Transfer of state-of-the-art technology to China is one of the pillars of present Chinese development towards becoming an innovation-based economy. Such transfer is subject to a special regulatory framework in China that qualifies technology as prohibited, restricted or encouraged. If a technology is qualified as restricted, the technology company must first secure an import licence before the technology agreement is legally valid. Royalty fees and technical service fees cannot be remitted abroad if the technology agreements are not properly registered with the relevant Chinese government agencies.

European companies are advised to first develop a transfer strategy and protect themselves against losing control and ownership. Several transfer models are discussed in this guide. Apart from sale and transfer of technology ownership or providing a licence for technology usage, technology can also be contributed as registered capital of Chinese enterprises. If technology is contributed as registered capital, exclusive ownership is attributed, and the transferor loses ownership.

Technology transfer agreements should be in writing. Certain contract clauses are prohibited by Chinese law and render the agreements invalid. In addition, particular attention should be given to legal arrangements of ownership to any improvements made by the Chinese party to the transferred technology, as well as the rights to the transferred technology after the transfer agreement terminates.

Sino–foreign joint research and innovation agreements have increased dramatically in recent years. Ownership models, research results in commissioned development contracts and cooperative development contracts are all discussed in this guide.

Reverse engineering is allowed in China, but trade secrets are protected by law. Transferring technology that can easily be reverse-engineered and is not secured by a Chinese patent is subject to potential legal copying by Chinese competitors.
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1. Introduction

The Chinese government stimulates domestic innovation through incentives for companies (and employees) to innovate locally and to import and absorb foreign state-of-the-art technologies. The policy’s goal is to increase high value-added production in China and build an innovation-driven economy by 2020.

Chinese firms have an impressive ability to absorb and re-innovate inventions and technologies. Former “Shanzai” companies – producers of copied products – have developed into innovative companies with globally available products. Yields are generated through process innovation (improving factory and distribution systems) and product innovation (adapting existing goods to China’s unique requirements).

China applies a quid pro quo policy: access to China’s domestic market in return for access to new technologies. The long-term objective is to strengthen domestic market players and increase China’s domestic industry share of the high-tech market.

These dynamics create opportunities for European SME’s to exploit their technology in the Chinese market. At the same time, it poses substantial risks if these technology transfers are not well structured and documented. In brief the pros and cons are:

1.1 Opportunities

- Access to China’s domestic market;
- Financial and tax incentives and subsidies, in particular with respect to China’s “encouraged” industry sectors;
- Reputational/relational benefits with central, provincial and local governments as technology transfer is a way to demonstrate commitment to China.

1.2 Risks

- The Chinese recipient of the technology can exploit the technology beyond the agreed scope of the technology transfer agreement;
- Know-how can be disclosed to third parties;
- Employees of the transferee who have access to the technology can seek employment with a competitor or establish a new competing company;
- The Chinese partner can refuse to perform audit and information disclosure obligations, leading to lower royalty payments;
- If technology is successfully absorbed by the Chinese party, the transferor is permanently shut out of the Chinese market.

Case study - Goldwind’s development (wind turbine manufacturing)

Goldwind is one of China’s largest wind-turbine manufacturers. It owes much of its success to supportive government policies and transfer of technology from foreign companies, including financial support.
In 1989, a Danish wind-turbine manufacturer partnered with Goldwind and transferred its technology to construct 150 kW wind turbines. In 1996, a German supplier transferred technology as part of China’s national key technology and research program. Another German supplier licensed 750 kW wind-turbine technology to Goldwind in 2001.

In 2005, the National Reform and Development Commission required that 70% of wind turbines be produced domestically in order to qualify for government tender projects. This encouraged foreign manufacturers to start producing locally in China.

To date, no foreign wind-turbine manufacturer has won a concession tender. Foreign companies that supported Goldwind have not gained a substantial presence in China. Therefore, sharing technology and producing locally will not automatically open doors to the Chinese market – in particular, not in economic sectors that depend on government procurement.

This example might explain why China has not signed the WTO Government Procurement Agreement (prohibiting government companies and entities from discriminating on the basis of nationality). China’s government procurement supports indigenous innovation.

Foreign companies deciding to transfer technology to China should be fully aware of the regulations covering technology transfers and the application of China’s legal framework.
2. **Technology transfer definition**

The Chinese technology transfer laws and regulations regarding transfer of ownership or the transfer or exploitation or usage rights include:

- Chinese patents: patent application or a patent registered with State Intellectual Property Office (SIPO), the Chinese Patent Office. This can be an invention patent, a plant variety right, a utility model or a design patent;
- Trade secrets: technology or business information unknown to the public that can bring commercial benefits and is protected by the owner with confidential measures.

The following contracts are covered by the Chinese technology import and export regulations:

- Assignment of patent rights;
- Assignment of patent application rights;
- Patent licences;
- Know-how transfer;
- Know-how licence;
- Assignment of computer software (source code);
- Computer software licence;
- Licence or assignment of trademarks involving licensed patents or know-how;
- Technology consulting;
- Technical services;
- Cooperative design;
- Cooperative research;
- Cooperative development;
- Other agreements of similar nature.
3. Prohibited, restricted and unrestricted technology import & export

China has divided foreign related technologies transfers into three categories:

- Import-prohibited;
- Import-restricted;
- Non-restricted technologies.

Technology classified as prohibited or restricted from import to China could be unrestricted for export and vice versa. The technologies are listed in catalogues that are public and regularly updated. It is important to consult these catalogues before undertaking a technology transfer.

The catalogue of import and export prohibited and restricted technologies can be found on the following website of MOFCOM:


The numbering in this list is systematic: The first two digits represent the year, the second two digits represent the classification, the last two digits represent the technology name, and the letter at the end represents the control level, where “J” signifies that import is prohibited and “X” signifies that import is restricted.

Examples of each category for technology import to China are set out below.

3.1 Import

3.1.1 Prohibited

<table>
<thead>
<tr>
<th>Number</th>
<th>Category</th>
<th>Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>052601J</td>
<td>Chemical materials</td>
<td>Pesticide production technology</td>
</tr>
<tr>
<td>052701J</td>
<td>Manufacture of medicine</td>
<td>Process for medicine with cork and wax packaging</td>
</tr>
<tr>
<td>053202J</td>
<td>Manufacture &amp; processing of ferrous metals</td>
<td>Second-hand equipment and technology for production and rolling of iron and steel</td>
</tr>
<tr>
<td>Number</td>
<td>Category</td>
<td>Technology</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>053309J</td>
<td>Manufacture &amp; processing of non-ferrous metals</td>
<td>Gold extracting through amalgamation processing</td>
</tr>
<tr>
<td>053701J</td>
<td>Manufacturing transport equipment</td>
<td>Gasoline engines with output per litre of less than 50 kW/diesel engines with output per litre less than 40 kW</td>
</tr>
<tr>
<td>053904J</td>
<td>Manufacture of electronic machinery &amp; equipment</td>
<td>Battery manufacturing technology containing mercury, alkali and manganese</td>
</tr>
<tr>
<td>053905J</td>
<td>Manufacture of electronic machinery &amp; equipment</td>
<td>Cooling technology using CFC as cooling agents</td>
</tr>
</tbody>
</table>

### 3.1.2 Restricted

<table>
<thead>
<tr>
<th>Number</th>
<th>Category</th>
<th>Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>051401X</td>
<td>Manufacture of foods</td>
<td>Genetic engineering technology for ferment production</td>
</tr>
<tr>
<td>052607X</td>
<td>Manufacturing of chemicals</td>
<td>Paint production technology</td>
</tr>
<tr>
<td>053606X</td>
<td>Manufacture of special purpose machinery</td>
<td>Feedstuff extrusion and expansion equipment and technology</td>
</tr>
<tr>
<td>053609X</td>
<td>Manufacture of special purpose machinery</td>
<td>Plastic mould design and manufacturing technology</td>
</tr>
<tr>
<td>053701X</td>
<td>Manufacture of transport equipment</td>
<td>Technology for vehicle engines (output per litre less than 30 kW and size more than 3 litres)</td>
</tr>
<tr>
<td>053904X</td>
<td>Manufacture of electronic machinery &amp; equipment</td>
<td>Generator manufacturing technology</td>
</tr>
<tr>
<td>056801X</td>
<td>Banking</td>
<td>Anti-counterfeiting technology and process for printing CNY</td>
</tr>
</tbody>
</table>

### 3.2 Export

#### 3.2.1 Prohibited

<table>
<thead>
<tr>
<th>Number</th>
<th>Category</th>
<th>Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>050301J</td>
<td>Animal husbandry</td>
<td>First-level animal husbandry variety breeding technology</td>
</tr>
<tr>
<td>050901J</td>
<td>Non-ferrous metal mining</td>
<td>Ionic type rare earth ore mining technology</td>
</tr>
<tr>
<td>Number</td>
<td>Category</td>
<td>Technology</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------</td>
<td>--------------------------------------------------------------</td>
</tr>
<tr>
<td>052701J</td>
<td>Medicine manufacture</td>
<td>Caffeine manufacturing techniques</td>
</tr>
<tr>
<td>053601J</td>
<td>Special purpose equipment manufacturing</td>
<td>Gunpowder, tea &amp; flat tea processing technology</td>
</tr>
<tr>
<td>054001J</td>
<td>Communication, computer &amp; electronic equipment manufacturing</td>
<td>Integrated circuit manufacturing techniques</td>
</tr>
<tr>
<td>058501J</td>
<td>Hygiene</td>
<td>Traditional Chinese medicine (TCM) medical technology</td>
</tr>
</tbody>
</table>

### 3.2.2 Restricted

<table>
<thead>
<tr>
<th>Number</th>
<th>Category</th>
<th>Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>050201X</td>
<td>Forestry</td>
<td>Forest tree germplasm resources and breeding technology</td>
</tr>
<tr>
<td>050301X</td>
<td>Animal husbandry</td>
<td>Second-level animal husbandry varieties breeding technology</td>
</tr>
<tr>
<td>052604X</td>
<td>Chemical raw material</td>
<td>Dye production technology</td>
</tr>
<tr>
<td>053102X</td>
<td>Non-metal mineral</td>
<td>Fireproof material production technology</td>
</tr>
<tr>
<td>056202X</td>
<td>Software</td>
<td>Information security firewall software</td>
</tr>
<tr>
<td>055001X</td>
<td>Architecture</td>
<td>Building environmental control technology</td>
</tr>
</tbody>
</table>

### 3.3 Encouraged

Encouraged technologies are not found in the import/export prohibited and restricted catalogue but in the catalogue of technologies and products encouraged to be imported (currently 32 pages of listed technologies).

The full list can be found on the MOFCOM website:

www.chinca.mofcom.gov.cn/article/h/zongzhi/201403/20140300523823.shtml
Encouraged technologies can be subject to specific policy benefits, such as access to loans and interest discounts, premium subsidies, allocation of land for production and other (local) benefits.

Examples include:

<table>
<thead>
<tr>
<th>Number</th>
<th>Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>A22</td>
<td>Portable computer design and manufacturing technology</td>
</tr>
<tr>
<td>A24</td>
<td>High speed mobile data communication technology</td>
</tr>
<tr>
<td>A25</td>
<td>Software technology based on an open resource</td>
</tr>
<tr>
<td>A63</td>
<td>Design and manufacturing of large tractors (above 147 kW) and implements, self-propelled grain combines (above 110 kW) silage harvesters, tomato harvesters, cotton harvester (above 74 kW)</td>
</tr>
<tr>
<td>A70</td>
<td>Design and manufacturing of microchip components</td>
</tr>
<tr>
<td>A113</td>
<td>Manufacturing and technology of a high-speed labelling machine (above 60,000 bottles/hour)</td>
</tr>
<tr>
<td>A185</td>
<td>Complete device manufacturing technology for the construction of waste treatment and recycling processing</td>
</tr>
<tr>
<td>A207</td>
<td>Intelligent and efficient automated packaging technology for logistic centres</td>
</tr>
<tr>
<td>C7</td>
<td>Biomass-fired and gasification power generation technology</td>
</tr>
<tr>
<td>C15</td>
<td>Development and manufacturing of new-energy vehicle’s parts</td>
</tr>
<tr>
<td>C25</td>
<td>Manufacturing of seawater desalting devises</td>
</tr>
</tbody>
</table>
4. Import license or registration of the technology transfer agreement

The agreements covering technology transfer need to comply with certain standards and license requirements to ensure that the technology can pass customs, that it benefits from preferential tax treatment and that royalties can be remitted. In this section, the applicable authorities are listed followed by the applicable licence requirements.

4.1 Authorities involved in technology transfer agreements

State Intellectual Property Office (SIPO)
- Registers Chinese patents and patent applications
- Registers Chinese patent transfers and patent licensing
- Issues compulsory licences
- Supervises patent infringement

Ministry of Science & Technology (MOST)
- Publishes a catalogue of technology for which China prohibits or export
- Responsible for the coordination of national high-tech R&D programs

Ministry of Commerce (MOFCOM)
- Publishes a catalogue of technology for which China prohibits or import
- Publishes a catalogue of technologies and products encouraged to be imported
- (Local) MOFCOM is in charge of issuing technology import and export licenses and the registration of non-restricted technology import and export agreements

National Reform and Development Commission (NRDC)
- Publishes the foreign investment catalogue
- Formulates strategies, plans and major policies for the development industries and advancement of industrial technologies

State Administration of Industry and Commerce (SAIC)
- Enforces laws with respect to trade secrets and trademarks
- Maintains the Chinese company registrar

4.2 Import/export licence requirements

Two types of licences are required
1. The technology importer needs to be licensed to engage in international trade. If the importer does not have such a licence, a technology transfer agreement needs to be co-signed with an agent holding such licence. The transfer agreement thereby becomes a three-party agreement.
2. Depending on whether the technology is restricted or nonrestricted, specific licences are required and different procedures are to be followed to regularise the transfer.
### Transfer of restricted-import technology

1. Submit application for a technology import license with the local MOFCOM;
2. The local MOFCOM will examine the technology within 10 working days;
3. If the technology can be transferred, the importer gets a proposal for technology import;
4. The technology importer can sign the technology transfer agreement with a foreign party;
5. The technology importer shall submit the letter of intent, a duplicate of the technology transfer agreement and documentation of the legal status of the contract parties to the local MOFCOM;
6. The local MOFCOM will examine the authenticity of the technology transfer agreement and grant a technology import licence within 30 working days;
7. A technology transfer agreement becomes valid only after the technology import licence has been issued by the local MOFCOM.

### Transfer of non-restricted technology

1. The technology importer signs the technology transfer agreement with a foreign party;
2. The technology transfer agreement becomes valid without government approval.

- A technology transfer agreement should be registered with a local MOFCOM within 60 days.
- If the transferred technology is a patent, parties should go to SIPO to get a patent licence or change the information of the patent owner.

A Chinese exporter of restricted technology should follow procedure A (step 2 will then take 30 days and step 6 will take 15 days). A technology export license is granted by a local MOFCOM.

The following information and documentation must be filed online by the technology importer/exporter at MOFCOM (www.mofcom.gov.cn):

- An application for registration of the technology import or export agreement;
- A copy of the technology import or export technology transfer agreement;
- Documentation of the legal status of the contract parties.

Thereafter, hard copies should be sent to the local MOFCOM. The MOFCOM will register the technology transfer agreement and issue a registration certificate within three working days.
5. Structuring: Contract, Joint Venture or WFOE

When companies internationalise their technology or know-how, several types of transaction structures are available.

- The transferor transfers the technology to a Chinese domestic manufacturer that will make the product according to specifications (contract manufacturing).

A. Technology transfer

```
| Transferor | Chinese |
```

- The transferor transfers the technology to a Sino–foreign joint-venture company jointly owned by the transferor and the transferee.

B. Technology transfer

```
| Transferor (foreign JV partner) | Joint venture | Joint venture Chinese JV partner |
|---------------------------------|---------------|---------------------------------
| X %                             | Y %           |                                 |
```

- The transferor transfers the technology to a Chinese manufacturer that is 100% owned by the transferor (wholly foreign owned enterprise [WFOE]).

C. Technology transfer agreement

```
<table>
<thead>
<tr>
<th>Transferor (100% owner of WFOE)</th>
<th>Wholly foreign owned subsidiary</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>
```

Option A saves time and investment costs, as the foreign partner relies completely on the operational capabilities of the Chinese partner. However, this option provides the least control over the transferred technology and enforcement of confidentiality measures. In the event the transferred technology can be easily copied or quality standards require substantial training of local personnel, this option is highly risky. A solution might be that sensitive product parts be produced by the foreign party and exported to China where they are assembled as the final product.

Option B joins the transferor to a Chinese partner because this option requires a capital contribution into a local joint venture company. In the event the relationship deteriorates, dismantling the joint-venture is time consuming and cumbersome. However, the foreign party owns part of the local production facility and can claim rights to appoint certain functions in the joint-venture management, such as a CFO and quality officer. In this way, the foreign party is more closely involved in local business operations.

Option C provides maximum control over the quality and the enforcement of confidentiality measures. From an intellectual property protection viewpoint, this option is preferred. However, in Chinese business practices, the network of a Chinese partner can be important for distribution and sales of
products in the Chinese market. These activities can be organised on the basis of a supply contract or in a separate joint venture company.
6. Technology as investment

The contribution of technology to Chinese foreign invested enterprises (FIEs) is regulated by China’s foreign investment and corporate laws and regulations. It is covered by a different legal regime than laws specifically regulating technology transfer.

According to the foreign investment laws of China, a contribution by a foreign investor of non-monetary assets (such as ownership of technology) is allowed up to a maximum of 20% of the registered capital of the FIE.

Recently, Chinese company law has been changed, and non-monetary contribution of assets is no longer restricted. However, this liberalisation does not (yet) apply to FIEs. It is important to consult with the local authorities on local practices. Some authorities apply a 70% non-monetary contribution maximum (this restriction was stated in the old company law of China).

Technology should be appraised by a Chinese certified appraiser (registered valuation institutions can be found at http://cx.cas.org.cn), and a valuation support is required before the non-monetary registered capital contribution can be registered. Appraisers in first-tier cities are the most sophisticated in valuing modern technologies. For mandatory asset appraisals, the Chinese local price bureaus have set appraisal charges. Other appraisals are based on market prices.

Contributions of technology to the registered capital of a company should meet the following requirements:

- The value of the technology can be appraised;
- The technology is transferrable and free from any encumbrances (the contribution requires ownership transfer);
- Certain assets are prohibited from being contributed to registered capital, such as labour services, credit, goodwill, franchise rights and other specific assets.

Generally, there are three appraisal methods: a cost-based method (costs made to develop the technology), the market-based method (similar technology sold in the market) and the income-based method (discounted value of future profits made by the technology). Appraisers normally work closely with the technology owners to determine the best appraisal method.

Note: The new Shanghai free trade pilot zone has reduced a number of formalities with respect to capital contribution. According to oral statements of local SAIC officials in the recently opened Shanghai free trade pilot zone, valuation on non-monetary contributions is no longer required for companies located in the zone, and there are no restrictions to contribute non-monetary assets to registered capital. The regulations need further detailing and are not sufficiently clear at this time.
7. Technology transfer agreement

7.1 Chinese contract party

Before entering into a technology transfer agreement, it is important to check the legal status of the Chinese partner, its reputation and qualifications. A search in the SAIC register can reveal valuable information on the business license scope, legal ownership, legal representative and the registered capital of the potential partner/technology transferee. The reputation of the company might be revealed in communications by customers, suppliers, and consumers on Chinese Internet pages.

Does the Chinese partner have foreign trading rights? This qualification should be incorporated in the business licence available at SAIC.

7.2 Contract term

An assignment or license of technology should not exceed the term of the patent, utility model, design model, copyright or plant variety right.

With respect to restricted technology, the starting date of the contract shall not be earlier than the date of the import or export licence granted by local MOFCOM.

7.3 Definition of transferred technology

If the transferred technology is not well described, the technology cannot be identified in the event of a dispute on the scope or use of the transfer or licence thereof. The technical officer of the company that transfers the technology might help in drafting a precise description of the technology.

In addition, any claim of breach of confidentiality obligations by the transferee will stand as the transferor has the burden of proof to demonstrate which confidential technology has been wrongfully disclosed.

It is important to keep detailed records on what technology is transferred by the transferor at which time and to which representatives of the transferee.

7.4 Confidentiality

According to article 26 of the Technology Import & Export Regulations, the assignee and licensee shall keep secret know-how confidential during the validity of the technology transfer agreement. The parties can freely negotiate confidentiality obligations and, if explicitly agreed in writing between the parties, the confidentiality obligation can last beyond the term of the technology transfer agreement.

The confidentiality obligation should also be incorporated in the employment agreements of any employees who have access to the technology.

Any confidentiality obligation does not extend to information publicly disclosed without the fault of the assignee or licensee during the validity of the technology transfer agreement. This information can be used freely by the transferee and other parties.

7.5 Payment for technology/royalties

Payment for technology can be in the form of a fixed one-time payment or a running royalty (paid monthly, quarterly, yearly) or a combination of the two. Lump sum payments are usually allowed in
cases where the know-how can be fully and completely transferred and absorbed within a specified period of time.

There are no mandatory requirements for the calculation methods of royalty fees. Certain regulations for specific business sectors stipulate that the rate should not exceed 5%. A 5% royalty rate is a widely acceptable standard in China.

As stated above, due to foreign exchange controls in China, transfer agreement registration forms and other documents are required to be presented to Chinese banks before royalties can be remitted abroad.

### 7.6 Improvements to transferred technology by the transferee

Improvement to technology is a key issue in technology transfer agreements and can be difficult. Article 27 of the Technology Import and Export Regulations stipulates that during the validity of the technology transfer agreement, improvements to the technology shall be vested in the improving party. Clauses to prohibit the transferee or the transferee employees improving the technology are invalid.

This legal arrangement is particularly dangerous for the transferor in the event the transferee (or its employees), during the course of performance of the technology agreement, file patent applications that include “severable improvements” to the licensed technology.

Articles 354 and 363 of contract law state that parties to a technical transfer agreement can stipulate the method of sharing improved technology. If not clearly agreed between the parties, the subsequent improved technology by one party may not be shared by the other party. The agreement can include a provision that such improvements should be brought to the attention of the transferor immediately.

Foreign transferors are well advised to stipulate in the technology transfer agreement the usage rights of “improvements” made by the transferee in detail. They should at least negotiate a non-exclusive licence to improved technology for the Chinese territory and an exclusive licence outside Chinese territory for the usage of the improved technology.

Regarding improvements by employees, it is important that transferee employees who have access to the transferred technology have clauses in their employment contracts determining the ownership of improvements to the transferred technology invented/created by the employees (so-called “service-inventions”).

### 7.7 Monitoring

The transferor is well advised to include monitoring provisions in the technology transfer agreements stating that the transferor can monitor and inspect the transferee’s use of the technology.

Monitoring rights, among others, can stipulate that the foreign party has the right to on-site inspections to verify the quality of the production process and the right to conduct an audit of financial accounts to verify declared royalties.

### 7.8 Warranty and indemnification

According to Chinese law, the assignor or licensor should guarantee that it is the lawful holder of the technology and authorised to assign and transfer the technology. In addition, the technology should be complete, error-free, valid and capable of accomplishing contracted technical objectives.

The technology transferor shall provide an indemnification to bear liability if the technology infringes on third-party rights. In the event that third parties claim all or part of the technology is theirs and can succeed in winning this claim in court, the transferor covers financial losses and litigation fees.
Guideline: Technology Transfer Agreements with China

However, it is possible to interpose a limited liability intermediary to act as supplier of the technology to minimise this potential liability.

7.9 Compulsory Licensing

Under strict conditions, a compulsory licence for an invention patent or utility model can be granted by SIPO upon a party’s request. We are not aware of any compulsory licences granted to date.

7.10 Termination

Article 28 of the Technology Import & Export Regulations states that upon expiry of the technology import agreement, the transferor and the transferee of the relevant technologies may consult with each other regarding continued exploitation of the technologies, following principles of fairness and reasonableness.

The Chinese transferee might claim its business has become dependent upon the licensed technology and insists it is reasonable to continue usage against a reasonable fee (without being provided with technology updates). Alternatively, the Chinese party might have patented some improvements to the transferred technology. In these examples, a simple termination of a technology licence agreement without a clear contractual exit arrangement can lead to serious complications and disputes between the parties once the technology transfer agreement is terminated.

7.11 Dispute settlement

A technology transfer agreement between a foreign and a Chinese party qualifies as an international agreement. Foreign transferors can choose their own domestic laws and courts. However, foreign court orders often cannot be executed in China, contrary to arbitration awards.

If the technology transferor is concerned about the risk of the Chinese transferee breaching its technology transfer agreement obligations, the foreign transferor should choose Chinese law to govern the agreement and conduct litigation or arbitration proceedings in China. The China International Economic and Trade Arbitration Commission (CIETAC) in Beijing is the most experienced institute in handling cases with international components. The model clause for CIETAC arbitration can be found at: http://www.cietac.org/index.cms.

If the technology transfer agreement is attached to a Sino–foreign joint venture agreement, Chinese law shall apply.

7.12 Tax liabilities in China

Foreign transferors shall be liable to pay Chinese income tax and business tax with respect to income generated from the technology transfer. The technology agreement should clearly stipulate whether or not the total amount of fees paid to the foreign party includes Chinese withholding taxes.

Tax preferences might apply, and withholding taxes might have to be reduced under double taxation treaties between China and the country where the transferor is tax resident.

Some regulations in specific industries stipulate that a royalty rate above 5% shall not be deemed to be a favourable term, and the licensor that applies such a rate is likely not to qualify for tax policies exempting or reducing tax liabilities.

7.13 Clauses to be avoided in technology transfer agreements as forbidden by law

Certain clauses should be avoided in technology transfer agreements, such as clauses that:
- Prohibit the transferee from improving the transferred technology;
- Put unreasonable restraints on the technology use, such as limiting the sourcing of raw materials, equipment or restraining quantity, pricing and restricted use of sales channels;
- Attach conditions that are unnecessary for the use of the technology, such as mandatory purchase of unrelated products and services from the transferor;
- Waive warranty and indemnity obligations;
- Include unfair terms regarding the use of improvements to technology;
- Impose restrictions on the transferee from acquiring similar or competitive technology from other sources;
- Impose unreasonable restrictions on the export of products produced by the transferred technology;
- Prohibit raising objections against the validity of the IPR that is transferred, or attach conditions thereto.
8. Contract research & development (R&D)

Most Chinese research partners are Chinese universities or scientific research institutions with a government background or that receive government funding. Sino–foreign joint research and innovation agreements have increased dramatically in the recent years.

Chinese contract law regulates technology development contracts. They shall be in written form and a distinction is made between:

- Commissioned development contracts and
- Cooperative development contracts.

The right to apply for patents of any invention or creation achieved through the commissioned development shall belong to the researcher (the person or institute that conducted the research), unless otherwise agreed. However, if the researcher/developer obtains a patent right, the client may exploit the patent free of charge.

Inventions and creations achieved through a cooperative development are owned jointly, unless the parties agree otherwise.

**CASE STUDY - Canada 1246854 vs. Nanjing Shisheng (2007)**

Canada 1246854 signed a joint development contract with Nanjing Shisheng for the development of an elevator for the disabled. Upon completion of the development, Nanjing Shisheng would manufacture the elevator, and Canada 1246854 would sell the product worldwide. Shisheng would pay USD 30,000 to Canada 1246854 for development fees, to be paid in six monthly instalments. The parties agreed that Canada 1246854 would have the right to apply for a patent in China, to be approved by Nanjing Shisheng. On 22nd August 2006, the parties terminated their cooperation.

Shortly thereafter, Canada 1246854 found that Nanjing Shisheng had applied for a patent with SIPO. Canada 1246854 started court proceedings before the Nanjing court to request damages and transfer of the patent application ownership. The court found that the parties signed a cooperative technological development contract. According to China’s contract law, the right to apply for a patent would be a joint right, unless otherwise agreed between the parties. The parties had stipulated that they would develop the elevator jointly, and the capital contribution and profits distribution was arranged in the contract. Shisheng was unable to deny the essence that the contractual agreement was a cooperative development agreement.

The Nanjing court ordered that the patent application rights be awarded to Canada 1246854. This case shows that the right to apply for a patent of joint research projects can be contractually agreed and enforced in Chinese courts.
9. Reverse engineering & unfair competition

Reverse engineering of imported secret technology by Chinese parties is often perceived as unfair. Chinese law determines unfair competition according to Article 10 of the Unfair Competition Law, which states:

“Managers shall not use the following methods to infringe upon business secrets:

1. To steal, coerce, or use any other unfair method to obtain the other’s business secrets.
2. To disclose, use or permit others to use the business secrets mentioned in Section 1 of this Article.
3. To violate the contract or the requirement to publish, use or permit others to use the business secrets, which were maintained as secrets by the legal owner of the business secrecy.

The third party who knows or should know the illegal activities as first mentioned, and who gains, uses or publishes the business secrecy shall be looked as activities of infringement upon the others’ business secrecy.

‘Business secrecy’, in this Article, means the utilized technical information and business information which is unknown by the public, which may create business interests or profit for its legal owners, and also is maintained secrecy by its legal owners.”

The Supreme Court of China has issued an opinion stating that technology obtained from independent research or from reverse engineering is not infringing on the above article 10 of the Anti-Unfair Competition Law.

This implies that any company in China can legally reverse-engineer any technology from products as long as the product has been acquired legally.

CASE STUDY - Shantou Ultrasound Research Institution vs. Shenzhen Saiyingda & Cao/Wu (1996)

Shantou Ultrasound introduced new technologies from the Japanese company Hitachi to China. Shantou Ultrasound and Hitachi signed technology transfer agreements, and employees of Shantou were trained by Hitachi to understand the technology. On this basis, Shantou developed a local product called Shantou B Ultrasound, which became very popular in China.

In 1995, engineer Cao resigned from Shantou Ultrasound. Another engineer, Wu, resigned shortly thereafter. Not long after, Cao and Wu worked at another company, Saiyingda, which introduced a product Saiyingda B Ultrasound several months after Cao’s and Wu’s resignations. Shantou Ultrasound started court proceedings against Saiyingda, Cao and Wu for stealing technical secrets.

The court authorised experts to compare the technology from Hitachi, Shantou Ultrasound and Saiyingda. The experts found that the technology from Shantou Ultrasound was a notable improvement. Regarding Saiyingda B Ultrasound, Saiyingda could not provide crucial technical information, and its blueprints lacked standardisation and were unnamed. Designs of control panels where similar in number, location, function and printed characters. Circuit boards were the same.

The court found that when comparing Shantou Ultrasound and Saiyingda B Ultrasound, the designs were similar. Shantou Ultrasound needed six years to develop its product technology, based on Japanese technology. According to the court, it would therefore be impossible to invent its own product in four months. In addition, Saiyingda could not provide evidence of reverse engineering. The
court therefore found that Saiyingda infringed on the trade secret rights of Shantou Ultrasound and conducted unfair methods to obtain business secrets, which is prohibited by article 10 of the Unfair Competition Law.
10. Business recommendations

10.1 On strategy

- Understand the short-term priorities of the Chinese government and the transferee, as well as their long-term goals;

- Make a clear long-term risk analysis with respect to the technology transfer for the business of the company. Which technology can be licensed, which technology should stay in-house? Will the technology to be transferred become outdated in a few years and replaced by new technology of the transferors due to continued innovation of the transferor?

- Check the most up-to-date prohibited, restricted and encouraged Chinese technology catalogues.

10.2 With respect to partners in China

- Do appropriate due diligence on legal status, business scope and reputation; and

- Take a step-by-step approach. Check first whether the Chinese counterpart is abiding by its obligations before transferring substantial and business-sensitive technologies.

10.3 Regarding the cooperation terms

- Make a detailed technology transfer protocol. Each transfer of the technology part should be documented and described in detail, acknowledged and signed off by both parties;

- Negotiate an agreement with an importer that is compliant with Chinese laws and regulations, and build in adequate audit and disclosure obligations;

- Make sure there is an obligation that improvements to the transferred technology by the transferee should be immediately disclosed to the transferor;

- Insist on adequate human resource policies by the transferee to protect the secrecy of the technology;

- Have the transferee agree in writing that the transferred technology and resulting products thereof cannot be exported abroad;

- Deal in detail with terminations terms.
Guideline: *Technology Transfer Agreements with China*

The EU SME Centre assists European SMEs to export to China by providing a comprehensive range of free, hands-on support services, including the provision of information, confidential advice, networking events, and training. The Centre also acts as a platform facilitating the coordination of Member State and European public and private sector service providers to SMEs.

The Centre’s range of free services include:

- **Business development** – provision of market information, business and marketing advice;
- **Legal** – legal information, “ask the expert” initial consultations and practical manuals;
- **Standards** – standards and conformity requirements when exporting to China;
- **HR and training** – industry and horizontal training programmes;
- **Access to a service providers directory and information databases**;
- **Hot-desking** – free, temporary office space in the EU SME Centre to explore local business opportunities;
- **Any other practical support services to EU SMEs wishing to export to or invest in China.**

This report was written by Johannes Holthuis.