

# Construction industry legal risk identification for SMEs

Jennifer Charlson<sup>1</sup>

Chike Oduoza<sup>2</sup>

Building information modelling and regulation; Construction contract; Dispute Resolution; European Union; Legal risk; Procurement; SMEs

## 1 Introduction

### 1.1 Risk management for SMEs in the construction industry

Small and medium-sized enterprises (SMEs) represent 90% of all businesses in the EU.

SMEs are defined by their headcount and turnover:

- Medium-sized: less than 250 staff and turnover less than 50 million euros
- Small: less than 50 staff and turnover less than 10 million euros<sup>3</sup>

The construction sector is one of Europe's biggest industries, accounting for 10% of Gross Domestic Product directly employing 12 million EU citizens with 26 million workers dependent on the sector.<sup>4</sup>

Kwawu and Hughes<sup>5</sup> explain that the UK construction industry includes a very large number of small and medium-sized specialist firms with many strategies for the client to procure design or construction work. Hwang et al.<sup>6</sup> advocate risk management should be implemented in construction projects, regardless of project size. They report, from their questionnaire survey, a relatively low level of risk management implementation in

---

<sup>1</sup> MA (Oxon), MBA, FHEA, CEng, FIET, Solicitor, Senior Lecturer, Faculty of Engineering and Science, University of Wolverhampton

<sup>2</sup> PhD, CEng, FICHEM, Professor, Faculty of Engineering and Science, University of Wolverhampton

<sup>3</sup> Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (Text with EEA relevance) (notified under document number C(2003) 1422)

<sup>4</sup> European Parliament (2010) *Report calls for boost to construction industry through open markets* [online]. Strasbourg: European Parliament. [Accessed 9 December 2015]. Available at <http://www.europarl.europa.eu/sides/getDoc.do?type=IM-PRESS&reference=20101008STO86176&format=XML&language=EN>

<sup>5</sup> Kwawu, W. and Hughes, W. (2005) The impact of relational contracting on the construction industry. In: Khosrowshahi F (Ed) *Procs 21st Annual ARCOM Conference*, 7-9 September 2005, SOAS, University of London. Association of Researchers in Construction Management, Vol.2, pp.1195-204

<sup>6</sup> Hwang, B., Zhao, X. and Toh, L. (2014) Risk management in small construction projects in Singapore: Status, barriers and impact *International Journal of Project Management* **32**, pp.116-124

small projects but also a positive correlation between risk management implementation in such projects and improvement in quality, cost and schedule.

Forbes et al.<sup>7</sup> developed two decision support tools for selecting appropriate risk management techniques in the built environment. They explain that the first stage of risk management identification. Subsequent stages include analysis followed by response and monitoring. Edwards and Bowen<sup>8</sup> advocate their preferred definition of risk as “*the probability that an adverse event occurs during a stated period of time.*” They propose a source-based approach to classifying construction risks with natural and human systems as the two main causes and identify legal risk as included in human risks. In addition, Odimabo and Oduoza<sup>9</sup> reviewed the literature and existing models for evaluating risk especially in the construction sector to develop a framework for risk assessment of building projects in construction firms. Their proposed framework incorporates legal risk. The focus of this article is the identification of construction-specific legal risks for SMEs in Europe.

## 1.2 European Union

This research contributes to an EU-funded Marie Curie Industry-Academia Partnerships and Pathways Project: “*Risk Management Software System for SMEs in the Construction Industry (RiMaCon)*”. The project aims to develop, test and validate a cost-effective and user-friendly risk management system for SMEs in the construction sector.

The European Economic Community was founded by the Treaty of Rome in 1957 with the objectives of free movement of capital, goods, persons and services. The single market was implemented by the 1992 Maastricht Treaty which established the European Union (EU) and provided a framework for co-operation on foreign and security policy, justice and home affairs. The operation of the EU has been refined by subsequent

---

<sup>7</sup> Forbes, D., Smith, S. and Horner, M. (2008) Tools for selecting appropriate risk management techniques in the built environment. *Construction Management and Economics* **26**(11), pp.1241-1250

<sup>8</sup> Edwards, P. and Bowen, P. (1999) Risk and risk management in construction projects: concepts, terms and risk categories re-defined. *Journal of Construction Procurement* **5**(1), p.44

<sup>9</sup> Odimabo, O. and Oduoza, C. (2013) Risk Assessment Framework for Building Construction Projects' in Developing Countries *International Journal of Construction Engineering and Management* **2**(5), pp.143-154

Treaties of Amsterdam, Nice and Lisbon<sup>10</sup>. European legislation originates from the Council and the European Commission primarily as Directives or Regulations. Regulations have direct binding effect on all Member States and so include comprehensive provisions. Furthermore, *Kipgen (nee Klensch) v Secetaire d'Etat a l'Agriculture et a la Viticulture*<sup>11</sup> ruled that Member States are bound by the general principles of Community law when implanting Community Regulations. By contrast, Directives stipulate the intended outcome which is to be implemented by legislation by each Member State. The Court of Justice of the European Union (formerly the European Court of Justice) interprets and applies EU law.<sup>12</sup>

### 1.3 Construction legal risk identification

The aim of this research was to identify construction-specific legal risks relevant to SMEs in Europe with a view to manage them. The major objectives of the study are:

- a) To carry out a critical review of the literature in order to appreciate the level of identification and understanding of legal risks encountered in the construction sector;
- b) To undertake case studies of selected SMEs operating in the construction industry to have a deeper understanding of their exposure to legal risks and how they manage them; and
- c) Through the forum of a workshop organised for construction sector SMEs interview a focus group representing professionals in the construction industry.

It is assumed that data obtained from these studies will provide useful information about legal risks encountered in the construction sector.

A critical literature review was undertaken and the themes that emerged included procurement, building information modelling and regulation and construction contract issues including delay, claims and dispute resolution. However, the literature revealed limited focus on European SMEs' experience of these issues.

---

<sup>10</sup> Wild, C. and Weinstein, S. (2013) *Smith & Keenan's English law*. 17<sup>th</sup> ed. Harlow: Pearson

<sup>11</sup> (201/85) [1986] E.C.R. 3477

<sup>12</sup> Uff, J. (2009) *Construction Law*. 10<sup>th</sup> ed. London: Sweet & Maxwell

## 2 Literature Review

A critical literature review of construction-specific legal risks identified the following topics: procurement, building information modelling and regulation and construction contract issues including claims, delay and dispute resolution. As this research has an EU focus, EU relevant papers were sought and those reviewed included Belgian, Danish, Dutch, French, German, Irish, Italian, Portuguese and Spanish perspectives. Although possibly relevant, environmental and health and safety law and insolvency are not considered in this literature review.

### 2.1 Procurement

In a construction project life-cycle, an early legal challenge faced by an SME in the construction industry is procurement. Marique<sup>13</sup> comparatively analysed the English and Belgium legal systems to demonstrate the complexity of public sector procurement of construction projects. She explains that “*Procurement relates to the diffuse relationships between market players in their race towards a contract*”. For a construction project, clients have their choice of many different procurement routes including traditional, design and build, management contracting, collaborative acquisition and the private finance initiative<sup>14</sup>.

Procedures for the award of public works contracts, public supply contracts and public service contracts are governed by the EU Public Contracts Directive (2014)<sup>15</sup>. The European Court of Justice has emphasised that public procurement primarily aims to ensure undistorted competition<sup>16</sup>. For example, in *Emm G Lionakis v Dimos Alexandroupis*<sup>17</sup> the European Court of Justice held that a Greek municipal council had

---

<sup>13</sup> Marique, Y. (2013) Cooperation and competition in complex construction projects: implementation of EU procurement rules in England and Belgium. *International Journal of Law in the Built Environment* 5(1), pp.60

<sup>14</sup> Charlson, J. and Chinyio, E. (2013) A case study of the joint procurement and provision of legal services to a group of universities in the Midlands. In: *Smith, S and Ahiaga-Dagbui, D. (Eds) Procs 29th Annual ARCOM Conference, 2-4 September 2013, Reading, UK. Association of Researchers in Construction Management*, pp.493-502

<sup>15</sup> Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement

<sup>16</sup> Marique, Y. (2013) Cooperation and competition in complex construction projects: implementation of EU procurement rules in England and Belgium. *International Journal of Law in the Built Environment* 5(1), pp.53-70

<sup>17</sup> (2008) C.I.L.L. 2573

contravened the Public Works Directive<sup>18</sup> by further defining the weighting factors within the award criteria during the tender evaluation process.

Procurement policies change for example, in the Netherlands, the exposure of collusion influenced procurement policy and cooperation between client and contractor for a number of years<sup>19</sup>. Bologna and Nord<sup>20</sup> reviewed changes in public sector procurement codes and relationships within the construction industry in Italy. They report that as a response to corruption, the Italian building sector operates under new regulations for the awarding of contracts for public works. The basic objectives of the legislative reform included transparency and competition. ANCE (Associazione Nazionale Costruttori Edili), the long-established association primarily composed of medium and small firms sees the transparency as a positive factor for an increase in their work.

Kwawu and Hughes<sup>21</sup> suggest relational contracting to facilitate collaborative working relationships. However, Challender et al.<sup>22</sup> report in the results of their qualitative study that in the context of austerity, construction clients have returned from collaborative working practices to traditional competitive procurement methods based on lowest cost. Moreover Waara<sup>23</sup>, who conducted semi-structured interviews with procurement officers regarding the selection of construction contractors in 10 local authorities in Sweden, warns that for most public sector purchasers, open competitive tendering is legally mandatory.

---

<sup>18</sup> Directive 2004/18/EC of the European Parliament and of the Council of 31 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts

<sup>19</sup> Boes, H. and Doree, A. (2013) Public procurement at local level in the Netherlands: towards a better client-contractor cooperation in a competitive environment. In: *Smith S and Ahiaga-Dagbui D (Eds) Procs 29th Annual ARCOM Conference*, 2-4 September 2013, Reading, UK, Association of Researchers in Construction Management, pp.717-727

<sup>20</sup> Bologna, R. and Del Nord, R. (2000) Effects of the law reforming public works contracts on the Italian building process. *Building Research & Information* **28**(2), pp.109-118

<sup>21</sup> Kwawu, W. and Hughes, W. (2005) The impact of relational contracting on the construction industry. In: Khosrowshahi F (Ed) *Procs 21st Annual ARCOM Conference*, 7-9 September 2005, SOAS, University of London. Association of Researchers in Construction Management, Vol.2, pp.1195-204

<sup>22</sup> Challender, J., Farrell, P. and Sherratt, F. (2014) Partnering in practice: an analysis of collaboration and trust. *Proceedings of the Institution of Civil Engineers – Management, Procurement and Law* **167**(MP6), pp.255-264

<sup>23</sup> Waara, F. (2008) Mitigating contractual hazards in public procurement: a study of Swedish local authorities. *Construction Management and Economics* **26**(2), pp.137-45

Campagnac<sup>24</sup> presents an overview of the development of the French construction industry responding to economic, regulatory and legal changes over the last 20 years. He explains that although the French legal system is derived from Roman law which has distinct principles from the English common law system, the French contracting system includes both traditional “*professional model*” and design and build “*industrial model*” procurement methods.

Despite the potential of e-procurement to save the industry time and cost, Wong and Sloan<sup>25</sup> found scant interest from surveyed construction SMEs for implementation of e-procurement in their UK SMEs’ survey.

## 2.2 Building information modelling and regulation

McAdam<sup>26</sup>, whose paper identifies some of the legal problems created by selection of Building Information Modelling (“BIM”) for construction design, explains that BIM has been defined as “*a digital representation of physical and functional characteristics of a facility*”. The aspiration is that the model would provide reliable costing and fabrication drawings. However, this requires collaboration by key stakeholders: contractors, engineers, architects and employers. The legal challenges include design liability and ownership/protection. For the moment, it seems unlikely that SMEs in the construction industry will be mandated to comply with BIM.

Pedro et al.<sup>27</sup> compare the duties of the public and private organizations in the building control systems of the 27 European Union countries. They conclude that characteristics of building control systems in EU countries are similar. Public bodies set the regulatory framework, check planning applications, issue building permits, conduct final inspections, grant completion certificates and supervise the operation of the system. The primary variation between countries is the level of inclusion of private businesses in

---

<sup>24</sup> Campagnac, E. (2000) The contracting system in the French construction industry: actors and institutions. *Building Research and Information* **28**(2), pp.131-40

<sup>25</sup> Wong, C. and Sloan, B. (2006) An empirical survey of the UK construction SME's e-procurement readiness from the e-legal aspects. *Journal of Construction Research* **7**(1), pp.81-97

<sup>26</sup> McAdam, B. (2010) Building information modelling: the UK legal context. *International Journal of Law in the Built Environment* **2**(3), p.246

<sup>27</sup> Pedro, J., Meijer, F. and Visscher, H. (2010) Building control systems of the European countries: a comparison of tasks and responsibilities. *International Journal of Law in the Built Environment* **2**(1), pp.45-59

checking technical requirements and site inspections. Ang et al.<sup>28</sup> advocate the Dutch initiative to formulate National (instead of Municipal) technical building regulations. Legislative reform in Italy introduced a substantial body of regulations to ensure compliance with environmental and town-planning regulations<sup>29</sup>.

### 2.3 Construction contract

Hughes and Shinoda<sup>30</sup>, who conducted an international survey of client, consultant and contractor users of the FIDIC form of contract, emphasise the importance of getting contractual and legal issues resolved at the beginning of the project. They report that their analysis showed that the views of contract users from common law jurisdictions do not differ from those in civil code jurisdictions. Mooney and Mooney<sup>31</sup>, who consider optimal risk allocation between employer and contractor, warn that “*A properly executed contract is generally understood to be enforceable, regardless of the balance of risk contained in the contract*”.

Nevertheless, claims are widespread and Love et al.<sup>32</sup> endeavour to classify their causes. Moura and Teixeira's<sup>33</sup> research on Portuguese public construction projects identified the leading cause of claims was change followed by delay. However, on-site staff often do not have the proficiency to identify claims. ARCADIS' fourth (2014) annual report<sup>34</sup> on the key issues found prevalent in construction disputes found that poor contract administration had moved up to the primary cause of disputes.

---

<sup>28</sup> Ang, G. Groosman, M. and Scholten, N. (2005) Dutch performance-based approach to building regulations and public procurement. *Building Research & Information* **33**(2), pp.107-119

<sup>29</sup> Bologna, R. and Del Nord, R. (2000) Effects of the law reforming public works contracts on the Italian building process. *Building Research & Information* **28**(2), pp.109-118

<sup>30</sup> Hughes, W. and Shinoda, H. (1999) Achieving satisfactory contractual terms for the engineer's role. In: Hughes W (Ed) *Procs 15th Annual ARCOM Conference*, 15-17 September 1999, Liverpool John Moores University. Association of Researchers in Construction Management, Vol.2, pp.597-606

<sup>31</sup> Mooney, C. and Mooney, E. (2014) Risk allocation in construction contracts – Irish public works. *Proceedings of the Institution of Civil Engineers – Management, Procurement and Law* **167**(MP2), pp.68

<sup>32</sup> Love, P., Davis, P., Ellis, J. and Cheung, S. (2010) Dispute causation: identification of pathogenic influences in construction. *Engineering, Construction and Architectural Management* **17**(4), pp.404- 23

<sup>33</sup> Moura, H. and Teixeira, J. (2007) Types of construction claims: a Portuguese survey. In: Boyd D (Ed) *Procs 23rd Annual ARCOM Conference*, 3-5 September 2007, Belfast, UK. Association of Researchers in Construction Management, Vol.1, pp.129-35

<sup>34</sup> Allen, M. (2015) Global Construction Disputes 2014: Getting the Basics Right. *Construction Law Journal*, **31**(4), pp.183

Cavaleri<sup>35</sup>, who discusses the Danish approaches to concurrent delay in construction projects, argues that construction delays occur very frequently in practice. Champion<sup>36</sup> contends that delays to the completion of construction projects are prevalent with customary claims by the contractor to recover their prolongation costs. Furthermore, Gorse<sup>37</sup>, who studied the extent to which project managers record changes to the programme, advocates that all project managers should understand the disparate methods used in delay and disruption claims. Brawn<sup>38</sup> argues that knowledge of the effect delaying events have on a contractor's right to an extension of time and employer's entitlement to liquidated damages is vital for successful project completion.

Wong and Cheah<sup>39</sup> explain that the frequent use of sub-contracting in the construction industry results in the following typical issues: undesirable payment terms for sub-contract work, incompatibility with the main contract and deficient terms and conditions of sub-contracts. Kwawu and Hughes<sup>40</sup> identify onerous one-sided conditions at the sub-contract level. This is of particular significance as SMEs in the construction industry are more likely to be represented at the sub-contractor level.

## 2.4 Dispute Resolution

ARCADIS' report<sup>41</sup> shows that “*‘getting the basics right’ along with pro-active risk management would significantly assist in removing the common causes of disputes.*”

---

<sup>35</sup> Calaveri, S. (2015) “Construction disputes in Denmark: the case of concurrent delay” *Construction Law Journal*, **31**(2) pp.57-68

<sup>36</sup> Champion, R. (2011) A consideration of recovery of prolongation costs in a construction context. *International Journal of Law in the Built Environment* **3**(3), pp.237-51

<sup>37</sup> Gorse, C. (2005) Monitoring, planning and tracking: delay, disruption and legal risk management. In: Khosrowshahi F (Ed) *Procs 21st Annual ARCOM Conference*, 7-9 September 2005, SOAS, University of London. Association of Researchers in Construction Management, Vol.2, pp.1247-57

<sup>38</sup> Brawn, D. (2012) Extensions of time and liquidated damages in construction contracts in England and Wales. *International Journal of Law in the Built Environment* **4**(1), pp.75-90

<sup>39</sup> Wong, W. and Cheah, C. (2004) Issues of contractual chain and sub-contracting in the construction industry. In: Khosrowshahi F (Ed) *Procs 20th Annual ARCOM Conference*, 1-3 September 2004, Heriot Watt University. Association of Researchers in Construction Management, Vol.1, pp.671-80

<sup>40</sup> Kwawu, W. and Hughes, W. (2005) The impact of relational contracting on the construction industry. In: Khosrowshahi F (Ed) *Procs 21st Annual ARCOM Conference*, 7-9 September 2005, SOAS, University of London. Association of Researchers in Construction Management, Vol.2, pp.1195-204

<sup>41</sup> Allen, M. (2015) Global Construction Disputes 2014: Getting the Basics Right. *Construction Law Journal*, **31**(4), pp.183

The UK construction industry has suffered high levels of disputes which expend significant money, time and resources in their resolution<sup>42</sup>. These traditionally have been resolved through arbitration or litigation but they have been criticised for their costs, delay, procedural complexity and adversarial approach<sup>43</sup>. Ramirez et al.<sup>44</sup> set out the arbitration challenges faced by Spanish civil engineers whether as acting as an arbitrator or an expert witness.

Brooker<sup>45</sup> explains that alternative dispute resolution (ADR) was given a central role in the UK Civil Procedure Rules to encourage the settlement of cases and reduce costs for the parties. She concludes that mediation has been shown to be beneficial and many Technology and Construction Court judges believe it should be normal practice for construction disputing parties to discuss and use the process. Agapiou and Clark<sup>46</sup> report, in the results of their interviews and questionnaires, increasing support for mediation by the Scottish construction industry and their lawyers.

The Housing Grants, Construction and Regeneration Act 1996 provided a statutory entitlement for parties to a construction contract to appoint an adjudicator to reach a binding decision<sup>47</sup>. Adjudication is now an established and successful construction dispute resolution process. Bowes<sup>48</sup>, who conducted a questionnaire survey amongst construction professionals, lawyers, arbitrators/adjudicators and clients in the UK

---

<sup>42</sup> Bowes D (2007) Practitioners' Perception of Adjudication in UK Construction. In: Boyd, D. (Ed) *Procs 23rd Annual ARCOM Conference*, 3-5 September 2007, Belfast, UK. Association of Researchers in Construction Management, Vol.1, pp.117-25

<sup>43</sup> Brooker P (1999) Survey of construction lawyers' attitudes and practice in the use of ADR in contractors' disputes. *Construction Management and Economics* **17**(6), pp.757-765

<sup>44</sup> Ramirez, F., Seco, A., and Miqueleiz, L. (2013) The arbitration process in civil engineering. *Proceedings of the Institution of Civil Engineers – Management, Procurement and Law* **166**(MP1), pp.43-46

<sup>45</sup> Brooker P (2009) Criteria for the appropriate use of mediation in construction disputes: Judicial statements in the English Technology and Construction Court. *International Journal of Law in the Built Environment* **1**(1), pp.82-97

<sup>46</sup> Agapiou, A. and Clark, B. (2014) A reflection on construction mediation in Scotland. *Proceedings of the Institution of Civil Engineers – Management, Procurement and Law* **167**(MP4), pp.265-272

<sup>47</sup> Brooker P (2009) Criteria for the appropriate use of mediation in construction disputes: Judicial statements in the English Technology and Construction Court. *International Journal of Law in the Built Environment* **1**(1), pp.82-97

<sup>48</sup> Bowes D (2007) Practitioners' Perception of Adjudication in UK Construction. In: Boyd, D. (Ed) *Procs 23rd Annual ARCOM Conference*, 3-5 September 2007, Belfast, UK. Association of Researchers in Construction Management, Vol.1, pp.117-25

construction industry, concludes that the respondents agreed with the cost effective advantage of adjudication.

Allen<sup>49</sup> identified that the three most common methods of dispute resolution used during 2013 in continental Europe were: negotiation, adjudication and litigation.

## 2.5 Summary

The themes that emerged included procurement, building information modelling and regulation and construction contract issues including delay, claims and dispute resolution. However, the literature revealed limited focus on SMEs' experience of these issues. So, the next section outlines the qualitative research methodology designed to probe the European SME experience of construction-specific legal risks.

## 3 Research Methodology

Mixed qualitative methods as advocated by Dainty<sup>50</sup> comprising case studies followed by a focus group were adopted. The case studies enabled investigation of "*the richness of the phenomenon and the extensiveness of the real-life context*"<sup>51</sup>. The case studies<sup>52</sup> and focus group were undertaken during two secondments by the first author to a SME contractor in Padova, Italy.

The first case study on the construction contractor SME comprised visits to the SME's projects<sup>53</sup> and then the SME's lawyer and project manager were interviewed<sup>54</sup> about the legal risks around the themes identified from the literature review (procurement,

---

<sup>49</sup> Allen, M. (2015) Global Construction Disputes 2014: Getting the Basics Right. *Construction Law Journal*, **31**(4), pp.183-194

<sup>50</sup> Dainty, A. (2008) Methodological Pluralism in Construction Management Research. in Knight, A. and Ruddock, L. (eds) *Advanced Research Methods in the Built Environment*. Oxford: Wiley-Blackwell, pp. 1-13.

<sup>51</sup> Yin, R. (2009) *Case Study Research Design and Methods* 4th ed. London: Sage' p.2

<sup>52</sup> Denscombe, M. (2010) *The Good Research Guide for small-scale social research projects*. 4th ed. Maidenhead: Open University Press.

<sup>53</sup> Creswell, J. (2013) *Qualitative Inquiry & Research Design: Choosing among five approaches*. 3rd ed. London: Sage.

<sup>54</sup> Jankowicz, A. (2005) *Business Research Projects*. 4th ed. Andover: Thomson Learning

building regulations and modelling, construction contract and dispute resolution). These results have previously been reported<sup>55</sup>.

The second case study was about a civil engineering SME. The Chief Executive was interviewed about legal risks in particular, for a new company which has an innovative new use of waste slag from steelworks for road surfacing and railway ballast.

A workshop at Fenice Green Energy Park (FENICE) disseminating previous research was held. The invitees were contracts of the construction SME with a focus on members of ANCE (Associazione Nazionale Costruttori Edili). The first author delivered a presentation “*Legal Risk Identification for SMEs in the Construction Industry*” about procurement, building modelling and regulations, construction contract and dispute resolution. A focus group<sup>56</sup> of the attendees were then invited to respond to the question “*What is your experience of legal risks for SMEs in the construction industry?*” Their responses were recorded, if required translated from Italian into English, and then transcribed.

## **4 Results and Discussion**

The construction contractor SME and civil engineering SME case studies and the legal risk identification focus group are reported and discussed in this section.

### **4.1 Construction Contractor SME Case Study**

#### *Construction Contractor SME*

The SME was established in 1955 and is based in Padua, Italy. It operates in the following construction sectors: residential buildings, renovation of historic buildings and commercial or industrial buildings. The SME usually has around 20 active construction sites. The SME has about 15 employees with 200 subcontractors and suppliers. Representative projects (which were visited between 31 March and 4 April 2014) are:

---

<sup>55</sup> Charlson, J. and Oduoza, C. (2014) Legal risk identification for SMEs in the construction industry *In: Raideen A and Aboagye-Nimo E (Eds) Procs 30th Annual ARCOM Conference*, 1-3 September 2014, Portsmouth, UK, Association of Researchers in Construction Management, pp.507-515.

<sup>56</sup> Litosselliti, L. (2003) *Using Focus Groups in Research*. London: Continuum

- 1) The repair and replacement of the roofs of houses;
- 2) A new build 4 terraced house development where concrete/wood blocks with polystyrene insulation had been used;
- 3) An extension to provide a product sample store for a pharmaceutical factory; and
- 4) The refurbishment of an elegant Palazzo Bovio apartment, near St Antonio's Church in the centre of Padua.

The SME has previous experience of EU research projects. The A+ House project compared construction with sustainable and traditional materials. The sustainable building included earth bricks, hemp and wood contrasted with a traditional concrete structure. The project has now moved to the market phase.

#### *Interviewees*

The SME's lawyer and project manager were interviewed about the legal risks explored in the literature review: procurement, building regulations and modelling, construction contract and dispute resolution. Semi-structured interviews<sup>57</sup> were undertaken separately.

The SME's lawyer (avvocato) graduated in 2001 and then worked for a Padua law firm which supported businesses. In 2009, she set up on her own. She is a civil lawyer and employment law specialist. The SME's project manager has worked for the company for 7 years. He is a qualified civil engineer.

#### *Procurement*

The project manager emphasised that regarding procurement, the relationship with the client is important. He explained the best procurement investment is with existing clients in particular, the first job is special because it can lead to another project.

He continued that finding new clients is a different challenge. He outlined that the SME checks an internet site for public tenders and also Padua details of planning permissions awarded so potential clients identified can be approached. He explained that this

---

<sup>57</sup> Creswell, J. (2013) *Qualitative Inquiry & Research Design: Choosing among five approaches*. 3rd ed. London: Sage.

amounts to 10% of the SME's work. However, he concluded that networking with existing contacts is the most successful procurement strategy.

The SME's lawyer explained that the Italian Civil Code is supplemented by many specific laws for construction. She added that under the Civil Code, if a contract's objective is a building then a written contract is required. She mentioned that the SME has a draft house building contract primarily for use with home owner clients whereas real estate/ developer clients have their own forms of contract.

The project manager expounded that 60% of the SME's projects are purchased on the SME's contracts but these are the smaller ones with 40% of the larger ones procured on the clients' contracts. He detailed that 70-80% of the SME's turnover comes from the larger projects. He explained that projects procured on clients' contracts are more risky because the contracts favour the client rather than the contractor. For example, he explained that the SME's contracts do not include penalties for late completion and the SME can stop the job if they are not being paid. He continued that the SME has two draft contracts: Measurement and Fixed Cost which is higher risk as measure and cost need to be calculated before the contract is agreed.

#### *Building information modelling and regulation*

The project manager outlined that the SME produces 2D information including architectural and structural drawings but not 3D details.

He explained that the SME's core business is residential with development following inception, design, construction and sale stages. He added that the SME is usually only involved in the construction phase. He elaborated that building regulation requirements are addressed at the earlier design stage leading to planning permission. He complained that the regulations including National, Regional, Town and specialist ones are not clear as sometimes they conflict with each other.

The lawyer confirmed that there are national building regulations but every town has its own additional ones. She explained that the public administration must firstly give permission to build and only then does procurement and construction proceed.

The project manager continued that in the previous year, a new law had come into force which entitled clients to increase house volume by 20% to 45% (with renewable sources). He understood that this was intended to improve business for the construction sector. Unfortunately, his experience was that instead it led to clients postponing projects due to start on site while they increased the size of the house resulting in a 3-5 month delay for building regulation approval.

#### *Construction contract*

The lawyer explained that the client and contractor can agree an amount payable by the contractor for each day a project is delayed. She added that other damages may be also be payable.

The project manager argued that the most important issue is the contract. He said “*You can make more money with the pen than with construction projects.*” He complained that money can be lost on a good project due to a bad contract. He has advised not to take on a supermarket project due to the penalty charges for late completion. His view was that penalty charges are acceptable provided that there is an achievable Gantt chart. He concluded that overall there is a balance to be found between time, cost and quality.

He explained that variations are a benefit to the SME as they are not priced in a competitive environment. However, he clarified that variations are difficult to manage and the client should be asked to pay at the time and not at the end of the project. He disclosed that it is difficult to recover money if the project is on site too long. For example, the SME had to wait for 2 months for the client to choose the roof and during this period the scaffolding remained on rent for an additional cost of about 1,000 Euros. He concluded that a project is better without claims as they are risky.

#### *Dispute resolution*

The lawyer complained that it can take 5 years to reach judgment at the first level in the Italian courts. She expounded that arbitration is very expensive which makes it uneconomic to pursue smaller sums of money.

She continued that there was an EU Directive<sup>58</sup> about mediation in 2008 which was brought into Italian law in 2010<sup>59</sup>. She explained that mediation on certain issues for example, car crashes, medical negligence and inheritance is mandatory before civil court proceedings but this does not apply to construction.

The project manager described that there is a choice between a judge or arbitration (3 arbitrators) for dispute resolution. His experience was that obtaining a judge's decision takes a long time whereas arbitration is quicker but more expensive.

### *Payment*

The lawyer explained that there is no credit protection so payment by the employer is not guaranteed. She described that clients tend to stop paying at the end of a project.

The project manager complained that clients can be slow to pay. For example, the SME agreed with one client that they would only be paid when the units were sold. Another client explained that he was unable to pay until he had sold the apartments. The project manager emphasised that the biggest problem is non-payment by clients.

The project manager described that it had been difficult to secure advance payment. He explained that there had been a big drop in construction demand from 2010. He described that before 2005, advance payment was available but more recently clients would choose a contractor that did not demand advance payment. He was aware that about 40% of construction companies have become bankrupt. However, his experience is advance payments are returning.

### *Other risks*

The lawyer advised that safety is seen by the State as a very important risk area for construction. She explained that an employer is required to reduce risks for the workers on site. She described that this documentation must be kept on site and is liable to inspection.

---

<sup>58</sup> Directive 2008/52/EC of the European Parliament and of the Council of 21 May 2008 on certain aspects of mediation in civil and commercial matters

<sup>59</sup> Mediation Law (Legislative Decree 28/2010)

She explained that under public law, the workers are given payment protection. She described that a general contractor is jointly and severally liable with a subcontractor to pay the subcontractor's workers. She complained that this obligation applies even if the general contractor has already paid the subcontractor who has not subsequently paid their workers. She advised that a general contractor can ask for the subcontractor's documentation but, in the past, false papers have been provided resulting in a criminal trial of the subcontractor.

### *Discussion*

The SME's representatives identified and distinguished between public and private sector procurement and traditional and design and build contracting. The project manager also introduced into the discussion the concept of procurement by networking. The SME's interviewees recognised that the procurement risk profile varies with client-drafted contracts favouring the client and their own contract benefitting the SME. The SME has on occasion been forced to take on a typical developer rather than contractor risk with payment being conditional on sale of the units.

As anticipated, the SME was not required to contribute to 3D building information models. However, it could be argued that the SME is operating at BIM maturity level 0<sup>60</sup>. The SME's representatives commented about the challenges of complying with building regulations.

The SME's interviewees understood variation and delay claims and damages for late completion. However, advanced delay and disruption methodology seems likely to be too complex for an SME. The SME's representatives demonstrated knowledge of the distinctions between litigation and arbitration together with an appetite for ADR including mediation.

Payment by clients is a high priority for the SME. The SME's interviewees were not asked about this issue which was an oversight. The EU has recognised this concern and

---

<sup>60</sup> Gibbs, D-J., Lord, W., Emmitt, S. and Ruikar, K. (2015) Building Information Modelling *Construction Law Journal* 31(3) pp.167-179

implemented the EU Late Payment Directive<sup>61</sup> which was designed to help small and medium enterprises to allow better management of their cash flow. The Directive entitles businesses to claim interest for late payment and compensation for reasonable costs of recovery. The interaction between this Directive and the recovery of own party adjudication costs under English and Welsh law has been researched by the first author<sup>62</sup>. Indeed, one of the main aims of the Construction Act<sup>63</sup> was to ensure prompt payment. The ubiquity of this problem is illustrated by Breyer<sup>64</sup> demonstrating the similarities and differences between German and English security of payment law in construction.

Health and safety and subcontracting risks were also mentioned by the interviewees.

#### 4.2 Civil Engineering SME Case Study

A civil engineering SME which collaborates with the construction SME was researched. The Chief Executive (CE, part owner) was interviewed on 10 November 2014. He explained that the company was founded in 1968 by his father and now specialised in energy-saving technology for road, pipeline and building projects.

The CE explained that he had founded another company (NewCo) in 2010 which was paid to remove waste slag from steelworks. The CE had found an innovative (first in Italy) use for the slag which is very hard and heavy as a component for road surfacing which provided more grip for vehicles. He detailed that NewCo washed and crushed the slag and then sold it. He explicated that the slag is much cheaper than current material and was of particular interest for motorways and railway ballast.

The CE outlined that the sales are supply only and on the client's terms and conditions. However, the CE complained that the biggest risk was non-payment but this was mitigated by payment in advance or bank insurance.

---

<sup>61</sup> Directive 2011/7/EU of the European Parliament and of the Council of 16 February 2011 on combating late payment in commercial transactions

<sup>62</sup> Hetheron, T. and Charlson, J. (2015) When Statutes Collide: Potential Recovery of Own Party Adjudication Costs *International Journal of Law in the Built Environment* 7(3), pp.214-230

<sup>63</sup> Housing Grants, Construction and Regeneration Act (1996), c.53

<sup>64</sup> Breyer, W. (2015) Money the lifeblood of construction: securing payment under German law *Construction Law Journal* 31(5) pp.237-253

The CE disclosed that there is no regulatory standard for the composition of slag but NewCo checked, controlled and guaranteed the composition for example, chrome content to the client. The CE mentioned that NewCo is now testing the slag from a larger steelworks to expand the business as the slag content is different from each plant. The CE added that he has investigated protecting his intellectual property in the process but has been advised by a consultant that it would be too expensive.

When asked about disputes, he complained that he would prefer to reach a resolution by negotiation because the Italian justice system was very slow. For example, after 10 years, he was still pursuing a 100,000 Euro debt through litigation.

The CE touched on legal risk issues identified in the literature review including contract terms, regulations and dispute resolution. He repeated the SME's concern about non-payment by clients. He also demonstrated intellectual property awareness which Charlson<sup>65</sup> had previously identified as being more important to civil engineering than construction industries.

The limitations of this research are recognised but according to Stake (2003, p.156) *"The purpose of a case report is not to represent the world, but to represent the case"*.

#### 4.3 Legal Risk Identification Focus Group

The first author delivered a presentation *"Legal Risk Identification for SMEs in the Construction Industry"* about procurement, building modelling and regulations, construction contract and dispute resolution at FENICE on 13 November 2014.

Following the presentation, eight members of the focus group responded to the question *"What is your experience of legal risks for SMEs in the construction industry?"* The sample comprised three civil engineers, three architects and a managing director.

---

<sup>65</sup> Charlson, J. (2014) Law for engineering undergraduates on accredited courses. *Proceedings of the Institution of Civil Engineers – Management, Procurement and Law* **167**(MP4), pp.201-206

The civil engineer, Sebastiano, works for two construction companies one of which recovers waste from construction sites. He identified the main problem as the Italian legal framework which is not very clear with rules and laws which are generic making their interpretation complicated and difficult. He also complained that legal disputes are too complex and lengthy.

Josepho is a civil engineer and a partner in a civil engineering company. His experience of legal risk has two sides: one is personal with legal action from contractors claiming design mistakes. The other is as a consultant supporting other engineers facing legal action against them. Martez, also a civil engineer, did not have experience of legal risk in construction industry.

The architect, Stefano has been qualified for 30 years. He does not have any direct experience of legal risks and problems faced. However, he attends training courses for architects and engineers. He has noticed over the past few years that more and more lawyers come as teachers on those courses while in the past, matters used to be taught by engineers and architects themselves. His observation is that there seems to be an increasing need for knowledge of legal issues rather than pure technical aspects.

Francisco is also an architect. He had no direct experience with legal problems concerning his professional practice. However, he has been assisting enterprises in the construction sector regarding legal regulations related to this sector. He also negotiates contracts with contractors, sub-contractors and suppliers. In addition, he has been working as an informal mediator supporting companies to avoid court. As a consultant for the Padova city court he has suggested it is better to go through mediation than go to court. Another architect had no direct experience with legal problems.

The managing director, Marco agreed that the legal framework is complex and there is no certainty in recovering credit. Credit recovery is the main legal issue at the moment for his company. There are currently no other significant legal problems in his company.

A civil engineer, an architect and the managing director criticised the Italian legal framework and regulations. Two civil engineers and an architect related their experience of dispute resolution. One architect recognised contract issues. There was no mention of procurement. However, the focus group format did not allow the researchers to probe the participants' responses nor clarify understanding of their answers. This is a weakness of this research method.

## 5 Conclusions

The study has combined a critical review of the literature, case studies and interviews of a cross section of construction professionals to identify legal risks relevant to SMEs operating in the construction sector. Information gathered from the literature appears to reinforce the views of construction sector practitioners on the legal risks they face.

While the data was collected from Italy, it is to a large extent supported by information reported in the literature and research carried out elsewhere. It is widely believed that national culture could be a determinant of the legal risks applicable and therefore faced by construction businesses. Consequently, the study confirms that the relevant legal risks for construction SMEs in Italy are: procurement, building regulations, construction contract and dispute resolution. This is particularly encouraging because the literature reviewed was in English whereas the primary data was collected in Italy. However, non-payment by clients was also identified in the primary research results as a significant risk.

The additional issue of intellectual property protection was recognised in the civil engineering SME case study. Previous research<sup>66</sup> had already identified that intellectual property issues feature more prominently in civil engineering rather than in the wider construction industry.

It seems that SMEs in the construction industry would benefit from training and guidance in construction law to mitigate these risks. Future research could test whether

---

<sup>66</sup> Charlson, J. (2014) Law for engineering undergraduates on accredited courses. *Proceedings of the Institution of Civil Engineers – Management, Procurement and Law* **167**(MP4), pp.201-206

these findings can be generalized<sup>67</sup> across the European Union. Research on evaluation, monitoring and review of construction legal risks is contemplated.

These results will contribute to the development of a risk management system which will be tested and validated in SMEs in the construction sector.

### **Acknowledgement**

The authors wish to thank the EU for sponsorship of this research through a FP7 Marie Curie Industry-Academia Partnerships and Pathways Project.

---

<sup>67</sup> Denscombe, M. (2010) *The Good Research Guide for small-scale social research projects*. 4th ed. Maidenhead: Open University Press.