Computer-Aided Surgery: Patent Strategy in Europe

Introduction

The Royal College of Surgeons' "Future of Surgery" report recently identified a number of advances in technology that are radically changing the way surgery will be delivered, with the aim of making surgery more personalised, less invasive and ultimately to improve patient outcomes. This area of technology encompasses, in particular, surgical robotics, virtual and augmented reality systems and machine learning, which we refer to in this report as subsectors of "computer-aided surgery".

The rapid pace of innovation in this area is reflected in rapidly growing patent filings across all subsectors of computer-aided surgery.

However, as described below, these technologies fall at the intersection between a number of complex and changing areas of European patent law, meaning that applicants face significant challenges in navigating the various legal restrictions to achieve the broadest protection justified by their innovation.

Recognising the rapid pace of innovation and the specific challenges faced by applicants in this field, GJE's MedTech team have been focussing throughout 2021 and 2022 on developing resources to support innovators seeking to protect computer-aided surgery inventions in Europe. The aims of the report are therefore to (1) present the findings of our research into the current patent landscape; (2) explain the latest important legal developments in Europe and (3) provide practical guidance on preparing strong patent applications to achieve the broadest protection for inventions in this area.

The first part of this report presents the results of our research into the present patent landscape across computer-aided surgery. By looking into published patent application data we identify the companies investing most heavily in protecting their technologies and we assess their filing strategies and the likely motivation behind them. We identify subsectors in which patent filings have been particularly concentrated, in particular robotics, artificial intelligence and augmented reality.

The second part of the report discusses the key patent law provisions that it is essential to understand to achieve strong protection for these technologies in Europe, in particular: the methods used by the European Patent Office (EPO) to assess computer implemented inventions and the current restrictions on patenting medical methods.

We discuss an important recent decision of the Board of Appeal, in which the restrictions on patenting medical methods were applied to computer implemented inventions in a much broader way than the present Guidelines for Examination suggest. This decision has important implications for applicants for computer aided surgery inventions and we set out the crucial patent drafting considerations which must be carefully followed to ensure the broadest protection is achieved in Europe.

Finally, we look at specific patent strategy considerations in two of the most important growth areas of computer aided surgery technologies that were identified in our patent landscape research: artificial intelligence and augmented reality.

GJE

As we hope this report demonstrates, GJE's specialist MedTech team have particular expertise in advising on protecting computer-aided surgery inventions in Europe.

Our multi-disciplinary team have specialist technical experience in this area, some developed across earlier careers in academia and industry. Combined with our research into the current patent landscape and understanding of the latest legal developments, this allows us to offer specialist advice to applicants to help them navigate the shifting legal restrictions and achieve the full extent of the protection their innovation deserves.

If you would like to discuss your technology in confidence and understand more about the support we provide to computer aided surgery companies, please contact us at:

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Alternatively you can find further resources on our website here.

The Computer-Aided Surgery Innovation Landscape: A Pivotal Moment in the Field

The computer-aided surgery sector is at a crucial stage in its maturity. The efficacy of many computer-aided and robotic surgery techniques has now been demonstrated with many systems now in use in hospitals and the widespread adoption of the techniques inevitable over the coming years. Significant investment has also been deployed in the field over the last year. Notable examples include CMR Surgical raising $600 million in a Series D financing round and Memic Innovative Surgery, which focuses on a robotic-assisted surgical platform, raising $96 million in a Series D financing round. The sector is forecast to grow by almost 25% to over $24 billion by 2025.

This comes at a time when the early broad patents in the sector, filed around 20 years ago, are beginning to expire, opening the door to a new generation of innovative companies developing and protecting new approaches, utilising recent advances in related fields such as AI and machine vision.

As the graph on the next page illustrates, from a small number of early patent filings in the sector twenty years ago, innovation has accelerated in the last five years with this trend looking set to continue.

This combination of factors means there will be significant opportunities over the coming years, with those companies developing and effectively protecting the next dominant technologies likely to establish themselves in the market during the widespread adoption of robot assisted surgery in hospitals around the world.

"Early broad patents in the sector, filed around 20 years ago, are beginning to expire, opening the door to a new generation of innovative companies."

Number of New Patent Families Published per Year Classified Under the Computer-Aided Surgery IPC Subcodes

Legend: ■ Computer-aided simulation / modelling ■ Surgical navigation systems ■ Surgical robotics
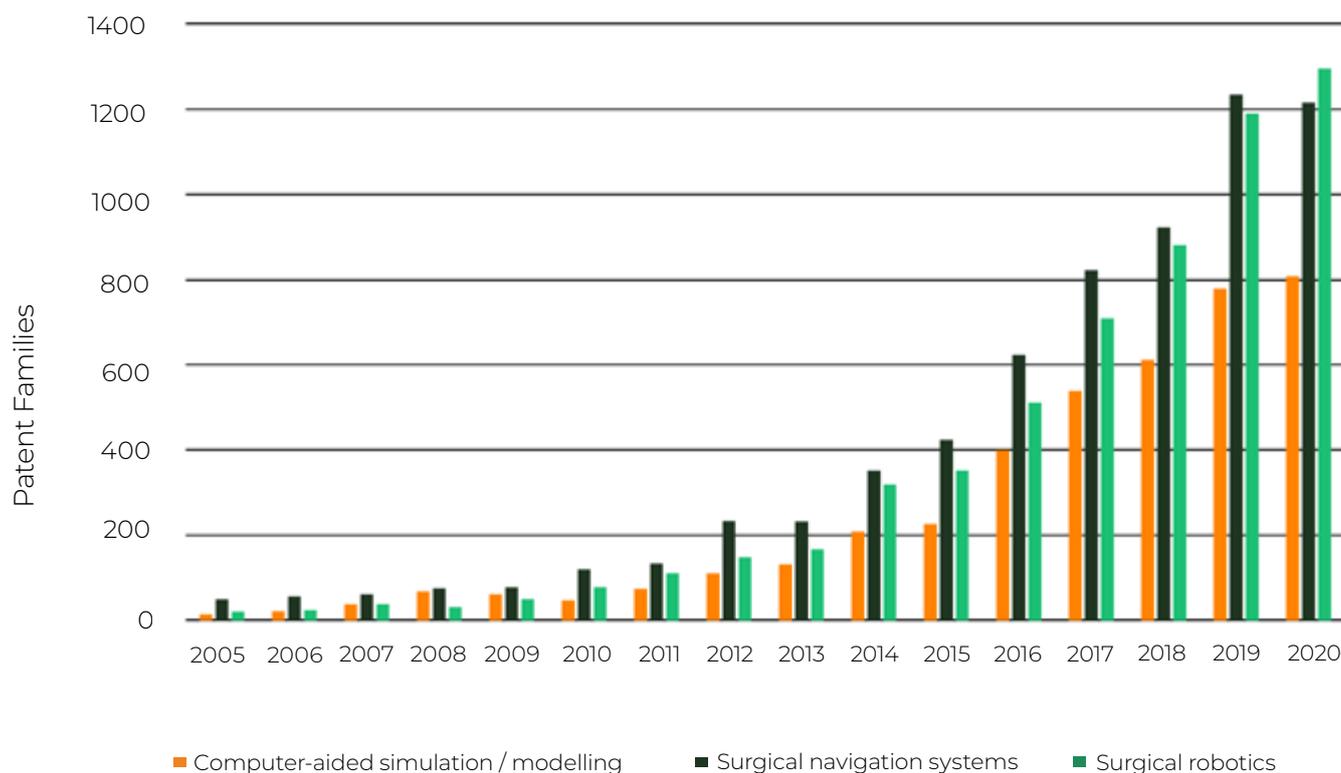
As the graph above illustrates, from a small number of early filings in the sector twenty years ago, innovation has accelerated across the computer-aided surgery sector in the last five years.

The International Patent Classification (IPC) code for "Computer-aided surgery and manipulators or robots specially adapted for use in surgery" (A61B 34/00) has three subcodes, which allow us to conduct a more granular analysis of the patent filings across this area of technology. These subcodes, displayed on the graph above, are:

· "Computer-aided planning, simulation or modelling of surgical operations" (A61B 34/10);

· "Surgical navigation systems; Devices for tracking or guiding surgical instruments, (A61B 34/20); and

· "Surgical robots" (A61B 34/30).

Since the earliest filings in this sector, the greatest innovation activity has tended to be within surgical navigation systems and devices for guiding surgical instruments.

However, in the last three years, there has been significant innovation in the field of surgical robotics and in 2020 there were more patent families published describing surgical robotics inventions than in either of the other subcodes.

This accelerating rate of patent filings in surgical robotics may well be linked to the increased investment focus in this area as commercial systems began to be deployed more widely over this period, with a number of new commercial systems emerging.

Patent filings in the field of computer-aided simulations have generally lagged behind the other subsectors. This may be due to the difficulties in securing broad protection in this area in many jurisdictions due to restrictions on patenting mathematical methods, which simulation techniques may be characterised as.

The recent clarification of the patentability of simulation techniques in Europe should encourage applicants in Europe at least that good protection in this area can be achieved if the invention is framed correctly.
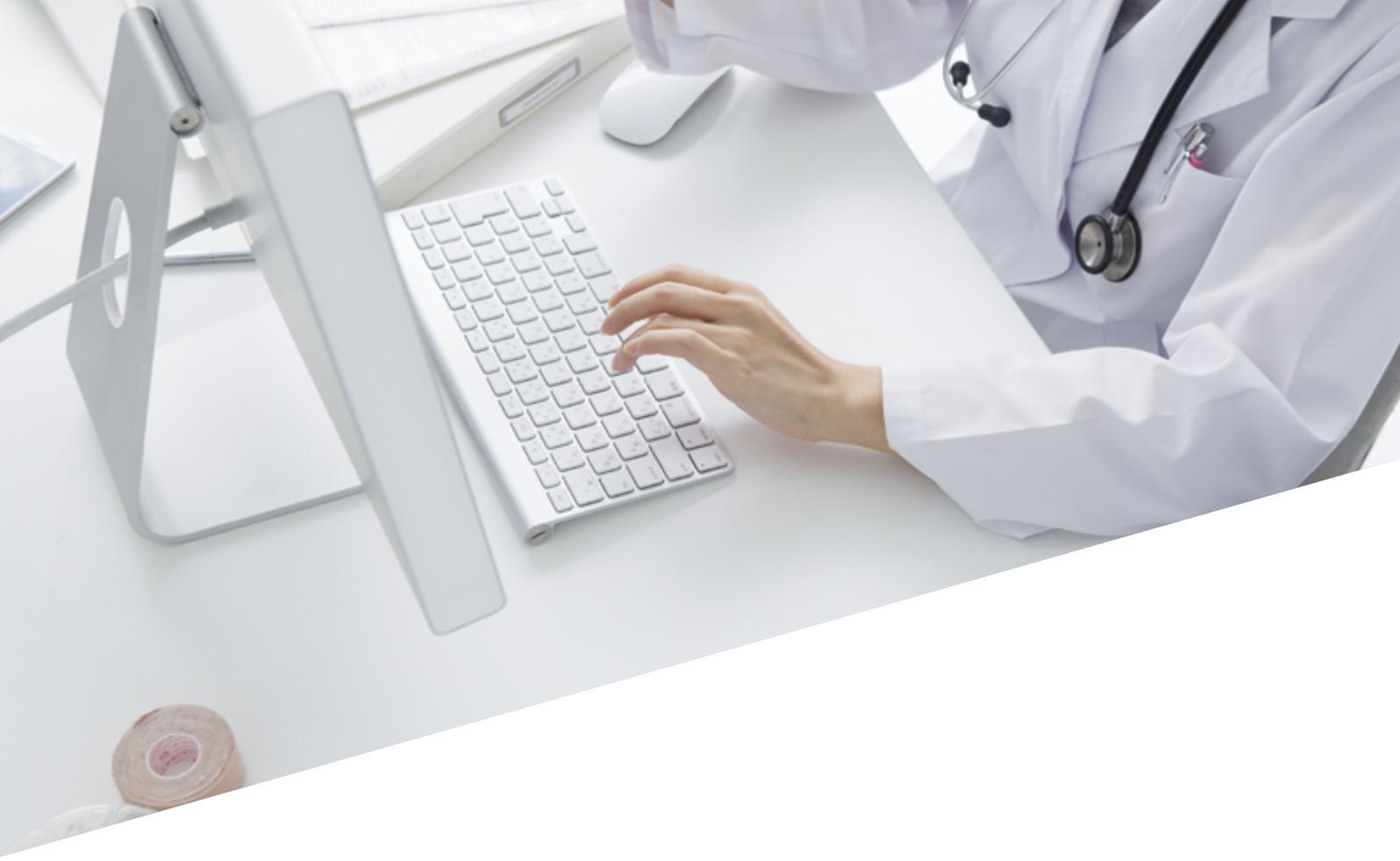
Growing Subsectors of Computer-Aided Surgery

Rapid advances across computer technologies are increasingly being harnessed in the next generation of medical technologies, shifting the focus of the traditional MedTech sector. It is possible to probe these changes within the computer-aided surgery field by looking into the patent filing data to determine the IPC codes which are cited most frequently alongside the general IPC code for computer aided surgery, A61B 34/00. The top IPC codes used along-side A61B 34/00 include:

- "Image data processing or generation" (G06T);

- "Manipulators; Chambers provided with manipulation devices" (B25J);

- "Device for introducing media into, or onto, the body" (A61M);

- "Healthcare informatics" (G16H);

- "Filters implantable into blood vessels; Prostheses;..." (A61F); and

- "Electric digital data processing" (G06F).

These areas comprise more traditional surgical technologies, such as manipulators and devices for introducing media into the body that might be expected to continue to form an important component of computer-aided surgical systems. However, there is also a visible shift in innovation focus from more traditional hardware towards software (image data processing, digital data processing) and the use of big data and artificial intelligence (healthcare informatics).

This convergence of a number of new digital technologies reaching maturity means there will be substantial opportunities over the coming years, with those companies developing and successfully protecting the next dominant technologies likely to establish themselves in the market during the widespread adoption of computer-aided surgery in hospitals around the world.

"There is a visible shift in innovation focus from more traditional hardware towards software and the use of big data and artificial intelligence."

- mathematical methods that may apply to certain machine learning innovations where not correctly defined; and

- innovations relating to the presentation of information, relevant to innovation in the AR surgery sector.

There can also be complex interactions between these areas of law. For example, where a new software controlled method may need to cite the technical effect of the method in terms of the treatment outcome for the patient to overcome the restrictions on software inventions, but doing so may lead the invention towards the restrictions on patenting methods of treatment, particularly in light of recent case law in this area described below.

Computer-Implemented Inventions

The EPO's approach to assessing inventions comprising software elements, which are referred to as "computer-implemented inventions", is now well established.

A basic requirement for any invention to be considered patentable by the EPO is that it must be "technical". The term "technical" has no fixed definition under European patent law but most typically refers to either the ability of the invention to produce a physical effect (for example improved control over a physical tool) or to yield information about a physical system (for example determining emissions by an X-ray device). The scope of this term is not however limited to purely physical settings – for example, image compression and computer security are considered to be "technical" activities and inventions that achieve improvements in the context of these tasks are in principle patentable. Although the EPO considers computer programs not to be intrinsically technical, software that has such an effect on a technical system or process when executed is considered to meet this basic requirement of technical character.

Once it has been established that the invention meets the "technical" criterion, the EPO asks whether the features of the invention that contribute to its technical character constitute a non-obvious solution to a technical problem. In order for an invention to meet this requirement by virtue of its software features, those features must therefore be seen to contribute to the technical character of the invention. As noted above, this technical character is most typically demonstrated by the effect that the software features have on a technical process or system when executed – for example, algorithmic steps that produce accurate predictions of emissions by an X-ray device.

Protecting Computer-Aided Surgery Inventions: Patent Law in Europe

The Key Legal Provisions

Computer-aided surgery technologies fall at the intersection between a number of complex and changing areas of European patent law, meaning that applicants face significant challenges in navigating the various legal restrictions to achieve the broadest protection justified by their innovation.

The key restrictions relevant to the protection of these technologies are:

(1) The limitations on protecting certain types of computer-implemented and software innovations; and

(2) The exception to patentability of methods of treatment by surgery or therapy, which can be relevant to software implementing such methods and where there have been significant recent developments in the case law that applicants must be aware of. Below we explain the relevance of these updates in detail.

In certain subsectors, other restrictions are also likely to be relevant, notably the restrictions to patenting:

By contrast, software features that do not produce such a technical effect will not render the invention patentable, even where the invention meets the bare requirement of defining "technical" subject matter by virtue of other technical features that it involves. An example of an invention belonging to this category related to a mobile application for planning shopping trips. The invention was defined in terms of a method in which a mobile device received a selection of products that the user intended to purchase. Based on the user's input, the application would compute an optimal path between stores and present this route to the user. Although the invention involved the use of a mobile device, which the EPO does consider to be technical means, the software-implemented steps such as computing the optimal path only influenced the non-technical activity of deciding which stores to visit. On this basis, the EPO found that the only technical content of the invention was the involvement of standard computer hardware, which is well-known and therefore does not constitute a non-obvious solution to a technical problem.

The key point to be appreciated is that, while the EPO does place restrictions on the patentability of software in abstract, the application of software to specific technical problems constitutes a legitimate class of patent-eligible inventions. In the context of computer-aided surgery, the strongest European patent applications for inventions involving software elements will be those that demonstrate a clear connection between the software features and the technical purpose to which they are applied. For example, the EPO would be most likely to find an algorithm for controlling a robotic surgical tool to possess "technical character" where the patent application clearly explains how the algorithm influences the behavior of the tool and why this is advantageous.

Important Developments in the EPO's Assessment of Methods of Surgery and Therapy

In a recent Board of Appeal decision, T 0944/15, the Board applied the exclusion on patenting medical methods in a way that could have significant implications for those seeking protection for inventions relating to computer-aided surgery.

In the decision, the Board held that certain statements in the Guidelines for Examination on these provisions are not correct and that the exclusion may still apply to claims that do not explicitly include any steps of treatment performed on the human or animal body, irrespective of claim category. Below, we explain the reasoning behind the decision and outline the key implications for those drafting patent applications in this field.

The EPO Guidelines on the "Medical Methods" Exclusion

The European Patent Convention (EPC) and several other patent systems rule out patent protection for certain kinds of medical methods. In the case of the EPC, Art. 53(c) states that patents will not be granted for "methods for treatment of the human or animal body by surgery or therapy", the overriding principle being that medical practice must not be hindered by patent protection.

The EPO's Guidelines for Examination, which are the European examiner's practice manual for day-to-day examination, discuss the limits of this provision and the circumstances under which it is appropriate (or not) to raise an objection. In particular, they make clear that "*the exception under Art. 53(c) does not extend to new products*", allowing protection of compositions and tools used in methods falling within the exception. Furthermore, the guidance has been that a method claim will only fall within the exclusion if it includes at least one step of treatment (by surgery or therapy) performed on the human body.

Given the current rapid progress within the field of computer-assisted therapy and surgery, an important question is how these provisions should be applied to *computer-implemented* methods of surgery and therapy and computer programs for performing such methods. The EPO Guidelines G-II, 4.2.1 are also clear on this and unambiguously state that, claimed correctly, these innovations can also bypass the exclusion:

"Claims to medical devices, computer programs, and storage media which comprise subject matter corresponding to that of a method for treatment of the human or animal body by surgery or therapy or to that of a diagnostic method practised on the human or animal body are not to be objected to under Art. 53(c), because only method claims may fall under the exception of Art. 53(c)."

However, in T 0944/15 the Board outlined their disagreement with this statement and reached a decision that both a claim to a computer-assisted method and a computer program were excluded from patentability, despite not claiming any method step of treatment performed on the human body.

T 0944/15 (Monitoring Patient Position / Brainlab)

The appellant's application, which had been refused as a method of treatment in the first instance proceedings, related to the problem of monitoring a patient's position during a radiation treatment process. The radiation is typically targeted at a specific part of the body, so movement of the patient during treatment can cause the actual dose delivered to the target to vary unpredictably. To control for this, the target's position can be monitored by x-ray imaging, but the exposure of the patient to x-rays should be minimised. The invention aimed to solve this problem by providing a method in which the monitoring is commenced only after a threshold dose of the treatment radiation has been delivered.

A Method of Treatment Despite No Claimed Steps of Treatment Performed on the Body?

The appellant had argued that because the claim did not recite any steps that constituted treatment of the body by therapy, the exclusion of Art. 53(c) EPC did not apply. While the Board agreed that the claim was limited to a method implemented on a computer, it argued that the subject matter whose eligibility is in question is not simply the set of features defined by the claims in isolation. Rather, what is relevant is the "invention" that the claims reflect. The Board considered that the nature of the invention should be understood in light of the overall teaching of the specification – not just the features explicitly claimed.

The Board found that the only such technical effect discussed by the specification was the ability to direct radiation to the correct parts of the body, which is only achieved when the method is performed as part of a therapeutic method. By contrast, the description did not attribute any technical effect to the method steps in isolation (such as an improvement in computational efficiency). On these grounds, the Board decided that the "invention" necessarily involved performing steps amounting to treatment of the human body by therapy and was therefore ineligible for patent protection under the provisions of Art. 53(c) EPC.

Can Reformulating to a Computer Program Claim Circumvent the Exclusion?

In its fourth auxiliary request, the appellant redirected the claims to "a computer program". Arguing in support of this request, it referred to the EPO Guidelines G-II, 4.2.1 cited above, which state that claims directed to computer programs "are not to be objected to under Art. 53 EPC, because nly method claims may fall under the exclusion of Art. 53(c) EPC".

According to the Board in T 0944/15, a computer program is neither a method nor a product and it thus falls on the EPO to determine whether individual computer programs are patentable in light of Art. 53(c) EPC. Following the same approach that was applied to the higher-ranking requests, the Board found that the "invention" was unchanged by this change of claim category and that the exclusion of Art. 53(c) EPC applied for the same reasons as in the case of the method claims.

Therefore, contrary to the guidance in the Guidelines for Examination which state that computer programs do not fall within the exclusion, the Board found that simply reformulating as a computer program claim was not sufficient to overcome the objection.

The Key Drafting Considerations Following T 0944/15

This decision highlights several important considerations when drafting applications relating to computer implemented methods of surgery or therapy:

1. Claim the hardware if possible

Apparatus claims do not fall within the European exclusion on medical methods. As a result, in many cases, the most straightforward way to avoid exclusion on patenting methods for medical treatment is still to claim one or more essential aspects of the hardware which are used in the invention. These hardware aspects may be, for example, aspects of the robotics, a probe or manipulator.

A recent example that can be used by applicants is found in Board of Appeal decision T 2488/17. This application to a method of performing eye registration for eye surgery was found to be ineligible for patent protection as a method of surgery, despite attempts by the applicant to remove all surgery features from the claim. The applicant appealed and reformulated the claim as "a system for performing eye registration" and the Board then found the claim patentable.

Claims comprising hardware and software components, such as a surgical robotics system comprising a probe and a processor configured to execute a series of steps to control the probe in a particular way, are also likely to bypass the exclusion, unless the method executed by the processor includes a method step relating to surgery or therapy performed on the human body.

2. When claiming a method or a computer program, ensure that no steps are included relating to treatment performed on the human body

For many surgical robotics inventions, the innovation may lie in the software used to perform a process and so must be defined in terms of a process. As is clear from the decision in T 0944/15, simply claiming the process as a computer program or computer implemented method is not sufficient to avoid the exclusion if it involves operational steps involving treatment by surgery or therapy performed on the body.

In this case, whether formulated as a method, computer-implemented method or computer program claim, it is firstly important that no such treatment steps are explicitly defined in the claim if the exclusion is to be avoided.

The case law is clear that methods of controlling an apparatus are allowed so the method steps should be generalised to control of the apparatus, without linking to an outcome in terms of surgical steps performed on the body.

Where some of the method steps may be closely linked to the surgical or therapeutic steps – or where it might be interpreted that the advantages of the claimed steps are related to improvements in the treatment outcome – it is important to take this into account when framing the invention in the description, as explained below.

3. When claiming a method or computer program, it is important to appropriately frame the invention and its advantages in the description

A key takeaway from T 0944/15 is that even if no surgical/therapeutic steps are explicitly claimed, the application may still be rejected if the invention is described as being intrinsically linked to a method of treatment, for example if the advantages of the invention only relate to improved efficacy of the treatment. Therefore, ensuring the invention is appropriately framed in the description is equally important as drafting the claims.

With this in mind, when claiming a method or computer program for computer implemented surgery of therapy it is important to define the advantages that are distinct from the treatment outcomes in the description. The invention should be explained in a way which is detached from the method of treatment, focusing on the technical advantages of the method or software which are distinct from the treatment outcomes. For example, methods which provide more precise control of a device, improve the ease of interaction between the device and operator or improve the range of movement of a manipulator are all separable from the treatment performed on a human body.

In some cases, it could be difficult to predict where a patent examiner will draw the line for an excluded medical treatment. Similarly, the approach of other patent offices differs from that of the EPO and so where there is uncertainty in how the invention will be interpreted by an examiner during prosecution, it is important to include alternative statements of the invention, which are supported by corresponding, separate passages of the description.

Important Subsectors in Computer-Aided Surgery

Our research into the patent filings within the computer-aided surgery sector identified two increasing areas of focus: (1) the use of augmented reality (AR), particularly to provide additional information to surgeons during procedures and (2) the use of machine learning.

These subsectors each have their own important considerations which must be taken into account when drafting patent applications in these fields. Below we discuss the further relevant legal provisions and provide some guidance in protecting innovations in these technical areas.

AR-Assisted Surgery: Navigating the Restrictions to Patentability

The development of AR assisted surgical techniques is moving rapidly, with GlobalData predicting the next 10 years will see the AR market in health care reach $76 billion.

Such techniques are widely applicable, whether in more invasive techniques where information may be added to augment a direct view of the patient or in less invasive techniques where information may be added to a fibre optic feed.

However clear it may be that such techniques can save time or improve surgical outcomes, patenting such technologies requires careful planning. In particular, there are a number of categories of "excluded subject matter" – technologies that are not considered patent-eligible in many jurisdictions – that are relevant to AR-assisted surgery techniques. Therefore, it is essential that these legal restrictions are considered carefully when drafting patent applications in the AR surgery field to ensure the broadest protection can be achieved. Some of the most important considerations are explained below.

Displaying information

The EPO does not issue patents for inventions where the new features relate to the presentation of information. This is particularly relevant to AR-assisted techniques, where often the methods involve overlaying supplementary information to the user on a display. For example, after a medical parameter such as a position of an endoscope has been determined, simply displaying the position as text on a conventional screen would not be patent-eligible, even if that particular information had never previously been displayed.

However, a new way of calculating the position of the endoscope may be patent-eligible, because the information is itself new and technical, regardless of how it is presented. Furthermore, the way in which information is presented may also be patent-eligible. For example, a display using a new way of linking an AR object to a feature appearing in endoscope footage would be patent-eligible.

Decision T 928/03 of the Boards of Appeal of the European Patent Office relates to a European patent application that claimed an invention in which an arrow was used to indicate the position of an off-screen object relative to a currently-displayed field of view. This was found to be a technical solution to meet the requirement to zoom in on a specific area, and simultaneously meet the requirement to present information about a larger field.

By framing the inventive concept correctly, the restriction on patenting methods of displaying information can be avoided and broad protection for new techniques in this area can be achieved.

User interfaces

In Europe, the possibility that an AR-assisted invention may be considered patent-eligible can be improved by ensuring that the patent application is drafted with a focus on how the user interacts with the information that is presented.

Indeed, the European Patent Office has indicated that a display which credibly assists the user in performing a technical task, by means of a continued and/or guided human-machine interaction process, is patent-eligible.

For example, decision T 690/11 of the Boards of Appeal assessed an interface for a dialysis system, which displays step-by-step instructions as a user performs the instructions. Operating the dialysis system was a technical task and therefore the display of step-by-step instructions was considered to be patent-eligible.

On the other hand, decision T 336/14 of the Boards of Appeal assessed an interface for a blood treatment machine, which assists the user by displaying a set of operating instructions. The European Patent Office decided that this static display of instructions was not a continued interaction and therefore not patent-eligible.

Applying this comparison to drafting patent applications for AR surgical assistance inventions, it is useful to ensure that there is a description of how AR objects react to what is happening in the surgery, and how a user of the AR assistance may react to the information presented.

Computer-Aided Surgery and AI

Generally, when the term "AI" is being used, particularly in a HealthTech context, it is most likely in reference to the use of machine learning (ML) – algorithms structured to progressively improve their performance at a particular predictive task performed on an input data set.

The Different Categories of AI Invention

There are frequent misconceptions around what can be protected in this space and the best strategy for securing the most relevant protection. The following explains how the European Patent Office (EPO) – assesses AI inventions in Healthcare.

The European Patent Office distinguishes between three types of AI invention:

(1) Core AI inventions relate to fundamental new advances in AI model architectures or techniques themselves. The innovation is within a new, general purpose AI technique, rather than the configuration or implementation of a technique for any one application. These are the hardest type of AI inventions to protect as they often fall close to the patent office's restrictions on patenting pure mathematical methods, as described further below.

(2) The second type of AI invention relates to new ways of generating a training set or training a model. Often these are crucial considerations with health data where the lack of high quality data sets precludes high quality predictions and may require novel techniques to maximise the value of small or lower quality data sets.

(3) The third and most relevant category in the field of computer-aided surgery is the use of AI as a tool, i.e. the application of ML models to solving a particular problem in the planning or execution of a surgical process. This is by far the most frequent type of AI invention we see, where the inventors have deployed a, usually known, type of ML model to a new type of data to make predictions, for example the application of a known convolutional neural network architecture to processing a new type of image data to make a diagnosis prediction.

In our experience, this point is often not well understood and worth emphasising: You do not need to have developed a new type of ML model to meet the requirements of patent protection – applying a known model in a new way, to a new type of data or to solve a new problem is the most common type of AI invention that is patented.

How Does the Patent Office Assess Whether an AI Technology Is Patentable?

An AI innovation is assessed under the framework for assessing computer-implemented inventions described above. In particular, the contribution over the prior art must be technical or more specifically it must provide a non-obvious technical solution to a technical problem.

The requirement that the solution is "technical" is often fairly opaque to those new to the EPO framework, and is responsible for many of the misconceptions around protecting AI inventions. Essentially, this means that an innovation must be applied to a "technical" problem, that is, not one that falls within the patent office's categories of non-patentable subject matter.

A particularly relevant example of such a category is innovations that are considered purely an abstract mathematical method. Clearly, every ML innovation is, fundamentally, a mathematical method, leading to some of the misconceptions around difficulties in patenting these technologies. The important point is that to be considered technical, the innovation it must be tied to a "real-world" impact beyond the algorithm, whether this is the surgical problem it seeks to solve, or an impact in terms of improved functioning of the hardware used to run the algorithm.

Another relevant example of a category of excluded subject matter is where the problem solved by the innovation is considered an administrative or business task. An AI innovation could be considered non-technical if the problem relates to applying your ML model to classify patient data records or select a surgical procedure plan from a number of options where the same model could be applied to any type of abstract data records and it is not specifically tied to the medical application.

"If the problem you are solving with your AI innovation is specifically linked to an application in computer-aided surgery... this will very likely be considered to fall within patent-eligible subject matter."

Although there are categories of "non-techni-cal" subject matter to be aware of, it is important to stress that generally, the patent office looks favourably on the application of AI to problems in healthcare. The EPO explicitly provides a number of examples of inventions targeting such problems which are considered technical (i.e. not pure math-ematical methods), for example:

· "controlling a specific technical system or process, e.g. an X-ray apparatus"

· "providing a medical diagnosis by an automated system processing physiological measurements"

· "the use of a neural network in a heart-monitor-ing apparatus for the purpose of identifying irregular heartbeats"

· "classification of digital images, videos, audio or speech signals based on low-level features"

Generally speaking, if the problem you are solv-ing with your AI innovation is specifically linked to an application in computer-aided surgery – for example by virtue of being applied to medical data, controlling equipment such as a surgical robot, monitoring or diagnosing a health condition– then this will very likely be considered to fall within tech-nical, patent-eligible subject matter.

This report sets out a snapshot of the chang-ing state-of-play of the IP landscape around computer-aided surgery technologies in Europe. If you would like to discuss any of the issues raised in this report in more detail – or if you have specific questions about protect-ing a computer-aided surgery innovation in Europe – our specialist team is available to help.

Please email us at: medtech@gje.com

Alternatively you can find further resources on our website here.

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