



**PATENTS ACT 1977**

BETWEEN

McLaughlin & Harvey Limited

Claimant

and

OpenHydro Group Limited

Defendant

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**PROCEEDINGS**

Reference under section 37 of the Patents Act 1977 in respect of patent number EP (UK) 1980746

HEARING OFFICER

J Elbro

Mr Nicholas Fox instructed by Ansons LLP appeared for the claimant  
Mr Richard Davis of Hogarth Chambers instructed by Field Fisher Waterhouse LLP  
appeared for the defendant

Hearing date: 9 &  
10 December 2013

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**DECISION**

**Background**

- 1 McLaughlin & Harvey Limited (“the claimant”) made an application under section 37 of the Patents Act 1977 claiming to be entitled to patent number EP (UK) 1980746 (“the patent”) in whole, or in part. The claimant also applied to have its employees Mr Damian Callan and Mr John Glass, identified as sole or co-inventors.
- 2 The patent, entitled “A method of installing a hydroelectric turbine”, was granted on 23 June 2010 to OpenHydro Group Ltd (“the defendant”) as sole proprietor with Mr James Ives and Mr Paul Dunne, employees of the defendant, named as the inventors. The patent was subject to opposition proceedings before the European Patent Office (EPO) and this resulted in amendments to the scope of the patent which were published on 7 August 2013 as EP 1980746 B2. This led to the claimant filing an amended statement of claim on 17 September 2013 based on the amended version of the patent.
- 3 The defendant disputes the reference and the application regarding inventorship.

## The law

- 4 The approach to be taken when considering requests under section 37 can be found in *Yeda v Rhône Poulenc*<sup>1</sup>. Paragraphs 18-21 of this decision outline what questions must be answered and also provides a summary of guidance from other relevant case law which must be considered. Lord Hoffman states:
18. *Section 7(2), and the definition in section 7(3), are in my opinion an exhaustive code for determining who is entitled to the grant of a patent. That is made clear by the words "and to no other person." In saying that the patent may be granted "primarily" to the inventor, section 7(2) emphasises that a patent may be granted only to the inventor or someone claiming through him. The claim through an inventor may be made under one of the rules mentioned in paragraph (b), by which someone may be entitled to patent an invention which has been made by someone else (the right of an employer under section 39 is the most obvious example) or the claim may be made under paragraph (c) as successor in title to an inventor or to someone entitled under paragraph (b).*
  19. *In my opinion, therefore, the first step in any dispute over entitlement must be to decide who was the inventor or inventors of the claimed invention. Only when that question has been decided can one consider whether someone else may be entitled under paragraphs (b) or (c). In many cases, including the present, there will be no issue about paragraphs (b) or (c). If the invention was made by the Weizmann scientists, there is no dispute that Yeda is entitled under paragraphs (b) or (c). Likewise if the invention was made by Dr Schlessinger and his team.*
  20. *The inventor is defined in section 7(3) as "the actual deviser of the invention". The word "actual" denotes a contrast with a deemed or pretended deviser of the invention; it means, as Laddie J said in *University of Southampton's Applications* [2005] RPC 220, 234, the natural person who "came up with the inventive concept." It is not enough that someone contributed to the claims, because they may include non-patentable integers derived from prior art: see *Henry Brothers (Magherafelt) Ltd v Ministry of Defence* [1997] RPC 693, 706; [1999] RPC 442. As Laddie J said in the *University of Southampton* case, the "contribution must be to the formulation of the inventive concept". Deciding upon inventorship will therefore involve assessing the evidence adduced by the parties as to the nature of the inventive concept and who contributed to it. In some cases this may be quite complex because the inventive concept is a relationship of discontinuity between the claimed invention and the prior art. Inventors themselves will often not know exactly where it lies.*
  21. *The effect of section 7(4) is that a person who seeks to be added as a joint inventor bears the burden of proving that he contributed to the inventive concept underlying the claimed invention and a person who seeks to be substituted as sole inventor bears the additional burden of proving that the inventor named in the patent did not contribute to the inventive concept. But that, in my opinion, is all. The statute is the code for determining entitlement and there is nothing in the statute which says that entitlement depends upon anything other than being the inventor. There is no justification, in a dispute over who was the inventor, to import questions of whether one claimant has some personal cause of action against the other.*
- 5 As will become apparent, this is a case of the sort envisaged in paragraph 19 of the quotation above: once the inventors are determined, the remaining issues are not in dispute.

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<sup>1</sup> *Yeda Research and Development Company Limited v Rhone Poulenc Rorer International Holdings Inc and others* [2007] UKHL 43

## The technology and the inventive concept

- 6 The invention concerns a method of deploying subsea turbines and their associated base structures to the seabed.
- 7 Claim 1 of the patent, as amended following opposition before the EPO, is as follows:

A method of installing a base (12) and a hydroelectric turbine (10) onto the seabed the method comprising the steps of:

connecting the turbine (10) to the base (12);  
transporting the base (12) and turbine (10) to a deployment site vessel (14);  
lowering the base (12) from directly beneath the vessel onto the seabed for the vessel (14) by means of a number of lowering lines (22) fed from the deployment vessel (14);  
keeping the vessel (14) tethered to the base (12);  
establishing the suitability of the installation; and  
disconnecting the vessel (14) from the base(12).

- 8 Figure 1 of the patent shows the deployment vessel 14 at the deployment site, carrying a base 12 and turbine 10:

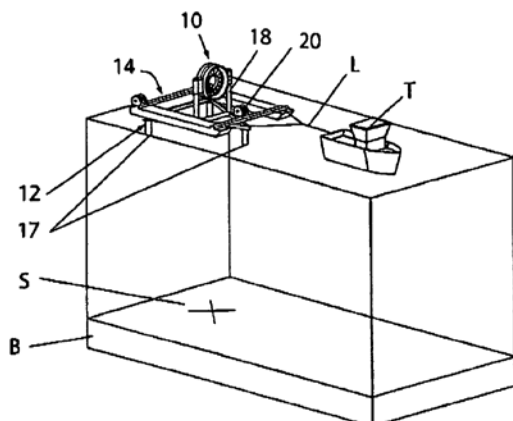


Fig. 1

- 9 Figure 2 of the patent shows the lowering of the base and turbine towards the deployment site on the seabed:

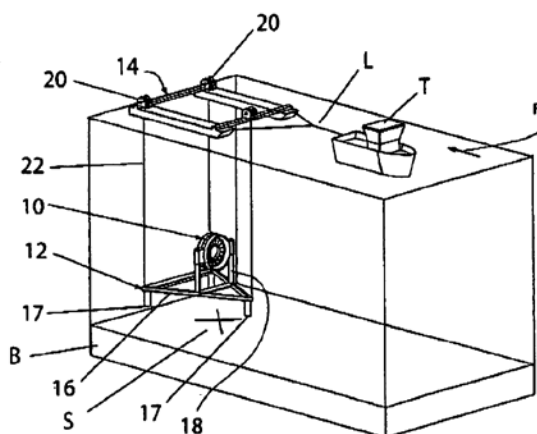


Fig. 2

- 10 A key point about the turbine base in the patent is that it is heavier than the weight of water it displaces, and will therefore sink, at all times. It is held up by the deployment vessel while being transported to the deployment site. This contrasts with an alternative approach (“neutral buoyancy base”), in which the turbine base initially floats on the water, is towed behind a tug without the need for a deployment vessel, and is then sunk when the deployment position is reached, for example by flooding empty chambers in the base with water. The deployment method in the patent is specifically tailored to enable deployment of a heavier than water base, as methods appropriate to an initially-floating base, such as towing the base out behind a tug, would not work.
- 11 Reflecting this, the inventive concept of claim 1 is agreed by the claimant and defendant to lie in transporting a hydro-electric turbine and base to a desired site with the base being slung beneath a vessel by wire ropes and then lowering the base from directly below the vessel on the wire ropes at the desired site with the wire ropes functioning as lowering lines for lowering the base to the seabed.

### **Factual Background**

- 12 It was common ground that the defendant engaged the claimant to provide technical advice on the manufacture and deployment of sub-sea turbines. Both parties were participating in technical discussions around the end of 2006 and beginning of 2007. There is no statement or contract clause relating to the rights to ownership of any IP resulting from this arrangement.
- 13 On 21 December 2006, the defendant’s Chief Executive, Mr James Ives, sent Mr John Glass and Mr Damian Callan of the claimant a set of slides setting out a proposed turbine “gravity base” structure and deployment method. These slides focused on a concrete base structure which was initially buoyant but had chambers within it which could be flooded to sink it, and made no reference to a heavier than water base or any deployment method that would be appropriate for such a base.
- 14 An employee of the claimants, Mr Martin McKeown, emailed back a version of the slides with handwritten annotations making a number of comments and asking some questions about them on 22 December 2006.
- 15 The claimants then assert that a meeting took place in Dublin on 9 January 2007, between Mr Ives and a Mr Dunne on the defendant’s side and Mr Callan and Mr Glass on the claimant’s. It is on the train journey back from this meeting that the claimant alleges Mr Glass and Mr Callan devised a heavier than water gravity base and the deployment method of the invention.
- 16 On 11 January, Mr Glass sent Mr Ives an email setting out (“bad news”) a number of problems with the proposed neutral buoyancy base, but “good news – damian and myself have come up with another idea”. This idea is not further described in the email.
- 17 A set of drawings showing a sketch of the heavier than water base – “concept design as detailed by Damian” was emailed from Mr McKeown to Mr Ives on 15 January 2007. No reference was made in that email to a deployment method.

- 18 On 22 January 2007, Mr Ives sent an email to, inter alia, Mr Callan, assigning responsibility for various pieces of work, including “gravity base design work” to Mr Callan.
- 19 A second set of presentation slides were emailed by Mr Ives to a Mike Shaw (who worked for RPS Group, another company involved in the project), copied to Mr Callan, on 25 January 2007. In addition to the original concept of an initially floating base (somewhat modified), these also contained an alternative proposal consisting of formal drawings of the heavier than water base together with the deployment method of the patent. This is the earliest documentary evidence I was presented with that showed the inventive concept.

### **The witnesses and their evidence**

- 20 The primary witnesses for the claimant were Mr Damian Callan and Mr John Glass. The claimant’s main case was that they were the true devisors of the inventive concept, as explained further below.
- 21 Mr Davis raised in opening concerns about their evidence and I agreed that the witnesses should not hear each other give evidence (the same applied to the defendant’s witnesses – although Mr Davis did not concede a need (he referred to the “well-known legal principle of ‘tit-for-tat’”) he was willing to agree to this). Mr Davis argued strongly that the witnesses had “colluded” in their evidence and this reduced its value significantly. In support of this, he pointed out a number of similarities in the witness statements (including a consistent error of referring to the 9 January meeting as occurring on 7 January) and oddities such as Mr Callan’s tendency in his statement to refer to himself in the third person.
- 22 In his closing arguments, Mr Davis brought my attention to the White Book , in particular paragraph 32.4.5, which states:

*‘Where it is apparent that the statement of a witness has been drafted with considerable assistance from solicitors instructing the party calling the witness and that statement stands as the witness’s evidence in chief, the judge’s task of evaluating the witness’s credibility is made more difficult.’*

- 23 Mr Callan and Mr Glass both accepted under cross-examination that their witness statements were the result of discussions:

Transcript Day 1 page 40 line 17 to page 41 line 3 (Mr Callan):

Q. Your affidavit should be your view, nobody else’s and you are saying it is not, are you?

A. No, it is my view.

Q. It is your view, independently reached with no outside –

A. Of course it is not independently reached. There are numerous discussions and it took a long time to distill down the bits in this that are important and the rest of it that is unimportant. This is not everything that was ever done. This is what I reached out and tried to get down into a sensible way of doing things.

Transcript Day 1 page 110 line 21 to page 111 line 2 (Mr Glass):

Q. Did he [Mr Callan] copy you, did you copy him or did the two of you sit down and decide what your story was going to be?

A. We sat down and went through the sequence of events and our solicitor recorded our affidavits and after that she did them I went away independently and checked the wording and I was happy with the wording after some changes.

24 It was further apparent from cross-examination that a number of the statements made, while they might be honestly believed by the witnesses, were only so believed because they trusted others who had told them they were so. This was illustrated well by exchanges relating, for example, to legal conclusions (Mr Callan, transcript day 1, page 42, lines 3-19):

“Q. Right. You have no idea, do you, as to what section 39 of the Patents Act says?

A. No.

Q. Why are you signing up to this statement then when you do not know whether it is true or not?

A. Because I was informed that it was true.

Q. And you thought that was good enough, if you were informed something was true, that was good enough to sign your affidavit?

A. I have no reason to think otherwise.

Q. So this is what your lawyers are saying and you signed up to it because you had no reason to think otherwise?

A. No I didn't. I signed up to it because I agree with what is in it.

Q. We have already established that you do not know what section 39 says, so you cannot agree, can you?

A. On that minor point, no.”

25 This has meant that I have needed to treat both witnesses' evidence with some care. I can only respectfully agree with the passage quoted from the White Book.

26 Mr Callan is Technical Manager of the claimants. Although his evidence suffered in ways I outlined above, he gave the clear impression of trying to give his evidence honestly and of having genuinely attempted only to testify to things he believed were true. For example, pressed hard on cross-examination on whether he had said he was exhibiting a signed non-disclosure agreement, when in fact his exhibit was not signed, he correctly maintained that his evidence was that there was a signed non-disclosure agreement, and he was exhibiting a (unsigned) copy. Similarly, when challenged that only Martin McKeown's handwriting appeared on the annotated set of slides sent 22 December, despite his testimony that both he and Mr McKeown had commented, he correctly pointed out that his testimony was only that he had input into the comments, not that he had written them. What both these examples did show me, however, (as Mr Davis argued) was that I had to carefully consider what he did and did not assert, and not assume too much that was left unsaid.

27 Mr Glass is a Civil Engineering Director of the claimants. He was extremely defensive under cross-examination, and appeared unwilling to accept that anyone had any right to challenge him at all. At the beginning, it emerged that his witness statement relating to the search for some notebooks that I had ordered (with consent from both parties) at a preliminary hearing was incomplete, and he was unwilling to acknowledge this point.

28 Mr Glass' story of the train journey of 9 January was a tale which grew in the telling. Under cross-examination he added liberally to his original, somewhat sparse, recounting with apparent recollections of a contract won the same day which meant, in his view, that the memory was like knowing where one was when President Kennedy was shot. He had no satisfactory answer to Mr Davis' questions about

why, if it was so memorable, he had not mentioned this in his original statement. His credibility was further undermined in that under cross-examination he for the first time (and inconsistent with the evidence of Mr Callan) asserted that he was involved in the production of the 23 December annotations. I suspect he may simply have lost the thread of what was being talked about specifically, rather than being deliberately untruthful, but he gave the very clear impression of someone who was willing to say anything that seemed most helpful to his case, rather than one conscientiously seeking to tell the truth. Ultimately, I felt I could place no significant weight on his evidence.

- 29 The claimant's third witness was Mr Paul Holland. Mr Holland is currently an employee of the claimant's, but at the beginning of 2007, worked for a third company, RPS Group, which was also involved in the project. Mr Holland's initial witness statement is fairly brief, and makes clear that his personal involvement began after February 2007, i.e. after the inventive concept was clearly known. He asserts that during his involvement he believed the invention was made by Mr Callan and Mr Glass, but does not go into specific reasons for this belief. His second witness statement, filed as part of the claimant's evidence in reply, is more lengthy, and primarily consists of argument why he believes Mr Ives' evidence is wrong.
- 30 Mr Davis in opening described Mr Holland's evidence as "almost entirely irrelevant or inadmissible." It is certainly the case that the bulk of Mr Holland's second statement seems to be opinion or argument. It is also true that Mr Holland's evidence, to the extent it sought to reinforce the claimant's other witnesses' statements, appeared to suffer from a similar problem to theirs – it came out in cross-examination that Mr Holland's statement that he agreed with everything in Mr Callan's second statement was made before Mr Callan's statement was actually finalised.
- 31 Overall, although I have no reason to doubt Mr Holland's sincerity, his evidence did not appear to add anything beyond raising arguments which might stand or fall on their own merits, only some of which Mr Fox appeared to pursue.
- 32 Mr Paul Dunne and Mr James Ives gave evidence for the defendant.
- 33 Mr Dunne is Chief Engineer of OpenHydro, having joined the company in January 2006 as its third employee. He described his relationship with Mr Ives as being one of close collaboration, which is why, in his view, their two names appear jointly on many of OpenHydro's patents. He has been in charge of OpenHydro's patent portfolio since early on in his time with the company.
- 34 Mr Dunne's witness statement was brief, primarily supporting Mr Ives' contentions on the origin of the invention and explaining the circumstances of the original filing of the patent. Under cross-examination, he answered questions carefully and economically (the majority of his answers are single words), giving the impression he was speaking the exact truth as he saw it.
- 35 Mr Ives is Chief Executive of OpenHydro, having been so since joining the company as its first employee in 2005. His own background lies in mechanical engineering and he gave evidence on both the technology involved and the history of OpenHydro's work in the undersea turbine area.

- 36 Mr Ives gave an impression of slight defensiveness under cross-examination, and was clearly unwilling to concede any real contribution being made by McLaughlin beyond what he called “practical suggestions”. However, he also showed a willingness to admit to gaps in his recollection even when so doing was not wholly helpful to his case – for example freely acknowledging that although his diary appeared to show him in Orkney on the 16 January, and that he could not recall the meeting, he suspected that his Orkney trip had been cancelled due to bad weather and if Mr Cullen were visiting then, he would probably have met him. Overall, although he was clearly committed to the defendant’s position, he gave the impression of an honest witness who tried to be fair in what he could and could not recall.
- 37 Mr Ives also showed clear engagement with the technical issues involved and clearly had at his fingertips the implications of various design choices – for example, he gave a clear explanation of why his original slides used three anchoring points rather than four (to enable rotation on one point to improve the ability to accurately position the turbine base on the seabed) in response to being cross-examined on some of Mr McKeown’s comments on the slides in his 22 December email.

### **Matters in Dispute**

- 38 The law and the inventive concept were not disputed by the parties. Their differences all related to questions of fact, revolving around what happened in the time window between OpenHydro’s slides of 21 December, and those of 25 January. That second set of slides shows clearly that OpenHydro – and specifically, Mr Ives – knew the inventive concept at that time.
- 39 There was no dispute between the parties that if Mr Ives and Mr Dunne were the inventors of the inventive concept, then the defendant was the rightful owner of the patent as a result of the operation of section 39. Similarly, in the admitted absence of any agreement on patent ownership between the parties, if Mr Glass and Mr Callan were the true inventors, then the claimants would be the rightful owner.
- 40 There was a wrinkle on this last point, in that Mr Davis sought to argue that the claimants had not raised the question of sole (as opposed to joint) entitlement until too late in the day – at the time of their amended statement of claim on 17 September 2013. He argued that it would be unfair on the defendant for me to allow them to make this claim now, as the defendant was not sufficiently on notice of it. He went further, and argued that as a result I could not transfer the patent into the claimant’s sole ownership, regardless of my findings on inventorship.
- 41 I do not accept Mr Davis’ argument on this point. Although there has been a decided lack of clarity in the claimant’s case (partly – but not wholly – because of the patent’s amendment relatively close to the hearing), the defendant’s essential task is the same – to show who invented the invention – regardless of whether that is to defeat a claim to sole or joint entitlement. I do not think there is any unfairness on the defendant for me to decide on the evidence who the true inventors are, and answering the entitlement question accordingly.
- 42 There is one final subsidiary issue in dispute. The defendant contended that claims 6 and 9 of the patent (which refers to use of telemetry) constitutes an invention in its own right, and regardless of my conclusion on claim 1, that this was invented by Mr



Ives and Mr Dunne. I return to this point below after my consideration of the inventorship of the invention of claim 1.

43 Turning to the facts in dispute, the claimant's argument is that OpenHydro knew of the inventive concept on 25 January because the claimants had told them about it, following it being conceived on the train journey of 9 January. The defendant's first answer to this is to say, in effect, "prove it". Mr Davis correctly emphasised to me, and I did not understand Mr Fox to dispute, that the claimant bears the burden of proving its case. But Mr Davis also asserted that the defendant had a "trump card" – he alleged that the defendants already knew of the inventive concept prior to the claimant's alleged inventing of it, and therefore even if the claimant's story were true, the defendant should still prevail. Mr Fox did not dispute the logic of this – but he did vigorously contest whether in fact the defendant had that prior knowledge.

44 As I see it, then, there are essentially three factual issues I need to determine:

- Did Mr Cullen and Mr Glass come up with the inventive contribution on the train journey of 9 January?
- Was this then subsequently communicated to OpenHydro prior to the production of the second set of slides?
- Did OpenHydro already know the inventive concept prior to any communication of it from the claimant?

45 If I find that the defendant has established that the answer to the third question is "yes", then the claimant will fail regardless of the answer to the other two questions. If not, then the claimant prevails if and only if I find the answers to the first two questions are both "yes". It is convenient to first consider the evidence relating to the questions in reverse order.

*Did OpenHydro already know the inventive concept?*

46 Most of the evidence as to what OpenHydro already knew (prior to December 2006) regarding technology relating to the inventive concept came from Mr Ives. He and Mr Dunne both asserted that they did not think Mr Glass or Mr Callan were entitled to any part of the patent.

47 Mr Ives exhibited a number of documents which he asserted showed various aspects of the inventive concept. In particular, he provided evidence of previous work on a triangular steel frame OpenHydro had considered earlier in 2006 as part of work with the US Navy.

48 Mr Ives highlighted an OpenHydro investor brochure from June 2006 which referred to use of a tubular tripod for mooring turbines on the sea-floor, and the use of a service vessel to raise and lower this. It was unclear, however, what the nature of this service vessel was – and in particular whether it operated by lowering an underslung base for deployment. It was also unclear whether the tubular tripod was heavier than water (cf my next paragraph on gravity bases).

49 Mr Ives also made reference to previous experience with "gravity bases". However, the supporting documentation (an April 2006 OpenHydro report "OpenHydro Open-

Centre Turbine Conceptual Design of Gravity Based Structure) described such a base as (top of page 6):

“In general, a gravity based structure is one that relies on its own submerged self weight to provide stabilising forces to counteract destabilising forces placed upon it. This type of structure tends to be constructed from either steel or concrete and features a cellular general arrangement to minimise the volume of fabrication required and also to facilitate them being floated out into position. Once the structure has been floated into the required location, it is flooded and lowered into position on the seabed where additional ballasting can take place to enhance the weight and stability of the structure by infilling the open cells with a dense material such as iron ore, rock or sand fill.”

- 50 This is clearly distinct from the gravity base proposed by McLaughlin, and most pertinently is plainly deployed by a method similar to the original proposal in the December 2006 slides – this gravity base is not originally heavier than water and so floats out to the deployment point, rather than being deployed by the method claimed in the patent.
- 51 Finally, Mr Ives exhibited some sketches which he asserted had been made by a Herbert Williams, then an investor in OpenHydro, early in 2006. The date he attempted to establish (the sketches themselves are undated) by reference to a CAD drawing of a catamaran he stated Mr Dunne had created based on the sketches in May 2006. The CAD drawing itself appears somewhat basic; as Mr Dunne conceded in cross-examination, it does not show crucial features such as the winches I refer to below. I do not believe it really adds anything to the other evidence in itself.
- 52 The sketches themselves appear to show a vessel with three winches for lifting a V-shaped turbine structure. (The turbine itself appears noticeably huge – 425 feet high which Mr Ives accepted under cross-examination would be highly unusual). Mr Ives asserted this was an example of the use of a service vessel to raise and lower a turbine, as championed by Mr Williams. He considered this to basically show the same concept as the patent in terms of use of lowering lines for deployment.
- 53 Mr Fox challenged the value of these sketches. He pointed out that Mr Williams had not given any witness statement or other evidence, and queried why not, suggesting that it was because the defendants were seeking to read things into the documents which were not there.
- 54 In my opinion, the sketches do not clearly demonstrate a deployment method similar to the inventive concept. It is far from clear that they relate to a method of deploying a turbine, as opposed to one for retrieving a turbine from the seabed. Reference to the service vessel being “inside the vee when on the surface” in a note on the sketch also suggests that the turbine structure is able to float on the surface in at least some circumstances.
- 55 Mr Dunne’s evidence primarily consisted with stating he agreed with Mr Ives’, in particular regarding his authorship of the CAD drawing and its date.

*Was the inventive concept communicated to OpenHydro by McLaughlin?*

- 56 Mr Fox submitted that the inventive concept was communicated to OpenHydro through meetings and telephone conversations on 12, 15, and 16 January. In support of this, he primarily relied on Mr Callan’s evidence, supported by a number of Mr Callan’s diary entries for those days.

57 As Mr Davis pointed out, the diary entries themselves refer to work on the steel gravity base, the 15 January email regarding this and to discussing this with Mr Ives and Mr Dunne on 16 January. However, no reference is made to a deployment method for this base.

58 Mr Callan's testimony in his affidavit is at paragraph 31. It reads

"I now refer to computerized diary entries which provide details of my work tasks carried out on 12<sup>th</sup>, 15<sup>th</sup> and 16<sup>th</sup> January 2007. These computerized diary entries are attached as **Exhibits DC14**. In these diary entries of January 12<sup>th</sup>, 15<sup>th</sup> and 16<sup>th</sup>, I made entries showing that I was working on the steel gravity base from directly underneath the barge by means of lowering lines. .."

59 What is notable about this, as Mr Davis correctly pointed out, is that it does not provide any testimony beyond what can be deduced from the worksheets themselves. In fact, at no point in his evidence does Mr Callan actually assert that he communicated the inventive concept on those dates. Instead, he is effectively asking me to draw that inference from the documents he has presented.

60 The closest Mr Callan comes to directly asserting that he communicated the inventive concept appears to be in his second witness statement in which he is commenting on the defendant's evidence, at paragraph 16, where he states

"I accept that James Ives (abbreviated herein as JI) and Paul Dunne (abbreviated herein as PD) would "frequently bounce a number of research and development ideas off each other". I believe that this was a practice that became ingrained within the company. James Ives and Paul Dunne would facilitate brainstorming sessions and initiate discussions at which I was present where ideas were generated by John Glass, Myself and others involved in these meetings. I believe that OpenHydro (abbreviated herein as OH) took on ideas and concepts that were generated during these meetings. We were content for these ideas to be used by OpenHydro, that was the point of the discussions, but at no time were we informed by OH that they would apply for patents using the ideas we created and so prevent us from exploiting those ideas. We were never asked to assign these ideas to OpenHydro. For the avoidance of doubt, the inventive steps that are under consideration in this action and are claimed by MCL were generated by John Glass and Damian Callan in isolation. They did not result from a brainstorming session with OpenHydro. These ideas were communicated to OH mostly through meetings, where further ideas were created, with input from OpenHydro"

61 This, however, gives no indication of when it is asserted the inventive concept was communicated. Furthermore, given the difficulties with the witness statements I discuss above, it is unclear whether Mr Callan is here asserting a communication he personally witnessed or participated in, or whether he is repeating something he has been told by others.

62 The claimant also placed some reliance, in evidence, on an email from Mr Ives dated 22 January which assigned responsibility for "Gravity base design work" to Mr Callan. As with the timesheets, however, no reference in the email is made to a deployment method. Although in cross-examination, Mr Callan repeatedly asserted the task referred to also involved the deployment method it is unclear that this was because this was his recollection – or because that it what he believed (incorrectly, in my view) was demonstrated by the email.

*Did Mr Cullen and Mr Glass come up with the inventive contribution?*

63 As I note above, it is common ground that the claimants came up with the concept of a gravity base. The claimant's argument was that Mr Callan and Mr Glass came up with this idea along with its deployment method (the deployment method being the

inventive concept) on their train journey of 9 January back from a meeting with Mr Ives and Mr Dunne. Both Mr Callan and Mr Glass testified to this effect.

- 64 Mr Callan's original affidavit is slightly ambiguous as to the extent to which the deployment method was originated on that train journey (paragraph 28):

"John Glass and myself visited the OpenHydro Office in Dublin on Tuesday, 7<sup>th</sup> January 2007. The purpose of this meeting was to discuss the installation methodology sent to McLaughlin & Harvey by James Ives on 21<sup>st</sup> December 2006 and how it might be fabricated and installed. During this meeting the OH methodology was explored in some detail. John Glass and myself raised issues in the fabrication, assembly and installation, if this approach was used. We also questioned the suitability of using water to ballast the concrete precast units. John Glass and myself discussed the modular precast gravity base option when we were both together travelling on the train on the way back from Dublin to Belfast. We also discussed the problems raised in Martin McKeown's notes (**Exhibit DC3**) and how these issues might be overcome. During these discussions we developed the concept and methodology of a triangular steel tubular gravity base assembled at the quayside onto which the OpenHydro Turbine could be mounted. This assembly could then be lifted onto the seabed at the quayside, or other sheltered location and then winched up under the barge using 3 winches mounted on the barge. The barge foundation and turbine could then be towed to the deployment location where it would be lowered directly from the floating barge on 3 wire ropes to the seabed. This is the inventive aspect of the method as defined by the amended claim 1 of the patent."

- 65 The ambiguity in the above lies in that although it is clear that Mr Callan is saying he came up with the triangular base on the train, and that that triangular base can be deployed by the method claimed in the patent, it is not clear that he is saying that the deployment method was also come up with on the train. But when being cross-examined by Mr Davis on this paragraph, he was more explicit on this point (Transcript day 1, page 39, lines 8-11):

"But like whenever you see the steps that were taken to get this turbine onto the seabed and what they were, they absolutely came up during that train journey with myself and John Glass."

- 66 As I note above, I found Mr Glass' testimony on this point unreliable. It was, however, broadly consistent with Mr Callan's evidence, with an explicit assertion in his witness statement that the deployment method was developed on the train journey.

#### *Overall findings of fact*

- 67 The defendant's evidence of their prior knowledge of the invention appears to me to be weak. In itself it is not sufficient to convince me on the balance of probabilities. While I do not think that Mr Ives or Mr Dunne were being dishonest in their belief that they had long known of this deployment methodology, I do not consider the documents they have assembled to demonstrate this, for the reasons I outlined above. The defendant's evidence does not really provide a clear explanation of how OpenHydro developed the idea. What it does clearly show, however, is that Mr Ives and Mr Dunne were working in this area with a clear understanding of the technology, and the various issues surrounding different design choices.
- 68 The claimant's evidence that Mr Glass and Mr Callan came up with the invention rests (given the problems with Mr Glass' evidence) primarily on Mr Callan's recollection. It does seem clear that it was Mr Callan and Mr Glass who came up with the idea of the heavier than water base – that much was conceded by the defendants – and this provides some circumstantial support to the idea that it might also have been they would come up with an appropriate deployment method. As I

said above, I believe Mr Callan was an honest witness, and I believe that he truly thinks that this occurred. I must, however, temper a willingness to accept this in view of the admitted discussions he has had with Mr Glass in the preparation of the evidence, which may have unconsciously influenced his recollection.

- 69 More problematically for the claimant, there is, as I note above, no real direct evidence that this idea was ever communicated to the defendant prior to the 25 January set of slides. The claimant is, as Mr Fox made clear in closing, asking me to infer this from evidence (from Mr Callan) of the invention being made on the train, a meeting occurring on 16 January, and then that invention appearing in the 25 January slides.
- 70 Two particular points were raised in evidence to attempt to support these inferences. One is the lack of documentation from the defendant of the development of the invention. My view on this is that it is true that the defendant's documentation is somewhat sparse, as I have noted. But this applies even more strongly to the claimant's case – the first documentary evidence of the invention, after all, is in a document originating with the defendant. The second was that a deployment method went hand-in-hand with devising the base. To an extent, I agree this is true, but it does not mean that the two were devised at the same time. The heavier than water base was proposed by Mr Glass and Mr Callan to overcome problems with the original base proposal. That this might require a new deployment method would simply provide another (lesser) problem to be solved – it is not clear that the alternative base would not have been proposed just because the details of its deployment were not yet worked out.
- 71 My view is that it is not possible from the evidence before me to say with certainty who came up with the inventive concept. But on the balance of probabilities I find it is most likely that it originated with Mr Ives and Mr Dunne. To find otherwise would, I believe, require me to make inferences that simply cannot be sustained from the evidence. The first documentary evidence of the inventive concept is Mr Ives' email of 25 January. The defendants were definitely in possession of the inventive concept at that point. By contrast, there is no definite evidence of the claimant possessing the inventive concept before that date. The claimant has documentary evidence of the heavier than water base but not of its deployment. Indeed, it is striking that the documentary evidence from the claimant displays multiple references to the design of the base with no reference at any point to the deployment method. The strength of the claimant's case thus rests with the strength of the testimony of its witnesses. Mr Glass' evidence I believe to be unreliable, as noted. The value of Mr Callan's evidence to the claimant is weakened both by the lack of direct evidence of ever communicating the invention earlier, and by the difficulty in determining how much his view of what happened has been influenced by others. I find this to be too weak a foundation to draw the inferences the claimant wishes me to.
- 72 I therefore find that Mr Ives and Mr Dunne are the true inventors of the inventive concept in the patent. As noted above, it follows that the defendants are the rightful owners of the patent.

### **The “telemetry invention”**

- 73 Mr Davis raised the question of a “second heart” of the invention based on claims 6 and 9 of the amended patent. These each refer to the use of telemetry – in claim 6 prior to final positioning on the seabed, and in claim 9 as part of determining the suitability of the installation. He argued that the claimant accepted this was a separate inventive as the claimant had laid a separate claim to the invention in these claims.
- 74 Mr Fox denied that the claimant asserted these claims as claiming a separate inventive concept. He argued that the claimant asserted the use of telemetry was thought of by Mr Callan and Mr Glass, and thus part of the contribution made to the patent by them, but that the claimant did not contend that this was a separate invention from that of claim 1 – so the claimant’s ownership would stand or fall with claim 1.
- 75 As I have already found against the claimant on ownership of claim 1, this therefore means I do not need to decide on this point further. However, I observe that neither side put forward significant evidence as to who made any technical contribution in this area.
- 76 I further note that the defendant did not put forward a clear argument for why the use of telemetry would be a separate inventive contribution to the art (beyond attempting to rely on the claimant’s supposed position). It seems to me that using telemetry would be an obvious way a person skilled in the art could establish the suitability of a site of a subsea turbine and whether the turbine is positioned correctly. From my reading of the patent the described telemetry system is doing exactly what you would expect a telemetry system to do; there is no new or unexpected effect from its inclusion in the method of the invention.

### **Conclusion**

- 77 I find the claim for entitlement to the patent is not made out.

### **Costs**

- 78 Both parties sought their costs. The defendant has won and is in principle entitled to a contribution to their costs in accordance with the Comptroller’s standard scale. I will allow both parties an opportunity to make submissions on this point.

### **Appeal**

- 79 Any appeal must be lodged within 28 days

**J ELBRO**

Divisional Director acting for the Comptroller