1. Introduction

1.1 NEW ORGANIZATIONAL FORMS – THE BUSINESS REALITY

The growth of information and communications technology (ICT) – not least the Internet – has fostered the development of new forms of entrepreneurial co-operation such as dynamic networks. Although we have seen the merger of large multinational companies in the latter part of the 1990s, an interesting counter-phenomenon in the last two decades has been the disintegration of a number of large corporations and the growth of dynamic networks. Many large companies are re-organizing into smaller units, focusing on their core competencies and finding it cheaper to outsource certain areas of business than to keep them in-house. As explained by the economic theory of transaction costs, when it is cheaper to conduct transactions internally within the boundaries of the company, organizations grow larger, but when it is cheaper to conduct them externally with independent entities in the open market, organizations stay small or shrink. With the widespread use of ICT and the easy and cheap access to digital communications, information can be shared instantly and inexpensively among many people in diverse locations and thus, the value of centralized decision-making and expensive bureaucracies (both features of the large corporation) decreases.

Two different types of networked organizations between independent firms may be identified: stable and dynamic. A stable network employs partial outsourcing and is established to inject flexibility into the value chain. Assets are owned by several firms but dedicated to a particular business. Very often, a set of vendors is nested around a large core firm, either providing inputs to the firm or distributing its outputs. Asset ownership and risk are spread across independent firms. However, in bad times,

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A legal framework for emerging business models

the core firm may have to protect the smaller ‘family members’. Although stability brings with it the benefits of dependability of supply or distribution, close cooperation on scheduling and quality requirements, it also has disadvantages of mutual dependence and some loss of flexibility. A typical example of a stable network is a supply chain.

On the other hand there are dynamic networks where anyone, from small and medium businesses including freelancers, link up together or with larger businesses, forming networks that are able to adapt relentlessly and respond quickly to business opportunities in the market. Businesses, irrespective of size but depending on their core competency, team up with other businesses to carry out a business project together. Once this is completed, the temporary network is disbanded but some of the individual participants would, in future, come together again to work on new projects where their special competence is required. This form of network has emerged in response to faster-paced or discontinuous competitive environments. In the words of Manuel Castells, ‘the actual operating unit becomes the business project, enacted by a network, rather than individual companies or formal groupings of companies’ [his emphasis]. Dynamic networks vary in shape and form, ranging from (i) spontaneous virtual enterprises, (ii) virtual enterprises that are quickly created out of a pre-established pool of firms, to (iii) those networks dominated by a lead partner where there is extensive outsourcing. These are more extensively explained below in section 1.3.

The above two types of network organizations are networks between independent business firms. However, a network organization may also arise within a business organization – what Snow, Miles and Coleman call an internal network. An internal network is created when a firm’s component functions are structured into different business units, with each unit focusing on one area of competence or expertise. A business unit or division would thus become the expert within the business network at providing its specific product or service and would cooperate with the other units in the business network whenever appropriate. From a legal point of view, an internal network would typically be formed either as one independent legal

3 Ibid, 14.
4 See further on this, with detailed examples of stable networks like General Motors and BMW, ibid, 13–14.
5 Ibid, 14.
7 Snow, Miles and Coleman (n 2), 13.
person structured in different business units, or as a parent company with
different business units or divisions organized as subsidiary companies.

The focus of this book is on dynamic networks.

1.2 DYNAMIC NETWORKS

In a seminal article published in 1986, economists Miles and Snow intuited
the development of what they called ‘a new organizational form’ in
response to the new competitive environment of that decade which saw an
increased use of joint ventures, subcontracting and licensing activities. They
called this organization a dynamic network ‘to suggest that its major
components can be assembled and reassembled in order to meet complex
and changing competitive conditions’. They identified the following char-
acteristics of the dynamic network:

- **Vertical Disaggregation**: Certain business functions such as manufac-
turing, marketing and distribution are no longer performed in-house
within a single organization but are farm out to independent organ-
izations within a network. Firms thus focus on their core competence
and other business functions are performed by other firms within the
network.

- **Brokers**: Since the abovementioned business functions are not neces-
sarily part of a single organization, the individual firms (or com-
ponents) of the dynamic network are assembled by or located through
a broker. Brokers may have different roles ranging from playing a lead
role and subcontracting for required services, to assisting in identify-
ing potential partners.

- **Market Mechanisms**: It is market mechanisms rather than plans and
controls that hold together the major business functions. ‘Contracts
and payment for results are used more frequently than progress
reports and personal supervision.’

- **Full-Disclosure Information Systems**: ‘Broad-access computerized
information systems are used as substitutes for lengthy trust-building
processes based on experience. Participants in the network agree on a

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8 RE Miles and CC Snow, ‘Organizations: new concepts for new forms’ (1986)
28 (3) California Management Review reprinted in PJ Buckley and J Michie (eds),
Firms, Organizations and Contracts (Oxford University Press, 1996).
9 Ibid, 432.
10 Ibid.
general structure of payment for value added and then hook themselves together in a continuously updated information system so that contributions can be mutually and instantaneously verified.\textsuperscript{11}

Miles and Snow highlight two different perspectives of the dynamic network: the level of each individual component and the network as a whole. From the perspective of the individual participant, the primary benefit for participating in the network is the opportunity to pursue its distinctive competence. Each network component can be seen as complementing rather than competing with the other components. From the perspective of the network as a whole, each firm’s distinctive competence is not only enhanced by participation in the network but is held in check by its fellow network members. This means that if a particular member performs poorly or somehow takes unfair advantage of another component, then it can be removed from the network due to the independence (or modularity) that allows the network to reshape itself when necessary.\textsuperscript{12}

In a subsequent article, Snow, Miles and Coleman clarify further their notion of dynamic networks.\textsuperscript{13} These are businesses which ‘have pushed the network form to the apparent limits of its capabilities’ by outsourcing extensively.\textsuperscript{14} What happens is that a lead firm identifies and assembles assets owned largely, or even entirely, by other companies. Such lead firms typically rely on a core skill or, in some cases, pure brokering. The advantage of dynamic networks, these authors explain further, is that they can provide both specialization and flexibility. The downside, however, is that dynamic networks ‘run the risk of quality variation across firms, of needed expertise being temporarily unavailable, and of possible exploitation of proprietary knowledge or technology’.\textsuperscript{15} Thus, they hold that the dynamic network operates best in competitive situations where there are myriad players, each guided by market pressures to be reliable and to stay at the leading edge of its speciality.\textsuperscript{16}

Since Miles and Snow’s seminal article, other configurations of dynamic networks have emerged in practice. Business and management literature describe examples of spontaneous and temporary dynamic networks termed

\begin{enumerate}
\item Ibid.
\item Ibid, 432–3.
\item Snow, Miles and Coleman (n 2), 14.
\item Ibid.
\item Ibid.
\item Ibid.
\end{enumerate}
‘virtual enterprises’. Another model of dynamic networks is that of virtual enterprises that are quickly formed out of pre-established enterprise pools or clusters. These are examined in more detail in the next section.

1.3 TYPES OF DYNAMIC NETWORKS

The focus of this book is dynamic networks. Many terms have been used and proposed in literature, particularly in business and management literature, to describe these novel forms of networked organizations or certain aspects or variants of them. Besides ‘dynamic network’, other terms like network enterprise, smart organization, virtual organization, virtual enterprise, virtual company and virtual corporation have been used with some of them achieving the dubious status of buzzwords for certain periods. These other terms are examined in section 1.7.3 below.

The term used in this book to describe these new forms of entrepreneurial organization is dynamic networks. This is also the terminology used by Miles, Snow and Coleman. To clarify what is meant by this term, a categorization of dynamic networks is proposed. Such a categorization is also useful and helpful in the analysis of contractual and partnership law issues undertaken in this book.

One may identify three different models of dynamic networks.

1.3.1 Spontaneous and Temporary Virtual Enterprises

These are dynamic networks where anyone – from freelancers and small firms to larger companies or partnerships – may collaborate and participate, mostly through ICT, in small to large, temporary networks of tens, hundreds and even thousands, of people. In practice, a spontaneous and temporary virtual enterprise is initiated by an individual or a firm that identifies a business opportunity which it is unable to address alone since it lacks some essential competence or competences. The firm or individual therefore looks for other individuals or firms that have the necessary competence(s) or else identifies such firms or individuals with the help of a third-party broker. Each participant brings its core competence to this temporary organization that will exist until the project that brings the network together is completed. On project completion, the temporary network is disbanded but the individual participants may, in future, come together again to work

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17 Miles and Snow (n 8); Snow, Miles and Coleman (n 2).
on new projects where their special competence is required. Through such collaboration, small and medium-sized enterprises (SMEs) pool together their resources and expertise, thus becoming capable of offering a common service to the customer that each of them individually would not otherwise have been in a position to do. Information and communication technologies usually facilitate the interaction and collaboration between the parties, and may sometimes also form the backbone of the collaboration.\(^{18}\) The term ‘virtual enterprise’ is examined in further detail in section 1.7.3.

A documented example of this type of dynamic network is the 1996 Atlanta Olympics, also known as the ‘Virtual Olympics’. The idea to bring the Olympics to Atlanta first occurred to Billy Payne and became a reality when, through private support and without governmental aid, Atlanta won the bid.\(^ {19}\) Payne remained as the head of the Atlanta Committee for the Olympic Games (ACOG), serving as the chief administrator to organize the Olympics. He secured funding from private banks\(^ {20}\) and sponsorships from firms such as CocaCola, Home Depot, UPS and Delta Air Lines. The ACOG sold the US television rights to NBC for $456 million and sold engraved bricks to the public for $35 each to help defray building costs. The funding was also to be used to help it organize and manage the Games. By July 1996, when the Games officially opened in Atlanta, Payne’s virtual enterprise was supervising 88,209 workers for an approximate one-month interval. With the close of the Games, this virtual enterprise and its entire staff vanished as the business opportunity had by then disappeared.

1.3.2 Enterprise Pools and Virtual Enterprises Formed Out of Such Pools

In practice, businesses like to collaborate in business ventures with other firms or individuals that they trust. It may therefore be difficult, if not unrealistic, to expect firms, especially SMEs, to enter into business ventures

\(^{18}\) One example of the latter is where the parties communicate and work through an e-platform such as Webcorp that was developed for the Virtuelle Fabrik. Another example is the software tool developed by and for VirtuellBau to help develop a solution for their customer. See further Chapter 2.


\(^{20}\) The ACOG secured a $300 million line of credit from NationsBank and an $8 million line of credit from Atlanta banks – an impressive feat considering that the ACOG had no assets. See further Conaway Stilson (n 19), 504.
with parties that they do not know, have never heard of before and whose reputation they are unable to verify. For these fluid, temporary networks to work, there should be an underlying basis of trust between the individual participants that together form the dynamic network.

One manner in which this need has been addressed is by the establishment of relatively stable, long-term oriented pools of firms or enterprises. These enterprise pools are usually set up at the initiative of one or more persons – either individuals or firms – and are made up of different parties with different core competencies who are capable of and interested in collaborating with each other in future projects or business ventures. By joining such an enterprise pool, a firm signals its long-term interest in future collaboration with the other firms in the pool. When one of the members of this pool identifies a business opportunity, a subset of these firms can be quickly selected to form a virtual enterprise. Such an enterprise pool thus acts as a breeding ground\(^{21}\) for the fast establishment of virtual enterprises to react quickly to the market opportunity, thereby achieving a competitive edge.

These pools therefore act as a sort of controlled environment for the establishment of dynamic networks and any virtual enterprises formed out of them. In order to join such a pool, a firm would have to meet certain basic criteria such as having a particular core competency and a good business reputation. To remain a member of such a pool, it would have to satisfy other requirements such as establishing and maintaining a good track record when collaborating with other parties in business dealings, loyalty to the pool, and so on. Such pools are thus a mechanism which enables, maintains and fosters trust between future participants in a dynamic networked organization. They provide a trust framework by setting up a number of basic ‘rules of the game’ for successful collaboration between the participants. These ‘rules of the game’ may take various forms and are usually meant to be binding on the parties. They will be further examined in Chapter 3.\(^{22}\)

A case in point is Virtuelle Fabrik, a network consisting in turn of three networks of small and medium independent businesses in the electrical, electronic and mechanical market spread around three geographical areas in Germany (Baden-Württemberg) and Switzerland (respectively Lake Constance and north-west Switzerland). Each of the three networks has its own

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\(^{21}\) The term ‘virtual breeding environment’ was popularized by ECOLEAD, a project funded by the European Community.

\(^{22}\) See, in particular, section 3.3.
website (which also has links to the other networks) that advertises the network’s competencies and members. Upon a specific order from the customer, members of a network having the required skills are selected from a competence database and brought together as a virtual enterprise to carry out that particular project. All the parties communicate with each other through a common Internet-based electronic platform (that is password protected and open only to network members).

1.3.3 Long-term Dynamic Networks with a Lead Partner

Another manifestation of a dynamic network is where a firm (the lead firm) keeps its core business functions such as product design and development, marketing and finance in-house but assigns the remaining business functions to other firms, which activities are coordinated by the lead firm. According to Snow, Miles and Coleman these lead firms usually rely on a core skill such as manufacturing (e.g. Motorola), research and development and design (e.g. Reebok), design and assembly (e.g. Dell Computer) or, in some cases, pure brokering. The parties in such a network are in continuous contact through the latest information and communications technologies. The lead firm acts as coordinator of the various dealings between suppliers, customers and other service providers who join together their core competence to manufacture a product. Very often the firms remain in various ways linked with the lead firm even after a project would have been terminated. Thus, this type of dynamic network is based on a longer-termed cooperation and is likely to have a more rigid form than enterprises formed through a pool as mentioned in the previous section because the participant firms are not so easily interchangeable. The term ‘longer-termed’ here is not meant to imply collaborations lasting over several decades, but is used to contrast these networks from the usually short-term virtual enterprises mentioned above. This type of dynamic network fits the description of the dynamic network identified by Miles and Snow, as discussed above (section 2.2.1).
1.2). Indeed, I hold that a main characteristic of this category of dynamic networks is that the lead partner owns or controls the brand of the product or service provided by the dynamic network, and that, indeed, the dynamic network revolves around this brand.

A classic example of such dynamic networks is Dell Computers. Dell takes orders online through its website which allows its clients to customize their product. It relies heavily on a network of suppliers which receives orders online and supplies directly to Dell’s buyers. Overall, about 50 per cent of Dell’s orders are processed through the web, without direct contact with Dell’s managers.\(^{28}\)

Another example described by Castells\(^{29}\) as being potentially the network enterprise *par excellence* is Cisco Systems. The core of its operation is its website from which prospective customers can select products and make orders online. These are then automatically transferred to Cisco’s network of suppliers who are also connected online. Products are shipped directly to customers by the manufacturers. Cisco is thus an example of a manufacturing company which does almost no manufacturing itself.

### 1.4 BACKGROUND: TRENDS OF ORGANIZATIONAL EVOLUTION

The shift to such dynamic forms of networked organizations has not happened overnight. In the last half-century, one can identify what Castells calls different ‘trends of organizational evolution’\(^{30}\) starting from the transition from mass production to flexible production.\(^{31}\) As Castells explains, standardized products were mass produced through assembly-line-based machines, enabling corporations at the beginning of the last century to achieve huge economies of scale.\(^{32}\) Such corporations were large, vertically integrated, with rigid structures for the division of labour which led to the development of bureaucracies within and between the different management and manufacturing levels of the corporation. Eventually, technological change rendered single-purpose production equipment obsolete.

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\(^{28}\) Castells (n 6), 182–3.

\(^{29}\) Ibid, 180–4.

\(^{30}\) Castells (n 6), 166.

\(^{31}\) Section 1.4 is based on Castells (n 6), 166–80.

\(^{32}\) Castells (n 6), 166.
and more costly to operate. The trend started shifting towards more flexible forms of production, either in the form of flexible specialization such as occurred in the northern Italian industrial districts where industrial craft and customized production by small and medium-sized firms flourished or in the form of dynamic flexibility also known as high-volume flexible production which enabled economies of scale and customized, reprogrammable production systems that are more sensitive to variations in the market.

Another distinct trend identified by Castells is the crisis of the large corporation and the resilience of small and medium firms as agents of innovation and sources of job creation. Indeed, SMEs play a central role in the European economy. In the enlarged European Union of 27 countries, some 23 million SMEs provide around 75 million jobs and represent 99 per cent of all enterprises. However, some authors are sceptical about the flexibility and economic viability of SMEs, holding that these are often dependent on collaboration with large corporations and thereby under their financial, commercial and technological control. However, as Castells explains, small and medium-sized businesses are well adapted to the flexible production system of the informational economy, although their renewed dynamism comes under the control of large corporations. Comcomitant with the rise of small and medium firms is what has been described as the crisis of the large corporation. However, as Castells puts it, we are not witnessing the death of the large corporation but rather a crisis of the traditional corporate model of organization based on vertical integration and hierarchical management with strict technical and social divisions of labour. As a consequence, many corporations are changing their organizational model and becoming horizontal corporations:

[t]o be able to internalize the benefits of network flexibility the corporation had to become a network itself and dynamize [sic] each element of its internal structure: this is in essence the meaning and the purpose of the ‘horizontal corporation’ model.


34 See, for example, B Harrison, Lean and Mean: The Changing Landscape of Corporate Power in the Age of Flexibility (Basic Books, 1994).

35 Castells (n 6), 168.

36 Ibid.

37 Ibid, 176.
New methods of management such as ‘just-in-time’ production, total quality control of products in the production process to eliminate defects, and workers’ involvement in the production process through teamwork, are another development mentioned by Castells.38

Two other significant forms of organizational flexibility are characterized by inter-firm networking: networks among SMEs and the licensing-subcontracting model of production under an umbrella corporation.39 The classic examples of networks among SMEs are the industrial districts in northern Italy characterized by networking relationships among small firms that have established niche markets for certain products. For example Carpi and Prato have become well known for textiles, Arzignano for leather goods and Sassuolo for ceramic tiles. Sometimes the network is structured differently through the use of subcontracting or franchising by a core corporation to individual firms that are often in different locations. Indeed these franchising networks have proliferated in the last two decades with activities ranging from fast food to car hire to the prêt à porter clothing business, to name just a few.

A sixth organizational pattern identified by Castells is the intertwining of large corporations or what is commonly known as strategic alliances among large firms.40 Such alliances enable them to cooperate on certain areas such as research and development or certain aspects of their business, although the alliance firms compete in areas not covered by the alliance. A well-known example of strategic alliances is the Star Alliance41 between large airlines like Scandinavian Airlines, Lufthansa and United Airlines, or the SkyTeam alliance between, inter alia, KLM and Delta Air Lines,42 where airlines combine flights (and consequently an increased occupancy level of their fleet), and are able to offer more service points for alliance customers in airports.

The corporation has thus changed its organizational model to adapt to the conditions of unpredictability brought about by economic and technological change. The main shift is from the vertical bureaucratic corporation to the horizontal corporation43 where the business itself becomes a

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38 Ibid, 169.
39 Ibid, 172.
40 Ibid, 174.
41 <www.staralliance.com> accessed 15 February 2012.
43 Castells (n 6),176.
network in order to be able to internalize the benefits of network flexibility. Castells describes it as the rise of business networks, ‘[n]etworks are the fundamental stuff of which new organizations are and will be made’.\footnote{Ibid, 180.}

As Castells explains, it is important to note that the abovementioned different trends are relatively independent of each other.\footnote{Ibid, 178.} The formation of subcontracting networks is different from the formation of horizontal networks of small and medium businesses. The web-like structure of strategic alliances between large businesses is different from the shift towards the horizontal corporation.\footnote{Ibid.}

As Castells notes:

… these various trends interact with each other, influence each other, but are all different dimensions of a fundamental process: the process of disintegration of the organizational model of vertical, rational bureaucracies, characteristic of the large corporation under the conditions of standardized mass production and oligopolistic markets.\footnote{Ibid, 179.}

Castells, like Miles and Snow before him, also sees ‘a new organizational form’ that has emerged as characteristic of today’s informational, global economy.\footnote{Ibid, 187.} Castells calls it ‘the network enterprise’ and sees its emergence as a result of the interaction between organizational crisis and change and new information technologies. Although organizational change and evolution happened in response to the need to cope with a constantly changing operational environment and independently of technological change, as Castells explains, ‘[y]et, once it started to take place, the feasibility of organizational change was extraordinarily enhanced by new information technologies’.\footnote{Ibid, 185.}

Thus, the shift to dynamic forms of networked organizations was accelerated exponentially by the growth and widespread penetration of ICT.\footnote{Castells refers to Bar and Borrus’ research which has shown that information networking technology jumped by a quantum leap in the early 1990s, due to the convergence of three trends: digitization of the telecommunications network, development of broadband transmission, and a dramatic increase in the performance of computers connected by the network, a performance which had been exponential.}
Introduction

The ability of small and medium businesses to link up in networks among themselves and with large corporations also became dependent on the availability of new technologies, once the networks’ horizons (if not their daily operations) became global.51

The components of the network are both autonomous and dependent vis-à-vis the network, and may be a part of other networks.

The performance of a given network will then depend on two fundamental attributes of the network: its \textit{connectedness}, that is, its structural ability to facilitate noise-free communication between its components; and its \textit{consistency}, that is, the extent to which there is a sharing of interests between the network’s goals and the goals of its components.52

1.5 AIM, ORIENTATION AND OUTLINE OF THIS BOOK

One issue that kept reappearing during my research was the reluctance expressed by a number of businesses to set up dynamic networks by using one of the traditional corporate or partnership forms such as a limited liability company or a limited partnership. Dissatisfaction with the traditional, established corporate and partnership forms has also been expressed by some legal scholars such as Cevenini53 and Van Schoubroeck et al,54 with the main criticism being that the legal formalities required to set up one of these established corporate and partnership forms run counter to the need for flexibility and temporariness of certain dynamic networks like virtual enterprises and would, indeed, stifle such collaborative networks.

Nevertheless, it is also a fact that even if contractual parties have expressly excluded the operation of corporate or partnership law, in a

determined by technological breakthrough in micro-electronics and software (Castells (n 6), 186). Indeed, the role of computerized information systems was mentioned by Miles and Snow in their 1986 article as one of the characteristics of the dynamic network.

51 Castells (n 6), 185.
52 Ibid, 187.
number of jurisdictions certain provisions of the default national partnership law regime could still apply in certain situations.

In the absence of a choice by the network parties of one of the established legal forms – whether corporate or partnership – the fallback position is usually the use of a contract or of a network of contracts. However, even here, it became obvious that the contracts used by these dynamic networks are something other than the typically antagonistic discrete contracts of classical contract law. They are collaborative contracts and more, as is explained further in this book.

This book is not a treatise on legal issues surrounding virtual enterprises. Instead, it uses the different types of dynamic networks discussed above in section 1.3, including but not limited to virtual enterprises, to examine whether and how contract and partnership law regulate and cope with such networks. In other words, how far is contract a useful and flexible tool to regulate such new phenomena? When do default rules of national partnership law apply and, so to speak, override the wishes of the contracting parties? These novel organizational forms are thus used to illuminate and illustrate the main legal discussion in this book, that is, the relative utility of contract and partnership law in fostering and supporting emerging business models.

A number of case studies of dynamic networks which are used as empirical background for and throughout this book are examined in Chapter 2.

The precontractual stage and its different phases is examined in Chapter 3. The focus is on the role of enterprise pools as well as the stage from when a market opportunity is identified up to the moment that a virtual enterprise is formed out of members in an enterprise pool. Chapter 4 examines basic questions of contract law such as: the notion of contract, why parties use contract as a regulatory tool, and the different types and theories of contract, i.e. from the classical notion of the adversarial discrete contract, to the neoclassical notion of contract, to the view of contract as a collaborative and relational one. The internal relationship between the participants in dynamic networks during the operative phase of such networks is the theme of Chapter 5. The legal framework of dynamic networks is examined and the focus then turns to the nature of the relationship between the members in such networks, in particular during the performance stage.

Chapter 6 examines some basic questions of partnership law such as: the consequences and effect of the application of overriding partnership law to relationships that parties had intended to set up as ‘merely’ contractual, and the standard of behaviour required of partners in a partnership. Moreover,
dynamic networks are not only created through the use of one multilateral contract. Very often, there is a series of contracts behind or underlying such complex networks. The notion of contractual networks is therefore also extremely relevant and is the subject of Chapter 7.

There is an abundance of literature on traditional contract law issues and, similarly, on company law and partnership law. To give an example of this with reference to English law, treatises on contract law include classics like those by Treitel, Chitty, Cheshire, Fifoot and Furmston and Atiyah respectively, to mention just some, and treatises on partnership law and/or company law include those by Morse, Gower and Farrar respectively. This book does not attempt to regurgitate what has been so ably discussed by these eminent writers. What this book does, however, is to focus on that area where contract and partnership law intersect, that is where these disciplines overlap. It seeks to examine the reason for this overlap which, very often, is because one discipline supplements or ‘fills in gaps’ left blank by the other. There is a dearth of legal literature on this, though there appears to be growing interest in this area, again in works on networks. This book seeks to contribute insight into this little explored area of law.

There is some literature on company law as a contract law discipline, but this has been mainly centred on issues such as the use of a shareholders’

59 G Morse, Partnership Law (7th edn, Oxford University Press, 2010).
60 PL Davies, Gower and Davies’ Principles of Modern Company Law (8th edn, Sweet & Maxwell, 2008).
agreement and the nature of promises to issue shares – issues which are not central to this book.63

A closely related question, which plays a central role in this book, is the behaviour of the parties in the dynamic networks studied in this book. An important characteristic of dynamic networks is the underlying basis of trust between the firms forming part of the network. Trust plays an important role at all stages – from the precontractual stage where a dynamic network such as a virtual enterprise is being set up, to the performance stage, once it has been set up. Although trust per se is not a legal concept, as is more extensively discussed in Chapter 3, an important behavioural criterion in civil law countries is the requirement that contracts be negotiated and performed in good faith. Notions of good faith in contract performance have also appeared in common law jurisdictions, with the notable exception of English law. However, the concept of good faith has different nuances depending on the jurisdiction, the legal culture and even the legal relationship – contract or organizational form – concerned. Its scope varies, depending on whether the contract under examination is an adversarial spot-market contract, a collaborative contract or a fiduciary one. Good faith can also come in different ‘guises’ such as fiduciary duties in both partnership and company law. The notion of good faith and its various nuances, as a behavioural criterion in contractual and partnership relations, is an important and recurring theme which is discussed and probed in a large part of this book, namely from Chapters 3 to 7.

It should also be highlighted that the focus of this book is on private law issues, namely contract and partnership/company law issues that arise between dynamic networks that carry out an economic activity. Public law issues such as administrative law issues, public procurement and private-public partnerships are not per se the focus of this study.64

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63 See, for example, J Giertsen, ‘Company law as a contract law discipline’ in K Engsig Sørensen and M Neville (eds), The Regulation of Companies: A Tribute to Paul Krüger Andersen (Forlaget Thomson, 2003).

64 As some of the case studies show, many clusters are created through support from public funding and some of them continue to receive partial public funding for a while. It is beyond the scope of this book to look at the public law aspects in the structure of such clusters.
1.5.1 Hybrids, Collaborative Contracts and More

In the field of law and economics, there is a growing literature on certain types of business relations which do not fit neatly into the legal classification of either contract or partnership/company and which have been called ‘networks’65 or ‘hybrids’.66 As elaborated further below, the term ‘network’ is not a legal concept67 but a sociological one.68 Its meaning ranges from a group of people who meet for social and contact-building purposes, to a loose or more complex collaboration between firms in a particular business field, and it also includes the legal notion of a group of (parent-subsidiary) companies (an internal network).

The analysis of hybrids began with studies in the discipline of New Institutional Economics (NIE). In his seminal article on the nature of the firm, the economist Ronald Coase saw firms and markets as alternative means for organizing similar kinds of transactions. Where the costs of organizing certain transactions within the firm are greater than the costs of carrying out the exchange transactions in the open market, then the firm will opt to contract out (market) rather than to carry out the transactions within the firm (hierarchy). Where the contracting costs are higher than if the firm were to carry out the transactions in-house, the firm will opt for the latter option:

… the operation of a market costs something and by forming an organization and allowing some authority (an ‘entrepreneur’) to direct the resources, certain marketing costs are saved. The entrepreneur has to carry out his function at less cost, taking into account the fact that he may get factors of production at a lower


67 The assertion that ‘“Network” is not a legal concept’ has been affirmed by other legal scholars such as Schanze, ‘Beyond contract and corporation’ (n 66) and Teubner, Networks as Connected Contracts (n 62).

68 See, for example, Castells (n 6) and Powell (n 65).
price than the market transactions which he supersedes, because it is always possible to revert to the open market if he fails to do this.\textsuperscript{69}

The costs of negotiating are known as transaction costs and include things such as the costs of identifying the other parties to the bargain, the costs of getting together with them, the costs of the bargaining process itself and the costs of enforcing any bargain reached.\textsuperscript{70} Four decades later, Coase’s insight was picked up by Oliver Williamson\textsuperscript{71} and other proponents of transaction cost economics. The essence of Williamson’s argument is that where a transaction is straightforward, non-repetitive and requires no transaction-specific investment, it will take place across a market interface (i.e. through contract).\textsuperscript{72} When transactions are complex, recur frequently and knowledge specific to the transaction (known as asset specificity) builds up, they are more likely to take place within hierarchically organized firms. This is the market – hierarchy dichotomy on which there is extensive law and economics literature. To lawyers not familiar with such literature, put simply, it is the choice between using contract as the regulatory vehicle as, for example, when outsourcing a task, or whether to perform that task internally within the firm (by setting it up as a company/partnership).

In between these two polar opposites of market and hierarchy, law and economics scholars of the NIE\textsuperscript{73} identified and examined various intermediate or what were called ‘hybrid’ forms of organization. As Williamson explains:

\begin{itemize}
\item\textsuperscript{69} Coase (n 1), 44.
\item\textsuperscript{70} For a detailed explanation of Coase’s theorem for lawyers see RP Malloy, \textit{Law in a Market Context: An Introduction to Market Concepts in Legal Reasoning} (Cambridge University Press, 2004) 177 et seq.
\item\textsuperscript{71} OE Williamson, ‘Transaction-cost economics: the governance of contractual relations’ (1979) 22 (2) \textit{Journal of Law and Economics} 233–61.
\item\textsuperscript{72} Ibid; see also Williamson, \textit{The Economic Institutions of Capitalism} (n 66).
\item\textsuperscript{73} ‘New Institutional Economics (NIE) is an interdisciplinary enterprise combining economics, law, organization theory, political science, sociology and anthropology to understand the institutions of social, political and commercial life. It borrows liberally from various social-science disciplines, but its primary language is economics. Its goal is to explain what institutions are, how they arise, what purposes they serve, how they change and how – if at all - they should be reformed.’ For further information on the NIE, see the website of the International Society for New Institutional Economics (ISNIE) at <www.isnie.org/> accessed 15 February 2012. See also OE Williamson, ‘The new institutional economics: taking stock, looking ahead’ (2000) 38 \textit{Journal of Economic Literature} 595–613.
\end{itemize}
Introduction

whereas markets engage high-powered incentives, have little administrative apparatus, and settle disputes in a legalistic way (in the courts), hierarchy works out of low-powered incentives, has considerable administrative apparatus, and settles disputes internally (the firm is its own court of ultimate appeal). … The hybrid is a compromise mode of governance for managing bilateral dependency.74

Hybrid contracts are typically long-term contracts in which parties are bilaterally dependent. This bilateral dependency is supported by a variety of specialized governance features such as arbitration, tied sales, reciprocity and regulation.75 According to Williamson, in hybrid contracts, the parties ‘maintain autonomy, but the contract is mediated by an elastic contracting mechanism’.76 There is extensive reference to the NIE notion of hybrids in this book in discussing the types and styles of contracting used by dynamic networks.

From a sociological perspective, Powell, however, sees networks – a term he prefers to hybrids – as forming a distinctly different organizational form.77

When the entangling of obligation and reputation reaches a point that the actions of the parties are interdependent, but there is no common ownership or legal framework, do we not need a new conceptual tool kit to describe and analyze this relationship? Surely this patterned exchange looks more like a marriage than a one-night stand, but there is no marriage license, no common household, no pooling of assets. In the language I employ below, such an arrangement is neither a market transaction nor a hierarchical governance structure, but a separate, different mode of exchange, one with its own logic, a network.78

Powell sees networks as having three critical components: (i) know-how in the sense of intellectual capital or craft-based skills, (ii) the demand for speed evidenced in their ability to access information fast, in their flexibility and responsiveness to changing tastes, and (iii) trust between the network participants. However, from a juridical point of view, Powell’s thesis has

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76 Ibid, 271.
77 Powell (n 65), 299.
78 Ibid, 301.
been criticized as not taking us much further than Williamson’s transaction-cost theory, i.e. the market–hierarchy or contract–partnership/company dichotomy. Buxbaum argues that two of the components of networks identified by Powell – speed and know-how – both relate to Williamson’s notion of asset specificity. Network actors possessing such skills will tend to behave professionally with other network members, thus bonding on both a personal and firm-to-firm level, and facilitating the creation of trust (the third component identified by Powell) between them. To augment and sustain these bonds of trust, Buxbaum holds that interfirm mobility of the human actors is important, as is physical proximity. Thus:

[t]he same substantive conditions of speed and know-how, and the same facilitative conditions of professionalism, proximity, and mobility that combine to spell ‘trust’, also suffice to explain the relative complexity that differentiates the ‘multilateral’ network from the ‘bilateral’ contract and the ‘unilateral’ firm.79

Hence, as Buxbaum concludes, network is not a legal concept.80 Teubner concurs and adds that:

[t]he debate is on the appropriate form of regulation for business networks, virtual business, just-in-time systems, franchising chains and other co-operative contracts. They are generally established through bilateral contracts yet give rise to multilateral (legal) effects. Hybrid networks are remarkably disruptive social phenomena. They can neither be subsumed under the category of market, nor under the category of organisation.81

I hold that, from a legal point of view, networks or hybrids do not create a new legal form. To characterize the legal nature of networks like virtual enterprises and enterprise pools, jurists will use the mechanisms of contract and partnership/company law. To set up such dynamic networks, lawyers will do the same, depending on the specific type of collaboration their client wants to set up. In most cases, the more flexible regulatory instrument is the contract or a set of contracts but, as will be discussed in this book and as evidenced by some of the case studies, sometimes a combination of contract and the legal form of partnership, company or association has been used to set up enterprise pools.

80 Ibid, 705.
81 Teubner, ‘Coincidentia oppositorum’ (n 62), 13.
However, traditional contract law notions, such as the common law perspective of contract as a bargain between antagonistic parties and the notion of privity of contract, create difficulties when applied to network contracts. Similarly, the legal forms of partnership and company are not really suitable for virtual enterprises which typically need to be set up very quickly in response to a market opportunity and where the parties are not interested in transferring their respective resources, assets or intellectual property into a new legal entity (the partnership or company). There is therefore a need to re-examine the notion of contract by also looking at modern contract law theory, and to acknowledge that the term ‘contract’ embraces more than just the exchange contract. In effect, one must choose and adapt the type of contract according to the type of transaction. The NIE movement, for example, sees hybrids as being supported by ‘contract as framework’, ‘a more elastic concept of contract’ which, within limits, promotes cooperative adaptation through collaboration.82

The classical theory’s view of contract as a discrete transaction characterized by simultaneous exchange between antagonistic parties is problematic for dynamic networks. In these networks, although some parties may be competitors and although each party would want to obtain maximum advantage for its own business, there is an understanding that the parties will collaborate to achieve the scope for which that dynamic network was set up. In this sense, competition will be heavily diluted by a heavy dose of collaboration. A different type of contract than the discrete contract is required – the collaborative contract. This book discusses these theories and different types of contracts and examines their suitability for hybrids such as dynamic networks.

1.6 METHODOLOGICAL CONSIDERATIONS

This book analyses the legal framework selected and used by businesses to set up dynamic networks in practice. An empirical study was carried out and a number of real examples of dynamic networks are examined in Chapter 2. Their legal framework is examined both from a contract law and a partnership and company law perspective. Through this, the relative utility and extent of contract and partnership/company law in fostering and maintaining such dynamic networks is examined.

To examine basic questions such as the nature and role of contract, partnership and company law and the notion of good faith, this book takes account of legal rules in a number of jurisdictions, including England, Norway, Italy, France and Germany. Reference is often made to contract law in two other common law jurisdictions: Australia and the United States (US). To a much lesser degree, reference is sometimes made to Swiss and Austrian law in discussing certain legal forms such as the law on associations, which have been very popular and much utilized by enterprise pools in those countries.

This choice was motivated by the wish to have jurisdictions from different legal families. The Anglo-American legal family, also referred to in this book as the common law legal family, is represented primarily in this book by English law, supplemented by American and Australian law with regard to certain issues which have been developed differently or more extensively than in England. The civil law system in this book is represented by jurisdictions from its two main offshoots: the Romanistic legal family (viz. France and Italy) and the Germanic legal family (viz. Germany). Finally, Norway is used as the representative of what Zweigert and Kötz term ‘the Nordic legal family’, although with regard to contract law, it should be highlighted that German contract law has had a large influence on Scandinavian contract law. Pöyhönen characterized the Scandinavian contract law systems as ‘semi-continental’. He holds that they are continental ‘in the sense of sharing a legal culture based on the idea of written laws’ and because of the influence of German contract law discussions and theories; they are semi-continental because of the lack of a civil code in the

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84 Thus, for example, the discussion on promissory estoppel in Chapter 3 also investigates the position in Australia and the United States where this notion has been more extensively developed than in England.

85 Zweigert and Kötz (n 83) 73.

86 See further on this Zweigert and Kötz (n 83) 281–282 who explain that the Scandinavian drafters ‘kept an eye on the general private law doctrines of the German Pandectist School as well as the texts of the German and Swiss codes’ but, due to Scandinavian reasonableness and realism, without taking ‘the exaggerated passion for putting general rules “right out front” … [like] the BGB [German Civil Code]’. See also G Cordero Moss, Anglo-American Contract Models and Norwegian or other Civilian Governing Law: Introduction and Methods (Institutt for privatrett Skriftserie 169, University of Oslo, 2007) 61–2.
sense of the German Civil Code or the French Code Civil.\footnote{See J Pöyhönen, ‘Procedural and substantive fairness in Finnish contract law’ in R Brownsword, G Howells and T Wilhelmsson (eds), \textit{Welfarism in Contract Law} (Darthmouth Publishing Co Ltd, 1994) 188–9.} Nevertheless, as Zweigert and Kötz put it:

it would be right to attribute the Nordic laws to the Civil Law, even although [sic], by reason of their close interrelationship and their common ‘stylistic’ hallmarks, they must undoubtedly be admitted to form a special legal family, alongside the Romanistic and German legal families.\footnote{See Zweigert and Kötz (n 83), 277.}

To a certain extent, the choice of jurisdictions has also been influenced by the countries which support flourishing dynamic networks and from which I have obtained most of my case studies such as Germany, England, Italy, Norway and the US.

1.7 TERMINOLOGY

A number of key terms are used in this book such as ‘classical contract’, ‘enterprise pool’, ‘cluster’ and ‘virtual enterprise’. Some of these terms have both a technical definition in certain fields such as the social sciences and also a colloquial meaning in non-academic writings. It is therefore imperative, for the sake of clarity, to explain these terms and clarify how they are used in this book, and to distinguish them from other similar terms.

1.7.1 Classical Contract

Throughout this book, reference is made to the term ‘classical contract’ and to ‘the classical notion of contract’. These terms and references are borrowed from common law literature on contract and are based on the distinction that common law authors make between what they call classical, neoclassical and relational contract law. Traditional civil law text books and literature on contracts do not appear to use this terminology.

In this book, I am using the term ‘classical contract’ and the phrase ‘classical notion of contract’ in the sense that these common law scholars use it, that is, to refer to the exchange contract. The term ‘classical’ does not purport to mean that all contracts are, or that the typical contract is, an exchange contract. I believe that while a century ago the typical business
contract was probably the exchange contract – most contracts were simple sales contracts or spot contracts then – one cannot state the same thing today where business transactions and ventures take many shapes and forms varying from exchange contracts to distribution contracts, franchise agreements, licensing agreements, subcontracting arrangements, and the like, to mention just a few.

The different theories of contract – the classical theory, the neoclassical theory and the relational theory of contract – are examined in more detail in Chapter 4, in particular in section 4.5.

1.7.2 Collaborative Network, Cluster and Enterprise Pool

Collaborative networks between firms can take many forms and may range from a loose grouping of firms whose main aim is to make contacts with a view to potential business opportunities in the future, to more structured, closely-knit networks termed ‘enterprise pools’ in this book.89

At one end of the spectrum are loose groupings of enterprises in clusters while at the other end are enterprise pools. Clusters are critical masses in one geographic location of linked industries and institutions, from suppliers to universities to government agencies, which enjoy unusual competitive success in a particular field.90

At the other end of the spectrum are virtual enterprises pools. Within this spectrum, there is a range of collaborative networks. An enterprise pool is a closely-knit network of different firms, usually SMEs, whose main aim is to facilitate the quick formation of a virtual enterprise from a select group of its members as soon as a business opportunity is identified. To join the enterprise pool, a firm would usually need to undergo some preliminary vetting to ensure its good standing, following which the firm would adhere to some sort of pre-defined set of ‘rules of the game’ or membership rules which set out a framework for the interaction, and function as a trust-building mechanism, between the members. An enterprise pool would also have a set of sample contracts (template contracts) which its members would be able to use to quickly form a virtual enterprise. Examples of such

89 Lange (n 25) uses the same term in German – Unternehmenspool – in his legal study on virtual enterprises.
90 The term ‘industry clusters’ was introduced and popularized by M Porter in The Competitive Advantage of Nations (new edn to the 1990 1st edn, Macmillian Business, 1998). Examples of clusters are found around the world but a famous example is the Prato textile district in Italy. The development and upgrading of clusters has become an important agenda for many governments today.
network pools are Virtuelle Fabrik in Switzerland and Germany and Virtuel-Bau in Switzerland.

A term akin to ‘enterprise pool’ which has recently emerged in business and technical research, in particular from the ECOLEAD project, is ‘virtual organization breeding environment’ abbreviated as VBE. According to ECOLEAD:

a VO Breeding Environment (VBE) represents an association or pool of organizations and their related supporting institutions that have both the potential and the will to co-operate with each other through the establishment of a ‘base’ long-term co-operation agreement. When a business opportunity is identified by one member (acting as a broker), a subset of the VBE members can be rapidly selected to form a virtual organization. ... VBE represents a group of organizational entities that have developed advanced preparedness for co-operation, for the cases when specific opportunities arise.

The notion of enterprise pools is also similar to Goldman, Nagel and Preiss’s notion of ‘organizational webs’, ‘virtual webs’, or just ‘webs’ as they also called them before the term ‘Web’ took off as a synonym for the Internet. In 1995, Goldman et al already envisaged the need for a more dynamic organizational mechanism to facilitate virtual enterprise formation:

The web is an open-ended collection of prequalified partners that agree to form a pool of potential members of virtual organizations. A more aggressive web would have a floating rather than a fixed membership, with its members extending across industry sectors to expand the customer opportunities its members could create or respond to. However it is organized, an effective web must have a way of identifying the evolving core competencies of its members as well as of its changing membership.

The term enterprise pool is preferred in this book since it is more precise – it is a pool of enterprises whose scope is to facilitate the quick formation of a

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91 One of the earliest uses of the term ‘breeding environment’ was in the EU-funded VOSTER project which ran from 2001 to 2004. It was then extensively studied in ECOLEAD. The main publications on VBE, in fact, stem from the ECOLEAD project. See LM Camarinha-Matos and H Afsarmanesh, ‘Collaborative networks: a new scientific discipline’ (2005) 16 Intelligent Manufacturing 439–52.

92 Ibid, 440.


94 Ibid, 221.
virtual enterprise in response to a business opportunity, and that has developed advanced preparedness for future collaboration of its members through member’s adherence to ‘rules of the game’ or similar pre-qualification agreements.

A distinction should be drawn between the term ‘pool’ used in this book and that used in shipping to describe a variety of cooperative agreements – ‘pool agreements’ – between ship-owning companies who retain their legal identities. As Røsæg explains with regard to shipping pools:

what one would like to achieve is that the participants shall ‘pool’ (i.e. share the risk of) some expenses concerning the running of the ship. To achieve this, the participants must usually pay income into the pool and receive payment according to the agreed rules. In this way, all losses and all surpluses will be shared by all the participants, and each participant will minimise fluctuations in his income – for better or for worse.95

1.7.3 Virtual Organization, Virtual Enterprise

The term virtual enterprise is used to refer to two of the three types of dynamic networks examined in this book. The notion and different categories of dynamic networks was extensively examined in section 1.3. It is now opportune to examine the term ‘virtual enterprise’. One comes across several attempts to define this term in business management and information systems literature, but there is no universally agreed definition. In fact, as the following study of the term ‘virtual enterprise’ shows, there is a veritable jungle of proposed ‘definitions’, explanations, terms and variations on the same theme.

Mertens and Faisst96 define the virtual enterprise as follows:

A virtual enterprise is a co-operation form of legally independent enterprises, institutions and/or individuals, which produces a service on the basis of a common business understanding. The co-operating units participate in the horizontal and/or the vertical collaboration with their core competencies and

95 See further E Røsæg, Organizational Maritime Law (Internal publication of the Nordic Institute of Maritime Law, University of Oslo 1996), 83 et seq.
appear to third parties as a homogenous enterprise. Furthermore the institutionalization of central management functions for design, management and development of the virtual enterprise are extensively abandoned and the necessary demand for co-ordination and harmonisation is covered by appropriate information and communication systems. The virtual enterprise is connected to a mission and ends with that mission.97

Virtual enterprises are not classical, traditional and, in that sense, familiar types of organizations. Many people identify the notion of the firm with a single entity with a physical location, identifiable boundaries and considerable longevity. According to Travica:

[t]he fuzziness of VO boundaries makes it possible for a prompt inclusion of new members and for the simultaneous participation of the same constituents in different VOs. … Therefore, in contrast to the traditional organization, [the] VO does not have a physical presence and have boundaries that merely on the surface resemble traditional ones. With regard to longevity, VOs can be anywhere along the timeline ranging from very short periods of time units to years.98

The term ‘virtual enterprise’ has sometimes led to confusion since for many, the term ‘virtual’ also connotes ‘not real’ as in ‘fake’. As Goranson succinctly puts it, ‘[b]elieve it or not, we actually have a great deal of trouble with the term, but we just cannot seem to come up with something better’.99

In actual fact, the word ‘virtual’ had a very positive meaning in Middle English, according to the Oxford English Dictionary:100

possessed of certain physical virtues or capacities; effective in respect of inherent natural qualities or powers; capable of exerting influence by means of such qualities.

97 A comprehensive theoretical background of the concept of the virtual enterprise may be found in Chapter 1 of C Odendahl and R Angeli, ‘Final Virtual Organization Architecture’ (2000) EU MARVIN project deliverable T1.3D2.
Gradually the meaning of this word was widened to mean, again according to the Oxford Dictionary:

[t]hat is so in essence or effect, although not formally or actually; admitting of being called by the name so far as the effect or result is concerned.

Virtual enterprises are ‘opportunistic aggregations of smaller units that come together and act as though they were a larger, long-lived enterprise’.\(^{101}\) As Goranson explains, ‘the virtual here is meant to convey that many of the advantages of a large enterprise are synthesized by its members’.\(^{102}\) Perhaps an explanation of ‘virtual’ is best illustrated by examining its use in the term ‘virtual memory’. In computer science, virtual memory is memory created by using the hard disk to simulate additional random-access memory (RAM). Thus, part of the computer’s hard disk storage space is used as if it were the computer’s RAM, thereby enabling the computer to run programs for which the total code plus data size is greater than the amount of RAM available.\(^{103}\) This is similar to what happens in the virtual enterprise. By joining together their core competences and responding quickly to a business opportunity, the parties are able to produce a product or deliver a service that none of them would have been capable of doing on their own. But more than this, the final outcome of the virtual enterprise is worth more than the sum of the effort of each party since each party would never have been capable of delivering the service or producing the product on its own.

An important element in the virtual enterprise is the use of information technology (IT). Indeed, many authors describe it as an *indispensable* element of the virtual enterprise. Travica calls IT a necessary condition.\(^{104}\) He describes ‘the virtual corporation’ as ‘an organizational design that comes into being through virtualizing the sourcing and other inter-organizational processes’.\(^{105}\) Cevenini defines the virtual enterprise *inter alia* as an ‘ICT-enabled collaboration’.\(^{106}\) Lange, in the very first page of his book on legal issues of virtual enterprises, links the term *Virtuelle*...

\(^{101}\) Goranson (n 99), 65.

\(^{102}\) Ibid.

\(^{103}\) For further technical explanation of the term ‘virtual memory’ see online Webster’s English Dictionary at <http://www.websters-online-dictionary.org/> accessed 15 February 2012.

\(^{104}\) Travica (n 98), 54–5.

\(^{105}\) ‘Virtualizing’ here is used in the sense of automating.

\(^{106}\) Cevenini (n 53), 79.
Unternehmen with the growth in importance of ICT.\textsuperscript{107} A host of business management literature also considers ICT a vital feature of the virtual enterprise. Davidow and Malone talk of a virtual organization that delivers a ‘virtual product’ that is customized in response to customer demands, deploys a ‘sophisticated information network and computer-integrated production processes’ and exhibits ‘permeable and continuously changing boundaries’ involving supplier and customer.\textsuperscript{108} Goldman et al state that ‘[a] virtual organization is assumed to offer world-class technology [their emphasis] in its product service solutions’.\textsuperscript{109}

The above authors thus all include the elements of ICT as a key feature of the virtual enterprise. However, IT law issues are not the focus of this book because these issues do not appear to be specific for or unique to virtual enterprises but may be relevant to any type of business that uses technology in its communication, management and/or production processes. Among these IT law issues are: electronic contracting, privacy and identity management, confidentiality and integrity of documents, authentication and access control. Technology is thus an enabler for these networks – it facilitates communication (for example, by enabling the existence of networks across jurisdictional boundaries and different time zones), better interaction between the parties (thereby playing an important role in, for example, enhancing trust between the parties) and has been called the ‘motor’ of dynamic networks such as virtual enterprises.\textsuperscript{110} In fact, in her doctoral thesis on legal issues of virtual enterprises, Cevenini acknowledges that ‘computer law issues regarding Virtual Enterprises do not show distinctive peculiarities as compared with any company structure’.\textsuperscript{111} In their Virtual Enterprise Legal Issues Taxonomy, Van Schoubroeck et al concur.\textsuperscript{112}

Business and management literature use many terms to describe this novel form of business: virtual enterprise, virtual organization, virtual corporation, virtual factory and sometimes also add other colourful adjectives like ‘smart’ as in ‘smart virtual organizations’ or ‘agile’ as in Goranson’s book ‘The Agile

\textsuperscript{107} Lange (n 25), 25.
\textsuperscript{109} Goldman, Nagel and Preiss (n 93), 206.
\textsuperscript{110} See Van Schoubroeck et al (n 54), 43.
\textsuperscript{111} See Cevenini (n 53), 179–80.
\textsuperscript{112} They hold that although ICT is ‘absolutely indispensable for the VE’ (i.e. the virtual enterprise), it ‘cannot be regarded as a decisive legal characteristic which can distinguish the VE from other market actors’. Later on they state: ‘To put it rather simplistically, ICT is a tool.’ See Van Schoubroeck et al (n 54), 43.
Virtual Enterprise’. Although more probably than not reflecting buzzwords current at the time that the particular publication came out, this unhappy variety of terms certainly does not help add clarity to the field.

The word ‘enterprise’ is preferred in this book to ‘organization’. Enterprise means, according to Webser’s English Dictionary, ‘a purposeful or industrious undertaking (especially one that requires effort or boldness); an organization created for business ventures’ whereas the term ‘organization’ is broader ‘a group of people who work together’113 or ‘an organized body of people with a particular purpose, as a business, government department, charity, etc’.114 or, according to the ISO definition, ‘a company, corporation, firm, enterprise or institution, or part thereof (whether incorporated or not, public or private) that has its own function(s) and administration that supplies products or services to other organizations’.115 The ‘virtual enterprise’ is thus the species of the genus ‘virtual organization’. The ECOLEAD project also considers the virtual enterprise to be ‘a particular case of the VO’.116

The term ‘virtual enterprise’ is also a literal translation of the German virtuelle Unternehmen which is the most widely used term in German literature,117 including legal literature.118 Similarly, the Italians use impresa virtuale.119

114 See online Webster’s English Dictionary <http://www.websters-online-dictionary.org/> accessed 15 February 2012.
115 See ISO 9001 definition.
119 See P Di Nicola, ‘Alcune ipotesi sullo sviluppo produttivo delle regioni del Sud e mediterranee basato sulle imprese virtuali, il telelavoro e la cooperazione in
This view of virtual enterprise as species of virtual organization also appears in Mowshowitz’s seminal book in the social sciences on ‘Virtual Organization’. He describes the virtual organization as ‘a goal-oriented enterprise (i.e. unit, function, activity) operating under metamanagement’ and the term ‘virtual enterprise’ as signifying ‘the current state of the art in virtual organization, that is, the most advanced practical realizations of the concept’. He continues that, ‘since practice is rarely guided by theory, it is appropriate to use distinct terms for theory and practice to avoid confusion’.

Mowshowitz developed the concept of ‘switching’ to define the virtual organization and distinguish it from traditional organizations. Switching is the organization’s ability to shift satisfiers (for example suppliers) as warranted by cost, reliability or other considerations that may ultimately translate into a competitive edge for the firm. The ability to change suppliers is not new. What is new according to Mowshowitz is to structure operations in such a way as to make it feasible to shift suppliers on demand. To him, virtual organization allows for systematic shifting on demand.

One of the earliest uses of the term ‘virtual corporation’, which helped to popularize it, was by Davidow and Malone in 1992 who visualized firms including suppliers coming together into a temporary collaboration to respond swiftly to a sudden market opportunity. Nagel and Dove also used the term ‘virtual corporation’ as the title of one of their working papers in 1991. Since the term ‘corporation’ refers to a particular juridical entity – the corporation in US law and the company in English law – which has its own separate legal identity and is strictly regulated by mandatory rules of national law, the term ‘virtual enterprise’ is preferred in this book to avoid confusion. It also appears that in Europe the terms ‘virtual organization’ and...
‘virtual enterprise’ were preferred,\footnote{Of course, one then finds variants of these terms in different languages throughout Europe such as, for example, \textit{impressa virtuale} (Italian), \textit{virtuelle unternehmen} (German), \textit{entreprise virtuelle} (French), to name but a few.} probably due to the fact that the American term ‘corporation’ is less used in Europe.

One also comes across the term ‘virtual factory’,\footnote{See, for example, DM Upton and A McAfee, ‘The real virtual factory’ (1996) \textit{Harvard Business Review} 123–35.} However, this term focuses on the actual production process of a physical product such as machinery, automobiles and textile products whereas the focus in this book is on the dynamic collaboration of the various firms in the virtual enterprise.

In a 2004 report for the DG Information Society eBusiness Unit of the European Commission conducted by RAND Europe, the term used was smart virtual organization,\footnote{Rand Europe, \textit{Europe, Competing: Market Prospects, Business Needs and Technological Trends for Virtual, Smart Organizations} (February 2004).} reflecting the current buzzword ‘smart organizations’ at the time. In the midst of all this jargon jungle, it is difficult to refrain from quipping that all virtual enterprises, indeed all businesses especially dynamic networks, need to be ‘smart’ to survive.

There is a dearth of legal definitions or explanations of the term ‘virtual enterprise’, which is not surprising when one considers the dearth of legal literature on this topic. Cevenini proposes the following definition of the virtual enterprise:

\begin{quote}
an ICT-enabled collaboration between legally independent subjects aimed at the joint provision of goods or services, where each partner contributes to specific activities. The VE does not have legal personality but appears as one organization towards third parties.\footnote{Cevenini (n 53), 79.}
\end{quote}

Cevenini’s definition is further discussed in Chapter 6.\footnote{See section 6.2.5.} Suffice it to highlight, at this point, the legal difficulties raised by phrase ‘but appears as one organization towards third parties’ in her definition. As is discussed later in this book, in many jurisdictions, this factor could trigger the application of overriding rules in national partnership law which means that a virtual enterprise would, in effect, be deemed to be a partnership by a judge if a dispute arose as to its legal nature.
I have also come across a legal description of a *virtual company* by a court. The US District Court of New York\(^{130}\) described the virtual company as follows:

A virtual company, also called an ‘agile virtual enterprise’, is a corporation comprised of a group of companies that have been selected from an array of candidate companies in order to work together to satisfy a temporary market need.

It should be noted that the US court was most probably following the description of a virtual company as submitted to it by the parties – in fact, this description is uncontested by the parties. The court does not go into the legal nature of a virtual company or virtual enterprise. In any case, I hold that this definition does not take us very far, since one could also argue that even a traditional company or partnership could be set up ‘to satisfy a temporary market need’.

The focus of this book, as has been explained extensively above, is on dynamic networks. The term virtual enterprise is mostly used when referring to two of the three categories of dynamic networks, namely: (i) spontaneous and temporary virtual enterprises, as well as (ii) the virtual enterprises formed out of enterprise pools. When referring to the third category, i.e. long-term dynamic networks with a lead partner, the term dynamic network is preferred in this book.

### 1.7.4 Difference from Supply Chains

The virtual enterprise should be distinguished from a conventional *supply chain network*. A supply chain is ‘a logistical management system which integrates the sequence of activities from delivery of raw materials to the manufacturer through to delivery of the finished product to the customer into measurable components’.\(^{131}\) A supply chain usually has a long (permanent) duration in that there is a continuous supply of the product to the customer over a long period. It is a stable network with, very often, a complex legal structure of contracts and subcontracts. Sometimes there is even a partnership or a corporate (group of companies) structure between the parties or some of them. A typical example of a supply chain network is


\(^{131}\) See [Webster’s English Dictionary](http://www.websters-online-dictionary.org/) accessed 15 February 2012.
the production of a car starting from the raw material stage (steel), to manufacturing of the product until its final distribution to automobile dealers for sale to the customer.

1.7.5 Distinguished from Joint Ventures, Alliances, Consortia and Partnering

In this book, reference is often made to the rich legal literature on joint ventures, alliances, consortia and partnering, and comparisons are sometimes made between such contractual forms and the legal framework underlying a virtual enterprise. In most jurisdictions, joint ventures, alliances, consortia and partnering are not legal terms of art but are nomenclatures given to identify certain types or forms of contracts requiring some level of cooperation or collaboration between the parties thereto.

The term ‘joint venture’ is a shortened form of ‘joint adventure’ which seems to have first appeared in Scottish law in the early nineteenth century to refer to short-term collaboration for a specific object. However, it was in the US that the modern form of the joint venture was developed, primarily by the courts. There is no law which specifically regulates joint ventures in the US nor is there a widely agreed definition of this term which implies that this notion is still under development. However, after 1890, US courts seem to have regarded joint ventures as a separate legal form in their own right and distinct from partnerships. American courts have held that certain elements are essential to the existence of the joint venture relationship. Among these central elements are: the intention of the parties as specified in the joint venture agreement, the nature of the undertaking, the pooling of different competencies by the parties for a common object, the parties’ equal right to manage, and the establishment of fiduciary duties among the parties. Although a number of American jurists have found it difficult to pinpoint how exactly joint ventures are different to the legal form of partnership, many of these same jurists acknowledge that their courts have, nonetheless, forged ahead and considered joint ventures as a sui generis legal form. Although according to US courts a joint venture is a limited, ad

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132 Two exceptions mentioned in this section are the notion of joint ventures in US law and the notion of consorzio in Italian law.

hoc collaboration, in actual fact, the extent to which there is a legal difference between a joint venture and a partnership is moot.134

In England, unlike the US, the term ‘joint venture’ is not a legal term of art in the sense that ‘partnership’ or ‘company’ are. However, the terms ‘joint venture’ and ‘alliance’ are widely used by the legal and business professions to represent a range of collaborative business arrangements.135

A development in the last two decades is that, both in the US and England, the term joint venture is also used to refer to a collaborative arrangement for a specific purpose irrespective of whether it takes the form of a contract-based collaboration, a partnership or a corporate joint venture.136

Hewitt, in his standard text on joint ventures in English law, uses the term ‘alliance’ instead of ‘joint venture’ for unincorporated alliances based on a contract, that is, where no independent legal entity has been created by the parties. These are arrangements which usually involve the sharing of costs and resources, and sometimes income, on terms which do not give rise to a legal partnership.137

Although joint ventures are a popular form of business organization internationally, in most countries there is no specific form of enterprise which is legally recognized as a joint venture nor any separate body of ‘joint venture law’. This is the case in Norway138 and Germany.139 One often finds that practitioners base themselves both on contract law and an amalgam of law relating to different forms of business organization, notably, partnership and company law when setting up joint ventures.

As we shall see in this book, the legal framework of a virtual enterprise can take many forms and guises. Some are set up on the basis of a multilateral contract (which we refer to as a ‘virtual enterprise agreement’), some are set up on the basis of a contractual network (e.g. subcontracting network) and some on the basis of a verbal agreement. In the case of a virtual enterprise formed out of an enterprise pool, the legal framework of the enterprise pool is also relevant. Some of these enterprise pools, as

134 Ibid, 102.
136 Nordtveit (n 133), 103.
137 Hewitt (n 135), para. 3–05.
138 Nordtveit (n 133), 2–3.
discussed later in this book, are set up on the basis of written rules (‘rules of the games’) which all the members of the enterprise pool have subscribed to upon joining the pool, while others are formed as (or also as) an association. Sometimes, enterprise pools are set up as a company or partnership, and sometimes there are additional written documents or rules to which the members of the enterprise pool must subscribe (e.g. a franchising agreement). Therefore, although in the case of a virtual enterprise set up through a multilateral contract, one can say that there are many similarities to contractual joint ventures (e.g. in the way the venture is organized and managed), one cannot merely equate the term ‘virtual enterprises’ with ‘joint ventures’. Nevertheless, the literature on contractual joint ventures is relevant since cooperation between the parties – a crucial feature of dynamic networks – also plays an important role in joint ventures.

The term ‘consortium’ and ‘consortium agreement’ is also used in some international contracts for certain specific collaborative business agreements.

Although this term does not appear to have a precise juridical meaning in Norwegian law, Norwegian lawyers seem to be using the term consortium for certain types of collaborative agreements where each party is responsible for the performance of a certain part of the agreement which falls within that party’s core competency. In Germany and Switzerland, the term (konsortium) is used in the construction industry for a collaborative agreement (Baukonsortium) where each party is responsible for carrying out its respective part of the contract, as opposed to the Arbeitsgemeinschaft where the parties are responsible for the performance of the whole task. Similarly, in Anglo-American law, the term ‘construction consortium’ is used where the contract contains a clear division of the parties’ responsibilities in different scopes of work and each party would be responsible for its respective scope of work.

The term konsortium is also used in Danish law for joint ventures in the oil and gas industry where parties share risks and expenses for oil and gas exploration, otherwise known as joint operating agreements in English.

In Italy, the term consorzio has a precise legal definition in article 2602 of the Codice Civile. Consorzio is a contract where two or more businesses set

140 See further Chapter 5.
141 See Nordtveit (n 133), 7.
142 Ibid, 8.
143 KE Sørensen, Joint Ventures – Struktur og regulering (Jurist- og Økonomforbundets Forlag, 2006) 54.
up a common organization to carry out determinate phases of their respective businesses.\textsuperscript{144} A contract of consorzio must be in writing, on pain of nullity. It must also contain certain terms (e.g., its seat, the obligations undertaken, the creation of a separate fund). Where the business activity is carried out with third parties, an extract of the contract must be deposited for registration in the register of enterprises (registro delle imprese) of the place where the consorzio has its seat.\textsuperscript{145} The creation of a consorzio is voluntary, except in the cases envisaged by the law where compulsory consortia (consorzi obbligatori) are constituted.\textsuperscript{146}

One should here also briefly mention partnering agreements. Partnering is a form of collaborative working between customers and suppliers on a long-term project such as a construction or IT-related project. A partnering agreement in the construction industry is an agreement between the building contractor and the principal, existing alongside the construction agreement, which lays down the framework for an open and constructive cooperation. Thus, a partnering arrangement is aimed to complement the underlying contract, e.g., the construction agreement, the IT service contract. It is used both where the principal is a public sector entity and also where it is a private business.\textsuperscript{147} The management of a partnering arrangement is usually described as being proactive rather than reactive and based on mutual trust and openness. Parties meet at regular intervals to monitor progress and anticipate and resolve problems in a constructive, collaborative way.

Partnering is ideal for long-term contracts where customers and providers or suppliers adopt a long-term rather than a short-term perspective. For example, in long-term IT service contracts, it enables the provider to cope with changing customer requirements and technology developments. Though it is unsuitable for a spontaneous and temporary virtual enterprise, there are similarities in scope between partnering and the role of enterprise pools in that both aim to foster open and constructive collaboration. They are not identical since a partnering agreement would involve all the parties

\textsuperscript{144} Article 2602 of the Codice Civile states: ‘Con il contratto di consorzio più imprenditori istituiscono un’organizzazione commune per la disciplina o per lo svolgimento di determinate fasi delle rispettive imprese.’
\textsuperscript{145} See article 2612 of the Codice Civile.
\textsuperscript{146} Articles 2616 and 2617 of the Codice Civile.
\textsuperscript{147} For more information on partnering, from a Danish perspective, see CD Tvarno, ‘Loyalitetspligt og partneringaftaler’ in P Møgelvø-Hansen (ed) Julebog 2002 (Jurist- og Økonomforbundets Forlag, 2002) 137.
to the main contract,\textsuperscript{148} whereas the enterprise pool includes members who are not parties to the virtual enterprise.

\textsuperscript{148} For example in a construction contract, it would involve the building owner, the architect, the engineer and the building contractor.