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Case No: LM-2020-000063

IN THE HIGH COURT OF JUSTICE
BUSINESS AND PROPERTY COURTS OF ENGLAND AND WALES
LONDON CIRCUIT COMMERCIAL COURT (KBD)

Royal Courts of Justice
Rolls Building, Fetter Lane,
London, EC4A 1NL

Date: 27/01/2023

Before :

MR JUSTICE BRIGHT

- -

Between :

(1) DR FARAMARZ SHAYAN ARANI **(2) MR DAVID ROSSELL GRIFFITHS** **(3) DR FARSHID ZOLGHADR**	**Claimants/ Part 20 Defendants**
- and -	
CORDIC GROUP LTD	**Defendant/ Part 20 Claimant**

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ADAM SOLOMON KC and DAVID LASCELLES (instructed by **Penningtons Manches Cooper LLP**) for the **Claimants**
PAUL SINCLAIR KC and NICK DALY (instructed by **Shoosmiths LLP**) for the **Defendant**

Hearing dates: 05-08, 12-15, 19 & 20 December 2022

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Approved Judgment

I direct that no official shorthand note shall be taken of this Judgment and that copies of this version as handed down may be treated as authentic.

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THE HONOURABLE MR JUSTICE BRIGHT

This judgment was handed down by the judge remotely by circulation to the parties' representatives by email and release to The National Archives. The date and time for hand-down is deemed to be Friday 27 January 2023 at 10:30am.

Mr Justice Bright :

1. This judgment follows the trial of the Part 20 claim brought by the Defendant ("Cordic Group") against the Claimants (individually "Dr Arani", "Mr Griffiths" and "Dr Zolghadr", collectively "the Sellers") for breach of warranty in relation to a Share Purchase Agreement dated 1 November 2018 ("the SPA"). Under the SPA, on 1 November 2018, the Sellers sold to Cordic Group the entire issued share capital of Cordic Limited ("the Company") for a total price of £10,937,971. Various specific breaches of warranty are alleged, in the context of various specific warranties under the SPA. It is Cordic Group's case that these breaches were committed fraudulently, and/or by way of wilful misconduct, as explained below.

Procedural history

2. The action was commenced by the Sellers on 17 April 2020, seeking payment of an element of the purchase price that had been held back as a Retained Amount under the SPA. The Sellers obtained summary judgment on that claim, by a judgment and order of Mr Andrew Hochhauser KC (as he now is), sitting as a Deputy Judge, on 7 April 2021. Cordic Group sought to resist summary judgment on various grounds, but chiefly by asserting that it had various Part 20 claims, some already extant in the Defence and Counterclaim and others before the Court as draft amendments. Mr Hochhauser KC decided that none of these Part 20 claims provided a barrier to summary judgment. On this basis, he struck out Cordic Group's Defence. However, he granted permission for Cordic Group to amend its Counterclaim.

3. Key to this outcome was the fact that (as Mr Hochhauser KC found) Cordic Group did not give prompt notice of its claims against the Sellers. Clause 6.3 of the SPA required breach of warranty claims to be notified within 16 months of completion, but Cordic Group failed to comply. However, under clause 6.4.3, this limitation did not apply in so far as the claim concerned "*any fraudulent act, omission or misrepresentation or any wilful misconduct, wilful concealment, or wilful misstatement by the Vendors*." Thus, the Counterclaim was to be confined to Part 20 claims falling within clause 6.4.3, and the amendments permitted by Mr Hochhauser KC were intended to reflect this.

4. Further directions were given at a Case Management Conference on 28 October 2021, including permission for re-amendments to the statements of case and the setting of a trial window.

5. The issues arising from the Re-Amended Counterclaim (and the statements of case that have flowed from it) have been the subject-matter of this trial. Thus, Cordic has been the effective claimant in the trial, despite still being identified as the Defendant in the heading to this judgment.

Summary

6. The Company was formed by the Sellers in 2002 and commenced business operations in the following year. From 2003 to 2022 it provided fleet management solutions for taxi, private-hire and courier businesses. In particular, it produced a software package called cPAQ, also known as the Cordic Dispatch System ("CDS"). The functions offered by CDS evolved over time, but from its first deployment with customers they included an address look-up facility, which the Company's customers – predominantly

taxi businesses – could use to identify addresses given by their own customers for pick-ups and drop-offs.

7. In order to provide this function, CDS incorporated an address database. This too evolved over time, with updates and improvements over the years. It was common ground between the parties that the address database was compiled, at least in part, with the benefit of data from the Royal Mail Postcode Address File ("PAF"). PAF records include not only the postcode of every mail delivery point but also the address, generally giving the street and number. Some business addresses and other premises also have their own PAF entry, giving the name of the relevant business/entity. However, PAF records do not include addresses that do not receive mail, e.g. railway stations and airports (which are, however, of great relevance to taxi companies).

8. The Company obtained PAF data from a third-party provider, Arc en Ciel Limited ("Arc en Ciel") by purchasing CDs, which were subject to licenses restricting the use of the PAF data. At various different times, the Company also obtained address data from Microsoft MapPoint (principally geocode data, which PAF provided only to a limited extent), as well as using (or looking to use) NaPTAN data (i.e., data from the National Public Transport Access Nodes website), some Ordnance Survey data, and other open-source mapping data (i.e. data freely available, generally created by members of the public), together with data from the Company's own customers (some taxi businesses had their own address lists).

9. Precisely how the Company used these various data sources, their relative significance and how these things changed over time, is the arena of the most significant factual issues between the parties. This is because the Arc en Ciel licences prohibited the reproduction of the PAF data on the CD, but contained a proviso that permitted use of PAF data "*to modify existing mailing list databases*". In very broad terms, Cordic Group's case is that PAF data was used to create the Company's address database; whereas the Sellers say that PAF data was used to modify an existing address database, created from various other sources.

10. On Cordic Group's case, the Company had, from the outset, carried on business in a manner that was inconsistent with the Arc en Ciel licences and abused Royal Mail's intellectual property rights; furthermore, this had been the case over most of if not all of the entire period of the Company's business activities. The Company therefore was liable or potentially liable to claims that might be made by Royal Mail and/or Arc en Ciel – not only historic claims, relating to the period prior to the SPA, but also claims arising out of the Company's business activities after that date.

11. On this basis, Cordic Group's case was as follows:

(1) The Sellers were therefore in breach of warranty in various respects.

(2) These breaches of warranty were within the fraud exception in clause 6.4.3, in that each of the three Sellers acted fraudulently or with wilful misconduct or by making wilful misstatements.

(3) If the relevant matters warranted had been true, the Company's value on 1 November 2018 ("the Warranty True value") would have been substantially in excess of the purchase price of £10,937,971. Cordic Group's case was that the

Warranty True value was £22.6 million, comprising an enterprise value ("EV") of £17.9 million and surplus cash of £4.7 million.

(4) Because the relevant matters warranted were false, the true value of the Company on that date ("the Warranty False value") was zero.

(5) Cordic Group justified this approach on the basis of a deduction from the Warranty True value, reflecting both exposure to historic claims that might be made by Royal Mail (or Arc en Ciel) in respect of the period prior to the SPA, and ongoing licence costs after the date of the SPA. Cordic Group's figure for the appropriate deduction was approximately £35.9 million – i.e., substantially in excess of the Warranty True value. This total figure comprised approximately £11.5 million in respect of exposure to historic claims and approximately £24.4 million in respect of ongoing licence costs.

12. The Sellers's case was as follows:

(1) There were no breaches of any warranty. The PAF data was only ever used consistently with the Arc en Ciel licences.

(2) In any event, there was no fraud, wilful misconduct or wilful misstatement on the part of any of the Sellers.

(3) The Warranty True value was substantially lower than the purchase price. The Seller's case was that the Warranty True value was £6.45 million, comprising an enterprise value of £2.34 million and surplus cash of £4.11 million.

(4) Because the Sellers denied having committed any breaches of warranty, they denied that there was a Warranty False value.

(5) However, they advanced an alternative case that, if there had been breaches such as Cordic Group alleged, the appropriate deduction to be made from the Warranty True value was at most £1,059,000, comprising £483,000 in respect of exposure to historic claims and approximately £576,000 in respect of ongoing licence costs.

(6) At one point, the Sellers' primary case as to the figure for exposure to historic claims was approximately £46,000. This would have a produced a figure for the total appropriate deduction of £622,000. However, this approach – which depended on the computation of the quantum of historic claims being based not on the fees charged by Royal Mail for the use of PAF data but on the annual fee charged by Bing for its rival product – was not pursued by Mr Solomon KC in closing submissions.

The parties and the witnesses

13. The Company was founded in 2002 by Dr Arani and Dr Zolghadr. Mr Griffiths joined shortly afterwards. The three Sellers remained directors of the Company until its acquisition by Cordic Group in 2018. Over this period, Dr Arani's main responsibility was sales, marketing, and the commercial side of the business; Mr Griffiths was in charge of software development; and Dr Zolghadr was head of operations (including

support, installation and training). However, it is apparent that, as with many small start-up businesses, their responsibilities overlapped.

14. Following the SPA, Dr Arani and Mr Griffiths were retained as consultants, with Dr Arani also staying on as a director of the Company and attending board meetings of Cordic Group, until shortly after these proceedings were commenced. Dr Arani's directorship and consultancy agreement were both terminated in May 2020. Mr Griffiths was initially put on furlough; his consultancy agreement was then terminated on 1 August 2020.

15. Dr Zolghadr became seriously ill in 2016. He remained a director of the Company until 2020, but took no active part in running it from the time of his illness.

16. All three Sellers gave evidence. Because of his illness, Dr Zolghadr did so remotely, from his home. Because of his medical condition, he was allowed extra breaks as and when he asked or this seemed suitable, it being noticeable that he sometimes became tired (despite being treated with commendable sensitivity by Mr Sinclair KC). However, it is right to note that, while clearly suffering from adverse physical effects, Dr Zolghadr's understanding of the proceedings and his ability to give evidence did not seem to me to be diminished by his illness in any material way.

17. The funding for Cordic Group's purchase of the Company was largely provided by Oakfield Capital Partners LLP ("Oakfield"), a private equity firm that invests in SME businesses in the UK. Oakfield was founded by Michael Patton, who was one of Cordic Groups witnesses and gave evidence about the decision to purchase the Company. Additional funding was provided by various individuals including Dr Arani.

18. Following the conclusion of the SPA, a new management structure was brought in at the Company. Bernardus ('Bart') van Schriek was appointed as the new CEO, leaving that role in 2020. Mr van Schriek also gave evidence.

19. Cordic Group's other factual witness was Idris Davies. Mr Davies joined the Company before the SPA, in 2014, as Software Manager, reporting to Mr Griffiths. After the SPA, Mr Davies was retained and appointed CTO. Following Mr van Schriek's resignation, Mr Davies became CEO.

20. The Company entered administration in May 2022. Its assets were purchased by a new company, Cordic Technology Limited ("Cordic Technology"), once again with funding provided largely by Oakfield (via a further company, Oak CL Holdings Limited). Mr Davies is the CEO of Cordic Technology and a shareholder in Oak CL Holdings Limited.

21. I also received expert evidence from IT experts (Phil Beckett for Cordic Group and Dr Gillian Hunt for the Sellers) and from expert valuers (Ian Clemmence for Cordic Group and Doug Hall for the Sellers).

22. The parties helpfully agreed a glossary of technical terms, which I adopt, appended to this Judgment.

The SPA

23. The material provisions of the SPA are as follows:

(1) Under clause 1 entitled "Definitions and Interpretation":

"*1.1 In this Agreement, unless the context otherwise requires: …*
***Claim** means a Warranty Claim...*
***Disclosed** means disclosed in the Disclosure Letter in such manner and in such detail as to enable the Purchaser to understand the nature and scope of the disclosure and to make an informed and proper assessment of the matter concerned;*
***Disclosure Bundle** means the bundle of documents annexed to the Disclosure Letter;*
***Disclosure Letter** means the letter dated the same date as this Agreement from the Vendors to the Purchaser disclosing exceptions to the Warranties together with all documents and information attached to it in the Disclosure Bundle...*
***Information Technology** means the information and communications technologies, all computer systems and hardware (including network and telecommunications equipment) and all software (including associated preparatory materials, user manuals and other related documentation) owned, used, leased or licensed by the Company;*
***Intellectual Property Rights** means patents, trade marks, service marks, logos, get-up, trade names, internet domain names, rights in designs, copyright (including rights in computer software), database rights, semi-conductor topography rights, utility models, rights in know-how and other intellectual property rights, in each case whether registered or unregistered and including applications for registration, and all rights or forms of protection having equivalent or similar effect anywhere in the world;*
***Licences In** means the licences of Intellectual Property Rights which have been granted to the Company;*
***Licences Out** means the licences of Intellectual Property Rights which have been granted by the Company to third parties...*
***Release Date** means the first Business Day following the date falling 16 months from Completion…*
***Warranties** means the warranties in clause 6 and Schedule 3;*
***Warranty Claim** means a claim for a breach of any one or more of the Warranties…*
1.5 The Warranties, and all other obligations, covenants and representations arising under this Agreement, given or entered into by the Vendors are given or entered into jointly and severally...
1.8 Where any Warranty is given on terms that it is to the best of the knowledge and belief of the Vendors (or any other words to this or a similar effect), the Vendors will be deemed to have the knowledge and belief which they would have had if they had made due and careful enquiries, including enquiries of each other Vendor and of each of Idris Davies, Matt Gadsby and Martin Carr."

(2) Clause 6, entitled "Warranties and Indemnities", states:

"*6.1 **Warranties**:*

6.1.1 The Vendors warrant to the Purchaser as at the date of this Agreement that, save as Disclosed or otherwise expressly provided for in this Agreement, each of the Warranties is true, complete accurate and not misleading.
6.1.2 Each of the Warranties is separate and independent and is not limited by reference to any other paragraph of Schedule 3 or by anything in this Agreement (other than the provisions of this clause 6) or the Tax Deed.
6.1.3 Subject to clause 6.1.4, none of the Warranties will be deemed in any way to be modified or discharged by reason of any investigation or inquiry made or to be made by or on behalf of the Purchaser, and no information of which the Purchaser has knowledge (whether actual, constructive or imputed and including, without limitation, any information known by or disclosed to any of the Purchaser's agents or professional advisers) other than by reason of it being Disclosed will prejudice any claim which the Purchaser may be entitled to bring or will operate to reduce any amount recoverable by the Purchaser under this Agreement.
6.1.4 The Purchaser warrants to the Vendors that except for matters Disclosed, it has no knowledge of any fact, matter or circumstance that might constitute a breach of any Warranty…
6.3 ***Limitations****: Notwithstanding any other provision of this Agreement, but subject to clause 6.4, the Vendors will not be liable:*
6.3.1 ***Time****:*
(i) For any Warranty Claim unless notice of the Warranty Claim is given in writing by the Purchaser to the Vendors setting out full particulars of the grounds on which the Warranty Claim under this Agreement is based within the 16 months following Completion…
6.4 ***Non-applicability of Limitations****: The limitations and exclusions contained in this Agreement will not apply to any claim under this Agreement to the extent that it:*
6.4.1 relates to the Vendors' title to, or the status or validity of, the Shares;
6.4.2 relates to any criminal fine or penalty; or
6.4.3 arises (in whole or in part), or is increased or delayed, as a result of any fraudulent act, omission or misrepresentation or any wilful misconduct, wilful concealment, or wilful misstatement by the Vendors."

(3) Clause 8.6, entitled "Whole Agreement", states:

"*The Transaction Documents (Including the documents and instruments referred to therein) supersede all prior representations, arrangements, understandings and agreements between the parties relating to the subject-matter thereof, and set forth the entire, complete and exclusive agreement and understanding between the parties relating to the subject-matter thereof. No party has relied on any representation, arrangement, understanding or agreement (whether written or oral) not expressly set out or referred to in the Transaction Documents.*"

(4) The Warranties set out in Schedule 3 include the following:

"*11* ***INTELLECTUAL PROPERTY***
11.3 ***Licences In and Licences Out***

The Vendor has Disclosed a list of the Licences In and the Licences Out together with a description, in each case, specifying in particular the parties thereto. In respect of Licences In and Licences Out:

11.3.1 The Licences In and the Licences Out are binding and in force. So far as the Vendors are aware, none of the parties to them is in default, there are no grounds on which they might be terminated and no disputes have arisen.
11.3.2 So far as the Vendors are aware, the Licences In cover all of the Intellectual Property Rights used (but not owned) by the Company. None of the Licences In is due to expire or is capable of being terminated at will by the licensor within 24 months from Completion…
11.4 ***No Infringement by the Company***
11.4.1 So far as the Vendors are aware, none of the Intellectual Property Rights owned or used by the Company and none of the operations of the Company infringes the Intellectual Property Rights of a third party.
11.4.2 No written claim has been made by a third party against the Company which alleges that the operations of the Company infringe, or are likely to infringe, the Intellectual Property Rights of a third party or which otherwise disputes the right of the Company to use the Intellectual Property Rights owned or used by the Company.
11.7 ***Adequacy of Intellectual Property Rights***
The Company owns, or has licensed to it, all Intellectual Property Rights which are required to carry on the Company's business as it is now, and as it has been for the six months prior to the date of this Agreement, carried on.
11.8 ***Restrictions on Use***
11.8.1 There are no agreements or arrangements which restrict the disclosure, use or assignment by the Company of the Intellectual Property Rights owned by the Company.
11.8.2 Save under the Licences In the Company is not under any obligation to pay a royalty, licence fee or other consideration, or to obtain approval or consent, for use of the Intellectual Property Rights owned or used by the Company…

12. ***INFORMATION TECHNOLOGY***
12.2 To the extent that elements of the Information Technology are not legally and beneficially owned by the Company, the Company has all necessary valid and subsisting licenses from the owner of the Information Technology to use such elements of the Information Technology in the manner in which such Information Technology are used in carrying on its business.
12.3 So far as the Vendors are aware, the Company is not in breach of any rights, obligations and/or licenses pursuant to which the Company uses the Information Technology…
12.13 Full details of all agreements in relation to the Information Technology (including, without limitation, licences, maintenance agreements, support agreements and software escrow agreements), are set out in the Disclosure Letter…

14. ***GENERAL LEGAL COMPLIANCE****…*
14.2 ***Licences and Consents***
All statutory, municipal and other licences, consents, permits and authorities necessary for the carrying on of the business and activities of the Company as now carried on (including the Softmerge product) have been obtained and are valid and subsisting and all conditions thereof have been complied with in all material respects and, to the best of the knowledge and belief of the Vendors, none of them

is likely to be suspended, cancelled, revised, refused or revoked Including as a result of the implementation of the Transaction Documents."

The Arc en Ciel CDs and the licence terms

24. The intellectual property rights in PAF data are owned by Royal Mail. Arc en Ciel sells CDs with the Address+ software programme, which contains PAF data and is subject to a licence. The terms of the Arc en Ciel Address+ licence were materially similar throughout the relevant period, the key terms being as follows:

(1) The licence did not give the Company copyright over the Arc en Ciel software programme, or the data files supplied with it (including the PAF data) (clause 1).

(2) "*PAF and the copyright in PAF are and shall remain the property of the Post Office*" (clause 2).

(3) The "End User" (i.e., the Company) "*shall not at any time reproduce, publish, sell, lend or otherwise part with possession of the PAF or relay or disseminate PAF…*" (clause 3)

(4) The restriction in clause 3 was subject to an express proviso that permitted the Company to use PAF "*to modify existing mailing list databases*".

(5) The licence was for a period of one year (clause 5). Each CD could in fact only be used for 1 year.

(6) The software was sold "*strictly on a "per seat" basis*", the Company had to have a "*reasonable mechanism*" in place to ensure that the number of persons, or (from 2010 onwards) the number of computers, workstations or (later) users, with access to the software did not exceed the number of licences purchased (clause 6).

25. None of these terms is surprising or unusual.

26. The licence terms would be read on a "click-through" basis by anyone using a CD. Mr Griffiths was the individual within the Company who used the Arc en Ciel CDs. He accepted that he would have seen the licence terms; he probably did not pay much attention but he accepted that they were not surprising or unusual.

27. Dr Arani and Dr Zolghadr did not use the CDs and would not have seen the licence terms. However, they both accepted that they appreciated that the CDs would have licence terms, and that the terms set out above were the kind of terms they would have expected.

28. The parties' submissions focussed on the meaning and effect of the proviso to clause 3, i.e., the permission to use PAF "*to modify existing mailing list databases*". Both parties referred to the judgment of Lloyd J in *Royal Mail Group plc v i-CD Publishing (UK) Ltd* [2004] EWHC 286 (Ch), where Lloyd J considered similar licence terms, including the very same proviso to clause 3. In that case, an address database was compiled from electoral rolls, and the PAF database was used to cross-check for correctness. However,

the underlying facts were very different, as were the terms of the debate, as appears from Lloyd J's judgment at [20] to [22]:

> *20. The preliminary issue is defined as follows:*
>
> *"Whether pursuant to the proviso to clause 3.1 of the Claimant's End User Licence terms, the PAF validation of the Electoral Roll data included in versions 1-8 of the Defendant's UK-Info Directory was licensed."*
>
> *21. The question so posed requires attention to a number of different elements of the text, in particular "modify", "existing" and "mailing list databases". Each of these must be seen in the context of the whole proviso and indeed of the whole clause. For present purposes and in relation to the sort of operation that was carried out for the defendant, it is accepted that the word "modify" is not satisfied if the PAF validation process results in a record being included in the output from the operation which had no equivalent in the dataset as it was beforehand. Whether that is so in all relevant contexts I do not need to decide. It is now accepted that the defendant's products do not include any added material that would be objectionable in this respect. The word "existing" shows that whatever process is used in respect of PAF must be applied to a database that already exists. It cannot be used to create a new database. That meaning is also apparent from the word "modify".*
>
> *22. The main debate turned on the phrase "mailing list database".*

29. In that case, there was no doubt that the PAF data was used to validate an existing database and went no further than correcting entries that already existed within that database. The issues arose from the fact that the defendant's database was never used for mailing; Royal Mail argued that the provision to clause 3 therefore did not apply. Lloyd J held that a database did not have to be used for mailing in order to be a "*mailing list database*" to which the proviso could apply.

30. It therefore was not necessary for Lloyd J to decide what is meant by the words "modify" and "existing". In particular, it was not necessary to decide whether adding new entries to a database would go beyond modification, and Lloyd J's language in the third sentence of [21] reflects the fact that this point was not in issue.

31. The final three sentences of [21] seem more likely to be Lloyd J's own view (as opposed to his summary of what the parties had agreed). It is not clear that they had been the subject of submissions or were in issue before him. However, I agree that the proviso can only apply where there is an existing database, which the PAF is used to validate.

32. Whether the result of checking an existing database against PAF data and results in changes that go beyond modification must be a matter of fact and degree. I would find it hard to accept that (for example) adding the postcode to a single entry that contained a street address but no postcode, in the context of an existing database containing (say) 27 million addresses, would not be permissible. On the other hand, adding the PAF data to an existing database that contained only (say) 10 addresses so as to increase it by 27 million would not be permissible: in practical terms, this would be the creation of a new database.

33. I address these extreme examples because they reflect the submissions made to me. However, they have no bearing on the facts of this case, which do not require me to confront the distinction between modification of an existing database and the creation of new database. Cordic Group's case is that there was no existing database; the Company's address database was created using PAF.

The CDS address database and AddrLoad

34. In evidence, the Sellers (especially Mr Griffiths, but also Dr Arani) downplayed the significance of the address database. However, it seems obvious that a taxi booking-system that incorporates an address database is likely to be superior to one that does not. In fact, it is clear from the examples shown to me in evidence of the Company's interactions with its customers and sales agents that the fact that CDS came with a comprehensive address database was a major selling-point.

35. In 2003 and into 2004, the Company purchased Arc en Ciel CDs for each customer, with multi-user licences. By the time of closing submissions, it was therefore accepted by Cordic Group that there was no breach of licence over this period.

36. Thereafter, the CDS software provided to customers (either loaded onto hardware or delivered from the Cloud) included the address database, in searchable KDX files (and, later in SQLite files).

37. To create the address database, Mr Griffiths developed the AddrLoad programme, which performed this task as follows:

    (1) It generated a clean, temporary address database – AddrB.

    (2) It uploaded address data into that database.

    (3) The address data would then be transferred from the temporary AddrB database into KDX files (or, later, SQLite files), which were used for address lookups in the CDS.

38. The Sellers' case was that the address data loaded by AddrLoad into AddrB came from a variety of sources – Microsoft Mappoint, customer address-lists and NaPTAN. This evidence came principally from Mr Griffiths, who was responsible for creating the address database in what he described as "the boiling process". Mr Griffiths also said that, later, he looked into using Open-Source data, but had not completed this project prior to the SPA; as well as some Ordnance Survey data.

39. The Company also used PAF data from the Arc en Ciel discs. The major factual issue in the case is whether PAF data was used merely as a cross-check, to validate and modify the existing temporary AddrB database already created by AddrLoad, or whether data was simply taken from the Arc en Ciel CDs so as to create that temporary AddrB database.

How the CDS address database was created, from 2004

40. Single CDs were purchased from Arc en Ciel in 2004, 2005, 2006, 2007, 2010, 2013, 2014, 2015, 2016 and 2017. After Mr Davies joined the Company in 2014, he twice asked Dr Arani to order a new CD from Arc en Ciel, because customers had raised

issues about the address database being out of date (in April 2016 and again in July 2017). It seems likely that, whenever a new CD was purchased, the reason will have been similar, and that the reason for buying and then using each Arc en Ciel CD was to create a new address database, which happened whenever a new CD was purchased.

41. Mr Griffiths suggested in evidence that the Arc en Ciel CDs were not suitable for the creation of an address database, because the API files which they used were not readily searchable and the data was encrypted.

42. This made it necessary for him to explain how the Company used the Arc en Ciel CDs, given these disadvantages. In his witness statement, his account was that AddrLoad was able to interface with the data held in the API files and transfer it to a temporary AddrB database. This AddrB database was then written into KDX files, which were used to validate the (separate) AddrB database created from MapPoint, customer address lists, etc. The KDX files incorporating PAF data had no other purpose and were not used in the CDS system. This remained the Sellers' case throughout.

43. Cordic Group's case was that the design of AddrLoad deliberately overcame the intrinsic difficulties of using the Arc en Ciel CDs to create an address database. The Company did not use AddrLoad to create two separate temporary AddrB databases, one containing data from various legitimate sources and the other containing solely PAF data which was then used to validate the first AddrB database. There was no validation process. AddrLoad was used simply to extract PAF data from the Arc en Ciel CDs, to create a temporary AddrB database using that data (and some additional data from other sources), and then to use this AddrB database to create the KDX files (or, later, the SQLite files) used in the CDS.

44. I have no doubt that Cordic Group's case on this point is correct. This is essentially for the reasons advanced by Cordic Group, as follows.

45. First, the sheer number of addresses in the CDS address database makes it inconceivable that all these addresses can have come from anywhere other than the PAF data. The precise number of addresses varied and increased over time, but there were always well in excess of 20,000,000. This is comparable in size to the PAF database (bearing in mind that the Sellers' evidence was that addresses from some UK regions were deliberately excluded).

46. Second, the kind of information included in the CDS address database can (in many instances) only have come from the PAF data. For each address in the database there was (in general) a full street address and a postcode. These details could not have been derived from MapPoint (which Mr Beckett said, and Mr Griffiths accepted, was used for geocode data) nor from open-source data from Ordnance Survey (which, in any event, was only used from 2010). Postcode information for train stations, airports (etc.) is likely to have come from NaPTAN (at least from 2015, this being when the Company started using NaPTAN), but this does not apply to normal residential or business addresses, which are not covered by NaPTAN. The only other source identified by Mr Griffiths was customer lists, but the CDS address database is simply too comprehensive to be derived, in general, from customer lists. Mr Griffiths estimated that only about 10% of customers provided lists, each of a few thousand, perhaps 20,000. Not only would this not be capable of producing over 20,000,000 addresses, it also would not

have generated a database which listed every address on a given street and it would have been unlikely to match street addresses and postcodes.

47. Third, there is in fact no evidence of customer addresses being provided to the Company. Following the SPA, Cordic Group had access to the Company's records, which were disclosed in the course of the proceedings. They do not include any customer records.

48. Fourth, the CDS address database included addresses for areas where the Company had no customers. Mr Davies gave evidence that the Company had no customers in Bristol, when the 2017 address database (created following the purchase of the last Arc en Ciel CD before the SPA) had 13,807 new addresses added in the Bristol area.

49. Fifth, both internally and when marketing to customers, the Company frequently referred to CDS as providing address lookups using PAF data, with a view to emphasizing its comprehensiveness. Thus, in 2006 an independent sales agent provided draft responses to a customer, which Dr Arani approved, that referred to the "*full PAF address database*"; in 2007, Dr Zolghadr received a training manual that referred to the "*Royal Mail address book*"; in 2007 Dr Arani approved responses to a customer which referred to a "*complete PAF database for the UK*"; in 2009 Mr Griffiths prepared responses to a customer questionnaire that referred to "*Royal Mail PAF data*"; in 2009 Dr Zolghadr responded to a query from a Company employee about a postcode search by saying "*… we use the post office address database*"; a 2010 marketing document approved by Dr Arani told customers they would get "*access to Royal Mail's full database of UK postcodes*".

50. In cross-examination, each of Mr Griffiths, Dr Arani and Dr Zolghadr were taken to these and others examples, where each of them either referred to the CDS address database as using PAF data, or saw others within the Company doing so. They all said, first, that when marketing and selling, they and others acting on behalf of the Company may have stretched the truth; and, second, that it became commonplace to refer to PAF and to the Royal Mail address database because this was something that customers understood.

51. I found their explanations unconvincing. If the Company had developed its own bespoke address database, the Sellers would have regarded this as a significant selling-point and would not have been shy to highlight it. The reason why customers were told that the address database was derived from PAF, and why people within the Company frequently used this language when communicating with each other, was that they all knew and believed it to be true. This is confirmed by various invoices, under which customers were charged for the supply of the "*Full UK Post Office Address Database*". Dr Arani's suggestions that these were typographical errors, or were again instances of people within the company using this phrase without really understanding it, bore the hallmark of desperation and reflected very badly on him as a witness.

52. Sixth, while it is clear how the Company's boiling process could use AddrLoad to export PAF data from the Arc en Ciel CDs, load it into a temporary AddrB database and then into KDX files (or SQLite files) for use in the CDS address lookup facility, it is not clear how the validation process suggested by Mr Griffiths would have worked. First, for this to be right, there would have been a separate set of KDX files, based on PAF data but only used for validation and different from the KDX/SQLite files used in

Cordic; but neither side's expert witness was able to identify two distinct sets of KDX files, which on this explanation should have existed. Second, the Sellers case requires the existence of a validation software programme, capable of cross-checking the (non-PAF-derived) temporary AddrB database against the (PAF-derived) KDX files; but neither side's expert witness was able to identify such software. Mr Griffiths maintained in evidence that he had used such software but was unable to give basic details about it, e.g., its name or where it was stored.

53. Indeed, in oral evidence, Mr Griffiths was, in general, very confused in his oral explanation of the boiling process. It was not clear to me whether he maintained the account in his written statement (summarised above) or whether he was saying that a single AddrB temporary database was created, which combined both PAF data and data from other sources. I have kept in mind that he was being asked questions about events going back over some time, and that the boiling process is not something he has had to perform since 2017. However, Mr Griffiths is clearly an intelligent man, with a great understanding of this field. The fact that he could not give a coherent and consistent account of a process that he developed, and should have been proud of, was not impressive in terms of his reliability.

54. Seventh and finally, in a later section of this judgment – under the heading 'The application of clause 6.4.3' – I deal with various exchanges in 2012, 2016 and 2018 that shed further light on this point. Those exchanges were primarily relied on by Cordic Group as demonstrating the Sellers' knowledge and state of mind, so as to contend that the time-bar imposed by clause 6.3 of the SPA should not apply, by reason of the exception under clause 6.4.3 of the SPA. However, the exchanges are also relevant to the question how the CDS was created, and whether this was consistent with the Address+ licence terms.

55. In short, while I accept that the CDS address database included data from other sources, I have no doubt that it was principally derived from the Arc en Ciel CDs.

Breach of licence/breach of Royal Mail IP rights

56. It follows from my conclusion in the preceding section that the PAF data on the Arc en Ciel CDs was not used to modify an existing database. It was used to create a database that would not otherwise have existed. The Company therefore did not act within the terms of the Address+ licences on the Arc en Ciel CDs.

57. It further follows that the Company thereby infringed Royal Mail's copyright and/or database right in the PAF data, in a manner that was actionable by Royal Mail.

58. In relation to copyright infringement, the PAF data was a "*database*" within the meaning of s.3A of the Copyright, Designs and Patents Act 1988 ("**CDPA**"). By using the PAF data as it did within the CDS, the Company infringed Royal Mail's copyright in the PAF database (as the creator of that database) by (at least) (i) copying PAF, (ii) adapting PAF for use within the CDS, and/or (iii) distributing the CDS containing such copies (and/or adaptations) to customers: see ss.16-18, 21 and 23(c) CDPA.

59. As for database right infringement, Royal Mail made "*substantial investment in obtaining, verifying or presenting the contents*" of the PAF data so as to create a database right in PAF pursuant to Regulation 13(1) of the Copyright and Rights in

Databases Regulations 1997 ("**CRDR**"). Royal Mail owned the database right as the maker of PAF: Regulations 14(2) and 15. The Company infringed that right by extracting and/or re-utilising all or a substantial part of the contents of the PAF database for use within the CDS (see Regulation 16).

Breach of warranty under the SPA

60. In closing submissions, Mr Solomon KC helpfully stated that, if the CDS address database had been created as alleged by Cordic Group, so that the Company was not acting within the terms of the Arc en Ciel Address+ licence, then this was a breach of warranty 11.7 – by which it was warranted that the Company owned or had licensed to it all the Intellectual Property Rights required to carry on the Company's business.

61. That concession is sufficient for Cordic Group's purposes, in that establishing further breaches of additional warranties can make no difference. However, it seems to me that the findings I have made so far must mean that the Sellers were also in breach of the following:

(1) Warranty 11.3.2 – the warranty that, so far as the Sellers were aware, the Licences In covered all of the Intellectual Property Rights used (but not owned) by the Company. The Licences In were disclosed in a list, as required under warranty 11.3. They naturally did not include a licence permitting the use of PAF data to create an address database, there being no such licence.

(2) Warranty 11.4.1 – the warranty that, so far as the Sellers were aware, none of the Intellectual Property Rights owned or used by the Company and none of the Company's operations infringed the Intellectual Property Rights of a third party.

(3) Warranty 11.8.2 – the warranty that, except under the Licenses In, the Company was not under any obligation to pay a licence fee to obtain approval or consent for the use of the Intellectual Property Rights owned or used by the Company.

(4) Warranty 12.2 – the warranty that, to the extent that Information Technology used by the Company was not legally and beneficially owned by it, the Company had all necessary valid and subsisting licences from the owner of the Information Technology to use such elements of the Information Technology in the manner in which such Information Technology was used in carrying on its business.

(5) Warranty 12.3 – the warranty that, so far as the Sellers were aware, the Company was not in breach of any rights, obligations and/or licences pursuant to which the Company used the Information Technology.

(6) Warranty 12.13 – the warranty that full details of all agreements in relation to the Information Technology including licences were set out in the Disclosure Letter.

(7) Warranty 14.2 – the warranty that all licences necessary for the carrying on of the business and activities of the Company had been obtained and were valid and subsisting and all of their conditions had been complied with in all material respects.

62. I am less impressed by Cordic Group's case as to breach of warranty 11.3 (while it is true that the Arc en Ciel Address+ licence was not disclosed, the mere addition of this licence to the list in the Disclosure Letter would have made no difference, save to create a breach of warranty 11.3.1) and warranty 11.3.1 (the Company was not in default of any Licence In, albeit it would have been if the Arc en Ciel Address+ licence had been listed). I am also unimpressed by the case as to breach of warranty 11.4.2 (the emails from Royal Mail, discussed below in the context of SPA clause 6.4.3, were mere inquiries, rather than "*claims*"). However, in the light of Mr Solomon KC's concession no real time was spent on these points in submissions and it is not necessary to make a determination.

The elements of SPA clause 6.4.3

63. Clause 6.3(i) relieves the Sellers from liability for any Warranty Claim unless notice is given in writing within 16 months. Clause 6.4.3 provides that this limitation "*will not apply to any claim… to the extent that it… arises (in whole or in part), or is increased or delayed, as result of any fraudulent act, omission or misrepresentation or any wilful misconduct, wilful concealment, or wilful misstatement by the Vendors*." The word "claim" in this provision must refer back to the claim otherwise time-barred by clause 6.3 – i.e., in this case, Cordic Group's Warranty Claim(s) against the Sellers.

64. It follows that clause 6.4.3 is not concerned with whether any underlying act or omission (etc.) was fraudulent or wilful as between (on the one hand) the Sellers or the Company and (on the other) the persons affected – e.g., in this case, the breach of the Arc en Ciel Address+ licence agreement and the infringement of Royal Mail's rights in the PAF data. It is concerned with whether any breach of warranty itself was committed by the Sellers (or any of them) in circumstances arising out of, or increased or delayed by, any fraudulent act, omission or representation or any wilful misconduct, wilful concealment or wilful misstatement.

65. Mr Sinclair KC's submissions on the legal elements involved were to the following effect:

(1) A breach of warranty would arise out of fraud (including a fraudulent representation) if the warranty had been given in circumstances where the Sellers either (i) knew that the warranties breached were false, (ii) gave those warranties without belief in their truth, or (iii) were reckless, not caring whether the warranties were true or false: *Derry v Peek* (1889) 14 App Cas 337.

(2) In so far as this requires dishonesty, the question is whether, given what the Sellers knew or believed, they were dishonest by the standards of ordinary, reasonable people having the same knowledge as them: *Ivey v Genting Casinos (UK) Ltd* [2017] UKSC 67; [2018] AC 391, at [74]-[75].

(3) The "wilful" element requires some form of intentional or reckless wrongdoing: *National Semiconductors (UK) Ltd v UPS Ltd* [1996] 2 Lloyd's Rep 212, at p. 214 rhc. The phrases "*wilful concealment*" or "*wilful misstatement*" do not introduce any materially different requirements.

66. Mr Solomon KC made no submissions to the contrary.

67. Mr Sinclair accepted that the burden was on Cordic Group to prove these elements, to the standard necessary for the Court to be satisfied that it could safely make a finding of fraud.

68. Mr Sinclair further accepted that fraud and/or dishonesty and/or wilfulness needed to be established by Cordic Group against each Seller, in order for the claim to succeed against that Seller.

69. Both parties reminded me that, in weighing the evidence, a number of authorities emphasize the importance of contemporaneous documents, the limits of human memory and the utility of cross-examination: *Gestmin SGPCS SA v Credit Suisse (UK) Ltd* [2013] EWHC 3560 (Comm); [2020] 1 CLC 428, at [15]-[22]; *Simetra Global Assets Ltd v Ikon Finance Ltd* [2019] EWCA Civ 1413; [2019] 4 WLR 112, at [48]-[49]. This is particularly important in cases involving allegations of fraud (of which *Simetra* was an example): *Armagas Ltd v Mundogas Ltd (The "Ocean Frost")* [1985] 1 Lloyd's Rep 1, at p. 57 lhc per Robert Goff LJ.

The application of clause 6.4.3

70. I have noted above that the Arc en Ciel Address+ licence terms are not unusual. While only Mr Griffiths will have seen the licence terms – and even he probably did not pay attention to or recall their details – all the Sellers accepted in evidence that they knew that there must be licence terms and that they were likely to be similar to the actual licence terms. It follows that each of the Sellers was aware that it could not be legitimate to use the PAF data in order to create the Company's own address database, for use in the CDS address lookup facility.

71. Each of the Sellers also accepted that they read the terms of the SPA and were aware of the warranties they were required to give. It follows that each of the Sellers was aware that they were required to warrant (for example) that the Company owned, or had licensed to it, all the Intellectual Property Rights required to carry on the Company's business.

72. The fundamental question, therefore, is whether each of the Sellers knew that the Company had been using PAF data in order to create the Company's own address database.

73. In this context, Cordic Group relied on much of the evidence that I have already identified when addressing how the CDS address database was created. As the person who primarily developed and used the AddrLoad software, Mr Griffiths undoubtedly knew this. The numerous exchanges by which persons within the Company referred to CDS as providing address lookups using PAF data, many of which involved Dr Arani and several of which involved Dr Zolghadr, provide telling evidence that they also knew.

74. However, in the specific context of the requirements of clause 6.4.3, the evidence that Cordic Group highlighted above all else arose from some specific exchanges involving the Sellers in 2012, 2016 and 2018, as follows.

The 2012 inquiry from Royal Mail

75. In June 2012, the Company received an email from Alasdair MacHardy, who said that he worked at the Royal Mail's Address Management Unit, which managed PAF, and said:

> "*We believe that you are offering look ups against the PAF database to your clients but we don't have a record of the relevant licencing information. Can you please let me know if you are providing PAF, or access to PAF to clients and how you are sourcing this information*".

76. In the internal emails that ensued between the three Sellers:

(1) Dr Arani proposed an initial draft response to Dr Zolghadr, as follows:

> "*Dear Alasdair,*
> *You have indicated in your email that you believe that we are offering Royal Mail PAF to our clients. Could you please elaborate on this?*
> *We do not offer Royal Mail PAF product(s) to our customers. We source our information in combination with various techniques which involves manual data entry, address look up through software such as Microsoft MapPoint, etc.*"

(2) Dr Zolghadr responded, copying in Mr Griffiths and asking him what he thought, with the words "*I think this is a way forward. I wonder who's shopped us*".

(3) Dr Arani replied (again, copying Mr Griffiths) that it "*might be worth*" adding a further paragraph including the following:

> "*We have not looked at Royal Mail PAF products and offering. Perhaps, the data you provide are more up to date and comprehensive. We would like further information and pricing for licensing…*".

77. Before sending his final response, Dr Zolghadr sent it in draft to Mr Griffiths and Dr Arani (Dr Arani responding "*Sounds good to me*"). Its text was as follows:

> "*Our customers do not use any of the Royal Mail PAF products. We have our own propriety address database which has been created using a combination of techniques such as manual data entry, Customer supplied data, address lookup through Microsoft MapPoint, OpenStreets database etc.*
> *We have not looked at the Royal Mail PAF products. Perhaps the data you provide is more up to date and comprehensive. I would appreciate it if you would supply me with further information. In particular do you offer a product which provides landline Telephone numbers against addresses? Currently this information is entered manually by our customers*."

78. Each of the Sellers knew that the answer sent to Mr MacHardy was untrue.

79. Mr Griffiths accepted that he would have seen these emails at the time, although he does not appear to have responded in writing. He obviously knew that the response ultimately sent to Mr MacHardy was untrue, because he created the database and had done so using PAF data.

80. Dr Arani and Dr Zolghadr both said in their witness statements that the creation of the address database was Mr Griffiths' province and they did not know how the boiling process worked or what data sources were used, referring to it as a "black box"; and they maintained this position in oral evidence.

81. Dr Arani's insistence that he knew nothing about how the address database was created is entirely at odds with the text that he proposed for the response to Mr MacHardy, which purported to state that the address database was created without any use of PAF data. Furthermore, he knew that it was untrue that the Company had not looked at Royal Mail PAF products, because it was he who ordered the Arc en Ciel CDs, including on the occasions when Mr Davies asked him to do so because the CDS address database needed to be updated. I am driven to conclude that his text was proposed even though he knew it was untrue. He wanted Dr Zolghadr to respond untruthfully, in order to conceal the truth from Mr MacHardy and Royal Mail.

82. As regards Dr Zolghadr, the assertion in his final response that the Company had its own proprietary database was entirely at odds with the manner in which, to his knowledge, the address database was described to customers and within the Company – including by Dr Zolghadr himself. Furthermore, his comment "*I wonder who's shopped us*" indicates that he knew that the Company had been doing something wrong, and believed that someone had informed Royal Mail of this.

83. In his witness statement, and in cross-examination, Dr Zolghadr suggested that he might have misused the expression "*shopped*", because English is not his first language: he moved to the United Kingdom from Iran at the age of 14 (some 50 years ago). Having listened to Dr Zolghadr give oral evidence for approximately 3 hours, with impressive fluency, articulacy and linguistic correctness, demonstrating both a wide vocabulary and a near-flawless accent, I cannot accept that explanation. Dr Zolghadr is in many ways an impressive person. He said at one point of his evidence: "*I don't want to blow my own trumpet, but I was a key element for the success of the company*." I have no doubt of the truth of that assertion. More pertinently, his use of the phrase "*blow my own trumpet*" is a good example of his effortless command of English idioms.

84. I should add that there was some evidence from Mr Beckett that, although the code for the AddrLoad programme was largely written by Mr Griffiths, Dr Zolghadr rewrote some of it. So far as I can gauge, this went no further than bug fixes, so this involvement in AddrLoad would not necessarily have informed Dr Zolghadr what data it used (if he did not know this already). This point therefore takes the case against Dr Zolghadr no further, but that makes no odds in the light of my other findings.

85. Those findings include the following point, which affects all the Sellers equally. If any of the Sellers had thought that the Company's use of PAF data was legitimate, the natural response should have been to tell Mr MacHardy that the Company had purchased PAF data from Arc en Ciel and only used it within the terms of the licence. Instead, they said something flatly inconsistent.

86. Mr Griffiths had no explanation for this. Furthermore, he accepted that the response to Mr MacHardy was "*very hard to defend*".

87. Dr Arani accepted that there was no reason why he could not have said that the Company used PAF data for validation purposes. His explanation was, simply, that he could see no reason to say this.

88. Dr Zolghadr went further and said in oral evidence that he had thought at the time that Mr MacHardy's email might have been sent by a scammer. I found this evidence (which was not foreshadowed in his witness statement) incredible. Not only did Mr MacHardy's email come from the @royalmail.com domain, his signature details included a postal address with a PO box, a street address in Portsmouth, a mobile number and two landline numbers. Furthermore, none of the exchanges between the Sellers, prior to the final response, suggests that any of them had any doubt as to Mr MacHardy's identity or status within Royal Mail.

89. In short, the Sellers' response to the 2012 inquiry from Royal Mail is strong evidence that all three Sellers were consciously aware that the Company had been and was using PAF data in a manner that infringed Royal Mail's rights.

The 2016 inquiry from Royal Mail

90. In 16 February 2016, the Company received an email from Ian Evans, also of the Royal Mail Address Management Unit. Mr Evans said:

> "*We have recently being auditing use of PAF data and have discovered that you appear to be using our data in your taxi booking software, made available to your customers.*
> *We have not been able to identify which of our solution providers has licensed you based on this use. Please can you provide details of the use you are making of PAF data and also tell us who has licensed you to cover it.*
> *We understand that you have bought a single User licence for an Address+ product from Arc en Ciel, but we have not been able to find details of any licences which would allow the use of PAF data within your software.*
> *I would like to discuss this on the phone with you in the next week. Please can you let me know when you would be available for a call.*"

91. Dr Arani responded:

"*Dear Mr Evans, I can confirm that we are not using the Royal Mail PAF address database in our taxi booking software products*"

92. This prompted a further question from Mr Evans:

"*Thank you for your reply, that you are not using Royal Mail PAF data within your products. To help us understand how your software deals with address look ups, could you please confirm where you source the UK address data within your products?*"

93. Dr Arani asked Mr Griffiths and Dr Zolghadr for their comments. On this occasion, Mr Griffiths suggested how to respond:

> "*We had the same question a couple of years ago. You replied - 1 can't remember what you said but it must have satisfied them.*
> *However, we can say that we collate the information from:*

Open Street Maps Nominatim data Ordnance Survey Open Names Ordnance Survey Code-Point Open
all of which are free to use for personal or commercial purposes. We also use MapPoint - 1 think we told them this last time."

94. It is not clear what happened next. Dr Arani said that he thought he probably responded to Mr Evans as suggested by Mr Griffiths. However, there is no trace of any such responsive email within the Company's email server. On balance, I conclude that Dr Arani did not in fact send an email, but he would have been content to do so. Be that as it may, there was no further email from Mr Evans.

95. Mr Griffiths accepted that Dr Arani's initial response had been "*misleading*". He could not explain why his own suggested response failed to state that the Company only used PAF data to validate, as permitted by the Arc en Ciel Address+ licence. More significantly, on the basis of my earlier findings, that suggested response was untrue, as Mr Griffiths well knew.

96. In oral evidence, Dr Arani went further than he had when dealing with the June 2012 inquiry. He said that, on this occasion, he did not want to reveal to Royal Mail how the Company created its address database or the fact that (as he claimed) it was validated using PAF data because this was valuable information and he was concerned it might be leaked to a competitor. This evidence was not foreshadowed in his witness statement. I found it incredible, not least because the text proposed by Mr Griffiths, which Dr Arani said he would have been content to send and probably did send to Mr Evans did, in fact, purport to set out the data sources that, on the Sellers' case, were being used at this time. I do not see how stating that the Company then validated its database by reference to PAF would have revealed anything of interest to others, given that this was the very purpose for which it was legitimate to use the Arc en Ciel CDs.

97. In oral evidence, Dr Zolghadr once again said that he thought that the email was from a scammer. Once again, I find that evidence incredible.

98. In short, the 2016 inquiry from Royal Mail, and the surprising evidence that each of the Sellers gave in relation to it, is strong evidence that all three Sellers were consciously aware that the Company had been and was using PAF data in a manner that infringed Royal Mail's rights.

The 2018 exchanges regarding the drop-down address feature

99. In November 2017, Dr Arani sent Mr Griffiths an email about a large potential customer which had asked about the possibility of street numbers and flat numbers being shown and made selectable via a drop-down feature. Mr Griffiths responded:

> "*The post office database includes house numbers and flat numbers (although it is inconsistent). At present we do use them in our address database but we don't let the user search them directly… We can sneak it into 2.4 for Q1 2018*"

100. It is worth noting at this point that this exchange provides further evidence of the dishonest manner in which the Sellers dealt with the inquiries from Royal Mail in 2012 and 2016, and directly supports Cordic Group's case that PAF data was used in the CDS address database.

101. The drop-down feature raised by Dr Arani was introduced into the CDS in early 2018. However, in June 2018 it was disabled by Mr Griffiths. Mr Griffiths appears to have taken this step unilaterally and without advising anyone. The relevant code-change contained the comment that this was "*for licensing reasons*".

102. A customer complained and Dr Arani forwarded the email to Mr Davies, copying Mr Griffiths. Mr Griffiths responded (without copying Mr Davies) as follows:

"*As you know, we are currently using the Post Office database in a way which is almost certainly in breach of their licence terms. I am working on changing over to open source data. This would mean that we can no longer display the house numbers in a given postcode – something that was added in the 2.4 release, to try and attract a customer who never actually bought the system. I thought that it was too risky to leave this feature in the product, given the possible serious cost to us if we are found out*"

103. Dr Arani's response to this began "*I agree*" and then made the point (in rather sarcastic terms) that it was not good customer-handling to roll out this change without informing the customers.

104. Dr Zolghadr was not involved in these emails and is unlikely to have seen them at the time, bearing in mind his illness. However, this exchange is very telling, as regards Mr Griffiths and Dr Arani.

105. Both the earlier email from Mr Griffiths in November 2017 and his response to Dr Arani in July 2018 confirm that the Company was using PAF data and that Mr Griffiths was conscious of this and said so to Dr Arani. The drop-down feature was one for which the only possible source was PAF data; it therefore was too risky to continue to offer it, which was why Mr Griffiths had removed it. However, even in July 2018 – with the drop-down feature removed – Mr Griffiths was aware that the Company was still "*currently using the Post Office database in a way which is almost certainly in breach of their licence terms*". To this, Dr Arani replied "*I agree*".

106. Mr Griffiths confirmed in evidence that removing the drop-down feature did not remove the offending PAF data from the database (this being a very significant instance of the inconsistencies in his evidence, when compared with his insistence on other occasions that the address database was not created using PAF data). However, he then said that, although when he wrote his email he had believed that the Company was in breach of the Arc en Ciel Address+ licence, Dr Arani had subsequently persuaded him to the contrary. There is no trace of this in the documentary record, nor was this evidence foreshadowed either in Mr Griffiths' witness statement or in Dr Arani's; and it is impossible to reconcile with Dr Arani's written response, "*I agree*". I found it incredible.

107. Dr Arani's evidence was that he understood Mr Griffiths to be suggesting that the drop-down address feature was a breach of the licence – not the Company's general use of PAF data; and that was all he was agreeing to in his reply. This evidence makes no sense in the overall context of the exchange, from which it was clear that Mr Griffiths was saying that the current use of PAF data was almost certainly a breach of the licence, but this might be corrected in the future if Mr Griffiths succeeded in his efforts to change over to open-source data. It is also inconsistent with the other evidence that I

have identified in the course of my previous findings. Accordingly, I found this aspect of Dr Arani's evidence incredible.

108. A further notable feature of this exchange is the reference to "*the serious cost to us if we are found out*". In July 2018, the SPA transaction had progressed a long way towards a deal being concluded. Oakfield had conducted due diligence and had made two conditional offers and was just about to make a further offer. If the Sellers had been found out at this stage, they not only risked provoking interest from Royal Mail, they also risked losing the sale to Oakfield. I have little doubt that this weighed heavily in the minds of both Mr Griffiths and Dr Arani.

109. In short, the 2018 exchanges seem to me to show categorically that both Mr Griffiths and Dr Arani were consciously aware that the Company was using PAF data, and was doing so in a way that was (almost certainly) in breach of the relevant licence. Dr Zolghadr was not involved in these exchanges, but Mr Griffiths' words "*As you know…*" suggests that he believed that Dr Arani already knew this; which, even without the other evidence I have referred to above, would make it likely that Dr Zolghadr must also have known.

The June 2018 exchange regarding Mr Griffiths

110. As mentioned above, Oakfield had completed due diligence by July 2018. This included a due diligence meeting on 24 June 2018, attended by Dr Arani and Mr Griffiths. This was followed by an email exchange between Dr Arani and Dr Zolghadr in which Dr Arani commented on Mr Griffiths' performance, saying "*David was at his peak in talking as he had the stage. When was the last time in the past 15 years he was involve with such matters and we were happy with everything that he said? No exception today*", to which Dr Zolghadr responded "*I just hope he didn't fuck things up too badly. What's wrong with him? It's almost like he's special needs!*".

111. Mr Sinclair KC submitted that the only realistic reading of this exchange was that Dr Arani and Dr Zolghadr were both concerned that Mr Griffiths might have revealed the Company's wrongful use of PAF data. This seems unlikely to me. Mr Griffiths does not in fact seem to have made this revelation to Oakfield. Dr Arani was present throughout the due diligence meeting and must have known this.

112. It seems much more likely that, as Dr Arani and Dr Zolghadr said in evidence and as Mr Solomon KC submitted, this exchange was really concerned with the worry that Oakfield might have found Mr Griffiths' manner off-putting, because (they said) Mr Griffiths had a habit of talking at great length, often on tangents not connected to the main topic. Having heard Mr Griffiths give evidence, I am able to say that Dr Arani and Dr Zolghadr had every reason to worry about this.

Dr Arani's investment

113. I noted above that, while Oakfield provided most of the funding for the SPA, there was also funding from some individual investors, including Dr Arani. The precise amount of his investment was £200,000. The Sellers suggested that the fact that he wished to invest in Cordic Group makes the allegation of fraud unlikely.

114. I disagree. Experience shows that fraudsters frequently act irrationally, in particular when (as is often the case) they believe that their misconduct will not be exposed. I have no doubt that Dr Arani falls into this category.

Conclusion on the application of clause 6.4.3

115. The June 2018 exchange between Dr Arani and Dr Zolghadr takes neither side's case any further. However, the manner in which the Sellers (collectively) responded to the Royal Mail inquiries in 2012 and 2016 and dealt with the removal of the drop-down feature in July 2018 seems to me to show conclusively not only that PAF was in fact being used in the creation of the CDS address database (as I have already found), but that they were all aware of this and were further aware that it was, or almost certainly was, a breach of the relevant licence.

116. It is particularly striking that all three Sellers were content to give misleading answers to Royal Mail in order to deflect any further interest, and that Mr Griffiths and Dr Arani were very mindful in July 2018 of what they were risking, if the Company's current use of PAF data were to be found out.

117. I therefore have no doubt not only that the Sellers were in breach of warranty in the respects set out above, but also that such breaches were committed fraudulently (in the sense that false warranties were given without belief in their truth) and/or that, in giving such false warranties, the Sellers thereby acted intentionally and/or gave them in order to conceal the true position, within the meaning of clause 6.4.3.

118. It follows that Cordic Group's claim is not barred by the limitation provision in clause 6.3(i).

Quantum: the principles

119. Both sides proceeded on the basis that the measure of damages for breach of warranty in a share sale agreement is the difference between the Warranty True value of the shares and Warranty False value: *Lion Nathan Ltd v C-C Bottlers Ltd* [1996] 1 WLR 1438, at p.1441; *Ageas (UK) Ltd v Kwik-Fit (GB) Ltd* [2014] EWHC 2178 (QB); [2014] Bus LR 1338, at [14].

120. The parties agreed that I should do so on the basis of a hypothetical, reasonable willing buyer and a hypothetical, reasonable willing seller, rather than being bound by the subjective views of these Sellers or of Oakfield/Cordic Group. In this regard, I was referred to the judgment of Blair J in *The Hut Group Ltd v Nobahar-Cookson* [2014] EWHC 3842 (QB) at [180(2)], indicating that, in both the Warranty True and the Warranty False context, the object is to arrive at:

> "*The estimated amount for which an asset or liability should exchange on the valuation date between a willing buyer and a willing seller in arm's length transaction, after proper marketing where the parties had each acted knowledgeably, prudently, and without compulsion.*"

121. They also agreed that it was important not to be unduly affected by hindsight, i.e., events subsequent to the SPA that the parties could not have known about or anticipated at the date of the SPA: *MDW Holdings Ltd v Norvill* [2022] EWCA Civ 883, at [49].

122. All of that having been said, the thinking and conduct of Oakfield and Cordic Group at around the time of the SPA and subsequently can in principle be relevant to this inquiry. If and in so far as Oakfield and Cordic Group can be taken to be reasonable commercial people, their assessment of the relevant commercial risks and opportunities may shed light on how the hypothetical reasonable willing buyer might be expected to have approached matters.

123. Furthermore, while in principle quantum is to be approached by identifying the difference between the Warranty True value of the Company at the date of the SPA and the Warranty False value, the parties agreed that this difference would depend on the impairment to the Warranty True value that a hypothetical reasonable buyer would have established, if such hypothetical reasonable buyer had known that the Sellers were in breach of warranty, but had nevertheless remained willing to buy. As long as the Warranty True value exceeds the impairment, the quantum of the impairment represents the quantum of the claim.

Impairment arising from historic liability to Royal Mail

124. It is convenient to separate the impairment into two elements: that arising from the Company's historic liability to Royal Mail for use of PAF data prior to the date of the SPA, and that arising from the future licence costs arising from the ongoing use of PAF data (or the need to use substitute address data). This was how the valuation experts both approached the task of quantifying the impairment.

The relevance of Royal Mail licence fees to historic liability

125. In relation to historic liability, the starting-point is to quantify the claims that might be brought by Royal Mail in respect of this historic liability. It was common ground that the measure of damages, when assessing licence fees payable, reflects the outcome of hypothetical negotiations between a willing licensor and willing licensee: *One Step Support Ltd v Morris-Garner* [2018] UKSC 20; [2019] AC 649, at [107]-[108]. However, where there is an established licence fee charged by the licensor, that is typically taken as the relevant figure on the basis that it is the "going rate" (i.e., there would have been no realistic scope for negotiation by the licensee): *General Tire & Rubber Co v Firestone Tyre & Rubber Co Ltd* [1975] 1 WLR 819. Mr Solomon KC ultimately accepted that the licence fees actually charged by Royal Mail over time represented such a "going rate".

The headline figure for historic liability

126. Mr Clemmence was able to identify the licence fees actually charged by Royal Mail in respect of the period from 2016. Neither he nor Mr Hall was able to discover what fees had been charged prior to this, but Mr Clemmence performed an extrapolation to estimate the fees probably charged by Royal Mail back as far as 2004. He was criticised by the Sellers for doing so, but the Sellers were unable to suggest any reasonable alternative approach and I accept the figures advanced by Mr Clemmence for the Royal Mail fees prior to 2016, with one qualification: it was put to Mr Clemmence, and he more or less accepted, that he may have overestimated the fees for one type of licence (the website licence) by about 10%.

127. The next step is to identify the customer numbers and user numbers to which these fees should be applied. This does not merely mean identifying the true figures for historic customer numbers and user numbers (although that should be done, where possible). It means identifying the figures that a reasonable and properly informed buyer would have considered appropriate. The Sellers criticised the figures used by Mr Clemmence as excessive, but in my view such a buyer would have considered it appropriate to take a conservative approach, i.e. adopting the maximum likely figure. On this basis, I again accept the figures advanced by Mr Clemmence.

128. The calculations performed by Mr Clemmence on this basis included penalty interest, charged by Royal Mail, under its licence terms, for late payment. The Sellers argued that this element should be excluded because this was a contractual liability arising under contract terms that the Company had not in fact accepted, and suggested that there would only have been interest payable on damages in the usual way. However, in so far as the "going rate" rate actually charged by Royal Mail reflected the existence of terms requiring special interest on late payments, I consider that interest on late payment should be calculated in accordance with those terms.

129. On this basis, the experts were able to agree the relevant calculations. With an adjustment in respect of the website fee (as explained above), the total calculated figure for historic Royal Mail licence costs was £12,300,161. This total included licence costs from the Company's foundation until November 2018. Because the Company was bought and made purely legitimate use of Arc en Ciel CDs until 2004, a further reduction is required. I consider that the hypothetical reasonable buyer would probably have used the round figure of £12.3 million.

The discounts to be applied

130. The next step in the process is to discount this headline to reflect (i) the probability of Royal Mail bringing a claim against the Company (which the experts and parties referred to as "claim risk") and (ii) the probability of such claim succeeding (which they referred to as "litigation risk"). Neither valuation expert performed his own assessment of these risks, as they did not consider it within their expert competence.

131. Mr Clemmence was instructed to (and did) apply a claim risk discount of 5% and a litigation risk discount of 5%. Mr Hall was instructed to (and did) apply discounts of 95% and 80% for the period prior to November 2012 and 90% and 50% for the period from November 2012 to the date of the SPA, on the basis of the 6-year limitation period that would apply to any claim brought by Royal Mail.

132. There was no obvious basis for these instructions, save that they were the lowest and highest figures that Mr Sinclair KC and Mr Solomon KC (respectively) felt able to advance with a straight face.

The steps taken by Cordic Group after the SPA

133. The best evidence in relation to claim risk discount comes from the behaviour of Cordic Group, after the SPA. If the hypothetical reasonable buyer had learned of the issue before the SPA, it would have investigated but (ex hypothesi) would have proceeded with the purchase, having put itself into the position where it could come to an informed view as to how the terms of the SPA (notably price) should be revised. In doing so, it

would necessarily have had to formulate a tentative plan to deal with the issue. This is precisely what Cordic Group had to do, when it learnt of the potential exposure to Royal Mail after the SPA.

134. As Mr Davies said in evidence, once the problem was discovered, the only way for the Company to continue in business (at least in the short term) was for it to carry on using the same software as before, including the address database (based on PAF data) used by that software. However, the Company did not inform Arc en Ciel or Royal Mail that it had been using PAF data illegitimately, nor did it seek to purchase licences to permit it to do so legitimately from January 2019 onwards. Instead, a tacit decision appears to have been made for the Company to (metaphorically) keep its head down, while working out how to migrate to a non-PAF database, in the hope of avoiding any attention from Royal Mail. This does not appear to have been regarded as in any way urgent, but I have to assume that all those involved – notably, Mr van Schriek, Mr Davies, the Company and Cordic Group – believed that it would work and that the Company would thereby avoid having to pay Royal Mail.

135. Cordic Group first learnt of the problem when Mr Davies discovered it and alerted Mr van Schriek in January 2019. Shortly thereafter, Mr van Schriek asked Mr Davies to investigate the issue and look into alternative sources of address data. Mr Davies obtained various quotes, including one for Bing address data. He reported these to Mr van Schriek and Mr Griffiths on 15 January 2019. On 31 January 2019 Mr van Schriek reported to another Cordic Group board member, Brett Hochfeld, that the Company was most probably in breach of licence and that the focus now was to identify an alternative.

136. Thereafter:

(1) The problem was not reported to the Cordic Group board immediately. There was a board meeting on 13 February 2019 at which I assume nothing relevant was to have been discussed (because it was not disclosed). At a board meeting on 13 March 2019, one item in the minutes reads: "*BvS said that there is a potential licensing issue with the Royal Mail postcode database which he is investigating*." The minutes for this meeting (and all other meetings) closed with a list of action items; this was not listed among them.

(2) The matter was not discussed at the next board meeting (in April 2019), but the minutes included an action item reading: "*BvS to understand potential impact of Royal Mail license usage*." There were similar action items in the minutes for meetings that followed through to November 2019. Thereafter there is a gap in the record of board minutes – presumably because there were no relevant discussions – until March 2020, when the same action item appeared.

(3) Mr van Schriek explained in evidence that, although the board action items all refer to him, he did not conduct the relevant research himself. He delegated the task to Mr Davies.

(4) Mr Davies's efforts to find alternative providers were sparse and sporadic. No substantial progress was made in 2019. Mr Davies said in evidence that this was because it was not regarded as a priority.

(5) The spur for pursuing the issue was the Sellers' claim for the Retained Amount. The potential liability to Royal Mail, and the increased cost of doing business, was a major plank in Cordic Group's defence. As noted above, the Sellers' claim was commenced in April 2020, following pre-action correspondence in March 2020.

(6) In March 2020, Mr Davies produced a memo summarising the issues and giving estimates of the cost of purchasing Royal Mail PAF licences, as well as the cost of using some alternative providers. Mr Davies accepted that the total he arrived at was "a high level estimate". The memo appears to have been intended to quantify Cordic Group's counterclaim in the proceedings, rather than being a recommendation.

(7) The minutes for the Cordic Group board meeting in March 2020 record the following:

"*The board discussed the potential breach of the Royal Mail license usage and were going to pick up separately to understand the historical financial implications and whether a technical solution could be put in place to address the usage currently/in the future*"

(8) The Company's accounts for the year ending November 2019 were approved on 15 May 2020. I have not seen any board minutes recording this decision. The accounts make no mention of this issue in the provisions for liabilities (or elsewhere).

(9) Mr Davies's inquiries on the issue continued to be sporadic, and progress very limited, until November 2020.

(10) The next board minute I have seen is from November 2020, where the following discussion is recorded:

"*The board discussed the importance of replacing the Royal Mail PAF database with a like for like alternative. Idris had identified several potential solutions and would write a paper assessing each in detail, along with the costs and complexities of implementation and ongoing costs for the board to review. The board rejected open source as an option as Idris's analysis showed it was an inferior product due to the quality of data*."

(11) There was also an action item reading:

"*Setup meeting to discuss options for replacing Royal Mail address database and audit of 3rd party licenses".*

(12) The potential exposure to Royal Mail is not recorded as having been discussed in any subsequent board meetings. However, following the November 2020 board meeting, Mr Davies prepared a more detailed report on the various alternative options. He recommended Google.

(13) This was rejected and Mr Davies was instructed to consider other options. On 5 March 2021 he produced a plan recommending Bing, at a cost of £116,000 per

year. An internal company bi-weekly report suggests that this recommendation was accepted by the board on 8 or 9 March 2021, albeit there is no minute of any such board decision.

(14) A further internal report of May 2021 stated that the majority of the work relating to the Bing migration was progressing well, but some problems had emerged.

(15) Bing began to be rolled out to customers in October 2021. Further technical problems then emerged.

(16) The rollout was eventually completed in May 2022.

137. Two points emerge from this.

(1) First, the Company and Cordic Group do not appear to have been enormously concerned about the risk that Royal Mail would discover that the Company had been using PAF data without a licence and seek payment. They were sufficiently concerned to decide that it was necessary to migrate to a different system. However, they appear to have believed that, once this was completed, Royal Mail was unlikely to trouble them. Indeed, they appear to have believed that, as long as the migration was accomplished on the leisurely basis set out above, the risk of discovery in the meantime was minimal; or, at least, acceptable.

(2) Second, in the event the process as a whole took from January 2019 until May 2022. However, the reality is that nothing much was done until November 2020, and the appropriate solution was only identified in March 2021. Thereafter, it took 14 months to be fully implemented. This was longer than originally expected, because of unanticipated problems.

Conclusion as to claim risk discount

138. If the hypothetical reasonable buyer had been told of the problem with PAF data, but had proceeded with the SPA after satisfying itself that it could do so, this seems to me necessarily to mean that its due diligence process would have included the research carried out by Mr Davies, and the decisions eventually made by the Cordic Group board, albeit all undertaken rather more speedily. This hypothetical reasonable buyer would have agreed to purchase the Company having first identified Bing as the appropriate solution. I suspect it would have estimated that migration would be completed in about 1 year.

139. I further suspect that it would have shared Cordic Group's view that, on this basis, a claim from Royal Mail was unlikely to eventuate. The questions from Mr Evans in 2016 seem to have been prompted in part by his knowledge that the Company had purchased a licence from Arc en Ciel in 2015 that had recently expired. Furthermore, if (as I tentatively conclude) Dr Arani did not in fact respond to Mr Evans's second email, and Mr Evans simply forbore from asking any further questions, that suggests that Royal Mail was not especially assertive or tenacious. There was no obvious reason to expect a fresh inquiry from Royal Mail in 2019. If the migration was accomplished as soon as reasonably practical (say, by early 2020), that would likely have been the end of any real prospect of a claim.

140. On this basis, my view is that the hypothetical reasonable buyer would have formed the view that a claim from Royal Mail was unlikely, but not negligible. The probability would have been assessed as about 33.33%, giving risk to a claim risk discount of 66.66%.

Litigation risk discount

141. The assessment of the litigation risk discount is an exercise familiar to all litigation lawyers. It depends on the fundamental strength of the claim, assessed on the basis of the facts available at the time, bearing in mind all the usual hazards of litigation (including that of ‘unknown unknowns’).

142. With hindsight, and in the light of all the material that has become available through disclosure and from the factual witness statements and experts’ reports, it is apparent that Royal Mail would have had very strong prospects of success, and indeed of proving deliberate concealment within Section 32 of the Limitation Act 1980 (in relation to the fees that should have been paid up to 2012) – for exactly the same reasons that I have found in favour of Cordic Group on liability.

143. However, hindsight, and this wealth of information, would not have been available to the hypothetical buyer in 2018. I consider that such a buyer, properly advised, would have regarded the claim as a strong one, but not certain. Furthermore, it would have anticipated probably being able to reduce the quantum of the claim fairly substantially, by making an early offer (especially because of the prima facie limitation defence to part of the claim). Taking the pre-2012 and post-2012 elements together, the prospects of the claim succeeding would probably have been assessed at about 70%, giving a litigation risk discount of 30%.

The May 2022 administration

144. Cordic Group pointed to the fact that, as noted above, the Company entered administration in May 2022. The formal Disclosure to Creditors given by the Administrators summarised the events leading up to the administration as follows:

> “*The Company experienced a reduction in revenue, primarily due to the impact of Covid 19 lockdown restrictions on the taxi and transportation industry. In addition, a potential licensing issue with a data source was identified by the Company which required remedial work, in order to engineer the licensing issue out of its software. The licensing issue identified gave rise to a potential contingent claim, which if successful would have seen an award for approximately £12m given against the Company*”

145. Mr Patton and Mr van Schriek both gave evidence that the PAF licensing issue was the principal reason for the administration. Bearing in mind the vigour with which both Mr Sinclair KC and Mr Solomon KC recommended that I should rely on contemporaneous written records, over and above the fallible recollections of witnesses, I am unable to accept this evidence. The Administrator’s Disclosure gives the primary reason as the reduction in revenue attributable to Covid lockdown restrictions and I see no reason not to accept this clear statement.

146. Furthermore, while the quantum of the licensing issue was said to be approximately £12 million, this appears to have been on the basis of the claim succeeding. It takes no account of the claim risk discount or the litigation risk discount. The administration documents shed no light on Cordic Group's view of either discount and I have not seen any discussions by the Cordic Group board (possibly because of privilege).

147. It should also be noted that, while the figure of £12 million is similar to the headline figure for historic liability suggested by Mr Clemmence, this is slightly misleading in that it must cover the period up to the administration (or close to that date). The Sellers suggested that this meant that the headline figure should be reduced to below £12 million. I do not accept this submission, in circumstances where I do not know how the Administrators' figure was arrived at. All I can say is that it is not so different from the figure of £12.3 million, which I have adopted for the period up to November 2019, as to suggest that this figure must be wrong.

Conclusion on impairment for historic liability

148. Applying a claim discount of 66.6% and a litigation discount of 30% to a headline figure of £12.3 million produces a figure for impairment for historic liability of £2.87 million.

Impairment arising from future licence costs

Cordic Group's case: Mr Clemmence's figures

149. Cordic Group's case as to future licence fees proceeded on the basis that the hypothetical reasonable buyer would have anticipated continuing to use PAF data and purchasing Royal Mail licences accordingly. On Mr Clemmence's evidence, this gave rise to very significant figures, as follows:

Nov 2018	YE Nov 2019	YE Nov 2020	YE Nov 2021	YE Nov 2022	YE Nov 2021	Terminal value
£134,984	£1,689,063	£1,902,564	£2,137,339	£2,503,752	£2,899,792	£32,459,040

150. This opinion is based on a number of significant premises, the most important being the following:

(1) The hypothetical reasonable buyer would anticipate purchasing Royal Mail licences from the date of the SPA and for ever after.

(2) Mr Clemmence has used a discount rate of 11.11%.

(3) The Company's business would grow continuously from 2019, resulting in increasing numbers of customers and users, hence continuously increasing licence fees.

The Company was not going to continue to use PAF data

151. All of these premises are unfounded. However, the first is both the most important and the most obviously wrong.

152. No buyer intending to run the Company profitably would have countenanced continuing to use PAF data and purchasing Royal Mail licences accordingly. It would have identified this as a key change to be made. In all likelihood, it would have adopted a strategy similar to that in fact adopted by Cordic Group after March 2021, i.e., it would have sought to migrate to Bing as soon as possible, at an annual cost of £116,000. Furthermore, it (like Cordic Group) would probably not have planned to purchase a Royal Mail licence in the meantime.

The discount rate

153. As regards the discount rate, the discount rate suggested by Mr Hall was 18.61%. The reason for this significant discrepancy was that Mr Clemmence applied a small company risk premium of 3.5% whereas Mr Hall applied 11.4%, a difference of 7.9%. I prefer the view of Mr Hall on this point, for two reasons:

(1) First, Mr Hall's figure is drawn from contemporaneous up-to-date statistics, whereas Mr Clemmence's is based on data stretching from 1926 to 2017.

(2) Second, Mr Hall's figure properly reflects the Company's small size, i.e. within the sub-decile of the 10^{th} decile covering market capitalisations up to US$87.6m, whereas Mr Clemmence's reflects the entire 10^{th} decile, i.e. market capitalisations up to US$299m.

154. I should add that, in the course of closing submissions, the Sellers provided me with a letter containing additional evidence on this point from Mr Hall, relating to research that he did not conduct until after the oral evidence had concluded and on which Mr Clemmence therefore was unable to comment and on which Mr Sinclair KC had no opportunity to cross-examine. I have not taken this additional evidence into account. In the event, this has made no difference.

The Forecast Model

155. As regards the Company's growth prospects, the figures used by Mr Clemmence in this regard were taken from a Forecast Model which appears to have been prepared by Oakfield at about the time of the SPA. The circumstances in which it was prepared are not wholly clear. Mr Clemmence was instructed that the figures in the Forecast Model were "shared" between the Sellers and Oakfield and he appears to have understood from this that they came from, or were at least agreed to by, the Sellers. However, there was no evidence of this. It seems likely that the Forecast Model may have been discussed with Dr Arani (and possibly Mr Griffiths) in the course of due diligence, but Mr Griffiths was asked no questions about this and Dr Arani appeared to have no recollection and did not accept that he had agree with the Forecast Model. The representative of Oakfield/Cordic Group at the relevant meeting was Brett Hochfeld, but Cordic Group provided no evidence from Mr Hochfeld.

156. I therefore treat the Forecast Model on the basis that it represented Oakfield's own work; Dr Arani may have commented on it, but it is not clear what he said. It was not covered by the SPA warranties, and the Whole Agreement provisions in clause 8 of the SPA are a further reason why it can have no contractual weight. It therefore seems to me only relevant to take the Forecast Model into account if the growth figures that it contains represent the view that the hypothetical reasonable buyer would have formed. However, neither expert was asked to express any view as to the reasonableness or accuracy of the Forecast Model, and they did not do so.

157. My own view is that the continuous growth in revenue and customer numbers that the Forecast Model projected was entirely unrealistic. It is important to bear in mind that the background to the SPA was one of declining figures, possibly for a number of reasons – the illness of Dr Zolghadr, difficulties in recruiting suitable staff – but above all because of the disruption in the UK taxi market that resulted from the entry of Uber.

158. The SPA was discussed by Oakfield internally in an Investment Memorandum, prepared for its investment committee. This said:

> "*The entry of Uber and drop in disposable income, driven by increasing prices of goods and services, has meant the overall market has contracted at 1.4% per annum to 2018. In 2013-2014, the year after Uber entered the UK, the market, it contracted by 13.6% and has since stabilised growing 1% in 2016-2017 and decreasing slightly by 0.4% in 2017-2018. Overall revenue is projected to grow at 1.1% CAGR over the next 5 years.*
> *From our customer interviews it was clear that heightened competition has driven the need to offer lower prices and pick up times (scale) and increased capex requirements, which has driven a wave of consolidation that is expected to continue. Larger taxi operators who have responded to the change have benefited and believe that there has been an increase in the underlying demand for taxi use which has been stimulated by Uber and other Taxi apps. Going forward it will be important for Cordic to focus on these larger firms who are likely to prevail, through focusing on service and account work.*"

And in a table headed "*Risks & Opportunities*":

Type of Risk	***Description***	***Mitigation***
Rise of Uber and Google Cars	*Uber and potentially other wellfunded entrants to the market may continue to put pressure on existing taxi operators in terms of pricing, market share and technical innovation.*	*This may provide an opportunity for Cordic to provide a technology platform to Taxi Operators who otherwise would not have the skills or resources to develop their own. We should anticipate that Uber will continue to take market share.*

159. The Investment Memorandum also noted that Uber has its own proprietary software, i.e., it was not a prospective customer for the Company. The overall picture was that growth in taxi-users was expected, but Uber would take an increasing share of their

business; and there would be fewer taxi-companies i.e., fewer customers for the Company. Even if consolidation meant that each such customer was larger (with more users), the growth projected in the Forecast Model could only have been sustained if the overall market had continued to grow significantly, year-on-year, with no restraint. This seems unrealistic.

160. I therefore do not see that the hypothetical reasonable buyer was likely to have adopted the figure in the Forecast Model. It would have been far more conservative.

The Sellers' case: Mr Hall's figures

161. Mr Hall's calculations of future licence costs, using the same methodology as Mr Clemmence but an annual licence fee of £116,000 (being the annual cost of using Bing, which renders the issues concerning the Forecast Model irrelevant) and a discount rate of 18.61%, were as follows:

	P1	Y2	Y3	Y4	Y5	Y6	
From	01/11/18	01/12/18	01/12/19	01/12/20	01/12/21	01/12/22	TV
To	30/11/18	30/11/19	30/11/20	30/11/21	30/11/22	30/11/23	
	£000s	£000s	£000s	£000s	£000s	£000s	£000s
Per year	116.0	116.0	116.0	116.0	116.0	116.0	
Months	1	12	12	12	12	12	
Licence fees	9.7	116.0	116.0	116.0	116.0	116.0	712.3
Less: Tax on licence fees at 19%	(1.8)	(23.2)	(23.2)	(23.2)	(23.2)	(23.2)	(142.5)
FCFF	7.8	92.8	92.8	92.8	92.8	92.8	569.9
Discount rate	18.61%	18.61%	18.61%	18.61%	18.61%	18.61%	
TV growth rate	2.0%						
Valuation date	01/11/18						
Period	0.04	0.58	1.58	2.58	3.58	4.58	
Discount factor	0.99	0.91	0.76	0.64	0.54	0.46	0.46
DCF	8	84	71	60	50	42	261
NPV - Impairment to EV	575.8						

162. Mr Hall's reason for including tax relief was that he assumed that the Company would be profitable, whereas Mr Clemmence's calculating assumed that the Company would make tax losses. This is a further reason for preferring Mr Hall's approach: the hypothetical reasonable buyer would have decided to purchase the Company in the belief that it would be profitable, not in the expectation that it would be loss-making.

Conclusion on impairment arising from future licence costs

163. Mr Hall was challenged on the appropriateness of using the annual fee charged by Bing rather than the Royal Mail fees, and he was challenged on the appropriate discount rate, but I have concluded that he was right on both points. There was no other challenge to his evidence on this point.

164. I therefore accept Mr Hall's figure of £575,800, in relation to the impairment arising from future licence costs.

Overall conclusion on impairment

165. Adding the figures that I have concluded are appropriate in principle in relation to historic liability and future licence costs results in a total of £3,445,800. The hypothetical reasonable buyer would have rounded this up to £3.5 million.

Warranty True value

166. It follows that the Warranty True value only matters if it might be less than £3.5 million.

167. The Warranty True value comprises two elements: enterprise value and surplus cash. I accept Mr Clemmence's figure for surplus cash of £4.7 million (not least because the Sellers' figure was not properly explained). Identifying the correct figure for EV is more difficult.

168. Both valuation experts approached the assessment of the enterprise value on a DCF basis, i.e., by making assumptions about the Company's future performance (revenue and EBITDA) and applying a discount to the Company's expected future cash flows.

169. For this purpose, Mr Clemmence adopted the Forecast Model, which I have already rejected as inappropriate as excessively optimistic. Mr Hall erred in the opposite direction. He noted that there had been an overall decline in revenue and EBITDA from 2015 until the date of the SPA, and projected forwards on the basis of this declining trend continuing. No-one would have purchased the Company on this basis. Oakfield believed that it could and would turn the Company around and increase its profitability and value. The hypothetical reasonable buyer would have believed the same.

170. I therefore reject both Mr Clemmence's view of the Warranty True enterprise value and Mr Hall's view. This leaves me in a difficult position, but there are two useful benchmarks.

171. The first is that, before Cordic Group's final offer was accepted, there had been a previous offer of £8 million, made on 31 July 2018. Deducting an element for surplus cash – which at this time was expected to be about £4.25 million – suggests a figure for enterprise value of £3.75 million. It was rejected by the Sellers, with some contumely, resulting in an improved offer on 31 August 2018 which was accepted at the level of the final price – i.e., an enterprise value of £6.25 million. There would not have been a sale materially below this level, because the Sellers would not have been willing.

172. The second is that the Oakfield Investment Memorandum anticipated selling the Company in 2022, at a price estimated on the basis of EBITDA x 8.5. The assumption was that the Company would have been made more attractive, hence this multiple must logically have been higher than the multiple that Oakfield considered justifiable in November 2018. It was common ground between the parties that EBITA to YE November 2018 was £994,000, meaning that it seems unlikely that Oakfield would have given the Company an enterprise value any higher than £8.5 million. There probably would not have been a sale materially above this level because there would not have been a willing buyer.

173. It follows that the enterprise value must be between £6.25 million and £8.5 million.

174. Bearing in mind that the hypothetical reasonable buyer would have needed to buy at a level that would have given scope for profit, an appropriate figure for enterprise value, on the Warranty True basis, is £7.5 million.

175. Adding the surplus cash therefore gives a Warranty True valuation of £12.2 million. However, on any view (bearing in mind the surplus cash), the Warranty True value was greater than the total impairment of £3.5 million.

Overall conclusion

176. Cordic Group's Part 20 claim succeeds against all three Sellers in the sum of £3.5 million.

AGREED GLOSSARY OF KEY TECHNICAL TERMS[1]

TECHNICAL TERM	DESCRIPTION
AddrB	Initially a **Microsoft Access database**, and later a **Microsoft SQL Server** database. Data was uploaded into a database of this name from PAF (although Cs claim such a database was only temporary). Cs' case is that data was also uploaded into a database of this name from other sources.
AddrLoad	Software tool used by the Company from late July 2004 onwards to load the PAF data into **AddrB** and (from October 2004) export **AddrB** into **KDX files**.
AddressEx files	Files produced during the "**boiling process**" from August 2015 onwards. Supplemented the **KDX files** for further optimisation in the **CDS** address look-up facility. Two AddressEx files were created: AddressEx.db and AddressEx.bin. AddressEx.db was a **SQLite** database containing address data. AddressEx.bin is a compressed binary file (i.e. smaller than an ordinary text file) of the same address data.
Address+	Software programme sold by Arc en Ciel to the Company which provided access to the PAF data.
API	Short for "Application Programming Interface". Software which allows two computer programmes to interact with each other. The Arc en Ciel **Address+** software included an API allowing the Company to access the PAF data.
"Boiling process"	Process by which the **CDS** address database was produced.
C++	Coding language used to write the Company's source code.
CDS/cPAQ	The Cordic Dispatch System, i.e. the software product sold by the Company to customers.
Customer application	Application used by the taxi companies' customers (i.e. passengers) to make bookings.
CRM system	Customer Relationship Management system: an internal application developed by the Company.
Geocode data	Latitude and longitude data.
Git code repository	Git is a version/source control programme which the Company migrated to in April 2019, having previously used **VSS**.

[1] This agreed glossary is without prejudice to the parties' detailed cases as set out in their pleadings and submissions (and to the Defendant's own glossary appended to its written opening submissions).

TECHNICAL TERM	DESCRIPTION
KDX files	Stands for "Keyed Index" files. File types which store and allow easy access to data. Created from the **AddrB** database and used by the Company to store address data.
Microsoft Access database	Basic Microsoft database management system.
Milton computer	The Milton computer was the machine used by the Company during the "boiling process" (virtualised instances of which make up **VM1**).
NapTan	Abbreviation of "National public transport access node", an open database provided by the UK government to list points of access to public transport (e.g. bus stops, railway stations, airports).
Operator application	Application used by the Company's customers (i.e. the taxi companies) to operate the **CDS**.
PAF	Postcode Address File, i.e. the database of UK postcodes and addresses developed and maintained by Royal Mail.
SmartBooker	Smartphone app used by passengers of the taxi companies operating the **CDS** to book trips.
SmartServer	The server which provided the address search functionality for the **SmartBooker** app in the **CDS**.
Source code	The human-readable form of a programme written by a software developer to produce a workable programme.
SQL	Stands for "Structure Query Language": a language used in programming designed for managing data held in a database management system.
SQLite	A lightweight database engine (using the **SQL** programming language) which is optimised for performance.
SQL Server	Database management system developed by Microsoft (more advanced than **Microsoft Access**).
VM1, VM2 and VM3	"VM" means Virtual Machine, i.e. a computer system created using software on a physical computer to emulate the functionality of a separate physical computer. The three Virtual Machines made available to the parties' IT experts are described as VM1, VM2 and VM3. VM1 comprises the virtualised instances of the **Milton computer** hard drives. VM2 is the virtual machine which hosts the **VSS code repository** and **Git code repository**. VM3 is the "Demo Sales computer" which contains a working installation of the **CDS** software.

TECHNICAL TERM	DESCRIPTION
VSS code repository	VSS stands for "Visual SourceSafe". VSS is a version/source control software programme used by the Company to store its source code up to the date of the SPA (and until April 2019).
WebBooker	Computer app used by passengers of the taxi companies operating the **CDS** to book trips.