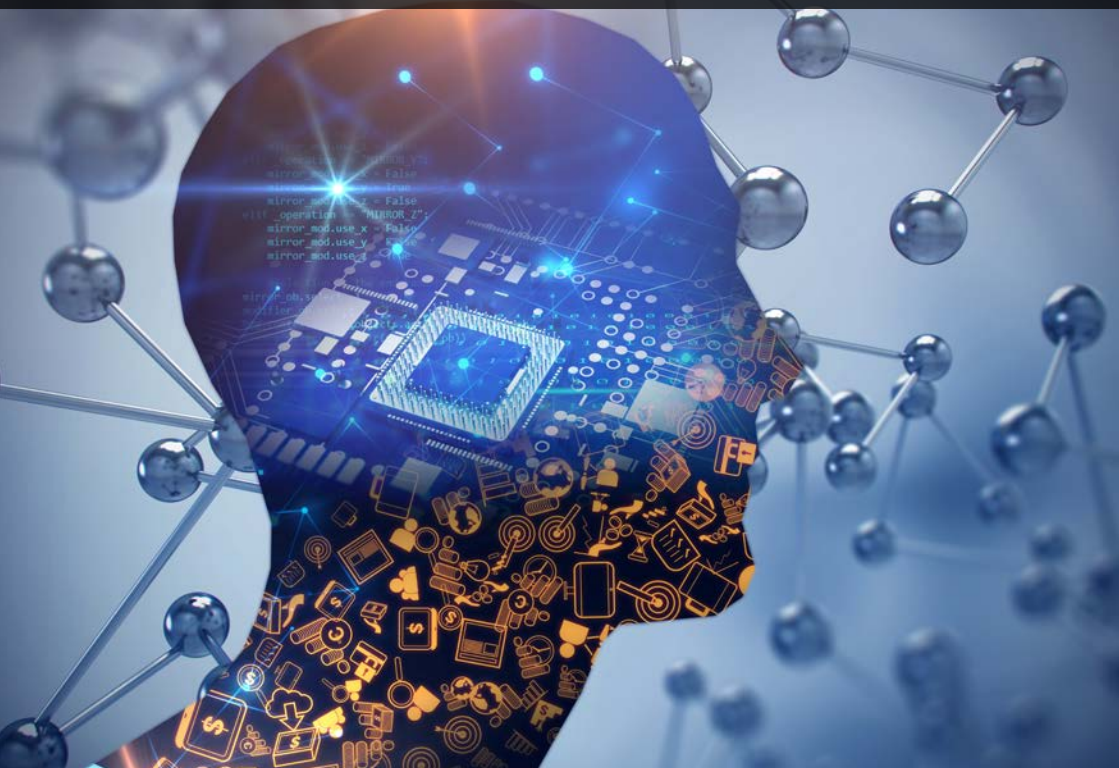




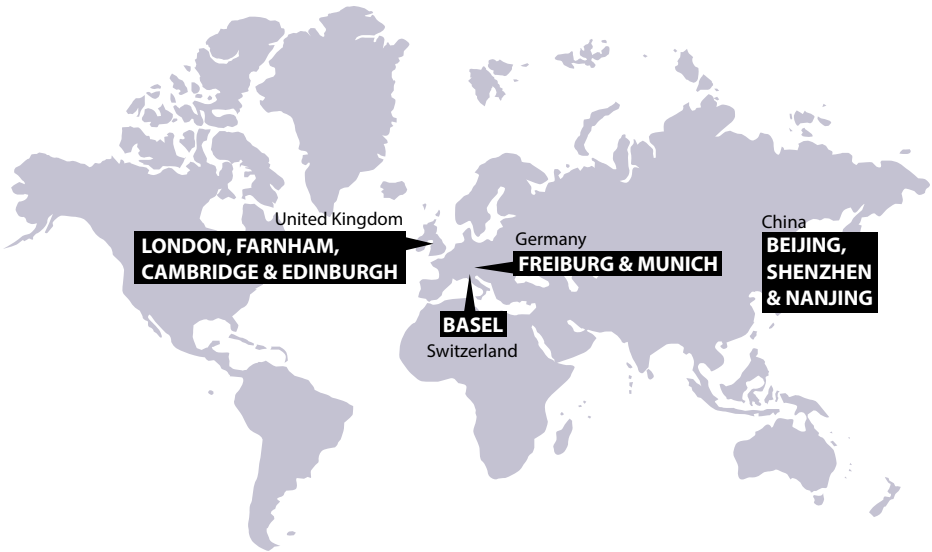
Electronics, IT, Software and AI Intellectual Property Specialists

Patents, Trade Marks & Designs



European Patent, Trade Mark & Design Attorneys | UK Chartered Patent & Trade Mark Attorneys
Solicitors (England and Wales, Ireland) | UK IP Litigators | German Patentanwälte & Rechtsanwälte

Maucher Jenkins' Offices



Maucher Jenkins is known for its expertise in the fields of electronics and software. We have been pioneers in advocating the patentability of computer-implemented inventions before the UKIPO and EPO, including leading cases *Merrill Lynch's Application [1989]* and *AT&T's Application [2009]*.

Partners Hugh Dunlop, James Cross, Felix Rummler, Alvin Lam and Handong Ran are supported by a large team of specialists in UK and Germany, as well as consultants Prof. David Musker and Alec Clelland (retired chairman of the EPO Board of Appeal for communications and software matters).

We work with a variety of corporate companies, academic and research based organisations and their spin-out companies, providing a wide range of IP related services. We advise creative people, not only to protect their ideas but also to help their innovative products become a commercial success.

We have offices in the UK located in London, Farnham, Edinburgh and Cambridge and international offices in Munich, Freiburg, Basel, Beijing, Shenzhen and Nanjing.

Patenting Computer-Implemented Inventions

Many computer-implemented inventions fall within a 'grey area' of what is or is not patentable: is the invention just a business application running on a conventional platform, or is there a novel technical effect? Often, the way that the invention is presented in the application is crucial to a successful outcome. We have a wealth of experience in drafting applications for computer-implemented inventions that anticipate potential objections at the UK and European patent offices.

Through our offices in Beijing and Shenzhen, we are also well-positioned to obtain software-related patents in China. Please refer to our website for further information.

Claiming Strategy

Patenting technology in the fields of telecommunications and computer architecture presents unique challenges. The easy option is to claim an overall system in its operating state, but this may lead to difficulties when it comes to licensing or enforcement. The putative infringer or licensee may be implementing only a part of a larger system. Other parts may be supplied by customers or may be offshore or there may be other reasons why a patent cannot be enforced. It is important to consider claiming inventions in a number of ways.

Not all claim types are appropriate in all circumstances. Often, for example, the transmitter will be novel, but the receiver will operate in a standard manner. Or the method of manufacture of a semiconductor is novel but the resulting device is indistinguishable from one made by an earlier method.

The European and UK patent offices do not allow an unlimited number of independent claims in one application. The US patent office is less restrictive but has high fees for additional independent claims. All these offices have restrictions on claiming more than one invention in a single patent application, but each divides the claims out in a different way. We are experienced in devising strategies for maximizing the potential scope of claims at minimum cost in each of these jurisdictions.

Standards

The field of communications is extensively standardized. We are very familiar with all the most ubiquitous standards and have drafted and obtained patents for many of these standards. We regularly compare claims against standards for purposes of:

- Prior art (is the invention new?)
- Infringement (is the patent essential to the standard?)
- Standard-essential patent disputes (rebutting the allegation that the patent is essential)
- Division and patent mining (can a claim be filed that reads onto the standard, without adding matter to the earlier-filed patent application?)

Alternative Forms of Protection

As well as patenting software, we advise on the protection of software and data through copyright, trade secrets rights and database rights and on semiconductor topography rights. Readers may not be aware that copyright can be registered in the US and in China, and there are certain tangible benefits in doing this.

Enforcement at Customs and Exhibitions

Some IP rights are easier to enforce or defend against than others. EU registered designs are quick and easy to obtain, and very useful for enforcement at customs. In Germany, for example, we can advise on enforcement or defending against aggressive claimants at exhibitions. We can advise on enforcement in UK, Germany, Europe, China or elsewhere, and we advise clients from all over the world seeking to import into Europe and the UK.

Blockchain and DLT

Blockchain is a digital, tamper-proof ledger that records previously verified transactions as a chain of unchangeable blocks which is exchanged and verified on a decentralized, distributed network.

Partner Alvin Lam describes trends in research and development activity based on the patent filing activity in the technology space, in his contribution to the book “Blockchain and the Legal Profession”. The landscape of patent applicants and owners is very diverse, ranging from Fortune 500 tech companies and banks, to start-ups and ventures at various stages of inception.

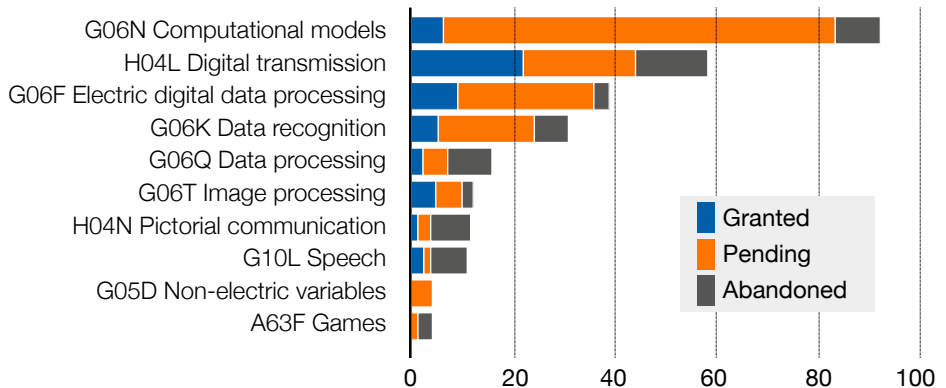
Blockchain and other distributed ledger technologies (DLT) continue to mature, with implementations and developments diverging into a growing array of applications, across several industries. Banking and FinTech continues to account for a significant proportion of the general activity in the space, but now covering a wide range of sectors in addition to cryptocurrencies, such as exchanges, stock trading, ICOs, and digital wallets, but the technology is being patented in messaging apps, voting, Internet identity & DNS, ride sharing, industrial IOT and mesh networking, cloud storage, cloud computing, energy management, and 3D printing/manufacturing among other applications.

Identifying what is patentable can be difficult, but with the right approach, it is certainly possible to secure valuable patent protection for innovations to core and applied aspects of Blockchain and DLT.

Artificial Intelligence (AI)

The 'Fourth Industrial Revolution' has brought renewed interest and activity in AI, especially in the fields of machine learning and robotics. Emerging breakthroughs present new challenges for patent prosecution, particularly where the innovation finds technicality in the algorithm or data structures involved. We will continue to be pioneers in the endeavour to successfully secure useful patent protection for our clients.

Maucher Jenkins European Patent Applications relating to Artificial Intelligence



Selected AI-related patents that we have drafted, filed and successfully prosecuted to grant for our clients include:

- **GB2517952 Biometric verification using predicted signatures**, also granted at the EPO and in the US;
- **GB2544971 Locating and tracking fingernails in images**, also granted in the US;
- **US9779356 Method of machine learning classes of search queries**;
- **US8620716 Computer system and method for detecting and processing changes in data**;
- **GB2420641 Digital medical image analysis**, also granted in the US;
- **US9864928 Compact and robust signature for large scale visual search, retrieval and classification**, pending at the EPO and the UKIPO.

We recognise that our clients' innovative contributions to the field of AI will push the boundaries of what is considered to have inventive technical merit, and we are probing all options to get enduring protection through these ever-changing times.

Electronics, IT, Software and AI Team



James Cross

Partner

Chartered Patent Attorney, European Patent Attorney, High Courts Litigator

James has been a partner of this firm for 20 years and has been recognised as a leading patent attorney by Chambers & Partners for the past 6 years and a Managing IP 'Patent Star' for the last 2 years. He is widely recognised for his ability to master complex technology and offers pragmatic, business-oriented advice.

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Hugh Dunlop

Partner

Chartered Patent Attorney, European Patent Attorney

Hugh has over 30 years of experience in the patent profession, including 13 years with Motorola, the US mobile radio and semiconductor manufacturer. While in the United States he passed the US Patent and Trademarks Office examination to be recognized to practice in the U.S. He attended the John Marshall Law School in Chicago where he was awarded a Fred Herzog scholarship and an LL.M in Intellectual Property Law.

He is a registered representative on the EPO register for over 5,000 European patent applications.

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Felix Rummler

Partner

Chartered Patent Attorney, European Patent Attorney, German Patent Attorney, European Trade Mark & Design Attorney

He entered the patent profession in 1995 following his graduation from the Technical University in Munich, after working as an engineer in the automotive industry in Munich and the aerospace industry in California.

He is the only Patent Attorney practicing in the UK or Germany to be qualified as a German, UK and European Patent Attorney.

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Based: Munich



Holly Whitlock

Partner

Chartered Patent Attorney, European Patent Attorney, European Design Attorney

Holly has a wide range of experience in patent matters, but especially enjoys inventions with mathematical content, such as signal processing, image processing, coding and classification.

Holly has recently been elected to EPI council, and as a result has direct access and influence at the EPO. She is particularly committed to supporting and encouraging other women in IP, business and STEM, and she is the Equality, Diversity and Inclusion officer for Maucher Jenkins.

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Philip Treeby

Partner

Chartered Patent Attorney, European Patent Attorney, European Design Attorney

Over the years, Phil has gathered extensive experience in prosecuting patent applications around the world. His particular interests involve developments relating to ion implanters and mobile telecommunications networks.

Furthermore, he has gained considerable experience in conducting oppositions and appeals before the European Patent Office, including appearing at oral proceedings before the Examining Division, Opposition Divisions and Appeal Boards.

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**Dr. Cornelius
Mertzlufft-Paufler**

Partner

Chartered Patent Attorney, European Patent Attorney, High Courts Litigator

As a physicist, he is primarily a point of contact in patent law matters for clients from all technical fields associated with physics, in particular mechanical engineering, medical technology, measurement technology, control technology, electrical engineering, electronics and optics. He has a particular interest in the protection of software-oriented inventions.

Cornelius has been a partner at Maucher Jenkins since 2014, having joined the firm in 2007. cornelius.mertzlufft-paufler@maucherjenkins.com Based: Freiburg, Basel, Munich



Alvin Lam

Partner

Chartered Patent Attorney, European Patent Attorney, European Design Attorney

Alvin has a joint degree in Artificial Intelligence (AI) and Computer Science, and entered the patent profession in 2001, amidst the developing landscape of patentability of computer and software related inventions in the UK and Europe. He advises and secures patent rights for clients both in the U.K. and internationally.

He has recently contributed to a book on blockchain and its effects on the legal industry - 'Blockchain and the Legal Profession' published by ARK Group. Clients comment that he has "an astonishing recall of patents filed and comparative laws" and "his technical knowledge is without equal in patent work on AI, AR and machine learning."

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Handong Ran

Partner

Chartered Patent Attorney, European Patent Attorney, Chief Representative (China)

Handong previously worked as an IT analyst at IBM China and a research assistant in Institute of Cell and Molecular Science at Queen Mary & Westfield College, University of London.

Handong joined Maucher Jenkins in 2006 and qualified as a Chartered Patent Attorney and a European Patent Attorney in 2010. Handong is also a qualified Chinese patent attorney and attorney-at-law.

Handong works in Mandarin, English and has a good understanding of Japanese.

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Prof. David Musker

Consultant

Chartered Patent Attorney, European Patent Attorney, Chartered Trade Mark Attorney, European Trade Mark & Design Attorney, Higher Courts Litigator

David worked in-house in government and the telecommunications industry before joining Maucher Jenkins, where he was a partner for many years.

He specialises in registered and unregistered designs, but also has patent expertise in a number of sectors including communications, signal processing, computing and business-oriented subject matter. He is also a qualified trade mark attorney.

David is a Professor of International Design Law at Queen Mary University of London, and has lectured at Oxford and Bristol Universities, ETH, Zurich; and CEIPI, Strasbourg. He is a former Chairman of CIPA's Designs and Copyright Committee, and former President of UNION's Design Commission.

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Alec Clelland

Consultant

European Patent Attorney

Alec was appointed to the European Patent Office (EPO) Boards of Appeal in 1990 and spent many years in Board 3.5.1, which hears most appeals in the computer-implemented inventions field. For almost 10 years he was chairman of Board 3.5.3, which deals with telecoms and control systems.

In recent years he has also been chairman of the Professional Development Committee of the Boards of Appeal and has been responsible for the training of many of the present Board of Appeal members. He retired from the EPO in April 2013. He is a European Patent Attorney and a Fellow of the Institution of Engineering and Technology (formerly the IEE).

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