Neutral Citation Number: [2021] EWHC 2462 (Comm)

Case No: CL-2019-000606

IN THE HIGH COURT OF JUSTICE
BUSINESS AND PROPERTY COURTS OF ENGLAND AND WALES QUEEN'S BENCH DIVISION
COMMERCIAL COURT

The Rolls Building
7 Rolls Buildings, Fetter Lane
London, EC4A 1NL

Date: 08/09/2021

Before :

MISS JULIA DIAS QC SITTING AS A DEPUTY HIGH COURT JUDGE

- -

Between :

DIGITAL CAPITAL LIMITED	**Claimant**
- and -	
GENESIS MINING ICELAND E.H.F.	**Defendant**

- -
- -

Mrs Dorotea Arlov (in person) for the **Claimant**
Mr Terence Bergin QC (instructed by **Charles Fussell & Co.**) for the **Defendant**

Hearing dates: 12-15, 19-22 July

- -

Approved Judgment

I direct that pursuant to CPR PD 39A para 6.1 no official shorthand note shall be taken of this Judgment and that copies of this version as handed down may be treated as authentic.

Covid-19 Protocol: This judgment was handed down by the judge remotely by circulation to the parties' representatives by email and release to BAILII. The date and time for hand-down is deemed to be 10.30am on 8 September 2021.

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JULIA DIAS QC

MISS JULIA DIAS QC:

INTRODUCTION

1. This is a dispute arising out of an agreement for the provision by the Claimant to the Defendant of certain regulatory and software services. Each party alleges that the other repudiated the agreement. The Claimant's primary claim is for payment of certain invoices allegedly payable under the terms of the agreement. The Defendant alleges that the Claimant failed to provide the services which it had contracted to provide and was thereby in repudiatory breach of contract which it purported to accept by its solicitors' letter dated 3 June 2019. In consequence, it was said, not only was the Defendant not obliged to pay the invoices in question, but it was also entitled to recover payments previously made on grounds of total failure of consideration. The Claimant denies that it was in breach of the agreement as alleged and maintains that the Defendant's purported termination was itself a repudiatory breach which the Claimant formally accepted on 1 October 2019.

2. In the result, I have before me:

   i) Claims by the Claimant for amounts due under the agreement together with a claim for damages for wrongful repudiation and/or renunciation consisting essentially of lost profits which it claims it would have earned over the unexpired portion of the agreement;

   ii) A counterclaim by the Defendant for damages consisting of its wasted expenditure and/or loss of profits, alternatively for restitution of certain payments previously made.

3. Until 21 June 2021, the Claimant was represented by Davis Woolfe Ltd. Since that date it has been represented by its director, Mrs Dorotea Arlov, acting in person. The Defendant is represented by Mr Terence Bergin QC of counsel. Despite the fact that Mrs Arlov is not a qualified lawyer, she showed herself to be more than capable of understanding and complying with the necessary procedures for litigating disputes in court and indeed handled the hearing with considerable skill and ability – no mean feat, given that English is not her native language. As one would naturally expect, Mr Bergin has provided every reasonable assistance in that regard consistent with his duty to his own client and I gratefully acknowledge his patience in that regard. While the Court put certain questions to Mrs Arlov and the other witnesses, I explained that this was only to the extent that such questions might properly have been expected to be put if the Claimant had been legally represented and/or to elucidate some of the evidence given. It was made clear to all parties that this was done solely in order to ensure that the Claimant's case was properly put before the Court and not in order to make a case for one side or the other. In the result, I am satisfied that Mrs Arlov has had a proper opportunity to put the Claimant's case before the court.

4. I am grateful to both her and Mr Bergin for the clarity of their submissions.

THE PARTIES

5. Mr Jakov Dolić is a German citizen and a civil engineer by training who developed an early interest in cryptocurrencies. In about 2013, he met Dr Marco Krohn and Mr Marco

Streng who were fellow crypto-enthusiasts, and they decided to set up a bitcoin mining facility together through a group of companies which they co-founded and which was loosely referred to as the Genesis group. None of the three had previously known each other; Dr Krohn had himself been introduced to Mr Streng through a mutual friend.

6. In 2014, Genesis Mining Hong Kong was created as a platform for offering mining contracts to customers worldwide. Mr Dolić was the sole beneficial owner and CEO of Genesis Mining Hong Kong until he formally resigned on 20 December 2018. The Defendant, Genesis Mining Iceland EHF, ("Genesis Iceland") was created as a wholly owned subsidiary of Genesis Mining Hong Kong in order to own and operate a server farm in Iceland. Bitcoin mining involves vast amounts of computer power and Iceland was a particularly attractive location due to its low energy costs and cool climate. Neither Dr Krohn nor Mr Streng was a shareholder in either Genesis Mining Hong Kong or Genesis Iceland. References to "Genesis" in the remainder of this judgment are to the Genesis interests generally. Where specific reference to the Defendant is required, I refer to Genesis Iceland.

7. One of the problems facing people who held assets in cryptocurrency at that time was the difficulty of accessing the ordinary banking system and spending bitcoins or other crypto assets in normal retail transactions. This led Mr Dolić in about 2015 to conceive an idea for Genesis to create its own "bank" that would act a bridge between cryptocurrencies on the one hand and the so-called FIAT currencies used in ordinary banking operations on the other, thereby making cryptocurrencies such as bitcoin more accessible. One important aspect of the concept was to provide customers with a debit card facility which would allow them to spend bitcoin as easily and in the same way as ordinary currencies. Customers would therefore not only be able to deposit and hold cryptocurrency and exchange it for other cryptocurrencies, but also to "spend" it in conventional retail transactions by converting it instantaneously into FIAT currency. This in turn required a mainstream banking facility to be set up for the debit cards as well as an underlying technology system enabling rapid exchange of the cryptocurrency held on customer accounts with FIAT currencies accepted by retailers. The project, initially named Guaroo, became known as the "Genesis Wallet" or "G Wallet".

8. In October 2015, Mr Dolić moved from Germany to Croatia where he purchased a penthouse apartment from a well-known Croatian banker, Mr Zoran Sikirica. Mr Dolić had never previously met Mr Sikirica but, knowing that he was a banker, he invited him to support Genesis in setting up a bank to realise the Guaroo idea. Mr Sikirica suggested that the regulatory obligations of a bank would be unnecessarily onerous and that a better and cheaper idea would be to establish an e-money institution ("EMI"). He told Mr Dolić that he had a friend, Mr Tonci Perković, who was an electrical engineer working with him on various projects who could assist in obtaining an e-money licence ("EML").

9. According to Mr Dolić, Mr Sikirica did not suggest that Mr Perković had any particular expertise and he did not ask for or take up any references or investigate Mr Perković's credentials or suitability for the project. He was content to rely on Mr Sikirica's recommendation. He explained to me that he as far as he was aware, Mr Perković was an electrical engineer and did not have any banking experience but he assumed (albeit without apparently taking any steps to confirm the position) that Mr Sikirica would lead the project and effectively tell Mr Perković what needed to be done. In fact, although not a banker, Mr Perković had considerable experience of software programming and

project management in a banking context, as well as system integration, having developed payment and card systems for various banks. He had been told by Mr Sikirica that Mr Dolić was looking for a company which could connect a crypto platform with a FIAT platform and that was the type of business in which he was engaged.

10. In the event, Mr Sikirica dropped out of the picture. Mr Dolić nonetheless decided to pursue the project with Mr Perković in order to see what could be achieved. The impression he gave me was that he had accumulated considerable wealth through the appreciation in value of his cryptocurrency assets and that he was prepared to invest money in the venture on a speculative basis. He also told me that he liked and trusted Mr Perković. Sometime later, he was introduced by Mr Perković to Mrs Arlov, although he could not remember whether this was in late 2015 or early 2016.

11. The first step was to establish a company to obtain and hold an EML. Mr Perković and Mrs Arlov considered the possibility of obtaining an EML in Croatia but concluded that the market perception of a Croatian EMI would not be favourable and that it would be better to establish the company in England as this offered the best access to FinTech companies and the regulatory requirements were relatively straightforward, even though the costs would be higher. Subsequently it was also agreed that Mr Perković and Mrs Arlov would provide a discrete part of the software for the project.

12. Mr Dolić agreed to provide the necessary funding and Digital Capital was incorporated on 9 June 2016 for this purpose. It was not in contention that both Mr Sikirica and Mr Perković stressed the importance for regulatory reasons that Digital Capital should be independent of the Genesis interests and should not be seen to be controlled by the Genesis group as this would create a potential conflict of interest. The majority shareholders and directors of Digital Capital were accordingly Mrs Arlov and Mr Perković's son, Bruno Perković, the latter being in charge of marketing and user experience. Dr Krohn had a 9% shareholding. A third director joined in 2017, Mr Gareth Lewis, who was responsible for compliance. Although Genesis Iceland turned out to be Digital Capital's sole client up to the time of the present dispute, it was always contemplated that Digital Capital as an EMI would also offer services to other clients thereby creating a revenue stream for the new company.

13. In exchange for the provision of funds by Mr Dolić via the Genesis group, there was an informal understanding that once the Genesis Wallet was up and running, the majority shareholding would be transferred to the Genesis group but that Mrs Arlov and Mr Perković would have the option to buy back 50% of the company for £1 million together with a 2% stake in a Genesis company to be incorporated in due course as a front company for the Genesis Wallet. This agreement was never documented.

14. Digital Capital obtained its EML on 13 July 2017 and since that date has traded as an FCA authorised entity.

15. In October 2017, Mr Dolić stepped back from his executive roles in the Genesis group although he remained on the register as the CEO of both Genesis Mining Hong Kong and Genesis Iceland until his formal resignation on 20 December 2018. I understand his interests to have been bought out by Dr Krohn and Mr Streng who are currently co- owners and co-directors of the companies. Both companies continue to exist although the Genesis group under its new management has withdrawn from the cryptocurrency

mining business. Revenues are therefore minimal although the companies remain solvent and are funded to the extent necessary to meet their obligations.

THE AGREEMENT

16. On 12 January 2017, a detailed service agreement (the "Agreement") for the Genesis Wallet project was signed by Mrs Arlov on behalf of Digital Capital as service provider and Mr Dolić on behalf of Genesis Iceland as client. Mr Dolić said that he regarded the Agreement first and foremost as a way of indirectly providing funding to the Claimant company without it appearing to have been financed by Genesis. He therefore signed it without reading it first or caring very much what was in it beyond asking what the total amount payable would be. This is the Agreement which has given rise to the dispute between the parties.

17. The Agreement contained detailed provisions regarding the scope of the services that Digital Capital and Genesis Iceland respectively were to provide in relation to the project. The most relevant provisions of the Agreement are set out in Appendix A to this judgment. In very broad terms, the Genesis Wallet consisted of two parts:

    i) A "front-end" crypto platform which would allow customers to receive, hold and send cryptocurrency and exchange it into other cryptocurrencies. This platform was the responsibility of Genesis Iceland;

    ii) A "back-end" core banking platform which would allow access to the FIAT banking system and the exchange of cryptocurrency into mainstream tender. This platform was the responsibility of Digital Capital.

    These two platforms needed to be integrated in order to provide the complete Genesis Wallet.

18. Under the Agreement Digital Capital was to provide the core software platform providing all the back-end functions of the Genesis Wallet. This covered everything relating to physical payments, including account opening, payment processing, issuing of payment cards, wire transfers and currency exchange. Digital Capital also undertook to provide regulatory set-up by the end of 2017 covering all work related to regulatory requirements, including obtaining the all-important EML. For its part, Genesis Iceland was to provide the front-end crypto platform through which customers could request that their cryptocurrency be exchanged, transferred to another wallet or paid to a third party. This work was outsourced by Genesis Iceland to a third party IT service provider, Barrage d.o.o. ("Barrage").

19. A detailed list of the services to be provided by Digital Capital was contained in Appendix 1 to Schedule 1 of the Agreement. Reference will be made to certain parts of this list in the course of the judgment. For present purposes it is sufficient simply to note that Appendix 1 contained the following provisions:

    *"**Integration with crypto currency wallet and exchange***

    Integration with cryptocurrency and wallet platform will be joint work of Digital Capital and Client, specification of which will be provided later on.

…

3. On-going operational support and system maintenance

Digital Capital will provide Client with all necessary staff and framework on-going basis during the Term for:

- *Compliance management*
- *Software management and maintenance*
- *Acquiring services*
- *Card management*
- *Other services related to this Agreement.*

On-going support will mean that Digital Capital's staff will perform all key roles for the client related to the services in this Agreement – compliance and on-going compliance support (dealing with KYC/AML requirements, reporting, frauds, chargebacks, etc.), legal work required on a daily basis, card management (all Scheme related issues), maintenance of software and all it [sic] *components while it is being set-up and once the system goes live and any other matters to which Parties mutually agree."*

20. The payment provisions set out in Schedule 1 to the Agreement can be summarised as follows:

i) A fee of £800,000 was to be paid for the regulatory set-up;

ii) A further fee of £800,000 was to be paid for the software set-up by 15 January 2018;

iii) Monthly operational fees of £175,000 were to be paid from 1 January 2018 to cover all operational costs in accordance with point 3 of Appendix 1 (set out above);

iv) Monthly system maintenance fees of £48,000 were to be paid from 1 February 2018 to cover supporting costs during set-up and on-going maintenance costs after the system was live, also in accordance with point 3 of Appendix 1;

v) Digital Capital was also to be paid any other costs, whether incurred by Digital Capital itself or by a third party provider, which were not covered by the other pricing provisions and which were related to the services to be provided under the Agreement.

THE WITNESSES

21. I heard oral evidence of fact on behalf of the Claimant from Mrs Arlov and Mr Tonci Perković. Mr Perković's witness statement was in Croatian and he gave evidence through an interpreter. On behalf of the Defendant, evidence was given orally by Mr

Jakov Dolić, Dr Marco Krohn, Mr Nico Kaiser and Mr Fedja Ivanšić. All of them gave their evidence in English.

22. It was unfortunate that none of the Defendant's witnesses was able, for one reason or another, to speak with authority or personal knowledge in relation to many of the relevant matters. This was not through any fault of theirs but because they had either not been involved on a day-to-day basis or because they had only participated in part of the story. I was informed by Mr Bergin that the Defendant was unable to call certain relevant personnel because they were no longer employed by the Defendant. That is always a hazard of litigation, but the fact remains that I was left without direct evidence from some of the key players.

23. It was a failing of all the factual witnesses to greater or lesser degree that they often did not answer questions directly but instead offered lengthy explanations by reference to prior or subsequent events. Each of them also had a tendency to argue the case rather than simply answering the questions put.

24. Nonetheless, I found both Mrs Arlov and Mr Perković to be witnesses of truth, whose account of their actions was coherent, credible and consistent with the documents.

25. Mrs Arlov was cross-examined at some length on various notes that she had made of meetings and telephone conferences and Mr Bergin was critical of her oral explanations of these notes on the basis that it diverged from the written text. I found these criticisms to be generally misplaced. As Mrs Arlov explained, these were notes that she had made during the actual course of the relevant meetings and calls, often while she was simultaneously having to translate for one or other of the participants. They were therefore necessarily in abbreviated summary form and were never intended to serve as a transcript of the entire discussion, being only for her internal use. Had she known at the time that they would be subjected to detailed forensic analysis, no doubt they would have been considerably amplified. As it was, I regard them as a reliable record of what transpired, the more so since (i) it is difficult for truly contemporaneous notes (as these were) to do other than reflect what is said in the order in which it is said and (ii) they were never intended for public consumption or sent to the Defendant, so that they are inherently unlikely to been carefully worded or "spun" in order to create a particular impression.

26. Mr Dolić did not impress me as a witness. He was never involved in the day-to-day running of the project and had virtually nothing to do with the Genesis group after October 2017. His witness statement gave the impression that he could not remember anything at all about the various meetings in which he participated and he confirmed at the outset of his oral evidence that he could no longer recall specific meetings as there were so many and it was so long ago. As his cross-examination proceeded, however, he adopted positions which not only had not previously featured in his written evidence but constantly shifted under cross-examination.

27. He also seemed to have a very *laissez faire* attitude to his business dealings as exemplified by his account of the genesis of the Agreement with Digital Capital and the circumstances in which he came to sign it. On his own evidence, he was the sole beneficial owner and CEO of the Defendant and thus the only person with any corporate authority to act on its behalf. Having conceived the idea of the Genesis Wallet, he decided on behalf of the Defendant to invest a substantial amount of money in the idea

and to push the project forward in partnership with two people about whom he knew nothing, namely Mrs Arlov and Mr Perković, without performing any due diligence on them or taking up any references beyond a recommendation from a former banker, Mr Zoran Sikirica, whom he likewise did not know but from whom he had recently purchased a penthouse.

28. It may well be, as he maintained in his oral evidence, that his business style was informal and that he often did not document transactions formally, preferring to proceed on trust in accordance with his gut instincts but with this egregious lack of attention to detail, it is hardly surprising that Mr Dolić had very little specific or detailed recollection of events. Suffice it to say that I was not inclined to place reliance on anything he said which was contrary to his written evidence or which was not supported by the contemporaneous documentation.

29. Dr Krohn was a theoretical physicist by training with a background in banking. He had not played any part in negotiating the Agreement with Digital Capital and he was not concerned in the day-to-day running of the Genesis Wallet project. He was at pains to stress that his involvement was only at a very high level – being essentially limited to occasions when a problem arose which could not be sorted out by those handling matters day-to-day. Otherwise, he trusted the latter to get on with things. His only significant involvement was from May 2018 onwards and even then he apparently relied almost exclusively for his information on what he was told by others. Like Mr Dolić, Dr Krohn could not really remember very much at all. Surprisingly, he did not even know whether he was a director of Genesis Iceland. Nor, it was plain, did he take very much interest in the company.

30. Mr Kaiser was an accountant. He was not a technical person and his expertise was in finance, not programming. He had been introduced to Genesis through Mr Streng, who was his cousin. Like Dr Krohn, he had no involvement with the project before mid- 2018 when he was asked to carry out a review with a view to handing it over to a Mr Matthias Endriss who was shortly to assume responsibility as project manager. I found his some of his evidence difficult to reconcile with the documentary record, which did not support his suggestion that there had been frequent internal discussions and complaints about poor performance by Digital Capital. He sometimes appeared to be reluctant to answer questions and was inclined on occasions to be argumentative.

31. Mr Ivanšić was called as a representative of Barrage. The person who might have been able to give the most assistance to the court from Barrage was in fact Mr Berislav Brajković but unfortunately he had left the company in 2020. As it was, Mr Ivanšić was a designer, not a software engineer, and was not in any event involved in the project on a day-to-day basis. He therefore had little direct knowledge of the relevant events and his evidence was accordingly of limited assistance. He too I found to be rather argumentative.

32. As a matter of general impression, none of the Defendant's witnesses had played any part in the day-to-day running of the project or involved themselves in the detail. Indeed, none of them apart from Dr Krohn had any technical software expertise at all. It is hardly surprising that they could not speak with any real authority as to what was or was not happening on the ground. The people who might have been able to give more help in this respect, namely Mr Endriss, Mr Ablay and Mr Brajković, did not give evidence. However, it was striking that while the Defendant's witnesses all professed

not to have any clear recollection generally, they nonetheless claimed to have extremely clear recollections of the alleged matters on which the Defendant's case was based. In particular, they were all very anxious to paint a picture of increasingly serious doubts from September 2018 onwards about whether Digital Capital could perform its part of the Agreement, and of being met with obfuscation and silence in response to requests for status updates and financial information.

33. The problem was that none of this featured in the contemporaneous documents. I do not suggest that this evidence was not honestly given. It is commonplace for memories to become subconsciously distorted in the context of litigation: see *Gestmin SGPS SA v Credit Suisse (UK) Ltd,* [2013] EWHC 3560 (Comm) at [16]-[22]. What it does mean, however, is that I have relied first and foremost on the contemporaneous documentation in forming my view of the facts as set out below and that where the evidence of the Defendant's witnesses is in conflict with that of Mrs Arlov and Mr Perković, I prefer the latter.

34. The parties each called one expert witness to give evidence before me on the technical issues. Digital Capital's expert was Dr Tonko Kovačević, who is currently a professor in Electrical Engineering at the University of Split, having previously also worked at the Teaching Institute for Public Health in Split as Head of Department for planning, developing and maintaining communication and computer systems. The Defendant's expert was Dr Gillian Hunt, an independent IT consultant with specialist expertise in system management, software development, system design and implementation and project management. Their evidence is discussed in connection with the technical issues below.

FACTUAL BACKGROUND

35. I do not attempt to summarise the evidence given by each of the factual witnesses individually. If a particular piece of evidence is not referred to, that does not mean that I have failed to take it into account.

36. Much of the factual narrative was controversial, in particular as to what was or was not discussed and agreed at various meetings. The narrative below sets out my findings on my assessment of the evidence before me.

37. In 2014, Mrs Arlov founded a Croatian company called Rolling Capital d.o.o. ("Rolling Capital") which specialised in FinTech. Mrs Arlov was the sole shareholder in Rolling Capital and project managed the small software projects which it undertook.

38. Towards the end of 2015, Mr Perković mentioned the Genesis project to Mrs Arlov and suggested that she might be well placed to provide the FinTech services required by Genesis given her background in FinTech and software project management. As already noted above, Digital Capital was incorporated on 9 June 2016. A first meeting with Genesis took place on 15 July in Munich.

39. In early September 2016, Mrs Arlov was introduced to London Multigames Ltd ("LMG") as a company which might be able to assist in setting up an e-wallet. Mrs Arlov and Mr Perković met LMG on 15 September and discussed the possibility of developing a bespoke software platform by utilising part of an existing LMG system and then introducing additional functionalities and integrating further modules sourced

from other third party providers. Mr Perković explained to me that they considered that LMG had a good base software for this purpose. It required some upgrade and expansion in order to provide the functionalities which it was anticipated would be required for the project, but Mr Perković thought that it represented good value for money.

40. Mrs Arlov considered it a good idea to separate the regulated financial business operated by Digital Capital from any software business. Accordingly, on 22 September 2016, One Click Pay Ltd ("One Click") was incorporated as a separate company solely owned by Mr Perković, although Mrs Arlov was also a director and company secretary. While the primary impetus to establish One Click at that precise time may have been the proposed Genesis Wallet project, it was never intended that One Click's operations would be confined to this project, the ultimate aim being to develop innovative technologies in the FinTech field generally. Nonetheless, in relation to the Genesis Wallet project One Click operated alongside Digital Capital.

41. In his cross-examination of Mr Perković and in his submissions, Mr Bergin sought to make much of the fact that Mr Perković seemed frequently to have acted and spoken on behalf of Digital Capital despite having no formal role in the company. The suggestion seemed to be that Digital Capital was concealing the involvement of One Click.

42. I accept that there was an extremely close relationship between the two companies and that there were many occasions when Mrs Arlov or Mr Perković did not draw a distinction between them. However, I find nothing untoward in this. For legal and regulatory purposes the companies were clearly distinct, and rightly so. But in practical terms, they were working synchronously on the Genesis Wallet project and, unless and until there was a dispute between them, they could be expected to speak with one voice. Since development of the software had been outsourced by Digital Capital to One Click, I find it unsurprising that Mr Perković sometimes took the lead in technical matters and, given that his son was the other majority shareholder, had a close interest in Digital Capital itself. It does not appear to me that either Mrs Arlov or Mr Perković attempted actively to conceal the relationship between the companies and, despite Mr Bergin's eloquence, I fail to see that Genesis' knowledge or lack of knowledge about One Click's role in any way impinges on the dispute. The relevant obligations under the Agreement were assumed by Digital Capital and it was entitled to fulfil them through outsourcing to third parties if it chose in the same way that Genesis Iceland relied on a third party IT provider, Barrage, to develop the front-end crypto platform for which it was responsible under the Agreement.

43. The relationship between Digital Capital and One Click was formalised on 17 November 2016 in an IT & Customer Support Service Level Agreement, whereby One Click undertook to provide IT consultancy and customer support services to Digital Capital. This was before Digital Capital had concluded any contract with Genesis Iceland and, as originally drafted, this agreement did not expressly cover the development of software by One Click.

44. In fact, by this time, One Click had already concluded an agreement with LMG for the provision of software development services. Again, it is my understanding that the scope of the agreement between One Click and LMG was not limited to the Genesis Wallet project (the precise details of which had of course not yet been agreed) but that

it was wider in scope. However, it covered at least some of the functionalities which Mr Perković anticipated would be required for Genesis Wallet based on his experience and his conversations with Mr Dolić. One Click was not in a position to develop and provide these services to Digital Capital itself since Mr Perković was its only in-house employee. It therefore intended to outsource the work - primarily to LMG but also to other providers as is common in the software industry. Further agreements between One Click and LMG specifically relating to the Genesis Wallet project were apparently signed on 29 March and 2 April 2018. None of the agreements with LMG was before the court.

45. On 12 January 2017, the Agreement between Digital Capital and Genesis Iceland was signed by Mrs Arlov and Mr Dolić as described above. No lawyers were involved in preparing the agreement which seems to have been drafted by Digital Capital.

46. On 19 June 2017 a telephone conference took place between Mrs Arlov, Dr Krohn and Mr Marc Ablay, who was responsible for the technical aspects of the Genesis Wallet project on the Genesis side. As she did with all meetings and calls, Mrs Arlov took contemporaneous manuscript notes.

47. During the call, the options for software provision were discussed. Digital Capital had received an offer from a Croatian company called ABBA d.o.o. which had previously developed software of this nature[1] but the maintenance price was considered to be far too high, some €500,000 per month. Mrs Arlov therefore expressed a preference for developing Digital Capital's own back-end system into which they would integrate various modules. I accept that when Mrs Arlov referred to "we", she was using it in a loose sense to refer to Digital Capital and such sub-contractors as it chose to use. By the same token, when Genesis personnel used the term "we", they were likewise referring collectively to people and companies with responsibility for matters on the Genesis side of the contractual line. Dr Krohn asked how long it would take for Digital Capital to create its own platform and was given a rough estimate of one year. Mr Ablay said that Genesis Iceland was working on its own platform which would take at least 1-1½ years more to develop.

48. On 30 June 2017, Digital Capital and One Click executed an Annex to their Service Level Agreement expressly providing for the provision of software services and setting out the specifications for an e-wallet platform. While not exclusively applicable to the Genesis Wallet project, the Annex was clearly prompted and necessitated by the Agreement and thus included many of the features which Digital Capital had undertaken to provide to Genesis Iceland.

49. Meanwhile, One Click had been working with LMG and in early July 2017, LMG sent an application programming interface ("API") for a payment gateway that allowed account top-ups via existing cards and integration with a number of banks processing the card payments. The payment gateway was one of the modules that had been ordered by One Click from LMG and was to be integrated into the Digital Capital core software solution. The API was the mechanism by which the integration was to be achieved.

[1] The evidence of Mr Perković was that ABBA, like One Click, did not have its own in-house software developers but outsourced its work to external providers.

50. On 13 July 2017, Digital Capital obtained its EML from the FCA and on 25 August 2017, Mr Perković informed Mr Dolić by WhatsApp that they had also passed the necessary compliance procedures for a bank in Estonia, LHV Bank, with whom Digital Capital entered into an Internet Banking Agreement and Service Agreement on 28 August.

51. On 18 October 2017, Mr Perković contacted Mr Dolić and told him that the legal formalities for the debit cards were just being finalised but that there were some strategic matters which needed to be discussed before the next step. These included: software, acquiring partners, the KYC provider, card design, BIN sponsorship, FX provider and the model for integration with the Guaroo platform, which I understand to be a reference to the Genesis front-end platform. However, Mr Dolić had health problems at that time and told Mr Perković to contact Dr Krohn for anything urgent.

52. It appears that Mr Dolić effectively left the Genesis group at around this time although, as noted in paragraph 15 above, he remained on the company register as the sole director. He nonetheless continued to participate in various meetings and calls as appears below. Moreover, Mrs Arlov and, in particular, Mr Perković clearly regarded him as a "go to" person in relation to the project – understandably, since the whole concept had been his brainchild.

53. On 13/14 November 2017, a meeting took place in Munich attended by Mrs Arlov, Mr Perković, Mr Dolić, Dr Krohn and Mr Ablay. Mr Ablay was unable to be present on 13 November, so Mrs Arlov gave a short presentation about PSD2 (a European directive relating to electronic payments which was shortly due to come into force) and confirmed that the regulatory set-up had been completed. The meeting continued the following day, this time with Mr Ablay in attendance. Mrs Arlov drew a schematic diagram of the system and Mr Ablay asked about the status of the Digital Capital platform. Mr Perković indicated that the first functionalities of the software had been developed, including account opening, internal and external transfer, reporting and preparation for connection with third party providers. He thought it could be finished in the next 8-9 months. However, a revised offer had also been received from ABBA which was much lower than previously indicated – around €10,000 rather than
…€500,000 per month – and Mrs Arlov suggested pursuing this as a back-up plan.

54. In answer to a question from Dr Krohn, Mrs Arlov explained that ABBA had indicated that it could adjust an existing platform and that this would only take 3-4 months. She therefore proposed that Digital Capital start working with ABBA. In evidence, she explained that Digital Capital had nothing to lose. The costs now being suggested by ABBA were comparatively low and if it was able to provide a satisfactory system sooner than Digital Capital could complete its own system, then so much the better as the aim was to go live as quickly as possible. (Mrs Arlov's explanation was substantially confirmed by Mr Dolić in his oral evidence.) If not, Digital Capital would still have its own system procured through One Click. Mr Ablay responded that the Genesis platform would not be ready for at least a year but that this sounded like a good plan. It was therefore agreed that Mrs Arlov would arrange a meeting with ABBA to be attended as well by Genesis' IT services provider, Barrage.

55. Further discussion also took place about the design for the debit cards and it was agreed that Fedja (I assume Mr Ivanšić) would provide this. Mrs Arlov also presented various connectors for the card processing, KYC and payment gateway.

56. Mrs Arlov was cross-examined at some length by Mr Bergin about the conclusions set out in her note of the meeting which stated that Mr Dolić would check the regulatory set-up together with Mr Rauth. It was suggested to her that Mr Dolić could not possibly have agreed to do this as he had no expertise in compliance and had not been involved in the regulatory set-up and that here note was therefore unreliable. I reject this suggestion. The fact that Mr Dolić himself had no compliance background (which was not in dispute) is not inconsistent with him having agreed to ensure that the regulatory set-up was checked by others, principally, it would seem, Mr Rauth who was Mrs Arlov's only point of contact in relation to compliance matters.

57. The meeting with ABBA took place at the end of November 2017 in Zagreb. By this time, Mrs Arlov had sent Barrage the APIs for the connectors discussed at the 13/14 November meeting. On 27 November, a preliminary meeting took place between Digital Capital, Genesis and Barrage. It appears from Mrs Arlov's note that much of the discussion was about complaints that Genesis Iceland had received from mining customers who had not received the payouts they were expecting. The reason for this was explained to me in oral evidence but as it has no direct bearing on the Genesis Wallet project, I do not address it further.

58. The following day, representatives from ABBA also attended. Mrs Arlov gave a short presentation about PSD2 and asked if ABBA could create all the necessary technical documentation. ABBA was apparently not able to provide an answer there and then and indicated that it would also need information about the Genesis platform in order to create the necessary APIs. Mr Brajković of Barrage agreed to create the technical specification which Digital Capital would then provide to ABBA.

59. After the ABBA representatives had left, there was further discussion. Mrs Arlov's note (on which she was not cross-examined) suggests that Mr Brajković thought that the ABBA solution might work, while the Genesis representatives felt that ABBA had not completely understood the entire system. As a result, it was concluded that Digital Capital should continue to work on its own platform but hire ABBA at its own cost as a plan B. Mrs Arlov also noted:

    i) that she was still waiting for feedback on the regulatory set-up and that Dr Krohn was to discuss this with Mr Dolić;

    ii) that the technical specification which Barrage was preparing for ABBA would also be needed for the Digital Capital platform and that it should include any requirements that Genesis had since Digital Capital could customise anything as required. The representatives of Barrage agreed to see to this.

60. On 12 December 2017, Mr Dolić and Mrs Arlov signed a confirmation that the regulatory set-up had been fully completed in accordance with the Agreement and that Digital Capital was accordingly entitled to payment of £800,000. It is not in dispute that this amount was duly paid. A further amendment to the service agreement between Digital Capital and One Click was agreed on 28 December 2017 to reflect additional work to be carried out by One Click in relation to the integration with the crypto platform which required bespoke API's based on the technical specification for that platform.

61. On 10 January 2018, Genesis Iceland paid the second instalment of £800,000 due to Digital Capital under the Agreement as an advance payment in respect of the ongoing software set-up. From this date Digital Capital began to submit monthly invoices for operational fees and (from February 2018) also maintenance fees as contemplated by the Agreement.

62. In accordance with the course of action agreed at the November meeting (see paragraph 59 above), Digital Capital entered into a Software Service Agreement with ABBA on 31 January 2018. This required an upfront payment of €150,000 by Digital Capital and ongoing maintenance fees payable from 1 June 2018.

63. On 19 March 2018, Mr Brajković sent a link for the API to the crypto platform as had been requested by ABBA. Since it would be necessary to integrate with ABBA's core banking system, he also requested ABBA's API link and a test server with which to start development. Mr Brajković suggested that it would be a good idea to establish development groups so that the people working on integration could communicate regularly. He repeated the request for ABBA's API documents on 22 March. Mrs Arlov's evidence was that she never received these from ABBA although she believed that ABBA and Barrage may also have been in direct communication about it. However, it seems that she was able to pass on at least one of ABBA's API connectors to Barrage on 30 March.

64. By the end of March 2018, Digital Capital had concluded agreements with several providers whose products were to be integrated into the core banking system, including the following:

    i) Transact Payments Ltd ("TPL"). TPL was a BIN sponsor through which Digital Capital was registered with Mastercard and received four separate BINs. An upfront payment of £10,000 was payable to TPL with a further £20,000 payable on completion;

    ii) LexisNexis who provided KYC/AML services to permit online account opening;

    iii) LHV Bank and Rietumu Bank who would hold client funds and facilitate bank transfers; both banks charged a monthly fee; and

    iv) Global Processing Services (GPS"), a card processor which would enable the management of debit cards issued by Digital Capital. Set-up fees were payable to GPS at the outset as well as ongoing licence and transaction fees.

65. Mrs Arlov sent the technical documentation relating to these providers to Barrage and there was some discussion about them, the details of which do not matter for present purposes.

66. In April 2018, Ms Jessica Sanches joined Genesis. As she was new to both Genesis Mining and the Genesis Wallet she requested a meeting with Mrs Arlov and Mr Perković in order to understand more about the project. They accordingly met in London on 20 April. As appears from Mrs Arlov's contemporaneous note, she and Mr Perković gave a short presentation of the system and explained that further input was required from Genesis Iceland concerning projections, design and technical details. Ms

Sanches suggested that it would be better to discuss this with Mr Matthias Endriss who would be joining the company in June and would be acting as project manager. Mr Perković therefore proposed a longer meeting which everyone could attend in order to cover in detail everything that had already been done or remained to be done. Mrs Arlov also asked to whom Digital Capital should address any query about the order for debit cards. Ms Sanches said that it should be sent to her and she would take it further. She enquired whether Genesis Mining had any ownership interest in Digital Capital and was told that Dr Krohn had a 9% holding. Mrs Arlov's note has the comment *"WHY?"* although it is not clear to me whether this is intended to represent a query by Ms Sanches as to why the holding was so low or an internal query by Mrs Arlov as to why she was asking. At all events, it was left that Digital Capital would organise the further meeting and send an email.

67. On 24 April 2018, Digital Capital concluded an agreement with a debit card manufacturer. She emailed Ms Sanches the same day confirming that Digital Capital had received four Mastercard BINs and attaching (i) the proposed card designs received from Barrage; (ii) a price list; and (iii) a table to be filled out by 26 April 2018 stating how many pieces of each design should be ordered initially. She informed Ms Sanches that delivery would take 8 weeks and that it was therefore necessary to estimate what stock of cards was required. It will be recalled that the Go Live date contemplated by the Agreement was 18 July 2018 which was only about 11 weeks distant.

68. A further meeting with Genesis and Barrage took place in Munich on 8 May 2018 attended by Mrs Arlov, Mr Perković, Dr Krohn, Mr Kaiser, Ms Sanches, Mr Brajković and Mr Ivanšić. Mr Kaiser had not previously been involved in the Genesis Wallet project. He was in any event an accountant and, on his own admission, not a technical person. Dr Krohn could not recall much, if anything of what transpired at this meeting. I accept Mrs Arlov's note as an accurate summary of the points discussed.

69. At the meeting, Mr Brajković indicated that the Genesis crypto platform was running behind schedule and expressed doubts as to whether it would be finished before December. This was the first time that Digital Capital had been made aware of any delay on the Genesis side and it clearly rendered the 10 July 2018 Go Live date wholly unrealistic. Mrs Arlov recapped the position regarding PSD2 authorisation and said that the Digital Capital software was nearly finished, requiring another 2-3 months in order to finalise the integration with the card provider. She suggested that a presentation in August or September might be possible. As regards ABBA, she said that Digital Capital was unhappy with ABBA's communication and doubtful as to the quality of its system. The agreement with ABBA required delivery of a test version of the system by 1 May 2018 and a live version by 15 June. However, neither of these deadlines had been met.

70. The question of the card order previously raised with Ms Sanches was mentioned again and Mrs Arlov was told that someone would contact her. She also stated that Digital Capital urgently needed certain usage projections from Mr Kaiser as well as the technical specifications from Barrage so that it could start work on integration as soon as possible.

71. A further matter raised was whether there would be changes in the company carrying the Genesis Wallet project and how this would work from an agency point of view. Genesis explained that it was working on the incorporation of a company in

Liechtenstein to carry the project and Mrs Arlov's assumption was that the Agreement would therefore need to be transferred to the new company in due course. Dr Krohn also raised the matter of the shareholdings in Digital Capital but Mr Perković suggested that this should be left until the system had gone live.

72. On 1 June 2018, Mr Ivanšić circulated an email within Genesis (not copied to Digital Capital or Mr Perković) indicating that Barrage was intending to release the Genesis Wallet in mid-June to a limited number of users for cryptocurrencies only. It is clear from this email that integration with the Digital Capital FIAT platform was not contemplated imminently but there is no suggestion that this was due to any delays or failings on the part of Digital Capital. In answer to a request for demonstration, Mr Ivanšić provided a link to some design mock-ups on 4 June 2018. It also appears that a meeting was held between Barrage and Mr Endriss two weeks later to discuss this launch.

73. Meanwhile, on 14 June 2018, LMG had sent through to Digital Capital some front-end software for the purpose of testing Digital Capital's back-end system and, in particular, of ensuring that the third party connections would integrate properly. This was followed on 5 July 2018 by a further email from LMG attaching links to its back-end software platform and stating, *"We started back end for wallet, and you can access here…"*.

74. There was considerable dispute between the parties as to precisely what was meant by this. It was put by Mr Bergin to Mrs Arlov and Mr Perković that LMG cannot have sent a completed product in July 2018 if they had only just started the back-end. He pointed further to (i) the Functional Specification Guides attached by LMG which stated that they were *"Initial release"* and (ii) LMG's email of 14 September (referred to in paragraph 82 below) in which they referred to having *"finished first version of Wallet"*.

75. In response, both Mrs Arlov and Mr Perković were adamant that LMG had provided a complete platform with all the functionality required for the Genesis Wallet, even if some tweaking might have been required here and there. The fact, for example, that the attached Guide stated under the heading *"Reports"* that these were to be finalised with clients did not mean that the system had no reporting functionality, merely that LMG needed to know the format of the reports required in order to customise it.

76. Mr Perković stressed in particular that LMG must already have completed a functioning back-end system by July since the front-end sent on 14 June simply could not have functioned without a back-end. It is also noteworthy that the Release Date identified in one of the Functional Specification Guides was in fact February 2018. Mr Perković further said that if LMG had only started work on the back-office in July 2018, it would have been impossible for them to have completed the work by September. The author of the emails, Vlada Srdanović, was not a native English speaker and Mr Perković understood his choice of words to mean that the system was already functional but that LMG had just started work to effect a change in the currency exchange provider (Currency Cloud instead of Rietumu) and to integrate a new provider, Infobip, as requested by One Click. The integrations with Currency Cloud and Infobip were being undertaken with trial software prior to formal agreements being entered into by Digital Capital.

77. Mrs Arlov likewise insisted that the LMG system provided in July 2018 was fully functional even though some unwanted functionalities needed to be deleted and the branding changed to that of Digital Capital. However, these were only comparatively small changes which did not affect the functionality of the system.

78. I accept this evidence and reject the suggestion that no complete back-end system had been produced by LMG at this time. (Whether or not that system was "functional" in the sense of that it met all the contractual requirements is a different question as to which the experts were divided. This is discussed below.) I likewise accept Mrs Arlov's evidence that if the Genesis front-end platform had been available at this time, tests could have been run with that instead of with the front-end provided by LMG.

79. On 24 July 2018, Mrs Arlov emailed Mr Brajković with a price list for the initial debit card order and an order form. She asked for the order form to be completed within the next two days in order to capture the production load. A response was received the same day from Mr Endriss who, not having previously met Mrs Arlov, introduced himself as the responsible manager for Genesis Wallet since 1 June who was working closely with Mr Brajković. Mrs Arlov replied to say that she would place the order as soon as the updated designs (which were required to meet new Mastercard rules and which she had been discussing with Barrage) had been received from Barrage. The design was eventually finalised on 27 July.

80. During the course of July and August, Digital Capital concluded further agreements with third party providers that were integrated into the core software. Although not required under the Agreement, it also changed the reporting functionality to comply with PSD2 as this was a regulatory obligation. Mrs Arlov said, and I accept, that none of this would have prevented integration with the Genesis platform had it been ready at that time.

81. On 3 September 2018, Mr Perković sent a text message to Mr Brajković stressing the importance of having Barrage's technical requirements for integrating the two platforms. On 4 September 2018, Digital Capital provided Barrage with all the details required to integrate and test the payment gateway element of the core banking software, including a direct API and a web API. Mr Rimac replied the next day confirming that both APIs appeared to work and that Barrage would let Mrs Arlov know if anything else was needed. He expressed a desire to see encryption for certain emails and Mrs Arlov agreed to install the necessary programme.

82. On 14 September 2018, LMG sent another version of the software for review under cover of an email which read *"We finished first version of Wallet and Wallet Back end, so you can review."* Consistently with my findings in paragraph 78 above, I reject the suggestion that LMG had not previously produced any finished version of the software. Rather I understand this email as meaning that LMG had incorporated the further refinements requested by Digital Capital since July. This would quite naturally be referred to as a completed first version but that does not imply that the core software did not previously exist in functional form and I so find. Mrs Arlov also forwarded this version to Digital Capital's compliance officer, Mr Lewis, who indicated that there was a bit to add from his perspective but otherwise seemed delighted with the system.

83. An important meeting with Genesis then took place at Digital Capital's offices in Split on 20 September 2018. This meeting was the subject of much controversy and I

therefore deal with it in some detail. It was attended by Mrs Arlov and Mr Perković, and Messrs Krohn, Kaiser, Dolić and Streng. According to Mrs Arlov, the meeting was set up in order for her and Mr Perković to present the completed core banking software to Genesis.

84. Her contemporaneous note records that she first drew a schematic diagram on a board and then presented the different aspects of the system. Although Mr Dolić and Dr Krohn had previously seen a diagram at the meeting in November 2017, this was the first occasion on which Mr Streng was in attendance. In oral evidence Mrs Arlov explained that the meeting took place in a room with a projector and that she carried out the presentation from her laptop. She also referred to continuing problems with ABBA and her concern that it would not finish its system in time. ABBA had been granted an extension of time for delivery until 30 September and Digital Capital proposed to test the ABBA system. If it was not found to be satisfactory, then she suggested starting the integration with Digital Capital's own system. The note records Mr Dolić and Dr Krohn agreeing with this suggestion.

85. The note also records Mr Kaiser asking Mrs Arlov what Digital Capital needed from Genesis. The answer was that it needed:

    i) The technical specifications. Mr Brajković had already been informed of this requirement two weeks previously[2] and had said that he would see about it. Mr Kaiser apparently said that he would check this with Mr Endriss.

    ii) Projections for the take-up of the wallet. This also had been requested previously: see paragraph 70 above. Mr Rimac of Barrage had provided some numbers but official predictions were required. Mrs Arlov was told that enquiries would be made of Mr Endriss and that Mr Kaiser would send them.

86. Also discussed was the Liechtenstein company to carry on the business which had now been incorporated and was currently opening bank accounts. Mrs Arlov indicated that Digital Capital would need all the company documentation for due diligence purposes and that they should think about transferring the Agreement from Genesis Iceland to the new company. Mr Kaiser suggested dealing with this through a WhatsApp group.

87. The question of shares in Digital Capital was raised again. Genesis indicated that they were interested in at least 50% of the shares and Mrs Arlov and Mr Perković indicated that they would need details and an offer first, suggesting again that it might be better to defer this discussion until after the system had gone live.

88. The note concludes by recording that Digital Capital would let Genesis know about the outcome with ABBA and that it was waiting for the specifications and all the data. I understand this to be a reference to the two points set out at paragraph 85 above.

89. This account of the meeting was challenged by the Defendant's witnesses. Although none of them had taken any notes themselves, Dr Krohn nonetheless disputed the accuracy of Mrs Arlov's note. In his written statement he said that Genesis had a different agenda at the meeting: namely, ensuring that Genesis had an ownership interest in Digital Capital and identifying what had happened to the money which

[2] This is consistent with Mr Perković's text of 3 September referred to at paragraph 81 above.

Genesis had already provided. He said that they asked for financial information because Mrs Arlov and Mr Perković had not been transparent about their spending and that they had not seen evidence of any product. Dr Krohn's account was substantially supported by Mr Kaiser who claimed orally to have a recollection of what was in his notes, despite the non-existence of any such notes.

90. In cross-examination, however, it was plain that there was an element of confusion in Dr Krohn's mind between this and a later meeting in March 2019. He could not remember the participants and I cannot therefore accept that he had any clear recollection of raising the points that he now claims were discussed. He did, however, recall some sort of presentation and status report on the project by Mrs Arlov. For his part, Mr Kaiser recalled some sort of presentation but not the detail. He said that he would have concentrated mainly on the financial side of the meeting.

91. As for Mr Dolić, his witness statement said nothing at all about what happened at the meeting, suggesting that he had no memory of it at all. In cross-examination, however, he claimed to *"remember very vividly what happened and you didn't show us anything meaningful"*. I am sceptical of this sudden return of recollection, which to me smacks of *ex post facto* rationalisation.

92. I therefore reject the Defendant's witnesses' account of the meeting save where it is supported by Mrs Arlov's note. Clearly there was discussion about the shareholding and Dr Krohn may well have enquired what expenses Digital Capital was incurring, but I am not satisfied that this was raised as a matter of extreme importance or urgency, or that any detailed request was made for financial information which Mrs Arlov promised to provide. It is noteworthy that Dr Krohn was not specific as to the nature of the information that was allegedly requested.

93. On 26 September 2018, LMG confirmed that the rebranding of the software to Digital Capital had been completed. Mrs Arlov explained that the reference in LMG's email to *"clean start"* meant that all previous test transactions had been deleted.

94. On 29 September 2018, ABBA produced a test version of its software. According to Mrs Arlov's note of a conversation she had with Mr Brajković on 4 October, ABBA had presented the system the previous day but been unable to show any functionality. Mr Rimac had asked Digital Capital to "whitelist" Barrage's IP address so that Barrage could test the ABBA system for itself but Digital Capital was unable to do so as it was now in dispute with ABBA and no longer had access to its system. Mrs Arlov indicated that Digital Capital would therefore engage an independent expert to opine on the status of the ABBA system. She also queried why Barrage had not previously noticed the lack of functionality in the ABBA system and reiterated that Digital Capital needed Barrage's technical specification urgently since integration would now be taking place with Digital Capital's own system. However, Mr Brajković said that the Genesis platform had not been completed and that they were working on transferring to a different programming language. Again, Mrs Arlov was not cross-examined on this note and, in the absence of any contrary evidence from Mr Brajković, I have no reason not to accept it as accurate.

95. On 17 October 2018 a further telephone call took place between Mrs Arlov, Mr Perković, Mr Brajković and Mr Endriss. Mrs Arlov explained the situation with ABBA and said that Digital Capital was now proceeding with its own software. She offered

to give Mr Endriss a presentation as he had not attended any previous meeting and so had never seen it. She also reiterated the need for the technical specifications previously requested so that Digital Capital could begin integrating the two systems. She explained that both technical *and functional* details were required to avoid any uncertainty and requested a presentation of the Genesis platform. Mr Endriss apparently replied that they were transferring to a new programming language so that any presentation would have to wait until that had been complete. He said that he would liaise with Mr Brajković about the specifications and enquired whether it would be possible to organise a call with Dr Krohn to explain the situation with ABBA. Mrs Arlov said that she would send an invitation for the following Friday which was 19 October.

96. A call duly took place on 19 October 2018 with Mrs Arlov, Mr Perković, Mr Endriss and Dr Krohn. Mrs Arlov explained the situation with ABBA and the fact that since 4 October Digital Capital no longer had access to the ABBA system. She also expressed disappointment that Barrage had not previously picked up any problem. She confirmed that the Digital Capital system which had been presented in Split on 20 September was ready and recommended going ahead with that since it was pointless to continue with ABBA. Mrs Arlov again stated that Digital Capital was waiting for detailed technical specifications from the Genesis side so that integration could proceed smoothly. Her note records that Mr Endriss was working on this and agreed with the suggestion. She also informed Dr Krohn that the independent expert was finishing his testing of the ABBA system that day and that his report would be ready within two weeks whereupon she would send it to him.

97. Dr Krohn recalled being told by Mrs Arlov that the ABBA software had failed and that he asked for proof. He said in his written statement that by this time he was beginning to lose faith in the ability of Digital Capital to deliver the project. Given, however, that he was on his own admission not involved in the technical side of the project, and given the lack of any previous complaints, it is difficult to see any rational basis for this conclusion.

98. In the event, the report was sent to Dr Krohn on 30 October 2018. Mrs Arlov's assessment was that the ABBA system was partial, incomplete and non-functional and that further co-operation with ABBA should be halted. She yet again stressed the urgent need for a technical specification of what the Genesis Wallet would require from Digital Capital in order to implement the alternative Digital Capital solution. However, on his own admission, Dr Krohn did nothing with the email and thinks he probably just archived it.

99. Around this time, it was discovered that a Chinese partner in Genesis Mining Hong Kong had diverted some 700,000 of the company's graphic cards and 100,000 mining rigs to his own use. The damage to Genesis Mining in terms of lost profits ran to tens of millions, although Dr Krohn pointed out that this represented opportunity losses rather than direct financial losses, which were minimal. I have no reason to disbelieve him in this respect.

100. Around this time, Mr Dolić happened to be in Hong Kong at the same time as Mr Streng. He heard about Genesis' financial problems and suggested that they meet. Mr Dolić was also by now aware from talking to Mr Brajković of Barrage that the

relationship between Digital Capital and Abba had broken down with each side blaming the other.

101. On 19 November 2018, Mr Perković received a message from Mr Dolić via the Telegram messaging service. In it, Mr Dolić said that he had been asked by Mr Streng to contact Mr Perković to say that Genesis Iceland could no longer support the monthly costs of the Agreement and was being forced to cut its expenses on all projects. He explained about the situation in China and said that the situation was not an easy one for them. Mr Dolić also said that Dr Krohn and Mr Streng would accept an option to sell the e-money institution (i.e. Digital Capital) to cover the costs. He asked whether Mr Perković had any suggestions on how to proceed.

102. It is relevant to note at this stage that the market in bitcoin had fallen dramatically – by about 75%. Mr Kaiser described the period from 2017 through 2018 as possibly the worst market conditions for cryptocurrency that had ever been experienced. This, combined with the Chinese problem (which undoubtedly had a dramatic effect on anticipated revenues) meant that Genesis was facing a difficult financial situation. Dr Krohn admitted that some employees were let go at around this time, albeit that the group was ultimately able to weather the storm successfully.

103. In his oral evidence, Mr Dolić said that one of his main reasons for making contact with Mr Perković was his awareness of the difficulties in the relationship between Digital Capital and Genesis Iceland and his desire to try to mediate as he still regarded Mr Perković as a trusted friend. However, when asked whether what he had said in his message was true, namely that Genesis needed to cut costs across all its projects for financial reasons, he was very difficult to pin down. Initially he suggested that Genesis simply wanted to axe the project but that he did not say so directly because he did not want to make Mr Perković feel bad. Next came a suggestion that it had already been decided not to proceed because Genesis had not seen any outcome from Digital Capital. Pressed on this, he claimed that it was nothing to do with him anyway since he had already left the company, and that he could not even say whether what he had said to Mr Perković was true. Finally, he stated that the decision to end the collaboration with Digital Capital was not taken until after he left in December 2018.

104. This is very unsatisfactory. Whatever may have been going on internally on the Genesis side (and I bear in mind that I have not heard evidence from Mr Streng and that no internal board minutes or notes have been disclosed relating to this time period), there is no indication in any of the documents before me to suggest that Genesis was unhappy in any way with the services that Digital Capital had hitherto provided and was continuing to provide, or that it wished to withdraw from the project for that reason. As I have said in paragraph 32 above, the Defendant's witnesses all spoke to having had increasingly grave doubts since at least September 2018 about Digital Capital's ability to deliver on its commitments and to being dismayed by its continuing failure to respond to reasonable requests for information. The problem is that there is no trace whatsoever of such concerns or requests on any of the contemporaneous documents. It therefore seems to me that the recollection of the Defendant's witnesses has become coloured by their understandable desire to support the Defendant's case and that they have convinced themselves that complaints which only surfaced at a later date were in fact being voiced earlier.

105. I accordingly find that the financial difficulties facing the Genesis group was the primary motivation for Mr Dolić's message and that it was for this reason that from this date onwards, Genesis Iceland stopped paying Digital Capital's monthly invoices.

106. During the course of the hearing both the Claimant and the Defendant made late disclosure of, on the one hand, messages exchanged between Mr Dolić and Mr Perković and, on the other, WhatsApp group messages provided by Mr Kaiser. These cast a materially different light on the exchanges which took place around this time and raised further doubts in my mind about the reliability of the Defendant's evidence. Beyond expressing regret that these documents were not produced during the disclosure process, not least because it necessitated the recall of Mr Dolić, I say nothing further about their late emergence. However, they did have the effect of seriously undermining the credibility of what was said by Dr Krohn and Mr Kaiser about these exchanges in their witness statements. It is one thing to have no recollection and to have forgotten about the existence of documents which might have prompted a recollection. It is quite another to set out an ostensibly clear recollection which is at odds with documents which (in the case of the WhatsApp messages at least) should have been available to them.

107. On 21 November 2018, Mr Dolić messaged Mr Perković to ask whether he could meet Dr Krohn in Osijek on 26 November. It would appear that some potential investors, including one called Chakrit, were very interested in participating in the Genesis Wallet project and either buying shares in Digital Capital or helping with technological development. Mr Perković suggested that he and Mrs Arlov could meet Dr Krohn in Zagreb before he left for Osijek as they had other business there from 26-28 November. (They were in fact attending a Shift Money conference there.)

108. Mr Dolić replied on 23 November saying that he was talking at that moment to Dr Krohn and Mr Streng and that they needed a complete picture of Digital Capital's status in order to talk to Chakrit and other potential investors about specifics. He asked whether Mr Perković would agree to create a group to "audit" the current Digital Capital status as a base for future steps. As there were many topics to discuss, he suggested meeting in Munich to agree on specific steps. Mr Perković was agreeable to this and it was arranged that Dr Krohn would come to Munich for a meeting on 5 December. Mr Dolić stated that Dr Krohn *"wants you to send financial reports (I'm not sure it it's even possible) Nico requested or will request today."* Mr Perković's response to this was that they would consider the requirements during the meeting to determine what was appropriate. It was agreed that they would meet Mr Dolić on 4 December before having a group meeting the following day.

109. On 27 November 2018 at 8.37 pm, Mr Kaiser emailed Mrs Arlov copying also Dr Krohn and Mr Streng. He referred to the meeting in Split and continued *"Since already a couple of months passed since then, I would like to request the following data from your side:…"* The requested data included Digital Capital's latest financial statements, bank statements to give an indication of cashflows, an inventory of assets, costs structure, headcount, payroll data and details of monthly payments to external service providers. He also asked for proof of the services provided under the Agreement, namely software and system set-up, maintenance records and test protocols.

110. The overwhelming inference is that this was the email which Mr Dolić had told Mr Perković to expect and that it was primarily directed at eliciting information for the

proposed investors. Genesis may well have been interested in obtaining the information for all sorts of internal reasons, but I do not accept that this was intended to be a follow- up to any similarly detailed request made at the 20 September meeting. Had any such earlier request been made and had Mrs Arlov promised to provide the information as the Defendant claims, I have no doubt that (a) it would have been referred to expressly in Mr Kaiser's email and (b) it would have been chased for much sooner if it was genuinely as important to Genesis as is now claimed.

111. It is clear that Mr Perković then had a telephone conversation with Mr Dolić on 28 November. The gist of that call was relayed by Mr Dolić to Dr Krohn in the WhatsApp group messages disclosed belatedly by Mr Kaiser. It is noteworthy that both Dr Krohn and Mr Kaiser were insistent in their written statements that it had been Mrs Arlov who spoke to Mr Dolić following receipt of the email. While the mistake was corrected before they gave oral evidence, it did nothing to bolster their general credibility in my eyes, particularly since the WhatsApp messages were obviously documents which should have been identified and disclosed at the outset.

112. Mr Perković did not accept that the summary in Mr Dolić's WhatsApp message reflected precisely what he had said in all respects but, allowing for the fact that Mr Dolić would necessarily have been putting his own interpretation on what was said, I am satisfied that it is broadly accurate. Thus, Mr Perković stressed that Digital Capital as an EMI was a legally independent entity which was responsible to its regulators. He also indicated his view that any potential investor should send an official declaration of intent and sign a non-disclosure agreement, following which an audit of Digital Capital could be carried out at any time by a recognised body such as KPMG or PWC.

113. More contentious was the part of Mr Dolić's message which read *"From Nico we would expect that he would send a further email which says that the first email was addressed to another company and thus incorrectly sent to DC."* Mr Perković did not accept that he had asked for an email in these terms. His recollection was rather that he wanted the procedure outlined above to be followed (declaration of intent, followed by non- disclosure agreement) and that Mr Kaiser should therefore clarify the reasons for sending the email, namely that the information was required for the investors and the nature of the interest being expressed.

114. Mr Perković also quibbled with the part of Mr Dolić's message which recorded him as saying that he could not send the data requested by Mr Kaiser to someone who had no legal entitlement to it, but that he would show it to Mr Dolić, Dr Krohn and Mr Streng during a personal discussion. While he accepted having said that a company with regulatory obligations could only share information in conformity with proper procedures, he said that he would never have agreed to show Digital Capital's information to anyone as only Mrs Arlov could do this. I nonetheless conclude that he must have said something to indicate that the information might be forthcoming on an informal basis.

115. Mr Kaiser did indeed send a further email to Mrs Arlov apologising for having *"mixed up the wrong person/company to receive this e-mail"*. I infer from this that Genesis accepted the force of the point made by Mr Perković that Digital Capital should only be seen to be giving financial information to someone who had a legal right to obtain it.

116. It was a major plank in the Defendant's factual case that one of the reasons for its loss of confidence in Digital Capital was the repeated failure since September 2018 to respond to requests for financial information. Like Dr Krohn, Mr Kaiser insisted in his written statement that Genesis was becoming increasingly disturbed by Digital Capital's failure to disclose financial information which had been requested at the 20 September meeting and that the only reason for sending his email of 27 November was to chase it up as part of his own due diligence. Part-way through his cross-examination, however, the messages referred to above were disclosed which cast a different light on the purpose and intent of the email. Faced with this, Mr Kaiser changed tack and maintained that the email had had a dual purpose: on the one hand to obtain information for the potential investors, but on the other also for Genesis' own purposes.

117. He was pressed by Mrs Arlov as to the basis on which Genesis Iceland as a client would have been entitled to any of information requested other than that which was already in the public domain, such as published accounts. His initial reaction was to claim that he was representing Dr Krohn as CEO of Genesis Iceland. Then he said that Dr Krohn was a shareholder and was entitled to the information in that capacity. When pressed further, he said that he had in fact requested the information at the 20 September meeting both as a representative of Genesis Iceland and as a representative for Dr Krohn personally.

118. I am unable to accept this explanation which I find wholly implausible. As I have indicated above, while I am satisfied that the shareholdings in Digital Capital were raised at the meeting on 20 September I am not satisfied that it was discussed in any depth, nor that there was any request for the detailed information set out in Mr Kaiser's 27 November email, the latter being prompted by the expression of interest from the investors. Had Genesis had genuine concerns that Digital Capital was withholding important information which it had agreed on 20 September to provide, I have no doubt that it would not have waited two months before following it up. It is noteworthy that the Agreement itself contains extensive audit rights, but that Genesis Iceland never sought to exercise those rights, nor did Mr Kaiser ever seek to check what entitlement either Genesis Iceland or Dr Krohn had to the financial information sought.

119. In any event, the suggestion that Digital Capital was reluctant to disclose the information is wholly belied by the WhatsApp group messages. Not only does Mr Dolić record Mr Perković as having volunteered to have an audit conducted by an internationally recognised firm of accountants, but the impression was clearly given to Mr Dolić that the information might be made available informally. It is true that Mr Perković and Mrs Arlov sought at the 8 May and 20 September meetings to postpone further discussion of the shareholdings in Digital Capital until after the Genesis Wallet had gone live. However, I have no doubt that they did not at that stage envisage the delays which later transpired and that this was not an attempt by them to prevaricate.

120. Mrs Arlov was cross-examined at some length as to why she did not respond to Mr Kaiser's initial email of 27 November. She said in her statement that she never had a chance to do so because it was overtaken by the retraction. In her oral evidence (given before the disclosure of the further messages) she explained that she had been at an event at the time and was not monitoring her emails. She could not remember exactly when she first saw the initial email but recalled seeing the retraction first because of the way her inbox is configured.

121. I accept that Mrs Arlov may not have seen the email until the following morning. The messages exchanged between Mr Perković and Mr Dolić confirm that Mrs Arlov had been at the Shift Money conference (they attached pictures of the Digital Capital stand at the event). However, I cannot accept that she did not see the email prior to its retraction since the retraction was only sent following Mr Perković's call to Mr Dolić and Mr Perković was quite clear that he had not received the email directly and that it was shown to him by Mrs Arlov. I therefore find that she saw it sometime around 0830 in the morning and showed it to Mr Perković, prompting him to call Mr Dolić at 0841.

122. Nonetheless, given the need to preserve the independence of Digital Capital from Genesis, and the fact that the retraction would have arrived within hours of her seeing the email and showing it to Mr Perković, I find it understandable that she did not regard it as either necessary or appropriate to reply.

123. This sequence of events also makes sense of an exchange of messages on 29 November 2018 between Mrs Arlov and Dr Krohn. In it, Dr Krohn apologises *"for yesterday"* and asks which of the requested information she can provide in the next few days. Mrs Arlov's reply was she would do her best to prepare a presentation showing Digital Capital's business achievements. I accept that this was probably a reference back to the information requested in Mr Kaiser's 27 November email but that it was raised by Dr Krohn in the context of the information required for potential investors. Importantly Mrs Arlov also said that she would prepare a presentation of all the software solutions
– presumably for the meeting which had already been arranged between Mr Perković and Mr Dolić for Dr Krohn to attend on 5 December. When cross-examined as to why this was necessary if she had already made a presentation to Dr Krohn in September, she explained that the earlier presentation had been rather rushed and also that it had not been witnessed by any technical people on the Genesis side. Mrs Arlov also recalled Dr Krohn talking during their conversation about the fact that he and Mr Streng were going to part company with Mr Dolić as a result of the financial difficulties Genesis was experiencing.

124. On 4/5 December 2018, the meetings agreed between Mr Perković and Mr Dolić took place in Munich. As arranged, Mrs Arlov, Mr Perković and Mr Dolić met on 4 December for lunch. Mr Dolić informed them that the situation was very difficult and that Genesis would probably have to let the entire Munich office go. He referred to the problem with the Chinese partner and the fall in the price of cryptocurrency. This had led to problems with payouts to mining customers which he would probably have to meet out of his own pocket. Mr Dolić said that he would love to keep the Digital Capital project going and Mrs Arlov said that they would present the whole system to him and Dr Krohn the next day. They would see what could be done and Digital Capital would wait until Genesis had recovered. Mr Dolić also asked if Digital Capital could arrange a meeting room for 5 December since the atmosphere in the Genesis offices was apparently so bad.

125. Digital Capital organised a room as requested at the Charles Hotel and even arranged for two interpreters to be present, expecting representatives of Genesis' technical team to attend as well. But, unfortunately, Dr Krohn was ill and could not be present, there were no technical representatives on behalf of Genesis and only Mr Dolić appeared. Mrs Arlov's note records that she showed Mr Dolić the specifications of the Digital Capital system, including planned upgrades which were not covered by the Agreement. She then presented the entire software and mentioned that Digital Capital was

considering replacing LexisNexis with Onfido. She showed him the process of opening an account on a mobile phone using a test programme provided by Onfido. Mr Dolić was apparently delighted by what he saw and rang Mr Brajković from the meeting to say that it was *"incredible"* and that he would try to save the project. Mrs Arlov also records stating yet again that Barrage needed to provide the technical specifications and that Digital Capital had been waiting for these for too long.

126. The note also records that a *"Financial Issue"* was raised. I infer that this was a reference to the non-payment of Digital Capital's most recent invoices, since Mr Dolić is recorded as having asked whether Digital Capital could wait a couple of months until the financial situation of Genesis had stabilised. He said that the project was very important to them. Mr Perković indicated that Digital Capital could wait for a couple of months but that the invoices would then have to be paid. Meanwhile, Digital Capital would continue to maintain the entire system. Mr Dolić agreed to this and said that he would inform Dr Krohn and Mr Streng. There was then a discussion about other possibilities. Mr Dolić said that he would talk to various investors and Mr Perković said that they were open to all options.

127. Mr Dolić challenged this account of the meetings in his oral evidence. However, he clearly could not remember very much about either the lunch on 4 December or the meeting on 5 December. His complete lack of independent recollection is demonstrated by the fact that his written statement was confined to a denial that he had ever "approved" any system presented by Digital Capital. This was on the grounds, not of any positive recollection, but on the basis that he would not have had authority to do so. However, it was never suggested by Digital Capital that he had given formal approval on behalf of Genesis Iceland. Moreover, his statement does not deny that anything was presented; he merely states that he did not recall ever having seen anything "meaningful".

128. On 8 December 2018 a call took place between Mrs Arlov, Mr Perković, Mr Dolić, Mr Brajković and one other person. Most of the discussion related to the problems with ABBA but Mr Perković raised again the question of the technical specifications requested from Barrage. Mr Brajković should have been working on it but everything was now in question due to Genesis' financial situation. Mr Dolić repeated that he would press for the continuation of the project but asked Digital Capital to wait as had been agreed at the meeting in Munich and this was confirmed.

129. On 20 December 2018, Mr Dolić formally resigned from the board of Genesis Iceland.

130. On 28 January 2019 an internal discussion took place by Skype between Mr Dolić, Dr Krohn and Mr Bjoern Arzt who was the General Counsel of the Genesis group. In his oral evidence, Mr Dolić initially denied that he had expressed any opinion or given any advice to Genesis about the project after he left the company. Confronted with the evidence of this meeting, he was forced to retract that denial. The minutes of the discussion record that Mr Dolić outlined the history of Digital Capital. Contrary to the impression he had given to Digital Capital in December as recorded by Mrs Arlov in her notes, the minutes of this meeting suggest that he now took a pessimistic view, considering that the current management of Digital Capital would not be able to finalise the project successfully. He had apparently talked about this to Mr Perković and discussed the valuation of the company, as to which his own valuation (€2 million) was substantially less than Mr Perković's estimate (€7 million). Mr Dolić said that Mrs

Arlov and Mr Perković rejected any share transfer to Genesis on the basis that it would not add value. Given Mr Dolić's lack of technical expertise and the fact that no-one had at this stage evaluated the Digital Capital system on behalf of Genesis, the basis for his assessment of Digital Capital's capabilities is obscure.

131. The minutes record an agreement that the management of Digital Capital should be replaced and measures taken to ensure that the remaining liquidity was not used or abused by Digital Capital. Mr Dolić undertook to stand behind the liabilities of Digital Capital. It was also agreed that Dr Krohn should meet Mrs Arlov and Mr Perković in person to continue the dialogue.

132. A few days later on 7 February 2019, a management call took place between Dr Krohn and Mr Streng as shareholders and Mr Kaiser and someone described as *"rh"* which I take to be a reference to a Rene Hennen who appears elsewhere in the documents. I am not aware of the role played by Mr Hennen. A number of matters were discussed, including Barrage and the Genesis Wallet project. It appears from other parts of the note that Genesis was in a somewhat unsettled state and looking to cut costs wherever possible, including in respect of the fees payable to Barrage. I note a reference to Genesis Mining needing more cash and a proposal to proceed with the sale of shares. In his oral evidence, Mr Ivanšić confirmed that Barrage optimised the crypto platform around this time so as to reduce costs by redoing some parts of the database and cutting some server costs.

133. So far as the Genesis Wallet project specifically was concerned, the question raised for consideration was the amount of financing that would be required from Genesis and how much Barrage could contribute to finance the project, possibly in exchange for shares. A reference was also made to talking to Chakrit and someone called Abdumalik about potential investment after the discussions with Barrage had been concluded. It was estimated that the project was currently costing €200,000 per month and that some
€2.2 million would be needed up to October 2019.

134. A further management call took place on 19 February 2019. The minutes of this call are identical in some places to those of the 7 February call. I infer that this is because they effectively updated the previous minutes. However, they additionally included a note recording the shareholding in Digital Capital and referred to suing Digital Capital for non-fulfilment of the Agreement. It is unclear to me whether this was an actual decision or a topic for discussion. Given the subsequent meeting which took place with Digital Capital in March, I am inclined to think it was the latter.

135. On 22 March 2019, a meeting took place with Barrage at its new offices in Osijek. Dr Krohn, Mr Streng, Mr Kaiser, Mr Endriss and Mr Hennen attended on behalf of Genesis. Mr Ivanšić and Mr Rimac represented Barrage with two other colleagues. The purpose of the meeting appears to have been specifically to discuss the possibility of Barrage assuming responsibility for the ongoing development of the Genesis Wallet. Dr Krohn said that by this date Genesis was becoming less interested in the project and that Barrage was more of the driving force and had better insight into it. The note records a proposal that Barrage's existing 10% shareholding in the Liechtenstein company should be increased to 51% in return for Barrage assuming the costs of obtaining an EML and development costs up to September 2019. At that point, the costs would either be shared equally or an outside investor would be brought in. Mr

Endriss was to have lead responsibility for obtaining the EML which was stated to be absolutely crucial for the success of the project.

136. It was put to Dr Krohn that this meeting was evidence that Genesis was looking to replace Digital Capital with Barrage in breach of the exclusivity provisions in the Agreement. He denied that there was any settled decision to dispense with Digital Capital's services. His evidence was that it was becoming increasingly likely that Digital Capital would not be able to deliver and that they therefore needed to consider a back-up solution but that if Digital Capital did provide what was required, they would have been happy to take that. Both he and Mr Ivanšić confirmed that no agreement was ever concluded with Barrage. No breach of the exclusivity clause can therefore have occurred. Mr Kaiser's evidence was to much the same effect.

137. Two days later an important meeting took place with Digital Capital. This appears to have been the first contact between the parties since 8 December 2018, some four months previously. Mrs Arlov and Mr Perković were present together with Dr Krohn and Mr Kaiser. Mr Arzt participated by telephone. Notes of the meeting were taken by both Mrs Arlov and Mr Kaiser.

138. At the outset of the hearing an application was made by Mr Bergin to adduce a partial transcript of a recording of the meeting which Mr Arzt had made on his phone. This had apparently been provided to the Defendant's solicitors but overlooked for some reason and was not rediscovered until 28 June 2021. A transcript of those parts of the meeting which had been conducted in English was then obtained and both the recording and the transcript were disclosed to the Claimant on 1 July. Because of the failure to disclose, Mr Bergin also applied for relief from sanctions. I refused the application for essentially three reasons: (i) Mr Kaiser's note had in any event been compiled on the basis of the transcription and it was therefore unclear to me quite what the transcript could be expected to add; (ii) only the English dialogue had been translated and transcribed in circumstances where a significant part of the discussion had taken place in Croatian and German; (iii) the very late disclosure had not given Mrs Arlov a proper opportunity to listen to the recording herself either to verify the English translation or to obtain a translation of the parts in Croatian and German. Given that Mr Perković only speaks Croatian and that the disputed part of the meeting centred on what he said, it seemed to me that it would be impossible for me to derive any benefit from effectively one side of a conversation. No excuse was (rightly) offered for the late disclosure and in all the circumstances, it did not seem to me that the interests of justice required relief from sanctions to be granted.

139. I start with Mr Kaiser's note which he stated had been compiled a couple of days after the meeting. I note in particular the opening section which sets out under a heading *"Preliminary remark"* a statement of the Genesis strategy for the meeting which I set out in full:

> *"● we (GM) don't have any money to pay anything else for DC*
>
> *● we have found an investor for Genesis Wallet ("GW")*
>
> *● Genesis Wallet is the future and it will be great ⇒ use the agreed share (Dorotea and Tonci are entitled to 2%), as bait*

> ● *the investor forces us to find a solution for the Fiat site, if Digital Capital can't or won't deliver, we have to find another partner for economic reasons"*

140. I regard this section of Mr Kaiser's minutes as referring to an internal Genesis understanding rather than as anything which was communicated to Digital Capital in terms. But it clearly demonstrates the tone that Genesis had decided to adopt in the meeting and to that extent informs the way in which the ensuing discussion is to be understood. I am in no doubt that Genesis Iceland had formed the view at this stage that it could no longer afford to continue financing the project without external funding and that an agreement had been reached at least in principle with Barrage to bear the costs of the project until September. I also accept that Genesis would need to find another partner for the FIAT part of the system if Digital Capital was unable to perform its part of the Agreement and that it was therefore important for Genesis to ascertain the status of Digital Capital's core banking system.

141. The salient points to emerge from the remainder of Mr Kaiser's note for present purposes are as follows:

i) Mr Perković expressed his and Mrs Arlov's disappointment at:

a) the late notification to Digital Capital of the financial situation of Genesis which had resulted in Digital Capital having to lay off employees – I infer because of the cessation of payment by Genesis;

b) delays on the part of Genesis in failing to provide its API requirements;

ii) The current status of the dispute with ABBA was explained, it having only been appreciated late in the day that its solution was not usable;

iii) Mr Perković stated that an alternative solution for core banking system was already in place and that a trial version would be ready by the beginning of August at the latest;[3]

iv) Digital Capital agreed to transfer shares to Genesis but only after its unpaid invoices had been settled or compensation paid (for I infer, the shares);

v) Certain information about Digital Capital's financial status was provided including the fact that its current cash balance was £1,500,000;

vi) Digital Capital needed to hold at least £1 million in cash (presumably for regulatory purposes) and the company would therefore be put into hibernation at the end of June so as not to lose the EMI. However, Genesis was insisting on a transfer of the shares before looking for any investors;

vii) Further steps agreed for the week commencing 26 March were that:

a) Mrs Arlov would ask Mr Endriss for the API connections to the Genesis Wallet;

[3] In his written statement, Mr Perković said that he recalled a deadline of 4 months being mentioned for integration with the Genesis platform once the technical specifications had been provided.

b) A meeting to be co-ordinated by Mr Endriss would take place between Digital Capital and Barrage for Barrage to present the status of its side of the platform and the product functionalities between Digital Capital and Barrage;

c) A capital increase would be initiated to ensure a 50:50 distribution of shares.

viii) During the week commencing 1 April 2019, a development meeting was to take place between Digital Capital and Barrage.

142. Mrs Arlov's note was much shorter than Mr Kaiser's minutes. This was necessarily so, since she was having to translate throughout for Mr Perković. Nonetheless, the points that I have extracted from Mr Kaiser's minutes are largely reflected in her note. In particular, she records that:

i) Digital Capital had still not received the technical documentation allowing it to work on integration and that Mr Kaiser was to see to this with Mr Endriss;

ii) Digital Capital's platform was ready as Genesis already knew. (In her oral evidence she explained that this was a reference to the presentations which she had given on 20 September and 5 December 2018.)

iii) Once the specifications had been received, a meeting should be organised before completing the integration;

iv) The dispute with ABBA would have to go to court;

v) Digital Capital was prepared to discuss the sale of shares to Genesis once its unpaid invoices had been settled.

143. Mrs Arlov's note also mentioned that Genesis had been working on transferring their platform to a new programming language. This does not feature in Mr Kaiser's note but had been mentioned by Mr Brajković in his conversation with Mrs Arlov on 29 September 2018 and was also confirmed by Mr Ivanšić in his oral evidence. She also recorded Digital Capital's agreement to allow until 30 June 2019 for payment of Digital Capital's outstanding invoices and Dr Krohn's confirmation that they would be paid by then. This likewise does not feature in Mr Kaiser's note. He refers instead to the possibility that Digital Capital would be put into hibernation at the end of June. Mrs Arlov denied that this was ever a definite decision and, given the context in which the note appears, I am satisfied that it was only to happen if no investment was secured which would allow Digital Capital's invoices to be paid so that it could maintain the necessary cash balance. There is therefore no inconsistency between this and Mrs Arlov's evidence that Digital Capital was prepared to wait for payment until the end of June, Dr Krohn having confirmed that they would have found an investor by then.

144. During Mr Bergin's cross-examination of Mrs Arlov, it also emerged that the parties were at odds as to what was meant by the phrase *"trial version"* in Mr Kaiser's note. Mr Bergin suggested that this meant that the core banking system had not in fact been completed by that date; Mrs Arlov and Mr Perković were insistent that this was not the case and that Mr Perković had confirmed at the meeting that the core banking system

was in place. The reference to "trial version" was to a version ready for integration testing after Digital Capital had been provided with the necessary information by Barrage/Genesis to allow integration to take place. I accept Mrs Arlov and Mr Perković's evidence on this point. Given that both notes record the Digital Capital platform as being ready, the "trial version" can in my judgment only refer to a version ready for integration testing.

145. I also find that the Genesis representatives expressed no dissatisfaction with Digital Capital's services to date. On the contrary the overwhelming impression created at this meeting (in line with the Genesis strategy) was one of positivity and a desire to press ahead together with the project. I reject the suggestion repeatedly made by all of the Defendant's witnesses that Digital Capital was reluctant to disclose financial information. On the contrary, answers to many of the questions raised in Mr Kaiser's email of 27 November 2018 were provided at the meeting as he records himself, and I note, in particular, that the provision of further information was not included in his list of next steps/timeline as I would have expected if this had been a truly serious issue.

146. That said, I do accept that the question of the shareholding in Digital Capital was a topic which Genesis had been raising repeatedly since 8 May 2018. In this respect, it is easy to see the competing tensions at play. On the one hand it does not appear ever to have been disputed by Digital Capital that there was at least an informal agreement that shares would be transferred to Genesis once the Genesis Wallet project was up and running. On the other hand, the project had been delayed and Digital Capital was incurring on-going development and maintenance costs (which Genesis ceased to pay in October 2018). I can therefore see every commercial reason why Mrs Arlov and Mr Perković were reluctant for Mrs Arlov and Mr Bruno Perković to relinquish their shareholdings until at least Digital Capital's outstanding invoices were paid. In some ways, this was the only bargaining chip they had at their disposal. Contrary to the picture which the Genesis witnesses sought to paint, I do not regard this as indicative of bad faith or underhand dealing; it was simply a negotiating position.

147. The documentary evidence does not disclose that there was any further communication between the parties following the meeting of 24 March 2019 until 3 June 2019. Mr Kaiser said that he definitely discussed the meeting with Mr Endriss. He also said that he chased Mrs Arlov twice after the meeting but received no response. However, no written communications were produced to support this assertion.

148. On 3 June 2019, Digital Capital received a Pre-Action Protocol Letter of Claim from Genesis Iceland's solicitors, Charles Fussell & Co., claiming that Digital Capital had substantially failed to provide the services contracted for under the Agreement and that Genesis had not been provided with evidence of any work undertaken/benefits rendered by Digital Capital under the Agreement. The letter expressed concern that sums paid to Digital Capital by Genesis Iceland had been misapplied and claimed that there had been a total failure of consideration. Charles Fussell further asserted that Digital Capital had thereby committed material breaches of the Agreement which were incapable of remedy and so entitled Genesis Iceland to terminate the Agreement immediately. Alternatively, it was said that Digital Capital was in repudiatory breach which Genesis Iceland accepted.

149. On 1 July 2019, Digital Capital served a notice of suspension on Genesis Iceland under clause 13 of the Agreement on the basis that its outstanding invoices had not been paid.

The significance of the date is that it was the day after expiry of the extension of time for payment which Digital Capital had allowed Genesis Iceland at the 24 March meeting.

150. The substantive allegations made by Genesis Iceland were denied in full by Digital Capital which maintained that it had performed all its obligations under the Agreement. Indeed, it was subsequently accepted by Charles Fussell that at least some work had been carried out under the Agreement rather than none at all, as previously suggested. Nonetheless, in a letter dated 11 September 2019, the Defendant's position was substantially maintained, namely that Digital Capital had failed to provide the system required by the Agreement and was either unwilling or unable to do so. Accordingly, the Defendant was under no obligation to pay any further fees and was indeed entitled to seek reimbursement of fees already paid.

151. A Claim Form and Particulars of Claim were served by Digital Capital on 30 September 2019 asserting that the stance adopted by Genesis Iceland itself amounted to a repudiatory breach of the Agreement and purporting to accept that repudiation. This was confirmed in a letter from its solicitors, Davis Woolfe, dated 1 October 2019.

152. It is difficult to know quite why the relationship between Digital Capital and Genesis broke down in the way that it did. The Defendant's witnesses claimed that it was because Digital Capital had failed to deliver anything which could be used for the project and that Genesis had lost confidence in its ability to do so.

153. However, I find it difficult to accept that this can have been the only reason. As appears from the factual narrative set out above, there was never at any stage any expression of dissatisfaction with what Digital Capital had provided or were planning to provide. It is true that there had been delays, but these were on both sides and the impression given by Genesis at the 24 March 2019 meeting was that it wished to press ahead albeit that outside investment would be needed.

154. Moreover, I can discern no reasonable basis on which any of the witnesses who gave evidence for Genesis before me could have concluded that Digital Capital had failed to provide anything of value. None of them was technically qualified to express such an opinion. Mr Brajković might have been able to do so but (i) he was not called and (ii) according to Mr Ivanšić, he was neither a software developer nor involved on a daily basis in any event. Mr Ivanšić's own expertise was limited to design, not software and his written statement suggested that he had no first-hand knowledge of the capabilities of the Digital Capital system. His opinion was based upon what he was told by others. Furthermore, it does not seem that anyone from Genesis or Barrage had ever examined or evaluated the Digital Capital system in its entirety.

155. It is possible that Dr Krohn was more concerned by the collapse of the ABBA option than was warranted, having not completely understood that Digital Capital had its own alternative solution. However, it seems to me more likely that Genesis decided to withdraw from the entire project during the course of 2019 for a combination of reasons. First, it was apparent from late 2018 that it could no longer afford to fund the project itself and finding external investors was proving difficult. Secondly, the crypto platform was also subject to delays. The evidence left me in a state of complete ignorance as to what was happening with it during 2019 save for the undoubted fact that it never went live. Mr Dolić said that it was complete in 2017 but I suspect his

references to having seen it working were to the mock-up demonstration referred to in paragraph 72 above. Barrage was clearly working on the system in 2019 (according to Mr Ivanšić on a *pro bono* basis), but none of the Genesis witnesses really knew what it was doing or who was in charge, apart from a vague understanding that it was continuously developing the platform.

156. Thirdly, these delays meant that Genesis had all but lost the valuable advantage of being the first into the market with this kind of system. Fourthly, it was faced with the prospect of having either to pay Digital Capital outstanding invoices at the end of June 2019 or being sued.

157. In those circumstances, Genesis had every incentive to try to extricate the Defendant from the Agreement without having to make any further payment to Digital Capital. The letter from Charles Fussell & Co. can therefore readily be understood as a pre-emptive strike.

158. However, it is unnecessary for me to make any findings on this point. If the Defendant was legally entitled to terminate the Agreement when it did, its motivation for so doing is irrelevant and to that question I now turn.

THE ISSUES

159. On 15 May 2020, a hearing for directions took place before Teare J. He approved the List of Issues and ordered that there should be a split trial with the first trial determining all issues, save for each party's claim for damages. This is the first trial contemplated by Teare J's directions.

160. Following Mr Bergin's indication that the Defendant no longer pursued a claim in restitution, the issues remaining for the court's determination are as follows:

    i) Whether the Agreement contained certain implied terms contended for by the Defendant;

    ii) Whether the Defendant was obliged to pay the invoices rendered to it by the Claimant;

    iii) Whether the Defendant wrongfully renunciated and/or acted in repudiatory breach of the Agreement;

iv) Whether the Claimant breached the Agreement, and whether the Defendant was entitled to and did validly terminate the Agreement by way of its solicitors' letter dated 3rd June 2019.

161. I propose to address these issues in a slightly different manner way from that in which they are currently formulated.

(1) Implied terms

162. Little needs to be said under this heading. The Defendant's formally pleaded case was that the Agreement contained an implied term that if Digital Capital failed to achieve Go Live by 10 July 2018, it would no longer be entitled to charge the Defendant for operational fees or system maintenance, there being by definition no system either to

operate or to maintain. Further or alternatively, there was an implied term that if Digital Capital failed to make progress with the development of the software, it would not be entitled to charge operational or maintenance fees until such time as Go Live was eventually achieved.

163. This was never a promising argument and in the face of clause 30.2 of the Agreement it seemed to me to be all but unarguable. In the event, Mr Bergin (rightly, in my opinion) did not seek to dissuade me from the view that clause 30.2 meant exactly what it said and was effective to exclude all common law implied terms.

(2) Was the Defendant entitled to terminate the Agreement on 3 June 2019?

(a) Contractual vs common law right to repudiate

164. The question whether Genesis Iceland was entitled to terminate the Agreement as it purported to do on 3 June 2019 lies at the heart of this case. In order to answer that question, however, it is necessary to address an anterior question of construction as to the relationship between the contractual right of termination provided in clause 16.1 of the Agreement and the common right to terminate for repudiatory breach.

165. Clause 16.1 provides that:

> *"Either party may terminate this Agreement with immediate effect by notice to the other party on or at any time after:*
>
> *(a) a material breach by the other party of any of its obligations under this Agreement which (if the breach is capable of remedy) the other party has failed to remedy within thirty (30) days after receipt of notice giving particulars of the breach and requiring the other party to do so;"*

166. It was common ground between the parties that all the breaches relied upon by the Defendant were material and that that they were all in principle remediable. They were therefore within the scope of clause 16.1. Mr Bergin, however, founded the Defendant's case squarely on a common law right to terminate. His argument was that Digital Capital's breaches, while material, were more than merely material and in fact were so serious as to be repudiatory. Thus, the Defendant had an independent right to terminate at common law which was not circumscribed by clause 16.1 and its requirement to give notice.

167. If he was wrong about that, it was not in dispute that no notice was ever given and that Digital Capital's claim must therefore succeed, irrespective of any finding as to whether or not the alleged breaches were material, repudiatory or neither, or whether they could or could not have been remedied within 30 days. (As to this, Dr Kovačević said that they all could have been remedied within 30 days; Dr Hunt said that, although possible, probably not all of them could.[4])

168. The relationship between contractual and common law rights to terminate was considered by the Court of Appeal in the case of *Stocznia Gdynia SA v Gearbulk Holdings Ltd,* [2009] EWCA Civ 75; [2009] 1 Lloyd's Rep. 461. That was a

[4] It seems to me that this must, at least to some extent, be a function of how many people can be thrown at the problem, but as there never was a notice under clause 16.1 it is unnecessary to make any finding on the point.

shipbuilding case where clause 10 of the shipbuilding contract gave the purchaser a right to claim liquidated damages in respect of delayed delivery with a contractual right to terminate if the delay extended beyond a certain date. The yard having failed to deliver the vessels by that date, the purchaser terminated and claimed damages for repudiatory breach. In response, the yard argued that the contractual termination provisions constituted a contractual code which excluded any and all common law rights of termination and therefore also any right to claim damages at common law for repudiatory breach.

169. The leading judgment was given by Moore-Bick LJ in which he commented as follows:

"15. Whether a breach is sufficiently serious to go to the root of the contract depends on the terms of the contract and the nature of the breach, but it is open to the parties to agree that the breach of a particular term, however slight, is to be treated as having that effect and shall therefore entitle the other to treat the contract as repudiated. Different words have been used to express that intention. The use of the word "condition" will usually (though not always — see Wickman Machine Tool Sales v Schuler AG [1973] 2 Lloyd's Rep 53; [1974] AC 235) be sufficient, but many other forms of wording can be found. Sometimes the consequences of a breach are spelled out and sometimes they are not; in each case it is necessary to construe the contract as a whole to ascertain what the parties intended.

…

19. … Whenever one party to a contract is given the right to terminate it in the event of a breach by the other it is necessary to examine carefully what the parties were intending to achieve and in particular what importance they intended to attach to the underlying obligation and the nature of the breach. The answer will turn on the language of the clause in question understood in the context of the contract as a whole and its commercial background. Sometimes, as in Lockland Builders v Rickwood, the parties will have intended to give a remedy of a limited nature for breaches of a certain kind; in other cases the terms of the contract may reflect an intention to treat the breach as going to the root of the contract with the usual consequences, however important or unimportant it might otherwise appear to be. Inevitably, therefore, there can be no hard and fast rule.

20. In my view Mr Dunning's submission fails properly to recognise the true nature of the contract. The primary purpose of article 10 in the present case is to provide an agreed measure of compensation for breaches of contract by way of delay in delivery and deficiencies in capacity and performance which, although important, do not go to the root of the contract. For these the parties have agreed the payment of liquidated damages which are to be deducted from the final instalment of the price and to that extent their agreement displaces the general law, at least as regards the measure of damages recoverable for a breach of that kind. However, they have also agreed that there comes a point at which the delay or deficiency is so serious that it should entitle Gearbulk to terminate the contract. In my view they must be taken to have agreed that at that point the breach is to be treated as going to the root of the contract. In those circumstances the right to terminate the contract cannot sensibly be understood as anything other than embodying the parties' agreement that Gearbulk has the right to treat the contract as repudiated, with (subject to Mr Dunning's alternative argument) the usual consequences… Article 5.9 and article 10 simply identify the circumstances

in which one or other of the parties is entitled to treat the contract as discharged by the other's breach. In para 88 of his judgment in Stocznia Gdanska SA v Latvian Shipping Co [2002] 2 Lloyd's Rep 436 Rix LJ expressed the view that where contractual and common law rights overlap it would be too harsh to regard the use of a contractual mechanism of termination as ousting the common law mechanism, at any rate against a background of an express reservation of rights. In this case I would go further. In my view it is wrong to treat the right to terminate in accordance with the terms of the contract as different in substance from the right to treat the contract as discharged by reason of repudiation at common law. In those cases where the contract gives a right of termination they are in effect one and the same."

170. What emerges clearly from these passages is that the relationship between contractual and common law rights of termination is a question of construction in each individual case. No hard and fast rules can be laid down.

171. In the context of the present case, the Defendant's common law right to terminate will have arisen if either Digital Capital was in breach of condition or serious breach of an innominate term going to the root of the contract, or if it renounced the Agreement by evincing an intention no longer to be bound by its terms. However, in evaluating whether Digital Capital committed a breach of the requisite seriousness or evinced a renunciatory intention, it is necessary to take account of the way in which the parties have contractually agreed to treat certain types of breach: *BskyB Ltd v HP Enterprise Services UK Ltd,* [2010] EWHC 86 (TCC) at [1363], [1366].

172. Clause 16.1 is clearly capable of applying to all breaches from "material" upwards on the scale of seriousness. A repudiatory breach is necessarily material – a proposition from which Mr Bergin did not dissent. However, the converse is not always true since not all material breaches are necessarily repudiatory. There was no real dispute in this case that the parties had agreed that a material but non-repudiatory breach should (if remediable) not give rise to a right to terminate unless the guilty party had failed to remedy it within 30 days. Conversely, a failure to remedy within 30 days what would otherwise not be a repudiatory breach was contractually deemed to be repudiatory in and of itself. There was likewise no dispute that that the contractual right of termination (and its concomitant obligation to give notice) only applied to breaches falling within the scope of clause 16.1. How, then, does the clause apply to breaches which are independently repudiatory?

173. So far as its wording goes, the clause is on its face capable of applying to any type of material breach, whether repudiatory or not. It is not expressly limited to non-repudiatory material breaches. Had it been a question of considering clause 16.1 in isolation, it would have been distinctly arguable that the parties had agreed that all material breaches, whether otherwise repudiatory or not, would only be treated as repudiatory for the purposes of the Agreement if they were not (where remediable) remedied within 30 days. Construed in this way the clause would not exclude the common law right but merely define the type of conduct which would give rise to it, thereby permitting the innocent party to claim damages for repudiation in addition to any contractual remedy. I regard *Vinergy International (PVT) Ltd v Richmond Mercantile Ltd FZC,* [2016] EWHC 525 (Comm) as distinguishable in this respect since the termination clause in issue there, unlike clause 16.1, applied to any breach from most trivial to the most serious.

174. Nonetheless, looking at the contract as a whole, I conclude that it is not open to Digital Capital to argue that clause 16.1 should be construed as similarly defining and circumscribing the common law right in this way. This is because of clause 16.5 which expressly preserves *"any other right or remedy of either party in respect of the breach concerned"* (emphasis added). Not only does this have the effect of preserving any common law *remedy*, it also preserves any other *right* that the Defendant may independently have at common law in respect of material breaches falling within clause 16.1.

175. I therefore accept Mr Bergin's submission that, if Digital Capital had committed breaches of contract which were independently repudiatory otherwise than by virtue of simply being material, then the Defendant was entitled to bypass clause 16.1 altogether and exercise its common law right to terminate for repudiatory breach.

(b) Repudiatory breach

176. The question is therefore whether Digital Capital was in repudiatory breach of the Agreement as opposed to simply being in material breach. There was no overt renunciation of the Agreement and Mr Bergin must therefore establish either that Digital Capital evinced an intention by its conduct no longer to perform, whether through unwillingness or inability, or that it was in serious breach going to the root of the contract. His primary case in this respect rested on an alleged failure by Digital Capital to deliver any software system with the required functionality within a reasonable time. In the alternative, he relied as a fallback position on Digital Capital's continuing failure to supply financial information or proof of the state of development of its system in response to Genesis' requests.

177. I consider each of these in turn.

Technical deficiencies

178. Both parties agreed that the case was essentially very simple, the key issue being whether the Claimant had complied with its obligations under the Agreement. This issue in turn had two aspects, one technical and one factual. The technical aspect, addressed primarily by the experts, was whether the Claimant was at any time able to deliver to the Defendant a functioning system. The factual aspect was whether it was only prevented from so doing because of the Defendant's failure to supply the technical specification required for integration of the Claimant's software with the Defendant's front-end system.

179. The technical case was addressed by the two expert witnesses. In cross examination, Mr Bergin sought to suggest that Dr Kovačević had little or no experience of software development. However, this was not true: Dr Kovačević had been the team leader responsible for developing new financial and accounting software while he was at the Institute for Public Health. In my view both experts were eminently well-qualified to express an opinion on the matters at hand.

180. It was also suggested that Dr Kovačević's independence was compromised by his failure to disclose that he had inspected the ABBA system as a court-appointed expert in 2019 in litigation between Digital Capital and ABBA. However, Dr Kovačević's report on the ABBA system was in the trial bundle and his involvement was patent on

the face of the document. While it might have been better in the interests of transparency if he had specifically drawn attention to this in his report, I see nothing incompatible between his role as a court-appointed expert in the dispute with ABBA and his appointment on behalf of Digital Capital in this case. I am satisfied that he was an entirely independent witness who gave evidence in accordance with his professional opinion. In closing, Mr Bergin sought to disparage that evidence on the grounds that Dr Kovačević was defensive, uncooperative and unwilling to make concessions. I have no hesitation in rejecting these supposed criticisms. The fact that Dr Kovačević refused to give ground in relation to some of the propositions put to him by Mr Bergin does not even remotely justify an accusation that he was being uncooperative or unwilling to make concessions. It simply means that there was a difference of expert opinion.

181. In truth, any perceived lack of cooperation on the part of Dr Kovačević probably stemmed from the fact that the experts were like ships passing in the night, mainly due to an inherent ambiguity in the question which they were asked to consider. This was *"whether the Claimant was at any time able to deliver to the Defendant a functioning system"* but whatever the perceived merits of this question at the time it was formulated, it was apparent by the end of the argument that it was unsatisfactory in at least two respects.

182. First, it did not adequately address what turned out to be a fundamental difference of approach between the experts as to whether a system can be said to be "functional" if the alleged deficiencies relate to elements which can reasonably be expected to be the subject of discussion and further agreement between the parties. Thus, the fundamental dichotomy between Dr Kovačević and Dr Hunt centred not so much on whether certain functionalities were or were not present in the Digital Capital system, as on whether they were functionalities that Digital Capital could have been expected to provide without further input from Genesis. Dr Kovačević said they were not. In his view, the Digital Capital system was a test system ready for integration and any additional or extended functionality was a matter for discussion and agreement. By contrast, Dr Hunt accepted that some further collaboration would have been necessary in relation, for example, to integration, but said that the system should nonetheless have contained all or nearly all of the functionality envisaged by the Agreement. There should not have been substantial gaps and defects and, in her view, none of the deficiencies she identified was in fact dependent on integration.

183. Secondly and perhaps more fundamentally, "functioning" is not a term of art and has no industry accepted definition. Dr Hunt therefore applied her expert view of industry norms. However, it is not immediately clear to me that this is the correct yardstick when "functioning" is not a defined term and, indeed, has no contractual relevance whatsoever. Nor was there any pleaded case by either party which referred to any obligation to deliver a "functioning system".

184. Mrs Arlov put it to Dr Hunt that if the Digital Capital system was acceptable to the regulator and to Genesis, then it should be regarded as "functioning" irrespective of what Dr Hunt or anyone else in the industry might think. It is difficult to argue against that bald proposition, although Dr Hunt said (as she was entitled to do) that she would not have expected certain of the alleged deficiencies to be acceptable to either the regulator or Genesis.

185. Nevertheless, as she accepted, the Digital Capital system did function and each of the allegedly missing or incomplete functionalities was capable of remedy. It was accordingly not like a car which fails to start when the key is turned, nor, to extend the metaphor, like a car which is a complete write-off. However, it seemed to me that it was an impossible task for either expert to express an opinion on whether this was a "functioning system" for the purposes of *this* contract and *these* parties without giving them a meaningful definition of "functioning" in this context.

186. In short, the question as posed did not really assist me in determining whether Digital Capital was in breach as alleged or not. In my judgment it is necessary rather to go back to basics and ask what it was that Digital Capital was required under the terms of the Agreement to provide and the timescale within which it was required to provide it. The views of the experts were undoubtedly helpful to me in that context.

187. Under clause 3.1(f) of the Agreement, Digital Capital's obligation was to exercise reasonable care and skill in providing its services. The content of those services was set out in Appendix 1 to the Agreement. This contained three sections. The first dealt with regulatory set-up as to which no issue arises. The second covered the software set-up and specified a number of different modules, each with various requirements. The third section related to on-going operational support and system maintenance. The crux of the dispute between the parties was whether Digital Capital had satisfied the requirements of the second section as at 3 June 2019.

188. The principles of contractual construction are by now too well-known to bear extensive repetition. For present purposes I am happy to adopt the summary set out by Popplewell J (as he then was) in *The Ocean Neptune,* [2018] EWHC 163 (Comm); [2018] 1 Lloyd's Rep. 654 at [8]:

> *"The court's task is to ascertain the objective meaning of the language which the parties have chosen in which to express their agreement. The court must consider the language used and ascertain what a reasonable person, that is a person who has all the background knowledge which would reasonably have been available to the parties in the situation in which they were at the time of the contract, would have understood the parties to have meant. The court must consider the contract as a whole and, depending on the nature, formality and quality of drafting of the contract, give more or less weight to elements of the wider context in reaching its view as to the objective meaning of the language used. If there are two possible constructions, the court is entitled to prefer the construction which is consistent with business common sense and to reject the other. Interpretation is a unitary exercise; in striking a balance between the indications given by the language and the implications of the competing constructions, the court must consider the quality of drafting of the clause and it must also be alive to the possibility that one side may have agreed to something which with hindsight did not serve his interest; similarly, the court must not lose sight of the possibility that a provision may be a negotiated compromise or that the negotiators were not able to agree more precise terms. This unitary exercise involves an iterative process by which each suggested interpretation is checked against the provisions of the contract and its commercial consequences are investigated. It does not matter whether the more detailed analysis commences with the factual background and the implications of rival constructions or a close examination of the relevant language in the contract, so long as the court balances the indications given by each."*

189. I also bear in mind that, as already noted, the Agreement was drafted by Digital Capital and that Mr Dolić did not read it in any detail before signing it. The contents of Appendix 1 can only therefore have been compiled on the basis of Digital Capital's assumptions as to what would be required following its discussions with Genesis. The fact is, however, that both parties signed the Agreement and are therefore bound by its objective meaning irrespective of what either of them may have thought it meant.

190. One of the problems in construing the requirements of Appendix 1 was the lack of any industry-wide consensus on standard definitions for various terms and concepts such as might be contained in some sort of handbook. In Dr Hunt's words, the IT industry *"coins terms willy-nilly"*, and some caution was therefore required in interpreting them. Dr Hunt also regarded Appendix 1 as being towards the lower end of the scale in terms of specificity. This again leaves considerable scope for interpretation and she accepted that discussion and collaboration would be both required and expected in the normal course in order to refine the requirements set out in Appendix 1. She accepted that an analogy with the Channel tunnel was apt, where construction was started from both ends simultaneously and close liaison was necessary to ensure that they met correctly in the middle.

191. It was likewise not in dispute that Digital Capital could not, on its own, achieve integration of its platform with the Genesis crypto platform. Technical specifications would need to be provided by Genesis for that purpose. I am also prepared to accept that the process of integration might itself have required changes to the Digital Capital system and that it would not necessarily have been sensible for Digital Capital to attempt to finalise certain aspects of its system until integration had taken place.

192. I regard all of this as part of the relevant factual matrix in which the Appendix 1 falls to be construed.

193. As to timescale, clause 3.1(d) of the Agreement provided that Digital Capital was to use its reasonable endeavours to achieve a Go Live date by 10 July 2018. Clearly that date was not achieved and Mr Bergin accepted that unless time was made of the essence (which it was not), Digital Capital's obligation thereafter was to deliver its part of the system within a reasonable time.

194. In my judgment, taking all these matters into account, from and after 10 July 2018 Digital Capital's overarching obligation was to exercise reasonable skill and care to make available[5] within a reasonable time an adequate structure to support the functionalities required under Appendix 1 which was in a sufficiently developed state for user acceptance testing ("UAT") and integration to take place. In broad terms this meant that the system had to be capable of providing all the required functionalities (apart from those which depended on integration) even if some of them may have needed further refinement or improvement in the light of Genesis' specific requirements.

195. In assessing the functionality of the Digital Capital system, I am prepared to assume in Digital Capital's favour that the system which LMG delivered in July 2018 had the same functionality as the system which was inspected by the experts in 2021. In other words, I assume that there were no material changes after July 2018 other than a change

[5] In my judgment physical delivery was not required.

of provider from LexisNexis to Onfido and from Rietumu Bank to CurrencyCloud, the rebranding and the provision for regulatory purposes of some functionalities over and above those required under the Agreement.

196. Conversely, I assume in favour of the Defendant that a reasonable time for discharge of Digital Capital's obligations had expired by 3 June 2019.

197. I accept that Digital Capital considered that the system provided in July 2018 met all the requirements of the Agreement save for those which depended on integration or further information from Genesis. However, the experts disagreed on this point. While there was a measure of consensus between them as to what the system comprised, they differed as to whether in certain respects it did or did not comply with the Agreement.

198. These differences were very helpfully summarised in a table appended to the Expert Joint Memorandum. In order not to over-burden this judgment unduly, and in view of my ultimate conclusion that Digital Capital was not in repudiatory breach, even though the system provided did not contain all the functionality required by Appendix 1, I do not propose to address each item in detail. My brief findings based on my assessment of the evidence are set out in a separate Appendix B to this judgment.

199. Where I have found that the system failed to provide certain functionalities, this was generally for one of three reasons:

    i) The system as provided did not support the functionality at all and required further development: Items 1, 6, 17, 19, 24-27, 31, 32, 53-55, 57, 60-61;

    ii) The functionality was not present but was capable of being provided by the existing system, in some cases depending on Genesis' precise requirements: Items 11-16, 58;

    iii) The functionality was provided but not necessarily to the full extent desirable or in the most secure or convenient manner: Items 2, 20, 21, 22, 28, 50.

200. In the case of category ii), provision of functionality depended in many cases on ascertaining Genesis' precise requirements. Clause 4.2 of the Agreement required Genesis Iceland to provide all reasonable assistance requested by Digital Capital to enable it to perform its services. The question therefore arises whether Digital Capital can be said to have exercised the reasonable skill and case required by the Agreement without asking specifically for the information which it required. However, Digital Capital had expressly and repeatedly asked for over a year to be provided by Genesis/Barrage with the technical specifications necessary for integration and also for functional specifications.[6] The most recent request was at the meeting on 24 March 2019 when it was left that Mr Endriss would co-ordinate a further meeting between Digital Capital and Barrage. According to Mr Kaiser's note, a development meeting was also to be organised with Barrage during the first week in April 2019. I bear in mind that these proposed meetings with Barrage would have been the first occasion on which the entire Digital Capital system would have been examined by anyone with the requisite technical knowledge, Barrage having previously only tested the payment

[6] On 8 May 2018, 3 September 2018, 20 September 2018, 4 October 2018, 17 October 2018, 19 October 2018, 30 October 2018, 28 November 2018, 5 December 2018, 8 December 2018, and 24 March 2019.

gateway. No-one with technical expertise had attended Digital Capital's previous presentations and while Digital Capital had thought that a technical team from Genesis would attend the meeting on 5 December 2018, in the end only Mr Dolić was present.

201. In my view, Digital Capital could therefore reasonably have assumed that it would be able to demonstrate its system at those meetings and address any outstanding functionalities or technical glitches thrown up as a result. The meetings were, of course, never in fact organised by Mr Endriss.

202. Likewise with category iii). If Genesis was unhappy about the manner in which some functionality had been provided or the absence of specific safeguards, this again was something which could reasonably have been expected to be addressed during the development discussions and also during testing and integration.

203. The same cannot be said about the category i) deficiencies, however. These are all functionalities which were not supported by the system developed by Digital Capital. In my view, they were functionalities which should have been provided – or at least enabled – irrespective of the need for integration or further input from Genesis. To that extent, and assuming in the Defendant's favour that a reasonable time had expired by 3 June 2019, I find that Digital Capital was at that date in breach of the Agreement in these respects.

204. Although there is no contractual definition of what constitutes a *"material breach"*, I accept Dr Hunt's evidence that these were all material breaches which a client would require to be remedied. However, the question I have to determine is not whether they were material breaches, but whether they were repudiatory.

205. As to this, I have formed the clear view that even if Digital Capital was in material breach in *all* the respects alleged by the Defendant (and not just the category i) deficiencies that I have found to be established) it was nonetheless not in repudiatory breach. I say this for the following reasons:

    i) Digital Capital had plainly attempted to provide a system which met the requirements of Appendix 1. As Dr Hunt accepted, even taking all the alleged deficiencies in combination, the system was still functional in the sense that it delivered a FIAT system which could process payments and card transactions and exchange currency. It may not have done everything it was supposed to do, but it was not in my view so wholly inadequate as to justify the Defendant in throwing up the contract altogether. *A fortiori* if only the category i) deficiencies are considered.

ii) Moreover, in the light of the 24 March 2019 meeting, Digital Capital was justified in believing that meetings were to be arranged with Barrage at which many of the outstanding matters would have been identified and addressed. Given the need for collaboration which necessarily has to take place in a project such as the present, the mere existence of deficiencies and gaps in the system does not in my judgment evince any unwillingness or inability to perform, let alone an intention on the part of Digital Capital not to be bound by the provisions of the Agreement.

iii) As Dr Hunt further frankly accepted, all of the concerns she identified were capable of remedy, many (and possibly all) within 30 days and there was no evidence to suggest that Digital Capital would not have been able and willing to address any concerns raised by Genesis. I have accepted in paragraphs 173-175 above that a material breach capable of remedy within 30 days is not *ipso facto* precluded from being repudiatory. However, it is hardly a promising foundation for a allegation of repudiation that the breaches relied upon can be cured within a short space of time.

iv) No complaint was made by Genesis at the 24 March 2019 meeting when Digital Capital said that it would have a test system ready for integration by August 2019. This cannot be categorised as a repudiatory delay in circumstances where it was made clear that Genesis itself was still working on and, indeed, changing the entire programming language for its crypto platform.

v) Digital Capital had been asking repeatedly since 8 May 2018 for technical and functional specifications and I am left with the overwhelming impression that it felt (rightly or wrongly) that further progress was very much in the Genesis court. I do not attach any significance to the fact that Digital Capital did not attempt to contact Genesis following the 24 March 2019 meeting. It had, after all, agreed to put matters on hold until the end of June 2019 in order to allow Genesis to sort out its financial problems – no doubt because it had invested a considerable amount of time and effort in the project and was reluctant to see it fail. The primary responsibility was therefore on Genesis to indicate if and when it would be in a position to move forward again.

206. For these reasons, I conclude that Digital Capital was not in repudiatory breach of the Agreement as at 3 June 2019 in the respects alleged.

Failure to provide financial information/proof of development

207. Mr Bergin's alternative case was that Digital Capital was in repudiatory breach in failing over a long period of time to provide financial information in response to reasonable requests by Genesis or to evidence the state of development of its system.

208. I cannot accept either submission. On the basis of my factual findings set out above, there was no detailed request for any financial information until Mr Kaiser's email of 27 November 2018. However, as I have found, that email was sent in the context of a potential investment by outside investors. Genesis may have had other reasons for wanting the information but these were not made explicit. In any event, it was conceded by Mr Bergin that those reasons were nothing to do with the Agreement itself.

209. It is therefore difficult to discern any basis on which it can be said that the failure to provide the information was repudiatory *of the Agreement*. On the contrary, a degree of circumspection on the part of Digital Capital in ensuring that information was only disclosed to the extent that the recipient had an entitlement to receive it was entirely understandable. I accept that the question of the shareholdings in Digital Capital was something of a running sore, but I equally accept that it was not unreasonable for Mrs Arlov and Mr Perković to suggest that this was a matter more appropriately addressed after the system had gone live. They were not to know until disclosure of the Genesis group's financial difficulties at the end of 2018 that completion of the project would be

seriously delayed. The subject was not raised again with Digital Capital until the 24 March 2019 meeting, by which time the Defendant had ceased paying Digital Capital's invoices. It is therefore understandable that Digital Capital would have resisted any attempt to relinquish shares until it had at least been paid.

210. However, the short and decisive answer to the point is that the allocation of shares in Digital Capital was contractually irrelevant to the performance of the Agreement.

211. As regards the alleged failure to provide evidence as to the state of development of the Digital Capital system, this is effectively disposed of by my findings at paragraphs 200- 205 above. As far as Digital Capital was concerned, its system had been completed as far as possible. Two presentations had been given in 2018 to which the Defendant had chosen not to send any technical people. Digital Capital was expecting to meet Barrage soon after the 24 March 2019 meeting for the specific purpose of discussing the system in depth. I can see no tenable basis on which it can be said in these circumstances that it was unwilling to provide evidence as to the state of development of its system.

212. In conclusion, taking the Defendant's case on functionality at its highest and even accepting that a reasonable time had expired by 3 June 2019, I hold that Digital Capital was not in repudiatory breach of contract and that the Defendant was not entitled to terminate the Agreement as it purported to do. It necessarily follows that the Defendant was thereby itself in repudiatory breach of contract.

CONCLUSION

213. I accordingly answer the issues set out at paragraph 160 above as follows:

i) No.

ii) Yes.

iii) Yes.

iv) The Claimant was in breach of the Agreement in the respects identified above but the Defendant was not entitled to and did not validly terminate the Agreement by way of its solicitors' letter dated 3rd June 2019.

214. In the premises, the Claimant's claim for payment of its outstanding invoices in the sum of £2,484,046 succeeds.

215. The Claimant has claimed contractual interest at the rate of 3.75% per annum accruing on a daily basis and compounding quarterly. I assume that this is pursuant to clause 19 of the Agreement which provides for interest at 3% above the RBS base rate for the time being from the due date until the date of payment. However, neither party addressed me on interest or costs and I will therefore allow an opportunity for further submissions before making any order on either matter.

216. Assessment of any damages sustained by the Claimant as a result of the Defendant's repudiation of the Agreement is to be determined hereafter at the second trial contemplated in the Order of 15 May 2020. That Order provides for directions for the second trial to be given following determination of the first trial and I accordingly invite the parties to agree appropriate directions if possible.

APPENDIX A

*"**BACKGROUND:***

(A) Digital Capital offers certain compliance, regulatory framework, software, acquiring, issuing and management services for electronic money accounts payment services and prepaid and debit cards;

(B) The Client wishes to distribute such products to its customers; and

(C) Digital Capital is willing to provide or procure the provision to the Client, and the Client agrees to receive the services on the terms of this Agreement.

...

1. DEFINITIONS.

1.1 In this Agreement, unless the context otherwise requires:-

...

Card *means a prepaid card, debit card, virtual card or other payment instrument issued by Digital Capital or a third party partner of Digital Capital;*

…

Client Services *means the services to be provided by the Client to its Customers in accordance with this Agreement;*

…

Digital Capital Services *means the services or any part of the services to be performed by Digital Capital or third-party partners of Digital Capital which are necessary to issue and process all transactions on the Card in accordance with the Scheme rules, provide card acquiring services, payment services and software in accordance with the Applicable Law and this Agreement as set out in Appendix 1 as may be amended in accordance with the terms of this Agreement.*

…

Go Live Date *means the later of the date when all development and set up activities have been completed by Digital Capital;*

...

3. DIGITAL CAPITAL OBLIGATIONS

3.1 Digital Capital shall from the Commencement Date:-

(a) create regulatory framework for the provision of e-money and payment services and ensure compliance with all regulatory and Scheme requirements on on-going basis;

(b) provide a software for the provision of e-money and payment services including payment gateway, core banking system, card processor, KYC/AML provider and links to banks where client's funds accounts are held;

(c) provide Client with fully branded cards by using either Digital Capital's own Scheme membership or using Scheme membership of Digital Capital's BIN sponsor;

(d) use its reasonable endeavours to ensure the Go Live Date is (subject to any applicable approvals from any Regulator and the Scheme) till 10th July 2018;

(e) comply with all of its obligations in this Agreement;

(f) exercise or procure the exercise of such reasonable care and skill in providing the Digital Capital Services as is expected of an experienced person engaged in a similar undertaking;

(g) provide all reasonable assistance requested by the Client to enable the Client to perform the Client Services; and

(h) pay any Fees due to the Client in accordance with the terms set out in this Agreement.

4. CLIENT OBLIGATIONS

4.1 The Client shall on the Commencement Date of this Agreement provide to Digital Capital all such documentation as is reasonably required to enable Digital Capital to provide the Digital Capital Services and the same has been verified to the reasonable satisfaction of Digital Capital.

4.2 The Client shall from the Commencement Date:

(a) comply with all of its obligations in this Agreement;

(b) provide the Client Services;

(c) exercise all reasonable skill and care in the supply of the Client Services; (d) ...;

(e) provide all reasonable assistance requested by Digital Capital to enable it to perform the Digital Capital Services;

(f) pay any fees due to Digital Capital in accordance with the terms set out in this Agreement;

...

8. PAYMENTS

...

8.2 The Client shall pay the Fees in accordance with Schedule 1, to Digital Capital. Fees due by the Client to Digital Capital will be paid 7 days from the date of the invoice or where the 7th day is not a Business Day, the first Business Day thereafter.

8.3 Save as expressly provided in this clause 8, the client shall not be entitled to make any deduction or offset any amounts from sums due to Digital Capital.

...

11. AUDIT

...

11.2 Each party will comply both during and after the Term with all reasonable requests for information made by the other party concerning this Agreement and the performance of their services and obligations hereunder.

11.3 Each party:

(a) shall on reasonable notice allow access to the other party on not more than one (1) occasion in each year during the Term and for a period of one (1) year thereafter during normal business hours and their duly authorised agents to carry out an audit for the purposes of ensuing compliance with their obligations under this Agreement;

...

13. SUSPENSION

13.1 Save in respect of any Fees due under the terms of this Agreement which are the subject of a bona fide dispute, Digital Capital reserves the right by written notice with immediate effect and without prejudice to its other rights or remedies, to suspend in whole or in part the performance of its obligations under this Agreement i:

(a) any Fees or payment due to Digital Capital is not paid within five (5) Business Days of its due date;

...

16. TERMINATION AND CONSEQUENCES OF TERMINATION

16.1 Either party may terminate this Agreement with immediate effect by notice to the other party on or at any time after:

(a) a material breach by the other party of any of its obligations under this Agreement which (if the breach is capable of remedy) the other party has failed to remedy within thirty (30) days after receipt of notice giving particulars of the

...

breach and requiring the other party to do so;

...

16.5 The rights to terminate this Agreement given by this clause 16 will be without prejudice to any other right or remedy of either party in respect of the breach concerned (if any) or any other breach.

16.6 Each party shall be entitled to receive any Fees due to it from the other party up to the date of termination of this Agreement in accordance with the terms of this Agreement. Each party will have the right to keep any fees paid up to the date of termination regardless of the reason for termination of Agreement.

16.7 On termination of this Agreement for any reason:

(a) each party shall immediately pay to the other all amounts due under this Agreement;

(b) all rights and obligations of the parties shall cease to have effect immediately except that termination shall not affect the accrued rights and obligations of the parties at the date of termination;

16.10 Any termination of this Agreement pursuant to this clause 16 shall be without prejudice to any other rights or remedies a party may be entitled to hereunder or at law and shall not affect any accrued rights or liabilities of either party nor the coming into or continuance in force of any provision hereof which is expressly or by implication intended to come into or continue in force on or after such termination.

...

19. INTEREST

If either party fails to pay any amount payable by it under this Agreement, the other shall be entitled to interest on the overdue amount, payable forthwith upon demand from the due date until the date of actual payment, at the rate of three per cent (3%) per annum above the UK bank base rate for the time being of Royal Bank of Scotland Plc, London. Such interest shall accrue on a daily basis and shall be compounded quarterly.

...

23. SUB-CONTRACTING

23.1 Digital Capital may sub-contract all or any of its obligations under this Agreement to any Group Company or to a third party.

23.2 Where Digital Capital uses, arranges or contracts with such any third party of Group Company to perform all or part of any of its obligations the same shall be undertaken in accordance with the terms of this Agreement.

...

30. ENTIRE AGREEMENT

30.1 This Agreement together with all documents referred to in it, except where expressly stated otherwise, contains the entire agreement between the parties with respect to the subject matter hereof from the Commencement Date and supersedes all previous agreements and understandings between the parties with respect thereto.

30.2 Neither party has entered into this Agreement in reliance upon any representation, warranty or undertaking of the other party which is not expressly set out or referred to in this Agreement and all conditions, warranties or other terms implied by statute or common law are hereby excluded to the fullest extent permitted by law provided nothing in this sub-clause will exclude any liability for fraud.

31. VARIATION

Except as expressly stated otherwise under the terms of this Agreement, any modifications, additions or deletions to this Agreement must be in writing signed by the duly authorised representatives of the parties."

APPENDIX B

Findings on alleged deficiencies

Items are identified by reference to the numbers in the table appended to the Joint Expert Memorandum. Items where the experts agreed that the requisite functionality had been provided are omitted.

Multi-currency accounting

Item 1: Multi-currency built-in General ledger

I accept Dr Hunt's evidence that the system did not contain a General Ledger in the sense in which it would objectively have been understood, namely to provide the functionality for dual- entry bookkeeping. The fact that, as Dr Kovašević maintained, the system contained all the data which was necessary for a General Ledger, is not sufficient.

This should have been provided.

Item 2: Account classifications

It was agreed that the system contained three different account types but no functionality for Genesis to create new account types without reference back to Digital Capital. Appendix 1 does not specifically require that the client be able to create new account classifications on its own and in the context of a regulated e-money business, I am not satisfied that it would necessarily be appropriate for it to be able to do so. Dr Hunt did not really dissent from this proposition and agreed with Dr Kovašević that the procedure for adding new accounts was a matter for agreement between the parties. However, her more fundamental objection was that new account types could only be created by Digital Capital within the database which she did not think an appropriate method because of the potential lack of control over the process.

On balance, I am not satisfied that Digital Capital failed to provide the requisite functionality. New account types could be created and while this may not have been the best way of doing things, that does not mean that the functionality did not exist.

Payment and Transfer Processing

Item 6: Standing orders

The experts agreed that this functionality was lacking. This should have been provided.

Comprehensive Reporting

Items 11-16: (Balance Sheet, Profit and loss, Cash flow, Profitability report and Custom-designed reports)

The experts agreed that the system could generate seven types of reports and also that precise specifications for particular reports would normally be agreed between the parties. Dr Kovašević was of the view that this was something to be addressed during testing since integration with the crypto platform could itself have a significant effect on the system. All the necessary data was available within the system from which the specified reports could be compiled. Dr Hunt did not accept that it was appropriate to leave this until the testing phase. In her view, Appendix 1 specified a number of reports which were necessary and these had not been provided. It was not sufficient that the basic data was available within the system from which the necessary reports could be compiled.

In my view, the specific reports set out in Appendix 1 were all standard forms of report which should reasonably have been provided by Digital Capital. Custom-designed reports were for discussion with Genesis.

Item 17: Report editor

The system contained a limited number of search parameters, not all of which could be used in conjunction. Additional parameters could be added but the system did not contain any online Report Editor which would allow either Digital Capital or Genesis to design new reports or add additional criteria. Data could nonetheless be extracted and edited offline using third party software, for example Microsoft Excel.

In my judgment Appendix 1 is reasonably to be construed as requiring an online Report Editor allowing Genesis to devise and generate its own required reports. This functionality should have been provided by Digital Capital.

System Administration

Items 19-21: User role set-up, Access level set-up, Restricted areas set-up

The system contained three different user types: back office user, customer support user and admin user. The first two user types had limited rights; the admin user had unfettered access to all parts of the system. There was also a Super User functionality which could create new users and allow/disallow various actions but this was not part of the software to be delivered to Genesis and could only be operated by Digital Capital upon the request of Genesis. However, even with Super User, users could only be allocated rights on an individual basis. There was no role-based access whereby user rights could be defined by reference to a specific role.

Dr Kovašević took the view that the system sufficiently complied with Appendix 1. Dr Hunt accepted that not everyone would have interpreted Appendix 1 as requiring a role-based approach but nonetheless felt that the use of the word *"role"* necessarily indicated a role-based system and that this was fundamental to the way in which rights were managed in the system.

I accept the evidence of Dr Hunt on this point. A role-based system was required and the fact that Genesis could ask Digital Capital to create new users through the Super User function is not sufficient.

I am not satisfied that there was any lack of functionality in relation to access level set-up or restricted areas set-up. Dr Hunt had minor quibbles but clearly did not feel that these were major issues. At worst they were functions which could have been improved in the light of user feedback.

Fee settings

Item 22: Transaction charges set-up

It was agreed that the functionality existed to set fees for each type of transactions. Dr Hunt was concerned that the user permissions available did not provide adequate protection through control of password length/strength or multiple failed logins. However, this was not a specific requirement of Appendix 1 and at most was an area for improvement.

AML Compliance module

Items 24-31: Blacklist management e.g. OFAC, Client profile set-up by function and client category, Suspicious transaction identification rules set-up, Alert rules engine, Document

validity checks, High risk and non-cooperative jurisdictions, Dormant account monitoring, Suspicious transaction logging

Many of the functionalities in the AML Compliance module were only available through a Fraud Control Centre which was integrated into the system but could only be used by Digital Capital itself. There was no express requirement in Appendix 1 that these functionalities be capable of independent operation by Genesis. On the contrary, section 3 of Appendix 1 expressly provided that Digital Capital would perform all key roles in relation to compliance and on-going compliance support during the term of the Agreement, including KYC/AML requirements, reporting and frauds. Given Digital Capital's status as a regulated entity, I am not satisfied that this was an inappropriate approach. Accordingly, there will only have been a failure by Digital Capital to comply with the requirements of Appendix 1 to the extent that a particular functionality could not be provided by the Fraud Control Centre. The precise way in which the Fraud Control Centre was configured would be for discussion between the parties.

In this respect, I was satisfied on the evidence that:

- There was no ability to check users against external blacklists such as OFAC (which was expressly referred to in Appendix 1) or to repeat customer checks after the initial checks performed by Onfido. In my view, "Blacklist management" would reasonably to be understood as including these functionalities.

- Client profile set-up by function and client category was absent. In Dr Kovašević's opinion, this requirement was satisfied by the identification checks carried out by Onfido and the risk profile of a customer could sufficiently be identified by the account type category. Dr Hunt was of the view that the limited personal details recorded in the system were insufficient to implement AML risk assessments. In my view Appendix 1 contemplated that this functionality would be independently available in the system itself and not simply via Onfido's checks.

- There was no Alert rules engine or ability to monitor or log suspicious transactions. Transactions could be blocked if they broke certain rules and various third party providers had their own fraud controls, but there was nothing to alert back office users to potentially suspicious transactions which might need specific consideration. Moreover, third party fraud controls would not pick up any suspicious intra-account transactions. This functionality should have been provided.

- The functionality for document validity checks existed through the checks carried out by Onfido. Dr Hunt's concern was not with the checks themselves, which she accepted were satisfactory, but with the fact that they could be bypassed or overridden by admin users. I accept that this was a valid concern but this was a question of improving the system rather than a case of failing to provide functionality.

- The list of High risk and non-cooperative jurisdictions was regularly monitored and updated by Digital Capital within the Fraud Control Centre. Dr Hunt accepted that this was a reasonable approach.

- I was satisfied that the system allowed for dormant account monitoring via the Fraud Control Centre.

Mobile Banking Module (OS iOS and Android)

Item 32:

It was common ground that Genesis was responsible for the Graphical User Interface but that it was for Digital Capital to develop a native mobile phone application. No such application had been developed. Dr Kovašević was of the view that this could only be done in collaboration with Genesis but that meanwhile the functionality could be accessed via web-based applications. Dr Hunt's opinion was that Digital Capital could have developed the underlying functionality without any input from Genesis.

I accept the evidence of Dr Hunt. Digital Capital did not need to await the provision by Genesis of a Graphical User Interface in order to develop a native mobile application.

Internet Banking Module

Item 35, 40-44: Account balances and statements, Internal messaging system, Online password change, Digital signature, Payment password facility and Customer verification codes

The Digital signature and Payment password facility were live functionalities and so were not applied to the system tested by the experts. Mrs Arlov confirmed that the functionality did exist.

As regards the remaining functions, there was a dispute as to whether the requirements of this module related only to the front-end of the Digital Capital system or also to the back office.

To the extent that (as Digital Capital argued) they only related to the front-end, Dr Hunt accepted that the required functionality existed save for the Internal messaging system where her view was that the functionality provided was very limited. A support issue could be raised in the system and email notifications could be sent to customers but there was no facility for two-way messaging. However, my impression was that she had not appreciated that the Internal messaging system referred to under Item 40 was specific to the Internet Banking Module and was therefore distinct from the Internal Communication system specified under the CRM Module (Item 57). I am not satisfied that two-way messaging was necessarily a requirement for the Internet Banking Module.

Overall, I am not persuaded that the requisite functionality did not exist for this module.

CRM Module

Item 50: KYC management – see Item 28

Items 53-55: Financial forecasting, Customer profitability analysis, Customer grouping

I accept Dr Hunt's evidence that it should have been possible for Genesis to create different customer groups for CRM purposes and that this functionality was absent. I do not accept Dr Kovašević's view that sufficient customer grouping could be achieved by reference to the different account types.

Item 56: Mailing lists

There was no facility within the system itself to generate mailing lists. This functionality was provided via integration with a third party provider, Mailgun. Provided the functionality was available in this way, I do not regard it as a requirement of Appendix 1 that it be separately provided within the system itself.

Item 57: Internal communication system

As noted, this was a different requirement to Item 40. In the context of CRM, I am satisfied that two-way communication should have been provided within the system.

Item 58: Parameter searches

The system allowed searches to be carried out by reference to five parameters. There was a difference between the experts as to whether these parameters could be used in conjunction or only individually. Dr Kovašević said that they could be used in combination in the customer section of the system. Dr Hunt felt that the functionality was insufficient but accepted that this was ultimately a matter for Genesis to raise on acceptance testing.

Risk Management and Limits Control

Items 60 and 61: Risk category management, Change limits based on risk category

Both these items were specified under the heading *"Risk management and limits control"*. It was possible to change limits for certain customers in the Fraud Control Centre either individually or by account type. However, there was no ability for Genesis to categorise customers accordingly to risk. I find that these functionalities should have been provided by Digital Capital.