Understanding innovation & steeped in IT & anticipating change & cracking the code & advice you can trust & in it from the start & that’s IT with Bird & Bird
Big Data

The incredible and continuous production of structured and unstructured digital data, which is being generated by the widespread use of digital devices and online systems, is pushing business to define Big Data strategies. Machines, devices and networks are constantly producing quantities of data which is often simply too voluminous for the human interface to take into consideration. Increasingly, in the business context, the data itself turns out to be the core asset of business transactions. The Big Data revolution is turning into a major point of interest for CIOs and data management is increasingly a focal point of attention at board level. Providers of software solutions are growing exponentially in this dynamic segment of the IT industry, with smart innovators competing against large multi-nationals to provide scalable and integrated Big Data solutions.

Bird & Bird draws on a deep understanding of the impact that Big Data has throughout the entire value chain of technology-based service offerings. Bird & Bird’s International IT Sector Group is following closely some of the major and most advanced providers of Big Data projects, and is perfectly positioned to advise on the legal issues around complex Big Data solutions, both in the private and the public sector. From common propositions for Big Data solution providers right up to cutting-edge innovators dealing with coding methodologies that ensure data categorisation and analysis, Bird & Bird has leading expertise and insight into the industry on a broad scale.

Our lawyers are frequently engaged in government and industry initiatives dealing with the legal ramifications and regulatory demands of Big Data, including questions of standardisation and data management programmes. Further, Bird & Bird draws on considerable practical experience in dealing with Big Data on an international basis, including coordinated project management outside of the jurisdictions where it has its own offices.

What is Big Data?

“Big data” refers to datasets whose size is beyond the ability of typical database software tools to capture, store, manage, and analyse. This definition is intentionally subjective and incorporates a moving definition of how big a dataset needs to be in order to be considered big data—i.e., we don’t define big data in terms of being larger than a certain number of terabytes (thousands of gigabytes). We assume that, as technology advances over time, the size of datasets that qualify as big data will also increase. Also note that the definition can vary by sector, depending on what kinds of software tools are commonly available and what sizes of datasets are common in a particular industry. With those caveats, big data in many sectors today will range from a few dozen terabytes to multiple petabytes (thousands of terabytes).

McKinsey Global Institute
This firm is among Europe’s leading names for data protection, and also has a strong share of the Asian market. The cross-border team acts on a broad range of contentious and non-contentious issues, and is often sought out for its expertise in international compliance projects. Sources say: “The data lawyers we deal with are very knowledgeable at the individual country and regional levels.”

Chambers Global 2013
Quite obviously, the exponential growth of data volumes is one of the drivers of the increasing global demand for data centres and related services. Bird & Bird’s International Data Centres working group draws on a unique international experience in advising on the legal issues throughout the life cycle of data centres and the procurement of data centre services. We work on overarching strategy, including country selection and corporate finance, through site acquisition and development, on to the operational issues, including end-user contracts and facilities maintenance.

Big Data & Innovation

Big Data is likely to boost innovation throughout software companies, service providers, internet-based businesses, all the way up to large holders of Big Data. With its deep industry knowledge, Bird & Bird has an exceptional track record in advising cutting edge technology companies to exploit innovation throughout the business cycle, including corporate, financing, employment and regulatory matters, throughout their international expansion, and protecting their key assets - people and intellectual property. Bird & Bird’s understanding of computer-implemented inventions (Software Patents), advising on strategic portfolio build and protecting their market position as part of their growth strategy, can benefit companies that aim to forefront innovation around Big Data.

Big Data & Open Data & Public Sector

The Open Data movement and governments around the world, including the EU, are committed to make data publicly available and usable.

The EU’s current review of the Public Sector Information Directive 2003/98/EC aims at unlocking the potential of Big Data held and accumulated by government authorities - both with regard to the public sector itself leveraging the potential and efficiencies that come along with a Big Data strategy, as well as to enable innovators and private enterprise to access Big Data held by public authorities. Bird & Bird’s vast experience in technology matters regarding the public sector is a key asset in helping both government as well as private enterprise to exploit the potential that lies with Big Data made available publicly.

Public entities generate and hold enormous amounts of data which in many cases are sensitive or confidential in nature. Government and public institutions have an inherent interest in managing carefully this large amount of data, both to improve their performance and generate savings that allow for much sought-after spending cuts, but also to be able to provide open data to their citizens and business entities.

Big Data management is an important asset for the public sector to better conduct its public mandate as well as distribute knowledge and information to the public, empowering citizens and business with open data and information.

We are at the forefront of this data revolution and capable of providing strategic advice, both to private and public institutions for the best integration of their data strategies.

Big Data & Data Ownership

Given that access and use of Big Data is proving to be pivotal to future business success in many sectors, one of the central questions is whether and to what extent companies can or will claim proprietary rights in Big Data. “Who owns the data?” is an increasingly relevant, yet largely unresolved question, whereas the answer - “nobody can own Big Data” may not solve the issue. Can anyone use data that is publicly available, and/or is it possible to claim ownership rights in structured data? Does the answer change for a massive accumulation of data entries, even if it remains largely unstructured? Does the law offer sufficient protection where Big Data is exploited in a proprietary manner? Does the protection under the various trade secrets laws help?

Bird & Bird is at the forefront of legal advisers developing solutions and practical guidance that enable users of Big Data to achieve the commercial advantages they aim for in exploiting Big Data.

Proper evaluation, protection and ownership identification of data can be essential in particular in crisis and insolvency situations; evaluating and assessing ownership of data is an essential step for determining the value of a company or of its assets in case of bankruptcy. Bird & Bird's Insolvency and Restructuring Group has a unique understanding of the implications that technology issues have in insolvency and crisis management.
Big Data & Database Licensing

One of the possible forms of legal protection for Big Data is the sui generis database right. Where an investment is made into systematically or methodically arranging data (which could include Big Data), a database right might exist which provides legal protection for those that have made that investment to prevent third parties from commercially exploiting and transacting with the Big Data. Bird & Bird draws on vast experience in advising on the requirements for database protection, as well as determining where these rights cannot be invoked.

Big Data & Copyright

Traditional copyright laws have struggled to deal with new technologies and digital content distribution methods. The new Big Data search and analysis tools that could result in an infringement of the copyright in this data, raise further challenges.

Bird & Bird is recognised as one of the leading firms worldwide in intellectual property protection, with a unique experience in drawing the interconnections between copyright law, innovative technology and digital and on-line content and delivery methods, setting us at heart of any Big Data strategy where sets of data could be protected by copyright laws.

Big Data & Data Protection

While Big Data is not limited to data protection issues - in many instances personal data plays no role at all - privacy concerns are nevertheless an important factor in any Big Data strategy. The multitude of sources feeding into Big Data, related issues of data controllership and the applicable law result in regulatory complexities which are very difficult to resolve, including heterogeneous requirements on data security. The controversial areas of user sentiment and social data analysis, cross referencing and mixing of data obtained from diverse sources trigger high demands for a safe and secure legal framework that can protect both data users and suppliers.

Bird & Bird’s International Data Protection Group is one of the largest data protection groups in any law firm, with members present in all our offices, that deals with numerous issues in cutting-edge technology markets, and is ideally placed to advise on the challenges of any Big Data strategy, both on the side of Big Data solutions providers, as well as in favour of Big Data corporate users.

Big Data & Security Breaches

A number of European jurisdictions have implemented regulations requiring remedial action in case of security breaches, to an extent following the regulations on security breaches as enacted in the United States.

Bird & Bird draws on profound experience in dealing with security breaches on an international basis, including coordinated project management outside of the jurisdictions where it has its own offices, including the United States. Based on that experience we provide strategic advice on balancing risk and leveraging the regulatory constraints in data processing agreements and other service arrangements with an explicit exposure to data security breaches.

Big Data & Corporate Transactions

Many jurisdictions are only now waking up to the fact that their legal systems do not provide sufficient guidance on the proper protection of Big Data. In any corporate transaction the accurate assessment and due diligence analysis of the proprietary rights in relation to data owned or used by the entities involved, will become one of the key areas of review.

The dynamic growth of Big Data software solutions and architectures is driving start-ups to seek financing and results in more advanced companies becoming targeted and acquired by large multi-national players. Bird & Bird draws on highly specialised expertise in dealing with finance and corporate transactions in the IT sector, which allows us to drill down to the critical points of any transactions with much greater efficiency than many of our competitors, as well as to make available to our clients our in-depth industrial insight and contacts in the markets. Our expertise spans the financial lifecycle of Big Data software companies, from start-up to exit.

Given that Big Data is turning into a key asset, it is obvious that data ownership and the right to access databases must increasingly be taken into consideration when entering into M&A transactions or selling assets and businesses. The value of an organisation could be substantially increased where it actually owns, has access to and is capable of using and analysing Big Data in compliance with the law. On the other hand mismanagement of data can lead to civil and criminal liability as a result of violations of data protection, copyright or property rights. Bird & Bird adds value to any transaction by analysing the relevant legal framework and assessing the real position of any organisation that is using or will use Big Data.
Big Data & Open Source

Some of the most stable, trusted and technologically advanced Big Data solutions, including Apache Hadoop, are developed and run on the basis of open source software. The open source licensing provisions and limitations raise specific issues around risk and risk assessment for developers, as well as users of such products and solutions. Bird & Bird has specialised experts in practically all of its jurisdictions dealing with open source issues and providing strategic advice on risk optimisation and building the appropriate strategies, both on the distribution as well as on the procurement side. We help develop open source policies, carry out due diligence on IT assets and analyse the interactions and ramifications between open source and proprietary software and provide strategic advice for open source projects for Big Data applications.

Big Data & Standardisation

A complex global networked environment demands security and interoperability at all levels. In line with a holistic approach to information systems, software development and deployment need to meet industry standards for resilience, reliability and interoperability. At Bird & Bird, we have profound experience in any licensing, contractual or intellectual property issues that may arise from the compliance with standards, the development and protection of standards, interoperability, reverse engineering, and R&D.

We collaborate with and provide legal counselling to clients, industry associations and government organisations in creating and managing standards and with regulatory and scientific research bodies to study standardisation of IT, Cloud and Big Data architectures and tools.

Big Data & Antitrust

To the extent companies hold Big Data that are indispensable for the implementation of certain business models they may be confronted with requests to grant third party access to their data. Refusing third party access to such data or discriminating licensees of such data may constitute an illegal abuse of the Big Data holder’s dominant position and could result in civil litigation and significant fines. Bird & Bird’s EU & Competition Group has a strong reputation in providing cutting-edge advice on competition law issues in technology markets and has extensive experience in advising and representing clients in litigation or administrative proceedings regarding abusive conduct in technology markets.

Big Data & Taxation

The evaluation of the ownership, asset value and transactional value of Big Data is yet to be developed within the frame of local taxation regimes. Bird & Bird’s International Taxation Group is known for its ability to think through the tax aspects arising within innovative technology companies. Our expertise includes a broad range of tax matters pertaining to Big Data, Data Centres and e-commerce, such as VAT, transfer tax, transfer pricing and tax incentives.

Exceptional TMT group, particularly well regarded in the UK, Germany, Spain, Italy and the Netherlands. The team has an excellent reputation in this sector, supported by the firm’s commercial and intellectual property practices. At the forefront of developments in data centres, cloud computing and agile software.

Chambers Global 2014
How big is Big Data?

2.7 zettabytes of digital content produced in 2012, it is predicted that 7.9 zettabytes will be produced in 2015.

Mobile

The United Nations claims that there are over 6 billion mobile phone subscriptions in the world.

Digital content

2.7 zettabytes of digital content produced in 2012, it is predicted that 7.9 zettabytes will be produced in 2015.
Structured information

Structured Information relates to data in databases. While the 90% of data categorised as unstructured covers emails, videos, social media interaction, CCTV footage, mobile phone calls, website clicks and anything else which could be considered “Human Information.”

90% of Big Data is unstructured

2.2 million Terabytes of new data is created every day

24 Months Ninety percent of the data in the world today was created in the last two years

976,000,000 Google results for “What is BIG Data”?

In every internet minute there are:

- 47,000 App downloads on iTunes
- 1.3 million YouTube video views
- 277,000 Facebook logins
- 100 New LinkedIn accounts
- 20 Million Flicker views
Big Data & Business

Businesses throughout numerous sectors are just beginning to discover the potential that lies in Big Data.

Bird & Bird is known for its industry knowledge, its international reach and its excellence in client service. We are ideally placed to discuss and advise on the legal implications, for example, in regard to the following:

**Big Data & Automotive**
- Collection and analysis of data from vehicles and usage to improve design and customer experience
- Improvement and enhancement of driver and passenger experience using driver behavioural analytics (sensors, navigation tools, telematics, apps, weather forecasting). Creation of feedback and suggestions, instructions, monitoring of erratic behaviour, preventing accidents and roadblocks
- Parts forecasting and distribution, studying warranty trends by geography and season, plus predictive maintenance and performance problems. Improvement of inventory effectiveness, distribution and supply chain efficiency. Costs reduction and greater partner and customer satisfaction
- Predictive maintenance, by on-board sensor generated data to flag abnormal events immediately and commencement of problem solving
- Enhancing product performance. Analysis of actual functioning of design solution to aid product improvement and modification
- The automatic vehicle, self driving and controlling other parameters (in agricultural or mining or other services)
- Use of internally generated data, external and social networks data, vehicle sensors generated data
- Warranty analysis, predicting warranty costs and liabilities by integrating consumers' comments (internal and external), dealer service notes and existing warranty claims data

**Big Data & Banking & Finance**
- Promoting financial products and services in a targeted manner
- Banking exposure calculation and portfolio analysis
- Customer sentiment analysis and evaluation
- Collection of spending patterns and purchasing history for onward distribution
- Risk assessment of potential customers
- Predicting and recovery of bad debt
- Market stability - facilitating compliance with regulation
- Risk management and fraud detection

**Big Data & Energy**
- Analysis of consumer usage patterns, improving efficiency and enabling demand side management models and peak pricing
- Optimisation of grids and energy supply networks, allowing networks to deal with greater volatility in energy supply from renewables and domestic generation
- The advent of smart building technology through the installation of sensors and tools to improve efficiency as well as safety
- Smart meters, smart cities and smart grids are built around a coherent strategy that uses data to deploy technology and unlock investment where it generates most effect
Big Data & Healthcare
• Assess products and therapies already in use by observing drug safety, comparing product effectiveness, assessing health economics and designing pay-for-performance criteria
• Characterise diseases and patient population by understanding epidemiology trends, treatment patterns, patients’ adherence to care plans and disease management opportunities
• Develop new products and therapies by assessing use of competitive products in the market, designing inclusion and exclusion criteria for clinical trials, performing predictive models on virtual trials, identifying patients for recruitment and identifying unintended uses and indications
• Develop public and private healthcare solutions that optimise the use of healthcare infrastructure (such as hospitals) in combination with technology enabled care in the community and telehealth technology

Big Data & Logistics
• Integration of retail data such as customer preferences, promotional initiatives, warranty information and other sale data with shipping and logistic organisation to optimise deliveries and to target sales at specific locations
• Real time logistic operation for delivery optimisation, same day delivery for on-line retailers
• Utilisation of detailed address and geo-location data to enhance delivery planning and increase delivery efficiency
• Times, temperature, integrity of loads data for safer and controlled shipment
• Vehicles, trains, planes and ships monitoring for travel optimisation and prediction of delivery and goods conservation
• Warehouse, stock and parcels monitoring and real time geo-location, courier and transportation pattern analysis and optimisation

Big Data & Insurance
• Allowing premiums to better reflect risk profile of insurance coverage
• Risk analysis and fraud detection
• Study of historical, geographic and meteorological data to determine risks in pricing for catastrophic events
• Ascertaining customer behaviour in the context of claims
• Collating health data from various sources to incentivise and reward good customer behaviour in the context of medical and life insurance
**Big Data & Retail**

- Customers knowledge and spending capacity analysis, including through utilisation of “loyalty card” data
- Customers preference and recommendation engines
- E-commerce and m-commerce sites visit tracking and view logs and associated targeted advertising
- Mobile applications used by customers, partners and employees
- Personalisation of shopping experience by using smart carts, smartphone apps or rfid codes to help building the perfect shopping list, help navigate through stores and offers, give suggestions based on personal preferences real-time shopping, coupons suggestions, customer budget optimisation
- Physical stores customer behaviour tracking software and data interpretation
- Retailers transforming into trusted shopping advisors providing benchmarking, balance and savings data, trends, recommendation, budget analysis and limitations
- Real time geo-location offerings and sales

**Big Data & Telecommunications**

- Enabling technology to ensure the transmission and processing of Big Data, raising potential issues around network management, net neutrality, data processing and export
- Optimisation and strengthening of mobile and fixed network service offerings to sustain the generation, collection and transmission of Big Data and the internet of things
- Subject to regulations, Big Data technology could enable operators and carriers to analyse customer behaviour in real time with higher speed and efficiency than before, opening opportunities for new, additional services
- Big Data analytics and geo-location data are one of the key drivers for a multitude of future applications

**Big Data & Social Media & Advertising**

- Understanding the sentiment of the public and the interests of the users and their real-time reaction to promotional messages, specific content and social media offerings
- Analysing the nexus of social media content and activities and the responsiveness of users and the public to marketing campaigns and sales offerings
- Big Data analysis regarding the use and interpretation of mass social communication and interaction, enabling brand marketers to engage more efficiently with the public on social media
- Coordinating social media messages as a marketing campaign; using Big Data for effective viral marketing
- Use of advanced analytic techniques such as natural language processing, semantic analysis, machine learning and cluster analysis to understand the true consequences of any marketing action online
Information technology

Bird & Bird’s expertise in the field of information technology is driven by its deep industrial knowledge of business processes and innovation. Universally recognised as market leaders in the information technology sector, the Chambers Global legal directory currently ranks Bird & Bird as the leading technology law firm in Europe and Asia and amongst an elite group of five globally.

We provide the full range of legal services required by IT businesses and for the users of IT. Our in-depth knowledge of the IT marketplace built up through our dedication to this area over many years means that our legal advice enhances the business and technology objectives of our customers. We are a trusted advisor to many of the most valuable tech companies in the world.

With our team of over 150 specialist IT lawyers based across our 26 international offices we advise international corporations, local businesses and public sector entities who seek consistent and high quality legal advice across Europe, Asia, and the Middle East. We are also increasingly working in emerging territories including Africa, Russia and South America.

Our highly flexible and individualised approach to providing legal solutions is driven by an in-depth understanding of our clients’ strategic goals and objectives. Key areas of our IT practice include the support of strategic outsourcing and systems implementation, global and local software distribution, the support of fast growing and innovative tech companies, technology disputes, data centre developments and rationalisations.

We have a range of focus areas where we provide thought-leadership on IT-related legal developments. These include cloud services, agile development methodologies, big data, M2M and the internet of things, cyber and IT security, open source and open data, 3D printing, advanced robotics, next generation genomics and software patentability.

Our clients confide in us to take advantage of pioneering, highly complex technology, in order to stay ahead against their competitors - we stand at their side by assessing the legal risks and helping to safeguard their interests.
Case study: Monitoring internet traffic

“Challenged a ruling that obliged ISPs to monitor and filter all traffic on their networks.”

Bird & Bird successfully challenged a ruling which obliged Internet Service Providers (ISPs) to monitor and filter all traffic on their networks. Previous cases concentrated on ISPs’ attempts to reduce copyright theft but Bird & Bird challenged the idea that ISPs should be responsible for policing. We argued that monitoring all content would infringe internet users’ privacy and freedom.

We won our client’s case in the Court of Justice of the European Union (CJEU) in November 2011. The ruling made clear that an ISP cannot be ordered to deploy a generalised filtering system on its network in order to monitor rights infringements.

The Scarlet case was, due to our intervention (Bird & Bird replaced the initial lawyers instructed, due to a negative ruling in first instance), referred and pleaded before the CJEU. This matter was therefore followed by Internet Service Providers and content providers all over the world. The CJEU ruled on 24 November 2011 a decision whereby it confirmed that an order to an Internet Service Provider to operate a general system for filtering and blocking electronic communications - as requested by the Belgian society of authors, composers and publishers - is inconsistent with EU law. The terms of this widely commented decision are in accordance with the pleas we have defended on behalf of Scarlet.

Only a team with deep understanding of IT and telecoms and extensive European expertise in the range of practice areas we used to make our arguments could have brought about this result for Scarlet. What is more, only a firm internally structured to allow partners to easily draw on this wide range of expertise could have delivered the outcome achieved.

The impact of the case has been widespread. Since the ruling, actions from rights holders in various countries including Netherlands, France, Belgium and Denmark now do not request that ISPs should be proactive in blocking and censoring but merely make specific requests to block websites.

Our innovation has therefore protected ISPs from onerous responsibilities that could have made the industry’s current business model untenable.

Case study: International data centres projects

“Development of international cross-sector and legal practices to become the go-to firm for data centres.”

Bird & Bird advised a preeminent global IT services provider on all legal aspects of the acquisition of a major industrial site in the Nordic region and the development of the site into one of the client’s main global data centres. The project included the acquisition of the site, various easements for the purposes of developing and operating the facility, addressing various environmental and permitting issues. We drafted and negotiated the suite of construction agreements, as well as dealing with issues related to the power and fibre connections necessary for converting the site and operating it as a data centre.

The project demonstrates our capability to deliver a substantial data centre project and demonstrates how we routinely combine knowledge of local issues within an international context.

The impact of Big Data on Data Centres

Emerging disruptive technologies such as cloud and social media are creating increased volumes of unstructured and semi-structured “big data”.

The management of such unstructured data is vital from not just a business point of view, but also to ensure that the business is compliant with data protection regulations. As big data adds pressure to data centres, capacity planning also becomes an issue specifically in relation to archives, digital images, analytics applications and data on virtual machines.

For over twenty years, Bird & Bird has been advising on data centre projects, working with developers, investors, operators, suppliers and end-users to provide expert commercial and legal advice throughout the lifecycle of their data centre projects.

Our extensive track record of advising on data centre and IT infrastructure projects, for a broad range of clients, puts us at the forefront of technical real estate projects. We are recognised industry leaders in providing legal services to the ICT sector, operating at the cutting edge of developments relating to the data centre community, including cloud computing, big data and energy efficiency.
Case study: Smart meters roll-out across Great Britain

“Smart meters give households the data to take control of their energy consumption and the country better data to develop its energy policy.”

A multi-disciplinary team of lawyers in London has been advising the UK Department of Energy and Climate Change (DECC) on the procurement of a series of major technology contracts on behalf of the energy industry worth £2.2bn.

Providing for the roll-out of 53m smart meters to homes and small businesses across Great Britain, the Smart Meters Programme is the most significant change in the British energy market since the conversion to North Sea gas in the 1970s. Most households in Britain will have smart gas and electricity meters installed by 2020.

DECC appointed Bird & Bird in August 2011 to advise them on how the UK Government could procure new IT and communications services for the energy sector in Britain to underpin its Smart Meters Programme. Our role required close teamwork with DECC over a period of two years and drew on the experience and expertise of many of our practice and sector groups in Bird & Bird. Together with DECC we:

• devised a procurement strategy for these ICT services mapped against a series of hard Programme milestones but with sufficient flexibility to reflect the new regulatory framework that DECC was (and continues to be) developing; and
• created and delivered a series of robust IT and telecoms contracts that a separately tendered private sector entity, the Data & Communications Company (or DCC), will manage on behalf of the energy industry in Britain ensuring the flow of data to and from smart meters.

Using our experience in IT and project management, we worked closely with DECC in developing a structure that would allow the new DCC to manage a diverse and complex set of services. Given the rapid technical developments in the field of smart metering and the need for the Programme to be handed over to industry in time for mass roll-out, we also devised mechanisms to allow for technical changes and innovation to be incorporated without the need for substantial renegotiation.

External recognition for innovation

The international team, lead by our Brussels office, which advised on the Scarlet ISP case was commended in the 2012 FT Innovative Lawyers Report for “Most innovative law firms in dispute resolution”. Bird & Bird argued that the principle of net neutrality gave ISPs greater obligations to provide an affordable service and protect their customers’ rights than to assert the rights of intellectual property owners.

Our cross-sector and multi-practice Data Centres team was commended in the “Most Innovative Law Firms in Corporate Strategy” category of the 2013 FT Innovative Lawyers Report, describing Bird & Bird as “the go-to international firm for data centres projects”.

Our work on the DECC Smart Meters project was amongst the matters shortlisted for the 2014 Legal Business Awards.
Country contacts

Alexander Duisberg, Germany
Co-Head of the International IT Sector Group
Tel: +49 (0)69 3581 6239
alexander.duisberg@twobirds.com

Roberto Camilli, Italy
Senior European Counsel
Tel: +39 02 30 35 8000
roberto.camilli@twobirds.com

Anne Federle, Belgium
Partner
Tel: +32 (0)2 282 6099
anne.federle@twobirds.com

Maciej Gawronski, Poland
Partner
Tel: +48 22 459 7911
maciej.gawronski@twobirds.com

Michelle Chan, China
Partner
Tel: +852 2248 6111
michelle.chan@twobirds.com

Roelien van Neck, The Netherlands
Partner
Tel: +31 (0)70 353 8828
roelien.van.neck@twobirds.com

Vojtech Chloupek, Czech Republic and Slovakia
Associate
Tel: +420 226 030 518
vojtech.chloupek@twobirds.com

Chia Ling Koh, Singapore
Partner
Tel: +65 6428 9847
chialing.koh@twobirds.com

Martin von Haller Grønbæk, Denmark
Partner
Tel: +45 39 14 16 16
martin.vonhaller@twobirds.com

Javier Fernández-Samaniego, Spain
Partner
Tel: +34 91 790 6010
javier.fernandez.samaniego@twobirds.com

Marc Schuler, France
Partner
Tel: +33 1 42 68 6719
marc.schuler@twobirds.com

Fredrik Ahlesten, Sweden
Associate
Tel: +46 (0)8 506 320 54
fredrik.ahlesten@twobirds.com

Bálint Halász, Hungary
Associate
Tel: +36 1 799 2016
balint.halasz@twobirds.com

Kelly Tymburski, UAE
Partner
Tel: +971 2 6108 100
kelly.tymburski@twobirds.com

Roger Bickerstaff, UK
Co-Head of International IT Sector Group
Tel: +44 (0)20 7415 6160
roger.bickerstaff@twobirds.com

Follow us @TwoBirdsIT

This document gives general information only as at the date of first publication and is not intended to give a comprehensive analysis. It should not be used as a substitute for legal or other professional advice, which should be obtained in specific circumstances.