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Model clauses for Product-as-a-Service (PaaS) contracts

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Summary

The transition to a circular economy requires a shift in the way businesses operate. Service-based business models could potentially contribute to a more sustainable and circular economy. One of the most promising service-based models is product-as-a-service (PaaS). The flexible Belgian contract law allows parties to make their own arrangements in a contract, taking into account mandatory rules of law. No specific provisions in the Civil Code or other legislation specifically govern PaaS contracts. This means that the way in which the parties themselves give shape to their contractual relationship in the clauses of their contract is of utmost importance.

The main goal of this research report is to define clear model clauses for PaaS contracts, which reflect the expectations and intentions of the parties involved. The clauses cover all aspects of a contractual relationship, such as definitions, clauses substantiating the parties' obligations and its termination. The annex to the research report contains some twenty pages of model clauses, which will also be made available through a dedicated website of the Flemish government. Interested parties can freely use these model clauses to shape their own contracts.

There are three fundamental features of the research report.

- By providing templates for clauses, the research report reduces the time, effort, and resources to create customized clauses from scratch. In doing so, it aims to foster the adoption of PaaS by businesses by reducing the transaction costs. For example, several of the model clauses substantiate the obligations of the parties. These clauses contain the key features of PaaS contracts and are as such novelties.
- At the same time, this research report is mindful of the potential downsides of PaaS. It pays attention to the need to protect the interests of weaker parties, such as consumers. For this reason, the research report notes where the parties have to take into account mandatory rules regarding business-to-consumer relationships. For example, regarding a possible obligation to innovate, the research report highlights the circumstances in which clauses containing this obligation can be assumed to not run contrary to the prohibition of clauses granting the business the power to unilaterally change essential characteristics of the contract.
- The research report also addresses the issue that even though the PaaS model is potentially environmentally sustainable, this potential is not necessarily realized. For this reason, the research report, by way of example, presents model clauses that contain a 'circular guarantee', obligating the service provider to take back a product when the contractual relationship has ended and present proof that it has been reused in another contract.

Samenvatting

De overgang naar een circulaire economie vereist gewijzigde bedrijfsmodellen. Dienstgerichte bedrijfsmodellen kunnen daaraan mogelijk bijdragen. Een veelbelovend model is product-als-een-dienst (PDS). Het flexibele Belgische contractenrecht laat partijen toe om hun contractuele rechtsverhoudingen zelf vorm te geven, rekening houdend met dwingendrechtelijke regels. Er zijn geen bepalingen in het Burgerlijk Wetboek of andere wetgeving die PDS-contracten specifiek regelen. Hoe de partijen met de clausules van hun contract zelf vormgeven aan hun rechtsverhouding is daarom van groot belang.

Het belangrijkste doel van dit onderzoeksrapport is om modelclausules voor PDS op te stellen. De clausules bestrijken alle aspecten van een contractuele rechtsverhouding, zoals definities, inhoudsbepalende clausules die vormgeven aan de verbintenissen van de partijen en de beëindiging ervan. De bijlage bij het onderzoeksrapport bevat zo'n twintig pagina's met modelclausules, die ook beschikbaar zullen worden gesteld via een website van de Vlaamse overheid. Geïnteresseerden kunnen deze modelclausules vrij gebruiken om hun eigen contracten vorm te geven.

- Door sjablonen voor clausules aan te bieden, vermindert het onderzoeksrapport de tijd, moeite en middelen die nodig zijn om op maat gemaakte clausules vanaf nul te creëren. Zo beoogt het de adoptie van PDS door ondernemingen te bevorderen door de transactiekosten te verlagen. Bijvoorbeeld, verschillende modelclausules bepalen de inhoud van de verbintenissen van de partijen. Deze clausules bevatten de belangrijkste kenmerken van PaaS-contracten en zijn als zodanig vernieuwend.
- Tegelijkertijd houdt dit onderzoeksrapport rekening met de mogelijke nadelen van PDS. Het besteedt aandacht aan de noodzaak om de belangen van zwakkere partijen, zoals consumenten, te beschermen. Om deze reden merkt het onderzoeksrapport op waar de partijen rekening moeten houden met dwingendrechtelijke regels over de relaties tussen ondernemingen en consumenten. Bijvoorbeeld, met betrekking tot een mogelijke verplichting tot innovatie, benadrukt het onderzoeksrapport de omstandigheden waarin clausules met zo'n verplichting kunnen worden geacht verzoenbaar te zijn met het verbod op clausules die de onderneming de macht geven om eenzijdig essentiële kenmerken van het contract te wijzigen.
- Ook komt het aandachtspunt dat het PDS-model milieuvriendelijk kan zijn, maar dat niet per se is, aan bod. Om deze reden bevat het onderzoeksrapport, bij wijze van voorbeeld, modelclausules die een 'circulaire garantie' bevatten, waarbij de dienstverlener verplicht is om een product terug te nemen aan het einde van de contractuele rechtsverhouding en bewijs te leveren dat het opnieuw is gebruikt voor een ander contract.

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1 Introduction

1.1 In general

The transition to a circular economy requires a shift in the way businesses operate. The traditional linear economy model of 'take, make, use, and dispose' is to be replaced with a circular model that promotes the reuse and recycling of materials and resources. Service-based business models could potentially contribute to a more sustainable and circular economy. One of the most promising service-based models is product-as-a-service (PaaS). Speaking in general terms, businesses who offer PaaS provide their customers (other businesses or consumers) with access to products rather than outright sell the products to them. Thus, the businesses retain ownership of the products and keep the responsibility for their performance. Additionally, they provide maintenance, repair and upgrades as part of the services that come with the right to use the product. The circular potential of the PaaS model lies in the fact that it could encourage businesses to design and purchase products with durability, repairability, and recyclability in mind. After all, they are responsible for maintaining, repairing, and reusing the products which they themselves own. In the PaaS model, reducing the need for servicing and stimulating the reusability of products is beneficial to the profit margin of businesses.

1.2 Servitization, PSS and PaaS

The European Parliament highlights the opportunities that lie in the optimized use of products and services in the transition to a circular economy.¹ It stresses the need to develop new sustainable and circular business models, which save resources and reduce environmental impacts. It specifically pinpoints the product-as-a-service (PaaS) model as a such a method. In turn, the European Commission views PaaS as a way to bring about a better quality of life, innovative jobs and upgraded knowledge and skills in its Circular Economy Action Plan.² Thus, it wishes to incentive this business model.³ The European Commission wants to bring different stakeholders together in the new 'European Circular Business Hub', which will support the uptake of circular business models such as PaaS.⁴ Finally, the Belgian federal government wants to stimulate PaaS as well, as part of its own Federal Circular Economy Action Plan.⁵ All of these

¹ European Parliament resolution of 10 February 2021 on the New Circular Economy Action Plan (2020/2077(INI)), no. 11.

² Circular Economy Action Plan: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, A new Circular Economy Action Plan - For a cleaner and more competitive Europe, 11 March 2020, COM(2020) 98 final (hereinafter abbreviated as 'Circular Economy Action Plan'), p. 2.

³ Circular Economy Action Plan, p. 4. See also Communication from the Commission to the European Parliament and the Council - New Consumer Agenda. Strengthening consumer resilience with a view to sustainable recovery, 13 November 2020, COM(2020) 696 final, p. 8.

⁴ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. On making sustainable products the norm, 30 March 2022, COM(2022) 140 final, p. 10-11.

⁵ Federal Sustainable Development Plan (2020-2025) (*Federaal Plan Duurzame Ontwikkeling*): Federale regering, Federaal Plan Duurzame Ontwikkeling, version 1 October 2021, https://www.sdgs.be/sites/default/files/content/20211001_fpdo_nl.pdf, p. 19 (measure 8).

policy declarations and documents underline the potential of PaaS models for helping to achieve a circular economy, which is one of the goals of the European Union.⁶

The emergence of PaaS is part of a broader trend towards ‘servitization’.⁷ The term servitization was first used by Vandermerwe and Rada in 1988, who defined the concept as “the process of creating value by adding services to products”.⁸ Servitization entails a shift in business models. Businesses move away from more ‘traditional’ one-off transactional relationships with customers (other businesses or consumers) to longer-term, collaborative partnerships. It involves offering services such as maintenance, repair, upgrades, training, and other post-sales support. In sum, business move away from a product-centric approach and logic to a services-centric approach and logic.

Servitization is a notion that was developed from a business perspective.⁹ Parallel to its evolution, environmental sustainability research developed the concept of ‘product-service-systems (PSS)’, of which PaaS is a subset.¹⁰ PSS are business models that integrate products and services into a comprehensive system to satisfy the customer’s need.¹¹ The most widely accepted categorization of PSS distinguishes three main types of PSS, which differ according to the object of the contract and the shift in ownership.¹²

- First, there are product-oriented PSS. In these business models there is still a traditional sale of a product, meaning that the ownership of a product is transferred. The sale is complemented by additional (commercial¹³) after-sales services (e.g., maintenance, repair, monitoring, digital services, etc.).

⁶ The society of the European Union is to be climate neutral, environmentally sustainable, and biodiverse by 2050. To achieve this goal, the European Commission has drawn up a roadmap in the form of the European Green Deal, see Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, The European Green Deal, 11 December 2019, COM(2019)640.

⁷ For legal commentaries on this concept and its meaning for the circular economy, see the contributions to B. KEIRSBILCK, E. TERRY, J. EYCKMANS, S. ROUSSEAU and D. VOINOT (eds.), *Servitization and circular economy: economic and legal challenges*, Antwerp, Intersentia, 2023, 220p.

⁸ S. VANDERMERWE and J. RADA, “Servitization of Business: Adding Value by Adding Services”, *Eur.Man.J.* 1988, vol. 6, p. (314) 314-324.

⁹ S. FISCHER, S. STEGER, N.D. JORDAN, M. O’BRIEN and P. SCHEPELMANN, *Leasing society (IP/A/ENVI/ST/2012-10)*, Directorate-General for Internal Policies, Policy. Department: Economic and Scientific Policy, Brussels, 2012, p. 10-11.

¹⁰ M.J. GOEDKOOP, C.J.G. VAN HALEN, H.R.M. TE RIELE and P.J.M. ROMMENS, *Product service systems: Ecological and economic basics, Report for Dutch Ministries of Environment (VROM) and Economic Affairs (EZ)*, 1999, p. 18 (defining PSS as a “marketable set of products and services, capable of jointly fulfilling a user’s need”).

¹¹ See for an extensive description of the characteristics of PSS, O. MONT, “Clarifying the concept of product–service system”, *Journal of Cleaner Production*, 2002, p. (237) 238-239 and 241-243.

¹² W. REIM, V. PARIDA and D. ÖRTQVIST, “Product-Service Systems (PSS) business models and tactics – a systematic literature review”, *Journal of Cleaner Production* 2015, vol. 97, p. (61) 61-75; A. TUKKER, “Eight Types of Product-Service System: Eight Ways to Sustainability? Experiences from Suspronet”, *Bus.Strat.Env.* 2004, vol. 13, p. (246) 248; B. KEIRSBILCK and S. ROUSSEAU, “The Marketing Stage: Fostering Sustainable Consumption Choices in a “Circular” and “Functional” Economy” in B. KEIRSBILCK and E. TERRY (eds.), *Consumer Protection in a Circular Economy*, Antwerp, Intersentia, 2019, p. (93) 111-112; A. VAN VAERENBERGH and F. LEYMAN, “‘Product als dienst’-overeenkomsten, een stap in de richting van de circulaire economie”, *MER* 2019, p. (20) 22, no. 4; B. KEIRSBILCK, E. TERRY and E. VAN GOOL, “Consumentenbescherming bij servitisation en product-dienst-systemen (PDS)”, *TPR* 2019, vol. 3-4, p. (817) 821-822, nos. 2-4; H. SLACHMUYLDERS, B. KEIRSBILCK, E. TERRY and E. VAN GOOL, “Duurzaam ondernemen en het recht: circulaire bedrijfsmodellen - juridische knelpunten” in IBI/IJE (ed.), *De rol van de bedrijfsjurist in de duurzame ontwikkeling van de onderneming*, Brussels, Larcier, 2020, p. (7) 10-11, no. 5; B. KEIRSBILCK and E. TERRY, “Duurzaamheid en consumentenrecht”, *TBH* 2021, vol. 10, p. (433) 476-477; H. SLACHMUYLDERS, “Movable servitization. Contractual Liability in the B2C relationship” in B. KEIRSBILCK et al. (eds.), *Servitization and circular economy: economic and legal challenges*, Antwerp, Intersentia, 2023, p. (135) 136-137.

¹³ As there is still a traditional sale of a product, a product-oriented PSS contract qualifies – at least partly – as a sales contract. Thus, certain obligations to repair the product can follow directly from the statutory obligations of the seller. The seller is

For example, the sale of a washing machine can be complemented by a service contract containing the obligations to maintain and to repair the washing machine during a certain period.

- Second, there are use-oriented PSS. These business models are characterized by the fact that service providers retain the ownership of a specific product and keep the responsibility for its performance. The product is made available to a customer against the payment of a single or recurrent fee. Contracts on use-oriented PSS can be limited to granting a right of use, but often they include additional services (e.g., maintenance, repair, monitoring, digital services, etc.). This is the type of PSS that is commonly called PaaS. Speaking in general terms, businesses who offer PaaS provide their customers with access to products rather than outright sell the products. Thus, the businesses retain ownership of the products and keep the responsibility for their performance. Additionally, they provide maintenance, upgrades, and repair as part of the service that comes with the right to use the product.

For example, instead of buying a washing machine the customer gains the right to use washing machine type x of brand y, which is installed by the service provider in the customer's home or business premises.

- Result-oriented PSS are a third category. These business models do not relate to one or more specific products but to a specific functional result. The customer pays a service fee (e.g., on a pay-per-use or subscription basis) for a certain quality or continuity of a service. To fulfill the specific need of the customer, the service provider is given freedom to achieve the agreed upon result. The customer and the service provider do not describe a predefined solution or product. Concretely, the service provider may choose which products are used to achieve the specific result. This type of PSS is sometimes also labelled as PaaS.¹⁴

For example, the customer can pay for the service of 'one thousand kilograms of washed laundry', which the service provider can achieve by offering washing machine type x, type y, or type z.

1.3 Potential for circularity

PaaS holds potential for circularity. The business providing services is incentivized to lower the number of moments that the product requires servicing. Each moment of servicing avoided reduces the costs of personnel and materials. In other words, there is an incentive to make sure that the washing machine needs as little maintenance as feasible and breaks down as seldom as possible. The business providing services is also incentivized to lower the number of hours that the product requires servicing. Each hour of servicing avoided reduces the costs of

obligated to deliver a product without lack of conformity. If a lack of conformity emerges, one of the remedies offered to the buyer is to ask repair. Thus, the additional services offered are to be viewed as 'commercial', meaning 'going further than the statutory obligations'.

¹⁴ B. KEIRSILCK, E. TERRYIN and E. VAN GOOL, "Consumentenbescherming bij servitisation en product-dienst-systemen (PDS)", *TPR* 2019, vol. 3-4, p. (817) 822, no. 4

personnel and materials. In other words, there is an incentive to make sure that whenever the washing machine does need maintenance or does break down, it is easy to disassemble for maintenance or repair.

The business retaining ownership (which is not necessarily the same legal entity as the service provider) is incentivized to design (if it is also the manufacturer) or buy durable products. In other words, there is an incentive to make sure that the washing machine can withstand the use by a customer, that it returns into the hands of the business in decent shape and that the washing machine is easy to upgrade (if necessary). The business retaining ownership is also incentivized to design or buy products that are easy to be reused, repurposed¹⁵, or recycled internally. In other words, there is an incentive to ensure that whenever a service contract with one customer ends, the washing machine can either be reused by a different customer or, for example, be used as a source of resources to repair other washing machines (reconditioning/refurbishing¹⁶, remanufacturing¹⁷).

All together, these incentives could lead to an increased production of high-quality and durable products that are easy to maintain, upgrade, repair, recondition/refurbish, remanufacture, etc.

However, claims about the environmental benefits of servitization and PSS should always be carefully assessed. Servitization is not in and of itself environmentally sustainable, nor is it necessarily an enabler of the circular economy.¹⁸ In fact, companies often base their choice for servitization on economic rather than sustainability reasons.¹⁹ As a result, not all servitized business models are more sustainable than traditional business models based on the sale of products.²⁰ A very simple example thereof is that a business model based on selling second-

¹⁵ One simple example of repurposing is the use of a wooden stepladder as a piece of furniture/home decor item and no longer as a tool. For example, one can use its steps as shelves for houseplants.

¹⁶ Reconditioning or refurbishing is a process of returning a product to good working condition by repairing components that are faulty or close to failure and making 'cosmetic' changes to update the appearance of a product, such as cleaning, changing fabric, painting, or refinishing. Any subsequent warranty is generally less than issued for a new or a remanufactured product, but the warranty is likely to cover the whole product (unlike simple repair). Accordingly, the performance may be less than as-new, see ELLEN MACARTHUR FOUNDATION, "Towards the Circular Economy Vol. 1: Economic and business rationale for an accelerated transition", 2015, <https://www.ellenmacarthurfoundation.org/assets/downloads/publications/Ellen-MacArthur-Foundation-Towards-the-Circular-Economy-vol.1.pdf>, p. 25; M.C. HOLLANDER et al., "Product Design in a Circular Economy: Development of a Typology of Key Concepts and Terms", *Journal of Industrial Ecology* 2017, vol. 21, iss. 3, p. (517) 522; W. IJOMAH, *A model-based definition of the generic remanufacturing business process*, unpublished PhD thesis University of Plymouth, 2002, <http://hdl.handle.net/10026.1/601>, p. 186

¹⁷ Remanufacturing is the process of returning a used product to like-new condition. The process includes sorting, inspection, disassembly, cleaning, reprocessing and reassembly, and parts which cannot be brought back to original quality are replaced, meaning the final remanufactured product will be a combination of new and reused parts, see G.D. HATCHER, W.L. IJOMAH and J.F.C. WINDMILL, "Design for remanufacture: a literature review and future research needs", *Journal of Cleaner Production* 2011, vol. 19, vol. 17, p. (2004) 2004; W. IJOMAH, *A model-based definition of the generic remanufacturing business process*, unpublished. doctoral thesis University of Plymouth, 2002, <http://hdl.handle.net/10026.1/601>, p. 186; H.J. PARKINSON and G. THOMPSON, "Analysis and taxonomy of remanufacturing industry practice", *Proceedings of the Institution of Mechanical Engineers* 2003, vol. 217, ep. 3, p. (243) 243 and 247; E. SUNDIN, *Product and Process Design for Successful Remanufacturing*, unpublished. doctoral thesis Liköpings Universitet, 2004, <http://liu.diva-portal.org/smash/get/diva2:20932/FULLTEXT01.pdf>, 2.

¹⁸ B. KEIRSBILCK and S. ROUSSEAU, "The Marketing Stage: Fostering Sustainable Consumption Choices in a "Circular" and "Functional" Economy" in B. KEIRSBILCK and E. TERRY (eds.), *Consumer Protection in a Circular Economy*, Antwerp, Intersentia, 2019, p. (93) 113-114; H. SLACHMUYLDERS, B. KEIRSBILCK, E. TERRY and E. VAN GOOL, "Duurzaam ondernemen en het recht: circulaire bedrijfsmodellen - juridische knelpunten" in IBJ/IJE (ed.), *De rol van de bedrijfsjurist in de duurzame ontwikkeling van de onderneming*, Brussels, Larcier, 2020, p. (7) 16, no. 11.

¹⁹ J. HOJNIK, "Ecological modernization through servitization: EU regulatory support for sustainable product-service systems", *RECIEL* 2018, vol. 27, p. (162) 164-166.

²⁰ A. TUKKER, "Eight Types of Product-Service System: Eight Ways to Sustainability? Experiences from Suspronet", *Bus.Strat.Env.* 2004, vol. 13, p. 246-260.

hand products fits squarely with the circular economy. There is a real risk of greenwashing, which necessitates the substantiation of any green claims made by the service provider.²¹ Both on the side of the customer as on the side of the business, PSS can even lead to negative effects. On the side of the customer, there are certain rebound effects.²² First, there is the risk of moral hazard. As customers are not the owners of the products, they might carelessly (ab)use the products. Second, PSS could lead to an increase in ‘unnecessary’ consumption patterns. As customers are confronted with less upfront costs than would be the case in a traditional sale of the products, the aggregated total of products manufactured and used could increase. On the side of the businesses, there is the risk that businesses do not actually reuse, repurpose, or recycle the products, but rather replace them with new (non-circular²³) alternatives. These potential negative effects beg the question whether and how the parties in a PaaS contract can include ‘circularity guarantees’²⁴ on either side of the contract to ensure true sustainability.

1.4 Complexity as legal barrier

Existing economic literature has spotted several economic barriers for businesses to adopt the PaaS model.²⁵ One of these barriers is of a legal nature: the potentially higher transaction costs because of the complexity of PaaS contracts. Contract drafting becomes increasingly demanding as products and services become more intertwined.²⁶

To enforce the ambitions of the different policy levels to stimulate PaaS, it is necessary to remove this legal hurdle. The main goal of this research report is to define clear model clauses (hereinafter ‘clause(s)’) ²⁷ for PaaS, which reflect the expectations and intentions of the parties involved. By providing templates, the research report reduces the time, effort, and resources to create customized clauses from scratch.²⁸ In doing so, it aims to foster the adoption of PaaS

²¹ Regarding the concept of greenwashing, see the first research report of cluster 4 on the lifespan extension of products.

²² EUROPEAN ENVIRONMENT AGENCY, *EAA Report 2017/6 Circular by Design - Products in the Circular Economy*, Luxembourg, EU Publications Office, 2017, p. 18-19.

²³ Meaning the ‘new’ alternative is not, for example, remanufactured.

²⁴ More generally ‘sustainability guarantees’.

²⁵ O. MONT, “Clarifying the concept of product-service system”, *Journal of Cleaner Production* 2002, p. 237-245; V. MARTINEZ, M. BASL, J. KINGSTON and S. EVANS, “Challenges in transforming manufacturing organisations into product-service providers”, *Journal of Manufacturing Technology* 2010, p. 449-469; P. AKBAR *et al.*, “When do materialistic consumers join commercial sharing systems”, *Journal of Business Research* 2016, p. 4215-4224; B. KEIRSBILCK and S. ROUSSEAU, “The Marketing Stage: Fostering Sustainable Consumption Choices in a “Circular” and “Functional” Economy” in B. KEIRSBILCK and E. TERRY (eds.), *Consumer Protection in a Circular Economy*, Antwerp, Intersentia, 2019, p. (93) 114; H. SLACHMUYLDERS, B. KEIRSBILCK, E. TERRY and E. VAN GOOL, “Duurzaam ondernemen en het recht: circulaire bedrijfsmodellen - juridische knelpunten” in IBJ/IJE (ed.), *De rol van de bedrijfsjurist in de duurzame ontwikkeling van de onderneming*, Brussels, Larcier, 2020, p. (7) 14-15, no. 10.

²⁶ B. KEIRSBILCK and S. ROUSSEAU, “The Marketing Stage: Fostering Sustainable Consumption Choices in a “Circular” and “Functional” Economy” in B. KEIRSBILCK and E. TERRY (eds.), *Consumer Protection in a Circular Economy*, Antwerp, Intersentia, 2019, p. (93) 121; D. GRUYAERT, “Contractual Liability, Exoneration and Redress in the B2B Contractual Chain” in B. KEIRSBILCK *et al.* (eds.), *Servitization and circular economy: economic and legal challenges*, Antwerp, Intersentia, 2023, p. (109) 114-115.

²⁷ In this research report the term ‘clause’ is used as the overarching concept for the ‘contractual provisions’ drafted by the contracting parties. A contractual clause contains the explicit terms and conditions of the contract (which are supplemented by the implied terms and conditions of the contract). Because of the existence of those implicit terms and conditions, the term clause is preferred. Additionally, the term ‘terms and conditions’ is often used in a specific sense, in which they mean the ‘standard terms and conditions’ (or ‘general’ terms and conditions) of a contract. Standard terms and conditions have been formulated in advance for several transactions involving different parties and have not been individually negotiated by the parties. In Belgium these standard terms are known as *algemene voorwaarden* and *conditions générales*.

²⁸ On the advantages of using standard terms (which are, by definition, not customized), see A. DE BOECK, “De tegenstelbaarheid van algemene voorwaarden”, *TBBR* 2019, (63) 63.

by businesses by reducing the transaction costs. Despite the challenges posed by the diversity²⁹ in service contracts, it is possible to draft such models.³⁰

In this research report the term ‘model’ clauses is used consciously. The adjective ‘standard’ is not used, because of its specific legal meaning. A ‘standard’ clause has been formulated in advance for several transactions involving different parties and has not been individually negotiated by the parties.³¹ Even though the clauses formulated by this research report could be used as standard clauses, this need not be the case. These model clauses can serve as an example for parties to base their precontractual negotiations on.

1.5 Scope

Three remarks can be made about the scope of this research report. First, this research report limits itself mostly to use-oriented and result-oriented PSS. Both can be seen as forms of PaaS. These categories are – from a legal point of view – the most innovative.³² To a large extent, they require the same analysis of how the existing legal framework applies to them even though they differ conceptually. Despite its exclusion from the scope, large parts of this report will be relevant to product-oriented PSS as well (e.g., parts of the legal framework such as the general principles of the law of obligations, more specifically contract law).

Second, this research report focuses mainly on the circular potential of PaaS and thus on its *environmental* sustainability. The concept of sustainability is often associated with the three ‘P’s’: people, planet, and profit.³³ A fully sustainable product balances all. However, this ideal is not always possible. A product that is good for the planet and for profit is viable, but not necessarily equitable towards people. For example, a high-quality washing machine that is designed to last a lifetime is good for the planet (as no resources are needed for a replacement) and good for profit (insofar as the purchase price reflects the fact that the customer will only ever buy the single washing machine), but is a challenge to people with less purchasing power, who are not able to afford the upfront costs³⁴ of a high-end washing machine.³⁵ Similarly, there are some risks associated with PaaS that merit caution. Having no ownership over products and having to rely on a service provider results in a certain loss of agency. This loss leads to less control over the entire cost of the PaaS contract on the side of the customer. Also, in a world in which customers are held to several ‘subscriptions’ to products at the same time, there exists

²⁹ In the context of PaaS contracts, this diversity is, for example, reflected by differences concerning the nature of the product central the contract. Some PaaS contracts concern immovable goods, some concern movable goods and others concern a combination of both. The various categories require varying clauses.

³⁰ B. KEIRSBILCK and S. ROUSSEAU, “The Marketing Stage: Fostering Sustainable Consumption Choices in a “Circular” and “Functional” Economy” in B. KEIRSBILCK and E. TERRY (eds.), *Consumer Protection in a Circular Economy*, Antwerp, Intersentia, 2019, p. (93) 121.

³¹ Explanatory memorandum to Book 5 ‘obligations’, *Parliamentary Documents* Chamber of Representatives 2021-2022, no. 1806/1, p. 28.

³² It is good to keep in mind that PSS contracts are not entirely novel. They have existed for some time already, mostly in a business-to-business context, yet they are now gaining traction.

³³ This is the ‘triple bottom line’.

³⁴ As explained earlier in the section on the potential for circularity (section 1.3 on p. 9), the absence of these upfront costs can be a perk to customers in a PaaS contract.

³⁵ Conversely, the fewer upfront costs of PaaS can be an advantage in this regard.

a risk of over-indebtedness. Doctrinal literature has already identified these points of attention.³⁶

In general, the attention in this research report is devoted to *environmental* sustainability. However, this delimitation should not be understood to mean that all considerations of the protection of the interests of the customer (people) and the business (profit) are discarded. On the contrary, as will be explained later, one of the major limits to the contractual freedom in Belgian law is mandatory consumer law. There is no way to draft model clauses without paying attention to this strongly Europeanized part of national law. Moreover, a fundamental reason why the drafting of model clauses is useful, is to avoid too one-sided equivalents drafted by a professional association to the detriment of consumers or other businesses who have less bargaining power.³⁷ This limitation in scope should be understood to mean that the research report does not take a stance on methods to limit the ‘social’ risks of PaaS that transcend private contracts (e.g., an extension of the legislation on consumer credit contracts to combat over-indebtedness, which would be a matter of policy) or, more generally, on topics that go beyond the strictly legal realm (e.g., a discussion on the societal desirability of the shift away from ownership or technical assessment of overconsumption patterns).

The latter point ties in to the third remark. This research report deals with the existing legal framework (i.e., the rules *de lege lata*). In doctrinal literature, several authors have already highlighted the shortcomings of this legal framework (e.g., the fact that the existing European legislation only offers a ‘negative’ protection against unfair (i.e., significantly imbalanced) terms in service contracts and does not ‘positively’ grant minimum rights and remedies).³⁸ The desirability of changes in the future (*de lege feranda*) is a matter of policy. This research report does not concern itself with advocating such changes. It does, however, highlight when the contracting parties are allowed to go further than the legal minimum. In a sense, the model clauses in this research report are ‘maximal’, meaning that they provide for a balanced set of rights and obligations of both contracting parties and allow parties to incorporate sustainability in their PaaS contracts to the fullest extent. Of course, not all PaaS service providers will want to go this distance. Contracting parties who wish to use these model clauses remain free to omit clauses and to tweak the useful clauses to the needs of their own contracts, bearing in mind that clauses may not create a significant imbalance between rights and obligations of the contracting parties to the detriment of the consumer. It is sensible that this research report outlines all possibilities and leaves this freedom up to the parties. In light of the intention to lower transaction costs, it is easier for contracting parties to dial down the model clauses than to have to conceptualize the maximal version of these clauses themselves. Last but not least, the fact that the report does not propose changes to Belgian default or mandatory (consumer) contract law is without prejudice to its potential use as a source of inspiration for the Belgian

³⁶ See, for example, H. SLACHMUYLDERS, B. KEIRSBILCK, E. TERRYIN and E. VAN GOOL, “Duurzaam ondernemen en het recht: circulaire bedrijfsmodellen - juridische knelpunten” in IBJ/IJE (ed.), *De rol van de bedrijfsjurist in de duurzame ontwikkeling van de onderneming*, Brussels, Larcier, 2020, p. (7) 21 and following, nos. 18 and following.

³⁷ B. KEIRSBILCK, E. TERRYIN and E. VAN GOOL, “Consumentenbescherming bij servitisation en product-dienst-systemen (PDS)”, *TPR* 2019, vol. 3-4, p. (817) 884, no. 67; H. SLACHMUYLDERS, B. KEIRSBILCK, E. TERRYIN and E. VAN GOOL, “Duurzaam ondernemen en het recht: circulaire bedrijfsmodellen - juridische knelpunten” in IBJ/IJE (ed.), *De rol van de bedrijfsjurist in de duurzame ontwikkeling van de onderneming*, Brussels, Larcier, 2020, p. (7) 36, no. 42.

³⁸ See, for example, H. SLACHMUYLDERS, B. KEIRSBILCK, E. TERRYIN and E. VAN GOOL, “Duurzaam ondernemen en het recht: circulaire bedrijfsmodellen - juridische knelpunten” in IBJ/IJE (ed.), *De rol van de bedrijfsjurist in de duurzame ontwikkeling van de onderneming*, Brussels, Larcier, 2020, p. (7) 33, no. 36.

federal legislature, who is currently working on a new Civil Code as well as on an assessment of current Belgian consumer protection law.

2 Legal framework

2.1 Limited harmonization at EU level

The traditional linear business model of the sales contract is harmonized to a large extent at the European Union level when it comes to consumer sales.³⁹ In contrast, there is only limited harmonization in service contracts (including PaaS contracts).⁴⁰ Several directives of the European Union do apply to service contracts, but only regulate specific aspects. No general set of rules for service contracts exists. This should not come as a surprise. There is a great diversity and complexity of service contracts. The distinct types of PSS demonstrate that differences exist even within the same category of service contracts.⁴¹

The following legislation is relevant. First, there are the horizontal directives that apply to all consumer contracts⁴², irrespective of their object. The Consumer Rights Directive⁴³, the Unfair Commercial Practices Directive⁴⁴ and the Unfair Terms Directive⁴⁵ all contain relevant rules for service contracts. They contain information obligations, ban misleading commercial practices, and prohibit clauses that create a significant imbalance between the rights and obligations of the parties to the detriment of the consumer.

Second, there exists a general Services Directive.⁴⁶ However, because of the exclusions in article 2 of the Directive, its scope is limited. Moreover, recital 90 of the Directive makes clear that it does not affect the contractual relationship between the service provider and the customer. Consequently, the Services Directive has minor impact in PaaS contracts, save for the obligations to inform the recipient of the service found in article 22 of the Directive and certain soft law rules on ensuring the quality of services.

Finally, there is the Digital Content and Digital Services Directive.⁴⁷ This Directive is relevant to use-oriented and result-oriented PSS. These business models are increasingly characterized by

³⁹ See the Consumer Sales Directive, Directive (EU) 2019/771 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 (*OJ L* 22 May 2019, vol. 136, p. 28-50).

⁴⁰ H. SLACHMUYLDERS, "Movable servitization. Contractual Liability in the B2C relationship" in B. KEIRSBILCK *et al.* (eds.), *Servitization and circular economy: economic and legal challenges*, Antwerp, Intersentia, 2023, p. (135) 139-144.

⁴¹ See earlier footnote 29.

⁴² A contract with a consumer is a contract between a business in the sense of the Code of Economic Law and a consumer in the sense of the same Code (article 5.11 Belgian Civil Code).

⁴³ Directive (EU) 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council (*OJ L* 22 November 2011, vol. 304, p. 64-88 (hereinafter abbreviated as 'Consumer Rights Directive')).

⁴⁴ Directive 2005/29/EC of the European Parliament and of the Council of 11 May 2005 concerning unfair business-to-consumer commercial practices in the internal market and amending Council Directive 84/450/EEC, Directives 97/7/EC, 98/27/EC and 2002/65/EC of the European Parliament and of the Council and Regulation (EC) No 2006/2004 of the European Parliament and of the Council, *OJ L* 11 July 2005, vol. 149, p. 22-39 (hereinafter abbreviated as 'Unfair Commercial Practices Directive').

⁴⁵ Council Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contracts, *OJ L* 24 April 1993, vol. 95, p. 29-34 (hereinafter abbreviated as 'Unfair Terms Directive').

⁴⁶ Directive 2006/123/EC of the European Parliament and of the Council of 12 December 2006 on services in the internal market, *OJ L* 27 December 2006, p. 36-38.

⁴⁷ Directive (EU) 2019/770, *OJ L* 22 May 2019, vol. 136, p. 1-27.

the fact that the delivered products are connected to the internet to achieve and optimize the provision of the promised service. Data on usage, on the need for maintenance or repair, etc. are transferred to the service provider.⁴⁸ Many additional services of a PSS contract may, therefore, be qualified as a digital service within the meaning of this Directive⁴⁹ and as a result fall within its scope. Nevertheless, it is important to point out that this Directive only applies to those parts of the PSS contract that concern the digital content or the digital service. Other services remain subject to the national law on service contracts or (sector) specific European Union law.⁵⁰

Because of this limited harmonization at the level of the European Union, the Belgian general⁵¹ contract law is the main legal framework for PaaS contracts. The horizontal European legislation, which also affects (mostly consumer) contracts in an overarching manner, supplements this general law.

2.2 General principles of contract law

2.2.1 Introduction

The following sections contain background information on the general principles of contract law. It is useful to know core concepts. These fundamentals explain why certain model clauses are advisable and why they need to be formulated in a certain way.

2.2.2 Requirements of validity for contracts & sustainability

A contract, or agreement, is an exchange of consents among two or more person with the intent to produce legal effects (article 5.4 Civil Code (hereinafter abbreviated as ‘CC’)). For the validity of a contract, the following requirements have to be met (article 5.27 CC):

- the free and enlightened consent of each contracting party;
- the capacity of each party to be able to enter into contracts;
- a determinable and lawful object;
- a lawful cause.

⁴⁸ H. SLACHMUYLDERS, B. KEIRSBILCK, E. TERRYIN and E. VAN GOOL, “Duurzaam ondernemen en het recht: circulaire bedrijfsmodellen - juridische knelpunten” in IBJ/IJE (ed.), *De rol van de bedrijfsjurist in de duurzame ontwikkeling van de onderneming*, Brussels, Larcier, 2020, p. (7) 28-291, no. 27

⁴⁹ Article 2, 2) Digital Content and Digital Services Directive defines ‘digital service’ as “(a) a service that allows the consumer to create, process, store or access data in digital form; or (b) a service that allows the sharing of or any other interaction with data in digital form uploaded or created by the consumer or other users of that service”.

⁵⁰ Recital 33 Digital Content and Digital Services Directive.

⁵¹ This is the basic law that applies to all obligations, the *lex generalis*, on which specific legislation, the *lex specialis*, builds. It is called the ‘common law’ (*gemeenrecht/droit commun*). The term ‘general law’ is favored in this research report to avoid confusion with the English notion of ‘common law’ (i.e., law that is derived from custom and judicial precedent rather than statutes and regulations). Moreover, the term ‘*ius commune*’ (which is also sometimes used, see, for example, the preliminary provision of the civil code of Québec), has as disadvantages that it is Latin and that it can have other meanings as well (e.g., in international law).

PaaS, in particular its circular potential and the question on how to ensure true sustainability, merit special attention to the third requirement of a determinable and lawful object.⁵² The definition of the object is as follows. Every contract has as its object the obligations or other legal effects intended by the parties (article 5.46(1) CC). The object of an obligation is a prestation, which can consist in doing or not doing something, giving something, or guaranteeing something (article 5.46(2) CC). Several requirements are to be met before the object is valid.

First, the prestation has to be possible (article 5.47 CC). Prestations which, at the time of conclusion of the contract, are impossible for material or legal reasons, cannot be the object of an obligation. Thus, overly ambitious promises can be problematic. Put extremely, it is – for the time being⁵³ – impossible to obligate oneself to be ‘100% sustainable’. All human behavior ‘pollutes’ to certain degree.⁵⁴

Second, the prestation has to be determinate or at least determinable without requiring a new exchange of consents among the parties (article 5.49(1) CC). The contract is to contain sufficiently concrete criteria on how the prestations are to be determined. In a sense, this requirement mirrors the first. Overly vague and general promises can be problematic as well. Put extremely, it is not possible to obligate oneself to ‘a better world’ or to strive for ‘a healthy environment for all mankind’.⁵⁵

Together, these two requirements entail that contracting parties who want to introduce considerations of sustainability in their contract need to be mindful of the way in which they formulate the obligations in the contract. The obligations should be sufficiently concrete yet remain achievable. This is possible by making clear to which specific aspects a general goal such as ‘circularity’ or ‘sustainability’ relates and by setting concrete goals. Concepts like ‘sustainability’, ‘circularity’ and ‘pollution’ can be defined in many ways, so parties would do well to include their own definitions in the contract (this fact is important for the interpretation of contracts as well, see section 2.2.6 on p. 35).

- For example, the service provider in a PaaS contract, can, in general, ‘commit to promoting the circular economy’ by undertaking the specific obligation to reuse at least 50% of the products returned by all customers at the end of the contract. Parties can agree to different degrees of intensity of this obligation (see section 2.2.7 on p. 37).

⁵² See for an extensive review of this requirement of validity in the context of corporate social responsibility clauses, C. BORUCKI, S. DECLERCQ and K. DEWAELE, “Maatschappelijk verantwoord ondernemen en MVO-clausules: struikelblokken en perspectieven”, *TBH* 2021, p. (251) 264-266, nos. 17-18.

⁵³ As a side note: what is impossible today, is not necessarily impossible tomorrow. Mankind is inventive. For ages man dreamt the seemingly impossible dream of flight. It took only 66 years to go from the Wright Flyer in 1903 to the first moon landing in 1969.

⁵⁴ Each use of things that are common to all, changes their quality to a greater or lesser degree. On the impact of this broad ‘pollution’ on the rights of other persons, see *William H. Snow v. Gideon N. Parsons and John S. Parsons*, 28 Vt. 459 (Vt. 1856), (“The reasonableness of such use must determine the right, and this must depend upon the extent of detriment to the riparian proprietors below. [...] There is no doubt one must be allowed to use a stream in such a manner as to make it useful to himself, even if it do produce slight inconvenience to those below. This is true of everything we use in common with others. The air is somewhat corrupted by the most ordinary use [...] Within reasonable limits, those who have a common interest in the use of air and running water, must submit to small inconveniences to afford a disproportionate advantage to others.”).

⁵⁵ The concept of obligation is used in its legal meaning here, meaning that it is enforceable by the creditor if need be by relying on the judicial system. Parties can take up ‘moral’ obligations, but these are unenforceable.

- Another example is that the service provider can, in general, ‘commit to an environmentally sustainable future’, by undertaking the specific obligation to reduce the energy needed by the product every x years by a certain percentage.

2.2.3 Suppletive law

Belgian contract law is suppletive law. This means that it provides default rules that apply when parties have not agreed otherwise. Parties can derogate from these rules by making their own arrangements in a contract. This is part of their freedom to contract: they are free to determine the content of the contract (article 5.15(2)). Limits to this freedom are public policy⁵⁶ and rules of mandatory law⁵⁷, from which there can be no derogation (article 1.3(3) CC). As will be explained later, the consumer protection legislation mostly contains rules of mandatory law, aimed at protecting the consumer who is deemed the weaker party. In the B2B context there has been a surge in rules offering mandatory protection to businesses as well.⁵⁸

The Belgian Civil Code pays attention to several traditional ‘nominate’ (or ‘named’) contracts, i.e., specific contract types such as sale or lease.⁵⁹ However, because of the freedom of contract, parties are not restricted to these contracts.⁶⁰ They are free to give shape to their contractual relationship, to create new obligations and/or to draw inspiration of the named contracts. PaaS contracts are often mixed, combining elements of several nominate contracts. No specific provisions in the Civil Code or other legislation specifically govern this type of contract in its entirety. This means that the way in which the parties themselves give shape to their contractual relationship in the clauses of their contract is of utmost importance, although ultimately not decisive as the court can requalify a contract, as will be explained in more detail later in this report.

2.2.4 Unfair clauses/terms & conditions

2.2.4.1 Business-to-consumer (B2C)

One of the major sources of mandatory law – and the one most relevant to take into account when drafting model clauses – is the legislation on unfair clauses. Irrespective of the personal capacity of the contracting parties (B2B, B2C or, C2C/P2P), unfair clauses are prohibited in one way or another.

In consumer contracts (B2C) article VI.83 Code of Economic Law (hereinafter ‘CEL’) contains a ‘blacklist’ of prohibited unfair B2C clauses, featuring, for example, excessive indemnity clauses,

⁵⁶ Is public policy, the legal rule that touches the essential interests of the state or of the community or that determines, in private law, the legal bases for society, such as the economic order, the moral order, the social order or the environmental order (article 1.3(4) CC).

⁵⁷ Is mandatory law, the legal rule that is enacted for the protection of a party deemed weaker by law (article 1.3(5) CC).

⁵⁸ It is of note that the general Belgian legislation applies to all businesses, small and big alike. Its scope of application is not limited to smaller businesses with less bargaining power.

⁵⁹ The antonym of this concept is ‘innominate’ (or ‘unnamed’) contracts. Both mixed contracts, i.e., contracts that combine elements of the named contracts, and truly innominate contracts, i.e., contracts that truly do not fit in any of the named categories can be seen as innominate. Truly innominate contracts are rare. Regarding the conceptualization and categorization of innominate contracts, see H. DE PAGE, *Traité élémentaire de droit civil belge. Tome IV - Les principaux contrats (1e part)*, Brussels, Bruylant 1972, p. 7-22.

⁶⁰ This is a difference between the law of obligations and the property law. In property law there is a principle of *numerus clausus*. Only the legislature can create property rights (article 3.3(1) CC). Thus, whenever the parties to a contract wish to grant each other a property right, they are restricted to the rights enumerated by the legislature in articles 3.3(2) to 3.3(4) CC.

overreaching exemption clauses, unilateral price change clauses and one-sided interpretation clauses. These clauses are null and void (and, thus, unenforceable) in all circumstances (article VI.84, §1 CEL). There is no need to assess their reasonableness on a case-to-case basis.⁶¹

B2C clauses that do not feature on the blacklist can still be deemed unfair in specific circumstances based on the general criterion in article I.8, 22° CEL. This article stipulates that each clause in a consumer contract that, alone or in conjunction with other clauses, causes a significant imbalance in the parties' rights and obligations arising under the contract, to the detriment of the consumer, is deemed unfair.⁶² The adjective 'significant' is to be stressed: not every imbalance is unfair, only those that are *manifestly* unreasonable. This entails that courts are to adopt a somewhat cautious approach in their assessment.⁶³ At the core of every balancing test lies a proportionality test *sensu stricto* (i.e., a determination whether the clause does not disproportionately disadvantage the consumer). The general criterion in article I.8, 22° CEL is – in part⁶⁴ – the transposition of the Unfair Terms Directive. Article 3(1) of this Directive refers to the requirements of good faith in assessing imbalance. This means that the proportionality test in the Unfair Terms Directive is broader than solely this test *sensu stricto* and also includes a test of necessity and of suitability for the pursuit of a legitimate aim.⁶⁵ Concretely, all contract-related acts that are carried out without being suitable for a legitimate aim or while there is an option available for the person carrying out the act that is equally efficient for that person but less intrusive of the rights and interests of another may be found to be contrary to that general duty of good faith/proportionality.⁶⁶

These Belgian articles are – in part⁶⁷ – the transposition of the Unfair Terms Directive. The guidance document issued by the European Commission on how to apply this directive to consumer contracts⁶⁸ is mostly geared towards sales contracts. Thus, for the time being, there is neither guidance by the European Commission nor case law of the Court of Justice of the European Union on how to apply the Unfair Terms Directive in PaaS contracts specifically.⁶⁹ This lack of guidance makes it difficult to accurately predict the application of the general criterion

⁶¹ Commission notice- Guidance on the interpretation and application of Council Directive 93/13/EEC on unfair terms in consumer contracts (2019/C 323/04), *OJ C 27* September 2019, vol. 323, p. 4-92 (hereinafter 'Guidance Document Unfair Terms Directive'), p. 18 and 30.

⁶² Compare with article 3 of the Unfair Terms Directive, which contains a similar definition for contractual clauses that have not been individually negotiated. This article also contains a reference to the requirement of good faith.

⁶³ For the sake of clarity: courts need to be reticent in their assessment of unreasonableness, but not in their judgment on how to remedy an unfair clause. Once they have determined that the clause is unfair, they have 'full' powers.

⁶⁴ The scope of application of the Belgian provision is broader than its European counterpart. It encompasses both negotiable and non-negotiable clauses.

⁶⁵ C. CAUFFMAN, "The principle of proportionality and European contract law" in J. RUTGERS and P. SIRENA (eds.), Cambridge, Cambridge University Press, 2017, p. (69) 81.

⁶⁶ C. CAUFFMAN, "The principle of proportionality and European contract law" in J. RUTGERS and P. SIRENA (eds.), Cambridge, Cambridge University Press, 2017, p. (69) 81.

⁶⁷ For example, not all clauses on the national blacklist can be found on the indicative list of the Unfair Terms Directive. See also earlier, footnote 64.

⁶⁸ Guidance Document Unfair Terms Directive, see earlier footnote 61.

⁶⁹ B. KEIRSBILCK and S. ROUSSEAU, "The Marketing Stage: Fostering Sustainable Consumption Choices in a "Circular" and "Functional" Economy" in B. KEIRSBILCK and E. TERRY (eds.), *Consumer Protection in a Circular Economy*, Antwerp, Intersentia, 2019, p. (93) 122; B. KEIRSBILCK, E. TERRY and E. VAN GOOL, "Consumentenbescherming bij servitisation en product-dienst-systemen (PDS)", *TPR* 2019, vol. 3-4, p. (817) 849-850, no. 33; H. SLACHMUYLDERS, B. KEIRSBILCK, E. TERRY and E. VAN GOOL, "Duurzaam ondernemen en het recht: circulaire bedrijfsmodellen - juridische knelpunten" in IJB/IJE (ed.), *De rol van de bedrijfsjurist in de duurzame ontwikkeling van de onderneming*, Brussels, Larcier, 2020, p. (7) 33, no. 36.

in a PaaS contract.⁷⁰ However, awaiting a specific guidance document for service contracts (or a modified version of the existing guidance document), the existing guidance document remains indicative.⁷¹

2.2.4.2 Business-to-business (B2B)

Similar legislation applies to the business-to-business context (B2B). Article VI.91/4 CEL contains a blacklist. Article VI.91/5 CEL contains a 'greylist'. Clauses on this greylist are presumed to be unfair, subject to proof to the contrary.

Article VI.91/3, §1 CEL contains a general criterion for unfair clauses. Each clause in a contract between businesses that, alone or in conjunction with one or more other clauses, causes a manifest imbalance in the parties' rights and obligations arising under the contract is deemed unfair. Each unfair clause is null and void (article VI.91/6 CEL) and thus unenforceable. The proportionality test can be viewed as the same one applied to the B2C context.⁷²

Even though these articles are not the transposition of the Unfair Terms Directive, the guidance document on this Directive can be indicative. This is not to say that all principles in the guidance documents apply automatically, but whenever the B2C and B2B contexts are sufficiently similar this could be the case.⁷³

2.2.4.3 Consumer-to-consumer (C2C) or peer-to-peer (P2P)

Finally, in the general law of obligations, article 5.52 CC contains a general provision on unfair clauses that are non-negotiable (*waarover niet kan worden onderhandeld/non négociable*).⁷⁴ Every clause that is non-negotiable and that creates a manifest imbalance between the rights and duties of the parties is unlawful and deemed unwritten and thus unenforceable. The proportionality test can be understood to be the same one applied to the B2C context.⁷⁵

⁷⁰ B. KEIRSBILCK and S. ROUSSEAU, "The Marketing Stage: Fostering Sustainable Consumption Choices in a "Circular" and "Functional" Economy" in B. KEIRSBILCK and E. TERRY (eds.), *Consumer Protection in a Circular Economy*, Antwerp, Intersentia, 2019, p. (93) 122.

⁷¹ General methods of legal reasoning can be inferred from the guidance documents. These general methods can be seen as relevant for all consumer contracts. For example, the fact that suppletive rules from which the clause deviates form the primary yardstick for assessing a significant imbalance in the rights and obligations of the parties (p. 30-31 of the guidance document) is relevant to service contracts as well.

⁷² Several arguments support this proposition. First, the requirements of good faith are basic tenets of the Belgian law of obligations. For example, article 5.73(1) CC stipulates that a contract is to be performed in good faith. Even when there exists no contract yet, parties who are negotiating are to act in accordance with the requirements of good faith (article 5.15(2) CC). The requirements of good faith apply in the B2B context, as regulated by the *lex specialis* of the Code of Economic Law, as well. Second, the Belgian legislature has taken the B2C context as an inspiration for the B2B-articles. The definitions of the general criteria are almost identical (see E. TERRY, "Onrechtmatige bedingen tussen ondernemingen" in W. DEVROE, B. KEIRSBILCK and E. TERYN (eds.), *Nieuw economisch recht in B2B-relaties*, Antwerp, Intersentia, 2020, p. (95) 106-107, no. 21). This means that the requirements of good faith in article 3(1) Unfair Terms Directive are implicitly part of the general criterion B2B. Even though this criterion is not a transposition of the Directive, it is sensible to interpret it in a unified manner with the general criterion B2C (see *ibid.*, p. (95) 97, no. 7).

⁷³ E. TERRY, "Onrechtmatige bedingen tussen ondernemingen" in W. DEVROE, B. KEIRSBILCK and E. TERYN (eds.), *Nieuw economisch recht in B2B-relaties*, Antwerp, Intersentia, 2020, p. (95) 97-98, no. 7.

⁷⁴ A non-negotiable clause is any clause forced upon the other party by one contracting party, such that the other party cannot exert any influence over it and has to take or leave it, see amendments to Book 5 'obligations', *Parliamentary Documents* Chamber of Representatives 2021-2022, no. 1806/4, p. 2 (amendment no. 21).

⁷⁵ The requirements of good faith are basic tenets of the law of obligations. For example, article 5.73(1) CC stipulates that a contract is to be performed in good faith. Even when there exists no contract yet, parties who are negotiating are to act in accordance with the requirements of good faith (article 5.15(2) CC).

Because of the existence of the specific articles in the CEL mentioned earlier, this general article 5.52 CC is most relevant in the consumer-to-consumer or peer-to-peer⁷⁶ context (C2C/P2P). However, it should always be kept in mind that this general regime supplements the specific regimes on unfair terms.⁷⁷ In a circular economy, in which the repair services industry is expected to grow substantially and in which a more ‘collaborative’ economy is expected to develop, the peer-to-peer context gains importance. For example, an organization offering a ‘repair café’, where people gather to work together on repairing products, will not qualify as a consumer and might not qualify as a business and the same holds true for the people working together.

In addition to this general provision, article 5.88 CC prohibits excessive indemnity clauses and article 5.89 CC contains rules for exemption clauses. Both specific articles apply to all clauses, negotiable as well as non-negotiable. Moreover, they take precedence over the general article in 5.52 CC. Thus, the validity of non-negotiable indemnity and exemption clauses is to be assessed on the basis of articles 5.88 and 5.89 and not via article 5.52 CC.⁷⁸

2.2.4.4 Indemnity clauses

2.2.4.4.1 Indemnity clauses in general

Indemnity clauses merit special attention as they are ubiquitous in contracts as a means of ‘sharpening the teeth’ of a contract to ensure that it is more than a paper tiger and as they are heavily regulated. With an indemnity clause, the contracting parties agree in advance that, in the event of an imputable non-performance, the debtor is held to the payment of a monetary amount or the performance of a determinate prestation by way of compensation. An indemnity clause alleviates the burden of proof for the creditor, who would otherwise have to rely on the general contractual remedy of the right to compensation for injury. Indemnity clauses are valid in principle, but the legislation on unfair clauses pays particular attention to indemnity clauses.

2.2.4.4.2 Indemnity clauses B2C

In the B2C context, indemnity clauses may not be excessive (article VI.83, 24° CEL) and they are to be reciprocal⁷⁹ (17° of the same article). If they are manifestly unreasonable in the light of all circumstances of the case, including the actual injury, the court is to declare the indemnity clause null and void (article VI.84 CEL).

To ensure reasonableness, the contracting parties can link the amount of the indemnity to the actual loss (e.g., in case the consumer returns a product too late at the end of the contract, the

⁷⁶ Of course, among themselves businesses are peers, so that the business-to-business context is also one of peer-to-peer. As B2B is a sufficiently established concept with a distinct meaning, the term P2P is strictly limited to non-businesses in this research report. Because not all non-businesses are consumers, this term is useful as an addition to consumer-to-consumer (C2C).

⁷⁷ In general, article 5.52 CC applies to “all contracts that fall outside of the scope of articles VI.82 and following and VI.91/1 and following of the Code of Economic Law”, see explanatory memorandum to Book 5 ‘obligations’, *Parliamentary Documents* Chamber of Representatives 2021-2022, no. 1806/1, p. 57. According to the legislature article 5.52 CC has a “suppletive applicability (...) to existing specific regulations in business-to-consumer and business-to-business contracts,” and applies “in a general way (...) between citizens, for example in ‘C2C’ contracts”, see Amendments to Book 5 ‘obligations’, *Parliamentary Documents* Chamber of Representatives 2021-2022, no. 1806/4, p. 2 (amendment no. 21).

⁷⁸ Explanatory memorandum to Book 5 ‘obligations’, *Parliamentary Documents* Chamber of Representatives 2021-2022, no. 1806/1, p. 58.

⁷⁹ Reciprocal in the sense that if there is an indemnity clause targeting the consumer, a similar indemnity clause targeting the service provider is to exist. The way in which the Belgian article is worded, an indemnity clause solely targeting the service provider need not be made reciprocal.

indemnity could be the *pro rata* amount equal to the rent that the product would have yielded had the service provider been able to rent it out to another customer) and/or limit it to a maximum amount (e.g., in case the consumer returns a product too late, the indemnity could be the price needed to pay for a replacement product as well as the administrative costs of ordering and processing this replacement product).

Sometimes consumer contracts contain clauses that allow the business to either claim compensation for the actual loss or a lump sum if that loss does not meet a certain threshold (e.g., 20% of the total value of the contract if the actual loss is less than this 20%). The Court of Justice of the European Union has held that the mechanism contained in such a clause is unfair because of the possibility that the business reserves for itself, which allows it to demand compensation that can exceed the actual loss suffered.⁸⁰

The entirety of the contract is relevant for assessing the reciprocity of an indemnity clause. If an indemnity clause targets the consumer, a similar indemnity clause is to exist regarding the obligations of the service provider. For example, if the parties have agreed that it is the obligation of the consumer to return the product at the end of the contract, there will be no obligation for the service provider in this regard (other than to receive the product). Thus, an indemnity clause containing a late return fee cannot be made reciprocal in and of itself. However, elsewhere in the contract the parties can include an indemnity clause, for example, for failure of the service provider to make the product available at the agreed upon start date of the contract (i.e., the mirror image of the late return fee).

If the obligation is of a monetary nature (i.e., the debtor is held to pay a sum of money), the contracting parties can agree that the customer is to pay moratory interest or a fixed late payment fee by way of an indemnity clause. In a B2C contract this type of indemnity clauses is subject to specific legislation as well.

Moratory interest is interest resulting from delay that is due by way of compensation for the late performance of an obligation to pay a monetary amount (article 5.206(2) CC). The interest is a fixed, periodic amount. The interest rate of the moratory interest is the legal interest rate, unless the law determines otherwise or the contracting parties agree otherwise. If the parties to a consumer contract choose an interest rate, it may not be more than the referential interest rate mentioned in article 5 of the law on combating overdue payment in commercial transactions of 2 August 2002 plus eight percentage points (article XIX.4 CEL). The interest accrues from the fifteenth calendar day after the third business day following the first notice of default by the business (article XIX.2, §1 CEL). However, if the business is a SME, it may choose to have the interest accrue from the calendar day following the first notice of default (article XIX.2, §4 CEL).

If the parties have agreed to a fixed late payment fee, the legislature has determined that the following amounts are reasonable and cannot be exceeded (article XIX.4 CEL).

- €20 if the outstanding balance is lower than or equal to €150.
- €30 increased by 10% of the amount owed on the portion between €150.01 and €500 if the outstanding balance is between €150.01 and €500.

⁸⁰ CJEU 8 December 2022, C-625/21, ECLI:EU:C:2022:971, §33.

- €65, increased by 5% of the amount owed on the portion above €500.01, with a maximum of €2,000 if the outstanding balance exceeds €500.

2.2.4.4.3 Indemnity clauses B2B

In the B2B context, article VI.91/5, 8° prohibits excessive indemnity clauses, by greylisting them. This means that excessive indemnity clauses are presumed to be unfair, thus null and void, subject to proof to the contrary. Indemnity clauses need not be reciprocal in this context. However, it is not excluded that the absence thereof can hinder the proof to the contrary.

If the obligation is of a monetary nature (i.e., the debtor is held to pay a sum of money), a prior notice of default is not required for the right to claim moratory interest. Article 5 of the law on combating overdue payment in commercial transactions of 2 August 2002 stipulates that interest accrues by operation of law, from the due date.

2.2.4.4.4 Indemnity clauses C2C/P2P

In the C2C/P2P context, article 5.88 CC prohibits excessive indemnity clauses, which can be reduced to reasonable proportions by the court. Indemnity clauses need not be reciprocal in this context. However, it is not excluded that the absence thereof is relevant to the assessment of unreasonableness.

2.2.5 Qualification

2.2.5.1 General rules

The qualification of a contract, this is the 'label' of a contract, determines which rules apply to the contract. For example, a contract that can be qualified as a sale, is governed by the rules on sale, such as those detailing the rights and obligations of the seller and of the buyer.

In the case of innominate⁸¹ contracts, the question arises which rules apply. By definition, they do not neatly fit in one of the traditional categories. In general, the rules on the nominate contract that is most similar to the contract at issue apply by analogy, unless their applicability would run counter to the object of the contract at issue. Thus, the question becomes more complex as the innominate contract combines elements of several nominate contracts. In this case, the innominate contract is 'mixed'.⁸² The Civil Code contains the following rules on how to qualify mixed contracts.

In principle, the parties to a contract are free to give whatever qualification to a contract they deem most suited, which means that they wish for the rules of that qualification to apply. This freedom applies to mixed contracts as well (article 5.67(3) CC). If the qualification by the parties is a nominate contract, the rules on this nominate contract apply. If the parties explicitly exclude the qualification as any nominate contract (making their contract *sui generis* ('of its own kind')),

⁸¹ See earlier footnote 59. This category is understood to include both mixed contracts and truly innominate contracts.

⁸² In rare cases it can be accepted that there is not a truly mixed contract, but rather different individual contracts. The circumstances of the case need to make unequivocally clear that the contracts are to be viewed separately from one another. E.g., the contracts have different prices, are concluded at different times, have different objects or even different parties, etc. See B. KEIRSBILCK, E. TERRY and E. VAN GOOL, "Consumentenbescherming bij servitisation en product-dienst-systemen (PDS)", *TPR* 2019, vol. 3-4, p. (817) 831 no. 12; H. SLACHMUYLDERS, B. KEIRSBILCK, E. TERRY and E. VAN GOOL, "Duurzaam ondernemen en het recht: circulaire bedrijfsmodellen - juridische knelpunten" in IJ/JE (ed.), *De rol van de bedrijfsjurist in de duurzame ontwikkeling van de onderneming*, Brussels, Larciér, 2020, p. (7) 23, no. 22.

the general principles of contract law, which are relevant to all contracts, and the contractual clauses make up the applicable rules.

However, courts may discard the qualification given to the contract by the parties if it is incompatible with its terms or with mandatory rules or rules of public policy (article 5.68 CC). This limit to the freedom of qualification is, for example, relevant if the qualification were to circumvent the mandatory rules on consumer sales (stemming from the Sale of Goods Directive).⁸³ In this case, a court is to requalify the contract.

If the parties to a contract have not made use of this freedom of qualification, either the 'combination theory' or the 'absorption theory' applies.

- If a contract contains clauses that fall into several categories of nominate contracts, each clause is subject to the rules applicable to the category to which it belongs (article 5.67(1) CC). This is the 'combination theory'. In sum, it holds that if the parts of the contract are equivalent, several sets of rules apply at the same time.
- However, if a contract contains, in subsidiary order, clauses that fall into a different category than the one to which the contract belongs in principal order, the contract as a whole, with the necessary adaptations, is subject to the rules that apply to it in principal order unless the subsidiary clauses require their own regulation because of their nature (article 5.67(2) CC). This is the 'absorption theory'. In sum, it holds that if one part of the contract is clearly the focus of the entire agreement, the rules that apply to this part take precedence and apply to the whole of the contract. This absorption of the subsidiary clauses is not possible if these clauses, by their very nature, are to remain subject to their own regime. This is the case, for example, for clauses on the governing law, on choice of forum and on arbitration.⁸⁴

2.2.5.2 Guidelines for qualification of PaaS

In many cases, PaaS will be a mixed contract that, depending on the circumstances, can be qualified partly as a sales contract (*koop/vente*), partly as a contract of lease⁸⁵ of movable⁸⁶ goods (*huur van roerende goederen/louage des choses meubles*) and/or partly as a contract of lease of services or labor⁸⁷ (*huur van werk en van diensten/louage d'ouvrage et d'industrie*), more specifically a contract of enterprise⁸⁸ (*aanneming/contract d'entreprise*). The use-

⁸³ B. KEIRSBILCK, E. TERRY and E. VAN GOOL, "Consumentenbescherming bij servitisation en product-dienst-systemen (PDS)", *TPR* 2019, vol. 3-4, p. (817) 831 no. 12.

⁸⁴ Explanatory memorandum to Book 5 'obligations', *Parliamentary Documents* Chamber of Representatives 2021-2022, no. 1806/1, p. 79

⁸⁵ A 'contract of lease' is the common term in civil law jurisdictions (i.e., non-common law jurisdictions) for both 'lease' and 'rental contract' in the common law. For example, in article 2668(1) of the Louisiana Civil Code, a contract of lease is defined as "Lease is a synallagmatic contract by which one party, the lessor, binds himself to give to the other party, the lessee, the use and enjoyment of a thing for a term in exchange for a rent that the lessee binds himself to pay." Article 1851 of the Québec Civil Code defines a contract of lease as "Lease is a contract by which a person, the lessor, undertakes to provide another person, the lessee, in return for a rent, with the enjoyment of movable or immovable property for a certain time."

⁸⁶ All goods are movable or immovable. Everything that is not immovable according to articles 3.47 to 3.49 CC, is movable (article 3.46 CC).

⁸⁷ See for this terminology article 2745 Louisiana Civil Code: "Kinds of lease of services or labor". The Québec Civil Code uses different terminology, see article 2098 Québec Civil Code: "contract of enterprise or for services".

⁸⁸ After article 2098 Québec Civil Code.

oriented PaaS contract providing a customer with a washing machine can serve as an example. Depending on the circumstances this PaaS is a mixed contract that could qualify as follows:

- If a right to use the washing machine, placed in the customer's home or business premise, is granted for a longer period against recurrent payment, this right to use can be viewed as part of a contract of lease of a movable good. As there is no transfer of ownership, there is no sale of the washing machine.
- If the person granting this right of use offers additional services to maintain or repair the washing machine, these additional services can be viewed as a lease of services, more specifically a contract of enterprise.
- If the person granting this right of use, periodically delivers laundry detergent as part of the contract, these individual deliveries can be viewed as sales contracts.

As mentioned, use-oriented PSS can be limited to granting a right of use against payment. In general, a PSS of this kind qualifies as a contract of lease (for movable goods).⁸⁹⁻⁹⁰ However, if the right of use is not spread out over time on a continuous basis, but the product is used on a pay-per-use basis, it could be argued that the contract is more akin to a lease of services, more specifically a contract of enterprise.⁹¹ Important for this qualification is the question whether the product in a pay-per-use contract is at the permanent disposal of a specific user (which, for example, is the case with a washing machine that is installed in the customer's home or business premises and is not the case with free floating methods of transportation (shared micro-mobility products such as bicycles, scooters, mopeds, etc.)). More often, use-oriented PSS include additional services (e.g., maintenance, repair, monitoring, digital services, etc.). These additional services qualify as a lease of services, more specifically a contract of enterprise.⁹²

Whether the combination theory or the absorption theory would do more justice to the nature of a specific use-oriented PSS contract depends greatly on the integration of the different components into one another and the complexity of the contract. In general, the more the different components can be differentiated from one another as regards their object and their duration, the more evident it becomes to apply the combination theory. Applying separate rules to each of these individualized components avoids artificially viewing a complex contract as a single type.⁹³ An additional advantage is that the combination theory offers more legal certainty

⁸⁹ B. KEIRSBILCK, E. TERRY and E. VAN GOOL, "Consumentenbescherming bij servitisation en product-dienst-systemen (PDS)", *TPR* 2019, vol. 3-4, p. (817) 835 no. 16; H. SLACHMUYLDERS, B. KEIRSBILCK, E. TERRY and E. VAN GOOL, "Duurzaam ondernemen en het recht: circulaire bedrijfsmodellen - juridische knelpunten" in IBJ/IJE (ed.), *De rol van de bedrijfsjurist in de duurzame ontwikkeling van de onderneming*, Brussels, Larcier, 2020, p. (7) 25, no. 24.

⁹⁰ This is also the case for PaaS contracts concerning immovable goods, see R. TIMMERMANS, "Circulair bouwen, cascohuur, servitisation, Madaster en afstand van bestanddeelvorming", *T.Huur* 2021, p. (106) 115. See also B. VERHEYE, "Toekomst van de circulaire vastgoedeconomie", *TPR* 2019, p. (107) 125, no. 10.

⁹¹ B. KEIRSBILCK, E. TERRY and E. VAN GOOL, "Consumentenbescherming bij servitisation en product-dienst-systemen (PDS)", *TPR* 2019, vol. 3-4, p. (817) 835 no. 16; H. SLACHMUYLDERS, B. KEIRSBILCK, E. TERRY and E. VAN GOOL, "Duurzaam ondernemen en het recht: circulaire bedrijfsmodellen - juridische knelpunten" in IBJ/IJE (ed.), *De rol van de bedrijfsjurist in de duurzame ontwikkeling van de onderneming*, Brussels, Larcier, 2020, p. (7) 25-26, no. 24.

⁹² B. KEIRSBILCK, E. TERRY and E. VAN GOOL, "Consumentenbescherming bij servitisation en product-dienst-systemen (PDS)", *TPR* 2019, vol. 3-4, p. (817) 835 no. 16; H. SLACHMUYLDERS, B. KEIRSBILCK, E. TERRY and E. VAN GOOL, "Duurzaam ondernemen en het recht: circulaire bedrijfsmodellen - juridische knelpunten" in IBJ/IJE (ed.), *De rol van de bedrijfsjurist in de duurzame ontwikkeling van de onderneming*, Brussels, Larcier, 2020, p. (7) 26, no. 24.

⁹³ B. KEIRSBILCK, E. TERRY and E. VAN GOOL, "Consumentenbescherming bij servitisation en product-dienst-systemen (PDS)", *TPR* 2019, vol. 3-4, p. (817) 836 no. 17; H. SLACHMUYLDERS, B. KEIRSBILCK, E. TERRY and E. VAN GOOL, "Duurzaam ondernemen en het recht: circulaire bedrijfsmodellen - juridische knelpunten" in IBJ/IJE (ed.), *De rol van de bedrijfsjurist in de duurzame ontwikkeling van de onderneming*, Brussels, Larcier, 2020, p. (7) 26, no. 24.

to the customer, in particular a consumer.⁹⁴ The customer is more certain of the rules that apply.

In a result-oriented PPS, the focus shifts away from a specific product. Instead, the parties agree on a specific and more immaterial functional result. A contract of this type qualifies as a lease of services, more specifically a contract of enterprise.⁹⁵

2.2.5.3 Obligations of parties following qualification

2.2.5.3.1 General obligations

Whatever the qualification of the contract, all contracts are to be performed in good faith (article 5.73(1) CC). A contract is not only binding as regards what is agreed explicitly in it, but also as regards all the consequences attributed to it by statute, good faith, or usages according to its nature and purport (article 5.71(1) CC).

2.2.5.3.2 Sale

If the PaaS contract can be qualified as one or more of the nominate contracts, it will need to adhere to the rules of those contracts, notwithstanding any clause to the contrary. The nominate contracts contain certain 'essential' obligations.

Sale is a consensual⁹⁶, synallagmatic⁹⁷ contract by onerous title⁹⁸ (article 1582 of the Old Civil Code (hereinafter 'Old CC')). One party (the seller) agrees to transfer ownership of a product to the other party (the buyer) in return for the payment of the purchase price of the product.

The seller has two main obligations (article 1603 Old CC). First, the seller is to deliver the sold product to the buyer (article 1604-1624 Old CC). It is to be delivered materially. It is to be delivered in accordance with what the parties agreed upon (e.g., regarding its characteristics such as color and amount). Second, the seller is to ensure that the product can be used by the buyer in the way it ordinarily functions (article 1626-1640 Old CC) and to ensure that there is no lack of conformity (i.e., no hidden defects) (articles 1641-1649 Old CC). Specifically for consumer sales articles 1649*bis* to article 1649*octies* Old CC contain rules of mandatory law (stemming from the Sale of Goods Directive).

The buyer in turn has several essential obligations as well. The principal obligation is to pay the purchase price (article 1650 Old CC).

⁹⁴ B. KEIRSBILCK, E. TERRYIN and E. VAN GOOL, "Consumentenbescherming bij servitisation en product-dienst-systemen (PDS)", *TPR* 2019, vol. 3-4, p. (817) 836 no. 17; H. SLACHMUYLDERS, B. KEIRSBILCK, E. TERRYIN and E. VAN GOOL, "Duurzaam ondernemen en het recht: circulaire bedrijfsmodellen - juridische knelpunten" in IJBJ/IJE (ed.), *De rol van de bedrijfsjurist in de duurzame ontwikkeling van de onderneming*, Brussels, Larcier, 2020, p. (7) 26, no. 24.

⁹⁵ B. KEIRSBILCK, E. TERRYIN and E. VAN GOOL, "Consumentenbescherming bij servitisation en product-dienst-systemen (PDS)", *TPR* 2019, vol. 3-4, p. (817) 839 no. 21; H. SLACHMUYLDERS, B. KEIRSBILCK, E. TERRYIN and E. VAN GOOL, "Duurzaam ondernemen en het recht: circulaire bedrijfsmodellen - juridische knelpunten" in IJBJ/IJE (ed.), *De rol van de bedrijfsjurist in de duurzame ontwikkeling van de onderneming*, Brussels, Larcier, 2020, p. (7) 27, no. 25.

⁹⁶ A contract is consensual if it is formed by the mere exchange of consents of the parties, without its validity being subject to a formal requirement (article 5.5(1) CC).

⁹⁷ A contract is synallagmatic if the parties obligate themselves reciprocally, each to the other (article 5.6(1) CC).

⁹⁸ A contract is by onerous title if it procures an advantage for each of the parties (article 5.7(1) CC).

Whereas the general rules on sales contracts are generally suppletive law (e.g., as concerns the transfer of risk), the rules on consumer sales cannot be derogated from by the parties (e.g., the risk is only transferred at the time of the effective, material delivery).

2.2.5.3.3 Lease of a movable good

Lease of goods is a consensual, synallagmatic, contract by onerous title (article 1709 Old CC). One party (the lessor) undertakes to provide another person (the lessee) in return for a rent, with the enjoyment of a movable good or immovable good for a certain time. The Old Civil Code contains no specific provisions on the lease of a movable good.⁹⁹ Thus, the rules on the lease of an immovable good apply by analogy.¹⁰⁰

The lessor has three main obligations (article 1719 Old CC). First, the lessor is to deliver the product to the lessee in good condition (article 1720(1) Old CC). Second, the lessor is to maintain the good in a condition suitable for the purpose of which it was leased (article 1720(2) Old CC). This means that the lessor is to undertake all repairs necessary to ensure the lessee's peaceful possession for the duration of the lease. This mainly includes major repairs and urgent repairs that cannot wait until after the end of the lease term, while minor repairs are the responsibility of the lessee. The third obligation of the lessor is to ensure the lessee's peaceful possession for the duration of the lease (article 1721 Old CC). This last obligation entails that the lessor is to warrant the lessee that the product is suitable for the purpose for which it was leased and that it is free of defects that prevent its use for that purpose. This last obligation also limits the possibility for the lessor to periodically visit the lessee to control the use of the leased product.¹⁰¹ The lessor is not allowed to materially disturb the peaceful possession by the lessee, which would, for example, be the case with unreasonably frequent visits.

The lessee has two essential obligations. First, the lessee is to pay the agreed upon rent (article 1728, 2° Old CC). Second, the lessee is to use the product as any prudent and reasonable person placed in the same circumstances would (i.e., in accordance with the criterion used for the general duty of care) (article 1728, 1° Old CC). The lessee is liable for all damage to the leased product (article 1735 Old CC). However, the lessee is not liable for normal wear and tear (article 1755 Old CC). The obligation to take good care of the product, coupled with the liability for damage, entails that the lessee is to undertake minor repairs (compare with article 1754 Old CC).

The rules on lease of movable goods are mostly suppletive law, meaning parties are free to modulate these obligations. For example, the parties can agree that the minor repairs also fall under the obligation to repair of the lessor. However, it should be kept in mind that the horizontal protection offered to consumers in all consumer contracts can limit this freedom (e.g., the legislation on unfair terms).

⁹⁹ This might change in the future, when a 'book 7' on specific contracts is adopted in the reformed Civil Code, see S. DE REY, "Naar een boek 'bijzondere overeenkomsten' in het nieuw Burgerlijk Wetboek? Enkele perspectieven" in S. DE REY, N. VAN DAMME and T. GLADINEZ (eds.), *Grenzen voorbij*, Antwerp, Intersentia, 2020, p. (361) 369.

¹⁰⁰ Cass. 8 April 1943, *Arr.Cass.* 1943, p. 85.

¹⁰¹ In the case of immovable goods, article 3.149 CC grants the bare owner the right to visit the immovable good once a year. There is no similar provision for movable goods.

2.2.5.3.4 Lease of services, more specifically a contract of enterprise

A lease of services, more specifically a contract of enterprise is a consensual, synallagmatic contract by onerous title. One party (the contractor) undertakes to another person (the client) to carry out physical or intellectual work or to supply a service, for a price which the client binds itself to pay to the contractor.

The rules on the lease of services are very succinct (articles 1787-1799 Old CC on the building of immovable goods, which apply by analogy to other service contracts¹⁰²). As mentioned in section 2.1 (p. 16) concerning the limited harmonization at the EU level, service contracts constitute a very broad category of contracts. At the Belgian national level, this too means that the general rules only lay out the framework of all service contracts in broad strokes.¹⁰³ Nonetheless, some articles of the Old Civil Code are relevant to PaaS contracts, even though – depending on the circumstances – they will require some modulation to be fully applicable. This is the case for the silent acceptance of work performed in successive phases (article 1791 Old CC), the payment of additional work in a contract of enterprise against fixed price (article 1793 Old CC), the liability for actual costs and expenses and lost profits in the case of termination at free will by the client (article 1794 Old CC) and the direct action against the client granted to the subcontractor (articles 5.110 CC and 1798 Old CC).¹⁰⁴ What needs no alterations is the most general essential obligation of the contractor: to timely perform the contract in accordance with the rules of art and good craftsmanship.

The rules on the lease of services are mostly suppletive law, meaning that parties are free to derogate from the Old Civil Code. However, it should be kept in mind that the horizontal protection offered to consumers in all consumer contracts can limit this freedom (e.g., the legislation on unfair terms).

2.2.5.4 Obligations of parties in *sui generis* PaaS contract

2.2.5.4.1 Ensuring the availability of the product...

If the PaaS contract is *sui generis* ('of its own kind'), the general principles of the law of obligations, which are relevant to all contracts (e.g., the requirements of good faith), and the contractual clauses make up the applicable rules. In this case, the parties themselves determine what their essential and other obligations are.¹⁰⁵ For these essential obligations they can draw inspiration from the essential obligations of the nominate contracts outlined above.

¹⁰² H. DE PAGE, *Traité élémentaire de droit civil belge. Tome IV - Les principaux contrats (1e part)*, Brussels, Bruylant 1972, p. 984-985.

¹⁰³ However, the Belgian Old Civil Code is particularly succinct. The Québec Civil Code, for example, which is also based on the *Code Napoléon* from 1804, contains many more provisions on the lease of services (introduced in the year 1991). For example, it contains an article 2102 that obligates the contractor to provide the client, as far as circumstances permit, with any useful information concerning the nature of the task which the contractor undertakes to perform and the property and time required for that task. The Belgian Old Civil Code contains no equivalent, although the new Civil Code stipulates that the contracting parties can be obligated in the precontractual phase to inform the other party of all information required by good faith, usages, the reasonable expectations and the object of the contract (article 5.16 CC) and specific legislation on consumer contracts contains many obligations to inform.

¹⁰⁴ B. KEIRSBILCK, E. TERRYIN and E. VAN GOOL, "Consumentenbescherming bij servitisation en product-dienst-systemen (PDS)", *TPR* 2019, vol. 3-4, p. (817) 838-839, no. 21; A. VAN VAERENBERGH and F. LEYMAN, "'Product als dienst'-overeenkomsten, een stap in de richting van de circulaire economie", *MER* 2019, p. (20) 23, no. 9.

¹⁰⁵ For an extensive commentary on the obligations outlined hereinafter, see A. VAN VAERENBERGH and F. LEYMAN, "'Product als dienst'-overeenkomsten, een stap in de richting van de circulaire economie", *MER* 2019, p. (20) 25 and following, nos. 18 and following; H. SLACHMUYLDERS, B. KEIRSBILCK, E. TERRYIN and E. VAN GOOL, "Duurzaam ondernemen en het recht: circulaire bedrijfsmodellen - juridische knelpunten" in IBJ/IJE (ed.), *De rol van de bedrijfsjurist in de duurzame ontwikkeling van*

First and foremost, the contracting parties are to clearly define the basic obligation in the PaaS contract, which is to make the product available and to provide the service(s). In the case of use-oriented PPS, this means that the specific product for which the user obtains a right of use is to be identified (e.g., a washing machine model x of brand y). In the case of result-oriented PPS, on the other hand, the parties will no longer refer to individual products, but rather to more intangible concepts ('amount of laundry washed', 'light', 'indoor air quality', 'heating', etc.) and the result that is to be achieved ('kilograms', 'hours', 'degrees', etc.). It is important to clearly describe the output specifications, which are the requirements in terms of functionality, appearance, quality, durability, etc., in the contract.

PaaS contracts, especially if they are a result-oriented PPS, pose a unique legal challenge when it comes to the identification of the product. The service provider can have great freedom in choosing how and with which product to fulfill the obligations of the contract, not only at its start, but during its entire course. The contracting parties can agree that one of them has the power to change the content of the contract (article 5.70(2) CC).

However, article VI.83, 4° CEL prohibits businesses from including clauses that grant them the right to unilaterally change the essential characteristics of the product that is to be supplied, if those characteristics are essential to the consumer¹⁰⁶, or to the intended use by the customer¹⁰⁷, to the extent that such intended use has been notified to the business and accepted by it or to the extent that, in the absence of such notification, such use is reasonably foreseeable. Thus, if the service provider in a PaaS contract reserves a broad right to replace the product with a similar product at any time and to change the specifications at own discretion, such a clause could potentially be problematic. A clause that is worded in such a general manner is to be interpreted to mean that the service provider is allowed to supply a different product only if it has exactly or roughly the same characteristics and functionalities or if it has improved functionalities. Interpreted in this manner, the clause could withstand the prohibition of article VI.83, 4° CEL, because the essential characteristics and/or the requirements for the intended use remain met. This interpretation safeguards the 'baseline' of the initial product. Of course, for the sake of legal certainty, the contracting parties could make this implicit interpretation explicit by stipulating that only equivalent or even only better performing replacements are possible.

In the B2B context, article VI.91/5, 1° CEL greylists clauses granting one of the parties the right to unilaterally modify the price, characteristics, or terms of the contract without valid reason. The term 'characteristics' relates to the products/services that are the object of the contract. It

de onderneming, Brussels, Larcier, 2020, p. (7) 10-11, no. 5; H. SLACHMUYLDERS, "Movable servitization. Contractual Liability in the B2C relationship" in B. KEIRSBILCK *et al.* (eds.), *Servitization and circular economy: economic and legal challenges*, Antwerp, Intersentia, 2023, p. (135) 139-154.

¹⁰⁶ The exchange of consents needed for the conclusion of a valid contract, requires that the contracting parties agree on all essential points of the contract. These essential points are those elements of the contract without which the contract cannot exist. For example, in a sales contract the purchasing price is an essential element.

¹⁰⁷ The intended use of a product can be a 'substantial' point of a contract. Substantial points of a contract are, objectively speaking, not essential to the conclusion of the contract. The contracting parties can give greater weight to non-essential points and elevate them to the same level, thus making them substantial. For example, in a sales contract for a bicycle, the color of the bicycle is objectively non-essential. However, the buyer can indicate that a specific color is of great importance, making the color subjectively essential, that is to say substantial.

carries the same meaning as in consumer contracts (B2C)¹⁰⁸, meaning the earlier remarks are relevant. Parties can enumerate valid reasons to aid in the proof to the contrary of the presumption of unfairness.¹⁰⁹

2.2.5.4.2 ...and continuity of the service(s)

Additionally, it is also important to define what continuity of service the provider guarantees. This can be continuous availability (i.e., 24/7/365). It is also possible to include a clause in the contract that regulates planned or unplanned interruptions. The exact wording of these clauses regarding the output specifications and the continuity of the service guaranteed in the agreement will play a key role in the qualification of the service provider's commitments as obligations of result or of means.¹¹⁰

2.2.5.4.3 Maintenance, repair and/or replacement.

Second, PaaS contracts in which the service offered involves maintenance, repair and/or replacement, can include a provision that makes the service provider responsible for all tasks related to these services. If the PaaS contract qualifies as a lease, such a provision derogates from the default rules on lease in favor of the customer. As mentioned, minor repairs are normally the responsibility of the lessee. The obligation to maintain can be carried out according to fixed schedule (e.g., semi-annually, annually, etc.) or whenever the customer informs the provider of a defect (in which case additional repair might be needed). This obligation for the service provider can even be mirrored by a prohibition for the customer to undertake repairs (see also later the duty to take care of the product).

The obligation to maintain the product leads to an interesting juxtaposition with the obligation of the lessor to ensure the lessee's peaceful possession for the duration of the lease (article 1721 Old CC). This obligation found in lease contracts limits the possibility for the lessor to periodically visit the lessee to control the use of the leased product.¹¹¹ The lessor is not allowed to materially disturb the peaceful possession by the lessee, which would, for example, be the case with unreasonably frequent visits. However, in PaaS contracts the contracting parties wish for this periodic controlling. It is one of the perks of this type of contracts. Still, it is best for the contracting parties to – by analogy – try to find a reasonably frequent maintenance schedule, which does not overburden the customer.

2.2.5.4.4 Pricing and payments

Third, it is important for businesses to consider their pricing strategy to recoup the purchase of the product and the investments made. One factor in this pricing strategy is whether the provider can reuse the products in a different contract after the PaaS contract ends, or whether the products can serve as a purpose in another way (remanufacturing, refurbishing, etc.). In this regard, the user will pay to pay a certain fee, which can be on a pay-per-use basis or via a subscription. It is possible to negotiate a one-time initial setup fee. Moreover, the service

¹⁰⁸ See implicitly I. CLAEYS and T. TANGHE, "De b2b-wet van 4 april 2019: bescherming van ondernemingen tegen onrechtmatige bedingen, misbruik van economische afhankelijkheid en oneerlijke marktpraktijken (Deel 1)", *RW* 2019-20, p. (323) 337, no. 45.

¹⁰⁹ I. CLAEYS and T. TANGHE, "De b2b-wet van 4 april 2019: bescherming van ondernemingen tegen onrechtmatige bedingen, misbruik van economische afhankelijkheid en oneerlijke marktpraktijken (Deel 1)", *RW* 2019-20, p. (323) 337, no. 45.

¹¹⁰ Regarding the difference between these obligations, see section 2.2.7 on p. 35.

¹¹¹ In the case of immovable goods, article 3.149 CC grants the bare owner the right to visit the immovable good once a year. There is no similar provision for movable goods.

provider may also require the user to pay a fee in the event of early termination of the contract to allow for the recovery of investment costs.

2.2.5.4.5 Duty to take care of the product

A fourth obligation relates to the risk of ‘moral hazard’ in PaaS contracts. Customers might be less inclined to take care of the product than would be the case if the product were their own. To limit this risk, the service provider can include a provision that obligates the customer to use the product as any prudent and reasonable person placed in the same circumstances would (i.e., in accordance with the criterion used for the general duty of care) (cfr. the obligation of the lessee in a lease of movable goods).¹¹² The service provider can flesh out this obligation by obligating the customer to act in accordance with instruction manuals.

The obligation to maintain, repair and/or replace the product is relevant to the duty to take care. Whenever a visit by the service provider is scheduled or required, the service provider can control whether the customer fulfills this duty.

The service provider can incentivize the customer to make proper use of the product by offering ‘bonusses’ when the amount of work to maintain and repair the product is less than a certain threshold. These bonusses can lead to a mutually beneficial relationship between the service provider and the customer. For example, the service provider can offer a discount in payment (e.g., an additional free month of services), can conceive a ‘loyalty points system’ that allows for the purchase of certain goods (e.g., one hundred points for one liter of laundry detergent), or can work with other types of gifts.

An interesting question is whether the service provider can limit the liberty of the customer to move the product to ensure the safety of the product (e.g., by completely prohibiting this liberty or by making it conditional on prior authorization by the service provider). Such a limitation is not one of the blacklisted or greylisted clauses in the mandatory B2C and B2B legislation. Thus, for such a limitation to be unfair, it is to be caught by the general criteria. An assessment of the balance between the rights and duties of both parties is needed. In this regard, it can be noted that the default rules on lease of movable goods do not stand in the way of the lessee moving the leased product. However, these rules are suppletive law and can, thus, be derogated from. Nonetheless, the starting point is a liberty to move the product.¹¹³ It can be said that the service provider has an interest in the safety of the product, as this provider is the owner and is under the obligation to provide services, and that such safety is a legitimate aim. Allowing customers to move the product could lead to unforeseen technical issues and support challenges, which could increase the provider’s costs (e.g., if moving the product causes a need for repair) and diminish the quality of service. Regarding proportionality, an outright ban might be seen as disproportionate. A less intrusive manner to ensure the safety of the product is requiring prior authorization by the service provider before moving the product.

2.2.5.4.6 Updates

PaaS contracts are increasingly characterized by the fact that the delivered products are connected to the internet to achieve and optimize the provision of the promised service.

¹¹² This obligation can also be enhanced by using a more stringent criterion, see section 2.2.7 on p. 35.

¹¹³ For the assessment of a significant imbalance between the parties’ rights and obligations arising from the contract, the primary yardstick are suppletive rules from which the clause derogates, see CJEU 14 March 2013, c-415/11, ECLI:EU:C:2013:164, §69; Guidance Document Unfair Terms Directive, p. 30-31.

Considering the Digital Content and Digital Services Directive, updates are an important element for assessing the conformity of the digital service with the contract. Therefore, it is recommended that providers include provisions in the PaaS contract regarding the quality and frequency of these updates.

2.2.5.4.7 Innovation

In the context of the transition to a more circular economy, parties can contractually establish an obligation for the service provider to ‘innovate’. This way, the contractual relationship remains open to innovative developments that enable a more sustainable, efficient, or economical use of the product/service. This obligation to innovate can be made effective by stipulating that certain thresholds have to be met (e.g., after a period of x years, the energy efficiency of the product is to increase by y).

There is an interesting juxtaposition between an obligation to innovate and the limits to the possibility to unilaterally change the product central to the PaaS found in articles VI.83, 4° and VI.91/5, 1° CEL (see earlier on the obligation to ensure the availability of the product). The first article prohibits businesses from including clauses in consumer contracts that grant them the right to unilaterally change the essential characteristics of the product that is to be supplied, if those characteristics are essential to the consumer¹¹⁴, or to the intended use by the customer¹¹⁵, to the extent that such intended use has been notified to the business and accepted by it or to the extent that, in the absence of such notification, such use is reasonably foreseeable. As the notion of innovation implies improvement, this prohibition should not pose difficulties. Article VI.91/5, 1° similarly greylists clauses granting one of the parties the right to unilaterally modify the price, characteristics, or terms of the agreement without valid reason. Both the obligation to innovate and the process of innovation itself could be regarded as valid reasons to modify. It is possible for parties to expressly stipulate so, to aid in the proof contrary to the presumption of unfairness.¹¹⁶

2.2.5.4.8 Circularity

Finally, it is advisable to include clauses in the PaaS contract regarding the fate of the product at the end of the contract and/or at the end of the useful lifespan.

In most cases, the service provider will commit to taking back the products. However, this may not always be feasible or affordable, as the products may not be easy to take back or have a low residual value. Examples of such products include ventilation systems installed in a customer’s home. In such cases, the contracting parties can agree that the customer becomes the owner of the products after the contract upon payment of a purchase price (e.g., the residual value of the product).

¹¹⁴ The exchange of consents needed for the conclusion of a valid contract, requires that the contracting parties agree on all essential points of the contract. These essential points are those elements of the contract without which the contract cannot exist. For example, in a sales contract the purchasing price is an essential element.

¹¹⁵ The intended use of a product can be a ‘substantial’ point of a contract. Substantial points of a contract are, objectively speaking, not essential to the conclusion of the contract. The contracting parties can give greater weight to non-essential points and elevate them to the same level, thus making them substantial. For example, in a sales contract for a bicycle, the color of the bicycle is objectively non-essential. However, the buyer can indicate that a specific color is of great importance, making the color subjectively essential, that is to say substantial.

¹¹⁶ I. CLAEYS and T. TANGHE, “De b2b-wet van 4 april 2019: bescherming van ondernemingen tegen onrechtmatige bedingen, misbruik van economische afhankelijkheid en oneerlijke marktpraktijken (Deel 1)”, *RW* 2019-20, p. (323) 337, no. 45.

An obligation for the service provider to take back the product, does not guarantee that the service provider will process the product in a sustainable, circular manner. From the perspective of the circular economy, it is, therefore, a good idea to include a clause in the PaaS contract which obligates the service provider to reuse, repurpose or to recycle the provided product in a high-quality and circular manner, or to enlist a third party for this purpose. This is a 'circular guarantee'.

To make this obligation effective, it is necessary that the contracting parties work out a way to ensure that the customer can control whether the service provider has fulfilled this obligation. There is a need for transparency, as this obligation is post contractual, relevant only after the main contractual relationship has ended (on post contractual obligations, see article 5.114 CC). To this end, parties can set up a monitoring system that is independent of the service provider, through which the customer can verify the performance of this obligation. If the circular guarantee truly concerns only the single product used by the customer, the monitoring system will need to allow for a tracing of this individual product.¹¹⁷ If it can only show, for example, that part of all products are effectively processed circularly, there is the evidentiary challenge for the customer to prove that the used product belongs to the category that was not processed in this manner for there to be a breach of contract.¹¹⁸ A different approach would be for the service provider to take up the obligation to circularly process a certain percentage of all products at the end of all contracts and/or end of the useful lifespan of the products. In this case, the monitoring system does not need to be as individualized but can instead relate to the aggregate of all products.

It would be wise for parties to include an indemnity clause in the contract to ensure the efficacy of the circular guarantee. With such a clause, the contracting parties agree in advance that, in the event of an imputable non-performance, the debtor is held to the payment of a fixed monetary amount or the performance of a determinate prestation by way of compensation (article 5.88 CC). This clause alleviates the burden of proof for the creditor, who would otherwise have to rely on the general contractual remedy of the right to compensation for injury (articles 5.83, 2° CC and 5.86 and following; see also articles 5.224 and 5.237). If the service provider fails to perform the circular guarantee, it is not straightforward to say that the creditor of this obligation (i.e., the customer) suffers an injury. The injury is mostly 'indirect' (e.g., emotional distress, the loss of chance to contract with a truly sustainable partner, etc.), especially if the obligation is to circularly process a certain percentage of all products and is thus 'decoupled' from the individual product used by the customer. With an indemnity clause, the contracting parties make clear that to them the non-performance does in fact lead to an injury.

¹¹⁷ In the future this could become easier if each product has a unique identifier via a digital product passport. This is one of the elements of the sustainable products initiative of the European Union.

¹¹⁸ In this case certain evidentiary rules would come to the aid of the customer. For example, article 8.4(3) CC obligates all parties to cooperate in furnishing proof. Moreover, as the customer is to prove a negative fact (i.e., the service provider has not processed the product circularly), the standard of proof is lowered and the customer can suffice with demonstrating the probability of that fact (article 8.6(1) CC).

2.2.6 Interpretation

2.2.6.1 Ambiguity

When contracting parties enter into a contract with each other, they wish to give a certain content to their contractual relationship. In the event of an ambiguity, the parties may argue about the exact scope of that content. When they submit such a contestation to the court, the court is to interpret the contract to ascertain the correct scope. The interpretation of a contract is a legal technique in which the court attempts to give meaning to an unclear contract or an unclear contractual clause regarding which a dispute has arisen between the parties. In principle, the court is free to use both internal (i.e., the contractual documents themselves) and external elements (i.e., precontractual drafts, correspondence, etc.), unless the parties have agreed upon an ‘entire agreement clause’ (which is a form of interpretation clauses) that stipulates that external elements have no probative force and/or cannot be used to interpret the content of the contract.¹¹⁹

The Civil Code contains some rules to guide the court in its task of interpretation. The basic premise is that the court is to seek out the common intent of the parties to the contract, rather than to adhere to the literal meaning of the words (article 5.64(1) CC). There exist some specific guidelines on how the common intent can be found (article 5.65 CC). If the court fails to find the common intent and doubt persists, article 5.66 CC contains three rules that give one party the benefit of the doubt. The contract of adhesion¹²⁰ is interpreted against the party who has drawn it up, the exemption clause is interpreted against the debtor of the obligation, and, in all other cases, the clause is interpreted against its beneficiary. For consumer contracts, article VI.37, §2 CEL additionally stipulates that where there is doubt about the meaning of a clause the interpretation most favorable to the consumer shall prevail.

If the contracting parties in all earnest intend to include sustainability in their contracts, it is advisable that they make this explicit to avoid ambiguity in this regard. There are several methods to do so. For instance, parties could include ‘recitals’ in the preambles of the contract. Preambles are part of the contractual document that precede the binding part. Their goal is to provide a concise introduction to the contract that sets the stage for its main body.¹²¹ With recitals, the parties include statements reflecting the value that they place on certain aspects of the contractual relationship that do not bind them as such but contribute to the interpretation of the contract as a whole.¹²² The language in recitals is more open and broad than is the case with the actual obligations of the parties (e.g., parties will ‘acknowledge’ and ‘recognize’ matters, but will not often ‘commit’). The parties can indicate in the recitals that sustainability is an integral consideration of their contractual relationship. Whenever a clause is ambiguous, a court can use the recitals to interpret it in the way that is the most sustainable (in its meaning given to it by the parties). The contracting parties can also include definitions. For example, they can define what ‘sustainability’ or ‘circularity’ means. They can include their

¹¹⁹ Regarding entire agreement clauses, see S. DECLERCQ and T. VAN NOYEN, “Vierhoekenbedingen, wijzigingsbedingen en niet-verzakingsbedingen. Bij boilerplate-clausules zit het venijn in de staart”, *DAOR* 2020, nr. 136, (17) 24 and following, nos. 21 and following.

¹²⁰ A contract is a contract of adhesion if it is drawn up in advance and unilaterally and if it is non-negotiable (article 5.10 CC).

¹²¹ Preambles can include the following information: the identification of the parties, the purpose of the contract, recitals, etc.

¹²² L. MORIS, “Preambles” in E. TERRYEN, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Gemeenrechtelijke clausules (contractuele clausules)*, Antwerp, Intersentia, 2013, p. (311) 314.

own internal definitions or they can refer to external definitions, explicitly giving the external element interpretative force (e.g., parties could refer to the definition of a concept in a technical standard, such as those of ISO¹²³).

2.2.6.2 Essentiality

Interpretation is not solely a matter of ambiguity. In a more general sense, interpretation is also needed to understand what the parties view as the essential basis of their contractual relationship. Understanding this basis is important for several reasons.

One reason relates to exemption clauses. One important limit to exemption clauses is that they are not allowed to exempt the debtor of liability for non-performance of one of the essential obligations¹²⁴ of the contract. Such an exemption would void the contract of its purpose. If the contracting parties make clear that a guarantee of sustainability (e.g., in the form of an obligation to reuse (through actual reusing, repurposing or the different methods of repairing) at least 50% of the product returned by the customer at the end of the contract)) is an essential part of the contract, the service provider cannot easily be exempted of liability for non-performance of this guarantee.

Another reason relates to the extinction of the contractual relationship. The dissolution of a synallagmatic contract for non-performance is only possible if the non-performance of the debtor is sufficiently serious (or if the parties have agreed that it justifies the dissolution) (article 5.90(1) CC). Courts will be quicker to brand the non-performance of an essential obligation as sufficiently serious.

A third reason again concerns indemnity clauses. Indemnity clauses are valid, but they have to be reasonable. If they are manifestly unreasonable in the light of all circumstances of the case, including the actual injury, the court may reduce the indemnity clause (save for an indemnity clause B2C or B2B, in which case nullity is the only remedy (articles VI.84, §1 and VI.91/6 CEL)). Even though this reduction cannot be lower than a reasonable monetary amount or reasonable prestation (article 5.88, §2 CC), there can be circumstances in which only the total negation of the right to invoke the indemnity clause is reasonable (in other words, the only reasonable monetary amount is 'zero').¹²⁵ Why then is it useful to underline the essentiality of sustainability? Take the example of the circular guarantee of the service provider to process the product circularly at the end of the contract explained in section 2.2.5.4.8 (p. 33). If the service provider fails to perform this obligation, it is not straightforward to say that the creditor of this obligation (i.e., the customer) suffers an injury. The injury is mostly 'indirect' (e.g., emotional distress, the loss of chance to contract with a truly sustainable partner, etc.). With an indemnity clause, the contracting parties make clear that to them the non-performance does in fact lead to an injury. By emphasizing the essential nature of sustainability, a court is less likely to view the indemnity clause as unreasonable.

¹²³ ISO is working on standardization in the field of circular economy, see <https://www.iso.org/committee/7203984.html>.

¹²⁴ Sometimes called 'primary' obligations, in contrast to 'secondary' obligations.

¹²⁵ This is comparable to the consequences of abuse of rights (article 1.10 CC), where the court may limit the execution of the right to the reasonable execution. In some circumstances, the reasonable execution is no execution at all, see explanatory memorandum to Book 1 'General provisions', *Parliamentary Documents* Chamber of Representatives 2021-2022, no. 1805/1, p. 24.

Finally, depending on the circumstances it might even be possible for a party to challenge the validity of the contract and invoke error (a vice of consent). However, error is only a cause of nullity if a contracting party has an excusable misunderstanding of an element that was decisive to it to enter into the contract while the other party knew or should have known of this decisive character (article 5.34 CC). Only if the sustainable nature of the contract can be viewed as essential, is it possible to say that it was decisive for a party. Making this explicit in the contract helps in this regard and ensures that the other party can be assumed to know this decisive character.

2.2.6.3 Interpretation clauses

A final word on interpretation is that interpretation clauses (of which entire agreement clauses are an example) are valid. However, mandatory legislation bans interpretation clauses that grant the exclusive right to the business (B2C) or one of the businesses (B2B) to interpret any clause of the contract (articles VI.83, 6° and VI.91/4, 2° CEL, both blacklists).

2.2.7 Types of obligations

The obligations of the contract can have a different purport. This purport is relevant for contractual liability. The different types of obligations differ as regards the burden of proof of the non-performance by the debtor.

The obligation of means is one that obligates its debtor to use all the care that is typical of a prudent and reasonable person to achieve a certain result (i.e., all reasonable efforts). The burden of proof of the debtor's wrong rests on the creditor (article 5.72(1) CC). The obligation of result is one that obligates its debtor to achieve a certain result. If the result is not achieved, the debtor's wrong is presumed unless superior force is proved (article 5.72(2) CC). A concrete example in the context of PaaS can illustrate the difference. A result-oriented PSS contract provides the customer with a washing service. If the service provider undertakes to provide the customer with a '24/7 permanent washing service' or 'continuous service for at least 95% of the time', there is an obligation of result. If the service provider undertakes to 'use all reasonable efforts to achieve a permanent washing service', there is only an obligation of means.

Even though the Civil Code only mentions these two types of obligations they are part of a broader spectrum. Between obligations of means and obligations of result, there exist 'enhanced' obligations of means. Contracting parties agree to use a stricter yardstick than the criterion for the general duty of care. For example, they agree that the debtor is to use *best* (and not merely reasonable) efforts. 'Enhanced' obligations of result are possible as well, in the form of a guarantee. The parties to a contract agree that the debtor guarantees the result and foregoes the possibility to invoke superior force¹²⁶ (*force majeure*) to escape liability for non-performance.¹²⁷

The parties to a contract can use a 'content-determining clause' to expressly stipulate whether an obligation is one of means or of result. In the absence of such a clause, a court is to determine

¹²⁶ After article 1470 Québec Civil Code.

¹²⁷ There exists superior force in the case of an impossibility for the debtor to perform the obligation that is not imputable to the debtor. In this regard, the unforeseeable and unavoidable character of the obstacle to the performance is taken into account (article 5.226, §1 CC).

the common intent of the contracting parties in accordance with the general rules of interpretation (see section 2.2.6 on p. 35). That common intent is decisive. Courts often infer the purport of the obligation from the uncertainty of the obligated result. If that result is so uncertain, so aleatory that a debtor cannot reasonably be expected to have promised to achieve it, then the obligation will be considered an obligation of means. In this case, there is an element of chance over which the debtor has no control (an 'alea') (e.g., in the medical context, an obligation to cure a patient with a complex operation is regarded as an obligation of means because of the inherently uncertain chances of success).

A content-determining clause is valid, but it can be requalified by a court if it is found to be a 'disguised' exemption clause. This may, for example, be the case if one of the essential obligations of the contract is normally an obligation of result but is described by the contracting parties as an obligation of means. Exemption clauses are to adhere to the rules set out, in general, by article 5.89 CC (C2C/P2P) and, more specifically, by article VI.83, 13° and 25° CEL (B2C) and article VI.91/5, 6° CEL (B2B). One important limit to exemption clauses is that they are not allowed to exempt the debtor of liability for non-performance of one of the essential obligations of the contract as such an exemption would void the contract of its purpose.

2.2.8 Knowledge & acceptance

A final remark on the general principles on the law of obligations is on knowledge and acceptance. Especially when one of the contracting parties uses 'standard terms and conditions' (or 'general' terms and conditions) (*algemene voorwaarden/conditions générales*), this knowledge and acceptance can be an issue. Standard terms and conditions have been formulated in advance for several transactions involving different parties and have not been individually negotiated by the parties (colloquially, they are known as the 'fine print' of a contract).¹²⁸ They can be found, for example, on the backside of the contractual document or even in another place entirely (e.g., in an online environment, the standard terms and conditions are often available through a hyperlink).

Belgian law assumes standard terms and conditions to be non-essential¹²⁹ and non-substantial^{130, 131}. Thus, contracts remain valid even if a problem with the standard terms and conditions arises (e.g., a dispute on their validity or a conflict between different sets of standard terms and conditions of the parties¹³²). The inclusion of general terms and conditions of a party in the contract requires actual knowledge of them by the other party or at least the possibility

¹²⁸ Explanatory memorandum to Book 5 'obligations', *Parliamentary Documents* Chamber of Representatives 2021-2022, no. 1806/1, p. 28.

¹²⁹ The exchange of consents needed for the conclusion of a valid contract, requires that the contracting parties agree on all essential points of the contract. These essential points are those elements of the contract without which the contract cannot exist. For example, in a sales contract the purchasing price is an essential element.

¹³⁰ Substantial points of a contract are, objectively speaking, not essential to the conclusion of the contract. The contracting parties can give greater weight to non-essential points and elevate them to the same level, thus making them substantial. For example, in a sales contract for a bicycle, the color of the bicycle is objectively non-essential. However, the buyer can indicate that a specific color is of great importance, making the color subjectively essential, that is to say substantial.

¹³¹ Explanatory memorandum to Book 5 'obligations', *Parliamentary Documents* Chamber of Representatives 2021-2022, no. 1806/1, p. 29.

¹³² This conflict is resolved by article 5.23 CC. If the offer and acceptance refer to different sets of general terms and conditions, the contract is formed nonetheless. Both sets of general terms and conditions are part of the contract, with the exception of the incompatible clauses. This is the 'knock out rule': incompatible clauses knock each other out of the contractual relationship. However, the contract is not formed if a party, in advance or without unjustified delay after receiving the acceptance, expressly, and not by means of standard terms and conditions, indicates that it does not wish to be bound by such contract.

for the other party to actually become aware of them as well as their acceptance (article 5.23 CC).

To assess whether there was a possibility for the other party to gain knowledge of the standard terms and conditions, Belgian courts give weight to their availability, their accessibility, and their intelligibility. Thus, terms and conditions need at the very least be referred to, they may not be printed too small, they need to be drafted in plain language, ... In consumer contracts, article VI.2 CEL obligates businesses to sufficiently inform the consumer. Thus, the business is expected to materially hand over the terms and conditions.¹³³

Standard terms and conditions sometimes contain clauses stipulating that a contracting party has actually read the standard terms and conditions and has accepted them as part of the contract.¹³⁴ They are of limited value. Article VI.83, 2° CEL (blacklist) prohibits clauses in consumer contracts that irrefutably establish the consent of the consumer to clauses of which the consumer was not in fact able to gain knowledge before the conclusion of the contract. Article VI.91/4, 4° CEL (blacklist) does the same in the B2B context. Thus, even if such a clause is included in a contract, it remains to be assessed whether there has been knowledge and acceptance of the standard terms and conditions. The other party can still prove that there was no possibility to consent to the standard terms and conditions.

¹³³ See, S. STIJNS, *Verbintenissenrecht. Leerboek 1*, Bruges, die Keure, 2022, 155.

¹³⁴ For example, the standard terms and conditions could contain a clause stipulating that 'the party is deemed to have accepted without reservation all the provisions of these standard terms and conditions'.

3 Model clauses/T&C

3.1 Introduction

This part of the research report contains model clauses (in a bold font), which are accompanied by a commentary on how they fit into the legal framework outlined in the previous parts of the research report (in a regular font). This commentary contains, for example, an explanation why this type of clause is useful, why a specific wording has been chosen, which points of attention exist regarding the legislation on unfair clauses, etc.

Square brackets ([...]) indicate that a part of the model clause is ‘interchangeable’.

- First, this can mean that the content between the brackets is mere filler, as is the case, for example, with ‘[the service provider]’ where the parties would fill in the actual name of the service provider.
- Second, this can mean that several options or a combination of options is possible, as is the case, for example, with ‘[...and/or...]’ where the parties can choose either conjunctive word, with a differing degree of extensiveness of the clause.
- Finally, this can mean that this part of the model clause is entirely optional (meaning that it adds additional content onto the essential foundations of the clause).

3.2 Recitals

- **The parties acknowledge the potential risks and negative impacts associated with unsustainable business practices, including climate change, resource depletion, and pollution.**
- **The parties acknowledge that the performance of this contract will have environmental impacts.**
- **The parties regard environmental sustainability as an integral consideration of this contract.**
- **The parties recognize the need to continuously reduce the environmental impacts of this contract, so that they can contribute to achieving an environmentally sustainable society by 2050¹³⁵.**
- **The parties recognize the circular potential of this product-as-a-service (PaaS) contract. They view the transition from a linear to a circular economy as an important societal objective. Thus, they seek to promote that transition with this contract.**
- **The circular objectives at the heart of this contract are to minimize waste and maximize resource efficiency. Thus, the parties aim to expand the lifespan of all products used in this**

¹³⁵ The year 2050 is based on the objective of the European Union to become climate-neutral by 2050. This objective is at the heart of the European Green Deal.

contract by repairing and reusing these products to the fullest extent and to reduce their environmental impact by recycling them at the end of their useful lifespan.

Recitals are found in the preambles of a contract. They provide additional context and background information about the contracting parties, their relationship, and the circumstances that led them to enter into the contract. Even though they are non-binding and non-operative, they are important for framing the intentions of the parties and the spirit in which they intend to perform their contractual obligations (see section 2.2.6 on interpretation on p. 35).

If the parties earnestly mean to include sustainability in their contract, it is advisable that they make this clear in the recitals. This is useful for the interpretation of the contract in case of ambiguity. It also makes clear that sustainability is an essential consideration for the contracting parties to enter into a contract with one another.

3.3 Definitions

To avoid confusion and promote clarity, certain terms used in this contract are defined as follows.

- **External definitions:** where the contract use terms that are defined in [external document (e.g., a regulation or directive of the European Union)], those terms shall have the same meaning as in that [external document]; its content shall not be interpreted in a way that conflicts with rights and obligations provided for in [external document]].
- **Product:** [identification of the product].
- **[Output (e.g., light, air quality, hours of engine power):** [identification of the output specifications (e.g., light means the radiation of energy by a LED light source with a minimum level of brightness of 800 lm, a warm temperature color of 2700 k and an energy efficiency of at least 100 lm/w)].
- **Use of product:** [description of the allowed use of the product (e.g., riding, pushing and storing a micro-mobility product or loading, unloading and operating a washing machine)/reference to a subscription model described to the customer elsewhere (e.g., featherweight/lightweight/heavyweight, basic/premium/ultimate, standard/pro/elite, silver/gold/platinum, etc.)¹³⁶].
- **Non-reusable condition:** state of the product once it has been used in which it is no longer fit for reuse; criteria that hinder the reusability of the product include physical damage, wear and tear beyond normal use, missing parts or accessories, contamination with dust, and any other condition that renders the product unsafe or unusable for its intended purpose.

¹³⁶ This subscription model can, for example, be described to the customer on the website of the service provider when the customer is making a decision on which subscription model best suits the own needs. As a description found elsewhere is not a part of the contract as such, the service provider would do well to include a clause that stresses that this description is an integral part of the contract. For example: the description of the subscription model chosen by the customer on the website of [the service provider] forms an integral part of this contract.

- **Reuse:** using the product again after it has fulfilled its original purpose in the contract, without any significant alteration or repair; minor repairs are possible (e.g., replacement of screws, gaskets, switches, other small components).
- **Reconditioning/refurbishing:** thoroughly cleaning, repairing and updating a used product, not to an as-new condition, but to a more functional or efficient state.¹³⁷
- **Remanufacturing:** disassembling a used product, cleaning it, repairing it, replacing its worn or damaged parts, updating it and reassembling it, to an as-new condition.¹³⁸
- **Repurposing:** using a product for a different purpose than its original intended purpose; repurposing can involve altering or modifying the item to fit the new purpose or simply finding a new way to use it without any modifications.¹³⁹
- **Environmental sustainability:** the responsible use and management of the natural resources used in this contract to ensure their availability for future generations; this involves minimizing and mitigating the environmental impacts of the contract, including its externalities.
- **Circular economy:** an economic system whereby the value of products, materials and other resources in the economy is maintained for as long as possible, enhancing their efficient use in production and consumption, thereby reducing the environmental impact of their use, minimizing waste and the release of hazardous substances at all stages of their life cycle, including through the application of the European waste hierarchy.¹⁴⁰
- **Circularity:** the practice of minimizing resource depletion for all products used in this contract, by keeping them in use for as long as possible through durable, repairable, and recyclable design, and by implementing processes that support reuse, refurbishment, and recycling [at the end of this contract and/or at the end of their useful lifespan].
- **Greenhouse gasses:** the natural and anthropogenic gases which trap thermal radiation in the earth's atmosphere [and are specified in Annex A to the Kyoto Protocol to the United Nations Framework Convention on Climate Change¹⁴¹].

¹³⁷ This definition is based on the definition of the Ellen McArthur Foundation. It is a general definition. The EU is working on general definitions of different concepts of re-use (e.g., in the sustainable products initiative), but negotiations on precise definitions are ongoing. More specific definitions that are tailored to particular products are possible. See for example the specific definitions for concepts such as 'repurposing' and 'remanufacturing' in the context of batteries, regulation (EU) 2023/1542 of the European Parliament and of the Council of 12 July 2023 concerning batteries and waste batteries, amending Directive 2008/98/EC and Regulation (EU) 2019/1020 and repealing Directive 2006/66/EC, *OJ L* 28 July 2023, p. 1-117.

¹³⁸ See previous footnote.

¹³⁹ See previous footnote.

¹⁴⁰ This definition is based on article 2(9) Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, *OJ L* 22 June 2020, p. 13-43.

¹⁴¹ The contracting parties can refer to external definitions, explicitly giving the external element interpretative force. The contracting parties are free to replace the external definition in square brackets.

- **Carbon footprint:** [a party's total annual greenhouse gas emissions classified as scope 1, 2 and 3 emissions [by the most recent version of The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard¹⁴²]/a product's total amount of all relevant greenhouse gas emissions, expressed in carbon dioxide equivalents, directly and indirectly generated during the entire life cycle of the product, including raw material extraction, production, transportation, use, and disposal [as quantified on the basis of ISO 14067:2018¹⁴³]].
- **Energy efficiency:** the ratio of output of performance, service, goods or energy, to input of energy¹⁴⁴ [, as verified by an independent third-party certification body].
- **Energy savings:** an amount of saved energy determined by measuring and/or estimating consumption before and after implementation of an energy efficiency improvement measure, while ensuring normalization for external conditions that affect energy consumption.¹⁴⁵
- **Energy efficiency improvement:** an increase in energy efficiency as a result of technological and/or behavioral changes.¹⁴⁶
- **Innovation:** the development and implementation of new technologies, processes, or practices that result in a more sustainable, efficient, or economical use of the product or service; innovation presumes greater value to the customer and the promotion of environmental sustainability.

Like recitals, definitions aid in interpreting the contract (see section 2.2.6 on interpretation on p. 35). Contracting parties can include their own internal definitions, or they can refer to external definitions, explicitly giving the external element interpretative force.

In PaaS contracts, the definitions of 'product' and 'output (specification)' in particular help to understand the extent of the parties' obligations. Because of the potentially variable nature of the contract (either because of an obligation to innovate or because of the inherently variable nature of result-oriented PSS), these definitions work as anchor points. They set the minimum characteristics of the product/service that is to be provided. Thus, they can serve as benchmarks for the obligations of the parties (e.g., the starting point of an obligation to innovate, the minimal requirements for the obligation to ensure the availability of the product, etc.) and help to protect the customer against unilateral changes of the contract that go against the essential understanding of its characteristics (e.g., the definition of innovation includes the understanding that innovation presumes improvement, the product has specified sustainability aspects). The definition of the product can include, for example, that it is in conformity with a

¹⁴² See previous footnote.

¹⁴³ See previous footnote.

¹⁴⁴ This definition is based on article 2(4) Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC, *OJ L* 14 November 2012, p. 1-56.

¹⁴⁵ This definition is based on article 2(5) Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC, *OJ L* 14 November 2012, p. 1-56.

¹⁴⁶ This definition is based on article 2(6) Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC, *OJ L* 14 November 2012, p. 1-56.

sustainable label (e.g., one that is only granted to products that are produced in an environmentally responsible way, using a certain percentage of recycled materials).

3.4 Rights & obligations

3.4.1 Rights of customer

▪ **The customer has the product at the customer's disposal and may use it [without limit/only for a specified number of uses, volumes or users/for a specified number of uses, volumes or users and only against payment of an extra fee if this specified number is exceeded] during the duration of the contract in accordance with the terms of this contract for [its ordinary use/ the use intended by the customer].**

▪ **The use intended by the customer is [specified use].**

This clause contains the general right of the customer to use the product. It is assumed that the customer may use the product for its ordinary use. If the customer intends a specific use, it is advisable that this intended use is specified.

The contracting parties can grant the customer an unlimited right to use the product or can restrict the right to a number of uses (e.g., fifteen times per month), to a certain volume (e.g., 500 kg of laundry per month or a certain mileage in the case of a micro-mobility product) or users.

The service provider can standardize certain 'subscription models' to aid in drafting contracts with customers. For example, the service provider can offer different types of subscriptions ranging¹⁴⁷ from 'featherweight use' (e.g., fifteen wash cycles per month for household textiles and common laundry detergents) to 'heavyweight use' (e.g., one hundred wash cycles per month for industrial textiles and industrial-grade laundry detergents), which are defined on the website of the service provider. These definitions make clear what the ordinary use of the product is. As a side note: as a description found elsewhere is not a part of the contract as such, the service provider would do well to include a clause that stresses that this description is an integral part of the contract. For example: the description of the subscription model chosen by the customer on the website of [the service provider] forms an integral part of this contract.

[The service provider] [uses all reasonable efforts to ensure/all best efforts to ensure/guarantees] that the customer receives an [identified output (e.g., a certain number of hours of light per day, a volume of washed laundry)] from the product. This [output] is to meet the following specifications.

[By way of example (for a PaaS contract concerning a washing machine):

- 1. Cleanliness: the washed laundry is to be clean and free from stains.**
- 2. Colorfastness: the washed laundry is to retain its colors.**

¹⁴⁷ Some examples of ways in which a range can be named are featherweight/lightweight/heavyweight, basic/premium/ultimate, standard/pro/elite and silver/gold/platinum.

3. **Moisture content: the moisture content of the washed laundry may weigh no more than 30% of the weight of the dry fabric.**
4. **Water use: the product is to use no more than 30 liters of water per wash cycle.]**

In a result-oriented PSS, it is important that the contracting parties describe the output and its specification. What are the requirements in terms of functionality, appearance, quality, durability, etc.?

3.4.2 Ensuring availability of product

[The service provider] makes the product available to the customer [within specified reasonable period of time from the date of signing the contract/on a specified date].

This clause contains the general obligation of the service provider to make the product available to the customer. The contracting parties are free to determine the delivery period. In the B2C context, article VI.83, 5° CEL blacklists clauses that grant the business the right to unilaterally determine or change the delivery period.

- **[The service provider] ensures that the product is in a good condition, suitable for [its ordinary use/ the use intended by the customer].**
- **The customer reports any defects of the product within [reasonable period of time] to [the service provider].**

The service provider is to ensure that the product is in a good condition. The product should be suitable for its ordinary use. If the customer has specified a certain use (see section 3.4.1 on p. 44), the service provider is to ensure that the product is suitable for that use.

The service provider can require the customer to report any defects of the product. In the B2C context, article VI.83, 15° CEL (blacklists) prohibits clauses that stipulate an unreasonably short period of time for reporting such defects.

- **[The service provider] ensures the customer's peaceful possession of the product for the duration of the contract.**
- **[The service provider] uses [all reasonable efforts/best efforts] to ensure a continuous availability of the product.**
- **[The service provider] guarantees [a continuous availability/other specified near-continuous availability (e.g., 85% of the time)] of the product.**

The default rules on lease of goods obligate the lessor to ensure the peaceful possession of the product by the lessee. This entails that the lessor is to ensure the continuous availability of the product.

The contracting parties in a PaaS contract can specify and modulate an obligation to ensure the continuous availability. Depending on the formulation they can specify that this obligation is an

obligation of result or one of means, relating to a truly continuous availability or to a specified amount of time.

As the obligation to ensure the availability of the product can be seen as an essential obligation, an obligation to an unreasonably low availability of the product might be considered to be a 'disguised' exemption clause by a court. Exemption clauses are to adhere to the rules set out, in general, by article 5.89 CC (C2C/P2P) and, more specifically, by article VI.83, 13° and 25° CEL (B2C) and article VI.91/5, 6° CEL (B2B). One important limit to exemption clauses is that they are not allowed to exempt the debtor of liability for non-performance of one of the essential obligations of the contract as such an exemption would void the contract of its purpose. Thus, it is advisable that the specified availability remains close to a near-continuous availability (unless a lower availability is common and expected within an industry).

- **In the event of unavailability of the product or any other disruption in its functioning, [the service provider] uses [all reasonable efforts/best efforts] to restore access to the product as soon as possible.**
- **In the event of unavailability of the product or any other disruption in its functioning, [the service provider] restores access to the product within [specified period of time].**
- **In the event of unavailability of the product or any other disruption in its functioning, [the service provider], the customer is entitled to compensation. This compensation takes the form of [a lump sum of specified reasonable amount paid to the customer/a discount of specified reasonable amount on the next invoice].**

In addition to determining the purport of the obligation to ensure the (near-)continuous availability of the product, the contracting parties can additionally add a clause that obligates the service provider to reinstate access to the product as soon as possible or within a specified period of time. Again, the parties can use different wordings to convey that this obligation is either an obligation of result or of means.

The contracting parties can agree to an indemnity clause for failure to ensure the availability. This is an indemnity clause on the side of the service provider, which can be weighed in the assessment of the reciprocal nature of indemnity clauses on the side of the customer.

3.4.3 Pricing and payments

[The service provider] charges an initial one-time setup fee [of specified amount].

The service provider can charge an initial one-time setup fee.

- **The pricing for the product used by the customer and the services provided under this contract is set forth in the pricing schedule [as agreed upon by the customer during the order process], which is annexed to the contract and incorporated therein by reference.**
- **The customer is charged for the use of the product on a pay-per-use basis. The price per use is [specified amount] [for the first [specified amount] of uses and the price per use is [specified amount] for all subsequent uses].**

- **The customer is charged for the use of the product on a pay-per-volume basis. The price per [specified volume (e.g., 1000 kg of laundry washed)] is [specified amount] [for the first [specified volume]] and the price per volume is [specified amount] for all subsequent volumes].**
- **The customer is charged for the use of the product on a pay-per-user basis. The price per [specified number of users] is [specified amount] [for the first [specified amount]] of users and the price per user is [specified amount] for all subsequent users].**
- **The customer is charged a fixed, recurrent rent of [specified amount] for the use of the product that is due [specified adverb of frequency (e.g., monthly, quarterly, annually)].**
- **The customer is charged a fixed, one-time amount of [specified amount] for the use of the product.**
- **If the customer exceeds the allowed number of [uses, volumes or users], the customer pays an extra fee of [specified amount] per additional [use, volume or user].**

These clauses offer examples of pricing models. The service provider can charge the customer in varying ways. Some pricing models are tied with the actual use of the product, others are based on a flat rate.

The clauses also offer examples of tiered pricing models. The service provider can charge more for an initial number of uses/volume/users and offer a lower rate once that threshold is met.

The final clause is tied in with the clauses on the rights of the customer. If the contracting parties have limited the number of uses, volumes or users to which the customer is entitled and only allow excess against the payment of an extra fee, they can determine the amount of that fee in the clauses on pricing.

The customer is to pay an [specified adverb of frequency (e.g., monthly, quarterly, annually)] service fee, which covers all costs of the obligations of [the service provider] under this contract.

The service provider can choose to separate the pricing for the use of the product from the pricing for the services of the PaaS contract. In this way, the service provider can couple a more contingent pricing (e.g., pay-per-use) with a steady source of revenue.

Rent for the entire [specified unit of time (e.g., calendar month, quarter, trimester)] is due [at the start of each specified unit of time/at the end of each specified unit of time/on a specified date (e.g., the first Friday, the 15th)]. If the contract commences or terminates during [unit of time], the rent is charged proportionally.

This clause explains when recurrent payments in the form of rent are due.

All payments for the usage of the product and for the services rendered by [the service provider] are due within [specified reasonable period of time] after the date of receipt of the invoice. [The invoice is sent to the customer within [specified reasonable period of time] after the completion of the services.]

This clause explains when specific payments for the usage of the product and for the services rendered by the service provider are due.

In the B2B context the presumed time limit for payment is thirty days after the date of receipt of the invoice (article 4, §1 'law on combating late payment in commercial transactions' of 2 August 2002). In general, it cannot exceed sixty days.

- **In the event of late payment by the customer, the customer pays interest on the outstanding overdue amount at a rate of [specified reasonable rate] per [specified adverb of frequency], calculated from [B2C: the fifteenth calendar day after the third business day following the first notice of default; B2C (SME): the calendar day following the first notice of default; B2B: the due date of payment] until payment is made in full.**
- **In the event of late payment by the customer, the customer pays a late payment fee of [specified reasonable amount], payable from [B2C: the fifteenth calendar day after the third business day following the first notice of default; B2C (SME): the calendar day following the first notice of default; B2B: the due date of payment].**

If the customer fails to pay on the due date, the contracting parties can agree that the customer is to pay moratory interest or a fixed late payment fee by way of an indemnity clause. Regarding the rules on indemnity clauses, see section 2.2.4.4 (p. 22).

3.4.4 Delivery & installation

[The service provider] installs the product at the location intended by the customer in accordance with the rules of art and good craftsmanship. [The service provider] and the customer negotiate in good faith to reach an agreement on a date and time for the installation of the product. This installation of the product is [free of charge/free of charge unless a furniture hoist or similar moving equipment is required, in which case the customer is to pay the rental fee of this equipment/against payment of a reasonable amount]

This clause contains the obligation for the service provider to install the product at the location intended by the customer. It explains how the parties are to agree upon a time and date for installation.

The service provider can remove the product free of charge or free of charge insofar as no additional moving equipment is required. However, it is not unreasonable to charge an installation fee.

The location of the product is to meet the following requirements:

[By way of example (for a PaaS contract concerning a washing machine):

1. The location is to be spacious enough to allow at least 30 cm free space on either side of the washing machine (dimensions: 85 cm x 60 cm x 60 cm) to allow sufficient air flow around the washing machine and avoid overheating.
2. The location is to have a level surface capable of supporting the weight of the washing machine (weight: 80 kg).
3. The location is to have a water supply and drainage system.
4. The location is to have a grounded electrical outlet (supply: 230 V; 50 Hz) within 2 m of the intended position of the washing machine.
5. The location is to be well-ventilated.]

The service provider can inform the customer of the requirements for the location of the product. By informing the customer, the service provider places the responsibility for the suitability of this location on the customer.

The following clauses are built on this information to the customer, who can be reasonably presumed to know these requirements as a result of this explicit information.

- **The customer agrees to permit [the service provider] to conduct a site survey before installation of the product to assess whether the location envisioned by the customer is suitable for the [ordinary use/use intended by the customer].**
- **If the location is suitable after reasonable modifications, the customer bears the costs of the modifications necessary to meet the above requirements.**
- **[If the location is not suitable/If the customer – after having been informed of the necessary reasonable modifications – refuses the modifications, the customer is to pay a travel fee of [a reasonable amount (e.g., € X per kilometer driven to the customer’s location, € X for the first hour and € Y for each subsequent hour spent at the customer’s location)].**
- **[If the location is not suitable/If the customer – after having been informed of the necessary reasonable modifications – refuses the modifications] all obligations are extinguished for the future.**

These clauses explain what is to happen if the location intended by the customer is unsuitable for use of the product (regarding the description of this use, see section 3.4.1 on p. 44). To check this suitability, the contracting parties can agree to a right for the service provider to perform a site survey in advance of installing the product.

If the service provider can make the location suitable with reasonable modifications, it is not unreasonable to ask the customer – who can reasonably be presumed to know the requirements of the location – to bear the costs of these reasonable modifications.

However, if the customer does not wish to bear those cost or if reasonable modifications are not possible, all obligations are extinguished for the future. On the side of the customer, who is creditor of the obligation to install the product, this clause can be seen as an early termination clause. On the side of the service provider, who is the debtor of the obligation to install the product, this clause can be seen as a suspensive condition. The unfulfillment of the suspensive

condition extinguishes the obligation for the future (article 5.148 CC). Articles VI.83, 1° and VI.91/4, 1° CEL (both blacklists) prohibit clauses that provide for an irrevocable obligation of the consumer/the other party while the performance of the obligations of the business is subject to a condition whose realization depends solely on its will. This is not the case here, where the realization of the condition is dependent on the conformity of the intended location with the requirements informed to the customer by the service provider. In this hypothesis, it is not unreasonable for the service provider to request a fee for the site survey.

- **Upon the product's delivery and installation, the customer is responsible for thoroughly inspecting it for any apparent defects. The customer signs the delivery note to acknowledge the receipt of the product in [a good state of repair/satisfactory condition/as is]. Should any apparent defects come to the customer's attention, they should be recorded in writing on the delivery note.**
- **In addition to the inspection upon delivery and installation, the customer promptly notifies [the service provider] of any defects, malfunctions, or non-conformities that are identified within [reasonable period of time] thereafter. In these circumstances, the customer refrains from using the product until [the service provider] authorizes the use. The customer is liable for any damage resulting from using the product in the meantime. [The service provider] undertakes to repair the product in accordance with the terms of this contract.**

The contracting parties can include a clause that obligates the customer to inspect the product upon delivery and installation.

3.4.5 Duty to take care

3.4.5.1 In general

The customer is obligated to use the product for its [ordinary purpose/use intended by the customer] and in a safe and proper manner. The customer is obligated [to take all care typical of a prudent and reasonable person in the same circumstances (i.e., all reasonable efforts)/to use best efforts]. [Minimally, this duty entails that the customer does not intentionally damage the product.]

These clauses are meant to avoid the moral hazard on the side of the customer in PaaS contracts. This clause contains a general duty to take care of the product. It encourages the customer to be responsible and take necessary precautions to ensure safe and proper use of the product. This general duty to take care of the product is an obligation of means. The contracting parties can rely on the general criterion of the prudent and reasonable person or enhance the obligation by referring to a higher standard of care. Even though a prudent and reasonable person does not intentionally damage a product, it could be useful to make this explicit as a deterrent (in the light of the risk of moral hazard on the side of the customer in a PaaS contract).

Regarding the description of how the customer may use the product, see section 3.4.1 on p. 44.

The customer is obligated to use the product in accordance with the instruction manual that is accessory to the product [and that is annexed to this contract]. The instruction manual informs the customer on how to perform the following obligations.

[By way of example (for a PaaS contract concerning a washing machine):

1. **Load size:** the customer takes care to never overload the product with clothes or other fabrics and always respects the weight limit of the product.
2. **Detergent usage:** the customer is expected to add the appropriate amount of detergent to the product based on the type of clothes or other fabrics being washed, their amount and to level to which they are soiled.
3. **Wash cycle:** the customer is expected to select the appropriate wash cycle based on the type of clothes or other fabrics being washed, their amount and to level to which they are soiled. The customer is expected to set the appropriate water temperature and level and to adjust the spin cycle speed.
4. **Maintenance:** the only obligation to maintain the product undertaken by the customer is to use the self-cleaning program once a month.
5. **Sustainability:** the customer takes care to use the product in a sustainable manner, meaning that the customer only washes full loads, uses the shortest cycle that is appropriate for the type of clothing being washed, uses cold water where possible and uses high-efficiency laundry detergent.]

The contracting parties can flesh out the general duty to take care by detailing how a prudent and reasonable person would take care of the product. One way of doing this, is by stipulating that the customer is to use the product in accordance with an instruction manual, which the parties can annex to the contract. If a court is to assess whether the customer has acted in accordance with the general duty to take care, it may color in the behavior of the abstract criterion of the prudent and reasonable person with the more concrete guidelines in the instruction manual.

The customer is obligated to use the product together with all accessories provided by [the service provider]. [These accessories are [specified accessories (e.g., screen protector for a phone, a bicycle lock for bicycles)].]

A second way of adding details to the general duty to take care is to stipulate that the customer is to use all accessories to the product provided by the service provider.

The customer may not use the product [specified circumstances (e.g., outdoors, on unpaved roads, during extreme weather, with nonproprietary laundry detergent)].

Against the backdrop of the general duty to take care of the product, the contracting parties can also prohibit certain specified uses. For example, they can prohibit the use of a micro-mobility product on unpaved roads.

▪ **The customer secures the product and all of its accessories[, such as batteries, keys...,] against theft [with the locks provided by [the service provider]]. If the product or any of its accessories are stolen or otherwise lost, the customer reports this theft or loss to [the service**

provider] within [specified reasonable time period]. [The customer assists [the service provider] in reporting the theft or loss to the police.]

- **If the police finds that the customer falsely reported the product as stolen, the customer is to pay [reasonable amount] to the [service provider]. [This indemnity is without prejudice to the right to dissolve the contractual relationship [without notice], as this act in bad faith is a sufficiently serious breach of contract by the customer.]**
- **The customer takes out an insurance policy to insure the product against theft or loss The customer is to produce a copy of the insurance policy and proof of payment of the insurance premiums at [the service provider]’s first request.**

If the product is used outdoors, as is the case, for example, with a micro-mobility product, the contracting parties can include an obligation to protect the product against theft and loss.

The contracting parties can agree that if it is clear that the customer has acted in bad faith and there is no actual theft, the customer is to indemnify the service provider. The parties can also make clear that such an act in bad faith is a sufficiently serious breach of contract to warrant the dissolution of the contract. This is a resolutive clause The resolutive clause grants the creditor the right to dissolve the contract without preliminary intervention of the court if the debtor fails to perform one of the obligations (article 5.92 CC). As the right to dissolve the contract by notification (i.e., without preliminary intervention of the court) is included in each contract (see article 5.93 CC), the real value of a resolutive clause is, on the one hand, that it allows the contracting parties to explicitly make clear what they regard as a sufficiently serious breach of contract and, on the other hand, to modulate the right to dissolve the contract outside of the court (e.g., by eliminating the statutory requirement of a notice that mentions the shortcomings for which the debtor is reproached).

This clause could also be formulated in a way that the indemnity and resolutive clauses can be invoked if the service provider has a ‘reasonable suspicion’ that the customer has made a false declaration (i.e., instead of ‘if the police finds’, the clause would start with ‘if [the service provider] has reasonable suspicion that’). However, this clause would not do much more than reiterate that the service provider has the statutory right to initiate the dissolution of the contractual relationship by notification. It should be kept in mind that the customer may always challenge the application of the indemnity and resolutive clauses in court. This means that the court may judge *a posteriori* whether the service provider was right to claim indemnity and/or dissolve the contract (i.e., assess whether the reasonable suspicion was just). Using a police report as an anchor for the clause, gives an objective standard.

Finally, to mitigate the risk of theft or loss, the service provider could obligate the customer to take out an insurance covering this theft or loss of the product.

The customer is obligated to conduct reasonable checks to verify that the product remains in a good and safe condition throughout the contract. [Reasonable checks include specified actions (e.g., checking for loose screws, checking for proper functioning of lights, checking for appropriate battery level).] If the customer notices that the product no longer functions properly, the customer reports any issues or defects with the products to [the service

provider] [immediately/within specified reasonable period of time]. In these circumstances, the customer refrains from using the product until [the service provider] authorizes the use. The customer is liable for any damage resulting from using the product in the meantime. [The service provider] undertakes to repair the product in accordance with the terms of this contract.

The contracting parties can place responsibility on the customer to ensure that the product is in good and safe condition throughout the contract. If any issues or defects arise, the customer is to report them to the service provider and to refrain from further using the product until authorized.

Of course, this means that the product is unavailable to the customer. It is advisable that the rest of the contract (i.e., in the parts detailing the obligations and possible liability of the service provider) explains what the rights (e.g., to compensation) of the customer are in this situation.

If the product [or the digital service concerning the product (e.g., an app on the mobile phone of the customer)] shows an error message, the customer refrains from using the product until [the service provider] authorizes the use. The customer reports the error message to [the service provider] [immediately/within specified reasonable period of time]. The customer is liable for any damage resulting from using the product in the meantime. [The service provider] undertakes to repair the product in accordance with the terms of this contract.

This clause is similar to the previous one. The main difference is that the process of detecting problems is automatic.

The customer will not attempt to repair or modify the product, nor have a third party attempt to repair or modify the product. [Under no circumstances may the customer open the casing of the product.]

This clause prohibits the customer and third parties from attempting to repair or modify the product, placing the responsibility for repairs and modifications solely on the service provider. Thus, this clause excludes the replacement of the debtor (i.e., the service provider) by the creditor or by a third party as a contractual remedy (articles 5.85 and 5.235 CC). The contractual remedies are suppletive law (article 5.83 CC), meaning they can be derogated from. Articles VI.83, 30° (B2C; blacklist) and VI.91/5, 4° (B2B; greylist) CEL prohibit clauses excluding or limiting in an inappropriate way the legal rights of the consumer/one of the parties in the event of partial or complete non-performance of one of the contractual obligations. However, it is not unfair to exclude the right to replacement of the debtor, as the core of this remedy (i.e., the right to performance of the obligation) remains intact: the debtor remains bound to perform the obligation.

Unlike in a lease contract, where the lessee is responsible for minor repairs, this clause places the burden of repair entirely on the service provider. This clause aims to ensure that the product is not tampered with, potentially causing damage to the product itself or harm to the customer.

The customer may only attempt to repair or modify the product, or have a third party attempt to repair or modify the product [if [the service provider] has not responded to the notification

of the issues or defects by the customer within [specified reasonable period of time (e.g., after 48 hours)/if there is an emergency situation (i.e., specified emergency situations (e.g., flooding caused by the washing machine))]. The customer is liable for all costs necessary to undo unauthorized repair or modification attempts.

Alternatively, the contracting parties can also agree to not entirely exclude the replacement of the debtor as a remedy, but to limit its availability. This clause can be useful when the availability of the product is important to the customer, for example, because it plays a key role in the business operations. Because the service provider might be liable for consequential loss of the unavailability of the product, it can be in the self-interest of the service provider to have the customer aid in reducing the time during which the product is unavailable.

3.4.5.2 Incentives

- The customer receives a discount of [specified amount (e.g., 5%)] on the invoice following a scheduled maintenance moment if the customer uses the product [for its ordinary purpose and in a safe and proper manner/in accordance with the instruction manual]. Safe and proper use is presumed [if the scheduled moment of maintenance does not exceed [specified amount of time (e.g., one hour)]/if the auxiliary of [the service provider] finds no issues or defects of the product caused by more than normal wear and tear].

- The customer receives a [specified amount] of loyalty points if the customer uses the product [for its ordinary purpose and in a safe and proper manner/in accordance with the instruction manual]. Safe and proper use is presumed [if a scheduled moment of maintenance does not exceed [specified amount of time (e.g., one hour)/ if the product has not required any repairs beyond routine maintenance in the past [specified period of time (e.g., six months)]¹⁴⁸]. These loyalty points can only be used in the web shop of [the service provider]. [Loyalty points have no monetary value and cannot be exchanged for cash nor for vouchers.] [Loyalty points are personal and cannot transfer to any other person than the customer.] [Loyalty points cannot expire/loyalty points are valid for a [specified amount of time].] [There is no limit to the amount of loyalty points/the customer can accrue a maximum of [specified amount] of loyalty points.]

- The contracted is extended by a free [specified amount of time] if the customer uses the product [for its ordinary purpose and in a safe and proper manner/in accordance with the instruction manual]. Safe and proper use is presumed [if a scheduled moment of maintenance does not exceed [specified amount of time (e.g., one hour)/ if the product has not required any repairs beyond routine maintenance in the past [specified period of time (e.g., six months)]]].

These clauses are meant to avoid the moral hazard on the side of the customer in PaaS contracts. The common thread of the clauses is that they incentivize the customer to make proper use of the product by offering ‘bonusses’ when the amount of work to maintain and repair the product is less than a certain threshold. These bonuses can lead to a mutually

¹⁴⁸ As explained in the section on the obligation of the service provider to maintain and repair the product, the contracting parties can agree that the customer is entitled to a specified number of exceptional repairs beyond normal wear and tear free of charge (see section 3.4.6 on p. 65). The parties can include a cross-reference to this right in a clause in this form, i.e., loyalty points are received if the customer has not made use of the right to exceptional repair.

beneficial relationship between the service provider and the customer. Each clause offers a different type of incentive, such as a discount on the next invoice, loyalty points, or an extended contract. These clauses are examples. Any other type of gift is also possible.

3.4.5.3 Exclusive use

- **The product is exclusively for the use of the customer [and any individual who permanently resides at the same household as the user]. The customer will not share access to the product with any other person or entity who is not authorized to use the product. [The customer is to supervise the care with which others handle the product and is liable for any damage resulting from improper use.]**

- **The product is exclusively for the use of the customer and its employees or other auxiliaries who are authorized to use the product in connection with the customer's business operations [i.e., identification of persons who are authorized]. The customer will not share access to the product with any other person or entity who is not authorized to use the product. [The customer is to supervise the care with which others handle the product and remains liable for any damage resulting from improper use.]**

- **The customer has the right to allow third parties to use the product [for non-commercial purposes]. The customer is to supervise the due care with which third parties are to handle the product and is liable for any damage resulting from improper use.**

- **The customer shall not enter into any contract with third parties concerning the product. [For example, the customer may not act as sublessor of the product.]**

The common thread of these clauses is to specify who is authorized to use the product and to prohibit the customer from sharing access to the product with unauthorized persons. The clauses also place responsibility on the customer to supervise the use of the product by others. The customer is liable for any damage resulting from improper use. Additionally, some clauses specify whether the customer can allow third parties to use the product and under what conditions.

As regards the mandatory legislation on unfair terms, there are no specific prohibitions of clauses limiting the use of a product to the customer only. The default rules on lease of goods contain no rules on the matter, except for article 1717 Old CC, which allows subleasing of goods, unless this is forbidden by the contracting parties. In other words, the default rules allow for contractual provisions that restrict the lease to solely the person of the lessee.

3.4.5.4 Limits to moving the product

The customer may not move the product without prior [written] approval from [the service provider], except in cases of emergency [(i.e., specified emergency situations (e.g., flooding caused by the washing machine))]. [The service provider] answers the request of the customer to move the product within [specified reasonable period of time (e.g., certain amount of business days)][and supplies the customer with specific instructions on how to move the product]. If [the service provider] fails to respond timely, the customer may assume that the request has been tacitly approved.

This clause limits the liberty of the customer to move the product to ensure the safety of the product. Such a limitation is not one of the blacklisted or greylisted clauses in the mandatory B2C and B2B legislation. To ensure a fair balance between the rights and duties of both contracting parties, the clause does not outright ban moving the product (which might be seen as disproportionate), but it makes it conditional on prior written authorization of the service provider. After all, the default rules on lease of movable goods do not stand in the way of the lessee moving the leased product. Thus, the starting point is a liberty to move the product.

[The service provider] can move the product at the request of the customer [free of charge/free of charge, unless a furniture hoist or similar moving equipment is required, in which case the customer is to pay the rental fee of this equipment/against payment of a reasonable amount].

This clause stipulates that the customer can employ the help of the service provider to move the product that is intended to be used in a fixed location. The service provider can move the product free of charge or free of charge insofar as no additional moving equipment is required. However, it is not unreasonable to charge a moving fee. It should be noted however, that an exorbitant moving fee might be viewed as unreasonable. An extremely high fee can have the same effect as a total prohibition on moving the product, as it may hinder the efficacy of the possibility to request that the product be moved.

3.4.6 Maintenance and repair

[The service provider] provides routine maintenance on the product at regular intervals. The routine maintenance is conducted [specified adverb of frequency (e.g., monthly, quarterly, annually)/every specified day of the month (e.g., every first Friday)/every determinable event (e.g., every start/end of the heating season)/in accordance with a specified maintenance schedule containing exact dates (e.g., date 1: 14 of September, date 2: 17 March...)]. [The service provider] and the customer negotiate in good faith to reach an agreement on an exact date and time for the maintenance of the product].

One of the essential obligations in a PaaS contract is to maintain and repair the product. This clause contains this obligation. It explains the routine maintenance schedule. A pre-approved routine maintenance schedule is sure to meet the obligation of the service provider to ensure the peaceful possession of the product. The service provider may not disturb this peaceful possession by too frequent visits to the product. With a pre-approved schedule, the contracting parties determine in advance what is reasonable.

[The service provider] provides routine maintenance on the product at regular intervals. These intervals are determined on the basis of the digital service of predictive maintenance, which uses data analysis to predict when maintenance or repairs may be required. Whenever this system indicates the need for maintenance, [the service provider] and the customer negotiate in good faith to reach an agreement on an exact date and time for the maintenance of the product.

Alternatively, the contracting parties can agree to a more dynamic maintenance schedule. If the digital services provided by the service provider allow for predictive maintenance, the parties can stipulate that the product itself indicates when it needs maintenance. The advantage of this

system is that the moments of maintenance are based on the actual use of the product and are, thus, in theory never unnecessary.

[The service provider] provides routine maintenance on the product at regular intervals. [The service provider] has the right to access the product after prior [written] notification of the customer at least [specified reasonable time (e.g., five business days)] in advance.

Finally, the contracting parties can also agree that the service provider has the sole discretion to decide when to carry out maintenance.¹⁴⁹ However, in the B2C and B2B context the parties need to be mindful of the general criteria on unfair clauses (articles I.8, 22° and VI.91/3, §1 CEL). Depending on the circumstances of the contract, this clause could be seen as imbalanced. As a minimum, the clause is to contain the obligation for the service provider to notify the customer in advance of the intention to maintain the product.

[The service provider] bears the costs of all maintenance necessary because of the normal wear and tear during the contract. The customer is liable for all maintenance costs exceeding normal wear and tear.

[Are regarded as issues or defects caused by normal wear and tear:

- Limescale build up on the heating element of the washing machine;
- Tire tread wear
- ...]

This clause expressly indicates that the service provider bears the costs of all maintenance necessary because of the normal wear and tear during the contract. The allocation of these costs to the service provider can be seen as an essential part of the PaaS contract (cfr. article 1755 Old CC in lease contracts). Conversely, all maintenance costs caused by abuse of the product (meaning in breach of the duty to take care of the product) are the responsibility of the customer.

The contracting parties can agree which issues or defects are to be regarded as caused by normal wear and tear. An exemplative list can help to avoid interpretation issues.¹⁵⁰

[The service provider] repairs any issues or defects of the product that are a result of inherent hardware issues or that are caused by normal wear and tear during the contract. [The service provider] bears the costs of this repair. The customer is liable for all repair costs exceeding normal wear and tear.

[Are, for example, regarded as issues or defects caused by normal wear and tear:

- Limescale build up on the heating element of the washing machine;
- Tire tread wear of the bicycle tires;
- ...]

¹⁴⁹ This clause may not be read as granting the service provider the discretion to never maintain the product. Such a clause could be seen as a disguised exemption clause. One important limit to exemption clauses is that they are not allowed to exempt the debtor of liability for non-performance of one of the essential obligations of the contract as such an exemption would void the contract of its purpose. The obligation to maintain and repair could be seen as one of the essential obligations of a PaaS contract.

¹⁵⁰ In this regard, see also section 3.4.7 on p. 69 on 'swapping'.

This clause explains the obligation to repair the product. It too contains an allocation of the normal repair costs to the service provider (cfr. article 1755 Old CC in lease contracts).

This general clause on the obligation to repair is to be read in conjunction with the earlier clauses on the duty to take care (section 3.4.5 on p. 50). In general, the duty to take care of the product elucidates when the customer 'abuses' the product. Issues and defects caused by abuse, are not to be borne by the service provider. More specifically, this section also contains clauses that obligate the customer to report any issues or defects of the products to the service provider.

The contracting parties can agree which issues or defects are to be regarded as caused by normal wear and tear. An exemplative list can help to avoid interpretation issues.

By way of derogating from the previous clauses, the customer is granted [specified number] exceptional repair[s] beyond normal wear and tear per [specified time period] whose costs are borne by [the service provider].

[This right is limited to the following issues or defects beyond normal wear and tear:

- **Cracked phone screen;**
- **Broken bicycle lights;**
- **...]**

The contracting parties can derogate from the provision in the previous clauses that the customer is liable for all repair costs beyond normal wear and tear by agreeing that the customer is entitled to a limited number of exceptional repairs whose costs are borne by the service provider. This can be interesting for issues and defects that are not normal wear and tear, but still are very common. The best example thereof is a cracked phone screen.

The contracting parties can limit this right to exceptional repair to certain specified issued or defects.

If the customer willfully causes the issues or defects of the product, the customer bears all maintenance and repair costs to remediate those issues or defects.¹⁵¹

This clause makes clear that if the customer willfully causes the issues or defects of the product are willfully, the customer loses the rights to maintenance and repair free of charge set out in the previous clauses. The previous clauses already implicitly make this clear (e.g., a willfully caused issue is not caused by normal wear and tear). Still, it does not hurt to make this loss of rights explicit. Moreover, if the contracting parties grant the customer a right to exceptional repair beyond normal wear and tear, this explicit clause is necessary to ensure that the customer cannot profit from the deliberately harming behavior.

¹⁵¹ This clause can be coupled with a prohibition on DIY repair. The section on the duty to take care of the product of the customer (section 3.4.5 on p. 59) contains such a clause (The customer will not attempt to repair or modify the product, nor have a third party attempt to repair or modify the product. [Under no circumstances may the customer open the casing of the product.]).

[The service provider] uses [all reasonable efforts/best efforts] to complete the repair within [specified reasonable period of time]. [The service provider] informs the customer [in writing] of the assumed time required for repair.

One of the essential obligations for the service provider in a PaaS contract is to ensure the availability of the product. Thus, the service provider is obligated to promptly repair the product. It is advisable that the contracting parties specify what a reasonable time limit for repair is. This limit depends on the characteristics of the product. If it is a particularly complex product, the reasonable time limit is longer than is the case with products that are more simple in comparison.

Stipulating an unduly long period to repair for the service provider might be viewed as unreasonable in the light of the general criteria for unfair clauses (articles I.8, 22° and VI.91/3, §1 CEL).

- **[The service provider] reimburses the customer the *pro rata* amount of the rent for the time that the product is unavailable to use.**

- **If the product needs to be temporary removed for repairing any issues or defects of the product caused by normal wear and tear during the contract, [the service provider] [provides the customer with a replacement product free of charge/ reimburses the customer the *pro rata* amount of the rent for the time that the product is unavailable to use].**

The contracting parties can include a clause in the contract that stipulates that the customer is entitled to a replacement product while the product is being repaired or to a *pro rata* reimbursement of the rent. This clause ensures a fair balance between the rights and obligations of the parties. Clauses that limit the liability of the service provider in the event of unavailability of the product are counterbalanced by this clause that makes clear that the customer is not left empty-handed whenever the service provider is unavailable to perform the obligation to ensure the availability of the product.

If the repair requires replacement of any component, [the service provider] gives priority to reconditioned/refurbished or remanufactured replacement parts of equivalent quality to virgin parts, before using virgin replacement parts.

The contracting parties can add this clause to promote circularity. It obligates the service provider to use 'circular' parts whenever repair is required. If a component of the product needs to be replaced, the service provider seeks to use replacement parts that are reconditioned/refurbished or remanufactured.

This obligation can be reinforced by a circular guarantee (more on this to follow).

The customer agrees to provide [the service provider] with access to the product for maintenance and repair purposes.

The customer is to ensure that the service provider can perform the obligations to maintain and repair they agreed upon together. This clause expressly indicates that the customer

understands that this agreement means that the service provider needs to be able to access the product.

3.4.7 Swapping

An element in PaaS contracts can be the right of the customer to ‘swap(ping)’ of the product (e.g., Swapfiets, Swapphone). This means that the customer may exchange the original product for a new one in case of issues, such as a flat tire.

In part, the model clauses on maintenance and repair that obligate the service provider to provide the customer with a replacement product for the duration of the maintenance and repair contain such a right to swapping. From a circular standpoint, it is attractive that the right to replacement is temporary. A temporary right implies that its finality is that the customer regains the original product, which incentivizes actual repair of the original product. Thus, this research report contains no clauses that contain an absolute right to swapping (i.e., clauses that grant a right to non-temporary replacements).

There might be cases in which the product has become truly non-repairable. These situations are caught by the general obligations of the service provider to make a product available to the customer for the duration of the contract. Because of these obligations, the service provider is to provide the customer with a new product for the remainder of the duration of the contract.

Finally, there might be circumstances in which the device remains functional, but the user experience is hindered. For example, the battery capacity of an electric bicycle naturally decreases over time, which affects the battery life. Even though the bicycle can still be used for its intended purpose, the customer needs to be more attentive and is forced to recharge the battery more often. It can be unclear whether this is an ‘issue or defect’ triggering the obligation to repair under the contractual terms. The contracting parties can elucidate such grey areas by agreeing to clauses that make clear that in these circumstances the customer is granted the right to replacement of (part of) the product (e.g., when the battery capacity drops below 60%). These clauses need not be stand-alone ‘swapping clauses’. The clauses on the obligation to repair can include these circumstances when explaining what is to be seen as normal wear and tear.

3.4.8 Digital services

3.4.8.1 In general

- **[The service provider] keeps all third-party software and hardware used in the provision of digital services up to date with the latest security patches and updates released by the third party.**

- **[The service provider] keeps all proprietary software and hardware used in the provision of digital services up to date.**

- **[The service provider] ensures the ongoing functionality of any integrated digital elements within the product for the duration of the contract. To this end, the service provider shall perform regular updates to the digital elements as needed to maintain their functionality.**

- **[The service provider] uses all reasonable efforts to minimize any disruption to the customer's use of the product resulting from updates.**

These clauses obligate the service provider to regularly update the software and hardware needed for the digital services of the contract and the digital elements integrated in the product. This obligation ensures ongoing conformity of the product.

The customer accepts all updates and takes all necessary steps to facilitate their installation to maintain the optimal performance of the product. The customer acknowledges that failure to accept updates may result in decreased functionality of the product and potential security risks.

This clause is the mirror image of the obligation of the service provider. It obligates the customer to accept the updates.

[The service provider] generates a custom user profile of the customer based on the data collected, which is available via [specified digital service (e.g., app, website)]. This user profile contains [specified data (e.g., usage analytics (such as an overview of the use of the product with an approximation of the costs of use and data on use of resources such as energy and water), predictive maintenance)].

This clause obligates the service provider to generate a customer user profile of the customer. The contracting parties can agree which data are to be contained in the user profile and which data are to be always presented to the customer (without the need to request access to these data).

The parties can use a custom user profile to make the PaaS contract bespoke. For example, if the PaaS contract contains an obligation to innovate, the parties can agree that the heat pump installed in the customer's business premise is to use 10% less electricity within five years (which the service provider could try to achieve, for example, by optimizing the times at which the heat pump activates using a digital user profile generated on the basis of the actual use by the customer after installation).

[The service provider] is allowed to remotely monitor the correct use of the product in accordance with the terms of this contract.

The contracting parties can agree that the service provider is allowed to remotely monitor the correct use of the product by the customer.

This right could entail, for example, that the service provider is allowed to monitor whether the customer overloads the washing machine (see earlier section 3.4.5 on p. 50 containing the clauses regarding the duty to take care of the product). Another example is that the service provider is allowed to monitor whether the customer exceeds the number of uses, volumes or users to which the customer is entitled in the case of a restricted (i.e., not an unlimited) right to use the product.

The customer provides and maintains a stable and secure internet connection to ensure the proper functioning of the product. The customer acknowledges that failure to maintain such an internet connection may result in interruptions in the availability of the product, errors, and other issues with the product.

This clause obligates the customer to provide and maintain a stable and secure internet connection. Such an internet connection can be important for the functioning of a product. The contracting parties can agree that failure to provide and maintain the internet connection constitutes superior force on the service provider's part (more on this concept of superior force¹⁵² (*force majeure*) to follow in the section on non-performance (section 3.10 on p. 88)).

[The service provider] uses the collected data to determine the [pay-per-use/pay-per-volume/pay-per-user] fee. If data are missing because of loss of internet connection, the customer assumes the risk of this loss. [The service provider] determines a reasonable fee based on the customer's user profile[, by averaging the number of uses/volumes/users of the past specified amount of time (e.g., average of the past three months)/by taking the highest number of uses/volumes/users during the past specified amount of time (e.g., highest monthly number during the past three months)]. [If the user profile does not yet contain sufficient data for said amount of time, [the service provider] may assume a [reasonable specified number of uses/volume/users].]

This is an indemnity clause. Regarding the rules on indemnity clauses, see section 2.2.4.4 (p. 22). By basing the indemnity on actual user experience, the service provider can avoid that a court would regard the indemnity as excessive as this indemnity can be assumed to approach the actual usage (and thus the actual loss).

3.4.8.2 Data protection

▪ **[The service provider] only processes personal data for the purposes for which they are provided by the customer and shall not disclose or transfer personal data to third parties without the express consent of the customer, unless required to do so by law. [The service provider] guarantees the customer's privacy to the maximum extent.**

▪ **The customer's personal data are retained only for as long as necessary to fulfill the purposes for which they are collected. After this period, the data are securely deleted [or anonymized], unless the retention of data is required by law.**

▪ **Before signing the contract, the consumer consents to the processing of personal data for the following purposes by placing a checkmark in the designated checkbox.**

[By way of example:

- performing the contractual obligations of [the service provider] (e.g., predictive maintenance) (→ this checkbox is necessary to be able to perform the contract);**
- measuring app activity;**
- producing app statistics;**
- improving services;**
- generating a custom user advertising profile;**

¹⁵² After article 1470 Québec Civil Code.

...]

▪ **Before signing the contract, the consumer consents to the transfer of personal data to the following persons by placing a checkmark in the designated checkbox.**

[By way of example:

- subsidiaries of [the service provider] responsible for performing the contractual obligations of [the service provider] (→ this checkbox is necessary to be able to perform the contract);**
- person who is responsible for the functionality of the digital service (e.g., app developer);**
- ...]**

▪ **The customer has the right to access, rectify, and erase personal data processed by [the service provider]. The customer makes this request [via the [website of the service provider]/via e-mail to [e-mail address of the service provider]]. [The service provider] respond to this request from the customer within [specified reasonable period of time].**

▪ **[The service provider] maintains appropriate technical and organizational measures to ensure a level of security appropriate to the risk involved in the processing of personal data, and to protect personal data against accidental or unlawful destruction, loss, alteration, unauthorized disclosure, or access.**

The purpose of these clauses is to help ensure compliance with the requirements of the General Data Protection Regulation (GDPR). Actual compliance with these requirements might require additional clauses.

There is a tension between the protection of private life central to the GDPR and the services that are offered by the service provider. The data collected by the service provider can give a detailed insight in certain aspects of the customer's private life. For example, in a PaaS contract for 'heating' in which the service provider is obligated to strive to limit the energy use by the heating device, the service provider who collects personal data to create a personal 'heating profile' will be able to determine when a person is home. The service provider would be able to discern patterns and optimize when the heating device should be active. Thus, the data give the service provider an insight in an intimate part of the customer's life. The tension is relieved by the most fundamental lawful basis for processing personal data, which is the data subject's explicit consent to the processing of personal data for a specific purpose (article 6.1, a) GDPR).¹⁵³ The customer in the PaaS contract for heating can make clear that the generation of the heating profile is desired. The service provider should provide the customer with sufficiently clear information regarding the purposes for which data are collected in the PaaS contract. The service provider is to acquire the customer's explicit consent, for example, by using checkboxes. These checkboxes may not be pre-ticked. The Court of Justice of the European Union has ruled that the active consent that is required under the GDPR cannot be inferred from a pre-ticked checkbox.¹⁵⁴

¹⁵³ Another lawful basis that is likely to be relevant in a PaaS contract is that processing is necessary for the performance of a contract to which the data subject is party (article 6.1, b) GDPR).

¹⁵⁴ CJEU 1 October 2019, C-673/17, EU:C:2019:801, §55 and 57; CJEU 11 November 2020, C-61/19, ECLI:EU:C:2020:901, §37.

3.4.9 Innovation

[The service provider] uses all [reasonable/best] efforts to develop and implement new technologies, processes, or methods that will enhance [specified characteristic (e.g., the performance, the sustainability, the economic efficiency)] of the product and associated services. The service provider monitors all technological and other market developments and evaluates whether they can be incorporated into the performance of the obligations under this contract.

This clause contains a general obligation to innovate. Most likely, the contracting parties will want to formulate this obligation as an obligation of means, as innovative breakthroughs are not a given.

Note that a very broad obligation ‘to innovate’ or ‘to make the product better’ is – in all likelihood – not sufficiently determinable to be enforceable. Thus, the clause contains examples of sufficiently specific characteristics (e.g., performance or sustainability). The clause also makes clear that at the very least the general obligation to innovate, entails an obligation to keeping the finger on the pulse. The service provider is to stay up-to-date and informed about the latest developments.

- **Within [specified period of time] the product achieves [an absolute improvement of a certain characteristic (e.g., minimum efficiency energy rating)/a relative improvement of certain characteristic (e.g., a percentage in energy savings)].**
- **[The service provider] uses all [reasonable/best] efforts to ensure that the product achieves [an absolute improvement of a certain characteristic (e.g., minimum efficiency energy rating)/a relative improvement of certain characteristic (e.g., a percentage in energy savings)] [within specified period of time].**
- **If [the service provider] fails to fulfil this obligation, the customer is entitled to [specified amount (e.g., a lump sum or a dynamic indemnity; for example, a dynamic indemnity can be useful if the PaaS contract contains an obligation to save energy, in which case the contracting parties can agree that the service provider is to reimburse the customer for the excess amount of energy used (e.g., € X per kWh))].**

Besides the general obligation to innovate, the contracting parties can take up more specific obligations. These specific obligations can be formulated both as an obligation of result and as an obligation of means.

For example, the parties can agree that the heat pump installed in the customer’s business premise is to use 10% less electricity within five years (which the service provider could try to achieve, for example, by optimizing the times at which the heat pump activates using a digital user profile generated on the basis of the actual use by the customer after installation).

The contracting parties can agree to an indemnity clause for failure to innovate. This is an indemnity clause on the side of the service provider, which can be weighed in the assessment of the reciprocal nature of indemnity clauses on the side of the customer.

The obligation to innovate under this contract grants [the service provider] the right to replace the initial product with a new and improved version. The service provider is to notify the customer of any proposed replacement. [The service provider] and the customer negotiate in good faith to reach an agreement on a date and time for the replacement of the product.

There is an interesting juxtaposition between an obligation to innovate and the limits to the possibility to unilaterally change the product central to the PaaS found in articles VI.83, 4° and VI.91/5, 1° CEL. The first article prohibits businesses from including clauses in consumer contracts that grant them the right to unilaterally change the essential characteristics of the product that is to be supplied, if those characteristics are essential to the consumer¹⁵⁵, or to the intended use by the customer¹⁵⁶, to the extent that such intended use has been notified to the business and accepted by it or to the extent that, in the absence of such notification, such use is reasonably foreseeable. As the notion of innovation implies improvement, this prohibition should not pose difficulties. Article VI.91/5, 1° similarly greylists clauses granting one of the parties the right to unilaterally modify the price, characteristics, or terms of the agreement without valid reason. Both the obligation to innovate and the process of innovation itself could be regarded as valid reasons to modify. It is possible for parties to expressly stipulate so, to aid in the proof contrary to the presumption of unfairness.¹⁵⁷

Any replacement of the initial product with a new or improved version is contingent upon the new version achieving [a demonstrable specified improvement (e.g., a higher energy efficiency rating)] when compared with the initial product[, as verified by an independent third-party certification body.]

To protect the customer against unilateral changes to the contract by the service provider without merit, the contracting parties can stipulate that the replacement of the product by a new version presented as 'innovative' is only possible if the new version achieves a demonstrable improvement (e.g., a higher energy efficiency rating based on a independent verification).

Any replacement of the initial product with a new or improved version is contingent upon the environmental impacts of the production of the new version and the discarding of the initial version are offset by the improvements of the new version within [specified period of time][, as verified by an independent third-party certification body.]. The customer has the right to refuse the proposed replacement if the anticipated benefits do not justify the environmental impacts associated with the replacement.

¹⁵⁵ The exchange of consents needed for the conclusion of a valid contract, requires that the contracting parties agree on all essential points of the contract. These essential points are those elements of the contract without which the contract cannot exist. For example, in a sales contract the purchasing price is an essential element.

¹⁵⁶ The intended use of a product can be a 'substantial' point of a contract. Substantial points of a contract are, objectively speaking, not essential to the conclusion of the contract. The contracting parties can give greater weight to non-essential points and elevate them to the same level, thus making them substantial. For example, in a sales contract for a bicycle, the color of the bicycle is objectively non-essential. However, the buyer can indicate that a specific color is of great importance, making the color subjectively essential, that is to say substantial.

¹⁵⁷ I. CLAEYS and T. TANGHE, "De b2b-wet van 4 april 2019: bescherming van ondernemingen tegen onrechtmatige bedingen, misbruik van economische afhankelijkheid en oneerlijke marktpraktijken (Deel 1)", *RW* 2019-20, p. (323) 337, no. 45.

While it is important to prioritize more sustainable products, it is also essential to consider the entire life cycle of products.¹⁵⁸ This includes not only the use phase of the product but also the manufacturing, transportation, and disposal phases. If a product is replaced too frequently, the energy and resources required for manufacturing and disposing of the old product may outweigh any benefits gained from improvements. This can lead to a net increase in negative environmental impacts, despite the improved efficiency of the new product.

This clause ensures that products are only replaced when it is certain that this replacement has a net positive gain by placing a condition on the replacement of the initial product. The condition is that the environmental impacts of the production of the new version and the discarding of the initial version are offset by the improvements of the new version. This helps to ensure that products are not replaced unnecessarily.

If the product is replaced following the obligation to innovate, [the service provider/customer] bears the costs associated with the installation and setup of the new product. These costs are fixed at [a reasonable amount].

The contracting parties can negotiate who is to bear the costs associated with the installation and setup of the new product. Either the service provider regards this as part of the service or the parties agree that the customer bears the costs.

The customer has the right to refuse the proposed replacement if the anticipated benefits do not justify the costs associated with the replacement. In this case, [the service provider] has fulfilled the obligation to innovate.

The contracting parties can agree that the customer has the right to refuse the proposed replacement because of the costs associated with the replacement (rather than for environmental reasons). In this case, the service provider has fulfilled the obligation to innovate, as the behavior of the consumer is the reason why an actual replacement is not possible.

3.4.10 Circular guarantee

- **The service provider takes back all products provided under this contract [at the end of their useful life and/or at the end of the contract][, except in the case of transfer of ownership to the customer under the terms of this contract,] and ensures their proper handling and processing in accordance with applicable circular economy principles.**
- **The service provider uses [all reasonable efforts/best efforts] to minimize waste and maximize the product's lifespan, thus maximizing resource efficiency.**

¹⁵⁸ The 'life cycle' of a product is the consecutive and interlinked stages of a product's life, consisting of raw material acquisition or generation from natural resources, pre-processing, manufacturing, storage, distribution, installation, use, maintenance, repair, upgrading, refurbishment as well as re-use, and end-of-life (definition based on the proposed article 2, 13) of the European Green Claims Initiative, see proposal for a directive on substantiation and communication of explicit environmental claims, 22 March 2023, COM(2023) 166 final.

- **If the product is returned to [the service provider] for whatever reason (e.g., early termination, replacement, etc.) [after [specified period of time]] [the service provider] [uses all reasonable efforts/uses best efforts/is required to] process it in a circular manner.**
- **[The service provider] seeks to reuse the product in its entirety, with minimal disassembly or processing. Thus, [the service provider] prioritizes reuse over other circular alternatives, such as reconditioning/refurbishing, remanufacturing or repurposing.¹⁵⁹**
- **If none of the circular alternatives to reuse are feasible, [the service provider] recycles the product in an environmentally responsible manner [in accordance with a specified recycling scheme/in accordance with specified instructions].**

An obligation for the service provider to take back the product does not guarantee that the service provider will repurpose the product in a sustainable manner. From the perspective of the circular economy, it is, therefore, a good idea to include a clause in the PaaS contract which obligates the service provider to reuse, repurpose or to recycle the provided product in a high-quality and circular manner, or to enlist a third party for this purpose. This is a ‘circular guarantee’.

These clauses outline a general obligation to process the product taken back by the service provider in a circular manner.

- **[The service provider] reuses the individual product used by the customer.**
- **[The service provider] reuses [specification of broader goal, relating to all products (e.g., 50% of all products taken back)].**
- **[The service provider] uses [specification of goal (e.g., 2 metric tons of materials sourced from products that are taken back)] [specified adverb of frequency (e.g., annually)] in the fulfillment of the obligations to maintain and repair the products of all customers.**

These clauses contain specific circularity goals that are to be met by the service provider.

- **[The service provider] keeps records of the circular processing efforts and makes them available for auditing or reporting purposes.**
- **[The service provider] agrees to allow external audits of its compliance with the circular guarantee by [specified independent third party]. These audits take place [specified adverb of frequency (e.g., quarterly, annually)]. They are conducted using [specified methods and standards]. [The service provider] cooperates fully with the auditor and provides all necessary information and access to facilities.**
- **The auditor provides [the service provider] with a written report of its findings[, including any recommendations for improvement,] within [specified period of time (e.g., 30 days)] after completion of the audit.**

¹⁵⁹ The contracting parties can agree to a priority hierarchy relating to the alternatives to reuse. For example, they can agree that reconditioning is preferred over remanufacturing and that remanufacturing in turn takes precedence over repurposing.

- **[The service provider] publishes a report on the circular processing efforts [specified adverb of frequency (e.g., at least once per quarter)] [in specified manner (e.g., by publishing this report on the website of the service provider)].**
- **The report contains a plan for addressing the shortfall if the specified circularity goals are not met.**

To make the circular guarantee effective, it is necessary that the contracting parties work out a way to ensure that the customer can control whether the service provider has fulfilled the obligation to process products circularly (see section 2.2.5.4.8 on p. 33).

The non-fulfillment of the circular guarantee is deemed to constitute an injury to the customer and [the service provider] shall be held responsible for the resulting harm. If [the service provider] fails to meet the specified circularity goals], [the service provider] is to pay a [reasonable amount].

It would be wise for parties to include an indemnity clause in the contract to ensure the efficacy of the circular guarantee (see section 2.2.5.4.8 on p. 33).

3.5 Ownership

- **The product and all of its accessories[, such as instruction manuals, batteries, keys...,] remain the property of [[the service provider]/other identified legal entity (if the service provider is not the owner)] and no ownership or other legal title to the product transfers to [the customer].**
- **The [customer/[the service provider]] registers the retention of title in the pledge register at the General Administration of Patrimonial Documentation. The [customer/[the service provider]] bears the costs of this registration.**

With the first clause the contracting parties make clear that their PaaS contract transfers no legal title to the product, such as ownership. This clause can be seen as a ‘retention of title clause’ (for this reason the verb ‘remain’ is used). In the more traditional contracts, such as sale, such a clause allows the seller a product to retain ownership of it until it is fully paid for or other stipulated conditions are met. In PaaS contracts the ownership is not retained ‘until’, as there is no intention to transfer ownership. Instead, the function of this clause is mostly to signal the absence of that intention. If the customer is a consumer, it is advisable that the written contract clearly indicates agreement to the retention of title clause (compare with article 69 Pledge Act, applicable to sales contracts).

Some authors in legal doctrine argue that a retention of title clause is not useful in a PaaS contract as there is no sale and, thus, no intention to transfer the ownership. What is not

transferred need not be retained.¹⁶⁰ A contrary point of view is defended by V. SAGAERT, who argues that retention clauses are useful in PaaS contracts.¹⁶¹ A retention clause is not useful according to the first doctrinal standpoint, but also does no harm. In the second view, a retention clause is useful. Thus, to err on the side of safety, this research report follows the latter view. *Qui peut le plus, peut le moins*.

If the contracting parties have taken up a retention of title clause in the contract and the nature of the service entails that there is a risk of incorporation (regarding this legal concept, see the explanation of the next model clauses), the contracting parties can choose to register the retention of title in the national pledge register. This is necessary to retain the retention of title in case of incorporation (article 71 Pledge Act). The registration gives publicity to the retention. The costs of registration depend on the value of the goods.

- **If the product is incorporated in the immovable good of the customer or installed above, on, or below the land of the customer, no accession takes place. The product and all of its accessories[, such as instruction manuals, batteries, keys...], remain the property of [[the service provider]/other identified legal entity (if the service provider is not the owner)] at all times.**

- **The parties encumber the product with a pledge and the [customer/[the service provider]] registers this pledge in the pledge register at the General Administration of Patrimonial Documentation, to the extent that the retention of title is without effect.¹⁶² The [customer/[the service provider]] bears the costs of this registration.**

For PaaS contracts several property law concepts and definitions are relevant.¹⁶³

- *Immovable goods*. Immovable goods are immovable by their nature, by incorporation or by purpose.
- *Incorporated goods*. Immovable by incorporation are all buildings and plantations that, because they are incorporated in goods immovable by their nature, are an inherent component thereof (article 3.47(2) CC).
- *Accession*. The owner of a good is also the owner of the inherent components of that good. If a good becomes an inherent component of another good, naturally or because of human action, the accession takes effect immediately and by operation of law (article 3.55 CC). This is called accession (*natrekking/accession*). Specifically for immovable

¹⁶⁰ A. VAN VAERENBERGH and F. LEYMAN, “Product als dienst’-overeenkomsten, een stap in de richting van de circulaire economie”, *MER* 2019, p. (20) 30, nos. 40-41.

¹⁶¹ V. SAGAERT, “De zakenrechtelijke motoren van een circulaire vastgoedeconomie: een SWOT-analyse”, *TPR* 2021, vol. 4, p. (1543) 1552-1553 no. 14.

¹⁶² Cfr. V. SAGAERT, “De zakenrechtelijke motoren van een circulaire vastgoedeconomie: een SWOT-analyse”, *TPR* 2021, vol. 4, p. (1543) 1554 no. 16.

¹⁶³ Regarding these concepts of property law in PaaS contracts, in particular regarding accession, see B. KEIRSBILCK, E. TERRYIN and E. VAN GOOL, “Consumentenbescherming bij servitisation en product-dienst-systemen (PDS)”, *TPR* 2019, vol. 3-4, p. (817) 858, no. 43; A. VAN VAERENBERGH and F. LEYMAN, “Product als dienst’-overeenkomsten, een stap in de richting van de circulaire economie”, *MER* 2019, p. (20) 28-29, nos. 31-37; H. SLACHMUYLDERS, B. KEIRSBILCK, E. TERRYIN and E. VAN GOOL, “Duurzaam ondernemen en het recht: circulaire bedrijfsmodellen - juridische knelpunten” in IJBI/IJE (ed.), *De rol van de bedrijfsjurist in de duurzame ontwikkeling van de onderneming*, Brussels, Larcier, 2020, p. (7) 33-34, no. 37; R. TIMMERMANS, “Circulair bouwen, cascohuur, servitisation, Madaster en afstand van bestanddeelvorming”, *T.Huur* 2021, p. (106) 119-123; V. SAGAERT and K. DE SCHEPPER, in “Property Law and Circular Economy” in B. KEIRSBILCK *et al.* (eds.), *Servitization and circular economy: economic and legal challenges*, Antwerp, Intersentia, 2023, p. (181) 187 and following.

goods, buildings and plantations erected above, on or below the surface of the land are presumed to belong to the owner of the land (article 3.64 CC).

- *Inherent component.* An inherent component of a good is an essential element of that good that cannot be separated from it without affecting the material or functional substance of that good (article 3.8, §2 CC).

Thus, if it is necessary to incorporate the product in such a way that it becomes an inherent component of the immovable good of the customer, the customer is presumed to be the owner of the product. The same applies to buildings and plantations that are not necessarily inherent components, but which are erected above, on or below the surface of the land of the customer. To avoid accession, the contracting parties can agree that no accession takes place (this is regarded as a renunciation of the right to accession by the customer). Such a clause can be relevant, for example, in a result-oriented PSS supplying 'light' or 'air quality' for which the service provider has to install light fixtures or a ventilation system in the immovable good of the customer or above, on or below the surface of the land of the customer.

If the contracting parties have taken up a retention of title clause in the contract and the nature of the service entails that there is a risk of incorporation, the contracting parties can choose to take up a clause that encumbers the product with a pledge (*pand/gage*).¹⁶⁴ The pledge functions as a safety net if, for whatever reason, the retention of title is without effect. It is up to the parties to decide whether the costs of registration are worth this additional protection.¹⁶⁵

- **If [the service provider] loses the right to revindicate the product or is unable to exercise this right effectively [because of the imputable behavior of the customer], the customer is liable to pay compensation to the service provider, equal to the value of the product at the time of loss of the right to revindicate.**
- **The customer agrees to establish an escrow account containing financial securities with a trusted financial institution. This escrow shall serve as collateral to cover any potential liabilities arising from the loss of the right to revindicate or the inability to exercise this right effectively.**

If, for whatever reason (e.g., accession, loss of the product to a third party who is in good faith after three years from the day of the loss (see article 3.27 CC)), the service provider loses the right to revindicate the product or is unable to exercise this right effectively, the contracting parties can agree that the customer is to compensate the service provider. This right to compensation can be seen as a right based on unjustified enrichment (articles 5.135 and following CC). The contracting parties can limit this right to compensation to those situations in which the loss of the right to revindicate is caused by imputable behavior of the customer.

To enhance the enforcement of the right to compensation of the service provider, the parties can agree that the customer has to establish an escrow account containing financial securities to cover the loss or impairment of the right to revindicate. The contracting parties will have to conduct a cost-benefit analysis to weigh the advantages of this escrow provision against the

¹⁶⁴ The pledge is a property right in security (article 3.3(4) CC).

¹⁶⁵ V. SAGAERT, "De zakenrechtelijke motoren van een circulaire vastgoedeconomie: een SWOT-analyse", *TPR* 2021, vol. 4, p. (1543) 1554, no. 16.

costs of establishing and maintaining the escrow account. The benefits of this escrow clause may vary depending on the nature of the products or services involved. For high-value products or long-term projects, the benefits of establishing an escrow account are more pronounced. Conversely, for lower-value products or short-term projects, the costs of escrow may outweigh the potential benefits. Another aspect of this analysis is the assessment of the risk of default regarding the obligation to return the product. If this risk is minimal, an escrow account might be excessive.

[The service provider] has the right to apply a label on the product that informs its reader that the product is the property of [[the service provider]/other identified legal entity (if the service provider is not the owner)] and not of the customer. The customer is not allowed to remove, deface, or alter the label. The label shall not affect the functionality or performance of the product and [the service provider] shall ensure that the label is applied in a manner that does not obstruct or interfere with the peaceful possession of the product.

The contracting parties can agree to a right for the service provider to apply a label to the product that informs what the status of ownership is.¹⁶⁶ This is useful, because the service provider loses the physical possession of the product. For this reason, the service provider would do well to protect the product against acquisitive prescription (articles 3.26 and following CC) and against a (good faith) possessor invoking the probative function of physical possession (articles 3.23 and 3.24 CC).

When the contract ends [based on a specified ground of extinction (e.g., termination in mutual agreement)], [the service provider] may provide the customer with a reasonable purchase price for the product [equal to the residual value of the product/equal to the then fair market value of the product/equal to a percentage of the original cost of the product/equal to an amount that starts at a baseline and decreases with a certain percentage for each trimester that has passed since the start date of the contract] [with a minimum of specified amount/with a maximum of specified amount]. The customer may then choose to purchase the product for that price, in which case ownership transfers to the customer, or to return it to [the service provider] in accordance with the terms of this contract.

In most cases, the service provider will commit to taking back the products at the end of a contract. However, this may not always be feasible or affordable, as the products may not be easy to take back or have a low residual value. Examples of such products include ventilation systems installed in a customer's home. In such cases, the contracting parties can agree that the customer becomes the owner of the products after the contract upon payment of a purchase price.

The determination of the purchase price depends, on the one hand, on the duration of the contract and, on the other hand, on the cause of extinction of the contract. For example, a contract with fixed term and with no possibility of early termination that comes to an end because of the expiration of its extinctive term, has run its entire course, which is known by the

¹⁶⁶ H. SLACHMUYLDERS, B. KEIRSBILCK, E. TERRYIN and E. VAN GOOL, "Duurzaam ondernemen en het recht: circulaire bedrijfsmodellen - juridische knelpunten" in IJBJ/IJE (ed.), *De rol van de bedrijfsjurist in de duurzame ontwikkeling van de onderneming*, Brussels, Larcier, 2020, p. (7) 34, no. 37 with reference to B. VERHEYE, "Toekomst van de circulaire vastgoedeconomie", *TPR* 2019, p. (107) 183, no. 51.

contracting parties. Concretely, if the parties agree to such a contract with fixed term for 36 months, they know that the value of the product will decrease during 36 months and that payments will be made by the customer during that time. In such a situation, parties can opt for a more predictable 'fixed' purchase price (e.g., a percentage of the purchase price paid by the service provider). However, if the contract is entered into for an indeterminate term, the moment of extinction of the contract is far less predictable. For example, the customer could decide to terminate the contract after 10 months or after 36 months. In this situation, parties might want to opt for a more 'dynamic' purchase price (e.g., the residual value of the product).

3.6 Duration, termination & withdrawal¹⁶⁷

3.6.1 Indeterminate term

The contract commences [on effective start date/at the time the customer takes physical possession of the product] and remains in force indefinitely until it is terminated under the terms of this contract.

A contract is entered into for an indeterminate term if it does not contain an extinctive term (article 5.75(1) CC).

Either party can terminate the contract by [written] notification¹⁶⁸ to the other party. The contract ends after [specified reasonable period of time¹⁶⁹] from this notification.

Each party may terminate a contract entered into for indeterminate term at any time, with due regard to requirements imposed by statute or the contract or, in the absence thereof, by notifying the other party of the termination while mentioning a reasonable period of termination (article 5.75(2) CC).

In a consumer contract (B2C), it is prohibited to allow the service provider to terminate the contract without a reasonable period of termination, except in the case of superior force¹⁷⁰ (*force majeure*) (article VI.83, 11° CEL; blacklist).¹⁷¹ On the consumer side, the consumer contract also mandatorily specifies a reasonable period of termination (18° of the same article).

In B2B contracts, article VI.91/5, 5° CEL (greylist) similarly mandates that the contract specifies a reasonable period of termination, with two differences. First, this article seems to apply to contracts with fixed term as well.¹⁷² Second, a clause that does not explicitly mention a

¹⁶⁷ For the duration and termination of a contract, the rules on unilateral changes to the contractual relationship by one of the contracting parties are of importance. These rules are dealt with in more detail in the section on the obligation of the service provider to innovate (section 3.4.9 on p. 73).

¹⁶⁸ Notification is the communication of a decision or a fact made by a person to one or more specified other persons (article 1.5 CC).

¹⁶⁹ Article 1.7 CC contains rules on how time limits are calculated.

¹⁷⁰ After article 1470 Québec Civil Code.

¹⁷¹ There exists superior force in the case of an impossibility for the debtor to perform the obligation that is not imputable to the debtor. In this regard, the unforeseeable and unavoidable character of the obstacle to the performance is taken into account (article 5.226, §1 CC).

¹⁷² Amendments to the act of 4 April 2019, *Parliamentary Documents* Chamber of Representatives 2018-2019, no. 1451/3, p. 43 (amendment no. 20). See for an overview of the criticisms in legal doctrine on this possible extension to contracts with fixed

reasonable period of termination is presumed to be unfair (thus, not automatically unfair), subject to proof to the contrary.

The terminating party is to pay an early termination fee of [reasonable amount (e.g., x months of recurrent payments in a subscription-based model)] to the other party.

An early termination fee is possible in a contract with indeterminate term.¹⁷³ In PaaS contracts an early termination fee allows for the recovery of investment costs. However, because the freedom to terminate is inherent to such a contract, an unreasonably high fee can run counter to that freedom. In this case, a court might find the refusal of termination without payment of the fee to be an abuse of rights.¹⁷⁴ The court may limit the execution of the right to a 'reasonable' execution. In some circumstances, the reasonable execution is no execution at all (which would, concretely, mean that the terminating party is not required to pay an early termination fee).¹⁷⁵

As a sidenote, article VI.83, 28° CEL blacklists clauses that stipulate that the business has the right to retain any advance payments done by the consumer if the business terminates the contract. Thus, the business cannot at the same time be the terminating party and claim an early termination fee (in the form of the retained advance payments).

Early termination is only possible after [specified reasonable period of time] from the start date of the contract.

In the same vein, a mandatory minimum period is possible in a contract with indeterminate term, insofar as it does not unduly restrict the freedom to terminate the contract.¹⁷⁶ Thus, an excessive minimum period might be seen as an abuse of rights.

A clause imposing a mandatory minimum period is to be interpreted as having no influence on the right of the consumer to withdraw from the consumer contract that has been concluded from a distance or off-premises granted by article 9 Consumer Rights Directive (2011/83) (transposed in articles VI.47 and following and VI.67 and following CEL).¹⁷⁷

The terminating party may cancel the termination at any time before the effective end date of the contract by [written] notification of this decision.

term, D. ROOSES, "De overeenkomst van bepaalde duur en artikel VI.91/5, 5° WER: gerechtvaardigde bezorgdheid van de wetgever of flagrante aantasting van de contractvrijheid van ondernemingen?", *RW* 2020-21, p. 122-130.

¹⁷³ Cass. 16 October 1969, *Arr. Cass.* 1970, p. 167.

¹⁷⁴ **General law:** F. VERMANDER, "Eenzijdige opzeggingsbedingen" in E. TERRY, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Gemeenrechtelijke clausules (contractuele clausules)*, Antwerp, Intersentia, 2013, p. (1529) 1545. **Lease of services:** F. BRULOOT, "Opzegclausules" in E. TERRY, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Aanneming. Bouwwerken (contractuele clausules)*, Antwerp, Intersentia, 2016, p. (237) 250. **Lease of goods:** T. SOETE, "Opzeggingsclausules" in E. TERRY, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Huur (contractuele clausules)*, Antwerp, Intersentia, 2017, p. (579) 605.

¹⁷⁵ See explanatory memorandum to Book 1 'General provisions', *Parliamentary Documents* Chamber of Representatives 2021-2022, no. 1805/1, p. 24.

¹⁷⁶ F. VERMANDER, "Eenzijdige opzeggingsbedingen" in E. TERRY, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Gemeenrechtelijke clausules (contractuele clausules)*, Antwerp, Intersentia, 2013, p. (1529) 1545.

¹⁷⁷ F. BRULOOT, "Opzegclausules" in E. TERRY, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Aanneming. Bouwwerken (contractuele clausules)*, Antwerp, Intersentia, 2016, p. (237) 248.

The contracting parties can agree that the decision to terminate the contract can be cancelled. In this case nothing happens to the contract and it continues as originally envisioned by the parties.

3.6.2 Fixed term

3.6.2.1 Fixed term without early termination

The contract commences [on effective start date/at the time the customer takes physical possession of the product] and remains in force until [end date]. Early termination is not possible.

A contract is entered into for a fixed term if it contains an extinctive term (article 5.76(1) CC). A contract with fixed term cannot be terminated, except in the cases determined by statute, contract or usages (article 5.76(1) CC).

Normally, if the PaaS contract is qualified as a contract of enterprise with fixed term, the client is free to terminate the contract. In this case, the client is liable for actual costs and expenses and lost profits (article 1794 Old CC). However, this rule is suppletive law, meaning that parties are free to derogate from it.

If the PaaS contract is qualified as a lease with fixed term, the few articles on termination in the Old Civil Code can be derogated from as well.¹⁷⁸

The mandatory B2C and B2B legislation contains no specific provisions on contracts with fixed term without clause allowing termination.

A clause excluding early termination is to be interpreted as having no influence on the right of the consumer to withdraw from the consumer contract that has been concluded from a distance or off-premises granted by article 9 Consumer Rights Directive (transposed in articles VI.47 and following and VI.67 and following CEL).¹⁷⁹

3.6.2.2 Fixed term with early termination

The contract commences [on effective start date/at the time the customer takes physical possession of the product] and remains in force until [end date] unless it is terminated earlier under the terms of this contract.

A contract is entered into for a fixed term if it contains an extinctive term (article 5.76(1) CC). A contract with fixed term cannot be terminated, except in the cases determined by statute, contract, or usages (article 5.76(1) CC). The parties can stipulate in the contract that one of the parties is free to terminate it (article 5.70(2) CC).

¹⁷⁸ T. SOETE, "Opzeggingsclausules" in E. TERRYN, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Huur (contractuele clausules)*, Antwerp, Intersentia, 2017, p. (579) 588.

¹⁷⁹ F. BRULOOT, "Opzegclausules" in E. TERRYN, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Aanneming. Bouwwerken (contractuele clausules)*, Antwerp, Intersentia, 2016, p. (237) 248.

Either party can terminate the contract by [written] notification¹⁸⁰ to the other party. The contract ends after [specified reasonable period of time] from this notification.

A clause that allows for early termination in fixed term contracts is possible.¹⁸¹ The mandatory B2C-legislation and B2B-legislation contain no specific provisions on this type of clause (except for the mandatory payment of an early termination fee by the service provider; more on this to follow). However, it is advisable that the clause grants the right to terminate to each party (and not merely to the service provider or to the customer). BRULOOT notes that the absence of equivalence (e.g., when the service provider has the right to terminate, but the customer is denied this right) threatens the validity of the clause under the general criteria for unfair clauses (articles I.8, 22° and VI.91/3, §1 CEL).¹⁸² Several of the unfair clauses on the blacklist prohibit more extensive options to end the contractual relationship for the service provider than for the consumer.

It is advisable that the parties make clear what the reasonable period of time for termination is.

The terminating party is to pay an early termination fee to the other party. This termination fee consists of [the actual costs and expenses and lost profits/a reasonable lump sum (e.g., x months of recurrent payments in a subscription-based model)].

In general, an early termination fee is possible in a contract with fixed term. In a consumer contract specifically, the service provider mandatorily pays an early termination fee if the contract allows for early termination (article VI.83, 10° CEL; blacklist).

In PaaS contracts an early termination fee allows for the recovery of investment costs. The early termination fee can be modeled to article 1794 Old CC, which applies to contracts of enterprise. This article holds the client liable for actual costs and expenses and lost profits. Thus, the early termination fee contains two elements. First, compensation for the part of the contract that is already performed and for other costs incurred, insofar as these performed prestations and costs have not already been paid for by the client and with deduction of any loss that the contractor is to avoid because of the duty to mitigate damage¹⁸³ (for example, by using materials for other contracts).¹⁸⁴ Second, compensation for the remaining part, this is to say lost profits because of non-performance of the remainder of the contract, with deduction of any loss that the contractor would have incurred as a result of an own wrong (e.g., on the basis of the duty to mitigate damage) or misjudgment (e.g., reckless costs in buying materials).

¹⁸⁰ Notification is the communication of a decision or a fact made by a person to one or more specified other persons (article 1.5 CC).

¹⁸¹ **General law:** F. VERMANDER, "Eenzijdige opzeggingsbedingen" in E. TERRY, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Gemeenrechtelijke clausules (contractuele clausules)*, Antwerp, Intersentia, 2013, p. (1529) 1546. **Lease of services:** F. BRULOOT, "Opzegclausules" in E. TERRY, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Aanneming. Bouwwerken (contractuele clausules)*, Antwerp, Intersentia, 2016, p. (237) 250. **Lease of goods:** T. SOETE, "Opzeggingsclausules" in E. TERRY, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Huur (contractuele clausules)*, Antwerp, Intersentia, 2017, p. (579) 588.

¹⁸² F. BRULOOT, "Opzegclausules" in E. TERRY, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Aanneming. Bouwwerken (contractuele clausules)*, Antwerp, Intersentia, 2016, p. (237) 250.

¹⁸³ Article 5.238 CC contains a concrete manifestation of this duty to mitigate damage.

¹⁸⁴ F. BRULOOT, "Opzegclausules" in E. TERRY, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Aanneming. Bouwwerken (contractuele clausules)*, Antwerp, Intersentia, 2016, p. (237) 253.

Alternatively, the parties can agree to a lump sum, which has the benefit of being more ‘fixed’, and thus more predictable at the conclusion of the contract. This lump sum has to be a reasonable amount in the light of the prohibition on abuse of rights. It can consist, for example, of a certain number of recurrent payments in a subscription-based PaaS contract.

As a sidenote, article VI.83, 28° CEL blacklists clauses that stipulate that the business has the right to retain any advance payments made by the consumer if the business terminates the contract. Thus, the business cannot at the same time be the terminating party and claim an early termination fee (in the form of the retained advance payments).

Early termination is only possible after [specified reasonable period of time] from the start date of the contract.

A mandatory minimum period is possible in a contract with determinate term. After all, the starting point is that contracts with fixed term are performed in their entirety. Once the contracting parties have made use of their freedom to contract, they are bound by the contract (article 5.69 CC). Thus, imposing a minimum period is less ‘severe’ than what the general law of obligations holds the parties to.

A clause excluding early termination is to be interpreted as having no influence on the right of the consumer to withdraw from the consumer contract that has been concluded from a distance or off-premises granted by article 9 Consumer Rights Directive (transposed in articles VI.47 and following and VI.67 and following CEL).¹⁸⁵

The terminating party may cancel the termination at any time before the effective end date of the contract by [written] notification of this decision.

The contracting parties can agree that the terminating party can cancel its decision to terminate the contract. In this case nothing happens to the contract and it remains in force as originally envisioned by the parties.

3.6.3 Extension of contract

The contract is automatically extended by an additional term of [specified reasonable duration (e.g., one month)] at the expiration of the initial term and every subsequent extended term thereafter if either party does not give a [written] notification of the desire not to extend. This notification is to be given at least [a reasonable amount of time (e.g., five business days)] prior to the expiration of the initial term or any subsequent extended term.

The contracting parties may extend the contract with fixed term by mutual agreement before the expiration of the extinctive term. This extension results in the postponement of the extinctive term (article 5.77 CC). An extension continues the same contractual relationship, meaning all rules that were applicable to the contract continue to apply.

¹⁸⁵ F. BRULOOT, “Opzegclausules” in E. TERRYIN, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Aanneming. Bouwwerken (contractuele clausules)*, Antwerp, Intersentia, 2016, p. (237) 248.

The contracting parties may agree to automatic extension clauses. Examples of existing PaaS contracts show that the automatic extension is often monthly. The mandatory legislation on unfair terms restricts automatic extension clauses.

In the B2C context, article VI.83, 20° CEL blacklists clauses that automatically extend a contract of fixed term where the consumer does not indicate otherwise, when the deadline fixed for the consumer to express this desire not to extend the contract is unreasonably early. The more specific article VI.83, 19° CEL, which applies to contracts in which there are subsequent deliveries of products (e.g., the periodical deliveries of laundry detergent mentioned earlier), prohibits the extension of the contract with an unreasonably long term.

In the B2B context, article VI.91/5, 2° CEL greylists the tacit extension of the contract without providing for a reasonable period for termination.

3.6.4 Return of product

If the contract is terminated, the customer returns the product and all of its accessories[, such as instruction manuals, batteries, keys...,] within [specified reasonable period of time] from the end date [to a specified location (e.g., a brick-and-mortar store of the service provider)].

The contracting parties can agree that the customer is to return the product to the service provider at a specified location. Such an agreement can be sensible in the case of products that are easy to move. The best example thereof are micro-mobility products, such as scooters and bicycles. Smaller items, such as smaller household appliances like juicers, are also relatively easy to move by the customer.

- **If the contract is terminated, the customer returns the product and all of its accessories[, such as instruction manuals, batteries, keys...,] within [specified reasonable period of time] from the end date by [carrier service (i.e., no specification of carrier service)/specified carrier service/one of the following carrier services (i.e., a limit to the freedom to choose a carrier service)] to [specified address]. [To this end the customer uses the pre-paid shipping label provided by [the service provider] [which can be requested via the website of [the service provider]].**
- **The [customer/[the service provider]] bears [all reasonable costs associated with returning the product/the costs associated with returning the product up to [specified amount] beyond which [the customer/[the service provider] bears the remaining costs].**
- **The costs associated with returning the product are split equally between [the service provider] and the customer.**

The contracting parties can agree that the customer is to return the product to the service provider by carrier service. They may grant the customer the freedom to choose a carrier service, which implies that the customer is to bear the shipping costs. Alternatively, the service

provider can also obligate the use of a certain carrier service by offering a pre-paid shipping label to the customer, which implies that the service provider bears the shipping costs.¹⁸⁶

Rather than relying on an implied allocation of the shipping costs, the contracting parties can also agree to explicit terms. The contracting parties can, for example, agree that one of them is to bear all shipping costs or to split these costs.

If the contract is terminated, [the service provider] collects the product and all of its accessories[, such as instruction manuals, batteries, keys...], within [specified reasonable period of time] from the end date at [specified location (e.g., the home or business premise of the customer)]. [The service provider] and the customer negotiate in good faith to reach an agreement on a date and time for the removal of the product. [The service provider] contacts the customer within [specified reasonable period of time (e.g., certain amount of business days¹⁸⁷)] to initiate this negotiation. This removal of the product is [free of charge/free of charge, unless a furniture hoist or similar moving equipment is required, in which case the customer is to pay the rental fee of this equipment/against payment of a reasonable amount].

Alternatively, the contracting parties can agree that the service provider collects the product at a specified location. Such an agreement can be sensible in the case of products that are not easy to move. The best example thereof are large household appliances, such as washing machines or dishwashers. Such an agreement can serve the self-interest of the service provider, as the service provider controls the process of returning the product and can ensure its safety.

The service provider can remove the product free of charge or free of charge insofar as no additional moving equipment is required. However, it is not unreasonable to charge a removal fee. This is to be communicated explicitly in the contract in advance. After all, if the customer were to return the product, the customer would have to incur costs as well (e.g., fuel, rental fees for a moving van, time off of work, etc.). It should be noted however, that an exorbitant removal fee might be viewed as unreasonable. Especially in contracts with indeterminate term such a removal fee – whether in combination with an early removal fee – could unduly deter the termination of the contract.

▪ **If the customer fails to return the product after termination [by the specified date/within a specified reasonable period of time after the end date], the customer is to pay a late return fee of [reasonable amount (e.g., the *pro rata* loss suffered because of the inability to rent out the product to another person)] per day until the product is returned[, up to a maximum of certain amount (e.g., the price needed to pay for a replacement product as well as the administrative costs of ordering and processing this replacement product)].**

▪ **If [the service provider] fails to pick up the product after termination [by the specified date/within a specified reasonable period of time after the end date], [the service provider]**

¹⁸⁶ For the sake of completeness: the service provider can also obligate the use of a certain carrier service or limit the freedom to choose a carrier service to certain carrier services, without offering a shipping label. In this case, it is implied that the customer bears the shipping costs. Also, the service provider can agree to bear the shipping costs made by the customer without offering a shipping label. The contracting parties are free to determine who is to bear the shipping costs.

¹⁸⁷ Business days are all days other than legal holidays, Sundays, and Saturdays (article 1.7, §3 CC).

is to pay a late return fee of [reasonable amount] per day until the product is returned[, up to a maximum of certain amount].

The contracting parties can agree to an indemnity clause for late return. To ensure reasonableness, the contracting parties can link the amount of the indemnity to the actual loss (e.g., the *pro rata* amount equal to the rent that the product would have yielded had the service provider been able to rent it out to another customer) and/or limit it to a maximum amount (e.g., the price needed to pay for a replacement product as well as the administrative costs of ordering and processing this replacement product).

If the customer fails to return the product after termination [by the specified date/within a specified reasonable period of time after the end date], the customer is presumed to tacitly cancel the termination. The contract continues until it is terminated under the terms of this contract. [If an early termination fee was paid, [the service provider] reimburses the customer [minus a reasonable fee for administratively processing this reimbursement].]

Alternatively, the contracting parties can agree that failing to return the product is regarded as a tacit cancellation of the early termination. This entails that if the customer had to pay an early termination fee, it is to be reimbursed, possibly with deduction of a reasonable fee for administrative purposes.

If the contract is terminated, the customer is to return the product, including all accessories[, such as instruction manuals, batteries, keys...], in a reusable¹⁸⁸ condition. If the product is not reusable because of physical damage, wear and tear beyond normal use, missing parts or accessories, contamination with dust, or any other condition that renders the product unsafe or unusable for its ordinary purpose, the customer [is liable for all costs of cleaning, repairing or replacing the product /to pay a reasonable amount].

The contracting parties can agree to an indemnity clause for failure to return the product in a reusable condition at the end of the contractual relationship. Regarding the rules on indemnity clauses, see section 2.2.4.4 (p. 22).

3.6.5 Right of withdrawal

If the contract has been concluded from a distance or off-premises, the consumer has the right to withdraw with immediate effect from this contract without giving any reason within fourteen days of [the conclusion of the contract/the day on which the customer or a third party appointed by the customer, who is not the carrier, acquires physical possession of the product]. The consumer is to make an unequivocal statement setting out the decision to withdraw. To this end, the consumer may use the following model withdrawal form. It is not mandatory to use this form.

To: [name service provider, geographical address service provider and, where available, fax number and e-mail address of service provider]

¹⁸⁸ This is the condition most relevant to PaaS. In a sales contract this condition would be 'resalable'.

I/We (1) hereby give notice that I/We (1) withdraw from my/our (1) contract of sale of the following goods (1)/for the provision of the following service (1),

Ordered on (1)/received on (1):

Name of consumer(s):

Address of consumer(s):

Signature of consumer(s):

Date:

(1) Delete as appropriate.

[This withdrawal form can be filled out electronically on [the website of the service provider]. If the consumer makes use of this option, [the service provider] immediately sends a written confirmation of receipt.]

In a consumer contract that has been concluded from a distance or off-premises granted, article 9 Consumer Rights Directive (transposed in articles VI.47 and following and VI.67 and following CEL) grants the consumer a right of withdrawal. Article 6(1), h obligates the trader¹⁸⁹ to inform the consumer of this right of withdrawal. If the trader has not fulfilled this obligation, the deadline is extended to twelve months, additional to the initial fourteen days.

For the time limit of the right of withdrawal, it is important to know whether the PaaS contract qualifies as a 'service contract' or a 'sales contract' in the sense of the Consumer Rights Directive. The time limit starts on the day of conclusion of the contract in the case of a service contract and on the day on which the consumer acquires physical possession of the product in the case of a sales contract.

A sales contract means any contract under which the trader transfers or undertakes to transfer the ownership of a good to the consumer and the consumer pays or undertakes to pay the price thereof, including any contract having as its object both goods and services (article 2(5) Consumer Rights Directive). Product-oriented PSS fall under this definition.

A service contract is defined negatively as any contract *other than a sales contract* under which the trader supplies or undertakes to supply a service to the consumer and the consumer pays or undertakes to pay the price thereof (article 2(6) Consumer Rights Directive). Thus, the main difference is the transfer of ownership.¹⁹⁰ Use-oriented and result-oriented PSS fall under this definition. This is somewhat unfortunate, as the consumer will only be able to truly test the service (which is the reason why the right of withdrawal exists) once the product used to deliver

¹⁸⁹ 'Trader' means any natural person or any legal person, irrespective of whether privately or publicly owned, who is acting, including through any other person acting in his name or on his behalf, for purposes relating to his trade, business, craft or profession in relation to contracts covered by the Consumer Rights Directive (article 2(2)). In the Belgian Code of Economic Law, the obligations of the Consumer Rights Directive are imposed on the 'business'.

¹⁹⁰ E. TERYN, "Verkoop op afstand aan consumenten" in E. TERYN, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Koop (contractuele clausules)*, Antwerp, Intersentia, 2016, (47) 71.

the service is installed. However, nothing restricts the contracting parties to extend the statutory right of withdrawal. Concretely, a use-oriented or result-oriented PaaS contract can also stipulate that the time limit starts on the day on which the consumer acquires physical possession of the product.

It is of note that the Belgian national transposition of the Consumer Rights Directive regards contracts for the supply of digital content that is not supplied on a tangible medium (such as a DVD or CD) as service contracts.¹⁹¹

- **If the consumer withdraws from the contract, the consumer is responsible for returning the product to [the service provider] [by courier service/at specified location], within fourteen days of the withdrawal.**
- **The consumer bears the direct cost of returning the product to [the service provider]. These costs are [fixed at reasonable amount/estimated to be maximally [specified amount]].**
- **The consumer is to return the product in a reusable condition, including all accessories[, such as instruction manuals, batteries, keys...] and packaging materials, in a reusable condition. The opening of the packaging and testing of the product is only permitted to the extent necessary to establish the nature, characteristics, and functioning of the product. [Specifically, the product may only be tested in a specified manner (e.g., the washing machine may only be used with the included laundry detergent sample, the micro-mobility product may only be tested on a clean, paved road).]**
- **If the product is returned in a non-reusable condition because the consumer has used the product to a larger extent, [the service provider] may deduct [a reasonable amount (e.g., a percentage of the total price of the product, the costs of cleaning and repairing the product)] from any refund, to compensate for the decrease in value of the product.**

These model clauses explain in more detail how the consumer is to execute the right of withdrawal, more specifically how the consumer is to return the product. These clauses are most sensible in the case of products that are easy to move. The best example thereof are micro-mobility products, such as scooters and bicycles. Smaller items, such as juicers, are also relatively easy to move by the customer.

The contracting parties are allowed to stipulate that the consumer bears the direct costs for returning the good. No other costs may be charged. However, if the product is returned in a non-reusable condition because the consumer has used the product to a larger extent than necessary to establish the nature, characteristics, and functioning of the product, the service provider may deduct a reasonable amount of the refund. It is advisable that parties make clear what this reasonable amount is. In sales contracts this reasonable amount is often assessed in the light of the fitness for resale of the product, but in PaaS contract the reusability of the product is more important. Thus, the criteria for reasonableness that make the sense in these contracts are the costs to repair and clean the product to make it fit for the purpose of being reused by another customer. An explicit provision informing the customer that this reasonable

¹⁹¹ E. TERYN, “Verkoop op afstand aan consumenten” in E. TERRYN, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Koop (contractuele clausules)*, Antwerp, Intersentia, 2016, (47) 57 and 70.

amount may be deducted from the refund, can help in lessening the risk of moral hazard. It can have the effect of rendering the customer more cautious in testing the product.

Furthermore, the contracting parties can specify what the reasonable use for testing is. For example, they can stipulate that certain testing conditions are to be met (e.g., only testing the product with the accompanying samples, only testing the product indoors, etc.).

- **If the consumer withdraws from the contract, [the service provider] collects the product and all of its accessories[, such as instruction manuals, batteries, keys...], within fourteen days of the withdrawal [at a specified location (e.g., the home or business premise of the customer)]. [The service provider] and the customer negotiate in good faith to reach an agreement on a date and time for the removal of the product. [The service provider] contacts the customer within [specified reasonable period of time (e.g., certain amount of business days)] to initiate this negotiation. This removal of the product is [free of charge/free of charge unless a furniture hoist or similar moving equipment is required, in which case the customer is to pay the rental fee of this equipment/against payment of a reasonable amount].**

- **The consumer is to return the product in a reusable condition, including all accessories[, such as instruction manuals, batteries, keys...], and packaging materials, and in a reusable condition. The opening of the packaging and testing of the product is only permitted to the extent necessary to establish the nature, characteristics, and functioning of the product. [Specifically, the product may only be tested in a specified manner (e.g., the washing machine may only be used with the included laundry detergent sample, the micro-mobility product may only be tested on a clean, paved road).]**

- **If the product is returned in a non-reusable condition because the consumer has used the product to a larger extent, [the service provider] may deduct [a reasonable amount (e.g., a percentage of the total price of the product, the costs of cleaning and repairing the product)] from any refund, to compensate for the decrease in value of the product.**

Alternatively, the contracting parties can agree that the service provider collects the product at a specified location. Such an agreement can be sensible in the case of products that are not easy to move. The best example thereof are large household appliances, such as washing machines or dishwashers. Such an agreement can serve the self-interest of the service provider, as the service provider controls the process of returning the product and can ensure its safety.

The obligation for the consumer to return the product in a reusable condition and the consequences if this obligation is not fulfilled are relevant in this scenario as well.

If the consumer withdraws from the contract, [the service provider] refunds any payments made by the consumer for services that have not yet been provided. [The service provider] is entitled to retain a proportionate amount of the payments made by the consumer for services that have already been provided up to the date of withdrawal. The calculation of this proportionate amount is as follows [specified calculation based on the total price agreed in the contract]. [[The service provider] provides the consumer with a detailed breakdown of the calculation of the proportionate amount retained.]

Before signing the contract, the consumer is to indicate agreement with this right to proportional payment by placing a checkmark in the designated checkbox.

The customer hereby requests for the services under this contract to be performed immediately and acknowledges to be held to partial payment in case of partial performance.

Depending on the content of the PaaS contract, the service provider might immediately render certain services (e.g., an obligation to create a custom user profile). If the consumer withdraws from the contract, the service provider has the statutory right to retain a proportionate amount of the payments made by the consumer for services that have already been provided up to the date of withdrawal (articles VI.51, §3 and VI.71, §3 CEL).

For the sake of informing the consumer of this statutory right and of obtaining an explicit request for immediate performance of services from the consumer, the service provider can require the customer to place a checkmark in a checkbox next to a clause that contains the request for immediate performance of the contract and the acknowledgment that partial payment will be due. It is advisable that the checkbox is not pre-ticked. Regarding the General Data Protection Regulation¹⁹², the Court of Justice of the European Union has ruled that active consent cannot be inferred from a pre-ticked checkbox.¹⁹³ Even though this case law has no direct bearing on the Consumer Rights Directive, its legal reasoning is universally applicable.

For the sake of transparency, the service provider can take up the obligation to provide the consumer with a detailed breakdown of the calculation of the proportionate amount retained. The Consumer Rights Directive indicates that calculation of the proportionate amount should be based on the total price agreed in the contract unless the consumer demonstrates that that price is itself disproportionate, in which case the amount is calculated on the basis of the market value of the service provided. The market value is found by comparing the price of an equivalent service performed by other service providers at the time of the conclusion of the contract (recital 50 Consumer Rights Directive).

If the service provider fails to inform the consumer of the right of withdrawal, the consumer is exempt from any payment obligation in the case of withdrawal from a service contract concluded off-premises even when it has already been performed. Thus, the service provider bears the costs incurred because of the performance of the contract during the withdrawal period.¹⁹⁴

3.7 Third-party claims

The customer is solely liable for any claims arising from tortious acts or omissions committed by the customer or third party under the assumed supervision of the customer resulting from the use of the product. The customer defends and holds [the service provider] harmless from all expenses related thereto, including reasonable attorneys' fees.

¹⁹² Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC, *OJ L* 4 May 2016, vol. 119, p. 1-88.

¹⁹³ CJEU 1 October 2019, C-673/17, EU:C:2019:801, §55 and 57; CJEU 11 November 2020, C-61/19, ECLI:EU:C:2020:901, §37.

¹⁹⁴ CJEU 17 May 2023, C-97/22, ECLI:EU:C:2023:413.

This 'hold harmless clause' places full responsibility on the customer for any claims arising from tortious acts or omissions resulting from the use of the product, either by the consumer or by a third party who is assumed to act under the supervision of the customer. If a wronged party brings a claim against the service provider, the service provider may demand indemnification from the customer from all expenses related to the claim.

The customer indemnifies [the service provider] on first [written] demand against all fees, fines, penalties, or other monetary sanctions imposed on [the service provider] by third parties resulting from the use of the product in breach of the applicable legislation. [For the sake of expediency, [the service provider] may pay the amount owed by the customer on the customer's behalf and the customer indemnifies [the service provider] for such sums.]

Similarly, the contracting parties can agree that that the customer is to indemnify the service provider from all monetary sanctions imposed on the service provider by third parties resulting from the use of the product in breach of the applicable legislation. This clause is perhaps most relevant to micro-mobility products. The service provider can be fined, for example, if the user of a scooter leaves the scooter in an area that is not designated a drop-off zone by the local municipality or if the user of a speedelec bicycle runs a red light.

The contracting parties can agree that monetary sanctions imposed directly on the customer may be paid for by the service provider. Afterwards, the customer is to indemnify the service provider.

If the product is impounded by public authorities, the customer is liable for all costs associated with the collection process.

Adding onto the previous clause, this clause explains that if the product is impounded by public authorities (e.g., collection of the scooter that was not left in a designated drop-off zone), the customer is to pay all costs associated with the collection process.

The customer has no power of attorney to accept any liability on behalf of [the service provider].

This clause explains that the customer has no power of attorney to accept any liability on behalf of the service provider. Thus, an acknowledgement of liability by the customer remains without consequences for the service provider (save for the rules on apparent authority in article 1, §5 CC).

3.8 Promise for another

▪ **If the customer transfers the ownership of the whole immovable good in which the product of [the service provider] is incorporated or a part of this immovable good, the customer promises that the third party to which the title is transferred becomes part of this contract in the customer's stead, if ownership of the whole immovable good is transferred, or that this third party becomes part of this contract in addition to the customer, if ownership of part of the immovable good is transferred. In the second hypothesis, both the customer and the third**

party are [solidarily/indivisibly/solidarily and indivisibly] liable for performance of the contract.

- If the third party refuses to become part of this contract despite a transfer of the ownership, the customer is liable for compensation of [the service provider] for [specified reasonable amount (e.g., the value of the product at the time of the transfer of the title, an amount that starts at a baseline and decreases with a certain percentage for each trimester that has passed since the start date of the contract)].

Specifically for PaaS contracts in which movable goods are incorporated into the immovable good of the customer (e.g., PaaS contracts for heating, light, air quality, etc.), the question arises how a change in ownership affects the fate of the contract. A new person can move into (part of) the immovable good, while the product central to the PaaS contract might not be easily removable (e.g., a heating device, air vents, lighting fixtures, etc.). The PaaS contract then applies to products in the factual possession of a person who is not a party to the contract. This can create problematic situations, as this third party cannot be compelled to comply with any obligations under the contract because of the relativity of contracts. A contract only gives rise to obligations among the contracting parties (article 5.103(1) CC). To address this situation, the contracting parties can include clauses that ensure that the contract can be continued, with the third party as a new contracting party.¹⁹⁵

No one may bind anyone but oneself by a contract. However, a person may promise in own name that a third person will undertake to perform an obligation (i.e., here specifically the obligation to conclude a contract). This is a 'promise for another' (*sterkmaking/promesse de porte-fort*) (article 5.106 CC). If the third party refuses to perform the obligation, the person who promised in own name is liable to compensate for the injury of the co-contractor, notwithstanding any clause to the contrary. The obligation of the co-contractor is an obligation of result.¹⁹⁶ Thus, it is not necessary to include an explicit indemnity clause in the contract, but the parties can opt to do so, which is useful, for example, to determine how the indemnity is to be calculated.

If the customer transfers the title of ownership of only part of the immovable good, the contracting parties can agree that the third party to whom this part is transferred becomes a party in addition to the original parties. They can contractually agree that the obligations of the original customer become obligations with multiple persons.¹⁹⁷ They can agree to a solidary or an indivisible liability for performance, or to a combination thereof. Both concepts entail that the customer and the new party are obligated to the same prestation and that the service provider may claim against each of them for the whole (articles 5.160, §1 and 5.166, §1 CC). The main difference is that the indivisibility also applies to the heirs of the debtors of an indivisible obligation (article 5.167(2) CC), which is not the case with solidary obligations.

¹⁹⁵ Note: the clause containing a promise for another can also be seen as an assignment clause, where the clause specifies that the contractual position of the debtor is transferred to the third party. Regarding assignment, see the section on boilerplate clauses (section 3.12 on p. 88).

¹⁹⁶ N. CARETTE, *Derdenbeding*, Antwerp, Intersentia, 2012, p. 38.

¹⁹⁷ Normally, an obligation with multiple creditors or debtors is divided among them by operation of law (article 5.159, §1 CC).

3.9 Changed circumstances

3.9.1 Hardship

Article 5.74 CC contains provisions on ‘hardship’. It contains an obligation for contracting parties to renegotiate their contractual relationship with a view to its adaptation or termination if certain requirements are met. Pivotal is the requirement that a change of circumstances which was unforeseeable to the debtor at the conclusion of the contract renders the performance of the contract excessively onerous to such an extent that it can no longer reasonably be claimed. In the event of refusal or failure of the negotiations within a reasonable time limit, the court may, at the request of one of the parties, either adapt the contract in order to bring it into conformity with what the parties reasonably would have agreed upon at the time of the conclusion of the contract had they taken the change of circumstances into account or terminate the contract in whole or in part.

The contracting parties can include hardship clauses with differing goals. First, they can exclude the possibility of hardship.¹⁹⁸ Second, they can modulate the obligation to renegotiate. For example, they can agree in advance how one of the parties is to request renegotiation, how long the parties are held to this obligation to renegotiate etc. Third, they can determine in advance which circumstances are not unforeseeable and which, thus, do not give rise to hardship.

A hardship clause can be particularly useful for result-oriented PSS. A concrete example can illustrate this. If the service provider provides ‘heating’ to the customer, perhaps in combination with an obligation to limit the energy use by the heating device, an alteration to the location where this heating is to be provided, such as the construction of an additional extension to a building, can significantly affect the obligations of the service provider. Heating the new extension in addition to the original building might require a different setup of the heating device and will automatically require more energy. The following model clause is meant to mitigate such a situation.

The obligations of [the service provider] to reach the specified output are based on the current state of the customer’s [home/business premises] where the service is to be provided. If alterations are made to this location that render the fulfillment of this obligation more onerous, the contracting parties are to renegotiate the contract in good faith. If the negotiations between the parties fail to result in an agreement within [specified period of time] from the date of the initial meeting to renegotiate, the contract is deemed to be terminated.

3.9.2 Price changes

▪ **[The service provider] has the right to reasonably adjust the rent because of annual price indexations based on [price index (e.g., Belgian consumer price index)]. [The service provider]**

¹⁹⁸ A model clause in this sense would be: “The contracting parties agree that no party shall be excused from performing its obligations under this agreement on the basis of hardship.”

communicates changes to the customer at least [reasonable period of time (e.g., one month)] in advance.

- **[The service provider] has the right to reasonably adjust the charges for the services provided to the customer in accordance with [formula that accurately reflects raised labor costs, material costs, etc.]. At all times, 20% of the original price remains unchanged. [The service provider] communicates changes to the customer at least [reasonable period of time (e.g., one month)] in advance.**
- **[The service provider] has the right to reasonably adjust all prices in the contract to adapt them to legislative changes in taxation or regulatory fees.**
- **When the customer is informed of price changes, the customer has the right to terminate the contract free of charge.**

In general, price change clauses that grant one contracting party the power to unilaterally change the price of the contract are valid under Belgian law (article 5.70(2) CC). The general law of obligations only requires that the party who is granted this power acts in accordance with the requirements of good faith.

The mandatory B2B legislation adds to these general requirements that clauses may not grant the other party the right to unilaterally raise the price of the contract based on elements that depend solely on the will of the other party (article VI.91/5, 1° CEL; greylist). Article VI.83, 2° CEL blacklists this type of clauses in consumer contracts entered into for an indeterminate term if the consumer is not given the option to terminate the contract free of charge. In consumer contracts with fixed term this type of clause is absolutely prohibited, meaning they are not even valid if the consumer is given the right to terminate the contract (article VI.83, 3° CEL; blacklist). Price indexation clauses, that base the price change on a price index, are an exception to these articles. A price index (e.g., the Belgian consumer price index) is an objective parameter that does not leave a price change up to the sole discretion of one party.

However, specific legislation imposes strict restrictions on using price indices. Article 57, §1 of the ‘law concerning economic recovery measures’ of 30 March 1976 prohibits any formula for indexing industrial and/or commercial prices that is based on the consumer price index or any other general index. Furthermore, article 57, §2 stipulates that a price change clause needs to leave 20% of the original price unchanged and that the parameters used to adjust the price are to represent actual increased costs such as the costs of raw materials. Finally, article 57, 3 contains exceptions to the prohibition of general price indexation clauses. General price indexation clauses are possible in lease contracts.

In sum, for those aspects of a PaaS contract that qualify as a lease (e.g., the rent in a PaaS contract where the product is at the permanent disposal of the customer), a price change clause in the form of a general price indexation clause is possible. For the other parts of the PaaS contract (e.g., maintenance and repair services), price change clauses may not be based on a general price index. Instead, they are to contain a formula that accurately reflects the cost structure of the service provider.

3.10 Insolvency/bankruptcy

- [The service provider] provides a detailed contingency plan outlining how services will be maintained in the event of insolvency, in particular bankruptcy. This contingency plan includes steps [for transitioning to another provider or for self-management]. The contingency plan is attached to this contract.
- [The service provider] notifies the customer promptly if it becomes insolvent and in particular if it files for bankruptcy. This notification triggers the contingency plan.
- [The service provider] places the source code, necessary data, and configurations for the digital services in this contract into escrow with a trusted third party. [In the event of insolvency, in particular bankruptcy, the customer can access this information for the sake of self-management, without any additional fees/In the event of insolvency, in particular bankruptcy, the third party continues the service with the information held in escrow. To this end all licenses associated with the product that are necessary for the continuation of the services in this contract are transferred to this third party by operation of law. The continuation of the service is free of charge to the customer].
- [The service provider] guarantees a minimum period of continued service, even in the event of insolvency, in particular bankruptcy, to allow the customer sufficient time to transition to an alternative service provider or solution. To this end [the service provider] establishes a financial escrow account to cover the operational costs of this minimum period.
- The customer retains ownership of all data related to the product. In the event of insolvency, in particular bankruptcy, of [the service provider], the customer has the right to access, retrieve, and transfer this data to another service provider seamlessly.
- In the event of insolvency, in particular bankruptcy, of [the service provider] the customer enjoys a preemptive right to acquire the product at a reasonable price [equal to the residual value of the product/equal to the then fair market value of the product/equal to a percentage of the original cost of the product/equal to an amount that starts at a baseline and decreases with a certain percentage for each trimester that has passed since the start date of the contract] [with a minimum of specified amount/with a maximum of specified amount], before any third party claims for revindication are considered.

In the event of insolvency, in particular bankruptcy¹⁹⁹, of the service provider, there is a risk of abrupt disruption of the service, leaving the customer without a solution. Especially when there are digital elements to the goods or when there are digital services, the customer could lose access to the product. In some cases (e.g., when the PaaS contract concerns heating or lighting) this loss of access can have very practical negative consequences, leaving the customer in the cold or in the dark. In other cases (e.g., when the PaaS contract concerns a product on which the customer relies to offer services to others), the customer can incur financial losses while struggling to regain functionality of the product. Also, because the customer is not the owner

¹⁹⁹ Insolvency is the factual state of financial distress in which the service provider is unable to fulfill its debts. Bankruptcy is a legal declaration of insolvency, which is one way in which the service provider can resolve the financial distress.

of the products (as would be the case in a traditional sales contract), can be faced with a sudden claim for revindication by a curator or a third party creditor of the service provider who has become insolvent. In some cases, the service provider itself will not even be the owner, but a third party such as a bank or a leasing company is so that this third party can also file a claim for revindication

These model clauses are meant to mitigate some of the risks associated with insolvency in a PaaS contract.

- The clauses on the contingency plan ensure a structured approach to continue the service. The service provider has reflected on this contingency plan in advance. It enables customers to gauge the imagined response of the service provider to the hypothesis of insolvency and either trust that it is sufficient in the light of their own needs and expertise (e.g., the technical expertise to self-manage the product after bankruptcy) or refrain from contracting.
- The prompt notification of insolvency ensures that the customer is informed. Without timely notification, the customer may not be aware of the service provider's financial troubles until service disruption occurs.
- The escrow clauses can be seen as part of the contingency plan. In PaaS contracts, much of the functionality and customization of the service can rely on the service provider's proprietary code and data. Placing the source code, necessary data, and configurations into escrow with a trusted third party is useful because it ensures that (a) the customer has access to this critical information required to continue the service in self-management if the service provider becomes insolvent or (b) that this third party can continue the service. Obviously, this third party needs to be trusted by the service provider, as intellectual property rights come into play. Service providers might be hesitant to include this type of clauses in the contract, in particular in markets without many competitors as the only 'really' (and not merely hypothetically) qualified third party is a competitor. The absence of these clauses can serve as a warning for customers (compare with the contingency plan).
- The guaranteed minimum period of continued service provides a safety net, ensuring that the customer's lighting services remain functional while they make necessary transitions.
- The clause on customer ownership of data confirms that the customer retains ownership of all data related to the product. In the event of bankruptcy, the risk of losing access to this data exists. This clause ensures that in the event of the service provider's bankruptcy, the customer has the explicit right to access, retrieve, and transfer this data to another service provider.
- The 'first refusal' clause acts as a contractual safeguard against third party claims.²⁰⁰ Normally, the curator is obligated to respect this conventional preferential right. In normal circumstances, the reliance on this right by the customer does not result in a reduction of the bankruptcy estate for concurrent creditors

²⁰⁰ Compare with B. VERHEYE, "Toekomst van de circulaire vastgoedeconomie", *TPR* 2019, p. (107) 180, no. 46.

3.11 Non-performance

When it comes to the non-performance of an obligation by one of the parties, many clauses are possible. Article 5.224 CC enumerates the general penalties in the event of non-performance imputable to the debtor. Article 5.83 CC enumerates the penalties in contractual relationships. These penalties are the right to performance in kind by the debtor, the right to compensation for the injury, the right to dissolution of the contract, the right to price reduction and the right to suspend the performance of the own obligations. Each of these penalties are part of the suppletive law of the law of obligations. That means that contracting parties can exclude each of these penalties or modulate them to their liking. As a result, a great diversity in specific clauses regarding non-performance is possible. Thus, the research report limits itself to highlighting certain general points of attention.

As a preliminary note, it can be pointed out that the research report already contains model clauses dealing with non-performance and its consequences where this is directly relevant. For example, the research report has already touched on the exclusion of the right to replace the debtor of an obligation by a third party in the section on the duty to take care of the product (section 3.4.5 on p. 50). Elsewhere, the research report has already underlined the need for indemnity clauses and has called attention to the danger of disguised exemption clauses. Other examples are clauses concerning superior force (*force majeure*) and resolatory clauses.

A first general point of attention is that the mandatory B2C and B2B legislation constrains the freedom of the parties to derogate from the general law of obligations. In general, articles VI.83, 30°(blacklist) and article VI.91/5, 4° (greylist) CEL prohibit clauses that inappropriately exclude or limit the legal rights of a party in case of full or partial non-performance by the other party. More specifically, article VI.83, 9° CEL blacklists clauses in consumer contracts that exclude the right of the customer to suspend the own obligations (found in articles 5.98 and 5.239 CC).²⁰¹ Other articles contain rules on indemnity clauses and exemption clauses (more on this to follow).

Second, the contracting parties can mutually agree which circumstances constitute superior force²⁰² (*force majeure*).²⁰³ There exists superior force in the case of an impossibility for the debtor to perform the obligation that is not imputable to the debtor. In this regard, the unforeseeable and unavoidable character of the obstacle to the performance is taken into account (article 5.226 CC). If the parties explain in advance which circumstances they view as superior force, interpretation issues are avoided. An exemplative list of situations of superior force does not exclude that other circumstances, not envisioned by the parties, are to be viewed as superior force. If there is superior force, the creditor is (temporarily or definitively) released from an obligation, meaning that the creditor cannot rely on the contractual penalties. The

²⁰¹ Conversely, the following model clause that confirms this right would be allowed: “Failure by [the service provider] to perform the obligations under this contract, results in the loss of the right to payment by the customer, until [the service provider] performs the obligations.” The model clause that is the mirror image is: “Failure by the customer to perform the obligations under this contract, results in the loss of the right to maintenance and repair by [the service provider] [and, where applicable, to a replacement product] until the customer performs the obligations.”

²⁰² After article 1470 Québec Civil Code.

²⁰³ See, for example, the section on digital services (section 3.4.8 on p. 70), in which a model clause stipulates that the customer is obligated to ensure a stable internet connection and that failure to do so constitutes superior force on the side of the service provider.

parties can determine in advance when a non-performance is imputable – or not – to the debtor, by circumscribing what is and what is not superior force. Having clear definitions of superior force in the contract may provide a level of predictability and certainty, as the parties will be aware of the risks and obligations associated with such events. For example, the contracting parties in a PaaS contract can stipulate that the loss of internet connection with the product in the customer’s home or business premise constitutes superior force for the service provider.²⁰⁴ Thus, if a heat pump reliant on an internet connection ceases to function because this connection is lost, the service provider is not liable for the absence of heating during this downtime. Regarding the topic of superior force, article VI.83, 12° CEL blacklists clauses in consumer contracts that prohibit the consumer to dissolve the contract in the case of superior force, unless the consumer pays compensation.

Third, in the same vein, the contracting parties can mutually agree in advance when a non-performance is sufficiently serious to warrant dissolution of the contract.²⁰⁵ By agreeing on the circumstances under which the contract can be dissolved, the parties can avoid costly and time-consuming litigation or disputes over the severity of the breach. This also allows the parties to assess the risks and consequences of potential breaches before entering into the contract. For example, the contracting parties can agree that if the service provider repairs the product with virgin replacement parts despite an obligation to use circular replacement parts (e.g., remanufactured parts), the failure to perform this obligation is sufficiently serious to warrant dissolution.

Fourth, if the contracting parties dissolve their contractual relationship, their obligations are extinguished. The customer will have to return the product to the service provider. The contracting parties can include clauses on how the product is to be returned in the case of dissolution in the contract. The parties can model these clauses to the provisions on the return of the product in the case of termination of the contractual relationship.

Fifth, it is advisable that the contracting parties pay attention to the question whether they wish to allow ‘anticipatory’ sanctions in their contractual relationship. Article 5.239, §2 CC allows the anticipatory suspension of the own obligations if there is a legitimate fear that the debtor will not have performed the obligation when it is due, with sufficiently serious consequences for the creditor. Article 5.90(2) CC allows the anticipatory dissolution of the contractual relationship if it is manifestly clear that the debtor, after having been summoned to furnish within a reasonable time sufficient assurances for the due performance of the obligations, will not perform the obligations in time, with sufficiently serious consequences for the creditor. Both articles are suppletive law, meaning that the contracting parties can exclude these anticipatory sanctions.

Sixth, if parties wish to include indemnity clauses, they are to adhere to certain rules. Regarding the rules on indemnity clauses, see section 2.2.4.4 (p. 22).

²⁰⁴ A model clause in this sense would be: “Neither contracting party shall be held liable for any failure or delay in performance under this contract to the extent that said failures or delays are caused by events beyond the reasonable control of that party. The parties agree that the following circumstances constitute superior force on the side of [the service provider]: a loss of internet connection with the product[, other specified circumstances].”

²⁰⁵ See, for example, the resolatory clause in the section on the duty to take care of the product of the customer (section 3.4.5 on p. 59) in which a clause stipulates that the customer is to secure the product against loss or theft and that if the customer acts in bad faith and falsely declares that the product is stolen, the contract can be dissolved without notice.

Finally, if parties wish to include exemption clauses, they are to adhere to certain rules. Exemption clauses limit or exclude the liability of one or both contracting parties for certain types of losses that may arise from failure to perform the obligations of the contract. Exemption clauses allocate risks between the parties. As the rules on (extra-)contractual liability are suppletive law, exemption clauses are valid in general. However, several limits exist. These limits are set out, in general, by article 5.89 CC (C2C/P2P) and, more specifically, by article VI.83, 13° and 25° CEL (B2C) and article VI.91/5, 6° CEL (B2B). A first limit, common to all articles, is that the debtor of an obligation cannot be exempted from liability for the debtor's intentional wrong²⁰⁶ or the intentional wrong of a person for whom the debtor is responsible. The mandatory B2C and B2B legislation raises the bar for valid exemption clauses: the debtor cannot be exempted from gross negligence either. Article 5.89 CC allows this, but an exemption for gross negligence is never presumed. Thus, the exemption clause is to explicitly make clear that gross negligence is excluded.²⁰⁷ A second limit, common to the C2C/P2P and B2C-articles, is that the debtor of an obligation cannot be exempted from liability for the debtor's wrong or the wrong of a person for whom the debtor is responsible, if that wrong affects the life or the physical integrity of a person.²⁰⁸ A third limit, common to all articles, is that exemption clauses are not allowed to exempt the debtor of liability for non-performance of one of the essential obligations of the contract as such an exemption would void the contract of its purpose. Thus, if the contracting parties, for example, have made clear that the obligation to innovate, in the form of an obligation to reach a certain percentage of energy savings, is essential, the service provider cannot be exempted from liability for the breach of this obligation.

3.12 Boilerplate

It is commonplace for contracting parties to finish the drafting of a contract with 'boilerplate' clauses. These are commonly used and often standardized clauses meant to address topics that are not specific to a single contractual relationship, but are of a more general nature.

They can cover a wide range of topics. Some examples of topics are listed below.

- *Assignment.*^{209 - 210} The rights and obligations of a contract are assets in and of themselves. Thus, they represent a value in the patrimony of a person. An assignment clause either prohibits or allows one of the parties or all the parties to transfer rights and/or obligations under the contract to another party. The clause may include specific requirements for the assignment to be valid, such as obtaining the consent of the other

²⁰⁶ An intentional wrong is a wrong committed with the intention to harm or for profit (article 1.11 CC).

²⁰⁷ A model clause in this sense would be: "[The service provider] shall not be liable for any losses caused by its own gross negligence or the gross negligence of any person for whom it is responsible."

²⁰⁸ A model clause in this sense would be: "Nothing in this contract excludes [the service provider]'s liability for death or personal injury of the customer."

²⁰⁹ Regarding assignment clauses, see V. WITHOFS, "Clausules in verband met de overdraagbaarheid van schuldvorderingen" in E. TERRY, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Gemeenrechtelijke clausules (contractuele clausules)*, Antwerp, Intersentia, 2013, p. 623-664; N. CARETTE and V. WITHOFS, "Clausules tot overdracht van schulden" in E. TERRY, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Gemeenrechtelijke clausules (contractuele clausules)*, Antwerp, Intersentia, 2013, p. 729-766; V. WITHOFS, "Clausules tot overdracht van overeenkomst" in E. TERRY, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Gemeenrechtelijke clausules (contractuele clausules)*, Antwerp, Intersentia, 2013, p. 767-830.

²¹⁰ Note: the clause containing a promise for another can also be seen as an assignment clause, where the clause specifies that the contractual position of the debtor is transferred to the third party.

party to the contract. Article VI.83, 31° CEL blacklists clauses in a consumer contract that grant the business the faculty of transferring the contract, if such a transferral reduces the guarantees of the consumer without the latter's consent.

- *(In)severability*.²¹¹ A severability clause states that if a court finds any portion of the contract to be invalid or unenforceable, the remainder of the contract remains valid and enforceable. These clauses make partial nullity possible (article 5.96 CC). An inseverability clause has the opposite effect.
- *Notification*. A notification clause outlines the specific procedures and requirements for notifying the other party about decisions and facts related to the contract. The notification clause typically specifies the method of delivery (such as email, mail, or fax), and the timeframe within which the notification is to be delivered. It may also include provisions for acknowledging receipt of the notification.
- *Interpretation and probative force*.²¹² Parties can agree to an entire agreement clause, which is a form of interpretation clauses, that stipulates that external elements have no probative force and/or cannot be used to interpret the content of the contract.
- *No waiver clause*. A no waiver clause specifies that if one party fails to enforce a particular term or condition of the contract, this does not mean that party is waiving its right to enforce that term or condition in the future. Its purpose is to protect the parties from inadvertently waiving their rights. This type of clause is mostly important in contracts governing a long-term relationship between the parties.
- *Choice of law*.²¹³ A choice of law clause, also known as a governing law clause, specifies which law is to be applied in interpreting and enforcing the contract (e.g., Belgian law). In the B2C context this clause is valid in principle, but such a choice may not, however, have the result of depriving the consumer of the protection afforded to him by provisions that cannot be derogated from contractually by virtue of the law which, in the absence of choice, would have been applicable (article 6(2) Rome I).²¹⁴
- *Choice of forum*.²¹⁵ With a choice of forum clause, the contracting parties confer personal jurisdiction on the courts of an appointed jurisdiction to adjudicate disputes under the contract (e.g., the competent courts of Leuven). In the B2C context this clause is only valid if it is part of a contract that is entered into after the dispute has arisen (article 19(1) Brussels I and article VI.83, 23° CEL (B2C; blacklist)).²¹⁶

²¹¹ Regarding (in)severability clauses, see T. TANGHE, "Ontbindingsclausules" in E. TERRY, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Gemeenrechtelijke clausules (contractuele clausules)*, Antwerp, Intersentia, 2013, p. (1557) 1587-1589.

²¹² Regarding entire agreement clauses, see S. DECLERCQ and T. VAN NOYEN, "Vierhoekenbedingen, wijzigingsbedingen en niet-verzakingsbedingen. Bij boilerplate-clausules zit het venijn in de staart", *DAOR* 2020, nr. 136, (17) 24 and following, nos. 21 and following.

²¹³ Regarding choice of law clauses, see P. WAUTELET, "Rechtskeuzebeding" in E. TERRY, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Gemeenrechtelijke clausules (contractuele clausules)*, Antwerp, Intersentia, 2013, p. 1739-1786.

²¹⁴ Regulation (EC) No 593/2008 of the European Parliament and of the Council of 17 June 2008 on the law applicable to contractual obligations (Rome I), *OJ L* 4 June 2008, vol. 177, p. 6-16.

²¹⁵ Regarding choice of forum clauses see P. WAUTELET, "Forumkeuzebeding" in E. TERRY, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Gemeenrechtelijke clausules (contractuele clausules)*, Antwerp, Intersentia, 2013, p. 1697-1738.

²¹⁶ Regulation (EU) No 1215/2012 of the European Parliament and of the Council of 12 December 2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters (recast), *OJ L* 20 December 2012, vol. 351, p. 1-32.

- *Arbitration.*²¹⁷ Similarly, the contracting parties can agree that disputes arising out of or related to the contract are to be resolved through arbitration rather than through traditional litigation in a court of law. Arbitration is a process in which the parties to a dispute agree to submit their dispute to an impartial third party, called an arbitrator, who renders a decision that is binding on the parties. The same restrictions on the validity of arbitration clauses apply.
- *Knowledge and acceptance.* The boilerplate clauses sometimes contain clauses stipulating that a contracting party has actually read all the clauses of the contract and has accepted them as part of the contract. They are of limited value. Article VI.83, 26° CEL (blacklist) prohibits clauses in consumer contracts (B2C) that irrefutably establish the consent of the consumer to clauses of which the consumer was not in fact able to gain knowledge before the conclusion of the contract. Article VI.91/4, 4° CEL (blacklist) does the same in the B2B context. Thus, even if such a clause is included in a contract, it remains to be assessed whether there has been knowledge and acceptance of the clauses. The other party can still prove that there was no possibility to consent to the standard terms and conditions.

²¹⁷ Regarding arbitration clauses see K. COX, "Arbitragebedingen" in E. TERRY, A-L. VERBEKE, H. DE DECKER, G-L. BALLON, B. TILLEMANN, and V. SAGAERT (eds.), *Gemeenrechtelijke clausules (contractuele clausules)*, Antwerp, Intersentia, 2013, p. 1671-1695.

Annexes

1 Disclaimer

This annex contains all model clauses from the research report, without their accompanying commentary and footnotes. This annex presents a clean overview of the model clauses to its reader. It is important that this overview is not seen as a ready-made, complete contract. The diversity in service contracts and, in particular, in PaaS-contracts does not allow for a one size fits all approach. Negotiating parties who wish to use these model clauses should take care to tailor the clauses to the needs of their personal potential contractual relationship. Also, from a more practical point of view, it is simply not possible to copy and paste all clauses into a single contract, as some clauses are mutually exclusive. For example, the model clauses offer different examples of pricing models, of which the person drafting a contract has to choose one.

In general, the clauses themselves already present the person drafting a contract with choices. These square brackets ([...]) indicate that a part of the model clause is 'interchangeable'.

- First, this can mean that the content between the brackets is mere filler, as is the case, for example, with '[the service provider]' where the parties would fill in the actual name of the service provider.
- Second, this can mean that several options or a combination of options is possible, as is the case, for example, with '[...and/or...]' where the parties can choose either conjunctive word, with a differing degree of extensiveness of the clause.
- Finally, this can mean that this part of the model clause is entirely optional (meaning that it adds additional content onto the essential foundations of the clause).

2 Model clauses/T&C

2.1 Recitals

- The parties acknowledge the potential risks and negative impacts associated with unsustainable business practices, including climate change, resource depletion, and pollution.
- The parties acknowledge that the performance of this contract will have environmental impacts.
- The parties regard environmental sustainability as an integral consideration of this contract.
- The parties recognize the need to continuously reduce the environmental impacts of this contract, so that they can contribute to achieving an environmentally sustainable society by 2050.
- The parties recognize the circular potential of this product-as-a-service (PaaS) contract. They view the transition from a linear to a circular economy as an important societal objective. Thus, they seek to promote that transition with this contract.
- The circular objectives at the heart of this contract are to minimize waste and maximize resource efficiency. Thus, the parties aim to expand the lifespan of all products used in this contract by repairing and reusing these products to the fullest extent and to reduce their environmental impact by recycling them at the end of their useful lifespan.

2.2 Definitions

To avoid confusion and promote clarity, certain terms used in this contract are defined as follows.

- External definitions: where the contract use terms that are defined in [external document (e.g., a regulation or directive of the European Union)], those terms shall have the same meaning as in that [external document]; its content shall not be interpreted in a way that conflicts with rights and obligations provided for in [external document].
- Product: [identification of the product].
- [Output (e.g., light, air quality, hours of engine power)]: [identification of the output specifications (e.g., light means the radiation of energy by a LED light source with a minimum level of brightness of 800 lm, a warm temperature color of 2700 k and an energy efficiency of at least 100 lm/w)].
- Use of product: [description of the allowed use of the product (e.g., riding, pushing and storing a micro-mobility product or loading, unloading and operating a washing machine)/reference to

a subscription model described to the customer elsewhere (e.g., featherweight/lightweight/heavyweight, basic/premium/ultimate, standard/pro/elite, silver/gold/platinum, etc.)).

- Non-reusable condition: state of the product once it has been used in which it is no longer fit for reuse; criteria that hinder the reusability of the product include physical damage, wear and tear beyond normal use, missing parts or accessories, contamination with dust, and any other condition that renders the product unsafe or unusable for its intended purpose.
- Reuse: using the product again after it has fulfilled its original purpose in the contract, without any significant alteration or repair; minor repairs are possible (e.g., replacement of screws, gaskets, switches, other small components).
- Reconditioning/refurbishing: thoroughly cleaning, repairing and updating a used product, not to an as-new condition, but to a more functional or efficient state.
- Remanufacturing: disassembling a used product, cleaning it, repairing it, replacing its worn or damaged parts, updating it and reassembling it, to an as-new condition.
- Repurposing: using a product for a different purpose than its original intended purpose; repurposing can involve altering or modifying the item to fit the new purpose or simply finding a new way to use it without any modifications.
- Environmental sustainability: the responsible use and management of the natural resources used in this contract to ensure their availability for future generations; this involves minimizing and mitigating the environmental impacts of the contract, including its externalities.
- Circular economy: an economic system whereby the value of products, materials and other resources in the economy is maintained for as long as possible, enhancing their efficient use in production and consumption, thereby reducing the environmental impact of their use, minimizing waste and the release of hazardous substances at all stages of their life cycle, including through the application of the European waste hierarchy.
- Circularity: the practice of minimizing resource depletion for all products used in this contract, by keeping them in use for as long as possible through durable, repairable, and recyclable design, and by implementing processes that support reuse, refurbishment, and recycling [at the end of this contract and/or at the end of their useful lifespan].
- Greenhouse gasses: the natural and anthropogenic gases which trap thermal radiation in the earth's atmosphere [and are specified in Annex A to the Kyoto Protocol to the United Nations Framework Convention on Climate Change].
- Carbon footprint: [a party's total annual greenhouse gas emissions classified as scope 1, 2 and 3 emissions [by the most recent version of The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard]/a product's total amount of all relevant greenhouse gas emissions, expressed in carbon dioxide equivalents, directly and indirectly generated during the

entire life cycle of the product, including raw material extraction, production, transportation, use, and disposal [as quantified on the basis of ISO 14067:2018]].

- Energy efficiency: the ratio of output of performance, service, goods or energy, to input of energy [, as verified by an independent third-party certification body].
- Energy savings: an amount of saved energy determined by measuring and/or estimating consumption before and after implementation of an energy efficiency improvement measure, while ensuring normalization for external conditions that affect energy consumption.
- Energy efficiency improvement: an increase in energy efficiency as a result of technological and/or behavioral changes.
- Innovation: the development and implementation of new technologies, processes, or practices that result in a more sustainable, efficient, or economical use of the product or service; innovation presumes greater value to the customer and the promotion of environmental sustainability.

2.3 Rights & obligations

2.3.1 Rights of customer

- The customer has the product at the customer's disposal and may use it [without limit/only for a specified number of uses, volumes or users/for a specified number of uses, volumes or users and only against payment of an extra fee if this specified number is exceeded] during the duration of the contract in accordance with the terms of this contract for [its ordinary use/ the use intended by the customer].
- The use intended by the customer is [specified use].
- [The service provider] [uses all reasonable efforts to ensure/all best efforts to ensure/guarantees] that the customer receives an [identified output (e.g., a certain number of hours of light per day, a volume of washed laundry)] from the product. This [output] is to meet the following specifications.

[By way of example (for a PaaS contract concerning a washing machine):

1. Cleanliness: the washed laundry is to be clean and free from stains.
2. Colorfastness: the washed laundry is to retain its colors.
3. Moisture content: the moisture content of the washed laundry may weigh no more than 30% of the weight of the dry fabric.
4. Water use: the product is to use no more than 30 liters of water per wash cycle.]

2.3.2 Ensuring availability of product

- [The service provider] makes the product available to the customer [within specified reasonable period of time from the date of signing the contract/on a specified date].

- [The service provider] ensures that the product is in a good condition, suitable for [its ordinary use/ the use intended by the customer].
- The customer reports any defects of the product within [reasonable period of time] to [the service provider].
- [The service provider] ensures the customer's peaceful possession of the product for the duration of the contract.
- [The service provider] uses [all reasonable efforts/best efforts] to ensure a continuous availability of the product.
- [The service provider] guarantees [a continuous availability/other specified near-continuous availability (e.g., 85% of the time)] of the product.
- In the event of unavailability of the product or any other disruption in its functioning, [the service provider] uses [all reasonable efforts/best efforts] to restore access to the product as soon as possible.
- In the event of unavailability of the product or any other disruption in its functioning, [the service provider] restores access to the product within [specified period of time].
- In the event of unavailability of the product or any other disruption in its functioning, [the service provider], the customer is entitled to compensation. This compensation takes the form of [a lump sum of specified reasonable amount paid to the customer/a discount of specified reasonable amount on the next invoice].

2.3.3 Pricing and payments

- [The service provider] charges an initial one-time setup fee [of specified amount].
- The pricing for the product used by the customer and the services provided under this contract is set forth in the pricing schedule [as agreed upon by the customer during the order process], which is annexed to the contract and incorporated therein by reference.
- The customer is charged for the use of the product on a pay-per-use basis. The price per use is [specified amount] [for the first [specified amount] of uses and the price per use is [specified amount] for all subsequent uses].
- The customer is charged for the use of the product on a pay-per-volume basis. The price per [specified volume (e.g., 1000 kg of laundry washed)] is [specified amount] [for the first [specified volume] and the price per volume is [specified amount] for all subsequent volumes].
- The customer is charged for the use of the product on a pay-per-user basis. The price per [specified amount of users] is [specified amount] [for the first [specified amount] of users and the price per user is [specified amount] for all subsequent users].

- The customer is charged a fixed, recurrent rent of [specified amount] for the use of the product that is due [specified adverb of frequency (e.g., monthly, quarterly, annually)].
- The customer is charged a fixed, one-time amount of [specified amount] for the use of the product.
- If the customer exceeds the allowed number of [uses, volumes or users], the customer pays an extra fee of [specified amount] per additional [use, volume or user].
- The customer is to pay an [specified adverb of frequency (e.g., monthly, quarterly, annually)] service fee, which covers all costs of the obligations of [the service provider] under this contract.
- Rent for the entire [specified unit of time (e.g., calendar month, quarter, trimester)] is due [at the start of each specified unit of time/at the end of each specified unit of time/on a specified date (e.g., the first Friday, the 15th)]. If the contract commences or terminates during [unit of time], the rent is charged proportionally.
- All payments for the usage of the product and for the services rendered by [the service provider] are due within [specified reasonable period of time] after the date of receipt of the invoice. [The invoice is sent to the customer within [specified reasonable period of time] after the completion of the services.]
- In the event of late payment by the customer, the customer pays interest on the outstanding overdue amount at a rate of [specified reasonable rate] per [specified adverb of frequency], calculated from [B2C: the fifteenth calendar day after the third business day following the first notice of default; B2C (SME): the calendar day following the first notice of default; B2B: the due date of payment] until payment is made in full.
- In the event of late payment by the customer, the customer pays a late payment fee of [specified reasonable amount], payable from [B2C: the fifteenth calendar day after the third business day following the first notice of default; B2C (SME): the calendar day following the first notice of default; B2B: the due date of payment].

2.3.4 Delivery & installation

- [The service provider] installs the product at the location intended by the customer in accordance with the rules of art and good craftsmanship. [The service provider] and the customer negotiate in good faith to reach an agreement on a date and time for the installation of the product. This installation of the product is [free of charge/free of charge unless a furniture hoist or similar moving equipment is required, in which case the customer is to pay the rental fee of this equipment/against payment of a reasonable amount]
- The location of the product is to meet the following requirements:

[By way of example (for a PaaS contract concerning a washing machine):

1. The location is to be spacious enough to allow at least 30 cm free space on either side of the washing machine (dimensions: 85 cm x 60 cm x 60 cm) to allow sufficient air flow around the washing machine and avoid overheating.
 2. The location is to have a level surface capable of supporting the weight of the washing machine (weight: 80 kg).
 3. The location is to have a water supply and drainage system.
 4. The location is to have a grounded electrical outlet (supply: 230 V; 50 Hz) within 2 m of the intended position of the washing machine.
 5. The location is to be well-ventilated.]
- The customer agrees to permit [the service provider] to conduct a site survey before installation of the product to assess whether the location envisioned by the customer is suitable for the [ordinary use/use intended by the customer].
 - If the location is suitable after reasonable modifications, the customer bears the costs of the modifications necessary to meet the above requirements.
 - [If the location is not suitable/If the customer – after having been informed of the necessary reasonable modifications – refuses the modifications, the customer is to pay a travel fee of [a reasonable amount (e.g., € X per kilometer driven to the customer’s location, € X for the first hour and € Y for each subsequent hour spent at the customer’s location)].
 - [If the location is not suitable/If the customer – after having been informed of the necessary reasonable modifications – refuses the modifications] all obligations are extinguished for the future.
 - Upon the product's delivery and installation, the customer is responsible for thoroughly inspecting it for any apparent defects. The customer signs the delivery note to acknowledge the receipt of the product in [a good state of repair/satisfactory condition/as is]. Should any apparent defects come to the customer's attention, they should be recorded in writing on the delivery note.
 - In addition to the inspection upon delivery and installation, the customer promptly notifies [the service provider] of any defects, malfunctions, or non-conformities that are identified within [reasonable period of time] thereafter. In these circumstances, the customer refrains from using the product until [the service provider] authorizes the use. The customer is liable for any damage resulting from using the product in the meantime. [The service provider] undertakes to repair the product in accordance with the terms of this contract.

2.3.5 Duty to take care

2.3.5.1 In general

- The customer is obligated to use the product for its [ordinary purpose/use intended by the customer] and in a safe and proper manner. The customer is obligated [to take all care typical of a prudent and reasonable person in the same circumstances (i.e., all reasonable efforts)/to use best efforts]. [Minimally, this duty entails that the customer does not intentionally damage the product.]

- The customer is obligated to use the product in accordance with the instruction manual that is accessory to the product [and that is annexed to this contract]. The instruction manual informs the customer on how to perform the following obligations.

[By way of example (for a PaaS contract concerning a washing machine):

1. Load size: the customer takes care to never overload the product with clothes or other fabrics and always respects the weight limit of the product.
 2. Detergent usage: the customer is expected to add the appropriate amount of detergent to the product based on the type of clothes or other fabrics being washed, their amount and to level to which they are soiled.
 3. Wash cycle: the customer is expected to select the appropriate wash cycle based on the type of clothes or other fabrics being washed, their amount and to level to which they are soiled. The customer is expected to set the appropriate water temperature and level and to adjust the spin cycle speed.
 4. Maintenance: the only obligation to maintain the product undertaken by the customer is to use the self-cleaning program once a month.
 5. Sustainability: the customer takes care to use the product in a sustainable manner, meaning that the customer only washes full loads, uses the shortest cycle that is appropriate for the type of clothing being washed, uses cold water where possible and uses high-efficiency laundry detergent.]
- The customer is obligated to use the product together with all accessories provided by [the service provider]. [These accessories are [specified accessories (e.g., screen protector for a phone, a bicycle lock for bicycles)].]
 - The customer may not use the product [specified circumstances (e.g., outdoors, on unpaved roads, during extreme weather, with nonproprietary laundry detergent)].
 - The customer secures the product and all of its accessories[, such as batteries, keys...,] against theft [with the locks provided by [the service provider]]. If the product or any of its accessories are stolen or otherwise lost, the customer reports this theft or loss to [the service provider] within [specified reasonable time period]. [The customer assists [the service provider] in reporting the theft or loss to the police.]
 - If the police finds that the customer falsely reported the product as stolen, the customer is to pay [reasonable amount] to the [service provider]. [This indemnity is without prejudice to the right to dissolve the contractual relationship [without notice], as this act in bad faith is a sufficiently serious breach of contract by the customer.]
 - The customer takes out an insurance policy to insure the product against theft or loss. The customer is to produce a copy of the insurance policy and proof of payment of the insurance premiums at [the service provider]'s first request.
 - The customer is obligated to conduct reasonable checks to verify that the product remains in a good and safe condition throughout the contract. [Reasonable checks include specified actions (e.g., checking for loose screws, checking for proper functioning of lights, checking for

appropriate battery level).] If the customer notices that the product no longer functions properly, the customer reports any issues or defects with the products to [the service provider] [immediately/within specified reasonable period of time]. In these circumstances, the customer refrains from using the product until [the service provider] authorizes the use. The customer is liable for any damage resulting from using the product in the meantime. [The service provider] undertakes to repair the product in accordance with the terms of this contract.

- If the product [or the digital service concerning the product (e.g., an app on the mobile phone of the customer)] shows an error message, the customer refrains from using the product until [the service provider] authorizes the use. The customer reports the error message to [the service provider] [immediately/within specified reasonable period of time]. The customer is liable for any damage resulting from using the product in the meantime. [The service provider] undertakes to repair the product in accordance with the terms of this contract.

- The customer will not attempt to repair or modify the product, nor have a third party attempt to repair or modify the product. [Under no circumstances may the customer open the casing of the product.]

- The customer may only attempt to repair or modify the product, or have a third party attempt to repair or modify the product [if [the service provider] has not responded to the notification of the issues or defects by the customer within [specified reasonable period of time (e.g., after 48 hours)/if there is an emergency situation (i.e., specified emergency situations (e.g., flooding caused by the washing machine))]. The customer is liable for all costs necessary to undo unauthorized repair or modification attempts.

2.3.5.2 Incentives

- The customer receives a discount of [specified amount (e.g., 5%)] on the invoice following a scheduled maintenance moment if the customer uses the product [for its ordinary purpose and in a safe and proper manner/in accordance with the instruction manual]. Safe and proper use is presumed [if the scheduled moment of maintenance does not exceed [specified amount of time (e.g., one hour)]/if the auxiliary of [the service provider] finds no issues or defects of the product caused by more than normal wear and tear].

- The customer receives a [specified amount] of loyalty points if the customer uses the product [for its ordinary purpose and in a safe and proper manner/in accordance with the instruction manual]. Safe and proper use is presumed [if a scheduled moment of maintenance does not exceed [specified amount of time (e.g., one hour)/ if the product has not required any repairs beyond routine maintenance in the past [specified period of time (e.g., six months)]]]. These loyalty points can only be used in the web shop of [the service provider]. [Loyalty points have no monetary value and cannot be exchanged for cash nor for vouchers.] [Loyalty points are personal and cannot transfer to any other person than the customer.] [Loyalty points cannot expire/loyalty points are valid for a [specified amount of time].] [There is no limit to the amount of loyalty points/the customer can accrue a maximum of [specified amount] of loyalty points.]

- The contracted is extended by a free [specified amount of time] if the customer uses the product [for its ordinary purpose and in a safe and proper manner/in accordance with the

instruction manual]. Safe and proper use is presumed [if a scheduled moment of maintenance does not exceed [specified amount of time (e.g., one hour)/ if the product has not required any repairs beyond routine maintenance in the past [specified period of time (e.g., six months)]]].

2.3.5.3 Exclusive use

- The product is exclusively for the use of the customer [and any individual who permanently resides at the same household as the user]. The customer will not share access to the product with any other person or entity who is not authorized to use the product. [The customer is to supervise the care with which others handle the product and is liable for any damage resulting from improper use.]

- The product is exclusively for the use of the customer and its employees or other auxiliaries who are authorized to use the product in connection with the customer's business operations [i.e., identification of persons who are authorized]. The customer will not share access to the product with any other person or entity who is not authorized to use the product. [The customer is to supervise the care with which others handle the product and remains liable for any damage resulting from improper use.]

- The customer has the right to allow third parties to use the product [for non-commercial purposes]. The customer is to supervise the due care with which third parties are to handle the product and is liable for any damage resulting from improper use.

- The customer shall not enter into any contract with third parties concerning the product. [For example, the customer may not act as sublessor of the product.]

2.3.5.4 Limits to moving the product

- The customer may not move the product without prior [written] approval from [the service provider], except in cases of emergency [(i.e., specified emergency situations (e.g., flooding caused by the washing machine))]. [The service provider] answers the request of the customer to move the product within [specified reasonable period of time (e.g., certain amount of business days)][and supplies the customer with specific instructions on how to move the product]. If [the service provider] fails to respond timely, the customer may assume that the request has been tacitly approved.

- [The service provider] can move the product at the request of the customer [free of charge/free of charge, unless a furniture hoist or similar moving equipment is required, in which case the customer is to pay the rental fee of this equipment/against payment of a reasonable amount].

2.3.6 Maintenance and repair

- [The service provider] provides routine maintenance on the product at regular intervals. The routine maintenance is conducted [specified adverb of frequency (e.g., monthly, quarterly, annually)/every specified day of the month (e.g., every first Friday)/every determinable event (e.g., every start/end of the heating season)/in accordance with a specified maintenance schedule containing exact dates (e.g., date 1: 14 of September, date 2: 17 March...)]. [The service provider] and the customer negotiate in good faith to reach an agreement on an exact date and time for the maintenance of the product].

▪ [The service provider] provides routine maintenance on the product at regular intervals. These intervals are determined on the basis of the digital service of predictive maintenance, which uses data analysis to predict when maintenance or repairs may be required. Whenever this system indicates the need for maintenance, [the service provider] and the customer negotiate in good faith to reach an agreement on an exact date and time for the maintenance of the product.

▪ [The service provider] provides routine maintenance on the product at regular intervals. [The service provider] has the right to access the product after prior [written] notification of the customer at least [specified reasonable time (e.g., five business days)] in advance.

▪ [The service provider] bears the costs of all maintenance necessary because of the normal wear and tear during the contract. The customer is liable for all maintenance costs exceeding normal wear and tear.

[Are regarded as issues or defects caused by normal wear and tear:

- Limescale build up on the heating element of the washing machine;
- Tire tread wear
- ...]

▪ [The service provider] repairs any issues or defects of the product that are a result of inherent hardware issues or that are caused by normal wear and tear during the contract. [The service provider] bears the costs of this repair. The customer is liable for all repair costs exceeding normal wear and tear.

[Are, for example, regarded as issues or defects caused by normal wear and tear:

- Limescale build up on the heating element of the washing machine;
- Tire tread wear of the bicycle tires;
- ...]

▪ By way of derogating from the previous clauses, the customer is granted [specified number] exceptional repair[s] beyond normal wear and tear per [specified time period] whose costs are borne by [the service provider].

[This right is limited to the following issues or defects beyond normal wear and tear:

- Cracked phone screen;
- Broken bicycle lights;
- ...]

▪ If the customer willfully causes the issues or defects of the product, the customer bears all maintenance and repair costs to remediate those issues or defects.

▪ [The service provider] uses [all reasonable efforts/best efforts] to complete the repair within [specified reasonable period of time]. [The service provider] informs the customer [in writing] of the assumed time required for repair.

- [The service provider] reimburses the customer the *pro rata* amount of the rent for the time that the product is unavailable to use.
- If the product needs to be temporary removed for repairing any issues or defects of the product caused by normal wear and tear during the contract, [the service provider] [provides the customer with a replacement product free of charge/ reimburses the customer the *pro rata* amount of the rent for the time that the product is unavailable to use].
- If the repair requires replacement of any component, [the service provider] gives priority to reconditioned/refurbished or remanufactured replacement parts of equivalent quality to virgin parts, before using virgin replacement parts.
- The customer agrees to provide [the service provider] with access to the product for maintenance and repair purposes.

2.3.7 Swapping

See the commentary in the research report.

2.3.8 Digital services

2.3.8.1 In general

- [The service provider] keeps all third-party software and hardware used in the provision of digital services up to date with the latest security patches and updates released by the third party.
- [The service provider] keeps all proprietary software and hardware used in the provision of digital services up to date.
- [The service provider] ensures the ongoing functionality of any integrated digital elements within the product for the duration of the contract. To this end, the service provider shall perform regular updates to the digital elements as needed to maintain their functionality.
- [The service provider] uses all reasonable efforts to minimize any disruption to the customer's use of the product resulting from updates.
- The customer accepts all updates and takes all necessary steps to facilitate their installation to maintain the optimal performance of the product. The customer acknowledges that failure to accept updates may result in decreased functionality of the product and potential security risks.
- [The service provider] generates a custom user profile of the customer based on the data collected, which is available via [specified digital service (e.g., app, website)]. This user profile contains [specified data (e.g., usage analytics (such as an overview of the use of the product with an approximation of the costs of use and data on use of resources such as energy and water), predictive maintenance)].

- [The service provider] is allowed to remotely monitor the correct use of the product in accordance with the terms of this contract.

- The customer provides and maintains a stable and secure internet connection to ensure the proper functioning of the product. The customer acknowledges that failure to maintain such an internet connection may result in interruptions in the availability of the product, errors, and other issues with the product.

- [The service provider] uses the collected data to determine the [pay-per-use/pay-per-volume/pay-per-user] fee. If data are missing because of loss of internet connection, the customer assumes the risk of this loss. [The service provider] determines a reasonable fee based on the customer's user profile[, by averaging the number of uses/volumes/users of the past specified amount of time (e.g., average of the past three months)/by taking the highest number of uses/volumes/users during the past specified amount of time (e.g., highest monthly number during the past three months)]. [If the user profile does not yet contain sufficient data for said amount of time, [the service provider] may assume a [reasonable specified number of uses/volume/users].]

2.3.8.2 Data protection

- [The service provider] only processes personal data for the purposes for which they are provided by the customer and shall not disclose or transfer personal data to third parties without the express consent of the customer, unless required to do so by law. [The service provider] guarantees the customer's privacy to the maximum extent.

- The customer's personal data are retained only for as long as necessary to fulfill the purposes for which they are collected. After this period, the data are securely deleted [or anonymized], unless the retention of data is required by law.

- Before signing the contract, the consumer consents to the processing of personal data for the following purposes by placing a checkmark in the designated checkbox.

[By way of example:

- performing the contractual obligations of [the service provider] (e.g., predictive maintenance) (→ this checkbox is necessary to be able to perform the contract);
- measuring app activity;
- producing app statistics;
- improving services;
- generating a custom user advertising profile;
- ...]

- Before signing the contract, the consumer consents to the transfer of personal data to the following persons by placing a checkmark in the designated checkbox.

[By way of example:

- subsidiaries of [the service provider] responsible for performing the contractual obligations of [the service provider] (→ this checkbox is necessary to be able to perform the contract);
- person who is responsible for the functionality of the digital service (e.g., app developer);

□ ...]

- The customer has the right to access, rectify, and erase personal data processed by [the service provider]. The customer makes this request [via the [website of the service provider]/via e-mail to [e-mail address of the service provider]]. [The service provider] respond to this request from the customer within [specified reasonable period of time].
- [The service provider] maintains appropriate technical and organizational measures to ensure a level of security appropriate to the risk involved in the processing of personal data, and to protect personal data against accidental or unlawful destruction, loss, alteration, unauthorized disclosure, or access.

2.3.9 Innovation

- [The service provider] uses all [reasonable/best] efforts to develop and implement new technologies, processes, or methods that will enhance [specified characteristic (e.g., the performance, the sustainability, the economic efficiency)] of the product and associated services. The service provider monitors all technological and other market developments and evaluates whether they can be incorporated into the performance of the obligations under this contract.
- Within [specified period of time] the product achieves [an absolute improvement of a certain characteristic (e.g., minimum efficiency energy rating)/a relative improvement of certain characteristic (e.g., a percentage in energy savings)].
- [The service provider] uses all [reasonable/best] efforts to ensure that the product achieves [an absolute improvement of a certain characteristic (e.g., minimum efficiency energy rating)/a relative improvement of certain characteristic (e.g., a percentage in energy savings)] [within specified period of time].
- If [the service provider] fails to fulfil this obligation, the customer is entitled to [specified amount (e.g., a lump sum or a dynamic indemnity; for example, a dynamic indemnity can be useful if the PaaS contract contains an obligation to save energy, in which case the contracting parties can agree that the service provider is to reimburse the customer for the excess amount of energy used (e.g., € X per kWh))].
- The obligation to innovate under this contract grants [the service provider] the right to replace the initial product with a new and improved version. The service provider is to notify the customer of any proposed replacement. [The service provider] and the customer negotiate in good faith to reach an agreement on a date and time for the replacement of the product.
- Any replacement of the initial product with a new or improved version is contingent upon the new version achieving [a demonstrable specified improvement (e.g., a higher energy efficiency rating)] when compared with the initial product[, as verified by an independent third-party certification body.]

- Any replacement of the initial product with a new or improved version is contingent upon the environmental impacts of the production of the new version and the discarding of the initial version are offset by the improvements of the new version within [specified period of time][, as verified by an independent third-party certification body.]. The customer has the right to refuse the proposed replacement if the anticipated benefits do not justify the environmental impacts associated with the replacement.
- If the product is replaced following the obligation to innovate, [the service provider/customer] bears the costs associated with the installation and setup of the new product. These costs are fixed at [a reasonable amount].
- The customer has the right to refuse the proposed replacement if the anticipated benefits do not justify the costs associated with the replacement. In this case, [the service provider] has fulfilled the obligation to innovate.

2.3.10 Circular guarantee

- The service provider takes back all products provided under this contract [at the end of their useful life and/or at the end of the contract][, except in the case of transfer of ownership to the customer under the terms of this contract,] and ensures their proper handling and processing in accordance with applicable circular economy principles.
- The service provider uses [all reasonable efforts/best efforts] to minimize waste and maximize the product's lifespan, thus maximizing resource efficiency.
- If the product is returned to [the service provider] for whatever reason (e.g., early termination, replacement, etc.) [after [specified period of time]] [the service provider] [uses all reasonable efforts/uses best efforts/is required to] process it in a circular manner.
- [The service provider] seeks to reuse the product in its entirety, with minimal disassembly or processing. Thus, [the service provider] prioritizes reuse over other circular alternatives, such as reconditioning/refurbishing, remanufacturing or repurposing.
- If none of the circular alternatives to reuse are feasible, [the service provider] recycles the product in an environmentally responsible manner [in accordance with a specified recycling scheme/in accordance with specified instructions].
- [The service provider] reuses the individual product used by the customer.
- [The service provider] reuses [specification of broader goal, relating to all products (e.g., 50% of all products taken back)].
- [The service provider] uses [specification of goal (e.g., 2 metric tons of materials sourced from products that are taken back)] [specified adverb of frequency (e.g., annually)] in the fulfillment of the obligations to maintain and repair the products of all customers.

- [The service provider] keeps records of the circular processing efforts and makes them available for auditing or reporting purposes.
- [The service provider] agrees to allow external audits of its compliance with the circular guarantee by [specified independent third party]. These audits take place [specified adverb of frequency (e.g., quarterly, annually)]. They are conducted using [specified methods and standards]. [The service provider] cooperates fully with the auditor and provides all necessary information and access to facilities.
- The auditor provides [the service provider] with a written report of its findings[, including any recommendations for improvement,] within [specified period of time (e.g., 30 days)] after completion of the audit.
- [The service provider] publishes a report on the circular processing efforts [specified adverb of frequency (e.g., at least once per quarter)] [in specified manner (e.g., by publishing this report on the website of the service provider)].
- The report contains a plan for addressing the shortfall if the specified circularity goals are not met.
- The non-fulfillment of the circular guarantee is deemed to constitute an injury to the customer and [the service provider] shall be held responsible for the resulting harm. If [the service provider] fails to meet the specified circularity goals, [the service provider] is to pay a [reasonable amount].

2.4 Ownership

- The product and all of its accessories[, such as instruction manuals, batteries, keys...,] remain the property of [[the service provider]/other identified legal entity (if the service provider is not the owner)] and no ownership or other legal title to the product transfers to [the customer].
- The [customer/[the service provider]] registers the retention of title in the pledge register at the General Administration of Patrimonial Documentation. The [customer/[the service provider]] bears the costs of this registration.
- If the product is incorporated in the immovable good of the customer or installed above, on, or below the land of the customer, no accession takes place. The product and all of its accessories[, such as instruction manuals, batteries, keys...,] remain the property of [[the service provider]/other identified legal entity (if the service provider is not the owner)] at all times.
- The parties encumber the product with a pledge and the [customer/[the service provider]] registers this pledge in the pledge register at the General Administration of Patrimonial Documentation, to the extent that the retention of title is without effect. The [customer/[the service provider]] bears the costs of this registration.
- If [the service provider] loses the right to revindicate the product or is unable to exercise this right effectively [because of the imputable behavior of the customer], the customer is liable to

pay compensation to the service provider, equal to the value of the product at the time of loss of the right to revindicate.

- The customer agrees to establish an escrow account containing financial securities with a trusted financial institution. This escrow shall serve as collateral to cover any potential liabilities arising from the loss of the right to revindicate or the inability to exercise this right effectively.
- [The service provider] has the right to apply a label on the product that informs its reader that the product is the property of [[the service provider]/other identified legal entity (if the service provider is not the owner)] and not of the customer. The customer is not allowed to remove, deface, or alter the label. The label shall not affect the functionality or performance of the product and [the service provider] shall ensure that the label is applied in a manner that does not obstruct or interfere with the peaceful possession of the product.
- When the contract ends [based on a specified ground of extinction (e.g., termination in mutual agreement)], [the service provider] may provide the customer with a reasonable purchase price for the product [equal to the residual value of the product/equal to the then fair market value of the product/equal to a percentage of the original cost of the product/equal to an amount that starts at a baseline and decreases with a certain percentage for each trimester that has passed since the start date of the contract] [with a minimum of specified amount/with a maximum of specified amount]. The customer may then choose to purchase the product for that price, in which case ownership transfers to the customer, or to return it to [the service provider] in accordance with the terms of this contract.

2.5 Duration, termination & withdrawal

2.5.1 Indeterminate term

- The contract commences [on effective start date/at the time the customer takes physical possession of the product] and remains in force indefinitely until it is terminated under the terms of this contract.
- Either party can terminate the contract by [written] notification to the other party. The contract ends after [specified reasonable period of time] from this notification.
- The terminating party is to pay an early termination fee of [reasonable amount (e.g., x months of recurrent payments in a subscription-based model)] to the other party.
- Early termination is only possible after [specified reasonable period of time] from the start date of the contract.
- The terminating party may cancel the termination at any time before the effective end date of the contract by [written] notification of this decision.

2.5.2 Fixed term

2.5.2.1 Fixed term without early termination

- The contract commences [on effective start date/at the time the customer takes physical possession of the product] and remains in force until [end date]. Early termination is not possible.

2.5.2.2 Fixed term with early termination

- The contract commences [on effective start date/at the time the customer takes physical possession of the product] and remains in force until [end date] unless it is terminated earlier under the terms of this contract.
- Either party can terminate the contract by [written] notification to the other party. The contract ends after [specified reasonable period of time] from this notification.
- The terminating party is to pay an early termination fee to the other party. This termination fee consists of [the actual costs and expenses and lost profits/a reasonable lump sum (e.g., x months of recurrent payments in a subscription-based model)].
- Early termination is only possible after [specified reasonable period of time] from the start date of the contract.
- The terminating party may cancel the termination at any time before the effective end date of the contract by [written] notification of this decision.

2.5.3 Extension of contract

- The contract is automatically extended by an additional term of [specified reasonable duration (e.g., one month)] at the expiration of the initial term and every subsequent extended term thereafter if either party does not give a [written] notification of the desire not to extend. This notification is to be given at least [a reasonable amount of time (e.g., five business days)] prior to the expiration of the initial term or any subsequent extended term.

2.5.4 Return of product

- If the contract is terminated, the customer returns the product and all of its accessories[, such as instruction manuals, batteries, keys...], within [specified reasonable period of time] from the end date [to a specified location (e.g., a brick-and-mortar store of the service provider)].
- If the contract is terminated, the customer returns the product and all of its accessories[, such as instruction manuals, batteries, keys...], within [specified reasonable period of time] from the end date by [carrier service (i.e., no specification of carrier service)/specified carrier service/one of the following carrier services (i.e., a limit to the freedom to choose a carrier service)] to [specified address]. [To this end the customer uses the pre-paid shipping label provided by [the service provider] [which can be requested via the website of [the service provider]]].

- The [customer/[the service provider]] bears [all reasonable costs associated with returning the product/the costs associated with returning the product up to [specified amount] beyond which [the customer/[the service provider] bears the remaining costs].
- The costs associated with returning the product are split equally between [the service provider] and the customer.
- If the contract is terminated, [the service provider] collects the product and all of its accessories[, such as instruction manuals, batteries, keys...,] within [specified reasonable period of time] from the end date at [specified location (e.g., the home or business premise of the customer)]. [The service provider] and the customer negotiate in good faith to reach an agreement on a date and time for the removal of the product. [The service provider] contacts the customer within [specified reasonable period of time (e.g., certain amount of business days)] to initiate this negotiation. This removal of the product is [free of charge/free of charge, unless a furniture hoist or similar moving equipment is required, in which case the customer is to pay the rental fee of this equipment/against payment of a reasonable amount].
- If the customer fails to return the product after termination [by the specified date/within a specified reasonable period of time after the end date], the customer is to pay a late return fee of [reasonable amount (e.g., the *pro rata* loss suffered because of the inability to rent out the product to another person)] per day until the product is returned[, up to a maximum of certain amount (e.g., the price needed to pay for a replacement product as well as the administrative costs of ordering and processing this replacement product)].
- If [the service provider] fails to pick up the product after termination [by the specified date/within a specified reasonable period of time after the end date], [the service provider] is to pay a late return fee of [reasonable amount] per day until the product is returned[, up to a maximum of certain amount].
- If the customer fails to return the product after termination [by the specified date/within a specified reasonable period of time after the end date], the customer is presumed to tacitly cancel the termination. The contract continues until it is terminated under the terms of this contract. [If an early termination fee was paid, [the service provider] reimburses the customer [minus a reasonable fee for administratively processing this reimbursement].]
- If the contract is terminated, the customer is to return the product, including all accessories[, such as instruction manuals, batteries, keys...], in a reusable condition. If the product is not reusable because of physical damage, wear and tear beyond normal use, missing parts or accessories, contamination with dust, or any other condition that renders the product unsafe or unusable for its ordinary purpose, the customer [is liable for all costs of cleaning, repairing or replacing the product /to pay a reasonable amount].

2.5.5 Right of withdrawal

- If the contract has been concluded from a distance or off-premises, the consumer has the right to withdraw with immediate effect from this contract without giving any reason within fourteen days of [the conclusion of the contract/the day on which the customer or a third party

appointed by the customer, who is not the carrier, acquires physical possession of the product]. The consumer is to make an unequivocal statement setting out the decision to withdraw. To this end, the consumer may use the following model withdrawal form. It is not mandatory to use this form.

To: [name service provider, geographical address service provider and, where available, fax number and e-mail address of service provider]

I/We (1) hereby give notice that I/We (1) withdraw from my/our (1) contract of sale of the following goods (1)/for the provision of the following service (1),

Ordered on (1)/received on (1):

Name of consumer(s):

Address of consumer(s):

Signature of consumer(s):

Date:

(1) Delete as appropriate.

[This withdrawal form can be filled out electronically on [the website of the service provider]. If the consumer makes use of this option, [the service provider] immediately sends a written confirmation of receipt.].

- If the consumer withdraws from the contract, the consumer is responsible for returning the product to [the service provider] [by courier service/at specified location], within fourteen days of the withdrawal.
- The consumer bears the direct cost of returning the product to [the service provider]. These costs are [fixed at reasonable amount/estimated to be maximally [specified amount]].
- The consumer is to return the product in a reusable condition, including all accessories[, such as instruction manuals, batteries, keys...] and packaging materials, in a reusable condition. The opening of the packaging and testing of the product is only permitted to the extent necessary to establish the nature, characteristics, and functioning of the product. [Specifically, the product may only be tested in a specified manner (e.g., the washing machine may only be used with the included laundry detergent sample, the micro-mobility product may only be tested on a clean, paved road).]
- If the product is returned in a non-reusable condition because the consumer has used the product to a larger extent, [the service provider] may deduct [a reasonable amount (e.g., a percentage of the total price of the product, the costs of cleaning and repairing the product)] from any refund, to compensate for the decrease in value of the product.

- If the consumer withdraws from the contract, [the service provider] collects the product and all of its accessories[, such as instruction manuals, batteries, keys...,] within fourteen days of the withdrawal [at a specified location (e.g., the home or business premise of the customer)]. [The service provider] and the customer negotiate in good faith to reach an agreement on a date and time for the removal of the product. [The service provider] contacts the customer within [specified reasonable period of time (e.g., certain amount of business days)] to initiate this negotiation. This removal of the product is [free of charge/free of charge unless a furniture hoist or similar moving equipment is required, in which case the customer is to pay the rental fee of this equipment/against payment of a reasonable amount].

- The consumer is to return the product in a reusable condition, including all accessories[, such as instruction manuals, batteries, keys...], and packaging materials, and in a reusable condition. The opening of the packaging and testing of the product is only permitted to the extent necessary to establish the nature, characteristics, and functioning of the product. [Specifically, the product may only be tested in a specified manner (e.g., the washing machine may only be used with the included laundry detergent sample, the micro-mobility product may only be tested on a clean, paved road).]

- If the product is returned in a non-reusable condition because the consumer has used the product to a larger extent, [the service provider] may deduct [a reasonable amount (e.g., a percentage of the total price of the product, the costs of cleaning and repairing the product)] from any refund, to compensate for the decrease in value of the product.

- If the consumer withdraws from the contract, [the service provider] refunds any payments made by the consumer for services that have not yet been provided. [The service provider] is entitled to retain a proportionate amount of the payments made by the consumer for services that have already been provided up to the date of withdrawal. The calculation of this proportionate amount is as follows [specified calculation based on the total price agreed in the contract]. [[The service provider] provides the consumer with a detailed breakdown of the calculation of the proportionate amount retained.]

Before signing the contract, the consumer is to indicate agreement with this right to proportional payment by placing a checkmark in the designated checkbox.

The customer hereby requests for the services under this contract to be performed immediately and acknowledges to be held to partial payment in case of partial performance.

2.6 Third-party claims

- The customer is solely liable for any claims arising from tortious acts or omissions committed by the customer or third party under the assumed supervision of the customer resulting from the use of the product. The customer defends and holds [the service provider] harmless from all expenses related thereto, including reasonable attorneys' fees.

- The customer indemnifies [the service provider] on first [written] demand against all fees, fines, penalties, or other monetary sanctions imposed on [the service provider] by third parties resulting from the use of the product in breach of the applicable legislation. [For the sake of

expediency, [the service provider] may pay the amount owed by the customer on the customer's behalf and the customer indemnifies [the service provider] for such sums.]

- If the product is impounded by public authorities, the customer is liable for all costs associated with the collection process.
- The customer has no power of attorney to accept any liability on behalf of [the service provider].

2.7 Promise for another

- If the customer transfers the ownership of the whole immovable good in which the product of [the service provider] is incorporated or a part of this immovable good, the customer promises that the third party to which the title is transferred becomes part of this contract in the customer's stead, if ownership of the whole immovable good is transferred, or that this third party becomes part of this contract in addition to the customer, if ownership of part of the immovable good is transferred. In the second hypothesis, both the customer and the third party are [solidarily/indivisibly/solidarily and indivisibly] liable for performance of the contract.
- If the third party refuses to become part of this contract despite a transfer of the ownership, the customer is liable for compensation of [the service provider] for [specified reasonable amount (e.g., the value of the product at the time of the transfer of the title, an amount that starts at a baseline and decreases with a certain percentage for each trimester that has passed since the start date of the contract)].

2.8 Changed circumstances

2.8.1 Hardship

- The obligations of [the service provider] to reach the specified output are based on the current state of the customer's [home/business premises] where the service is to be provided. If alterations are made to this location that render the fulfillment of this obligation more onerous, the contracting parties are to renegotiate the contract in good faith. If the negotiations between the parties fail to result in an agreement within [specified period of time] from the date of the initial meeting to renegotiate, the contract is deemed to be terminated.

2.8.2 Price changes

- [The service provider] has the right to reasonably adjust the rent because of annual price indexations based on [price index (e.g., Belgian consumer price index)]. [The service provider] communicates changes to the customer at least [reasonable period of time (e.g., one month)] in advance.
- [The service provider] has the right to reasonably adjust the charges for the services provided to the customer in accordance with [formula that accurately reflects raised labor costs, material costs, etc.]. At all times, 20% of the original price remains unchanged. [The service provider]

communicates changes to the customer at least [reasonable period of time (e.g., one month)] in advance.

- [The service provider] has the right to reasonably adjust all prices in the contract to adapt them to legislative changes in taxation or regulatory fees.
- When the customer is informed of price changes, the customer has the right to terminate the contract free of charge.

2.9 Insolvency/bankruptcy

- [The service provider] provides a detailed contingency plan outlining how services will be maintained in the event of insolvency, in particular bankruptcy. This contingency plan includes steps [for transitioning to another provider or for self-management]. The contingency plan is attached to this contract.
- [The service provider] notifies the customer promptly if it becomes insolvent and in particular if it files for bankruptcy. This notification triggers the contingency plan.
- [The service provider] places the source code, necessary data, and configurations for the digital services in this contract into escrow with a trusted third party. [In the event of insolvency, in particular bankruptcy, the customer can access this information for the sake of self-management, without any additional fees/In the event of insolvency, in particular bankruptcy, the third party continues the service with the information held in escrow. To this end all licences associated with the product that are necessary for the continuation of the services in this contract are transferred to this third party by operation of law. The continuation of the service is free of charge to the customer].
- [The service provider] guarantees a minimum period of continued service, even in the event of insolvency, in particular bankruptcy, to allow the customer sufficient time to transition to an alternative service provider or solution. To this end [the service provider] establishes a financial escrow account to cover the operational costs of this minimum period.
- The customer retains ownership of all data related to the product. In the event of insolvency, in particular bankruptcy, of [the service provider], the customer has the right to access, retrieve, and transfer this data to another service provider seamlessly.
- In the event of insolvency, in particular bankruptcy, of [the service provider] the customer enjoys a preemptive right to acquire the product at a reasonable price [equal to the residual value of the product/equal to the then fair market value of the product/equal to a percentage of the original cost of the product/equal to an amount that starts at a baseline and decreases with a certain percentage for each trimester that has passed since the start date of the contract] [with a minimum of specified amount/with a maximum of specified amount], before any third party claims for revindication are considered.

2.10 Non-performance

See the commentary in the research report.

2.11 Boilerplate

See the commentary in the research report.

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