

CHAPTER - 6

DIGITAL BUSINESS REGISTERS FROM A EUROPEAN PERSPECTIVE: POTENTIAL FOR INTERNATIONALLY HARMONIZED LEGISLATION?

*Reinmar Wolff**

I THE NEED FOR COMPANY INFORMATION

Information on companies plays an integral role in business. For the economy – and for the company's creditors in particular – the availability of reliable and up-to-date company information allows for better assessment of business risks. These business risks include the non-existence of the (prospective) contractual partner, limitations of the authority of its directors to act on behalf of the company, its incorrect legal form, its prior dissolution and others. Prompt and reliable availability of such information minimizes the business partner's transaction costs.

Business information is of key importance for any commercial transaction regardless of whether it is of purely domestic or of cross-border nature. However, while companies will normally have processes in place to obtain the relevant information on their transactional partners in the domestic sphere, actors in international trading arrangements face significantly higher obstacles. Not only do such processes depend on the legal system to which the transactional partner is subject, but in addition existing procedures, once established, cannot simply be transferred to other transactional partners in other jurisdictions. Jurisdictions differ, inter alia, in terms of the scope of available data, the ease of access to information and its language.

* Dr Reinmar Wolff is a lawyer and assistant professor at the University of Marburg, Germany. This paper traces back to a presentation given by the author at the 2016 UNCITRAL Emergence Conference Regional Perspectives on Contemporary and Future Harmonization Agenda in International Trade Law on 13 December 2016 in Macau. The text of this paper was up to date as of 3 May 2017. At the time of going to press, only the online sources could be updated.

II DIGITAL BUSINESS REGISTERS AS COMPANY INFORMATION PROVIDERS

In most jurisdictions, access to company information is provided through business registers set up under national company law. Companies are required to provide information like their legal name, their registered address, their directors and their subscribed capital to the respective register and keep it up to date at all times. While such information duties increase companies' operating costs, they also facilitate smooth commercial operations and thereby contribute to an overall reduction of transaction costs.

This overall cost-saving effect, however, occurs only if the data available through business registers is actually reliable. Several mechanisms may be employed to safeguard high data quality; these include duties under public law which may be enforced against defaulting companies and the violation of which may result in penalties or other sanctions. Another mechanism is more similar to private enforcement: an irrebuttable presumption of accuracy provided by law works to the advantage of the incorporated company if the data recorded in the business register is correct – and to its detriment if it is not. Such rules provide an effective incentive for incorporated companies to keep their registry records up to date.

While business registers used to be paper-based, they have increasingly been converted to digital databases in recent years.¹ The ability to access business registers over the internet makes it easier, faster and cheaper to retrieve data recorded therein and significantly increases the benefits that such registers provide, especially in the context of international transactions.

Indeed, the digitalization of registers is particularly advantageous in the international sphere, as it greatly reduces the effort required to obtain information on foreign-registered companies, which is of critical importance when considering the safety of potential international transactions. In fact, the more difficult access to foreign paper records is, the more pronounced the advantages of digital registers become.

III FURTHER ADVANTAGES OF DIGITAL BUSINESS REGISTERS

While digitalizing business registers first and foremost facilitates access to the register's contents for (prospective) contractual partners, it may also serve as a stepping-stone for a number of additional benefits for the registered company itself.

¹ Kanton St Gallen, Handelsregisteramt "Company registration around the world" <www.commercial-register.sg.ch/home/worldwide.html> accessed 11 May 2018.

As with facilitated access to company information, all of these additional benefits are magnified in international trade scenarios.

3.1 Electronic Communication and Filing of Documents with the Business Register

The digitalization of business registers offers the opportunity for converting paper-based communication between registered companies and the relevant business registers into electronic communication. Such conversion is mutually beneficial: the registered company does not need to execute and send documents, which it will often already possess in digital form and the register itself is relieved of the burden of digitalizing incoming information. Naturally, proper technical mechanisms need to be established to safeguard the integrity and reliability of electronically transmitted information and documents.

Digital communication is especially advantageous in international transactions since paper-based communication with a business register in another jurisdiction will generally be more burdensome than with a domestic register. This holds even more true if the shareholders of the registered company are resident in various countries. In these cases, compliance with paper-based certification requirements under a variety of local laws may cause a significant burden for such companies.

3.2 Electronic Formation of Companies

The digitalization of interactions between registered companies and business registers is taken one step further if the law allows for the electronic formation of companies.² Forming companies electronically is already beneficial in entirely domestic cases where all shareholders are resident in the same jurisdiction as the register. However, it is even more beneficial in an international context where the shareholders of the company that is to be established are spread around the globe.

3.3 Single Point Delivery Principle: Use of Data Submitted for Multiple Purposes

Third and last, digitalizing business registers also provides an opportunity to establish a single point of delivery for other registers and state entities. Reporting obligations can be reduced considerably if, for example, exchanging a board member does not have to be reported separately to the business register, the trading supervision department, the tax authorities etc. Establishing a single point where such notifications are addressed can significantly reduce the burden for companies,

² For an international overview, see Global Entrepreneurship Network "Global Enterprise Registration" <<https://ger.co>> accessed 11 May 2018.

again even more so if their shareholders and board members are resident in various countries.

IV EUROPEAN APPROACHES

The European Union has taken several steps towards the implementation of digital business registers over time. These steps aim to achieve a more business-friendly legal and fiscal environment within the European single market.³ While there is obviously no worldwide equivalent to the single market, these European efforts to promote trade between the EU member states may be scrutinized in order to determine the extent to which they may provide an impulse or even serve as a role model for the promotion of trade between states on a global scale.

4.1 Starting Point: Business Registers in European Union Member States

4.1.1 Existence of Business Registers

Business registers have a long tradition in quite a number of European states. Since 1968, all EU member states are obliged to maintain business registers by the First Company Law Directive.⁴ The minimum content of register records is likewise defined by EU law,⁵ ie is the same in all EU member states.

Nonetheless, there are quite a number of differences between business registers in EU member states. Some registers, for example, include content beyond the EU-defined minimum content, such as annual accounts. Other differences include which entity is charged with maintaining the register (the courts, public authorities⁶), whether or not sole traders, associations and foundations are registered, the applicability and amount of fees charged for retrievals, technical differences⁷ and, last but not least, whether or not national law endows the register with an irrebuttable presumption of accuracy.

3 Directive 2012/17/EU of the European Parliament and of the Council of 13 June 2012 amending Council Directive 89/666/EEC and Directives 2005/56/EC and 2009/101/EC of the European Parliament and of the Council as regards the interconnection of central, commercial and companies registers [2012] OJ L156/1, recital 5.

4 First Council Directive of 9 March 1968 on co-ordination of safeguards which, for the protection of the interests of members and others, are required by Member States of companies within the meaning of the second paragraph of Article 58 of the Treaty, with a view to making such safeguards equivalent throughout the Community (68/151/EEC) [1968] OJ L65/8, art 3.

5 Ibid art 2.

6 UNCITRAL Secretariat "Best practices in business registration" A/CN.9/WG.I/WP.85, para 10.

7 Directive 2012/17/EU of the European Parliament and of the Council of 13 June 2012 amending Council Directive 89/666/EEC and Directives 2005/56/EC and 2009/101/EC of the European

4.1.2 *Existence of Digital Business Registers*

Digital business registers exist in all EU member states,⁸ but not all of these business registers provide an interface in a language other than the official language of that member state or even provide information in another language.⁹ Since 2007, business registers in EU member states have been opened for documents and information in other official EU languages.¹⁰ Foreign-language documents, however, are available in the registers only if they have been filed voluntarily by the businesses. Consequently, the coverage of foreign-language documents remains low.

4.2 *Cooperation and Combination of Business Registers*

European business registers have been cooperating for a long time, despite having no obligation to do so. The most prominent examples of such cooperation are the European Commerce Registers' Forum (ECRF), an interest organization that promotes collaboration and facilitates the exchange of information and practices among European business register organizations,¹¹ and the European Business Register (EBR), a network of national business registers and information providers.¹² EBR, through its member registers, allows for web searches in all member registers.¹³ EBR does not, however, store data itself or interchange data

Parliament and of the Council as regards the interconnection of central, commercial and companies registers (n 3) recital 21.

- 8 Cf. Directive 2009/101/EC of the European Parliament and of the Council of 16 September 2009 on coordination of safeguards which, for the protection of the interests of members and third parties, are required by Member States of companies within the meaning of the second paragraph of Article 48 of the Treaty, with a view to making such safeguards equivalent [2009] OJ L258/11, art 3(3).
- 9 See, eg, Denmark (Danish Business Authority) <<https://danishbusinessauthority.dk>> accessed 11 May 2018 and the Netherlands (Kamer van Koophandel) "Access to the Business Register" <www.kvk.nl/english/business-register/access-to-the-business-register/> accessed 11 May 2018.
- 10 First Council Directive of 9 March 1968 on co-ordination of safeguards which, for the protection of the interests of members and others, are required by Member States of companies within the meaning of the second paragraph of Article 58 of the Treaty, with a view to making such safeguards equivalent throughout the Community (68/151/EEC) (n 4) art 3(2) as amended by Directive 2003/58/EC of the European Parliament and of the Council of 15 July 2003 amending Council Directive 68/151/EEC, as regards disclosure requirements in respect of certain types of companies [2003] OJ L221/13, art 1 no 3.
- 11 European Commerce Registers' Forum <www.ecrforum.org> accessed 11 May 2018.
- 12 European Business Register "About EBR" <www.ebr.org/index.php/about-ebr/> accessed 11 May 2018.
- 13 European Business Register "Information Distributors" <www.ebr.org/index.php/information-distributors/> accessed 11 May 2018.

between national registers. Search interfaces and retrieved data are available only in selected languages, ie mostly the respective registers' official languages.¹⁴

Membership in ECRF and EBR is not limited to member states of the European Union.

From 2006 to 2009 a number of business registers, coordinated by the EBR and in cooperation with IT companies and universities, have carried out the BRITE (Business Register Interoperability Throughout Europe) project. BRITE was funded by the European Commission and established to develop and implement an interoperability model for business registers to interact throughout the EU.¹⁵

4.3 The Business Registers Interconnection System (BRIS)

In order to more fully reap the benefits and opportunities of digital business registers, Directive 2012/17/EU has provided the legal framework for the Business Registers Interconnection System (BRIS). BRIS, which is intended to go live on 8 June 2017,¹⁶ will offer search services similar to those currently provided by EBR.¹⁷ However, as opposed to EBR, the underlying data pool will consist of the complete set of all companies registered in EU member states and the entire BRIS platform will be accessible in all official languages of the Union.¹⁸

Directive 2012/17/EU imposes a duty on national business registers to make all (standardized) information electronically available through BRIS,¹⁹ which in turn

14 Overview at European Business Register "Information Distributors" <www.ebr.org/index.php/information-distributors/> accessed 11 May 2018.

15 BRITE "A new European cooperation instrument" <<http://web.archive.org/web/20090310163156/http://www.briteproject.net>> accessed 11 May 2018.

16 European Commission "Interconnection of EU Business Registers" <https://e-justice.europa.eu/content_business_registers_at_european_level-105-en.do> accessed 11 May 2018.

17 Directive 2009/101/EC of the European Parliament and of the Council of 16 September 2009 on coordination of safeguards which, for the protection of the interests of members and third parties, are required by Member States of companies within the meaning of the second paragraph of Article 48 of the Treaty, with a view to making such safeguards equivalent (n 8) art 3b(3) as amended by Directive 2012/17/EU of the European Parliament and of the Council of 13 June 2012 amending Council Directive 89/666/EEC and Directives 2005/56/EC and 2009/101/EC of the European Parliament and of the Council as regards the interconnection of central, commercial and companies registers (n 3) art 3.

18 Ibid.

19 Eleventh Council Directive of 21 December 1989 concerning disclosure requirements in respect of branches opened in a Member State by certain types of company governed by the law of another State (89/666/EEC) [1989] OJ L395/36, art 1(3) as amended by Directive 2012/17/EU of the European Parliament and of the Council of 13 June 2012 amending Council Directive 89/666/EEC and Directives 2005/56/EC and 2009/101/EC of the European Parliament and of the Council as regards the interconnection of central, commercial and companies registers (n 3) art 1.

will become part of the European e-Justice portal.²⁰ For that purpose, member states are required to assign a unique identifier to each registered company.²¹

BRIS will create further added value through this functionality: relevant changes in data on a company will automatically be transmitted to the registers of its branches.²² In a cross-border merger scenario, the register of the new company will notify the register(s) of the old company or companies upon completion of the merger.²³ Member states will need to provide up-to-date information on their national laws, which determine whether and to what extent third parties can rely on the contents of their respective registers.²⁴

20 Directive 2012/17/EU of the European Parliament and of the Council of 13 June 2012 amending Council Directive 89/666/EEC and Directives 2005/56/EC and 2009/101/EC of the European Parliament and of the Council as regards the interconnection of central, commercial and companies registers (n 3) recital 8.

21 Eleventh Council Directive of 21 December 1989 concerning disclosure requirements in respect of branches opened in a Member State by certain types of company governed by the law of another State (89/666/EEC) (n 19) art 1(4) as amended by Directive 2012/17/EU of the European Parliament and of the Council of 13 June 2012 amending Council Directive 89/666/EEC and Directives 2005/56/EC and 2009/101/EC of the European Parliament and of the Council as regards the interconnection of central, commercial and companies registers (n 3) art 1 and Directive 2009/101/EC of the European Parliament and of the Council of 16 September 2009 on coordination of safeguards which, for the protection of the interests of members and third parties, are required by Member States of companies within the meaning of the second paragraph of Article 48 of the Treaty, with a view to making such safeguards equivalent (n 8) art 3(1) as amended by Directive 2012/17/EU of the European Parliament and of the Council of 13 June 2012 amending Council Directive 89/666/EEC and Directives 2005/56/EC and 2009/101/EC of the European Parliament and of the Council as regards the interconnection of central, commercial and companies registers (n 3) art 3.

22 Eleventh Council Directive of 21 December 1989 concerning disclosure requirements in respect of branches opened in a Member State by certain types of company governed by the law of another State (89/666/EEC) (n 19) art 5a as amended by Directive 2012/17/EU of the European Parliament and of the Council of 13 June 2012 amending Council Directive 89/666/EEC and Directives 2005/56/EC and 2009/101/EC of the European Parliament and of the Council as regards the interconnection of central, commercial and companies registers (n 3) art 1.

23 Directive 2005/56/EC of the European Parliament and of the Council of 26 October 2005 on cross-border mergers of limited liability companies [2005] OJ L310/1, art 13 as amended by Directive 2012/17/EU of the European Parliament and of the Council of 13 June 2012 amending Council Directive 89/666/EEC and Directives 2005/56/EC and 2009/101/EC of the European Parliament and of the Council as regards the interconnection of central, commercial and companies registers (n 3) art 2(1).

24 Directive 2009/101/EC of the European Parliament and of the Council of 16 September 2009 on coordination of safeguards which, for the protection of the interests of members and third parties, are required by Member States of companies within the meaning of the second paragraph of Article 48 of the Treaty, with a view to making such safeguards equivalent (n 8) art 3a as amended by Directive 2012/17/EU of the European Parliament and of the Council of 13 June 2012 amending Council Directive 89/666/EEC and Directives 2005/56/EC and 2009/101/EC of the European Parliament and of the Council as regards the interconnection of central, commercial and companies registers (n 3) art 3.

4.4 Further Steps at European Union Level

While the Business Registers Interconnection System (BRIS) is a step towards exploiting the specific advantages that digital business registers entail, it falls short of exhausting all possibilities. Further steps have already been proposed, in particular in The Informal Company Law Expert Group (ICLEG)'s "Report on digitalisation in company law" of March 2016²⁵ and in Vanessa Knapp's report "What are the issues relating to digitalisation in company law?" of June 2016.²⁶

These reports suggest that all communication and filing of documents with business registers should be opened for electronic submissions even if the information provided thereby goes beyond the currently defined minimum content of register records.²⁷

It is further proposed that the formation of companies, including those formed by foreign nationals, should be facilitated by providing for an online procedure.²⁸ Such online formation of companies would be even easier if a standard set of articles or other constitutional documents were provided to the founders.²⁹

Finally, it is submitted that the single point delivery principle should be extended, both within the Business Registers Interconnection System and beyond. An extension within BRIS may allow for the automatic forwarding of any filing that is made with the company's register to the register(s) of its branch(es), even beyond the currently defined minimum content of register records.³⁰ BRIS could also be extended beyond the scope of the data it currently makes available, specifically to information related to insolvency, the disqualification of directors, major shareholdings, filings made by insiders of publicly traded companies or concerning public takeover bids or to other information currently held in other

25 The Informal Company Law Expert Group (ICLEG) "Report on digitalisation in company law" <https://ec.europa.eu/info/files/report-digitalisation-company-law_en> accessed 11 May 2018.

26 Knapp "What are the issues relating to digitalisation in company law?" (2016) <[www.europarl.europa.eu/RegData/etudes/IDAN/2016/556961/IPOL_IDA\(2016\)556961_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/IDAN/2016/556961/IPOL_IDA(2016)556961_EN.pdf)> accessed 11 May 2018.

27 The Informal Company Law Expert Group (ICLEG) (n 25) recommendation 7; Knapp (n 26) p 12.

28 The Informal Company Law Expert Group (ICLEG) (n 25) recommendation 5; Knapp (n 26) pp 11 ff.

29 The Informal Company Law Expert Group (ICLEG) (n 25) recommendation 6; Knapp (n 26) p 11.

30 The Informal Company Law Expert Group (ICLEG) (n 25) recommendation 9; Knapp (n 26) p 15.

registers.³¹ The BRIS platform could also be extended to a single point of delivery for such filings.³²

V UNITED NATIONS APPROACHES

Two United Nations entities have undertaken work in the field of digital business registers, namely the United Nations Commission on International Trade Law (UNCITRAL) and the United Nations Conference on Trade and Development (UNCTAD). Both entities have, however, approached the issue from a different angle than the one discussed above: UNCITRAL's and UNCTAD's work aims at employing business registration as a tool for establishing a business-friendly environment by reducing the "informal sector."³³ The objective of its work has been worded by UNCITRAL as follows:³⁴

there is wide recognition among experts of the importance of business registration for entrepreneurs, markets and governments. Registration can assist micro-businesses to raise shared capital, obtain financing and access to government assistance programmes such as subsidies and reduced-cost services, and reassure business partners that the information provided about the business can be trusted. Benefits for governments are said to include: consistency of business with the domestic legal framework, improved tax collection, minimized risk for the public of potentially dubious businesses, creation of legal entities which can be easily identified with their own sets of rights and responsibilities, and provision of key information for the government on sectors, size, and ownership of enterprises.

Or, as UNCTAD has phrased it:³⁵

(r)ecognizing the importance of formalizing businesses, the United Nations' Sustainable Development Goal 8, Target 8.3 'encourages the formalization and growth of micro, small, and medium-sized enterprises.' ILO labor standard (R204) further recommends that International Labor Organization (ILO) members facilitate workers' transition from the informal to the formal economy.

(...)

31 The Informal Company Law Expert Group (ICLEG) (n 25) recommendation 4; Knapp (n 26) p 15.

32 The Informal Company Law Expert Group (ICLEG) (n 25) recommendation 10.

33 UNCITRAL Secretariat "Best practices in business registration" (n 6) para 8; UNCTAD "Lessons learned on business registration" A/CN.9/WG.I/WP.98, annex, p 3.

34 UNCITRAL Secretariat "Best practices in business registration" (n 6) para 5.

35 UNCTAD "Lessons learned on business registration" (n 33) annex, pp 3 and 4 (footnotes omitted).

Greater formalization is essential to inclusive economic growth, since formalization provides workers with the dignity of lawfulness and greater access to social and financial services and protections. Greater formalization will reduce corruption and opportunities for extortion. It will also increase government's tax revenues and ability to provide public services and infrastructure, which will contribute to economic growth.

The focus of both UNCITRAL and UNCTAD is more on defining best practices to strengthen and enhance small businesses in countries in which the majority of businesses are informal. This divergent focus must be borne in mind during the following discussion of UNCITRAL's and UNCTAD's work.

5.1 *UNCITRAL's Work on Business Registration*

UNCITRAL has entrusted its Working Group I with micro, small and medium-sized enterprises (MSMEs) since 2014. The UNCITRAL Secretariat has assembled "Best practices in business registration"³⁶ as a basis for the Working Group's discussions and these have been explored more deeply by the Secretariat upon the request of the Working Group in another note on "Key principles of business registration."³⁷ The Secretariat has issued another note named "Draft recommendations on key principles of business registration",³⁸ again upon the request of the Working Group, in which it prepared "an instrument along the lines of a concise legislative guide on business registration."³⁹

These draft texts clarify that one of the purposes of a register is to make information on registered businesses accessible to the public⁴⁰ and that it should therefore be easily searchable and retrievable.⁴¹ Digitalizing the registry is identified as desirable; in case of a lack of advanced technological infrastructure, a phased-in approach should be implemented.⁴² Other services, at least taxation and social service agencies, should be integrated.⁴³ Unique business identifiers should

36 UNCITRAL Secretariat "Best practices in business registration" (n 6).

37 UNCITRAL Secretariat "Key principles of business registration" A/CN.9/WG.I/WP.93 with Add.1 and Add.2.

38 UNCITRAL Secretariat "Draft recommendations on key principles of business registration" A/CN.9/WG.I/WP.96 with Add.1.

39 Ibid para 1.

40 Ibid recommendation 2 lit b.

41 Ibid recommendation 3 lit c.

42 Ibid recommendation 11 and para 14.

43 Ibid recommendation 12 lit b.

be implemented.⁴⁴ Electronic submission to the register should, to the extent possible, be allowed.⁴⁵ Finally, solutions for the exchange of information between registers of different jurisdictions should be adopted.⁴⁶

5.2 UNCTAD's Work on Business Registration

UNCTAD has set up the Global Enterprise Registration portal (GER.co), a website which links and rates national business registers and registration websites. UNCTAD promotes the so-called "single windows" strategy, which allows for simultaneous registration with all mandatory registers.⁴⁷ It also promotes the implementation of a unique business identification number.⁴⁸

VI POTENTIAL FOR INTERNATIONALLY HARMONIZED LEGISLATION

Digital business registers help to both formalize businesses and facilitate cross-border trade. Internationally harmonized legislation could be of assistance in implementing digital business registers. It is therefore worth discussing to what extent such harmonized legislation could be successful. In this context, the proper choice of harmonizing instrument and its contents shall be considered separately.

6.1 Choice of Instrument

UNCITRAL Working Group I currently favours a legislative guide as the instrument for harmonizing the law of business registers. Together with conventions and model laws, legislative guides belong to the class of legislative instruments; they are the softest of these instruments. The discussion can be limited to legislative instruments since contractual instruments are unsuitable from the outset for regulating business registers as operating the latter falls within the scope of public authority. Lastly, explanatory instruments have such a limited effect on harmonization that they should only be considered in exceptional circumstances.⁴⁹

44 Ibid recommendations 13 ff.

45 Ibid recommendation 32.

46 Ibid recommendation 37.

47 UNCTAD "Lessons learned on business registration" (n 33) annex, p 5.

48 Ibid.

49 For the available instruments, see UNCITRAL "A Guide to UNCITRAL" (2013) paras 32 ff. <www.uncitral.org/pdf/english/texts/general/12-57491-Guide-to-UNCITRAL-e.pdf> accessed 11 May 2018.

6.1.1 *Legislative Instrument*

Legislative guides have the clear advantage that they show consideration for the different technological standards that are available locally. One size may indeed not fit all where the underlying technology is simply not at hand.

On the other hand, legislative guides run the risk of remaining vague when clear standards for national legislatures are needed. This finding becomes relevant in two aspects.

First, some topics discussed in the context of digital business registers are issues of standardization, a typical example being the structure of the unique business identification number. It is certainly true that "(i)t would simplify registration and cross border trade and investment if all governments were to agree on a common alphanumeric system for registering businesses that would facilitate identification of a company's ultimate beneficiary ownership by country."⁵⁰ While it would indeed not be typical for a legislative guide to go into greater detail in this context, the community of states would be better served if such a system was set up and recommended. Defining an internationally recognizable structure for unique business identification numbers at the same time is of a mostly technical nature – similar to the choice between left- and right-hand traffic where legal specification as such is more important than its content.

Second, some other topics would benefit from more detailed regulation proposals, which would save the states the effort of re-inventing the wheel. An example is the sanctions regime for businesses that fail to comply with the business register regulations: while it is true that "(t)he Regulation should establish and ensure wide publication of sanctions (including fines, deregistration and loss of access to services) that may be imposed on a business for a breach of its obligations under the Regulation,"⁵¹ the effort of identifying the best practice for such sanctions and then drafting appropriate regulations remains with the states.

While a legislative guide does not exploit all options in both areas, a number of topics are too interconnected with other fields of national law to be entirely standardized. It would, for example, make little sense to implement online formation of companies in a convention on digital business registers. While online formation of companies is indeed a benefit that digital business registers may trigger, it is ultimately an issue of company law; its regulation must respect the

50 UNCTAD "Lessons learned on business registration" (n 33) annex, p 5.

51 UNCITRAL Secretariat "Draft recommendations on key principles of business registration" (n 38) recommendation 41.

implementing jurisdiction's company law context. In light of how diverse company laws are throughout the world, the inclusion of online company formation would discourage jurisdictions from adopting a model law on digital business registers. It is notable in this context that even the EU directives on business registers have refrained from stipulating online company formation thus far.

Under these circumstances, a model law appears to be the most suitable instrument for harmonizing legislation. A model law can, on the one hand, provide detailed and coherent regulations that are considered best practice. On the other hand, it allows for a flexible implementation that shows consideration for other areas of law in the implementing jurisdiction.

6.1.2 Software Instrument

Complementing a model law on business registers as a best practice regulation with technical components that reflect best technical practice should also be considered. For example, supporting or even providing open source software for digitalized national business registers or implementing centralized solutions like GER.co or UNCITRAL's transparency register⁵² could be considered.

6.2 Topics for Regulation

While the work of UNCITRAL's Working Group I has set the scene for a model law on business registers, its detailed contents would need to be developed within the Working Group so that the regulations are acceptable for and supported by a wide range of states. The EU legal framework should also serve as a source of inspiration. Its literal adoption, however, cannot be recommended for various reasons, first and foremost of which being the degree of legal and technical harmonization between EU member states that is not present to the same extent between all other states. Simply adopting pre-existing solutions would not increase acceptance by other states in any event.

A model law on business registers should go beyond the current "Draft recommendations on key principles of business registration." Regulations to the following effect should, in particular, be considered for inclusion:

6.2.1 Digital vs Paper-based Register

The business register should be digital and not paper-based. Open source software may assist in this approach (above 6.1.2). Interfaces should be defined

52 UNCITRAL "Transparency Registry" <www.uncitral.org/transparency-registry/registry/index.jsp> accessed 11 May 2018.

that allow for information to be exchanged between registers in different jurisdictions and/or a centralized platform.

Such technical assistance should be able to overcome local deficiencies in technological infrastructure. If this assumption holds true, a model law providing for a digital register is more expedient than the phased-in approach currently promoted by Working Group I. Even if a digital register is not yet accessible from any place of business within that state, its accessibility for business partners in other places will create benefits for trade, including cross-border trade.

6.2.2 Safeguarding High Data Quality

It is not enough for business data to simply be available, it must also be of high quality. Having company data instantly available in multiple languages is of little or no value if reliable data must be secured from other sources to corroborate it. Unreliable data does not minimize transaction costs.

A model law on digital registers should establish an irrebuttable presumption of accuracy. This mechanism contributes to the register's reliability, is simple to implement and is not burdensome for the implementing state to enforce. For these reasons, it is the most effective tool for maintaining high data quality.

6.2.3 Electronic Communication and Document Filing

Electronic communication and filing of documents with the business register should be allowed. Reference should be made to other pieces of harmonized legislation including the 1996 UNCITRAL Model Law on Electronic Commerce and the principles established therein, first and foremost that of technological neutrality.

6.2.4 Unique Business Identifier

A unique identifier should be defined for all registered businesses, which allows for references and the exchange of data between registers. This unique identifier also forms an important prerequisite for register interoperability.

6.2.5 Electronic Company Formation

Electronic formation of companies should not be considered for inclusion in a model law. Since company formation is at the core of company law, such regulations would be better implemented in (or at least in the context of) harmonized company law legislation (see 6.1.1 above).

6.2.6 Single Point Delivery Principle

It will most likely not be possible to provide specific regulations that implement the single point delivery principle as most of its other intended purposes (including

coordinating with taxation and social services) are not yet harmonized and will not be harmonized in the foreseeable future. A proactive software design should, however, already provide for the necessary interfaces for linking up with other systems if need be.

VII CONCLUSION

Company information is essential for trade. Business registers provide such company information; digital business registers make it instantly accessible. Digital business registers therefore have great potential for lowering transaction costs, in particular for cross-border transactions. Digital business registers moreover contribute to formalizing businesses.

The European approaches that have already been implemented and that are currently under discussion cannot be directly transferred to the global level. These approaches assume a level of technical and legal harmonization that simply does not exist globally.

UNCITRAL's decision to entrust its Working Group I with this topic deserves approval. However, the currently discussed choice of instrument, namely a legislative guide, appears too half-hearted. A model law is the more promising instrument for this venture since it provides detailed and coherent regulations while at the same time allowing for a flexible implementation that shows consideration for other areas of law in the implementing jurisdiction. Legislative harmonization should be supplemented by a harmonized software solution.

UNCITRAL's instrument should implement digital registers, an irrebuttable presumption of accuracy, electronic communication and filing of documents and a unique business identifier. The electronic formation of companies and the single point delivery principle should not be included in a model law on digital registers.

