

European Valuer Journal

ISSUE N°31
NOVEMBER 2023



**For valuers
'Green Deal'
means more
& better deals**

Tania Frank REV Civil Engineer

CONTENTS

EDITORIAL

What the European Green Deal means for valuation practice _____ page 3

REAL ESTATE VALUATION

#01 The Warsaw Mock Arbitration
Krzysztof Grzesik _____ page 4

#02 The greening of valuation practice – European insights from Portuguese regulatory and market experience
Luis do Carmo Benedito _____ page 5

#03 For valuers, ‘Green Deal’ means more and better deals
Tania Frank _____ page 6

EU REAL ESTATE AND VALUATION REGULATION

#04 Directive (EU) 2023/1791 on Energy Efficiency – Tipping point for the renovation of public buildings
_____ page 7

#05 Proposal for a Directive on Energy Taxation – The predictable Green Deal casualty
_____ page 8

#06 Proposal for a Directive on Soil Monitoring and Resilience – Beginning of the end of valuation reports’ contaminated site disclaimers?
_____ page 9

BUSINESS VALUATION

#07 Key customer risk
Samo Javornik and Marko Ploj _____ page 10

PLANT, MACHINERY & EQUIPMENT VALUATION

#08 Lifts, escalators and moving walks – How they affect value and how the valuer can verify it
Paulo Caldeira Martins _____ page 11

What the European Green Deal means for valuation practice

Massive and pervasive European Green Deal law impacts land and buildings: energy efficiency, renewable energy, rooftop solar energy installations, the greening of parking areas with smart electric charging and mandatory bicycle space, legislation on air, water and soil, the greening of construction products and technical building systems, buildings in the circular economy, EU taxonomy, green mortgages and financial institutions' and other industries' ESG obligations.

How is the valuer to distinguish and prioritise between all this?

One way is by applying certain criteria:

- ▶ the degree of coercion of EU law;
- ▶ its identifiable impact on real estate markets;
- ▶ and the scale and speed of impact.

Taken together, they lead to a two-tier valuation approach, because there is a fundamental difference between the latest Green Deal energy efficiency legislation and all the rest.

First tier: Energy efficiency. Direct and immediate impact on real estate markets and on the estimation of market value

Soon, energy efficiency constraints will transform markets by the blunt force of binding EU law: 3% of the entire public building stock (central, regional, municipal, offices, schools, hospitals, etc;) must be renovated to near-zero emission level every year, with special obligations also on private landlords renting to the public sector (See the article in this issue on the Energy Efficiency Directive). Minimum energy performance standards will impose renovation of vast segments of the entire building stock – public and private, residential and commercial – to a higher energy performance certificate class within very few years from now. There will be no ‘ifs’ or ‘buts’; hard EU law dictates how and by when the job will have to be done and it will concern millions of homes, offices and shops at the same time. This will finally break the deadlock of the secular annual renovation rate of 1 to 2% of the national building stock.

Valuers will not have the luxury of waiting and seeing. They will have to estimate the impact on market value of a building having to be renovated or, if it isn't renovated, not being sellable or rentable by a certain date and they will be helped in this by the rapid emergence of numerous comparables. That is why the extraordinarily far-sighted EVS 2020 already laid down ground rules for energy efficiency valuation and why the European Valuation Standards Board is going deeper in finding practical and cost- and time-effective ways for valuers to get a handle on this. And in this issue, Tania Frank demonstrates how, for valuers, energy efficiency law can open up new income-generating activity.

“Soon, energy efficiency constraints will transform markets by the blunt force of binding EU law”

Second tier: The gradual valuation impacts of sustainability issues and ESG

On the other hand, the other European Green Deal legislation is neither as coercive, as identifiable and quantifiable, nor as immediate in its effect as the energy efficiency laws. For example, construction products will indeed have to be greener, more circular. But on the ground that will be a very gradual process and how is a valuer supposed to identify that and integrate it into the determination of market value? Or again, this issue of EVJ analyses the draft Soil Monitoring and Resilience Directive and explains that increasing transparency of contaminated sites may raise some interesting valuation issues. Someday. Eventually. Maybe.

As for ESG, it's hit an EU policy roadbump. Under EU law, corporations have reporting obligations covering, not just a wide spectrum of climate, pollution, water, biodiversity and circular economy issues (E), but also worker and consumer issues (S) and business conduct (G). But confusing and divergent implementation has already caused such a business and political backlash that the European Commission had to pull back and regroup. Since June it has:

- ▶ published a *Proposal for a Regulation on the transparency and integrity of ESG rating activities for preventing conflicts of interest and having ESG ratings providers authorised and supervised* by the European Securities and Markets Authority to protect investors and market integrity
- ▶ announced in a *Communication* that it is “conducting a study to assess the current state of play of the social dimension of ESG investing in the EU, focusing on investment gaps, challenges faced by market participants and market practices. The study will explore ways to strengthen the social investment framework in capital markets, identifying obstacles and possible policy options for future action.” (footnote 35, p. 8.) That's the Commission's diplomatic and politically correct way of stating that it has serious issues with ‘S’ and that it is taking action. The title of the Communication says it all: “A sustainable finance framework that works on the ground”
- ▶ announced the tabling of legislation in 2024 postponing the Accounting Directive's sustainability reporting standards burden by two years
- ▶ announced further legislation adjusting the thresholds for the application of the Accounting Directive so as to spare one million companies from the reporting requirements
- ▶ started exploring ways of keeping large companies' sustainability reporting standards from ‘trickling down’ to the smaller companies servicing them (potentially valid for valuers servicing banks)

“As for ESG, it's hit an EU policy roadbump.”

For the building stock covered by these requirements (individual assets and portfolios of credit institutions and large corporations), how are valuers supposed to cost- and timeeffectively make sense of ‘E’, much less ‘S’ and ‘G’ in a value-relevant way?

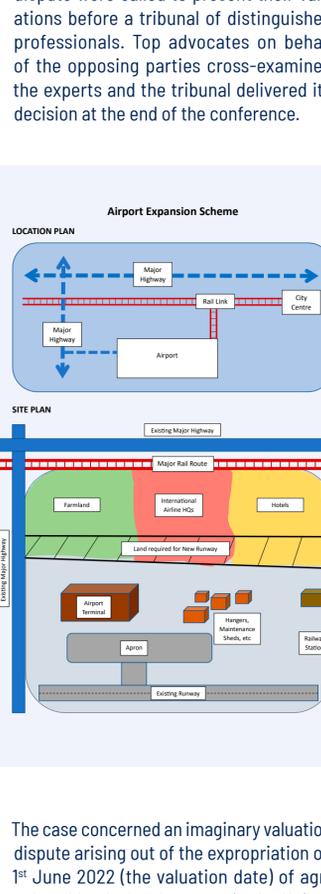
But that doesn't mean that wider sustainability issues are irrelevant to valuation, quite the contrary. In this issue, Luis do Carmo Benedito, taking a more macro-economic perspective, explains the *gradual* way that diverse sustainability factors going well beyond energy efficiency end up generating a public consciousness of sustainability-induced investment risks and opportunities that most definitely impact perceptions of value.

Michael MacBrien, Editor

REAL ESTATE VALUATION

#01

The Warsaw Mock Arbitration



Krzysztof Grzesik

A highlight of TEGOVA's European Valuation Conference in Warsaw on 16th June 2023 was a staged international tribunal hearing (mock arbitration). Its purpose was to demonstrate what an expert witness can expect in giving valuation evidence before such a tribunal. Experienced expert witnesses instructed by each side to the imagined compensation dispute were called to present their valuations before a tribunal of distinguished professionals. Top advocates on behalf of the opposing parties cross-examined the experts and the tribunal delivered its decision at the end of the conference.



The case concerned an imaginary valuation dispute arising out of the expropriation on 1st June 2022 (the valuation date) of agricultural land of 20 hectares in the United Kingdom for the purposes of the expansion of a neighbouring airport (see hatched area coloured green on the site plan).

The subject site was part of a larger 100 ha site acquired by a Polish investment fund, Logipol SA in 2009 for €1 million. Logipol SA was now seeking compensation of €45 million as against the acquiring authority's offer of €2.4 million.

It was assumed that pursuant to a treaty between the United Kingdom and Poland, Logipol was able to lodge a claim against the UK before an international arbitration tribunal. The parties had agreed that the measure of compensation should be Market Value as defined by European Valuation Standards (EVS).

The Tribunal and the Parties to the Dispute

The Tribunal was presided over by Professor **Magdalena Habbas** of the University of Silesia in Katowice, Faculty of Law & Administration. She was assisted by **Patrick Alessandrini**, President, International Association of Assessing Officers (IAAO) and **Alexander Weber**, MD, Immobilien- und Sachverständigenbüro, TEGOVA Board member.

The parties to the dispute were represented as follows:

Counsel for Claimant: **Ewelina Bzducha** and **Julia Jeleńska**, Attorneys, Clifford Chance Poland

Counsel for Respondent: **Marcin Kałduński**, Deputy Director, International and European Law Department of the General Counsel to The Republic of Poland

Expert Valuation Witnesses:

Paul Sanderson (for the Claimant), President, International Property Tax Institute

Colin Smith, (for the Respondent) Senior Director, CBRE (UK)

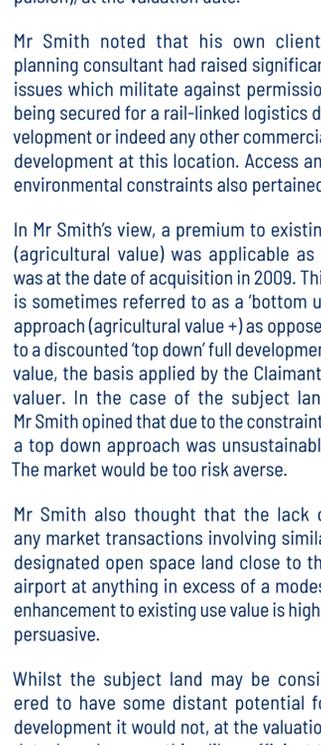
Prior to the hearing the parties exchanged their respective valuation reports and agreed the relevant facts.

It was agreed that the land owned by Logipol SA had no current zoning or other planning designation for any form of development.

It was agreed that the value of the subject land for its existing use as agricultural land was €1.2 million but €60 million if planning permission were obtained for commercial development.

It was not disputed that highway access to the airport was subject to traffic flow constraints at the junction of the highway and airport access road; these constraints were being remedied as part of a new runway proposal.

The area around the airport had been identified as having impaired air quality – both nitrogen oxide and particulate levels in excess of recommended levels.



Patrick Alessandrini, Magdalena Habbas, Alexander Weber

It was agreed that compensation for this type of acquisition is based upon the market value of the relevant interest in land as defined by EVS as follows:

"The estimated amount for which the property should exchange on the date of valuation between a willing buyer and a willing seller in an arm's-length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without being under compulsion."

This definition of market value necessarily incorporates the concept of "highest and best use" as set out in EVS 1 (para 4.3.4):

"The concept of 'highest and best use' (HABU) is integral to Market Value and is the use of a property that is physically possible, reasonably probable, legal or likely to become so, and that results in the highest value of the property at the date of valuation."

The position of the Claimant

Accordingly, Mr Paul Sanderson the expert witness for the Claimant, valued the property at €45 million on the basis of the market approach per EVS: In the Market Approach, the valuation is produced by comparing the property with the evidence obtained from market transactions that fulfil the criteria for the relevant basis of value and property type. (EVS Part II Methodology, para 4.5.)

As a starting point, Mr Sanderson adopted the agreed market value of the land with permission for commercial development.

This value was based on prices paid for undeveloped land with similar potential for commercial development and therefore based on the use of a market approach in accordance with the EVS methodology.

Thus, starting with the "full" development value of €60 million, Mr Sanderson considered how much of that value a (hypothetical) willing buyer would be prepared to pay for the land without current planning permission (or zoning designation), taking into account that we are also to assume a (hypothetical) willing seller as at the relevant valuation date.

Mr Sanderson noted that whilst in some cases it may be appropriate to "share" the difference between the existing use value and the hope value 50-50 between the willing seller and the willing buyer, in the case of the subject land, in his opinion, that approach would be incorrect and unfair to the current landowner.

Mr Sanderson relied upon a report prepared by an independent planning consultant who opined that the subject land would have likely secured planning permission in the foreseeable future with approval for rail-served logistics development, the owner's intended use.

That being the case, Mr Sanderson considered that the willing buyer would be prepared to pay 75% of the full development value of the subject land as at the valuation date. This approach was in line with many other cases he had dealt with in different parts of the world where the circumstances were similar.

As an alternative, Mr Sanderson deferred the full development value of the land for 3 years, the probable time according to the planning consultant required to secure planning permission for development of the land in the absence of the compulsory acquisition.

Taking the future value of the land at €60 million and deferring it for 3 years at 10% produced a value of €45 million, the same as his primary valuation based on 75% of the subject land's hope value.

Mr Sanderson noted that the EVS definition of HABU (...legal or likely to become so...) incorporates the concept of hope value which is generally accepted as the element of value of land over and above the existing use value, i.e. it reflects the prospect of potential development/alternative use.

Mr Sanderson concluded that this case involved exactly that proposition and, as already confirmed, his valuation was based on the evidence of potential development of the subject land as outlined in the independent evidence of the planning consultant.

The position of the Respondent

Mr Colin Smith's opinion was based on the application of HABU to the circumstances of this case. His approach was to adopt the market value of the land on the basis of its development potential, having regard to prices paid for strategic land/hope value assets as shown in his "Schedule of Comparables", a market value approach reflecting significant uncertainty as to

- (i) planning-land being identified as essential open space
- (ii) access and environmental constraints
- (iii) need for third party land to overcome access issue
- (iv) evidence of purchase price (13 years ago) when a premium of agricultural value was paid.

Starting with the agreed agricultural value of €1.2 million, Mr Smith considered how much any additional value a (hypothetical) willing buyer would be prepared to pay for the land without current planning permission (or zoning designation), taking into account the need to also assume a willing seller (i.e. neither party acting under compulsion), at the valuation date.

Mr Smith noted that his own client's planning consultant had raised significant issues which militate against permission being secured for a rail-linked logistics development or indeed any other commercial development at this location. Access and environmental constraints also pertained.

In Mr Smith's view, a premium to existing (agricultural value) was applicable as it was at the date of acquisition in 2009. This is sometimes referred to as a "bottom up" approach (agricultural value +) as opposed to a discounted "top down" full development value, the basis applied by the Claimant's valuer. In the case of the subject land, Mr Smith opined that due to the constraints a top down approach was unsustainable. The market would be too risk averse.

Mr Smith also thought that the lack of any market transactions involving similar designated open space land close to the airport at anything in excess of a modest enhancement to existing use value is highly persuasive.

Whilst the subject land may be considered to have some distant potential for development it would not, at the valuation date, have been anything like sufficient to overcome the open space designation.

In the circumstances Mr Smith's opined that the willing buyer would be prepared to pay a 100% premium of the agricultural value at the valuation date giving a sum of €2.4 million (twice the agricultural value).

Mr Smith criticised Mr Sanderson's approach for being unsubstantiated and failing to reflect adverse market sentiment and risk including the very significant costs of pursuing a planning application. In his view the evidence clearly showed that obtaining permission for such development would be extremely unlikely.

Decision of Tribunal

The Tribunal has carefully analysed the presented evidence and valuation reports. Experts agree that if planning permission had already been granted, the full development value of the site would amount to €60 million. The expert opinions diverge on the point of if and when planning permission to develop land will be granted. Although both experts agree that obtaining planning permission is not excluded, they differ as to their assessment of the risk involved in obtaining that permission, the time required to secure it, and the types of development that would be permitted. This inevitably influences their views on the level of hope value, which is inherent in the market value basis of valuation, the latter defined in EVS and applied in accordance with the highest and best use premise.

The Tribunal has rejected the presented top-down approach, based on the assumption that it would take 3 years to obtain planning permission and that an all risks yield of 10% sufficiently reflects the risks inherent in obtaining the permission. In the opinion of the Tribunal, this assumption is too optimistic, because it does not adequately consider the fact that due to environmental concerns (impaired air quality) the site is designated as open space, which makes zoning it for development more challenging. In addition, the capacity of communication roads, and location of the site without adequate commercial frontage also negatively impact the likelihood of obtaining a satisfactory planning permission for a robust commercial development without undue delay.

The cautious estimation of development potential is further supported by the fact that 13 years have passed since the acquisition of the plot, without any presented discernible progress towards a building permit. The pessimistic market expectation regarding a probable development, reflected in the "hope value" portion of the original purchase price, supports this conclusion.

For the above reasons, the Tribunal is of the opinion that the bottom-up approach is better suited to the facts of the case, because it reflects the relatively high uncertainty as to when planning permission would be granted and what type of development it would ultimately permit. It has also been established and follows from submitted evidence that the indicated range of value uplifts due to development potential is within the range of 100-300% of existing use value which is currently €1.2 million. The expert selected 200% based on his experience. However, agreeing with the claimant that the site is unique and is not often traded on the market, the Tribunal is of the opinion that the uplift should be accepted as the uppermost limit as shown by other transactions of land with development potential. For this reason, bearing in mind that the existing use value is €1,2 million, the market value, which includes hope value, should be accepted at €3,6 million.

Paul Sanderson, Ewelina Bzducha, Julia Jeleńska

Commentary by Krzysztof Grzesik

The purpose of the mock arbitration was threefold:

1. To demonstrate to valuers what they could expect as expert witnesses before an international arbitration tribunal. Many in the audience were already experienced court experts in their respective countries, but the cut and thrust of an arbitration hearing may have been a novelty to some.
2. To show that there is nothing unusual in experienced and reputable expert valuation witnesses defending valuations which are vastly different. This is common in international arbitration disputes and does not point to incompetent professionals.
3. To show how forensic cross examination could be the undoing of one or both expert witnesses.

In addition, at the heart of the chosen scenario was the controversial concept of Hope Value which when it appears is part and parcel of Market Value.

"...at the heart of the chosen scenario was the controversial concept of Hope Value which when it appears is part and parcel of Market Value."

Hope value is an additional amount over and above the legally permitted highest and best use value (often the existing use value) of a property that the parties to a transaction will agree in the expectation (hope?) that a more valuable use which is not permitted at the date of transaction will become so in the future. The additional amount will not bring the price paid up to the full value of the property with the benefit of the expected planning permission, but will reflect the risk that such permission may or may not be forthcoming.

It should be noted however that the words hope value no longer appear in European Valuation Standards.

EVS 1 defines Market Value as

"The estimated amount for which the property should exchange on the date of valuation between a willing buyer and a willing seller in an arm's-length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without being under compulsion."

EVS 1 para 4.3.4. then states that

"The concept of 'highest and best use' (HABU) is integral to Market Value and is the use of a property that is physically possible, reasonably probable, legal or likely to become so, and that results in the highest value of the property at the date of valuation."

The words *or likely to become so* above have been substituted for hope value, but the concept remains the same.

Notwithstanding what valuation standards may say, in many European jurisdictions hope value is treated with suspicion. Such views can lead to a claimant in an expropriation case suffering a grave injustice.

In the case under consideration the Tribunal took a cautious approach by accepting the existing use of hope value but nowhere near to that sought by the Claimant. There was no time in the mock arbitration to call planning experts but in a real case before an international tribunal, almost certainly their evidence would be crucial. Expert evidence on the likelihood of planning permission for commercial development being secured the length of time such process would take could sway the tribunal in coming to a more optimistic decision.

Krzysztof Grzesik REV FRICS is Chairman of TEGOVA.

#02

The greening of valuation practice

European insights from Portuguese regulatory and market experience



Luis do Carmo Benedito

In Portugal, valuers must navigate national transposition of EU energy and sustainability legislation, the property market's sometimes inventive interpretation of that legislation and the increasing green pressure of bank clients. All these factors must be taken into account in developing viable valuation solutions. For energy efficiency valuation, practitioners will need to adapt quickly to the heavy short- to medium-term EU obligations. Valuers will also need to take account of the broader, less regulated sustainability factors, but there will be more time to sift through the 'green noise' in selecting meaningful valuation inputs.

I. Energy Efficiency Valuation

The high impact of EU law on property markets

EU energy efficiency law has reached a tipping point, nowhere more so than for buildings where the old obligation to conduct energy efficiency renovations only when the owner freely decided to undertake a major renovation will soon be complemented and surpassed by binding legislation requiring renovation of entire segments of the building stock that are below a certain energy performance certificate (EPC) rating.

Until now, under the current legislation, buyers often chose partial renovations with a marginal cost and impact on energy efficiency, but under the new legal obligations, these partial solutions will no longer suffice.

That tipping point for buildings and their owners applies to valuation practice as well. The market impact will be so strong that we will have no choice but to adapt our procedures for determining market value accordingly, as EVS 2020 so presciently foresaw and pioneered. The question is how.

How the Portuguese real estate market has reacted to energy regulation so far

The problem of EPCs

What Portuguese transposition of the existing EU requirements has in common with the future EU rules is that in both cases the renovation requirements are triggered by EPC ratings, and here valuers must reconcile a normative ideal with the reality that market players have made of it.

For many years, Portugal has diligently implemented EU energy efficiency law, but the country also illustrates how market players bend the rules.

The evolving, ever-more demanding EU rules on new buildings are straightforward and since 2008 we have complied without difficulty. On a national EPC scale running from A+ to F, new residential must be at least A and commercial, B. EU requirements are met as B corresponds to 'near-zero energy'. I'm sure we'll have no difficulty meeting the new EU legal requirements for 'zero-energy' new buildings.

The difficulties appear with renovated buildings. Existing EU law requires energy efficiency renovation for all buildings undergoing 'major renovation'. So does Portuguese law, for renovations costing more than 25% of the total construction cost of the building, also in line with EU law. On the other hand, existing EU law does not specify the EPC rating the renovated building needs to reach. Portugal sets it at C.

“Portugal has diligently implemented EU energy efficiency law, but the country also illustrates how market players bend the rules.”

The problem is not the law, but the loopholes that market players have exploited.

As even major renovations are mostly indoor works, not visible from outside, no one declares them, unless there are tax and/or financial incentives, while in reality there is no control. As the law of supply and demand prevails and demand is greater than supply in the market for used buildings, the market in major urban areas does not see the value of differentiation between energy ratings. It is common to find apartments on estate agent websites with EPC rating B- and others with C or even D, mainly relating to totally remodelled properties and for similar areas and identical locations, with the same unit value per square metre of gross building area.

Residential units requiring total renovation can be seen for sale with EPC F and then other identical properties in the same location but totally remodelled also with EPC F.

It is also common to find residential units on the same estate agency websites for sale with an EPC designation "in progress" despite the legal obligation to declare the current rating of the property. In Portugal as in other countries, the EPC is only produced when the buyer and seller have reached agreement, just in time for inclusion in the file for the notary. The letter of the law is respected, but not its spirit. Above all, the EPC is not available when the mortgage valuer needs it.

“Given that the market does not differentiate between energy ratings, valuers cannot either, as otherwise they would be introducing a non-existent differentiation into the valuation.”

Energy classification versus market value

Given that the market does not differentiate between energy ratings, valuers cannot either, as otherwise they would, of their own free will, be introducing a non-existent differentiation into the valuation. As mentioned in EVS 2020, Part III, Valuation and Sustainability, Introduction 1.9: *“Valuers can only value on the basis of the market as it is, not hypothese about the future. This Part III of EVS 2020 is offered to assist valuers' awareness of and sensitivity to these issues and so their understanding of markets as they evolve.”*

Fortunately, the imminent revised Energy Performance of Buildings Directive may well lead to a quality improvement in the Portuguese 'EPC market' due to EPCs' increased renovation-triggering importance and greater prevalence (under the new EU law they'll be required not just for sale or rental but now also for renewal of rental contracts and major renovations).

II. Broader Sustainability Valuation

The second major valuation challenge is making sense of sustainability factors beyond energy efficiency.

In future, information on financial exposure to climate change will be extremely important, especially concerning the physical risks of residential mortgage exposure to flood risks and the impact of extreme climate events on sovereign risk and transitional risk, including exposure to carbon-intensive sectors and property loans with new energy efficiency risks.

A valuer may only give an opinion on value based on evidence, reflecting market experience, and declare that the property has a value assessed on the basis of currently available data. Even where environmental issues are significant in the market, much will depend on factors such as the state of the market, the transparency of information, location, sector, exposure to environmental risks in the region and consumer awareness. These issues are related to supply and demand, and so can be influenced by changes in the purchasing patterns of companies, investors and consumers. Over time, markets may come to differentiate between property values on the basis of environmental factors.

These changes would be considered as market phenomena, so there cannot be a general rule for the impact of such matters on values, rents and property income. It is essentially a question of knowing to what extent the evidence shows that an interested, knowledgeable, prudent bidder will take these factors into account when considering the price or rent of a property, given that entrepreneurial buyers of commercial buildings may not see such things in the same way as someone wishing to buy a house to live in. Where the supply of buildings is limited, the market may not make a distinction between properties based on sustainability. Nevertheless, **insofar as these factors begin to carry weight for buyers and tenants and more properties fulfilling the recognised sustainability criteria become available, the market may differentiate on the basis of this issue, perhaps initially when the market is weak.** Many questions may arise concerning the future. For example, will properties which comply with particular sustainability standards be more likely to see their value increase or will properties which do not meet them run a greater risk of being offered for sale on the market at discount prices in future? Only time will tell.

“Where sustainability issues are relevant to valuation, the valuer must gather and assess adequate information, to be taken into account in the valuation report, i.e. as aspects falling within the normal structure of the report”

Regulation may play a very important role, insofar as any restrictions on rental or use of property which does not meet particular specifications may also have a negative influence on values. An approach previously limited to the habitability of the property or the provision of basic services is now to be extended to energy efficiency and may yet be developed more widely. When markets move towards placing more value on sustainability, whether in respect of energy alone or a wide range of issues, this will be relevant for assessing market value.

Furthermore, as legislation, market sentiment and possibly taxation give ever greater weight to sustainability issues, the cost of bringing many existing buildings or construction projects up to standard becomes more relevant to valuation.

All existing valuation methods are adequate for valuing sustainable buildings and new ones are not needed. Comparable transactions offer the best proof of market willingness to pay for certain characteristics of buildings. When relevant factors have already been identified and assessed, they can be taken into account in valuations in the same way as any other specific factors.

Where sustainability issues are relevant to valuation, the valuer must gather and assess adequate information, to be taken into account in the valuation report, i.e. as aspects falling within the normal structure of the report. Taken together, the diversity of properties and constantly evolving nature of sustainability show that no general checklist can be exhaustive but, depending on the property, it may be relevant to consider some or all of the points on the following non-exhaustive list:

- ▶ Construction materials;
- ▶ Any contamination of the property, as in the case of industrial land for building;
- ▶ Risks of natural disasters, such as floods, earthquakes or avalanches;
- ▶ Compliance with the relevant construction standards;
- ▶ Insulation and associated features, such as sources of heat or types of windows and quality in terms of durability and construction standards;
- ▶ Nature and complexity of building services;
- ▶ Age and quality (efficiency) of the building's heating, cooling and other equipment and, as such, the viability of maintenance or replacement of specific components;
- ▶ Energy efficiency, rating and recommended measures for improving the building, sources of renewable energy and energy needs;
- ▶ Relevant certificates or ratings other than EPCs (BREEAM, LEED, etc.);
- ▶ Water efficiency, especially in places with scarce water resources, use of wastewater, water recycling, rainwater harvesting, etc.

To conclude

The progressive change from climate and environment-related political pressure is increasingly relevant for decisions on the use and value of property. Market prospects will reflect these factors: if buyers and renters deem them relevant, whether in response to physical facts, intuition, legislation or taxation. Property management and the respective cost structures will move to take account of these issues, perhaps especially because the life cycle cost may very often mean making the best possible use of existing buildings, renovating them to meet those needs, rather than replacing them with new buildings. Fundamentally, the market will continue to consider the usefulness of a property for its potential users, so that these issues will be taken into account together with the practical adaptability and flexibility of the space and facilities the building offers. Valuers have the task of understanding and interpreting these issues, applying their professional discernment to the available evidence to find the value of a property at a particular time, so that the client can take informed decisions.

Luis do Carmo Benedito REV is CEO of Beneges (engineering and valuation services), Vice President of ASAVAL, the Association of Valuation Companies and Valuers of Portugal, and Member of the European Valuation Standards Board.

#03

For valuers, 'Green Deal' means more and better deals



Tania Frank

The European Green Deal's transformation of the building stock is an historical opportunity for valuers to embrace change and offer their clients a high-growth, high-value new service: energy renovation diagnostics. Tania Frank explains how.

EVJ What led you to undertake energy renovation diagnostic activity?

TF Given that it has some of the most restrictive regulation in Europe¹ together with generous subsidies and loans², France ought to be at the forefront of the energy transition. And yet the market is only moving slowly as there is no real awareness.

It was EVS 2020 that inspired me to incorporate energy efficiency into my valuation reports; until then this had not had a significant impact on my estimate of the market value. I increasingly noticed that the buildings I assessed consumed a huge amount of energy unnecessarily, like huge colanders, and would, by 2030, suffer significant reductions in value. This led me to offer my clients an additional service, separate from valuation, namely an energy renovation diagnostic covering water, electricity, gas, consumables and waste.

The aim of the diagnostic is, above all, to identify energy consumption and to highlight waste and leaks and thus make clients aware of the importance of controlling these outflows to achieve significant savings and maintain the value of the property. Armed with this information, clients can begin the energy transition of their buildings.

What does the audit consist of?

The audit I offer my clients relates to office or retail and includes:

- ▶ A 360° overview of the building: actual operating areas and usage, types of consumption, equipment used, etc;
- ▶ Identification of the various sources of energy consumption with proposals for savings and optimisation;
- ▶ Proposed easy actions generating quick gains;
- ▶ Assistance in defining a customised action plan.

"How have you sold this to clients?"

"Via the valuation report. That's the beauty of the thing."

How have you sold this to clients?

Via the valuation report. That's the beauty of the thing.

As a starting point for any real estate valuation, clients must provide the necessary documentation for the task to be successfully carried out, such as the technical diagnostic file, the EPC and, since 2022, the annual certificate required by the Tertiary Decree. Indeed, for any commercial building, whether public or private, with an operating area of over 1,000 m², the owner or occupant must make an annual consumption declaration on the OPERAT (Observatory of Energy Performance, Renovation and Tertiary Actions) website of the ADEME (Environment and Energy Management Agency) and obtain a rating. Starting from a reference year chosen by the owner, the building's energy consumption must gradually decrease until 2030, the control year, reaching a total reduction of 40% compared with the reference year.

As a result, since 2022, since the Tertiary Decree, a huge number of the questions I've been asked during my real estate valuations relates to the certificate of energy consumption monitoring and its consequences, and specifically whether the property retains its market value. Most of my clients obtained their certificate via external bodies at the end of 2022, issued without any explanation or help in drawing up an action plan to achieve the Tertiary Decree's objective. I quickly realised there was a clear need for support and that the energy diagnostic was going to become a priority for these clients. The sharp increase in energy costs added momentum.

In practice, how does this work? Are the valuation report and the energy renovation diagnostic necessarily done in tandem and in a specific sequence?

There can of course be a valuation without a diagnostic, but no diagnostic without valuation because the diagnostic is intrinsically linked to the valuation – feeds off of it, as it were – which, by the way, makes it difficult for standard energy consultants to compete.

"There can of course be a valuation without a diagnostic, but no diagnostic without valuation"

The valuation report is the first stage. Based on the valuation, the property can be defined and positioned in the real estate market, taking into account its energy performance. Once the value of the property has been determined, it is easier to identify and prioritise the actions to be taken to ensure its energy efficiency and its value.

The second stage, enabled by the Tertiary Decree, is the energy diagnostic. By carrying out a more in-depth technical study of the building, a customised diagnostic can be created, with clear and rapid courses of action.

Armed with these two expert reports, clients can start the energy renovation and become part of the energy transition, while at the same time increasing the value of their property for the future.

How did you acquire the necessary knowledge and expertise?

A civil engineer by training, I worked in the Bouygues Construction Group for over a decade before studying real estate valuation at ICH (Institute of Law and Economics applied to Real Estate), Paris. After that, I set up as a freelance real estate valuer and have been at it for over 20 years now. Thanks to my studies, the technical factors of the buildings I assess have always weighed heavily in my analysis, and the opinions I give my clients on these issues have been much appreciated.

In November 2022, I took part in a Round Table discussion on the energy renovation of buildings organised by BPI France (Banque Publique d'Investissement), during which I discovered the Climate Plan (the Climate and Resilience Law, 2021). Immediately attracted by the subject, I followed e-learning modules offered by the BPI France University and the Schneider Electric University to better understand and handle the processes of energy renovation of buildings. The ADEME and CEMERA (French public body supervised by the Ministry of Ecology Transition) websites have also been a great help to me on a daily basis.

How have your qualifications and experience in real estate valuation helped you in learning about energy diagnostics?

As part of my work as a valuer, I often notice during building inspections that maintenance is neglected, the budget allocated to maintenance works is too low, and that, over the years, the property as a whole quickly becomes outdated, and then finally "drops out of the market", i.e. it no longer corresponds to occupiers' needs, the new way of working or the market standard. Consequently, its value is affected.

In my valuation reports, I therefore suggest to my clients that they plan work on the building envelope, optimise the operating areas, change certain equipment (such as heating or lighting) and thus increase the comfort of the occupants, while keeping within moderate costs. The energy diagnostic is the next step, and the one that helps my clients in their energy transition.

My training in energy renovation, reinforced by my engineering skills, enables me to have an in-depth technical knowledge of the building, both in terms of its operation and regulation, and its energy diagnostics and environment. The energy-saving solutions and action plan, which are drawn up in close cooperation with the head of operations and/or the manager, along with our numerous discussions, contribute to my continuous learning and enrich and hone my audit knowledge.

Do you think this new professional opportunity is feasible for valuers who are not civil engineers? What advice would you give to such people?

To be a civil engineer is ideal, but it's not the only option. There are other ways for valuers to gain the knowledge and skills to do this. The problem is that very few do, and that is actually a major drag on the whole renovation process. And yet, a lot of things are not rocket science. For instance, it's all very well to know that there are subsidies for different kinds of energy efficient renovation works or solar installation, but you need to have an understanding of these materials and their costs.

In France it's not always easy for valuers to get the requisite education and training. Our professional associations could help with this.

Of course, a valuer could theoretically subcontract the unmastered technical parts, but that would be a profit-kill.

How profitable is this activity relative to valuation?

I earn twice as much per hour, and the clients don't blink.

What would you say to a non-French reader who might think "Does this kind of service have as much scope for take-up in a country like mine that doesn't have such coercive energy regulation?"

If your country is EU or candidate EU, don't worry; it's around the corner.

"I earn twice as much per hour, and the clients don't blink."

¹ Specifically, the requirement to carry out a property diagnosis for selling a home, in the form of a technical diagnostic file (DDT), including an energy performance certificate (EPC, enforceable against the tenant, who can go back to the landlord to demand that the property be renovated) and the requirement to display a price range of the home's annual consumption; a home classified as G+ is deemed energy-indecent and rental is prohibited in its current state.

² MaPrimeRénov': financial assistance for works aimed to reduce energy consumption, VAT rate reduced to 5.5% for these works; assistance with the supply of energy; eco-PTZ (interest-free loan to finance energy-saving works up to an amount of €50,000)

Tania Frank REV Ingénieur BTP (Civil Engineer) is a real estate valuer practising in Eastern France and Member of the TEGOVA Recognition Committee, auditing REV-awarding TEGOVA member associations.

EU REAL ESTATE AND VALUATION REGULATION

European Parliament plenary seating arrangements

Council of Ministers staff are there as silent observers

European Commission officials are there to answer any questions from MEPs

#04 Directive (EU) 2023/1791 on Energy Efficiency – Tipping point for the renovation of public buildings



The European Green Deal contains several pieces of building-relevant legislation but only two are game-changers: the Energy Performance of Buildings Directive (EPBD) and this, the Energy Efficiency Directive (EED).

The EED is the first to emerge from the legislative pipeline. Months after final agreement by the Council of Ministers and the European Parliament, the final text has been produced in the 24 official languages of the EU and each language version has been reviewed by the European Commission’s legal linguists. It was published in the Official Journal of the European Union on 20 September 2023 and entered into force on the twentieth day after that. The deadline for transposition into national law of most articles including all those relevant to buildings is 11 October 2025.

Unlike the EPBD, this directive is not exclusive to buildings; other sectors like transport are covered. An important aspect is the new horizontal EU energy efficiency target: “Member States shall collectively ensure a reduction of energy consumption of at least 11,7% in 2030 compared to the projections of the 2020 EU Reference Scenario” (Art. 4(1)).

The game-changer for real estate and valuation is that “... each Member State shall ensure that at least 3% of the total floor area of heated and/or cooled buildings that are owned by public bodies is renovated each year to be transformed into at least nearly zero-energy buildings or zero-emission buildings” (Art. 6(1), par. 1).

The 3% annual renovation obligation has existed since the original directive of 2012, but the game-changers are that:

- ▶ It used to apply only to central government buildings and now applies to buildings at all levels of government (central, regional, municipal).
- ▶ In the original directive, the obligation was only to renovate to the minimum energy performance requirements of the EPBD whereas now it is to nearly-zero energy building level.
- ▶ The original directive didn’t cover privately owned buildings rented out to by public bodies. Now “Where public bodies occupy a building that they do not own, they shall negotiate with the owner, in particular when reaching a trigger point such as the renewal of rental, change of use, significant repair or maintenance work, with the aim of establishing contractual clauses for the building to become at least a nearly zero-energy building or zero-emission building.” (Art. 6(1), par. 4).

“The public buildings that are not part of the 3% yearly renovation cull do not get off scot-free.”

NB: The public buildings that are not part of the 3% yearly renovation cull do not get off scot-free. They have to conform to the existing EPBD’s energy performance requirements triggered by major renovations and also to the coming EPBD’s minimum energy performance standards requiring renovation of whole segments of the building stock – private and public – to higher EPC classes by certain dates (the tightest EPBD deadlines are for public buildings).

A potentially historic breakthrough if it comes to fruition is the first ever provision in EU law for significant EU funding for building renovation:

“The Commission shall evaluate whether an energy efficiency mechanism at Union level, with the objective of providing a Union guarantee, technical assistance and associated grants to enable the implementation of financial instruments, and financing and support schemes at national level, could support in a cost-effective way the achievement of the Union energy efficiency and climate targets, and, if appropriate, propose the establishment of such a mechanism.

To that end, the Commission shall submit by 30 March 2024 a report to the European Parliament and to the Council, accompanied, where appropriate, by legislative proposals.” (Art. 30(16))

Energy efficiency first principle (for public and private projects)

“... Member States shall ensure that energy efficiency solutions, including demand-side resources and system flexibilities, are assessed in the planning, policy and major investment decisions of a value of more than EUR 100 000 000 each... relating to... buildings...” (Art. 3(1)(b))

Such an assessment obligation is doubtless easy enough to bear for a €100 million+ property development project.

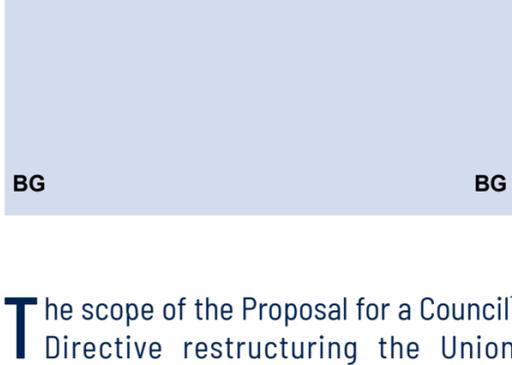
¹ “at least nearly zero-energy buildings” and “or zero-emission buildings” are window dressing; the only binding obligation is to nearly-zero.

² There is a change vis-à-vis the political agreement between Council and Parliament that seems like far more than a legal-linguistic toilettage. The text of the political agreement ended with “which may be followed, if appropriate, by a legislative proposal”. Now it’s “accompanied, where appropriate, by legislative proposals”. One understands the concern of the legal linguists – a piece of EU law is not supposed to contain a vague statement about something that might happen in the future independently of the Directive. The practical difference, however, is that the time pressure on the Commission is far greater; now it has to produce both the report and any legislative proposal within six months.

EU REAL ESTATE AND VALUATION REGULATION

#05

Proposal for a Directive on Energy Taxation – The predictable Green Deal casualty



The scope of the Proposal for a Council Directive restructuring the Union framework for the taxation of energy products and electricity is described on the next page. Briefly, this recast of the 2003 Directive are described in the box on the next page. Briefly, the recast would reverse the current tax system by applying the lowest tax rate to electricity, biofuels and renewable fuels and the highest rate to fossil fuels and would clamp down on fossil fuel tax exemptions and reductions.

The Proposal is in serious trouble. There are reports of ‘Green Deal fatigue’ in both Council and Parliament, but the main obstacle is unanimity voting on tax matters. The EU has recently demonstrated that it can do great things by unanimity, but only when plague or war is at the door. Climate change is just as existential, but the difference is that the fate of the Green Deal doesn’t hang on this Directive, and all the essential legislation is being agreed by qualified majority voting (QMV²). The proof that the voting procedure is the decisive factor here is that extension of the EU Emissions Trading System to buildings and transport was just as tough on consumers as this Directive’s tax shift would be, but it got through anyway thanks to QMV³.

“... the main obstacle is unanimity voting on tax matters.”

By the end of last year, the Czech Presidency had actually done good work on compromises most member states could live with (see [Presidency Note, in particular section 9, p. 4](#)), but that’s not good enough when every government has a veto. Meanwhile, the Swedish and Spanish Presidencies seem to have put it on the backburner despite the fact that no one in civil society seems to have a problem with it, not even the fuel industry which sees it as a good incentive for renewable fuels.

It is now almost certain that the file won’t progress in time to benefit from the Green Deal impetus and will likely take years or even be shelved as was the case with the previous attempt at amending this 20-year-old Directive.

The Proposal for a Council Directive restructuring the Union framework for the taxation of energy products and electricity (recast)

This Proposal is part of the European Green Deal legislative package, and its main purpose is to reverse the impact of the existing Directive which actually favours fossil fuels. The new Directive would achieve this by:

- ▶ setting higher rates for fossil fuels and lower rates for renewables products;
- ▶ reviewing the possibility of tax reductions and exemptions which currently lower the taxation of fossil fuels.

These objectives are to be achieved by:

- ▶ switching from volume to energy content-based taxation;
- ▶ eliminating incentives for fossil fuel use; and
- ▶ introducing a ranking of rates according to their environmental performance. From highest to lowest:
 - ~ The highest rate applies to conventional fossil fuels, such as gas oil and petrol.
 - ~ The next category of rates applies to fuels that are fossil based but are less harmful and still have some potential to contribute to decarbonisation in the short and medium term. 2/3 of the reference rate applies for example to natural gas, LPG and hydrogen of fossil origin for a transitional period of 10 years. Thereafter this rate will increase to the full reference rate.
 - ~ The next category is that of sustainable but not advanced biofuels. To reflect their contribution to decarbonisation, 1/2 of the reference rate applies.
 - ~ The lowest rate applies to electricity, regardless of its use, advanced biofuels, bioliquids, biogases and hydrogen of renewable origin. The rate applicable to this group is set significantly below the reference rate as electricity and these fuels can drive the EU’s clean energy transition.

In some sectors, mainly in those that may currently benefit from total exemptions including heating fuels for *non*-vulnerable households, transition periods will apply to mitigate the economic and social costs of introducing taxation.

The proposal also introduces the possibility to exempt vulnerable households from taxation of heating fuels for a period of maximum ten years.

Note that:

‘vulnerable households’ shall mean households significantly affected by the impacts of this Directive which, for the purpose of this Directive, means that they are below the ‘at risk of poverty’ threshold, defined as 60% of the national median equivalised disposable income. (*Art. 17(c), subparagraph 3*)

The Impact Assessment states the obvious that the impact will be felt most in member states with low effective⁴ tax rates on households (the lower income member states + Belgium).

¹ Council Directive’ and not ‘Directive of the European Parliament and of the Council’ because on tax matters Parliament can issue an Opinion but has no power to amend the Commission Proposal and negotiate with Council

² A qualified majority is reached if two conditions are simultaneously met:

- 55% of member states vote in favour – in practice this means 15 out of 27
- the proposal is supported by member states representing at least 65% of the total EU population.

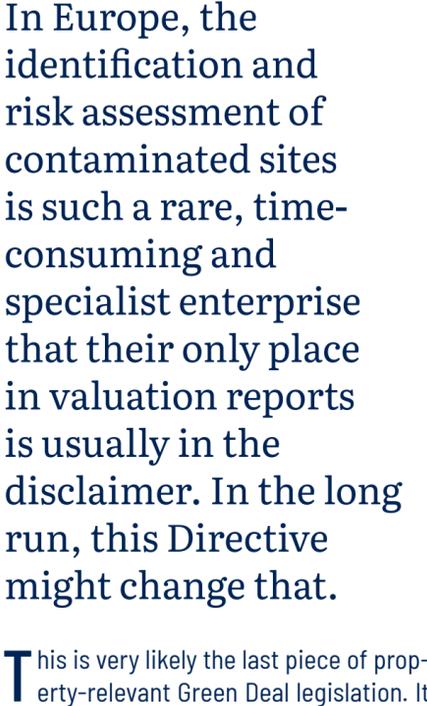
³ In practice, Council usually ends up deciding by consensus, but only thanks to the threat of QMV.

⁴ taking account of reductions and exemptions

EU REAL ESTATE AND VALUATION REGULATION

#06

Proposal for a Directive on Soil Monitoring and Resilience – Beginning of the end of valuation reports’ contaminated site disclaimers?



EN EN

In Europe, the identification and risk assessment of contaminated sites is such a rare, time-consuming and specialist enterprise that their only place in valuation reports is usually in the disclaimer. In the long run, this Directive might change that.

This is very likely the last piece of property-relevant Green Deal legislation. It fills an important EU policy gap as there is no soil equivalent to the dedicated air and water legislation¹.

The Directive lays down what is healthy and unhealthy soil and requires the authorities to identify the unhealthy areas in each soil district and inform the public. Member states have to define sustainable soil management and regeneration practices for gradual implementation, presumably by the owners. Land take² is to be avoided, reduced and compensated “as much as possible”.

“The Directive’s provisions – in particular on registers of contaminated and potentially contaminated sites and on a soil health certificate – may make it feasible to cover site contamination in valuation reports”

The Directive’s provisions – in particular on registers of contaminated and potentially contaminated sites and on a soil health certificate – may make it feasible to cover site contamination in valuation reports:

1. Regulation of contaminated sites

- ▶ **Identification:** “Member States shall systematically and actively identify all sites where a soil contamination is suspected based on evidence collected through all available means (‘potentially contaminated sites’).” (Art. 13(1)). Paragraph 2 contains a list of priority risky operating activities defined in other Directives.
- ▶ **Investigation:** All potentially contaminated sites identified must be subject to soil investigation (Art. 14(1)). Member states must lay down rules on the deadline, content, form and the prioritisation of the soil investigations (Art. 14(2)). **Member states must also establish specific events that trigger an investigation** before the deadline (Art. 14(3)). Recital 45 states that “Such triggering events *may include the request or review of an environmental or building permit or an authorisation required pursuant to Union legislation or national legislation, soil excavation activities, land use changes or land or real estate transactions.*”
- ▶ **Risk assessment:** Member states must lay down a methodology for determining the site-specific risks of contaminated sites based on phases and requirements in Annex VI (Art. 15(1)).
- ▶ **Management:** On the basis of the outcome of the risk assessment, the authority must take measures to bring the risk to an acceptable level (Art. 15(4)). Annex V contains an indicative list of measures.
- ▶ **Registration:** The authorities must draw up a register of contaminated and potentially contaminated sites (Art. 16(1)) containing the information set out in Annex VII (Art. 16(2)). The Directive would give the European Commission power to establish the format of the register (Art. 16(5)).

“The authorities must draw up a register of contaminated and potentially contaminated sites”

2. The soil health certificate

A Proposal for an EU Directive is preceded by an Impact Assessment (IA) drafted by consultants. The IA lays down a series of four or five policy options by order of increasingly heavy obligations on member states and citizens. **When the consultants got to the stage of weighing all the options, they discarded the soil health certificate** because, inter alia (in their words):

- ▶ Competent authorities don’t have the resources to set up a well-functioning certification system, leading to delays or ineffective systems (e.g. long waiting times to obtain certificates, lack of information on the processes to follow when someone seeks to sell a property, etc.) *Sounds like they studied the history of the Energy Performance of Buildings Directive’s energy performance certificates (EPCs).*
- ▶ Not enough laboratories able to get an accreditation to perform the tests, leading to high costs / backlogs.
- ▶ The voluntary nature of the system may affect its uptake. In cases where landowners know the soil is contaminated, they may just decide not to obtain a certificate and tell prospective buyers that the test was not undertaken and give a plausible explanation as to why this was not the case.

IA, Part 3/5, pp. 496-497, screen pp. 332-333)

Plus:
“... The largest administrative burdens would fall on Member States who would incur several costs, including: designing and developing the policy framework (content of certificate, format, etc.); setting up and managing a database containing information needed for the Certificate to function (IT development, logistics to log all data onto the platform, ongoing maintenance costs); and reporting costs ...” (IA, Part 3/5, p. 635, par. 2, screen p. 471)

And yet, the Commission overrode the IA and put this in the Proposal for a Directive anyway:

“Member States shall set up a mechanism for a voluntary soil health certification for land owners and managers pursuant to the conditions in paragraph 2³ of this Article.

The Commission may adopt implementing acts to harmonise the format of soil health certification.”

(Article 9(5))

The Council of Ministers and the European Parliament may kill the soil health certificate when they amend the European Commission’s Proposal because of the high administrative effort and cost, all for a certificate that owners would be under no obligation to obtain and pay for. Nor are they likely to contemplate ‘making it worthwhile’ by making the certificate mandatory, creating a new burden for owners at the very same time as an explosion in building renovation requirements founded on a vast expansion of EPCs.

Which doesn’t mean that soil health certificates aren’t potentially worthwhile:

“In Belgium, more than 1,600 sites contaminated with Mercury were identified as a result of its stringent contamination laws which mandate soil investigation for all potentially polluting risk activities before the land can be sold. By comparison, other Member States claim to have no sites contaminated with Mercury. Reporting this example, the SWD⁴ of the Soil Strategy states that there is no reason to believe that Belgium is “dirtier”, which suggests that contamination is underreported – rather than inexistent – in other countries, and at the same time highlights the role of the soil certification system in identifying contaminated sites.” (IA, Part 3/5, bottom p. 494, screen p. 330)

The Soil Monitoring Law in a nutshell

Under the Proposal for a Directive, member states would have to:

- ▶ Monitor and assess soil health
- ▶ Define sustainable soil management and regeneration practices. The Directive’s inference is that implementation of the practices will fall to the landowners and managers.
- ▶ Identify and investigate potentially contaminated sites and establish specific events that trigger an investigation. Two of the suggested triggers are requests or reviews of building permits and land or real estate transactions.
- ▶ Assess the risk of the contaminated sites
- ▶ Take measures to bring the risk to an acceptable level
- ▶ Register the contaminated sites, and
- ▶ Set up a mechanism for a voluntary soil health certification for landowners and managers

¹Even though a vast amount of EU law already impacts soil: agricultural legislation, Natura 2000, river basin management, drought management, the Proposal for a Nature Restoration Regulation that right wing parties in Parliament tried and failed to kill this summer, natural habitat conservation, nitrate pollution policy, water and flood risk policy, GHG emission from land use policy, etc.

²“the conversion of natural and semi-natural land into artificial land” (Art. 3(17))

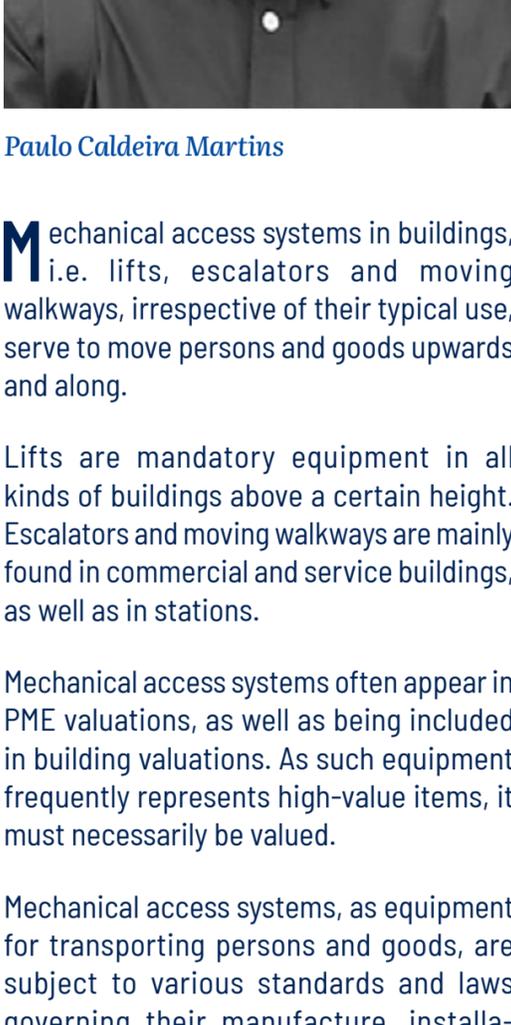
³ The paragraph setting out what is and is not healthy soil

⁴ [Commission] Staff Working Document covering the IA for the “EU Soil Strategy to 2030” that preceded this Proposal for a Directive

PLANT, MACHINERY & EQUIPMENT VALUATION

#08

Lifts, escalators and moving walks – How they affect value and how the valuer can verify it



Paulo Caldeira Martins

Mechanical access systems in buildings, i.e. lifts, escalators and moving walkways, irrespective of their typical use, serve to move persons and goods upwards and along.

Lifts are mandatory equipment in all kinds of buildings above a certain height. Escalators and moving walkways are mainly found in commercial and service buildings, as well as in stations.

Mechanical access systems often appear in PME valuations, as well as being included in building valuations. As such equipment frequently represents high-value items, it must necessarily be valued.

Mechanical access systems, as equipment for transporting persons and goods, are subject to various standards and laws governing their manufacture, installation and maintenance. Failure to comply with standards or legal requirements can prevent them from operating, meaning that expensive rehabilitation work or even replacement may be required. When it comes to mechanical access systems, the valuer must be prepared to undertake analysis of their operability, which should include the following elements:

- ▶ Checking the existence of a valid maintenance contract with an accredited company responsible for maintaining the mechanical access systems under valuation;
- ▶ Checking the records of the periodic inspections carried out, to confirm that the systems conform to the technical standards (approval).

Since these prerequisites must be met if the equipment is to go into public use, verification of their existence mitigates the risks of errors in the valuation.

Once the conformity and operability of the systems has been confirmed, the valuer will need to continue with the valuation method selected to determine value and may consult the European Plant, Machinery & Equipment Valuation Standards (EVS-PME).

Directive 2010/31/EU on the energy performance of buildings contains provisions on building technical systems and their respective application depending on the type of use. ISO Standard 25745 – *Energy performance of lifts, escalators and moving walks* classifies the energy efficiency of lifts, escalators and moving walks in three parts:

- ▶ *Part 1: Energy measurement and verification*
- ▶ *Part 2: Energy calculation and classification for lifts (elevators)*
- ▶ *Part 3: Energy calculation and classification for escalator and moving walks*

Based on the EN ISO 25745 calculation methodology, EU member states went on to lay down Minimum Efficiency Requirements for all categories of lifts, escalators and moving walks.

Type of equipment	Minimum energy efficiency class	Methodology
Lifts	B	ISO 25745-2
Hydraulic lifts	C	ISO 25745-2
Escalators and moving walks	A	ISO 25745-3

Example of Portuguese legislation

Portuguese legislation transposing Directives (EU) 2018/844 and 2019/944 was passed to ensure not just maximum energy efficiency, but also maximum adaptability of the technical systems installed in buildings. This legislation approves the compulsory content of the components of the detailed design, known as “Instructions for the preparation of works projects”, classifying works by category. Sections were established within the technical systems installed in buildings, including the category: **Facilities, equipment and systems for the transport of persons and goods**. Subsequently, a requirement was introduced for lift, escalator and moving walk projects to **prepare traffic simulations for different scenarios, known as “Traffic Studies”** at design stage.

How to proceed

In an EVS-PME or EVS valuation involving mechanical access systems, the valuer must confirm the system’s operability, by consulting the following elements of the technical documentation on each piece of equipment:

- ▶ Valid maintenance contract with an accredited company
- ▶ Records of the periodic inspections made, confirming that the latest inspection demonstrated conformity with the technical standards (approval)

It is important to obtain confirmation of its energy efficiency class, calculated according to ISO 25745, by consulting the following element of the technical documentation on each piece of equipment:

- ▶ Declaration of conformity referring to the equipment’s energy efficiency class

Technical systems installed in a building need to have a good energy efficiency rating, because this will influence the efficiency rating of the building itself, and it is important for them to comply with legislation.

For traffic studies, valuers can make use of the tools offered by manufacturers for the real-time monitoring and technical management of lift and escalator systems, so as to establish their traffic performance, availability and operational status, in addition to the characteristics and requirements of the equipment.

All these data will give the valuer indications as to the actual status of the PME under valuation, underpinning the report on the operability, statutory and regulatory compliance and energy efficiency class of the equipment. Some of the information gathered may be mentioned in the valuation report.

Paulo Caldeira Martins REV-PME is a member of the European Plant, Machinery & Equipment Valuation Standards Board. He is a specialist engineer representing the electromechanical core business of the Metropolitano de Lisboa Company (Lisbon Underground), responsible for projects and works for the rehabilitation of stations and equipment. He also collaborates with ANAI - National Association of Real Estate Appraisers as co-author and trainer of the Course on Valuation of Machines, Equipment, Technical and Industrial Installations and is co-author of the E-book AMEITI - Machinery, Equipment, Industrial Technical Installations, within the High Value Innovation and Sustainability programme, promoted by ANAI.



TEGOVA

**To contribute an
article or to send
a letter to the
editor commenting
on one, contact
info@tegova.org**

Editor: Michael MacBrien

www.tegova.org