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# SOUTH-EAST ASIA IPR SME HELPDESK

## IP Considerations in the Cleantech Industry in South-East Asia



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### 1. Overview: Cleantech Industry in South-East Asia

Rapid population growth and sustained economic growth in South-East Asia is exerting enormous pressure on the environment. In response, South-East Asian countries are embracing renewable energy, moving away from dated, fossil fuel-based energy solutions in favour of more sustainable technology. Stricter environmental governance policies such as vehicular CO<sub>2</sub> emission limits and mandatory energy rating labelling of selected household appliances have been adopted to promote sustainable development in the region. Increased public awareness of the benefit of sustainable business practices have also driven consumers and companies to increasingly consider “eco” or “green” alternatives in their purchasing decisions.

The cleantech industry which not only comprises the renewable energy sector but describes products and services that improve productivity or efficiency while reducing costs, inputs, energy consumption, waste, or pollution is thus gaining momentum in South-East Asia, paralleling the dynamic growth of the region.

To address the challenges of sustainable energy growth and climate change, the ASEAN member states have been following a deliberate policy of diversifying and using indigenous energy sources efficiently at the national level. ASEAN energy ministers collectively agreed to set an aspirational target for the share of renewable energy in the region to 23% of the Total Primary Energy Supply (TPES) by 2025<sup>1</sup>.

<sup>1</sup> <http://www.aseanenergy.org/wp-content/uploads/2015/12/HighRes-APAEC-online-version-final.pdf>

Indonesia announced in May 2017 that it will build the world's largest tidal power facility in Flores that will supply electricity to more than 100,000 of its residents<sup>2</sup>. Cambodia has entered the solar power rush with a US\$9.2 million solar farm in Bavet<sup>3</sup>, which is already in its trial testing stage and scheduled to be fully operational by 2017. Micro-grids are increasingly relied upon to meet the need for electrification of hundreds or thousands of islands in the South-East Asian region with Indonesia aiming to install micro-grids to bring electricity to 90 per cent of its off-grid population by 2025<sup>4</sup>.

Europe remains the world's preeminent hotbed for cleantech innovation. In the latest Global Cleantech Innovation Index<sup>5</sup>, a report identifying the world's leading hotspots for sustainable innovation released in June 2017, European countries made up 7 of the top 10. This has enabled Europe to produce some of the world's most successful cleantech ventures and European cleantech SMEs are well-positioned to be an enabler to South-East Asia's adoption of cleantech technology.

As South-East Asia's cleantech market becomes increasingly competitive from new players entering the lucrative market, cleantech EU SMEs should include an IP strategy that is cohesive with their broader business strategy in South-East Asia. A comprehensive IP strategy will identify IP risks prior to market entry so they can be properly managed as well as exploit and maximise the value of a company's IP portfolio in support of its business goals.

## 2. Considerations concerning Patents

Developments in the area of cleantech are being pushed forward by a convergence of advances in material sciences, biology, and information technology. Over the past decade, the number of Patent Cooperation Treaty (PCT) applications has increased steadily in the cleantech arena. Patent offices around the world (AU, CA, CN, BR, IS, JP, UK and US)<sup>6</sup> have introduced fast track processing of "green" patent applications to promote technological innovation in this field<sup>7</sup>, reducing the time from filing to grant to less than a year. To facilitate reliable retrieval of patent documents and analysis of patent filing trends for technologies related to climate change mitigation, the European Patent Office has established a new classification scheme (Y-tags including Y02 and Y04S)<sup>8</sup>.

Major clean technologies such as alternate energy sources are capital intensive and can take a long time to achieve market acceptance, especially when they are more expensive than existing processes. Patent filing should form an essential part of the EU SMEs IP strategy as a way to recoup their development costs and market their inventions without interference from competitors. Having a strategic patent portfolio will also benefit a cleantech company seeking venture capital funding as cleantech investors often demand patent protection as a way of securing monopoly profits to achieve expected returns.

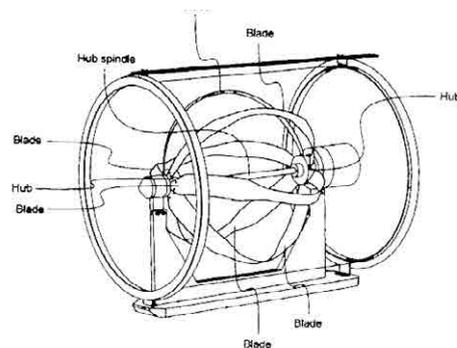
Although the patent offices in South-East Asia have yet to adopt the fast track processing of "green" patent applications, EU SMEs that have filed and obtained grants for "green" patents in AU, JP, UK and US should take note that it is possible to make use of these early granted patents to accelerate the grant of their patent applications in South-East Asia countries, including Laos, Indonesia, Malaysia, Singapore, Thailand and Vietnam.

Innovation in cleantech does not only involve disruptive or radical innovation but also includes advancements based on technology that has been in existence for many years. For developments in cleantech that is characterised by incremental innovation, it is possible that such new technologies can be protected as a utility model patent as opposed to a standard patent. An advantage of filing a utility model patent is the relatively quick timeframe from filing to grant which can be less than half of the typical processing time of a standard patent.

Cleantech EU SMEs that introduce new product designs should consider industrial design registration as part of their overall IP strategy. Registering the design for example of a new wind turbine configuration is a fast and inexpensive way of protecting its three-dimensional feature. A design registration is an effective tool for businesses to stop competitors making or selling a similar looking product. The relatively quick registration rate of industrial designs further allows the rights owner to prevent sale of counterfeits when the corresponding patent application is still pending and cannot be enforced.

### Example of Industrial Design Registration in South-East Asia Malaysian Design Registration No. 08-01549-0101-0001

Article Name: WINDMILL FOR WIND POWER GENERATION



<sup>2</sup> <http://asian-power.com/project/news/indonesia-build-worlds-largest-tidal-power-plant>

<sup>3</sup> <http://www.khmertimeskh.com/5079197/solar-power-set-shine-bavet/>

<sup>4</sup> <https://www.edb.gov.sg/content/edb/en/news-and-events/news/2014-news/southeast-asias-first-and-largest-micro-grid-testbed-to-be-built-on-singapores-semakau-landfill.html>

<sup>5</sup> [http://info.cleantech.com/WWF-Index-2017\\_WWF-Index-2017-Submit.html](http://info.cleantech.com/WWF-Index-2017_WWF-Index-2017-Submit.html)

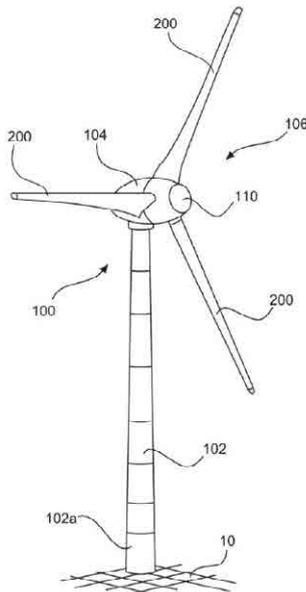
<sup>6</sup> AU, CA, CN, BR, IS, JP, UK and US are the internationally recognized codes of patent office of the following countries: Australia, Canada, China, Brazil, Iceland, Japan, United Kingdom, and United States of America.

<sup>7</sup> [http://www.wipo.int/wipo\\_magazine/en/2013/03/article\\_0002.html](http://www.wipo.int/wipo_magazine/en/2013/03/article_0002.html)

<sup>8</sup> <https://www.epo.org/news-issues/issues/classification/classification.html>

Singapore patent application no. 11201609620T

Title: WIND TURBINE TOWER AND METHOD FOR ERECTING A WIND TURBINE TOWER



Protection of inventions can alternatively be managed as trade secrets and know-how. Inventions for which patents are filed ultimately become public knowledge, which can allow competitors to offer competing solutions designed-around the patented technology. Cleantech inventions with a commercial shelf-life of significantly longer than 20 years may be considered for trade secret protection, but only if the business is confident in its capacity to protect its trade secrets (i.e. has robust policies in place to ensure trade secret and confidential information security). A significant weakness of protecting invention by trade secret is that it does not prevent independent development and commercial exploit of the same invention by a competitor. The competitor may also legitimately file patents for same invention provided that the invention was independently arrived at through their own research efforts.

For more information about Patents in South-East Asia, please refer to our Guide on Protecting Your Patents in South-East Asia at [http://www.southeastasia-iprhelpdesk.eu/sites/default/files/publications/EN\\_patent.pdf](http://www.southeastasia-iprhelpdesk.eu/sites/default/files/publications/EN_patent.pdf)

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### 3. Considerations concerning Trade marks

In a crowded and competitive market, the need for targeted brand positioning and product differentiation is key to distinguishing a cleantech company from the rest of its competition. Cleantech companies need to include branding in their overall IP strategy to reach out to consumers and gain loyalty. This involves surveying of the market, competitors, and the audience in order to construct a clear identity that ideally incorporates a "green" element that conveys efficiency, responsibility and sustainability.

A company is identified most commonly through its company name, logos and taglines, all of which are protectable under trade mark rights. Securing ownership and rights to relevant trade marks that will be used in the region is a crucial first step in ensuring the smooth implementation of the branding strategy. Traditionally, trade marks rights are acquired by registration in each South-East Asian country of interest. This process can be simplified with significant reduction in cost by filing an international trade mark application via the Madrid System. By filing such international trade mark application, the applicant can simultaneously apply for trade mark protection in seven of the ten ASEAN member countries namely, Brunei, Singapore, Cambodia, Laos, Vietnam, Thailand (from November 7, 2017) and the Philippines.

In addition to securing ownership by trade mark registration, EU SMEs should take steps to avoid infringing third party's trademark rights through trademark searches.

Trade marks take time and effort to develop recognition and generate goodwill in the marketplace but often ultimately become a company's most valuable IP assets. As a company continues to develop recognition of its trade marks and corresponding establishment of goodwill in the market, it may leverage on other forms of intellectual property rights such as copyright, patents and registered designs to establish its position in the marketplace. Hence it is important to strategically build a coordinated IP strategy that includes all possible combinations of IP rights from the outset of the business or product launch.

For more information about Trade marks in South-East Asia, please refer to our Guide on Protecting Your Trade marks in South-East Asia at [http://www.southeastasia-iprhelpdesk.eu/sites/default/files/publications/EN\\_TM.pdf](http://www.southeastasia-iprhelpdesk.eu/sites/default/files/publications/EN_TM.pdf)



#### 4. Considerations concerning IP monetisation

IP monetisation is an attractive value-added activity that can increase the return on investment for R&D and market development which have already been spent on existing products. Due to the high cost of manufacture and the comparatively small investment of a licensing program, many of the risks that a EU cleantech SME would otherwise face in exploiting its IP in the South-East Asia region can be transferred to the licensee. Research shows that innovating companies can increase their operating income by 5-10% from the sale or license of patents and proprietary technologies.

The increase in outward transfer of a company's own proprietary technology is also in part due to the trend toward collaborative innovation. Other reasons for licensing would be to achieve strategic benefits, such as establishing a technology standard within an industry, entering new markets such as the South-East Asia region or cross-licensing to gain access to proprietary knowledge from competing or complementary businesses.

Prior to negotiations, an IP audit is recommended to clarify ownership issues, review employment and contractor agreements, check confidential disclosure or material transfer agreements, and register assignment agreements with respective IP offices. An IP counsel can be engaged to undertake such IP audit before licensing discussions are initiated.

In the cleantech industry, a license agreement will frequently include both tangible and intangible assets. For example, in the wastewater management sector, the technology will typically include some form of treatment process, trade-secrets & know-how relating to the operation of the plant, as well as patents on the underlying technology. Defining exactly what assets are to be licensed, exclusively or non-exclusively, and for which jurisdictions, is an essential step in any licensing negotiation.

The financial terms of an IP license should be determined in the context of the business objective that the EU SME has for the particular South-East Asian country and in consideration all the other related transactions with the licensee. Financial returns may be less critical for example where the licensor is seeking to advocate a technology standard. Common valuation methods, such as the cost method, income method and market method can be used to assist both the licensee and licensor to value a technology.

License agreements should anticipate litigation and address the roles and responsibilities of each party in any action. Patent infringement lawsuits are typically expensive and time consuming, so it is important to decide whether the responsibility lies with yourself or with the licensee should your patent be challenged or infringed. Indemnities and protocols for handling infringement claims should be carefully considered.

Consideration should also be given to the end of life of the licensing relationship, including dealing with matters such as repatriation of confidential information, return of products or equipment, and cessation of the use of the licensed IP.

IP assignment entails transferring ownership of IP to a third party, so the assignor no longer has any ownership, involvement or claim on rights associated with the IP. A key benefit for assigning ownership of IP is that the original owner does not retain responsibility for maintaining the validity of the IP right such as through payment of renewal fees and typically will receive an up-front payment for the sale of the right.

Care should be taken to ensure that the IP assignment instrument not only complies with the provisions of relevant IP laws, but also that the assignment is recorded in a timely manner at the IP offices. For example, in Singapore if a patent assignee does not register the assignment within six months of the transaction, this person will not be able to claim costs or expenses in proceedings for an infringement that occurred before registration of the assignment, unless the court can be satisfied that that it was not practicable to register it in that period and that the transaction was registered as soon as possible after.

For more information about Technology Transfer to South-East Asia, please refer to our Guide on Technology Transfer to South-East Asia at <http://www.southeastasia-iphelpdesk.eu/sites/default/files/publications/Technology-Transfer-English.pdf>



## 5. Finding your partner in South-East Asia: Due Diligence, IP tips and Watch-outs

A major challenge for an EU SME setting up their South-East Asia business division is developing an effective setup to access and serve the regional market. Having dedicated operations in each ASEAN country is usually not a cost-effective strategy for smaller businesses. Distributorships and partnerships are often considered by smaller businesses as crucial in order to operate effectively in South-East Asia.

Distribution agreements vary widely, from a simple royalty sales agreement to a regional licensing, manufacturing and distribution agreement. The legal issues arising from licensing and distribution arrangements can be complex and specialised, and an awareness of the potential risks and challenges is essential from the outset.

The distribution agreement should, as drafted by a local agent, identify and list all types of IP, for example the trademark, trade names, copyright, patent, with clear provisions on the extent of use of these rights. Before entering into a distribution agreement, the exporter must ensure that any registrable IP rights being licensed under the agreement are already registered or at least, applications have been filed in the name of the rights holder in the relevant South-East Asian country.

Exporters often realize the importance of protecting their IP when they are faced with imitators or counterfeiters or when they are being accused of infringing the rights of others. It is therefore important to identify and work with a reliable agent that is actively involved in defending the IP rights of the exporter. A good distributor will be able to make use of their extensive network in the markets they operate in to monitor infringement activities on behalf of the rights holder.

IP issues may arise when a distributorship relationship is terminated. The distributors may continue to distribute products marked with the exporter's trademark or offer for sale competing products that are very similar in functionality. A robust distributor agreement should include provisions on the limitations of such rights after the expiration of the distributorship agreement.

Discussions with potential new partners invariably will lead to sharing of private and confidential information. Prior to entering into talks with a potential partner, the European SME should request for the signing of a formal Non-Disclosure Agreement (NDA) that identify specific IP or confidential information that may be disclosed during the course of discussion. The primary purpose of an NDA is to facilitate in-depth interaction between the parties by allowing them to exchange information under the common understanding that matters discussed are protected by confidentiality. This is especially important when partnership discussions fall through as the NDA will restrict the potential partner from unauthorised commercial exploitation of disclosed information.

It would be prudent to conduct a background check (due diligence) of the standing of the local agent or partner before entering into business agreements with them. Such exercise can uncover issues that could be addressed prior to the agreement or cast doubts over the viability of the partnership. The due diligence exercise can be conducted by sending the prospective partners a questionnaire or asking them specific questions on their business practices, their past experience with foreign IP owners and their experience in the relevant field. Search for the prospective partner on the corporate registers and for information relating to reputational issues or previous litigation. Alternatively, the due diligence exercise can be conducted by an appointed local adviser.

New technologies or designs may arise in the course of business through third party contractors or employees of the EU SME's local partners which eventually can become valuable assets of the business. It is important that EU SME's pay attention to tracking and managing of the intellectual property rights in these newly created technologies or designs.



Typically, there are default rules in each South East Asian country that determine the IP ownership of such newly created technologies or designs. In some cases, it may not be clear whether the new technology or design was created by an individual under direct employment of the local partner, which would lead to uncertainty in ownership of the IP. For better control over the IP ownership of technology or design created by your local partner or their contractors, the best approach would be to have a contract that outlines ownership of the IP relating to such developments.

For more information about protect your Intellectual Property when dealing with partners in South-East Asia, please refer to our Guide on Using Contracts to Protect your Intellectual Property in South-East Asia at [http://www.southeastasia-iprhelpdesk.eu/sites/default/files/EN\\_using\\_Contracts\\_20170417.pdf](http://www.southeastasia-iprhelpdesk.eu/sites/default/files/EN_using_Contracts_20170417.pdf)

## 6. SME Case Studies

### Case study 1: Patent infringement

#### Background

A clean energy solutions provider (“Company A”) was contracted to supply and install solar photovoltaic systems on the rooftop of a US tech giant’s facility in Singapore and supply the remaining required power from offsite solar systems, making the tech giant the first firm in Singapore to be fully powered by renewable energy.

#### Actions taken

A solar energy retailer (“Company B”) sued the clean energy solutions provider for infringement of its Singapore patent relating to power grid systems. In its defense, Company A denied infringement and filed a counterclaim to revoke patent and for remedies for groundless threat of proceedings. From court documents, Company A noted that Company B had made threats of patent infringement proceedings to the former’s clients and potential customers. This had resulted in the withdrawal of a project that was originally awarded to Company A. In the counter-suit, Company A also claimed that Company B had interfered with Company A’s trade, including defaming

Company A’s subsidiaries by making and publishing statements that were calculated to disparage Company A, resulting in losses included loss of contracts from existing and potential customers, and damage to its reputation and market standing.

#### Outcome

The lawsuit is still ongoing before the Court of Singapore.

#### Lessons Learned

Although the patent infringement suit is still ongoing, important lessons can be learnt from this example. Significant business deals can be obstructed by competitors that threaten or suggest patent infringement suits to a business and their clients. A comprehensive patent freedom to operate opinion should be conducted prior to offering technology solutions in new territories to minimize the risk of such occurrence. In the event of an actual patent infringement, the alleged infringer can respond in several ways including seeking invalidation of the patent and seeking remedies for groundless threats.

### Case study 2: Confidentiality Clauses in Employment Contracts in South-East Asia

#### Background

Four employees from a provider of water treatment services (Company A) left the company within the same year to work for a competitor (Company B). During that year, four contracts that Company A had attempted to secure, two of which were servicing contracts that Company A was the incumbent, were awarded to Company B.

#### Actions taken

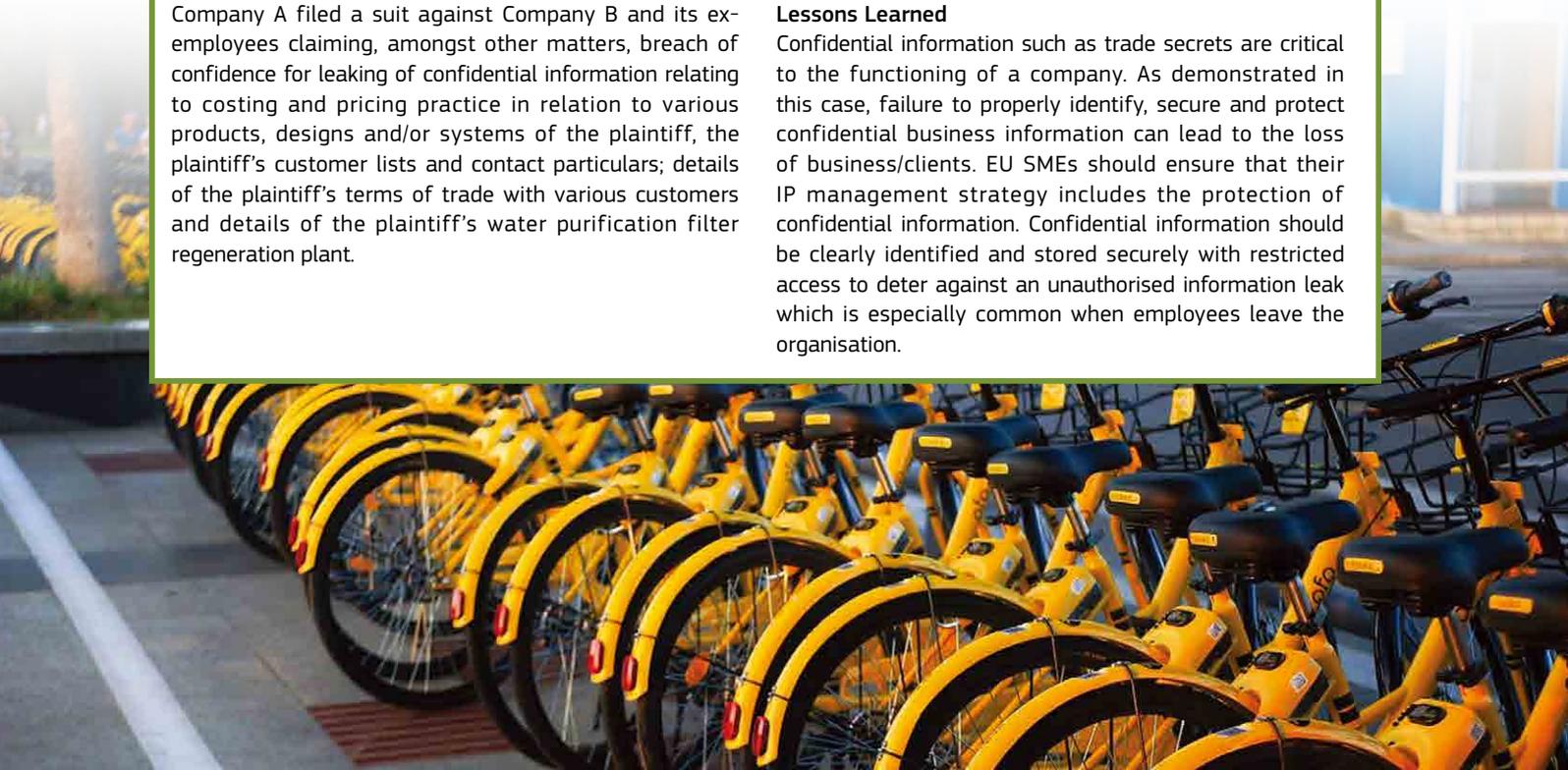
Company A filed a suit against Company B and its ex-employees claiming, amongst other matters, breach of confidence for leaking of confidential information relating to costing and pricing practice in relation to various products, designs and/or systems of the plaintiff, the plaintiff’s customer lists and contact particulars; details of the plaintiff’s terms of trade with various customers and details of the plaintiff’s water purification filter regeneration plant.

#### Outcome

The plaintiff’s case was dismissed. The court ruled that the plaintiff did not specify the nature of the confidential information used by the defendants beyond general knowledge of the pricing structure. Information on the costs of various components making up water purification systems were not deemed to be of a sufficiently high level of confidentiality that the defendants were obligated not to use or disclose to their new employers.

#### Lessons Learned

Confidential information such as trade secrets are critical to the functioning of a company. As demonstrated in this case, failure to properly identify, secure and protect confidential business information can lead to the loss of business/clients. EU SMEs should ensure that their IP management strategy includes the protection of confidential information. Confidential information should be clearly identified and stored securely with restricted access to deter against an unauthorised information leak which is especially common when employees leave the organisation.





## 7. Take-Away Messages

- EU SMEs should be aware of the different types of IP protection offered by the different South-East Asian countries and establish their IP strategy before entering new markets with the support of local experts.
- Adopt an IP strategy that makes use of a combination of IP to protect your medical devices products. A single product can be protected using patent, industrial design and trade mark registration.
- IP clearance searches should be performed prior to entering new markets to ensure that prior rights belonging to third parties are not infringed by the EU SMEs' business activities in the market.
- EU SMEs should register their IP in South-East Asian countries where the option of registration is available, particularly before entering the market.
- Due diligence to identify potential IP issues should be performed before forming strategic partnerships with local entities such as research institutes and distributors. It is crucial to work only with trustworthy partners that respect your IP rights as well as the IP rights of others.
- EU SMEs should establish a surveillance protocol to identify possible infringement. Monitoring of market activities such as visiting of relevant trade fairs, internet searches and maintaining close communication with local distributors and licensees can help with early detection of infringing activities.

## 8. Glossary of Terms

- **Cross-licensing:** Technology pooling arrangement in which participating firms grant (usually royalty free) licenses to one another.
- **IP Audit:** A systematic review of the intellectual properties owned, used or acquired by a business so as to assess and manage risk, remedy problems and implement best practices in IP asset management.
- **IP monetization:** The generation of revenue or the attempt to generate revenue by a person or company by selling or licensing the IP it owns.
- **IP strategy:** The obtaining of optimum legal protection of an intellectual asset to achieve a business objective.
- **Madrid System:** A centrally administered system of obtaining a bundle of trademark registrations in multiple jurisdictions. The Madrid Union currently has 99 members, covering 115 countries.
- **Microgrid:** A discrete local energy system consisting of distributed energy sources (including demand management, storage, and generation) and loads capable of operating in parallel with, or independently from, the main power grid.
- **Sustainable technology:** Technology that relies on resources that are either renewable or so abundant that we can treat them as such. For technology to be sustainable also means that using it does not have any long-term adverse impact on the environment.
- **Total primary energy supply (TPES):** The sum of all energy resources including coal, oil, gas, nuclear, wind and hydropower.

## 9. Related links and additional information

- Visit our Guide on Patent Protection in South-East Asia - [http://www.southeastasia-iprhelpdesk.eu/sites/default/files/publications/EN\\_patent.pdf](http://www.southeastasia-iprhelpdesk.eu/sites/default/files/publications/EN_patent.pdf)
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- Visit the country factsheets of each South-East Asian countries - <http://www.southeastasia-iprhelpdesk.eu/en/country-factsheets>
- Visit other publications at South-East Asia IPR SME Helpdesk website - [www.ipr-hub.eu](http://www.ipr-hub.eu)
- Visit the Helpdesk blog <http://yourIPinsider.eu> for related articles on IP in South-East Asia and China

## Free South-East Asia IP advice for European SMEs

- > **For more information and to discuss how we can work together, please contact us:**

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 Online: [www.ipr-hub.eu](http://www.ipr-hub.eu)

- > **If you have a question about protecting intellectual property in any South-East Asia country, please contact our free confidential helpline at:**

[question@southeastasia-iprhelpdesk.eu](mailto:question@southeastasia-iprhelpdesk.eu)

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