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BROWNFIELD REDEVELOPMENT IN THE EUROPEAN UNION

BERNARD VANHEUSDEN*

Abstract: Brownfields not only occur in the United States, but in every industrialized country and region. The European Union is currently confronting the challenge of regulating these sites. This Article offers a comparative survey of different legal approaches within both the European Union and the United States toward dealing with brownfields. As a case study, it outlines important developments in the Flemish region of Belgium. It is clear that more and more Member States are searching for different measures to deal with soil remediation in general, and brownfields in particular. However, the shortage of knowledge and information regarding brownfield development creates myriad difficulties with the start-up and realization of potential brownfield projects. Additionally, and with regard to funding schemes, no consideration is made of the sustainability of the methods used to redevelop these sites.

INTRODUCTION

Brownfields—a term coined in the United States—has become a major soil-related problem the world over. The U.S. Environmental Protection Agency (EPA) started the Brownfields Economic Redevelopment Initiative (Brownfields Initiative) in 1993. Since its inception, EPA's Brownfields Initiative has blossomed into a major national program, changing the way that contaminated property is perceived, addressed, and managed in the United States. The Small Business Liability Relief and Brownfields Revitalization Act,¹ which includes numerous

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¹ Small Business Liability Relief and Brownfields Revitalization Act of 2002, Pub. L. No. 107-118, 115 Stat. 2356 (codified as amended in scattered sections of 42 U.S.C.). This Act was signed by President Bush on January 11, 2002. *See id.* The full title is "An Act to provide certain relief for small businesses from liability under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, and to amend such Act to promote

amendments to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), has transformed this policy into law.² A brownfield site is defined as “real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.”³

Brownfields not only occur in the United States, but in every industrialized country and region. The European Union (E.U.) is also dealing with the proper way to regulate these sites. At present, governments at both the E.U. and national levels are attempting to deal with the vast amount of brownfield sites created by a legacy of industrialization. Over the past few years, E.U. governments have viewed the evolution of brownfield policies in the United States as potential guides to their own actions.

This Article offers a comparative survey of different legal approaches within both the European Union and the United States toward dealing with brownfields. Part I discusses the current status of brownfields in the European Union, and points to relevant European legislation and other actions taken by the European Commission, the executive arm of the European Union.⁴ Part II describes the characteristics of brownfield policies in the E.U.’s individual Member States. It then outlines important developments in the Flemish region of Belgium—also known as Flanders—with regard to soil remediation and brownfield redevelopment.⁵ In Belgium, most of the environmental competencies—and certainly most of the laws relating to brownfield

the cleanup and reuse of brownfields, to provide financial assistance for brownfields revitalization, to enhance State response programs, and for other purposes.”

² Dale A. Guariglia, Michael Ford & Gerald DaRosa, *The Small Business Liability Relief and Brownfields Revitalization Act: Real Relief or Prolonged Pain?*, 32 ENVTL. L. REP. 10,505, 10,505–11 (2002); Donald B. Mitchell, Jr., “Brownfields” and Small Business Superfund Amendments: Important New Changes in Real Estate Practice and in Liability Relief, 4 ENVTL. LIABILITY 147, 147 (2002).

³ 42 U.S.C. § 9601(39)(A) (Supp. III 2003).

⁴ The European Commission is the European institution that drafts proposals for new European laws. It is independent of national governments. The Commission presents the proposals to the European Parliament and the Council of the European Union. The European Parliament and the Council share the responsibility for passing laws and making policy decisions. The Commission then manages the day-to-day business of implementing European Union (E.U.) policies and spending E.U. funds. The Commission also ensures that the European treaties and laws are respected. It can act against rule-breakers, and take them to the Court of Justice if necessary. EUROPA, European Commission, http://ec.europa.eu/index_en.htm (last visited Apr. 3, 2007).

⁵ The other two Belgian regions are the Walloon region and the Brussels Capital region.

redevelopment—are regional. The actual brownfield situation is similar in most European countries, making the Flemish experience a useful case study.

I. E.U.-WIDE BROWNFIELD REMEDIATION

A. *The Current Status of Brownfields in the European Union*

On January 1, 2007, Romania and Bulgaria joined the European Union.⁶ The Union now embraces twenty-seven countries and over 500 million people.⁷ The relevant question is how far-reaching the brownfield problem is in these twenty-seven Member States (E.U.-27). The answer, in turn, depends on the definition of “brownfield.” As Member States do not consistently use the term brownfield, no E.U.-wide inventory exists for the sites.

However, many Member States contain large areas of polluted soil.⁸ The European Union is faced with both very old and recent soil contamination. Some of the old soil contamination dates back to the accelerated industrial development in the beginning of the nineteenth century. With its more than two hundred years of industrialization, Europe faces a soil contamination problem resulting from the use and presence of dangerous substances in many production processes.

Furthermore, European pollution sites take many forms. The sites range from former industrial areas and current industrial sites, to dumps and wrecked cars heaps, and even to river basins. In addition, many houses—especially in the old city centers—are built in former industrial zones or in areas where polluted soil has been used for construction work. Smaller cases of soil pollution occur at petrol stations or have been caused by leaking domestic oil tanks or illegal dumping.⁹

Although no E.U.-wide inventory of contaminated sites exists, the number of potentially contaminated sites in the E.U.-27 is estimated at

⁶ *Romania and Bulgaria Join the EU*, BBC NEWS, Jan. 1, 2007, <http://news.bbc.co.uk/2/hi/europe/6220591.stm>.

⁷ *Id.*

⁸ See *Accompanying Document to the Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions: Thematic Strategy for Soil Protection, Summary of the Impact Assessment*, at 3, COM (2006) 231 final (Sept. 22, 2006), available at http://ec.europa.eu/environment/soil/pdf/sec_2006_1165_en.pdf [hereinafter *Impact Assessment*].

⁹ René Seerden & Madeleine van Rossum, *Legal Aspects of Soil Pollution and Decontamination in the Netherlands*, in *LEGAL ASPECTS OF SOIL POLLUTION AND DECONTAMINATION IN THE EU MEMBER STATES AND THE UNITED STATES* 289, 289 (René Seerden & Kurt Deketelaere eds., 2000).

approximately 3.5 million, with 500,000 sites having significant contamination and requiring remediation.¹⁰ The exact figures may vary due to the lack of a common definition of contaminated sites. As long as the Member States differ in their understanding of what “contaminated site” means—and in their speed and manner of building up inventories—an E.U.-wide inventory of contaminated sites has little relevance.¹¹ Taking into account the industrial history of the European Union, it is likely a large percentage of the number of contaminated sites will fall under the U.S. definition of a brownfield. To compare, EPA estimates that there are more than 450,000 brownfields in the United States.¹²

Clearly, there remains a distinct lack of data. The United Nations Economic Commission for Europe’s (UNECE)¹³ Protocol on Pollutant Release and Transfer Registers (PRTR Protocol)¹⁴ might alter this situation in the near future. The PRTR Protocol has recently been transposed in the European Union by a regulation.¹⁵ The regulation:

[E]stablishes an integrated pollutant release and transfer register at Community level . . . in the form of a publicly accessible electronic database and lays down rules for its functioning, in order to implement the [PRTR Protocol] and facilitate public participation in environmental decision-making, as well

¹⁰ *Impact Assessment*, *supra* note 8.

¹¹ See REPORTS OF THE TECHNICAL WORKING GROUPS ESTABLISHED UNDER THE THEMATIC STRATEGY FOR SOIL PROTECTION 635 (Lieve Van-Camp et al. eds., 2004), available at <http://ec.europa.eu/environment/soil/pdf/vol4.pdf>.

¹² U.S. Environmental Protection Agency, About Brownfields, <http://www.epa.gov/brownfields/about.htm> (last visited Apr. 3, 2007).

¹³ The United Nations Economic Commission for Europe (UNECE) is one of five regional commissions within the U.N. and contains fifty-six Member Countries, including the United States. United Nations Economic Commission for Europe, <http://www.unece.org/about/about.htm> (last visited Apr. 3, 2007); see United Nations, About Economic and Social Development, http://www.un.org/esa/officials_regions.html (last visited Apr. 3, 2007).

¹⁴ The Protocol on Pollutant Release and Transfer Registers (PRTR Protocol) was adopted on May 21, 2003 at the Aarhus Convention. UNECE, Aarhus Convention: Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, <http://www.unece.org/env/pp/e-mop.htm> (last visited Apr. 3, 2007).

¹⁵ Regulation No. 166/2006 of the European Parliament and of the Council of 18 January 2006 Concerning the Establishment of a European Pollutant Release and Transfer Register and Amending Council Directives 91/689/EEC and 96/61/EC, 2006 O.J. (L 33) 1 (EC).

as contributing to the prevention and reduction of pollution of the environment.¹⁶

The register includes data on releases to land.¹⁷ The European Commission will compile, with Member States, a complete picture of the extent of soil contamination throughout the European Union.¹⁸

On top of the contamination problem, the European Union features dense population and heavily built-up regions. As a result of this situation, remaining greenfields are under constant pressure. For example, the Flemish region in Belgium counts over 800 inhabitants per square mile, an extraordinarily high population density ratio.¹⁹ At present, the Flemish region runs short of industrial land.

Brownfield redevelopment is becoming a major environmental and social concern in the European Union. The reasons to redevelop brownfields are numerous and similar to those in the United States: redevelopment fits within the framework of sustainable development because it re-uses formerly developed properties rather than developing green and open space; governments have to protect their citizens against environmental contamination and health risks; and the lack of clean industrial sites begs new solutions.²⁰ In addition, brownfield redevelopment has several advantages when compared to the development of open space or greenfields: necessary infrastructure is often already available (such as a waterway, a railway, roads, electricity, and drain-pipes); people return to the city; and degraded areas are revitalized.

B. E.U. Brownfield Policy and Laws

The European Union does not yet have a general brownfield policy, although it recently promulgated a soil policy.²¹ The European Commission is taking soil-related problems more and more seriously. One of the objectives of the Sixth Environment Action Programme

¹⁶ *Id.* at 3.

¹⁷ *Id.* at 5.

¹⁸ *Id.*

¹⁹ See MIRA, *The Flemish Region of Belgium*, <http://www.milieurapport.be/?pageID=575&Culture=nl>.

²⁰ This lack of available land might be less of a problem in the United States, which is less densely populated than the E.U.

²¹ See Decision No. 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 Laying Down the Sixth Community Environment Programme, 2002 O.J. (L 1600) 242, available at http://www.senternovem.nl/mmfiles/Het%20Zesde%20Milieu%20Actieplan_tcm24-108807.pdf.

(Sixth EAP), adopted in 2002, is soil protection.²² The Sixth EAP is a non-legally binding document that states the Commission's objectives with regard to the environment through 2010.²³ It states that to protect soils against erosion and pollution, there must be a thematic strategy on soil.²⁴

Only four years later, on September 22, 2006, the Commission published the Thematic Strategy for Soil Protection.²⁵ This measure is a first step toward the development of an integrated E.U. policy to protect soils. According to the thematic strategy, action at the European level is a necessary addition to the action by Member States, given several factors: soil degradation affects other environmental areas (for example, groundwater);²⁶ the functioning of the internal market may be distorted;²⁷ degradation in one Member State or region can have transboundary consequences;²⁸ food safety must be guaranteed;²⁹ and soil degradation is receiving increasing attention in international agreements and charters.³⁰

The thematic strategy is built around four key pillars:

(1) framework legislation with protection and sustainable use of soil as its principal aim; (2) integration of soil protection in the formulation and implementation of national and Community policies; (3) closing the current recognised knowledge gap in certain areas of soil protection through research supported by [European] Community and national research programmes; (4) increasing public awareness of the need to protect soil.³¹

To formalize the first key pillar, the thematic strategy includes a Proposal for a Directive establishing a framework for the protection of soil,

²² *Id.* at 8.

²³ *See id.* at 7–8, 12–13.

²⁴ *Id.* at 8–9.

²⁵ *Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions: Thematic Strategy for Soil Protection*, at 12, COM (2006) 231 final (Sept. 22, 2006), available at http://ec.europa.eu/environment/soil/pdf/com_2006_0231_en.pdf [hereinafter *Thematic Strategy for Soil Protection*].

²⁶ *Id.* at 5.

²⁷ *Id.* This can occur, for example, if the Member States use different pollution standards, which may influence companies in deciding where they will start their activities. *Id.*

²⁸ *Id.* at 6.

²⁹ *Id.*

³⁰ *Id.*

³¹ *Thematic Strategy for Soil Protection*, *supra* note 25, at 6.

and amending the previous Directive 2004/35/EC.³² Under the proposal, the Member States must prevent soil contamination.³³ They must therefore limit the intentional or unintentional introduction of dangerous substances on or in the soil.³⁴ Additionally, Member States must identify the contaminated sites in their national territory and establish an inventory of those contaminated sites.³⁵ According to the proposal, a contaminated site is a site that poses significant risk to human health or the environment.³⁶ The parties in a transaction receive a soil status report.³⁷ Finally, the Member States must ensure that the contaminated sites listed in their inventories are remediated, and must also draw up a national remediation strategy.³⁸

Although these initiatives are well-intentioned, and although some European legislative acts may be indirectly relevant to the remediation of soil, no specific community legislation on soil contamination—or soil protection in general—exists. The main reason for this is the principle of subsidiarity, set forth in article 5, paragraph 2 of the Treaty establishing the European Community (E.C. Treaty):

In areas which do not fall within its exclusive competence, the Community shall take action, in accordance with the principle of subsidiarity, only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community.³⁹

Only if the Community can better achieve the objectives may it take action. Historically, soil issues have been seen as local problems, which could sufficiently be dealt with by national, regional or local authori-

³² See *Proposal for a Directive of the European Parliament and of the Council Establishing a Framework for the Protection of Soil and Amending Directive 2004/35/EC*, at 1–2, COM (2006) 232 final (Sept. 22, 2006), available at http://ec.europa.eu/environment/soil/pdf/com_2006_0232_en.pdf [hereinafter *Framework for the Protection of Soil*].

³³ *Id.* at 5.

³⁴ *Id.* at 6.

³⁵ *Id.*

³⁶ *Id.* at 12.

³⁷ *Id.* at 19.

³⁸ *Framework for the Protection of Soil*, *supra* note 32, at 20.

³⁹ Consolidated Version of the Treaty Establishing the European Community, Dec. 24, 2002, 2002 O.J. (C 325) 42 [hereinafter E.C. Treaty]. The difference between the European Community and the E.U. is that the Community has fewer competencies than the E.U. One could say that the E.U. is the Community, only with the addition of security and justice concerns. With respect to European environmental law and policy, both the acronyms E.U. and E.C. may be used.

ties. For example, although the Thematic Strategy for Soil Protection contends the opposite, the Community maintained that soil has no major trans-boundary impacts that could justify the need for an E.U.-wide soil policy.

The conclusion should be that the regulation or remediation of contaminated brownfields is left to the Member States, at least for the next few years. However, the ruling of the European Court of Justice in *Ministere Public v. Paul Van de Walle* could prove to be very important with regard to the European legal framework for brownfield redevelopment.⁴⁰ In this case, the Court broadened the definition of waste and decided that soil contaminated by fuels leaking from underground tanks should be regarded as waste under the Waste Framework Directive (Directive).⁴¹ The Court held that the land is waste despite its not being excavated or disturbed, and the fact that the contamination was accidental.⁴² The case received a good deal of criticism.⁴³ Most Member States have separate legislation for waste and for soil. The result of the ruling is that the Directive may apply to soil contamination, although the Directive was not meant to cover soil contamination.

In addition, it will be very difficult for brownfield developers to follow several provisions of the Directive. For example, most national soil legislation includes a system of soil pollution norms or a form of risk assessment for deciding whether a brownfield requires remediation or not. The Directive does not have such a system for the disposal or recovery of waste. Additionally, certain remediation techniques—such as the isolation of the contamination—might not be in line with the

⁴⁰ See generally Case C-1/03, *Ministere Public v. van de Walle and Others*, ECJ CURIA (Sept. 7, 2004), available at <http://curia.europa.eu/en/content/juris/index.htm> (follow “Search Form” hyperlink, then search “C-1/03” in “Case Number”).

⁴¹ *Id.*

⁴² *Id.*

⁴³ See Lucas Bergkamp, *The European Court of Justice's Texaco Ruling and the Environmental Liability Directive*, TIJDSCHRIFT VOOR MILIEUAANSPRAKELIJKHEID 150, 150–55 (2005); Lucas Bergkamp, *A New Court-Made Environmental Liability Regime for Europe*, 12 ENVTL. LIABILITY 171, 171–77 (2004); Christian Bickel, *Die schädliche Bodenveränderung als Abfall*, 23 DIE ÖFFENTLICHE VERWALTUNG 994, 994–96 (2005); Philippe Billet, *Le déchet, qualification incertaine des sols pollués*, REVUE JURIDIQUE DE L'ENVIRONNEMENT 309, 309–27 (2005); Yves Jégouzo, François-Guy Trébulle & Laurent Fonbaustier, *Le sol pollué, même accidentellement, peut être qualifié de déchet*, REVUE DE DROIT IMMOBILIER 31, 31–36 (2005); Ludwig Krämer, *Decontamination of Soil and EU Waste legislation*, 12 ENVTL. LIABILITY 263, 263–70 (2004); Owen McIntyre, *The All-Consuming Definition of “Waste” and the End of the “Contaminated Land” Debate?*, 17 J. OF ENVTL. L. 109, 109–27 (2005); Anno Oexle, *Kontaminiertes Erdreich als Abfall*, 20 EUROPÄISCHE ZEITSCHRIFT FÜR WIRTSCHAFTSRECHT 625, 625–29 (2004); Jacques Sambon, *Les terres contaminées sont des déchets au sens de la Directive 75/442/CEE*, AMÉNAGEMENT-ENVIRONNEMENT 53, 53–57 (2005).

Directive, despite the fact that they may offer the best solutions in practice. Therefore, the Directive should not be used to cover soil contamination. Fortunately, the European Commission is aware of the difficult situation. To solve the problem, on December 21, 2005, the Commission approved a revised Proposal for a Directive of the European Parliament and of the Council on Waste.⁴⁴ The proposal excludes unexcavated contaminated soil from the scope of the directive.⁴⁵ However, as long as there is no final approval of the proposal, the *Van de Walle* judgment remains important.

Besides the soil policy, another important issue related to brownfields is the European rules regarding state aid. According to article 88, paragraph 3 of the E.C. Treaty, the Commission must be notified of any state aid payments to determine whether they fall under the prohibition of article 87, paragraph 1 of the Treaty.⁴⁶ Article 87, paragraph 1 states:

Save as otherwise provided in this Treaty, any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favoring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the common market.⁴⁷

Thus, for an environmental measure to fall within this scope, it must be demonstrated that the measure falls within the definition of state aid, distorts competition, and affects intra-Community trade.⁴⁸ Article 87, paragraphs 2 and 3 mention certain aids that are considered to be compatible with the common market.⁴⁹

⁴⁴ *Proposal for a Directive of the European Parliament and of the Council on Waste*, COM (2005) 667 final (Dec. 21, 2005), available at http://eur-lex.europa.eu/LexUriServ/site/en/com/2005/com2005_0667en01.pdf; David Pocklington, *The Significance of the Proposed Changes to the Waste Framework Directive*, EUR. ENVTL. L. REV. 75, 75–87 (2006) (discussing the proposal).

⁴⁵ *Proposal for a Directive of the European Parliament and of the Council on Waste*, *supra* note 44, at 9, 16.

⁴⁶ E.C. Treaty, *supra* note 39, art. 88.

⁴⁷ *Id.* art. 87.

⁴⁸ See Damien Geradin, *EC Competition Law and Environmental Protection: Conflict or Compatibility?*, 2 Y.B. OF EUR. ENVTL. L. 117, 121–23, 153–54 (2002).

⁴⁹ E.C. Treaty, *supra* note 39, art. 87.

Regarding state aid in the environmental sector, the Commission published *Community Guidelines on State Aid for Environmental Protection*.⁵⁰ These guidelines contain a specific subsection indicating the conditions for state aid for the rehabilitation of polluted industrial sites.⁵¹ First, the guidelines only relate to interventions made by firms.⁵² Thus, interventions made by public authorities fall outside of its scope. In practice, the distinction between firms and public authorities will not always be obvious. The Commission will have to decide on a case-by-case basis. Second, state aid may not be granted where the person responsible for the pollution is clearly identified.⁵³ It is up to the Member States to determine who can be identified as a “person responsible for the pollution,” but they will still have to follow the Environmental Liability Directive.⁵⁴ Lastly, the aid may amount to up to 100% of the eligible costs, plus 15% of the cost of the work, but under no circumstances may exceed the actual expenditure.⁵⁵ The eligible costs are equal to the cost of the work less the increase in the value of the land.⁵⁶ Nevertheless, these guidelines are merely guidelines and the Commission may adopt a different opinion.

II. E.U. MEMBER STATES AND BROWNFIELD REMEDIATION

A. *Similarities and Differences Between National Approaches*

Until recently, the historical contamination of land has not been the subject of effective, formalized legal attention. Member States—or regions within a Member State—have only begun to introduce legislation on the remediation of soil contamination within the last ten to twenty years, often inspired by the American approach.⁵⁷ In some Member States, soil remediation is a regional competency.⁵⁸ In other

⁵⁰ 2001 O.J. (C 37) 3 [hereinafter *Community Guidelines*]. See generally Geert Van Calster, *Will the EC Get a Finger in Each Pie? EC Law and Policy Developments in Soil Protection and Brownfields Redevelopment*, 16 J. ENVTL. L. 3 (2004).

⁵¹ *Community Guidelines*, *supra* note 50, at 9.

⁵² *Id.*

⁵³ *Id.*

⁵⁴ Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on Environmental Liability with Regard to the Prevention and Remedying of Environmental Damage, 2004 O.J. (L 143) 56, 58.

⁵⁵ *Community Guidelines*, *supra* note 50, at 7.

⁵⁶ *Id.*

⁵⁷ Experiences in the United States with the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) strongly influenced European legislation.

⁵⁸ One such example is Belgium. See discussion *infra* Part II.B.

Member States, soil remediation is legislated on the federal level, although the regions have several competencies with regard to the environment.⁵⁹ Counting contamination as a key element, the soil legislation is a major player in the complete legal framework for brownfield redevelopment. Nevertheless, if the U.S. experience with brownfields teaches anything, it is that brownfields need a more specific integrated approach than other contaminated sites. Brownfield redevelopment introduces the new approach of functional remediation, meaning that the remediation is related to the future destination. Very often this does not occur in current soil legislation. Thus, among other factors, the integration with the zoning and planning legislation is very important.

One of the problems faced by Member States is that it is unclear what they mean when they talk about brownfields. When the U.S. Environmental Protection Agency (EPA) began the Brownfields Economic Redevelopment Initiative, the agency developed a definition of brownfields.⁶⁰ According to that definition, brownfields are “abandoned, idled, or under-used industrial and commercial facilities at which expansion or redevelopment is complicated by real or perceived environmental contamination.”⁶¹ Several European countries or regions—for example, the Flemish region of Belgium—adopted a similar definition with three recurring key elements, stating that a brownfield must be: (1) an abandoned, idled or underused site; (2) an industrial or commercial site; and (3) a contaminated or potentially contaminated site.⁶² Other Member States use a broader definition—for example, the United Kingdom⁶³—or they do not use the term at all—for example, the Netherlands. Therefore, there is a clear need for a uniform definition and common understand of brownfields.

Another characteristic of the brownfield policies in the E.U. Member States was revealed after a broad analysis of the sustainability of

⁵⁹ Examples of such Member States are Italy and Germany.

⁶⁰ See Small Business Brownfields Redevelopment Act of 1999, S. 1408, 106th Cong. § 321(d) (1999); U.S. Environmental Protection Agency, Regional Brownfields, <http://www.epa.gov/region02/brownfields/> (last visited Apr. 6, 2007) [hereinafter EPA, Regional Brownfields].

⁶¹ EPA, Regional Brownfields, *supra* note 60.

⁶² See OVAM, Brownfields in Flanders, <http://www.ovam.be/jahia/Jahia/pid/1290> (last visited Apr. 6, 2007). This information is also available in Dutch at <http://www.ovam.be/jahia/Jahia/pid/736> (last visited Apr. 6, 2007).

⁶³ In the United Kingdom, brownfields usually mean only previously developed land, and, therefore, (potential) contamination does not need to exist. The definition resembles that under the Small Business Liability Relief and Revitalization Act. See Small Business Liability Relief and Revitalization Act, H.R. 2869, 107th Cong. (2002).

public incentives.⁶⁴ Brownfield redevelopment often requires public incentives.⁶⁵ Several incentives exist, including: E.U. structural funding, taxes on vacant or derelict buildings, and legal incentives. The question then becomes whether the incentives are sustainable. In other words, does the competent public authority, when enacting new incentives, consider the needs of the present and the future when using methods to redevelop brownfields? The basic norms of sustainable development about which there is a widespread agreement are the following: “brownfields programs should simultaneously consider social, economic and environmental issues; they should substantively ensure a sustainable urban future; and last but certainly not least, they should strive for and achieve ‘equity.’”⁶⁶ Governmental and private sector pronouncements of a connection between brownfields and sustainability are not hard to find. But are all of the incentives to promote brownfield regeneration really sustainable? Which brownfield programs will really lead to sustainable cities? After all, as Joel B. Eisen already stated, “Any argument that all brownfields redevelopment is inherently sustainable is unjustified.”⁶⁷ Redeveloping a brownfield does not automatically make one’s actions sustainable.

The analysis showed that poor consideration is made of the methods used to redevelop brownfields.⁶⁸ Funding schemes do not stipulate sustainability criteria for evaluating funding proposals.⁶⁹ Successful funding proposals are evaluated in terms of their potential to deliver more “hard outputs,” which are measured numerically and include the number of jobs created, or the amount of land reclaimed. No consideration is made of the methods used to create these outputs; therefore, sustainable proposals are not differentiated from unsustainable proposals. Often, successful proposals use unsustainable methods, such as failing to recycle waste, failing to utilize green building materials or renewable energy, or failing to preserve historic buildings. These failures are obviously untenable in an era when supposedly all policy is driven by sustainable development principles.

⁶⁴ See generally Gareth Thornton, Bernard Vanheusden & Paul Nathanail, *Are Incentives for Brownfield Regeneration Sustainable? A Comparative Survey*, 2 J. FOR EUR. ENVTL. & PLAN. L. 350 (2005).

⁶⁵ *Id.* at 350.

⁶⁶ See Joel B. Eisen, *Brownfields Policies for Sustainable Cities*, 9 DUKE ENVTL. L. & POL’Y F. 187, 192 (1999).

⁶⁷ *Id.* at 191.

⁶⁸ See *id.* at 201–02, 206–10.

⁶⁹ See *id.* at 207–08.

The United States is clearly further ahead in implementing sustainability criteria in their incentives. Some incentives are conscious efforts to incorporate the substance of sustainable development, such as the Proposal Guidelines for Brownfields Assessment, Revolving Loan Fund, and Cleanup Grants.⁷⁰ These guidelines contain a whole set of very interesting sustainability criteria, which could be directly implemented into E.U. policy. Another notable incentive is the Green Buildings on Brownfields Initiative.⁷¹ This initiative is an EPA “effort designed to promote the use of green building techniques at brownfields properties in conjunction with assessment and cleanup.”⁷² EPA’s brownfield policy is directed by principles of sustainability. EPA published a study in two parts emphasizing the incorporation of the principles of sustainability into the redevelopment process.⁷³ EPA uses the results of this study to evaluate the various approaches being taken by communities in order to refine or develop new policies and technical tools that may be needed.⁷⁴

B. Case Study: The Flemish Region of Belgium

In the Flemish region, a consensus is growing that the redevelopment of brownfields can play an important role in the revitalization of certain neighborhoods and areas, and that it can give an answer to the existing need for new industrial sites.⁷⁵ In 2000, the Flemish Minister of Environment initiated, with the support of the Flemish Minister of Economics and Urban Planning, a strategic project called “Brownfield Development.”⁷⁶ A steering committee presided over by the Flemish

⁷⁰ U.S. ENVTL. PROT. AGENCY, PROPOSAL GUIDELINES FOR BROWNFIELDS ASSESSMENT, REVOLVING LOAN FUND, AND CLEANUP GRANTS 28 (2006), available at <http://www.epa.gov/oswer/docs/grants/epa-oswer-obcr-07-01.pdf>.

⁷¹ U.S. ENVTL. PROT. AGENCY, GREEN BUILDINGS ON BROWNFIELDS INITIATIVE: PILOT PROJECTS 1 (2002), available at <http://www.epa.gov/brownfields/pdf/greenbld.pdf>.

⁷² *Id.*

⁷³ U.S. ENVTL. PROT. AGENCY, CHARACTERISTICS OF SUSTAINABLE BROWNFIELDS PROJECTS 216 (1998), available at <http://www.epa.gov/brownfields/pdf/sustain.pdf>; U.S. ENVTL. PROT. AGENCY, A SUSTAINABLE BROWNFIELDS MODEL FRAMEWORK 4–6 (1999), available at <http://www.epa.gov/brownfields/pdf/susmodel.pdf>.

⁷⁴ U.S. ENVTL. PROT. AGENCY, A SUSTAINABLE BROWNFIELDS MODEL FRAMEWORK 109–12 (1999), available at <http://www.epa.gov/brownfields/pdf/susmodel.pdf>.

⁷⁵ There is a shortage of industrial sites in the Flemish region. See Wim Vanhaverbeke, Peter Cabus & Erwin Lammens, *Ruimte voor werk: bouwrijpe bedrijventerreinen, economische ontwikkeling en ruimtelijke planning in Vlaanderen*, TIJDSCHRIFT VOOR ECONOMIE EN MANAGEMENT 227–65 (2002) (developing a method to evaluate the availability of industrial sites).

⁷⁶ OVAM, Brownfields in Flanders, <http://www.ovam.be/jahia/Jahia/pid/1290> (last visited Apr. 7, 2007).

Public Waste Agency (FPWA) was established—similar to the Inter-agency Working Group on Brownfields in the United States—in which different governmental administrations jointly investigated how government policy can contribute to the development of brownfields in the Flemish region.⁷⁷ It also looked into which structural measures needed to be taken to stimulate such development.⁷⁸ Furthermore, the FPWA prepared a list of criteria to select and evaluate pilot brownfield projects.⁷⁹ On the basis of these criteria, the FPWA selected twelve projects.⁸⁰ Each selection required the commitment of a steering group to guide and to follow up the project. In 2004, despite the positive results of the Brownfield Development, the newly elected Flemish government decided not to continue the project. As a result, unfortunately, there is no coordinated or structured consultation between the concerned ministers and their administrations.

With regard to the management and remediation of contaminated land, the Flemish policy is regulated by the Flemish Decree of February 22, 1995 concerning Soil Remediation (Soil Remediation Decree).⁸¹ The Soil Remediation Decree addresses several aspects of soil pollution, such as who bears responsibility, the obligation to clean up the land, and the procedure to be followed for the transfer of a site.⁸² The Soil Remediation Decree distinguishes between “current,” “historical,” and “mixed” soil pollution with regard to the remediation requirements and liability for the costs.⁸³ “Current” pollution refers to that created after October 29, 1995.⁸⁴ “Historical” pollution was created be-

⁷⁷ *Id.* The Flemish Public Waste Agency (FPWA) plays a very active role in brownfield redevelopment initiatives. *Id.*

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ See OVAM, Proefprojecten Brownfields, <http://www.ovam.be/jahia/do/pid/741>.

⁸¹ Flemish Decree of 22 February 1995 Concerning Soil Remediation 11,527–36 (Belgian State Gazette, Apr. 29, 1995), available at <http://forum.europa.eu.int/irc/opoce/ojf/info/data/prod/html/gaz1be.htm> [hereinafter Soil Remediation Decree]; see OVAM, Voluntary and Mandatory Soil Surveys and Remediation, <http://www.ovam.be/jahia/Jahia/pid/1274> (last visited Apr. 7, 2007) [hereinafter Soil Surveys]. The Soil Remediation Decree entered into force on October 29, 1995. OVAM, Soil Remediation in Flanders: New Policies and Strategies (June 1998), <http://www.ovam.be/jahia/Jahia/pid/991> (last visited Apr. 7, 2007). An unofficial English version of the Soil Remediation Decree is available at http://www.emis.vito.be/wet_ENG_navigator/bo.htm (last visited Apr. 7, 2007).

⁸² See Soil Surveys, *supra* note 81; see also Kurt Deketelaere & Michael G. Favre, *Environmental Law in Belgium: The Environmental Law System*, in ENVIRONMENTAL LAW IN EUROPE 65, 78–80 (Niels S.J. Koemun ed., 1999).

⁸³ Karen Aitchison et al., *Environmental Risks on Acquiring a Company in Possession of Contaminated Land*, 8 EUR. ENVTL. L. REV. 201, 202 (1999).

⁸⁴ *Id.*

fore that date, while “mixed” pollution is soil with both current and historical soil pollution.⁸⁵ Most brownfields will have historical contamination. For this kind of contamination, the legislator uses a fault-based liability regime, which means that if one searches for a liable party, he will have to be able to prove that the defendant was at fault.⁸⁶ Often such proof will be difficult in the case of very old soil contamination.⁸⁷

In 2001, the Flemish government modified the Soil Remediation Decree to deal specifically with brownfields.⁸⁸ Accordingly, the Flemish government, as well as the FPWA, can identify a brownfield site.⁸⁹ Every identified site is published in the Belgian State Gazette and registered with the FPWA.⁹⁰ A brownfield determination creates certain obligations for the parties concerned, including the obligation to carry out an exploratory soil investigation.⁹¹ The goal of the determination is to go beyond the parcel-based approach by working with a whole area rather than with small pieces of land. Consequently, all the parties concerned will have to work together to develop the whole site. Once a brownfield has been identified, according to article 48ter of the Soil Remediation Decree, the Flemish government can accept all settlements or agreements.⁹² Article 48ter therefore gives *carte blanche* to the government to develop a site as it sees fit.⁹³ The provision was inspired by section 122 of the United States’s Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).⁹⁴

With regard to the funding of brownfield redevelopment, in 2002 the Flemish government approved a Decree concerning the support of

⁸⁵ Soil Remediation Decree, *supra* note 81, art. 2, para. 4–6; Aitchison, *supra* note 83.

⁸⁶ See Aitchison, *supra* note 83.

⁸⁷ For example, proving fault might be difficult because of the state of the land at the time of the contamination, the lack of internal information on what exactly happened, or the cost of necessary investigations.

⁸⁸ Flemish Decree of 18 May 2001 that Modifies the Decree of 22 February 1999 Regarding Soil Remediation, on the Remediation of Sites 20,919–20 (Belgian State Gazette, June 19, 2001).

⁸⁹ *Id.*; see Soil Remediation Decree, *supra* note 81, art. 47ter. This chapter of the Soil Remediation Decree entitled “Sites” is available in English. See http://www.emis.vito.be/wet_ENG_navigator/bo7ter.htm (last visited Apr. 7, 2007).

⁹⁰ Soil Remediation Decree, *supra* note 81, §§ 2, 3 art. 47quinquies.

⁹¹ *Id.* §§ 1, 3 art. 47quinquies.

⁹² *Id.* art. 48ter. This chapter entitled “Powers of the Flemish Government” is available in English. See http://www.emis.vito.be/wet_ENG_navigator/bo8.htm (last visited Apr. 7, 2007).

⁹³ See Soil Remediation Decree, *supra* note 81, art. 48ter.

⁹⁴ Ontwerp Van Decreet, Betreffende de Bodemsanering, Stuk 587 (1993–1994) Nr. 1, at 45, available at <http://jsp.vlaamsparlament.be/docs/stukken/1993-1994/g587-1-.pdf>.

urban renewal projects,⁹⁵ as well as a Decree establishing the Flemish Town Fund.⁹⁶ Both decrees provide for subsidies for brownfield projects. Under the first decree, various cities in Flanders can obtain subsidies for urban renewal projects under certain conditions.⁹⁷ The Flemish government anticipates investing approximately €25 million to support these projects.⁹⁸ The objective is to stimulate the quality of the environment in a certain part of a town and to realize, on this basis, innovative projects.⁹⁹ Under the second decree, cities can conclude a covenant with the Flemish government to outline a sustainable town policy.¹⁰⁰ Along with these financial incentives, there are also very specific funds available for the remediation of the soil of brownfields.

CONCLUSION

It is clear that within the European Union, more and more Member States are searching for different measures to deal with soil remediation in general, and brownfields in particular. Soil remediation will demand tremendous investments. It remains unclear how these costs will be distributed among public authorities and the business community. The European Commission subsidizes—through the application of Structural Funding support—much site activities that take place on most brownfield redevelopment projects in Europe. However, no consideration is made of the methods used to redevelop the brownfield sites. The Commission should give urgent attention to introducing a set of sustainability criteria to guide structural funding towards sustainable brownfield projects.

Several governments, together with their administrations, have already taken different approaches to brownfield initiatives. Nevertheless, the shortage of knowledge and information regarding brownfield development creates myriad difficulties with the start up and realization of potential brownfield projects in the European Union. Therefore, the exchange of information based on experiences in the United States, as

⁹⁵ Decree of 22 March 2002 Concerning the Support of Urban Renewal Projects 19,041–42 (Belgian State Gazette, May 7, 2002).

⁹⁶ Decree of 13 December 2002 on the Determination of the Rules Concerning the Operation and the Division of the Flemish Town Fund 3657–59 (Belgian State Gazette, January 29, 2003).

⁹⁷ See Bernard Vanheusden, *Towards a Legal Framework in the EU for Brownfield Redevelopment*, EUR. ENVTL. L. REV. 178, 178–86 (2003).

⁹⁸ See *id.*

⁹⁹ See *id.*

¹⁰⁰ See *id.*

well as in the European Union, can be very fruitful. The redevelopment of brownfields definitely offers a major challenge for policy makers in the near future.

