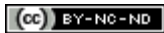


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DIGITAL GOODS AND THE CISG

*Ulrich Magnus**

I. INTRODUCTION**

The digital age requires rules for the purchase and sale of digital goods. Do the traditional sales rules—codified or judge-made—still suffice for trading such goods? Only a few years ago, in 2019, the European Union enacted special norms for these sales by two Directives, although essentially restricted to transactions between businesses and consumers.¹ The Member States of the European Union (EU) had to implement the norms of the Directives. For instance, the German legislator included a considerable number of new provisions into the German Civil Code (BGB); partly they are entirely new, partly they replace or modify the formerly applicable ones. The new rules have applied since January 1, 2022. This was the mandatory date on which the new law entered into force in all Member States.

The following text pursues whether, in the international arena, the CISG is still fit for the digital age or also needs a digital refurbishment.

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** Quoted only by name: Brunner (ed.), *Commentary on the UN Sales Law* (2019); HONNOLD/FLECHTNER, *UNIFORM LAW FOR INTERNATIONAL SALES UNDER THE 1980 UNITED NATIONS CONVENTION* (4th ed. 2009); *UN CONVENTION ON CONTRACTS FOR THE INTERNATIONAL SALE OF GOODS (CISG)* (Kröll/Mistelis/Perales Viscasillas eds., 2d ed. 2018); *COMMERCIAL LAW. ARTICLE-BY-ARTICLE COMMENTARY* (Mankowski ed., 2019); *KOMMENTAR ZUM UN-KAUFRECHT (CISG)* (Schlechtriem/Schwenzer/Schroeter eds., 7th ed. 2019); Staudinger/Magnus, *Wiener UN-Kaufrecht—CISG* (2018).

¹ Directive 2019/770 on certain aspects concerning contracts for the supply of digital content and digital services, 2019 O.J. L 136/1 [hereinafter *Digital Content Directive*] and Directive 2019/771 on certain aspects concerning contracts for the sale of goods, amending Regulation (EU) 2017/2394 and Directive 2009/22/EC, and repealing Directive 1999/44/EC, 2019 O.J. L 136, 28 [hereinafter *Sales Directive*].

II. DIGITAL GOODS

A. *What Are Digital Goods?*

The first question that must be answered is: what constitutes digital goods? They are characterized by several features. The core element is a collection of electronically transferable data which carries specific information. Theoretically, the data collection can be used by an indefinite number of persons at the same time. Each user can dispose of the collection independently of other users. He or she can copy or modify the digital good in accordance with their own needs.² Once the digital good has been produced, its further use generates no further production costs. Users need, however, devices for using, in particular for downloading, the digital good. The digital good can be combined with or integrated into a tangible good or can exist entirely as such as a stand-alone asset. Examples of the first kind are, for instance, cars with navigation systems and machines with integrated digital steering, and of the latter kind, software programs, e-books, and so on.³

When integrated into a technical device, the digitized data collection may be either central for the functioning of the device or merely offer an additional service. Smartphones, for instance, are more or less useless without the various digital services they offer, whereas traditional cars can fully function without navigation systems (although modern cars are more and more equipped with further digital services; in particular, autonomous cars fully depend on them).

It may be questioned whether it matters for the qualification as a digital good if the digital good as such, or its combination with a tangible good, is developed and designed by artificial intelligence (AI). To pose the question means to deny it. The way in which or by whom the digital good was made does not affect its character as such a good.

B. *Transfer of a Digital Good, a License, or Sales Contract?*

A further central point concerns the question of whether a transaction that confers the right to use a digital service for an unlimited time against the

² *Id.* (distinguishing digital goods, for instance, from tv or radio broadcasts).

³ See also Digital Content Directive at 3 (further examples given).

payment of a fee, regularly constitutes a license or a sales agreement. Where the digital good is integrated in a tangible good it goes without saying that the acquisition of the tangible good is generally made in the form of a sales contract. The digital good is an integral part of the sale.

The situation is less clear where a stand-alone digital good is made available to a user. In a case primarily concerned with copyright questions the European Court of Justice regarded a transaction as sale by which the producer of computer programs made them permanently available to customers against payment.⁴ The Court did not accept the argument that the producer required its customers to conclude an accompanying license agreement (for which the customer had to pay) and allow the download of the program for free.⁵ The Court stressed that the term “sale” had to be given an autonomous and uniform meaning throughout the European Union, albeit with respect to the purposes of the involved Computer Programs Directive.⁶ The Court of Justice of the European Union (CJEU) then gave a general definition of a sales contract: “According to a commonly accepted definition, a ‘sale’ is an agreement by which a person, in return for payment, transfers to another person his rights of ownership in an item of tangible or intangible property belonging to him.”⁷ Evidently the Court held that sales law applies to the transfer of a—downloadable—computer program.

C. The Position of the European Legislator

As already mentioned, the European legislator enacted two directives concerned with the trade of digital products: the Digital Content Directive and the Sales Directive.⁸ Both directives shall complement each other⁹ and extend to essentially all transactions between businesses and consumers

⁴ Case C-128/11, *UsedSoft GmbH v. Oracle Int’l Corp.*, ECLI:EU:C:2012:407, ¶ 45 (July 3, 2012).

⁵ *Id.* at ¶ 48 (“Consequently, . . . the transfer by the copywrite holder to a customer of a copy of a computer program, accompanied by the conclusion between the same parties of a user license agreement, constitutes a ‘first sale . . . of a copy of a program’ within the meaning of Article 4(2) of Directive 2009/24.”).

⁶ *Id.* at ¶ 40 (“[T]hat term must be regarded, for the purposes of applying the directive, as designating an autonomous concept of European Union law, which must be interpreted in a uniform manner throughout the territory of the European Union. . . .”).

⁷ *Id.* at ¶ 42.

⁸ See *supra* note 1.

⁹ *Id.* at 4.

where digital products are at stake. The Digital Content Directive is the general one which applies to all those transactions which do not fall within the scope of the Sales Directive.

The European Sales Directive of 2019 limits its scope of application, first, to sales between consumers and businesses¹⁰ and, second, to “any tangible movable items” and to “any tangible movable items that incorporate, or are inter-connected with, digital content or a digital service in such a way that the absence of that digital content or digital service would prevent the goods from performing their functions (‘goods with digital elements’).”¹¹ In other words, the directive applies exclusively to consumer sales on “normal” movables and on movables where, in addition, a digital element (content or service) is contractually owed. It does not apply to contracts on stand-alone digital goods. That is the field of the Digital Content Directive. The Sales Directive 2019 thus qualifies purchase contracts concerning goods with digital elements as sales. Their characteristic is the incorporation or inter-connection of the digital element with the tangible good. The latter must not function without the former. Where the tangible good, as often, serves several functions, it should suffice for the applicability of the Sales Directive that one of its main and essential functions would not function if the digital content or service is lacking or not functioning. In the example of a smart watch,¹² the Sales Directive would be applicable even if the watch would show the correct time and perform also all the other contractually promised services except one, for instance, to measure the number of steps.

The Sales Directive of 2019 is—like its predecessor of 1999—not a full codification of sales law but codifies merely certain aspects of sales contracts. These aspects include the conformity requirements,¹³ the seller’s liability¹⁴ and the buyer’s remedies—except damages—where the goods do not conform to the contract.¹⁵ Other aspects of sales contracts codified include the burden of proof¹⁶ and the limitation period.¹⁷ In addition, it

¹⁰ *Id.* art. 1, at 17.

¹¹ *Id.* art. 2(3).

¹² *Id.* at 4.

¹³ *Id.* art. 6, at 20.

¹⁴ *Id.* art. 11, at 21.

¹⁵ *Id.* art. 14, at 23.

¹⁶ *Id.* art. 12, at 22.

¹⁷ *Id.* at 12.

regulates, like the preceding Consumer Sales Directive of 1999, redress claims of businesses against their professional suppliers,¹⁸ thereby stepping into the field of professional trade law. In contrast to the preceding Directive, the present one provides for full harmonization: the Member States are no longer allowed to deviate from the level prescribed by the Directive, neither in favor of consumers nor in favor of businesses.¹⁹

As indicated, the Digital Content Directive complements the Sales Directive of 2019. While the latter directive concerns exclusively sales contracts, the former covers—with some specific exceptions²⁰—all kinds of consumer contracts dealing with digital products, including those sales which do not fall within the scope of the Sales Directive.²¹ Thus, the purchase of digital products not incorporated into, nor inter-connected with a tangible good, is governed by the Digital Content Directive. Although this directive concerns also digital services, it must be noted that it shall not apply to professional services “such as translation services, architectural services, legal services or other professional advice services” even if those services are transmitted by digital means.²² Interpersonal communication services such as web-based email, online messaging services, and so on shall, however, be covered.²³

This Directive regulates the same legal issues as the Sales Directive, namely the requirements of conformity with which the digital content or digital service must comply²⁴ and the remedies (except damages) where they do not,²⁵ as well as the supplier’s liability,²⁶ the burden of proof,²⁷ time

¹⁸ *Id.* art. 18, at 25.

¹⁹ *Id.* art. 4, at 19.

²⁰ *Id.* art. 3(5), at 18–19 (the exclusions).

²¹ *Id.* at 4 (“[I]f the absence of the incorporated or inter-connected digital content or digital service does not prevent the goods from performing their functions, or if the consumer concludes a contract for the supply of digital content or a digital service which does not form part of a sales contract concerning goods with digital elements, that contract should be considered to be separate from the contract for the sale of the goods . . . and could fall within the scope of this Directive.”).

²² *Id.* at 6 (further examples of excluded services).

²³ *Id.* (open access services for free are, however, outside the scope of this directive); *see also id.* art. 3(5)(f), at 18.

²⁴ *See* Digital Content Directive, arts. 6–9, at 19–20.

²⁵ *Id.* arts. 13–19, at 22–25.

²⁶ *Id.* art. 11, at 21–22.

²⁷ *Id.* art. 12, at 21.

limits,²⁸ and the redress between suppliers in a string of supply contracts.²⁹ The Digital Content Directive treats contracts that provide for the supply of digital content or digital services very much like ordinary sales contracts. With respect to digital services this is quite remarkable. In order to fulfill its complementary function to cover all sales contracts not covered by the Sales Directive, the Digital Content Directive follows closely the structure and regulations of the Sales Directive.

The material differences between the two directives are for this reason modest. The most significant difference concerns the consequences after termination of the contract. The Sales Directive requires the return of the goods and the price,³⁰ whereas the Digital Content Directive prescribes that both parties must no longer use the supplied data after termination of the contract.³¹ The price must be reimbursed only to the extent that the digital product was unusable.³² Where the digital content was supplied on a tangible medium, the consumer must return that medium if the business so requests.³³ A further difference concerns the problem of modifications to the digital content or service during the lifetime of the contract. The Digital Content Directive contains an extensive regulation of this issue,³⁴ while such a provision is lacking in the Sales Directive (although this directive also provides for the seller's duty to update the digital element as far as "necessary to keep those goods in conformity").³⁵

D. Implementation of the Directives into National Law: Example Germany

According to European law, directives are binding for the Member States of the European Union "as to the result to be achieved" by the implementation into national law.³⁶ But in order to fit the binding parts of directives into existing national law in the best possible way, the national

²⁸ *Id.* art. 18, at 26.

²⁹ *Id.* art. 20, at 26.

³⁰ *Id.* art. 16(3), 2019 O.J. (L 136) 45.

³¹ *Id.* arts. 16(2), (3), 17(1), at 23–24.

³² *Id.* art. 16(1), at 23.

³³ *Id.* art. 17(2), at 25.

³⁴ *Id.* art. 19, at 25.

³⁵ *Id.* art. 7(3), at 42.

³⁶ See Consolidated Version of the Treaty on the Functioning of the European Union art. 288, May 9, 2008, O.J. (C326) 171–72.

legislators are free to choose the form and methods of the implementation. However, where directives—as here—prescribe full harmonization from which no deviation is allowed, the room for discretion as to form and methods of implementation is small.

The German legislature implemented the two directives in the following way: first, a new section titled: “Contracts on Digital Products” with more than 20 provisions was inserted in the general part of the law of obligations.³⁷ The term “digital product” covers both digital content and digital services in the sense of the directives.³⁸ This section mirrors essentially the Digital Content Directive. Second, a number of provisions were amended or newly inserted into the sales chapter of the German Civil Code.³⁹ The new Section 475(b) of the BGB has basically taken over the definition of nonconformity in Articles 6 and 7 of the Sales Directive (which widely corresponds to the definition in Articles 7 and 8 of the Digital Content Directive). With respect to the remedies (termination, cure, and price reduction), the sales part refers to the respective provisions in the new section on contracts on digital products in the general part of the law of obligations.⁴⁰

E. Other Examples of Implementation of the Two Directives

Austria implemented the two directives primarily by enacting a new separate act on the warranty concerning consumer contracts on goods or digital services.⁴¹ The Act couples the content of both directives and gives it its own order. The text of the Act follows widely the text of the directives. Besides the new Act, small modifications of, and additions to, the General Civil Code (ABGB), and the Consumer Protection Act were introduced which take account of the two directives.

³⁷ See, e.g., Bürgerliches Gesetzbuch [BGB] [Civil Code], §§ 327-327(u), http://www.gesetze-im-internet.de/englisch_bgb/index.html (Ger.).

³⁸ See Bürgerliches Gesetzbuch [BGB] [Civil Code], § 327, para. 1, http://www.gesetze-im-internet.de/englisch_bgb/index.html (Ger.).

³⁹ See, e.g., Bürgerliches Gesetzbuch [BGB] [Civil Code], §§ 445(c), 475(a)–78, http://www.gesetze-im-internet.de/englisch_bgb/index.html (Ger.).

⁴⁰ See Bürgerliches Gesetzbuch [BGB] [Civil Code], § 475(a), para. 1, sentence 2, http://www.gesetze-im-internet.de/englisch_bgb/index.html (Ger.).

⁴¹ See Bundesgesetzblatt I [Federal Law Gazette] [BGBL I] No. 175/2021, para. 31 (Austria).

In a similar way, France implemented the two directives by inserting them into the French Consumer Code,⁴² whereas the French Civil Code remained unaffected.⁴³ The texts of the directives were adopted with almost no changes.

The United Kingdom, due to its exit from the European Union, was no longer obliged to transpose the directives into national law and did not do so. Nonetheless, if British traders supply goods with digital elements or pure digital content or services to consumers in the EU, they have to comply with the requirements of the directives as implemented by the Member State where the respective consumer is situated because of the mandatory nature of the implemented law from which the parties cannot deviate by agreement.⁴⁴

III. THE CISG AND DIGITAL GOODS

A. In General

The CISG was to a remarkable extent the model for the EU Directive of 1999 on consumer sales. The fact that the CISG covers international professional sales whereas the Sales Directive was designed for consumer sales did not hinder the transfer of the CISG's basic concepts to the Sales Directive.

The similarities between the two instruments concerned the general system of liability: any deviation of the delivered good from the agreed quality or quantity constituted a violation of the contract for which the seller was liable without any need for the buyer to prove fault.⁴⁵ Only special circumstances could exonerate the seller, namely if the buyer knew or ought

⁴² See Code de la consommation [Consumer Code], L. 217-1 *et seq.* (Fr.).

⁴³ See Juliette Sénéchal, *The Implementation of the EU Directives 2019/770 and 2019/771 in France*, 10 J. of Eur. Consumer Mkt. Law 266, 266 (2021).

⁴⁴ See Council Directive, of the European Parliament and of the Council of 20 May, 2019 on certain aspects concerning contracts for the sale of goods, amending Regulation (EU) 2017/2394 and Directive 2009/22/EC, and repealing Directive 1999/44/EC, art. 21, 2019 O.J. (L 136); Council Directive, of the European Parliament and of the Council of 20 May 2019 on certain aspects concerning contracts for the supply of digital content and digital services, art. 22, 2019 O.J. (L 136).

⁴⁵ See Council Directive 1999/44/EC, of the European Parliament and the Council of 25 May, 1999 on Certain Aspects of the Sale of Consumer Goods and Associated Guarantees, art. 2, 3(1), 1999 O.J. (L 171).

to know the nonconformity of the good or if material which the buyer contributed to the manufacture of the good caused the nonconformity.⁴⁶ In contrast, the CISG contains an abstract general exoneration provision: a party is exonerated if circumstances beyond its control hindered the correct performance.⁴⁷ Also, the definition of the nonconformity in the Sales Directive 1999⁴⁸ resembles the definition in the CISG⁴⁹ and is partly taken verbatim from it. A further similarity between the two instruments concerns the kind and order of remedies. Both instruments provide for repair or replacement as primary remedy and provide further for price reduction and—as “ultima ratio” remedy—for termination of the contract.⁵⁰ But while the CISG also provides for damages as remedy, the Sales Directive leaves this aspect to the applicable national law.

The two new directives of 2019 follow the same general system as the old Sales Directive (and the CISG), in that any nonconformity is a violation of the contract and justifies a remedy irrespective of fault.⁵¹ Furthermore, the new directives provide for the same remedies as the old directive, namely for performance (this only under the Digital Content Directive),⁵² where delivered, for repair or replacement as primary remedy,⁵³ for price reduction⁵⁴ and—as last resort—for termination.⁵⁵ Again, the most relevant remedy of damages is not regulated but left to national law. It must be noted that the CISG knows of the same remedies as the Directives but adds the

⁴⁶ *Id.*

⁴⁷ See United Nations Convention on Contracts for the International Sale of Goods, *opened for signature* Apr. 11, 1980, 1489 U.N.T.S. 3 (entered into force 1 Jan. 1, 1988) art. 79 [hereinafter *CISG*].

⁴⁸ See Council Directive 1999/44/EC, of the European Parliament and of the Council of 25 May 1999 on Certain Aspects of the Sale of Consumer Goods and Associated Guarantees, art. 2(2), 1999 O.J. (L 171).

⁴⁹ See United Nations Convention on Contracts for the International Sale of Goods art. 35, Apr. 11, 1980, S. Treaty Doc. No. 98-9, 1489 U.N.T.S. 3 [hereinafter *CISG Article 35*].

⁵⁰ See Council Directive 1999/44, art. 3(2)–(6), 1999 O.J. (L 171) 12, 15 (EC); *CISG*, *supra* note 47, arts. 45–52.

⁵¹ See Council Directive, art. 10, 2019 O.J. (L 136) 28, 43 (EU); Directive 2019/770, art. 11, 2019 O.J. (L 136) 1, 21–22 (EU).

⁵² *Id.* art. 13(1), 2019 O.J. (L 136) 1, 22 (EU).

⁵³ *Id.* arts. 13(2), 14 2019 O.J. (L 136) 28, 44 (EU); Directive 2019/770, arts. 13, 14(2) 2019 O.J. (L 136) 1, 22–23 (EU).

⁵⁴ *Id.* arts. 13(4), 15 2019 O.J. (L 136) 28, 44–45 (EU); *id.* arts. 14(4)–(5) 2019 O.J. (L 136) 1, 23 (EU).

⁵⁵ *Id.* arts. 13(4)–(5), 16 2019 O.J. (L 136) 28, 44–45 (EU); *id.* arts. 14(6), 15–17 2019 O.J. (L 136) 1, 24–25 (EU).

remedy of damages which under practical aspects is the most frequently used CISG remedy.

In contrast to the old Sales Directive, the new one—and the Digital Content Directive—contains a considerably extended definition of nonconformity: now, separate provisions deal with the subjective and the objective requirements for conformity.⁵⁶ Further provisions regulate incorrect installation and integration.⁵⁷ The “subjective” requirements mean those qualities, quantities and further obligations which the parties have expressly or impliedly stipulated in their contract; it is actually self-evident that the goods must conform to these stipulations. The objective requirements comprise the qualities which, although not specifically agreed upon, the goods must present because the buyer can expect them, such as fitness for usual purpose and for normal use and, with respect to digital elements, information on, and supply of necessary updates.⁵⁸

B. Does the CISG Cover Digital Goods?

When the UN Sales Convention was concluded in 1980 after twelve years of preparation, the Internet was still in the earliest phase of its creation and digital content and digital services lay far in the future. The creators of the CISG did not think of goods with digital elements nor of digital content or digital services as such. Is the Convention nonetheless applicable to the sale of such objects?

The text of the CISG requires for the applicability of the Convention that the object of the—international and generally professional⁵⁹—sale is a “good.”⁶⁰ The Convention does not define the term. It is, however, common opinion that at least—with few exceptions⁶¹—all corporeal movable goods

⁵⁶ *Id.* arts. 6, 7 2019 O.J. (L 136) 28, 44-45 (EU); *id.* arts. 7, 8 2019 O.J. (L 136) 1, 20-21 (EU).

⁵⁷ *Id.* art. 8 2019 O.J. (L 136) 28, 42 (EU); *id.* art. 9 2019 O.J. (L 136) 1, 21 (EU).

⁵⁸ *Id.* art. 8 2019 O.J. (L 136) 28, 41-42 (EU); *id.* art. 8 2019 O.J. (L 136) 1, 20-21 (EU).

⁵⁹ Consumer sales only fall under the CISG exceptionally; namely if the seller did not and could not know the private purpose of the sale. *See CISG, supra* note 47, art. 2(a).

⁶⁰ *Id.* art. 1(1) (“This Convention applies to contracts of sale of goods . . .”).

⁶¹ *See id.* art. 2 (excluding consumer goods, goods in auctions or in execution sales, shares and negotiable instruments, ships and aircrafts and electricity as such).

are met.⁶² Immovable property (land and its fixtures), as well as rights in particular immaterial property rights (patents, copyrights, trademarks etc.) fall outside the CISG.⁶³ The sale of tangible goods with digital elements such as cars, smartphones, watches etc. is therefore principally covered by the Convention (but see also below to goods to be manufactured or produced). Computer hardware is certainly a good in the sense of the CISG.⁶⁴ The clearly prevailing view assumes the same for standardized software that can be bought either on a carrier medium such as a CD or can be downloaded on a buyer's own computer or other digital device.⁶⁵ Even if labelled as license such contracts are sales, at least where a single payment and infinite use are agreed.⁶⁶ This corresponds to the CJEU's decision in *UsedSoft*, mentioned above⁶⁷ and also to the qualification of such cases in the European Sales and Digital Content Directives of 2019.⁶⁸ The CISG can and should follow this qualification if, as will be discussed below, its further provisions, in particular its remedies, fit these transactions.

Whether the acquisition of non-standardized digital products without any integration or link to tangible goods—for instance separate software, programs, data collections—is also covered by the CISG is somewhat disputed. Some argue that a sale of individually designed software constitutes a sale in the sense of the Convention since Article 3(1) CISG extends its scope to “goods to be manufactured or produced.”⁶⁹ Others deny the general application of the Convention to cases where software is individually

⁶² See, e.g., STEFAN KROLL, PILAR PERALES VISCASILLAS & LOUKAS A. MISTELIS, UN CONVENTION ON CONTRACTS FOR THE INTERNATIONAL SALE OF GOODS: A COMMENTARY 31 (2d ed. 2018).

⁶³ However, the CISG requires that goods must be free of such rights. See *CISG*, *supra* note 47, arts. 41–42.

⁶⁴ See, e.g., Landgericht Munich [LG] May 29, 1995, Neue Juristische Wochenschrift [NJW] 401 (1996) (Ger.); UNCITRAL, DIGEST OF CASE LAW ON THE UNITED NATIONS CONVENTION ON CONTRACTS FOR THE INTERNATIONAL SALE OF GOODS 7 (2016).

⁶⁵ See Oberster Gerichtshof [OGH] [Austrian Supreme Court] June 21, 2005, 5 Ob 45/05m, https://ciscg-online.org/files/cases/6971/translationFile/1047_18186440.pdf; Rechtbank Midden-Nederland 25 maart 2015, <https://uitspraken.rechtspraak.nl/details?id=ECLI:NL:RBMNE:2015:1096>; Schlechtriem/Schwenzer/Schroeter/*Hachem* Appendix to Art. 1 nn.4–6; Staudinger/*Magnus* Art. 1 n.44.

⁶⁶ See Rechtbank Midden-Nederland 25 maart 2015, <https://uitspraken.rechtspraak.nl/details?id=ECLI:NL:RBMNE:2015:1096>.

⁶⁷ Under II.2 see Case C-128/11, *UsedSoft GmbH v. Oracle Int'l Corp.*, ECLI:EU:C:2012:407 (Apr. 24, 2012).

⁶⁸ *Id.* at II.3.

⁶⁹ See, e.g., Schlechtriem/Schwenzer/Schroeter/*Hachem* Appendix to Art. 1 n.6.

developed for the needs of its buyer.⁷⁰ The CISG respects the difference between sales and contracts for labor or work. The dividing line between the two contract types depends on whether the acquirer is primarily interested in the acquisition of the final product only or rather is interested in the process of making the product or working on it. Thanks to its Article 3 the CISG applies exclusively to sales irrespective of whether the good in question already exists or must still be fabricated. But where the labor or mere work is preponderant, we are outside the CISG's scope.

"Goods to be manufactured or produced" fall within the scope of the CISG unless the party ordering the goods supplies "a substantial part of the materials necessary for such manufacture or production."⁷¹ Goods with digital elements such as cars, smartphones, watches etc. will thus generally be covered. It will be rare that the—professional—buyer of these special goods contributes a substantial part of the tangible or digital materials. However, if they do so, it is relevant whether the contribution constitutes a substantial part of the materials. The substantiality depends primarily on a comparison of the value of the materials of the final product with the value of the materials that the buyer contributed.⁷² Where the buyer contributes, e.g., their own data to the manufacture of the goods it may appear doubtful if it qualifies as "material necessary for such manufacture or production." The term "materials" is generally interpreted as meaning corporeal components; know-how, design etc. that the buyer contributes and is regarded as irrelevant because of its immaterial and work-like character.⁷³ Data collections have,

⁷⁰ See, e.g., SCHLECHTRIEM & SCHWENZER: COMMENTARY ON THE UN CONVENTION ON THE INTERNATIONAL SALE OF GOODS, art. 1 n.38 (4th ed. Ingeborg Schwenzer & Ulrich G. Schroeter eds., Mar. 2016); MICHAEL MARTINEK, ULRICH MAGNUS & J. VON STAUDINGER, WIENER UN-KAUFRECHT, art. 1 n.44 (CISG) (Neubearb. 1999).

⁷¹ CISG, *supra* note 47, art. 3(1).

⁷² See, e.g., Oberster Gerichtshof [OGH] [Supreme Court] 08 Nov. 2005, 4 Ob 179/05k, https://cisg-online.org/files/cases/7080/translationFile/1156_20988088.pdf; Arbitration Court attached to the Hungarian Chamber of Commerce and Industry, 5 Dec., 1995 VB/9413, https://cisg-online.org/files/cases/6139/fullTextFile/163_62971842.pdf; JOHN HONNOLD & HARRY M. FLECHTNER, UNIFORM LAW FOR INTERNATIONAL SALES UNDER THE 1980 UNITED NATIONS CONVENTION n.59 (4th ed. 2009); STEFAN KROLL, PILAR PERALES VISCASILLAS & LOUKAS A. MISTELIS, UN CONVENTION ON CONTRACTS FOR THE INTERNATIONAL SALE OF GOODS: A COMMENTARY, 31 art. 3 n.8 (2d ed. 2018); MICHAEL MARTINEK ET AL., *supra* note 70 n.14; a deviating opinion demands that also a qualitative element should be taken into account: e.g., SCHLECHTRIEM & SCHWENZER, *supra* note 70, art. 3 n.38. The uncertainty of the "qualitative element" speaks in favor of the first opinion.

⁷³ See, e.g., Bundesgerichtshof [BGH] (German Supreme Court) 24 Sept., 2014, VIII ZR 394/12, https://cisg-online.org/files/cases/8459/translationFile/2545_22899445.pdf; COMMERCIAL LAW:

despite their similar character, become more and more the object of ordinary sales. More often than not, they may be mere production specifications of the buyer or be similar to them. Then, they are no contribution in the sense required by Article 3(1) CISG.⁷⁴ But if they are indeed necessary for the production, they should be treated as equal to corporeal components. The Convention would then no longer apply if their value would be higher than merely 15% or 20% even without reaching or exceeding 50% of the total value of the final product.⁷⁵ If the buyer buys only the raw parts to finalize them even by adding digital or other elements, that sale is, no doubt, a sale in the sense of the CISG, because there would be no contribution—substantial or not—to the manufacture or production process at the seller, as required by Article 3(1) CISG.⁷⁶

As already mentioned, the CISG also covers contracts which combine the sale with further—labor or other service—obligations as long as these obligations do not constitute the “preponderant part” of the transaction.⁷⁷ Again, the value of the sales part and the value of the other obligations must be compared; the CISG is only applicable if the value of the other obligations does not exceed half of the total value of the product. Where their value transcends 50%, other conventions or the applicable national law applies.⁷⁸ Such “sales” are regarded as contracts for work. It could be argued that also services which the product itself performs can lead to the exclusion of the CISG if the 50% threshold is met; for instance, if a watch renders several other services such as counting the steps of its bearer or to measure his or her heart rate and further services. The text of Article 3(2) CISG speaks, however, rather in favor of an interpretation that the additional obligation must be a—separable—obligation of the seller (“the obligations of the party

ARTICLE-BY-ARTICLE, art. 3 CISG n.12 (Peter Mankowski ed., 2019); *see* United Nations Convention on Contracts for the International Sale of Goods, *supra* note 71 n.6; SCHLECHTRIEM & SCHWENZER, *supra* note 70 n.10; MICHAEL MARTINEK ET AL., *supra* note 70, art. 14.

⁷⁴ *See* CISG, *supra* note 47.

⁷⁵ *See, e.g.*, Arbitration Court of the Hungarian Chamber of Industry and Commerce May 12, 1995 UNCITRAL CLOUT no. 164.

⁷⁶ *See* CISG, *supra* note 47.

⁷⁷ *Id.*

⁷⁸ It has been argued that the value of the other obligations must substantially exceed the 50% threshold; *see, e.g.*, Swiss Message concerning the CISG (Schweizer Botschaft), Swiss Official Journal 1989 I 745 (762); SCHLECHTRIEM & SCHWENZER, *supra* note 70, at 17. However, the standard of substantiality would import considerable uncertainty into art. 3(2) CISG.

who furnishes the goods consists in the supply of labor or other services”). Examples of that kind include a duty to install or assemble the good at the premises of the buyer, a duty to train staff of the buyer etc.⁷⁹ The case that the final product performs the services which were agreed or responsibly advertised is not a case of additional obligations of the seller and is evidently not envisaged by Article 3(2) CISG. On the other hand, the duty to regularly update the digital element of a product is to be regarded as an additional obligation of the seller. If the value of the updating is more than 50% of the value of the total good the CISG is not applicable. The disputed case of individually designed software could be seen as a sale where the buyer buys only the final product and the labor of the seller would be merely the preparation of this final product.⁸⁰ The case could—and preferably should—be seen as a contract for work because developing an individual software program requires primarily labor or work.⁸¹ In most cases the value of this work will represent the value or most of the value of the final program. Nonetheless, the parties could expressly or implicitly choose the CISG as applicable to such cases.

C. CISG’s Conformity Provision Suitable for Digital Goods?

It has to be asked whether the CISG’s conformity provision (Article 35 CISG) which by no word mentions digital goods, nevertheless, is suited for the determination of their conformity. To answer this question, the specific conformity provisions of the Sales Directive 2019 and the Digital Content Directive shall serve as background against which the CISG provision is held. For the two directives have as their central aim the adaption of consumer sales and supply law to the needs of the digital age. It shall be examined if their special rules for digital products necessitate a corresponding supplement of the CISG provision on conformity.

⁷⁹ See, e.g., COMMERCIAL LAW: ARTICLE-BY-ARTICLE COMMENTARY art. 3 CISG n.12 (Peter Mankowski ed., 2019).

⁸⁰ SCHLECHTRIEM & SCHWENZER: COMMENTARY ON THE UN CONVENTION ON THE INTERNATIONAL SALE OF GOODS, app. to art. 1 n.6 (4th ed. Ingeborg Schwenzer & Ulrich G. Schroeter eds., Mar. 2016).

⁸¹ In this sense SCHLECHTRIEM & SCHWENZER: COMMENTARY ON THE UN CONVENTION ON THE INTERNATIONAL SALE OF GOODS art. 1 n.38 (4th ed. Ingeborg Schwenzer & Ulrich G. Schroeter eds., Mar. 2016); MICHAEL MARTINEK, ULRICH MAGNUS & J. VON STAUDINGER, WIENER UN-KAUFRECHT art. 1 n.44 (CISG) (Neubearb. 1999).

1. Subjective Requirements for Conformity

As indicated above, the two European directives of 2019 for the trade with digital products regulate extensively which conditions such products must meet to conform to the contract. The Directives' distinction between subjective and objective requirements of conformity corresponds, however, to the distinction in Article 35 CISG. Also, Article 35(1) prescribes that the supplied goods must conform to the stipulations concerning quality, quantity, description, and packaging that had been agreed in the contract. Article 6 Sales Directive of 2019 and Article 7 Digital Content Directive are more specific with respect to digital products insofar as they require the goods to possess in addition to the agreed description, type, quality, and quantity also the contracted "functionality, compatibility, interoperability and other features,"⁸² the supply of all agreed "accessories, instructions, including on installation, and customer assistance"⁸³ as well as any agreed update.⁸⁴ Both directives further prescribe that the goods must be fit for any purpose for which the consumer requires them and which the consumer made known to the supplier before or at the conclusion of the contract and in respect of which the supplier "has given acceptance."⁸⁵

Article 35(1) CISG is lacking express digital requirements. This does not necessarily mean that the requirements mentioned in Article 35(1) CISG exclude these specific digital requirements. On the contrary, like the Directive provisions, the CISG provision is based on the general principle that the goods must conform to all agreed requirements. The principle of the parties' autonomy is the overarching maxim of the whole Convention and, with respect to the conformity definition, also of the two directives.⁸⁶ Under the CISG, the goods must thus possess all agreed digital features as well. The term "quality" in Article 35(1) CISG therefore covers also any expressly or impliedly agreed functionality, compatibility, interoperability etc. The same is true for any agreed obligation of updating. Further, the term "quantity" is wide enough to include all agreed digital accessories and instructions.

⁸² See Sales Directive 2019/771, 2019 O.J. (L136), (EU) art. 6(a) [hereinafter Sales Directive]; Digital Content 2019/770, 2019 O.J. (L136), (EU) art. 7(a) [hereinafter Digital Content Directive].

⁸³ *Id.* Sales Directive art. 6(c); Digital Content Directive art. 7(c).

⁸⁴ *Id.* Sales Directive art. 6(d); Digital Content Directive art. 7(d).

⁸⁵ *Id.* Sales Directive art. 6(b), Digital Content Directive art. 7(b).

⁸⁶ Even the Directives' provisions on the fitness for a purpose that has been made known to the other party and accepted by her, are based on the assumption of an implied agreement between the parties.

Although not in text, the basic principle the CISG and the special European Digital Directives of 2019 are in agreement as far as the subjective requirements for the goods' conformity are concerned. The neutral formulation of the conformity requirements in Article 35(1) CISG needs no amendment for its application to digital products.

2. *Objective Requirements for Conformity*

Objective requirements for the conformity of the stipulated goods need not be specifically agreed but can be expected without further communication between the parties. The two European Directives of 2019 concerning transactions with digital goods prescribe as objective conformity requirements a number of conditions. Basically, they correspond to the conditions which the CISG formulates for the conformity requirement. However, the directives enrich these conditions considerably by special additions for digital goods. The basic consonance between the CISG's and the directives' conditions comprises: (1) the usual condition of fitness of the goods for their ordinary purpose;⁸⁷ (2) the goods' compliance with those features which the buyer could expect due to statements in the seller's responsibility;⁸⁸ (3) the goods' compliance with a sample or model that the seller presented to the buyer before the conclusion of the contract;⁸⁹ and (4) delivery of the necessary packaging.⁹⁰ Can these basic conformity requirements, which the three instruments share, already by themselves cover all the digital-related additions which the directives expressly foresee?

⁸⁷ See *CISG*, *supra* note 47, art. 35(2)(a)(1); Sales Directive art. 7(1)(a); Digital Content Directive art. 8(1)(a).

⁸⁸ *CISG*, *supra* note 47, art. 35(2)(a) & (b) (it can be inferred from both provisions that public statements about the goods can influence what the buyer could reasonably expect of the goods); Sales Directive art. 7(1)(d); Digital Content Directive art. 8(1)(b).

⁸⁹ *CISG*, *supra* note 47, art. 35(2)(c); Sales Directive art. 7(1)(b); Digital Content Directive art. 8(1)(d).

⁹⁰ *CISG*, *supra* note 47, art. 35(2)(d); Sales art. 7(1)(c); Digital Content Directive art. 8(1)(c) (although this Directive does not expressly mention "packaging" but merely "any accessories . . . which the consumer may reasonably expect to receive" it should cover packaging as well. Since the digital content or service is generally delivered online, packaging is regularly unnecessary. However, if delivered on a tangible medium the content or service also needs packaging as necessary "accessory.").

a. Fitness for Purpose Requirement

With respect to the fitness for purpose condition the directives require that the goods shall “be fit for the purposes for which goods (resp. digital content or digital services) of the same type would normally be used, taking into account, where applicable, any existing Union and national law, technical standards or, in the absence of such technical standards, applicable sector-specific industry codes of conduct.”⁹¹ In addition, the directives prescribe that the goods “be of the quantity and possess the qualities and (resp. performance) features, including in relation to durability, functionality, compatibility (resp. accessibility, continuity) and security normal for goods (resp. digital content or digital services) of the same type and which the consumer may reasonably expect given the nature of the goods (resp. digital content or digital service)”⁹²

The CISG neither mentions legal or technical standards nor durability etc. that are normal for digital goods. Does this lacuna require an amendment of the CISG provision on fitness for purpose? The existence of legal or technical standards influences also under the CISG what can objectively be regarded as fitness for the ordinary use of the contracted goods. They must be fit for those purposes for which goods of the same kind would normally be used. In a landmark CISG case the German Supreme Court ruled that goods generally need not comply with legal or technical standards in the country of the intended use (although the seller’s home standards must regularly be met). The compliance with the standards also in the export country is generally the risk of the buyer. However, if the seller is specialized for the export to that country or had long-standing trade relations to it or if the standards of the export and import country are the same, the situation is different. Then, the goods are defective if they contradict legal or technical norms—in particular healthcare or security standards—in the country of their intended use.⁹³ Thus, in regard to digital goods, the CISG provision on fitness for purpose should be interpreted as including that respective legal and technical standards or industry codes of conduct—of the export country and

⁹¹ Sales Directive art. 7(1)(a); Digital Content Directive art. 8(1)(a).

⁹² *Id.* art. 7(1)(d) art. 8(1)(b).

⁹³ Bundesgerichtshof [BGH] [German Supreme Court] Mar. 8, 1995 BGHZ 129, 75 *et seq.* (the *Mussels* case); *see also, e.g.*, *Med. Mktg. Int’l, Inc. v. Internazionale Medico Scientifica, S.R.L.*, No. CIV. A. 99-0380, 1999 WL 311945 (E.D. La. May 17, 1999) (referring to the *Mussels* case).

also of the import country—must be taken into account when examining the goods’ conformity. It should further go without saying that also under the CISG digital goods must possess those features, including durability, functionality etc. which goods of the same type would normally possess and which a buyer therefore could reasonably expect. For instance, a navigation system purchased for cars must thus be able to navigate reliably to the specified destination either on the shortest or on the fastest route. Only then is it fit for its ordinary purpose.

Moreover, with respect to the conformity requirement, both directives contain a provision which concerns the installation of the goods⁹⁴ specifically regarding the integration of the digital content or service.⁹⁵ According to these provisions, defective installation or integration is to be regarded as a nonconformity if it is carried out by or on behalf of the seller or if the defect was due to an incorrect instruction. Although the CISG does not contain a comparable provision, the CISG’s fitness for purpose requirement also includes that installation instructions must not be defective.⁹⁶ The same is true if the seller—or a person whose conduct is imputed to the seller—incorrectly installs the good or digital element.⁹⁷

It follows that the CISG’s fitness for purpose provision does not necessarily need a refurbishment with respect to digital goods. The provision is fit to determine whether and when such goods do or do not meet the fitness for purpose requirement. The two directives formulate additions which by way of interpretation are covered by the CISG provision.

b. Compliance with Responsible Announcement Requirement

The CISG does not contain an explicit provision that goods must comply with announcements of features of the goods which the seller made, or which fall into his/her responsibility. The two directives, on the contrary, prescribe

⁹⁴ Sales Directive art. 8.

⁹⁵ Sales Directive art. 9.

⁹⁶ See, e.g., COMMENTARY ON THE UN SALES LAW (CISG) art. 35 n.11 (Christoph Brunner & Benjamin Gottlieb eds., 2019); SCHLECHTRIEM & SCHWENZER: COMMENTARY ON THE UN CONVENTION ON THE INTERNATIONAL SALE OF GOODS art. 35 n.14 (4th ed. Ingeborg Schwenzer & Ulrich G. Schroeter eds., Mar. 2016); MICHAEL MARTINEK, ULRICH MAGNUS & J. VON STAUDINGER, WIENER UN-KAUFRECHT art. 35 n.19 (CISG) (Neubearb.).

⁹⁷ *Id.*

that “any public statement made by or on behalf of the seller (resp. trader), or other persons in previous links of the chain of transactions, (including the producer), particularly in advertising or on labelling” should be taken into account when determining whether the goods conform objectively to the contract.⁹⁸ Both directives contain, however, an identical catalogue of situations when such statements are irrelevant and not binding, namely that the supplier was not and could not be aware of the statement; that the statement had been corrected before the conclusion of the contract; and that the decision to acquire the good was not influenced by the statement.⁹⁹ The supplier is expressly burdened with the proof of such situations.¹⁰⁰

Despite the CISG’s silence on public statements it has been held that such announcements, for instance in advertising, can have a binding effect. In a concrete case, the seller had advertised an emergency generator as performing 300 kilovolt-ampere although the generator could perform only 250; when the buyer for this reason sued, the involved court rightly regarded the generator as defective.¹⁰¹ In international sales public statements in one country will not necessarily come to the knowledge of the buyer located in another country; then they do not influence the decision to buy and remain irrelevant.¹⁰² But if the seller is responsible for a serious statement announcing specific qualities of the good and the buyer relied on it, the statement must be taken into account when determining the good’s conformity.

In sum, the solutions under all three instruments do not essentially differ and do, in particular, not require special rules for statements concerning digital goods. Again, the CISG needs no necessary “digital” amendment with respect to the effect of public statements that are attributable to the seller.

⁹⁸ Council Directive 2019/771, art. 7(1)(d), 2019 O.J. (L 136) 28; Council Directive 2019/770, art. 8(1)(b), 2019 O.J. (L 136) 1.

⁹⁹ Council Directive 2019/771, art. 7(2), 2019 O.J. (L 136) 28; Council Directive 2019/770, art. 8(1)(b)(i)–(iii), 2019 O.J. (L 136) 1.

¹⁰⁰ Council Directive 2019/771, art. 7(2), 2019 O.J. (L 136) 28; Council Directive 2019/770, art. 8(1)(b), 2019 O.J. (L 136) 1.

¹⁰¹ Oberlandesgericht Koblenz [OLGZ] [Higher Regional Court] Dec. 19, 2012, 2 U 1464/11 (Ger.).

¹⁰² See also CISG art. 35 (stating that where the goods’ fitness for a particular unnormal purpose which was “made known to the seller” becomes binding only if the buyer did rely on the seller’s skill and judgment).

c. Compliance with Sample or Model

The CISG provides that goods “which the seller has held out to the buyer as a sample or model” conform to the contract only if they possess the qualities of the sample or model.¹⁰³ The Sales Directive 2019 contains a rather similar provision which likewise does not refer specifically to digital goods.¹⁰⁴ The Digital Content Directive, on the contrary, requests that “the digital content or digital service shall: comply with any trial version or preview of the digital content or digital service made available by the trader before the conclusion of the contract.”¹⁰⁵ Transferred to digital products a “trial version or preview” of the digital product shall evidently correspond to a sample or model of non-digital goods. The terms sample and model are so general that they certainly include trial versions or previews of digital goods. The latter terms do not add specific digital substance to the requirement of compliance that is not also inherent in the terms sample and model. Sample and model can easily cover trial versions or previews concerning digital content or services. Consequently, the CISG provision does again need no “digital improvement.”

d. Requirement of Delivery of Necessary Accessories, Including Packaging

The two directives contain express provisions that digital products objectively conform to the contract only if they are “delivered along with such accessories, including packaging, installation instructions or other instructions, as the consumer may reasonably expect to receive,”¹⁰⁶ respectively “supplied with any accessories and instructions which the consumer may reasonably expect to receive.”¹⁰⁷ They further establish a duty of the seller to inform the buyer of updates and to supply those updates which

¹⁰³ *Id.*

¹⁰⁴ According to Council Directive 2019/771, art. 7(1)(B), 2019 O.J. (L 136) 28, goods shall: where applicable, be of the quality and correspond to the description of a sample or model that the seller made available to the consumer before the conclusion of the contract.

¹⁰⁵ Council Directive 2019/770, art. 8(1)(d), 2019 O.J. (L 136) 1.

¹⁰⁶ Council Directive 2019/771, art. 7(1)(c), 2019 O.J. (L 136) 28.

¹⁰⁷ Council Directive 2019/770, art. 8(1)(c), 2019 O.J. (L 136) 1.

are necessary to keep the goods in conformity for a reasonable period of time which in case of doubt is two years.¹⁰⁸

The CISG mentions only a requirement of reasonable packaging but neither a duty to deliver also necessary instructions or other necessary accessories nor to supply necessary updates.¹⁰⁹ Nonetheless, it is commonly agreed that under the CISG goods are defective if the necessary instructions are defective or lacking.¹¹⁰ This applies as well to goods with digital elements as to pure digital goods and to all other movable goods.¹¹¹ The seller is also obliged to deliver all those accessories which are necessary to enable the ordinary use of the bought goods. These accessories include, as Article 35(2)(d) shows, the usual or at least adequate packaging in the first line. As far as digital products are transferred only online, they evidently need no packaging. However, it is essential that digital products can be opened and downloaded. If that is impossible, they are not in conformity to the contract. More questionable is whether the duty to deliver the necessary accessories includes a duty to update the digital element of tangible goods or a digital product. Again, the fitness for purpose requirement should step in. As far as the good with a digital element or the digital product loses its ability to serve the ordinary use it was bought for, the good or product becomes defective. To take again the example of a car navigation system, it must be regularly updated for a reasonable period of time in order to remain in conformity with the contract. It must thus take account of new roads, closed old roads, and other changes.

To summarize the result: the CISG need not necessarily be supplemented by a provision that refers to accessories or updates.

¹⁰⁸ See Council Directive 2019/771, art. 7(3) & art. 10(1)(2)(5), 2019 O.J. (L 136) 28; *see also* Council Directive 2019/770, art. 8(2) & art. 11, 2019 O.J. (L 136) 1.

¹⁰⁹ See CISG Article 35, *supra* note 49.

¹¹⁰ See, e.g., Bundesgerichtshof [BGH] [Federal Court of Justice] Dec. 4, 1996, CISG-online nr. 260 (necessary documentation for computer-run printer was lacking); COMMENTARY ON THE UN SALES LAW (CISG) art. 35 n.11 (Christoph Brunner & Benjamin Gottlieb eds., 2019); STEFAN KROLL, PILAR PERALES VISCASILLAS & LOUKAS A. MISTELIS, UN CONVENTION ON CONTRACTS FOR THE INTERNATIONAL SALE OF GOODS: A COMMENTARY 31 art. 3 n.8 (2d ed. 2018); SCHLECHTRIEM & SCHWENZER: COMMENTARY ON THE UN CONVENTION ON THE INTERNATIONAL SALE OF GOODS art. 35 n.14 (4th ed. Ingeborg Schwenzer & Ulrich G. Schroeter eds., Mar. 2016); MICHAEL MARTINEK, ULRICH MAGNUS & J. VON STAUDINGER, WIENER UN-KAUFRECHT Art. 35 n.19 (CISG) (Neubearb. 1999).

¹¹¹ See Bundesgerichtshof [BGH] [Federal Court of Justice] Dec. 4, 1996, VIII ZR 306/95 (Ger.) (although in that case the Court remitted the case to the lower instance because in the circumstances it was unclear whether the notice the buyer had given was sufficiently precise).

e. Summary for the Suitability of Article 35 CISG for Digital Products

The rather abstract and wide formulation of the conformity provision of the CISG allows to cover and solve the comparable problems that digital products raise. An amendment of Article 35 CISG or a supplement to it does not appear necessary, let alone urgent.

IV. SUITABILITY OF THE CISG'S REMEDY PROVISIONS FOR DIGITAL PRODUCT SALES

A. Performance Claim

The CISG grants buyers a claim for performance if the seller has failed to perform its obligations, although subject to some restrictions.¹¹² Moreover, where national law does not allow for a performance claim, the nation's courts are not obliged to grant this remedy (but may award damages instead or that claim the national law allows).¹¹³

The two directives provide for a performance claim with special rules for replacement or repair and no exception for deviating from national law.¹¹⁴ But they do not prescribe specific rules with respect to digital products.¹¹⁵ The European legislator regarded such specific rules as unnecessary. Indeed, a right to claim performance requires no differentiation between "normal" and digital products. Digital products can likewise be replaced or repaired. It follows that the CISG's performance remedy needs no "digital" improvement.

¹¹² See *CISG*, *supra* note 47, art. 46 (outlining special rules for replacement and repair claims).

¹¹³ See *CISG*, *supra* note 47, art. 28.

¹¹⁴ Council Directive 2019/771, art. 13(2) and (3), art. 14, 2019 O.J. (L 136) 28 (EC); Council Directive 2019/770, art. 13(1), art. 14(2) and (3), 2019 O.J. (L 136) 1 (EC).

¹¹⁵ Council Directive 2019/771, art. 13(2) and (3), art. 14, 2019 O.J. (L 136) 28 (EC); Council Directive 2019/770, art. 13(1), art. 14(1)–(3), 2019 O.J. (L 136) 1 (EC); *see also* COMMENTARY ON THE UN CONVENTION ON THE INTERNATIONAL SALE OF GOODS (CISG) (INGEBORG H. SCHWENZER & ULRICH G. SCHROETER eds., 5th ed. 2022).

B. Price Reduction

All three instruments provide for price reduction as a further remedy.¹¹⁶ The directives grant this remedy, however, only if a replacement or repair was impossible, disproportionate, unsuccessful or refused by the seller.¹¹⁷ In addition, both directives require that “the lack of conformity is of such a serious nature as to justify an immediate price reduction.”¹¹⁸ Minor non-conformities do not entitle a price reduction. All three instruments prescribe a reduction of the price that is “proportionate to the decrease in value of the good[]” or digital product.¹¹⁹ The Digital Content Directive alone addresses the case that the digital content or service had to be supplied over a period of time. Then, the price reduction shall only apply to the time “during which the digital content or digital was not in conformity.”¹²⁰ Other special rules for digital goods in relation to price reduction are not foreseen. They do not appear necessary. The CISG provision on price reduction should thus be applicable to digital products without further additions.

C. Termination of the Contract

The CISG and even more so the directives regard the termination of the contract as a remedy of last resort.¹²¹ The two directives grant the remedy of termination only if the correct performance was—for the same reasons as are the precondition for the price reduction¹²²—not effected.¹²³ Furthermore,

¹¹⁶ See *CISG*, *supra* note 47, art. 28; Council Directive 2019/771, art. 13(1) and (4), art. 15, 2019 O.J. (L 136) 28 (EC); Council Directive 2019/770, art. 14(1), (4) and (5), 2019 O.J. (L 136) 1 (EC).

¹¹⁷ See Council Directive 2019/771, art. 13(4), 2019 O.J. (L 136) 28 (EC); Council Directive 2019/770, art. 14(3), 2019 O.J. (L 136) 1 (EC).

¹¹⁸ Council Directive 2019/771, art. 13(4)(c), 2019 O.J. (L 136) 28 (EC); Council Directive 2019/770, art. 14(4)(d), 2019 O.J. (L 136) 1 (EC).

¹¹⁹ CISG art. 50; Council Directive 2019/771, art. 15, 2019 O.J. (L 136) 28 (EC); Council Directive 2019/770, art. 14(5), 2019 O.J. (L 136) 1 (EC).

¹²⁰ Council Directive 2019/770, art. 14(5), 2019 O.J. (L 136) 1 (EC).

¹²¹ Bundesgerichtshof [BGH] [Federal Court of Justice] Sept. 24, 2014, VIII ZR 394/12 (Ger.); Oberster Gerichtshof [OGH] [Supreme Court] Dec. 16, 2015, 3 Ob 194/15y (Austria); Bundesgericht [BGer] [Federal Supreme Court] May 18, 2009, 4A_68/2009 (Switz.).

¹²² Namely, if a replacement or repair was impossible, disproportionate, unsuccessful or refused by the seller; *cf.* Council Directive 2019/771, art. 13(4), 2019 O.J. (L 136) 28 (EC); *with* Council Directive 2019/770, art. 14(3), 2019 O.J. (L 136) 1 (EC).

¹²³ Directive 2019/770, art. 13, O.J. (L 136) 22 (allowing termination also if the supplier does not supply after being requested to do so).

both Directives exclude termination “if the lack of conformity is only minor.”¹²⁴ As Recital 67 shows, a nonconformity would not be “only minor,” and immediate termination would be admitted where, for instance, an anti-virus software would contain viruses which did or could infect the buyer’s electronic devices.¹²⁵ The directives do not contain special “digital” rules as precondition for the termination of contracts for the supply of digital products.

Several special rules exist, however, with respect to the consequences of termination of contracts for the sale of digital products. While the Sales Directive exclusively requires the mutual return of the goods and the price (if already delivered and/or paid),¹²⁶ the Digital Content Directive prescribes that both parties must no longer use the supplied data after termination of the contract.¹²⁷ The price must be reimbursed only to the extent that the digital product was unusable;¹²⁸ where the digital content was supplied on a tangible medium, the consumer must return that medium only if the supplier so requests.¹²⁹

The CISG provides—like the directives—that, after termination of the contract, eventually delivered goods and already paid sums must be returned.¹³⁰ However, contrary to the Digital Content Directive, the Convention does not explicitly forbid any further use of the supplied goods/data after the termination of the contract. But it is the natural consequence of termination that the contractual duties and rights end as Article 81(1) sentence 1 CISG prescribes—except those which Article 81(1), sentence 2 CISG mentions, namely contractual provisions for dispute settlement and other contractual provisions for the time after the termination. Therefore, if the contract admits, for instance, the use of data this right of use ends with the termination also under the CISG, irrespective which party was allowed to use the data. The CISG further prescribes that the buyer has to “account to the seller for all benefits which he has derived from the goods or part of them” during the time when s/he could use the goods.¹³¹ Such benefits

¹²⁴ Directive 2019/771, art. 13, O.J. (L 136) 44; Directive 2019/770, art. 14, O.J. (L 136) 24.

¹²⁵ Directive 2019/770 O.J. (L 136) 13.

¹²⁶ Council Directive 2019/771, art. 16, O.J. (L 136) 45.

¹²⁷ Council Directive 2019/770, art. 16–17, O.J. (L 136) 24.

¹²⁸ Council Directive 2019/770, art. 16, O.J. (L 136) 24.

¹²⁹ Council Directive 2019/770, art. 17, O.J. (L 136) 25.

¹³⁰ CISG, *supra* note 47, art. 81.

¹³¹ CISG, *supra* note 47, art. 84.

would also cover the use of a digital product for the time during which the use was unimpaired. Thus, the mentioned CISG provisions on termination could easily be applied to contracts for the sale of digital products.

D. Damages

The remedy of damages is dealt with by the CISG¹³² but not by the two directives. There is no evidence that this remedy necessitates special rules for the calculation of damages with regard to digital products.

E. Summary for the Remedies Part

Taken together, there is no evidence that the remedy provisions of the CISG could not cover international sales of goods with digital elements or pure digital products.

V. CONCLUSIONS

In order to assess whether the CISG fits for sales of digital products, the comparison with the two European Directives of 2019 for the trade with such goods was helpful. The directives reveal which special rules the European legislator regards as necessary for transactions concerning digital products. Although this is no absolute test whether those rules comprise all aspects which should be addressed, they are a good yardstick of what an influential legislator holds necessary. The overall result of the comparison is that the CISG is able to cope with the challenges the development of digital products poses.

First, the CISG, although directed to the trade with movable goods, can and should be applied also to digital products. This is unproblematic as far as the sale of movable goods with digital elements is concerned. However, the CISG should also be applicable to digital products, for instance, e-books, e-games etc., which are designed to be downloaded and which are in principle sold like movables: once bought and paid, the buyer can use them and dispose of them as s/he likes. That these items become visible and

¹³² *Id.* art. 45.

materialize in a sense only after their download when they appear on a screen, should not prevent their qualification as goods. There is a certain parallel to gas contained in bottles or electricity in batteries which fall within the CISG's scope.¹³³ Equally, that digital products regularly have a limited lifespan after which they extinguish does not distinguish them from "normal" movables. The CISG should here take account of the development—exemplified in the Digital Content Directive—that qualifies the transaction of these goods as sales.

Second, central for any sales system is the determination when the supplied good is or is not in conformity to the contract. The features of digital products are not rarely different from "normal" movables, in particular concerning their interconnectivity, compatibility, accessibility, etc. But that, in the absence of contractual specifications by the parties, these features must conform to the features digital products of the same kind usually possess is a requirement that also can be inferred under the CISG. As seen above, the same is true for the further objective requirements of conformity. The rather flexible and abstractly formulated conditions which the CISG insofar establishes can easily be applied to digital products.

Third, as shown above, equally the remedies system of the CISG can be applied to digital products without great difficulty. Performance claim, replacement or repair, price reduction, termination of the contract and—not regulated by the European directives—damages fit not only for "normal" movables but also for digital products. The special characteristics of these products constitute no impediment for the application of the CISG to this special kind of goods.

The final outcome is that the CISG appears suitable for the digital age, even without modifications or supplements.

¹³³ Obergerster Gerichtshof [OGH] [Supreme Court] Feb. 6. 1996, 10 Ob 518/95 (Austria).