

The Intellectual Property Index for the Information Technology Sector (IP-IT Index)

One of the most fundamental problems in public discussion of European intellectual property (IP) policies is the shortage of information about the specific composition of an IP environment, relevant to Europe's high tech industries (in general), and the information technology (IT) sector in particular:

In order to narrow this gap, the Stockholm Network in association with *Managing Intellectual Property* Magazine and the Progress & Freedom Foundation has developed a new and innovative statistical index aimed at measuring the strength of intellectual property rights (IPRs) in the IT sector in different countries.

The index positions countries' intellectual property environments relevant to the IT industry on a mathematical scale of 0 to 4. The Index factors-in 14 IT-related intellectual property components, covering the term of exclusivity, scope and coverage of essential components, strength of exclusivity and enforcement.

The US is found to have the strongest level of IP protection (3.92), followed by Singapore (3.73). The EU, on the other hand, scored a meagre 2.47, which is 36% lower than the USA, and 15% worse than Japan. IT-related IP elements that are weaker at the EU level include the term of copyright protection, the failure to harmonise the patentability of computer implemented inventions, the parallel importation of copyrighted and patented products, the preference towards open-source in government procurement policies and the shift towards a hawkish approach that seeks to establish the supremacy of competition rules over IPRs and a relatively high level of piracy.

SCORES

	Term of exclusivity	Scope & coverage of essential components	Strength of exclusivity	Enforcement	Total
United States (USA)	1.00	1.00	1.00	0.92	3.92
Singapore (SING)	0.89	1.00	1.00	0.84	3.73
Germany (GER)	0.89	0.80	1.00	0.89	3.59
United Kingdom (UK)	0.81	0.80	1.00	0.89	3.50
Sweden (SWE)	0.89	0.80	0.80	0.89	3.39
Norway (NOR)	0.89	0.80	0.80	0.88	3.37
France (FRA)	0.89	0.80	0.80	0.81	3.31
Japan (JAP)	0.81	0.80	0.40	0.89	2.90
Brazil (BRAZ)	0.69	0.60	0.80	0.74	2.84
EU	0.81	0.40	0.40	0.86	2.47



The Intellectual Property Index for the Information Technology Sector (IP-IT Index) – Methodology

Categories

The IP-IT Index measures four major categories: term of exclusivity; scope and coverage of essential components; strength of exclusivity and enforcement.

Each category is further divided into sub-categories (see Table I)

Calculations

Each category is scored between 0 and 1. The cumulative score of the Index ranges between 0 and 4. Each category includes sub-categories of a binary nature, i.e. each category is assigned either the value of 0 – if the particular IP component does not exist in a given country – or 1 – if the particular component does exist.

The category 'term of exclusivity' is calculated numerically. This is done by dividing the actual term of exclusivity of each sub-category by the maximum existing baseline of that category (see Table II). For example, the baseline of the maximum copyright term is 95 years (in the USA). Therefore, the numerical formula for this sub-category is ' $n \text{ years of copyright term} / 95$ '.

Piracy rates are also calculated numerically. They are based on the Business Software Alliance (BSA) and IDC Global Software annual studies on global piracy in the software sector.

Weights

Based on previous indices (the Ginarte Park Index in particular)¹, it is assumed that the four major categories of this Index should have an

equal weighting. Therefore, the weight of each category equals 25% (and in total 100%).

Within each category, the Index applies two different weights, which reflect the relative importance of each component. Weights are applied according to the following criteria:

Core component: a component that is fundamental to the existence of an IT-IP regime in a given country – weight equals 40% or more.

Significant component: a component that greatly contributes to the level of an IT-IP regime in a given country – weight equals 20%.

Table I – Intellectual Property Index for the Information Technology Sector – Structure, Subcategories, and Weights

CATEGORY	SUB-CATEGORIES – EXPLAINED	WEIGHT (%)
Term of exclusivity (total 25%)	Term of patent protection.	40%
	Term of software copyright protection.	40%
	Term of protection of topographies of semiconductor products.	20%
Total		100%
Scope and coverage of essential components (total 25%)	Patentability of computer implemented inventions.	40%
	Legislation that allows for the active use of digital rights management (DRM).	20%
	Database protection (either via copyrights or via <i>sui generis</i> rights).	20%
	Complete ban on parallel imports without the IP owner's consent	20%
Total		100%
Strength of exclusivity (total 25%)	Restrictions on the use of compulsory license in copyrighted & patented products (use of the 'essential facilities' doctrine is restricted to exceptional cases and 'refusal to supply' an IPR is not treated as an abuse as such).	40%
	Clear limitations on the principle of 'fair-use' based on the Berne 'three-step test'.	40%
	Government procurement policies are not biased towards standards that are based on open-source and/or do not discriminate against the use of proprietary technology.	20%
Total		100%
Enforcement (total 25%)	Level of piracy rates (based on BSA figures).	40%
	Effective civil and procedural remedies (injunctions, damages for injuries, destruction of infringed and counterfeited goods).	20%
	Effective criminal procedures, including the possibility of imprisonment.	20%
	Dedicated policing actions against piracy and counterfeiting.	20%
Total		100%

Table II – Baselines Values

TERM OF EXCLUSIVITY	BASELINE IN YEARS	LEGISLATION MODEL
Patents	20	WTO TRIPS AGREEMENT
Software copyrights	95	UNITED STATES
Topographies of semiconductor products	10	WTO TRIPS AGREEMENT
BSA Piracy Rates (2005)	Level of piracy rates	0%-100%

1. Ginarte, C. and Park, W.G. "Determinants of Patent Rights: A Cross-National Study", *Research Policy*, vol. 26, (1997) pp. 283-301; Also see . Pugatch, M. P 'Measuring the Strength of

National Pharmaceutical Intellectual Property Regimes: Creating a New Pharmaceutical IP Index', *Journal of World Intellectual Property*, vol. 9:4 (July 2006)