoto Protocol*, U.N. Doc. FCCC/CP/197/L.7/Add.1 (Dec. 10, 1997).

52. AM. PLANNING ASS'N, POLICY GUIDE ON SMART GROWTH (2002), available at <http://www.planning.org/policy/guides/adopted/smartgrowth.htm>; see JUERGENS-MEYER & ROBERTS, *supra* note 3, at 478-79.

- Decrease traffic congestion,
- Slow low density sprawl,
- Preserve and enhance natural and cultural resources—protection of open space, wetlands, and prime agricultural land,
- Promote urban revitalization and public health, and
- Decrease taxes and costs of infrastructure.⁵³

Smart growth is not easily defined in an American context, because it means something different in different jurisdictions, and communities have their own particular goals and challenges associated with future growth.⁵⁴ At the local and regional level, governments use smart growth codes covering many different aspects of city development.⁵⁵

VI. Examples from EU Policy and Law

Community based sustainable development, marked by the slogan “think globally, act locally,” is relevant to growth management and smart growth in Europe. Focusing on regional and local governance and on smart growth involves the cohesion policy, established as a part of the constitution in article 3 of the TEU and Articles 174-178 of the TEUF. Based on the cohesion policy, the EU institutions seek to achieve a more strategic approach to growth, simplification and decentralization, by involving the regions and local players in the preparation of programs.⁵⁶ The cohesion policy aims at reducing the disparities between regions⁵⁷ and ensuring consistency and continuity in attaining the objectives of the EU. It is stated by the Council that as a part of the cohesion policy, better conditions for business “can be ensured by promoting land-use planning which reduces urban sprawl, and by rehabilitating the physical environment, including the development of natural and cultural assets.”⁵⁸

53. JUERGENSMEYER & ROBERTS, *supra* note 3, at 478-79.

54. *Id.* at 477.

55. *Id.* at 59.

56. *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Communicating European in Partnership*, COM (2007) 568 final (Mar. 10, 2007).

57. Regional disparities in economic output and income in the EU are far more extreme than in similar economies such as the United States. The richest regions are eight times richer than the poorest regions. *See Regions 2020: An Assessment of Future Challenges for EU Regions*, at 4, SEC (2008) 2868 final (Nov. 14, 2008) [hereinafter *Regions 2020*].

58. *See* Cohesion Guidelines, *supra* note 50 (detailing implementation guidelines).

Integration should be reached both horizontally and vertically among all levels of the EU, Member States, regional and local governments and all actors in the private sector to achieve greater coherence of policy and actions and to avoid contradicting policies at different levels. Regions subject to the highest pressure are generally located in Southern and Eastern Europe. These regions have a low capacity for adaptation to sprawl and climate change compared to the rest of Europe.⁵⁹ The cohesion policy helps such areas and ensures that attractive conditions exist for business in this part of Europe, too. The aspirations of sustainable growth have to be reflected in concrete policies that increase public transportation and renewable energy in energy supply, heat supply, and transport.⁶⁰

The European Recovery Plan for Growth and Jobs is another financial instrument used by the EU to ensure a sustainable and smart growth. It is facilitating structural change through EU investment in a low-carbon economy and the modernization of European infrastructure. Central to achieving this target are projects aimed at interconnecting the European energy grid as well as increasing the use of energy from renewable sources, particularly in the transport sector by advancing the development of hybrid or electric cars. Public investment and capital transfer to private sector for investment can boost sustainable and smart growth.⁶¹ Investments in energy and transport infrastructure contribute at the same time to adaptation to the challenges of climate change and to the security of energy supply for long term growth, while acting also as a source of innovation. The EU's cohesion program as well as the Recovery Plan includes funding programs whereby the EU together with the Member States pay for new infrastructure. Infrastructure projects, which receive EU funding, take climate proofing into account based on the methodologies to be developed. The mentioned methodologies will be incorporated into the TEN-T⁶² and TEN-E⁶³ guidelines and the EU Cohesion Policy.

59. *Regions 2020*, *supra* note 57, at 12-13.

60. Cohesion Guidelines, *supra* note 50.

61. *Implementation of the Lisbon Strategy Structural Reforms in the Context of the European Economic Recovery Plan: A More Detailed Overview of Progress Across the EU in the Specific Macro- and Micro-Economic as well as the Employment Areas*, at 15-17, COM (2009) 34 final (Jan. 28, 2009).

62. Trans-European transport network. See *Commission Green Paper on TEN-T: A policy review, Towards a Better Integrated Transeuropean Transport Network at the Service of the Common Transport Policy*, COM (2009) 44 final (Feb. 4, 2009).

63. Trans-European energy network. See *Commission Green Paper, Towards a Secure, Sustainable and Competitive European Energy Network*, COM (2008) 782 final (Nov. 13, 2008).

The EU's growth management directives, which encompass land use planning, environmental strategies, and structural considerations are very often decided on the basis of article 192 of the TEUF. Actions concerning land use planning, environmental protection, etc. must be based on the environmental principles that preventive action should be taken, that environmental damage should, as a priority, be rectified at the source, and that the polluter should pay.⁶⁴ In respect to open space, the European political goal is to maintain functionality of the natural environment and multifunctionality of cultural landscape, improve protection against hazards (for example, floods), and preserve endangered areas from the encroachment of urban development. The EU's action on growth management affecting land use regulations on private ownership and the competencies of national authorities is in some respect controversial, raising important issues, which need to be handled with great care. There are several reasons for this:

- the system of property ownership is in principle not regulated at the EU level;⁶⁵
- the TEUF provides that measures concerning town and country planning and land use—in contrast to other decisions on environmental acts—require unanimous adoption in the Council in accordance with a special legislative procedure and after consulting the European Parliament, the Economic and Social Committee, and the Committee of the Regions;⁶⁶ and
- the subsidiarity principle—set out in the TEU as well as the Protocol no. 2 connected to the treaties—indicates that the Member States and the cities themselves most appropriately develop urban and suburban policies.

The EU has published a recommendation⁶⁷ to the Member States on Integrated Coastal Zone Management (ICZM)⁶⁸ in order to ensure a strategic management approach in tackling the challenges of sprawl and climate change. One ambition behind the recommendation is that Member States in partnership with regional and local authorities should

64. TEUF, *supra* note 30, art. 191.

65. *Id.* art. 345.

66. *Id.* art. 192, ¶ 2.

67. Recommendations have no binding force.

68. English Parliament and Council Recommendation 2002/413/EC of 30 May 2002 Concerning the Implementation of Integrated Coastal Zone Management in Europe, 2002 O.J. (L 148) 24-27.

conduct a national stocktaking to analyze which actors, laws and institutions influence the planning and management of their coastal zones as a step towards convergence of public policies and local initiatives. The process involves all the parties concerned: maritime interests, local residents and businesses, users of recreational facilities, holidaymakers, fishing communities, and environmental NGOs. The report on the evaluation of the implementation of the ICZM in the Member States points to the problematic fact that the ICZM has not been very effective: the vulnerability of human and natural systems on the coasts has increased due to continuing development and build-up in the immediate vicinity of the shoreline.⁶⁹ The national policies and legislation on coastal management and their implementation are still not based on the recommended integrated approach. Not all national planning systems have properly accounted for growth and its effects on the coasts. The objective of the EU's White Paper⁷⁰ on Adaptation to Climate Change⁷¹ is to improve the resilience of the Member States to deal with the impact of climate change. The paper presenting a new strategy for European Climate Change Adaptation is focused on management and conserving water, land, and biological resources to maintain and restore healthy, effectively functioning, and climate change-resilient ecosystems. Given the particular exposure of coastal zones to the possible impacts of climate change, the strategy is of importance to Europe's coastal zones—and for growth management.

The protection of undeveloped land and green spaces for wildlife habitat is the focal point behind the network of pan-European protected areas known as NATURE 2000-network. The Member States are obligated to take all necessary initiatives to protect the listed areas against negative impacts from development. The Habitats Directive⁷² is one of the most important pieces of EU law in respect to protection of wildlife habitat against problematic development. The directive defines protected areas as local zones needing special protection and restrictions on normal land use, as they are to be regarded as especially sensitive areas. It establishes a procedure intended to ensure, by means of a pre-

69. *Commission Report to the European Parliament and the Council: An Evaluation of Integrated Coastal Zone Management (ICZM) in Europe*, COM (2007) 308 final (June 7, 2007).

70. White papers are a part of the preparation of new legal acts and policies.

71. *Commission White Paper on Adapting to Climate Change: Towards a European Framework for Action*, COM (2009) 147 final (Apr. 1, 2009).

72. Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and the Wild Fauna and Flora, 1992 O.J. (L 206) 7.

liminary examination of projects which are not directly connected with, or necessary to the management of the site concerned, but are likely to have significant effect on it. Together with “Special Areas of Conservation” (SACs) designated under this Directive, “Special Protection Areas” (SPAs) designed under the Birds Directive⁷³ form the NATURE 2000-network. The Birds Directive addresses the protection, management and control of bird species living in the wild on the European territory of Member States, as well as their nests, eggs, and habitats. The aim of the NATURE 2000-network is to assure the long term survival of Europe’s most valuable and threatened species and habitats. It is of special importance for protection of the coastal areas against the negative consequences of growth.

The Floods Directive on adaptation to climate change⁷⁴ can also be regarded as part of the indirect regulation of growth management. Its aim is to reduce and manage the risks that floods pose to human health, the environment, cultural heritage, and economic activity.⁷⁵ It requires Member States to carry out a preliminary assessment of the expected consequences of climate change by 2011 to identify the river basins and associated coastal areas at risk of flooding. Such zones would then need to draw up flood risk maps by 2013 and establish flood risk management plans focused on prevention, protection and preparedness by 2015. Member States must take into consideration long term developments, including climate change, as well as sustainable land use practices in the flood risk management cycle addressed in this directive.

The Framework Water Directive⁷⁶ (supplemented by several daughter directives) protects all water sources against pollution and overuse of water. The directive is intended to ensure a holistic approach in the classification and protection of the water. It describes a method based on a combined approach to classify and enhance the status of waters. It

73. The consolidated version is European Parliament and Council Directive 2009/147/EC of 30 November 2009 on the Conservation of Wild Birds, 2010 O.J. (L 20) 7. The ordinary directive is Council Directive 79/409/EEC of 2 April 1979 on the Conservation of Wild Birds, 1996 O.J. (L 59) 61.

74. European Parliament and Council Directive 2007/60/EC of 23 October 2007 on the assessment and management of flood risks, 2007 O.J. (L 288) 27.

75. The Directive shall be carried out in coordination with the Water Framework Directive, notably coordination of flood risk management plans and river basin management plans, and through coordination of the public participation procedures in the preparation of these plans.

76. European Parliament and Council Directive 2000/60/EC of 23 October 2000 Establishing a Framework for the Community Action in the Field of Water Policy, 2000 O.J. (L 327) 1.

also provides a management framework and additional monitoring requirements for water dependent Nature 2000 areas. The directive states that for each river basin the Member States must produce a river basin management plan covering the management strategies of the whole river basin district.⁷⁷ These districts are the administrative area of land and sea, made up of one or more neighboring river basins together with their associated groundwater and coastal waters, which the directive establishes as the main unit for river basin management. The Framework Directive on Ambient Air Quality and Cleaner Air⁷⁸ (supplemented by several daughter directives) covers the legislation protecting air quality. The Member States are required to reduce exposure in urban areas.⁷⁹

The Directive on Environmental Liability⁸⁰ establishes a framework of environmental liability based on the polluter-pays principle to prevent and remedy environmental damage caused by development. Such damage is defined as direct or indirect damage to the aquatic environment covered by Water Framework-directive, species and natural habitats protected at a community level by the Wild Birds Directive, or by the Habitat Directive, and the land, which creates a significant risk to human health.

The directive envisages different remedial measures depending on the type of damage. When it comes to damage to protected species and natural habitats as well as water, the competent authorities have room to maneuver in deciding which measures the responsible operator has to take and considering the remedial options available to restore the damaged natural resources either on the spot or elsewhere. When deciding between options, the authorities consider various factors, including the effect of each option on public health and safety, benefits for the overall environment, costs and implementation time, the likelihood of success, the possibility of future and collateral damage, distance to the damaged site, the social, economic and cultural concerns, and other relevant fac-

77. "River basin" means the area of land from which all-surface run-off flows through a sequence of streams, rivers, and lakes into the sea at a single mouth, estuary, or delta.

78. European Parliament and Council Directive 2008/50/EC of 21 May 2008 on Ambient Air Quality and Cleaner Air for Europe, 2008 O.J. (L 152) 1.

79. The directive is one of the key measures outlined in the 2005 *Thematic Strategy on Air Pollution*. See *Communication from the Commission to the Council and the European Parliament: Thematic Strategy on Air Pollution*, COM (2005) 446 final (Sept. 9, 2005).

80. European Parliament and Council Directive 2004/35/EC of 21 April 2004 on Environmental Liability with Regard to the Prevention and Remedying of Environmental Damage, 2004 O.J. (L 143) 56.

tors specific to the locality. The remedial measures must sufficiently make up for the environmental damage.

The EU agreed at UNCED in 1992 to a goal of stabilization of GHG concentration in the atmosphere at a level that would prevent dangerous anthropogenic (human-caused) interference with the climate system.⁸¹ Stabilizing GHG concentration in the atmosphere will, however, require a fundamental shift in the approach to the architecture of governance—including an interest for the urban and suburban growth. Meeting with the global ambitions on mitigation and adaptation requires a growth management policy dealing with the changing climate (adaptation),⁸² energy efficiency, and other initiatives reducing the emission (mitigation). At the Conferences of the Parties under UNFCCC (COP15), held in Copenhagen in December 2009, most parties accepted that GHG-emissions should be reduced by 50% no later than 2050 (with 1990 as the base year) to ensure that the average global temperature increase can be kept below the 2°C above pre-industrial level. The mentioned level is based on the International Panel on Climate Change's (IPCC) Fourth Assessment Report (AR4).⁸³ This target is a part of the current EU climate and energy policy.⁸⁴ As part of the "EU Climate and Energy Package" the Member States are committed to secure 10% of their transport fuel consumption from renewable energy sources (hereinafter RES) by 2020 (including bio fuels, renewable electricity, and hydrogen). The targets on RES are accompanied by binding rules in the Renewable Energy Directive⁸⁵ and the Fuel Quality Directive.⁸⁶ Standardization and

81. See United Nations Framework Convention on Climate Change art. 2, May 9, 2002, available at <http://unfccc.int/resource/docs/convkp/conveng.pdf>.

82. For example, towns and cities with aging sewer infrastructure have to prepare themselves with better drainage systems to control overflow into homes and to rivers. Coastal cities on hurricane or cyclone coasts face even bigger challenges; they have to ensure better flood defenses.

83. Intergovernmental Panel on Climate Change [IPCC], *Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (2007), available at <http://www.ipcc.ch/ipccreports/ar4-wg1.htm>.

84. *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, International Climate Policy Post-Copenhagen: Acting Now to Reinvent Global Action on Climate Change*, COM (2010) 86 final (Mar. 9, 2010).

85. European Parliament and Council Directive 2009/28/EC of 23 April 2009 on the Promotion of the Use of Energy from Renewable Sources and Amending and Subsequently Repealing Directives 2001/77/EC and 2003/30/EC, 2009 O.J. (L 140) 16.

86. *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Mainstreaming Sustainable Development into EU Policies: 2009 Review of the European Strategy for Sustainable Development*, at 6, COM (2009) 400 final (July 24, 2009).

harmonization mechanisms are used to promote energy efficient measures for production and for phasing out older and less efficient carbon-intensive ways of manufacturing, as well as ensuring low energy use in the buildings. The EU's Greenhouse Gas Emission Trading System (EU ETS) is regulating listed plants—for example plants used by the energy sector.⁸⁷ The IPPC-Directive⁸⁸ ensures an integrated permission of listed plants. The authorities must assess all aspects of pollution, waste production and treatment, as well as water and energy efficiency of the installation at the plant. In order to implement the directive the Commission makes guiding documents “BREF,” Best Available Technique Reference Documents, which describe the best available technique for each specific process and sector.

The Directive on Freedom of Access to Information⁸⁹ ensures access to “information relating to the environment.”⁹⁰ The term means any available information in written, visual, aural, or database form on the state of water, air, soil, fauna, flora, land and natural sites, and on activities or measures adversely affecting or likely so to affect these, and on activities or measures designed to protect these (including administrative measures and environmental management programs). Member States must ensure that all information held by the public authorities relating to imminent threats to human health or the environment is immediately distributed to the public likely to be affected. There is a Directive providing for public participation in respect of the drawing up of certain plans and programs relating to the environment.⁹¹ The objective of this directive is to contribute to the implementation of the obligations

87. The scheme is based on European Parliament and Council Directive 2003/87/EC of 13 October 2003 on Establishing a Scheme for Greenhouse Gas Emission Allowance Trading Within the Community and Amending Council Directive 96/61/EC, 2003 O.J. (L 275) 32.

88. European Parliament and Council Directive 2008/1/EC of 15 January 2008 Concerning Integrated Pollution Prevention and Control, 2008 O.J. (L 24) 8.

89. European Parliament and Council Directive 2003/4/EC of 28 January 2003 on Public Access to Environmental Information and Repealing Council Directive 90/313/EC, 2003 O.J. (L 41) 26.

90. It is implementing one of the pillars in the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters.

91. European Parliament and Council Directive 2003/35/EC of 26 May 2003 Providing for Public Participation in Respect of the Drawing Up of Certain Plans and Programmes Relating to the Environment and Amending with Regard to Public Participation and Access to Justice Council Directives 85/337/EC and 96/61/EC, 2003 O.J. (L 156) 17.

arising under the Aarhus Convention,⁹² in particular by providing for public participation in respect of the drawing up of certain plans and programs relating to the environment and improving the public participation and providing for provisions on access to justice within the EIA-Directive.

Member States shall ensure that the public is given early and effective opportunities to participate in the preparation and modification or review of the plans or programs required to be drawn up under the provisions listed in Annex I to the directive. The detailed arrangements for public participation are determined by the national authorities so as to enable the public to prepare and participate effectively. Provisions for public participation in environmental decision making are further found in a number of other environmental directives, such as the EIA-, the SEA- and Framework Water Directives.

The EIA Directive⁹³ covers all kinds of decisions in terms of their potential effects on the environmental and the natural resources. It applies to public and private projects likely to have a significant effect on the environment. The outcome of the assessment will highlight the impact of the project, focusing on environmental and social affects as well as identifying areas of weakness or lack of knowledge. Through analyzing the results that arise from such an assessment, the positive and negative consequences can be weighed and a decision made as to whether to proceed with a project immediately, modify the proposal, or abandon the project altogether. Based on the SEA-Directive⁹⁴ the Member States have to ensure a Strategic Environmental Assessment. This directive is to ensure the identification of the environmental consequences of policies, plans, programs, and assessments during their preparation and before their adoption. The SEA contributes to more transparent planning by involving the public and by integrating environmental considerations.

92. It is implementing one of the pillars in the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters.

93. Council Directive 85/337/EC of 27 June 1985 on the Assessment of the Effects of Certain Public and Private Projects on the Environment, 1985 O.J. (L 175) 40. The Directive has been amended by Council Directive 97/11/EC, 1997 O.J. (L 73) 5 and European Parliament and Council Directive 2003/35/EC, 2003 O.J. (L 156) 17.

94. European Parliament and Council Directive 2001/42/EC of 27 June 2001 on the Assessment of the Effects of Certain Plans and Programmes on the Environment, 2001 O.J. (L 197) 30. This Directive aims to ensure that the environmental implications of planned infrastructure projects and planning are properly addressed.

VII. Conclusion

Coordination of growth policies in the EU must be achieved through the combination of the subsidiarity principle with the wider concept of shared responsibility between the EU institutions and the Member States. The EU institutions have applied the sustainability concept in a variety of contexts and to denote a wide range of growth management issues. The initiatives are actually based on broad diversification of policies, financing solutions, and legal acts. Implementation of an integrated and holistic approach is an important part of sustainable development and consequently important in the policies. The EU initiatives have to match national capacity and national political wishes, traditions, etc.

The EU Action Plan on Urban Mobility is centered on policies that promote, as in other parts of EU growth management, integration.⁹⁵ EU policy and law in respect to mitigation (reduction of GHG-emission), and adaptation to climate change (making communities more resilient to the effects of a changing climate) is also based on an integrated approach with ambitions in respect to coordination between investment, top down and self regulation, and infrastructure planning. Creating a more sustainable transport and energy network is regarded as an important factor in the indirect guiding of growth management. The goal is to strengthen the economies' resilience to climate risks, and the capacity for disaster prevention and response (adaptation) in the Member States. The provisions for infrastructure for all areas are among the important criteria in respect to the quality of governance.⁹⁶ Infrastructure planning and decisions are predominantly a Member State responsibility in the EU. The EU institutions nevertheless have an important role in establishing some quality standards on the environment, protecting sensitive areas, promoting best practice via financial support for infrastructure development, demanding impact assessments and other sorts of procedural procedures, obligating the Member States to explaining the current national, regional, and local rules concerning the authorization, certification, and licensing procedures applied to plants and associated transmission and distribution of network infrastructure. All

95. *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Action Plan on Urban Mobility*, at 4, COM (2009) 490 final (Sept. 30, 2009).

96. United Nations Expert Group Meeting on Population Distribution, Urbanization, Internal Migration and Development, *Climate Change and Urbanization: Effects and Implications for Urban Governance*, at 9, U.N. Doc. UN/POP/EGM-URB/2008/16 (2007) (prepared by David Satterthwaite), available at http://www.un.org/esa/population/meetings/EGM_PopDist/P16_Satterthwaite.pdf [hereinafter *Climate Change*].

assessments, maps, and plans prepared are to be made available to the public and public participation has to be ensured. The EU's legislation regulates large parts of public transport investment and operations by obligations in respect to procurement procedure of public entities.⁹⁷

The regional and local authorities are important actors in EU growth management policy, as they have a special ability to work closely with stakeholders, building community awareness and implementing strong regional/local actions to reduce sprawl, to mitigate and to adapt to climate change.⁹⁸ Transport, energy, and climate initiatives are substantially driven by patterns of regional and local development and infrastructure investment. One of the features of the cohesion policy lies in its capacity to adapt to the particular need and characteristics of specific geographical challenges and opportunities—preventing uneven regional development from reducing overall growth potential.⁹⁹ Within the EU cohesion policy, sustainable development has progressively gathered momentum, moving from a reactive to a proactive position.¹⁰⁰ The cohesion policy is also relevant in respect to the integrated coastal zone management—an important issue both for the growth management and for adaptation to climate change.¹⁰¹

What actually happens in the regional and local areas depends on the actions by the EU and national governments (policy), tradition, lobbying activities, and what powers and resources the leaders have at their disposal. Beyond overall regulation, the EU can only encourage and promote effective planning and adequate policies at local and regional levels. The national governments in the Member States have control over

97. European Parliament and Council Regulation (EC) No. 1370/2007 of 23 October 2007 on Public Passenger Transport Services by Rail and by Road and Repealing Council Regulations (EC) Nos. 1191/69 and 1107/70, 2007 O.J. (L 315) 1; European Parliament and Council Directive 2004/17/EC of 31 March 2004 Coordinating the Procurement Procedures of Entities Operating in the Water, Energy, Transport and Postal Services sectors, 2004 O.J. (L 134) 1; European Parliament and Council Directive 2004/18/EC of 31 March 2004 on the Coordination of Procedures for the Award of Public Works Contracts, Public Supply Contracts and Public Service Contracts 2004 O.J. (L 134) 114.

98. *Climate Change*, *supra* note 96, at 9.

99. Cohesion Guidelines, *supra* note 50, at 28.

100. Council Regulation (EC) No. 1083/2006 of 11 July 2006 Lying Down General Provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and Repealing Regulation (EC) No. 1260/1999, 2006 O.J. (L 210) 25; Cohesion Guidelines, *supra* note 50.

101. See English Parliament and Council Recommendation 2002/413/EC of 30 May 2002 Concerning the Implementation of Integrated Coastal Zone Management in Europe, 2002 O.J. (L 148) 24.

land use, nature and coast protection, planning, infrastructure, housing and transport, energy supply, and water treatment. The planning system (sectoral as well as spatial planning) is a national competence. Not all national planning systems have properly accounted for sprawl and the effects of urbanization on transport demands or the additional effects of sprawl on the natural environment and congestion. The existing land use planning systems are too old and not in harmony with the actual technology level of modern industry. The Commission works with the Member States and stakeholders to set guidelines and exchange good practices, ensuring the consideration of climate change impacts when implementing the EIA and SEA Directives and spatial planning policies. Integrated policies are, however, in opposition to the traditional sectoral approach of public law guiding most of the implementation of EU directives at the national, regional, and local levels.