contractual compliance, and the need for technical assistance from the licensor for implementation of the licensed technology. Developing countries wishing to assess the options for introducing environmental technologies cannot always access the basic information concerning a possible license deal. Sometimes the decision-maker for introducing a new technology is not a patent expert, and the patent specification itself is insufficient for deciding the technology's attractiveness.[254] In addition, details on licensing terms, competitive advantages of the licensed technology *vis-à-vis* alternatives, or the availability of technical assistance are not always publicly disclosed. Thus, it is difficult to use the patent lists themselves as technology transfer tools.[255]

To help developing countries find the necessary information, the GTPP would offer an online-managed database where rightholders, confidentially if they so wish, may post information on the features of their green technology, the patents involved, comparison with competing technologies, and available licensing terms. For successful implementation of ESTs, the GTPP scheme encourages licensors to provide a 'green technology package' including such business requisites as patents, know-how, technical assistance and consulting, and parts and materials supply.[256] Licensors can pre-determine modes of commercialization (assignment, exclusive or non-exclusive license, etc.) and transaction prices. The elements of a standard license agreement under this scheme should be fair and reasonable.[257] As a further transfer incentive, the GTPP contemplates an insurance program for the event of IP infringement.[258]

3. Open Innovation: GreenXchange

The GreenXchange is an online open innovation platform where participants can share IP to develop sustainable business models and innovation.[259] Created as a result of "brainstorming" at the World Economic Forum in Davos, Switzerland involving Nike, Yahoo! and other companies,[260] the GreenXchange aims to offer information on participating companies, patents and licensing conditions as well as a members' forum for collaboration and exchange.

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254 Hideo Doi, *Japan's Green Technology Plan*, 196 Managing Intell. Prop. 125, 125-144 (2010).
255 *Supra* note 253.
256 *Id.*
257 *Supra* note 254.
258 *Id.*
259 GreenXchange (beta), http://greenxchange.force.com (last visited Aug. 14, 2010).
260 Don Tapscott, *Davos: Nike and Partners Launch the GreenXchange*, Businessweek, Jan. 27, 2010, *available at* http://www.businessweek.com.

This open innovation[261] model differs from the Eco-Patent Commons in certain ways. Implementers can use the offered patents free of charge, but are obliged to grant back a license to the donor on the same conditions with regard to any improvements created as a result of their use of the offered patents.[262]

B. IP Issues in Green Technology Transfer

According to a patent licensing survey, one in five European companies and one in four Japanese companies licenses patents to non-affiliated parties.[263] Major motivations for companies to license are to: (i) earn revenue; (ii) enter into cross-licensing or technology sharing (*e.g.*, open innovation); (iii) establish their technology as a *de facto* standard; (iv) outsource manufacturing; or (iv) stop infringement of their patents.[264] While comprehensive illustration of the various licensing principles would exceed the scope of this paper, set out below are a few specific considerations in the context of innovation and transfer of green technology.

1. Effects of Non-assertion Commitments

A non-assertion commitment such as in Eco-Patent Commons is comparable to non-exclusive, royalty-free licenses to any potential licensees. From a competition law perspective, non-assertion can be procompetitive because it reduces transaction costs (by avoiding costly litigation), stimulates information exchange, and prevents patent holdup.[265]

However, the scope and duration of non-assertion may create legal uncertainty. Under what circumstances can the patent pledger revoke or terminate its non-assertion commitment? A dispute between IBM and a French open source software company illustrates the issue. IBM warned the French company that it would defend its patents against any unauthorized use.[266] However, it turned out that in relation to at least two of the patents that IBM argued likely to be infringed, IBM had

261 *See generally* Henry William Chesbrough, Open Innovation: The New Imperative for Creating and Profiting from Technology (Harvard Business School Press 2003); *see also* InnoCentive's website *at* http://www.innocentive.com (last visited Aug. 16, 2010).

262 *Supra* note 260.

263 Maria Pluvia Zuniga and Dominique Guellec, *Who Licenses Out Patents and Why? Lessons from a Business Survey* 3-7 (OECD Directorate for Science, Technology and Industry, Working Paper No. 2009/5 DSTI/DOC(2009)5, 2009).

264 *Id.*

265 *See* U.S. Dep't of Justice & Fed. Trade Comm'n, Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition 89-90 (Spring 2007), *at* www.usdoj.gov/atr/public/hearings/ip/222655.pdf.

266 Letter from Mark S. Anzani, VP and Chief Technology Officer, IBM, to TurboHercules SAS (Mar. 10, 2010), *available at* http://www.turbohercules.com/TH_IBM_Letters.