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**JOINT DOST-DTI-IPOPHL ADMINISTRATIVE ORDER NO. 001**

# GUIDELINES ON INTELLECTUAL PROPERTY VALUATION, COMMERCIALIZATION AND INFORMATION SHARING OF REPUBLIC ACT NO. 10055

**WHEREAS**, Republic Act No. 10055, otherwise known as the *"Philippine Technology Transfer Act of* 2009," became effective on May 8, 2010;

**WHEREAS**, under Sec. 21 of the Act, the Department of Science and Technology as chair and convenor, together with the Department of Trade and Industry and Intellectual Property Office of the Philippines (IPOPHL), are mandated to jointly issue the necessary guidelines on intellectual property valuation, commercialization, and information sharing, which may include, but not be limited to, the following considerations: public benefit and national interest, market size, cost and income;

**NOW, THEREFORE**, the following Joint Administrative Order providing for the abovementioned guidelines is hereby promulgated, adopted, and prescribed for the information and guidance of all concerned.

## CHAPTER I
## RATIONALE, DECLARATION OF POLICY AND OBJECTIVE, SCOPE AND OTHER GENERAL PROVISIONS

**SEC. 1**. *Rationale* – The foregoing issuance is intended to provide general guidance to Government Funding Agencies (GFAs), Research and Development Institutes or Institutions (RDIs), as well as other stakeholders on intellectual property valuation, commercialization, and information sharing matters in order to implement the State Policies, Principles, and Objectives of the Philippine Technology Transfer Act of 2009. This issuance is not intended to substitute, supersede, or interfere with the sound and reasonable exercise of discretion of GFAs and RDIs, nor the professional judgment of experts, which GFAs and RDIs are encouraged to consult in identifying, protecting, managing, valuing and commercializing technology and/or intellectual property generated from publicly-funded research and development (R&D). It also recognizes that the challenges facing GFAs and RDIs in making technology reasonably accessible to the public, while at the same time meeting private sector expectations and interests, require flexibility and creative solutions in negotiating the terms and conditions of research funding agreements with private sector collaborators as well as those of technology transfer and IP commercialization agreements. Therefore, the terms and conditions of said agreements may not be strictly in conformity with the recommendations contained in the guiding principles mentioned in Chapter II.

**SEC. 2.** *Declaration of Policies and Principles.* – The State fully recognizes that science, technology, and innovation are essential for national development and progress. It shall therefore give priority to research and development, invention, innovation, and their utilization. It shall also encourage the widest and most systematic participation of all stakeholders in policymaking related to science and technology, and in the generation, transfer, and utilization of intellectual property, especially for the benefit of the general public.

The State shall facilitate the transfer and promote the utilization of intellectual property for the national benefit and shall call upon all RDIs that perform government-funded R&D to take on technology transfer as their strategic mission and to effectively translate results of government-funded R&D into useful products and services that will redound to the benefit of Filipinos, notwithstanding the income generated from intellectual property rights (IPRs) and technology transfer activities.

The State acknowledges that the successful transfer of government-funded R&D results depends on the proper management of intellectual property, development of capacity by RDIs to become self-sustaining and competitive, and on enhancing interaction and cooperation with the private sector, particularly small and medium enterprises through collaborative and contract research based on equitable, fair access, and mutual benefit for all involved partners.

The State shall further establish the means to ensure greater public access to technologies and knowledge generated from government-funded R&D while enabling, where appropriate, the management and protection of related intellectual property.

And finally, the State recognizes that an effective intellectual and industrial property system is vital to the development of domestic and creative activity, facilitates transfer of technology, attracts foreign investments, and ensures market access for our products.

**SEC. 3**. *Objective of the Philippine Technology Transfer Act of 2009.* – The Act aims to promote and facilitate the transfer, dissemination, and effective use, management, and commercialization of intellectual property, technology and knowledge resulting from research and development funded by the government for the benefit of the national economy and taxpayers.

**SEC. 4.** *Definition of Terms.* – For purposes of these guidelines, the following terms are defined as follows:

(a) *"Act"* refers to Republic Act No. 10055.

(b) *"Commercialization"* refers to the process of deriving income or profit from a technology, such as the creation of a spin-off company, or through licensing, or the sale of the technology and/or IPRs.

(c) *"Government Funding Agency (GFA)"* refers to any government agency or instrumentality, or government owned and/or controlled corporation that provides research grants and other technical and material support, from government appropriations and resources and those sourced from government-managed Official Development Assistance (ODA) funds.

(d) *"Intellectual Property (IP)"* is the term used to describe intangible assets resulting from the creative work of an individual or organization. IP also refers to creations of the mind, such as inventions, literary and artistic works, and symbols, names, images, and designs used in commerce. IP can also refer to future tangible and/or intangible assets that may be recognized as intellectual property.

(e) *"Intellectual Property Rights (IPRs)"* refer to those rights recognized and protected in R. A. No. 8293, otherwise known as the "Intellectual Property Code of the Philippines," as amended. IPRs shall also include Plant Variety Protection as the term is defined under Title II, Sec 3(j) of R. A. No. 9168.

(f) *"Intellectual Property Rights Management"* refers to the principles, mechanisms, and processes involved in the identification, assessment, protection, utilization, and enjoyment of intellectual property rights.

(g) *"IP Code"* refers to R. A. No. 8293, otherwise known as the "Intellectual Property Code of the Philippines," as amended.

(h) *"Non-commercial research purposes"* refers to use or practice of the technology or IP, which is the object of the technology transfer or intellectual property commercialization agreement, for teaching, academic research and other not-for-profit or scholarly purposes which are undertaken at a non-profit or governmental institution and does not involve the production or manufacture of products for sale or the performance of services for a fee. Without limiting the foregoing, academic research and other not-for-profit or scholarly purposes includes research that leads, or may lead, to patentable or unpatentable inventions that may be licensed or otherwise transferred, either directly or indirectly, to third parties. It is therefore understood that the following and other similar acts shall not constitute sale of products or performance of service for a fee: (1) receipt of revenues on account of such inventions; (2) receipt of reimbursements for the costs of preparation and shipping of samples of materials provided to third parties as a professional courtesy, in response to post-publication requests or otherwise in accordance with academic custom; or (3) receipt of funding to cover the direct and/or indirect costs of research.

(i) *"Official Development Assistance Fund"* refers to: a) a loan; or, b) loan and grant; or, c) grant which follows all the criteria under the Republic Act No. 8182, otherwise known as the *"Official Development Assistance Act of 1996,"* and other existing laws.

(j) *"Parent Agency"* refers to the Department or agency, which exercises the power of control or supervision over the GFAs, RDIs or RDI acting as the GFA itself. In general, where multiple GFAs are involved, the department or agency, which has the largest financial contribution, shall be deemed as the parent agency, except as may otherwise be specifically provided by the Act.

(k) *"Potential IPRs"* refer to intellectual property, or the products of creation and research that form the subject matter of IPRs, but which are not yet protected by the statutory grant of IP rights.

(l) *"Products and Services"* is understood to include processes.

(m) *"Protection of IPs"* refers to the statutory grant of rights upon which the basis of enforcing the right rests, such as issuance of patents, registration of utility models, industrial designs, and trademarks or availment of protection of undisclosed information and other rights as may be provided by law. "Protected IPs," therefore, may refer to issued or pending patents, registered utility models, industrial designs, and trademarks. In the case of pending patent applications that have already been published under Sec. 44 of R. A. No. 8293, such pending patent application will still be considered as potential IPRs. In the same manner, pending applications for plant variety protection that have also been published under Sec. 42 of R. A. No. 9168 will still be considered as potential IPRs.

(n) *"Research and Development (R&D)"* refers to creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and to use this stock of knowledge to devise new applications. The aforementioned creative work not only refers to work subject of copyright protection but also to all potential IPRs.

(o) *"Research and Development Institute or Institution (RDI)"* refers to a public or private organization, association, partnership, joint venture, higher education institution or corporation that performs R&D activities and is duly registered and/or licensed to do business in the Philippines, or otherwise with legal personality in the Philippines. In the case of private RDIs, they shall be owned solely by the citizens of the Philippines or corporations or associations at least sixty per centum of the capital of which is owned by such citizens. This does not include RDIs covered by international bilateral or multilateral agreements.

(p) *"Research Agreement"* refers to a contract entered into by RDIs and researchers, including the agreements between the RDI and collaborating RDIs.

(q) *"Research Funding Agreement"* refers to a contract entered into by and among the GFA and other funding agencies and the RDI. It governs ownership of IP, duties and responsibilities of GFAs and RDIs, technology disclosure, exclusivity of the license, use for commercialization, establishment of spin-off firms, technologies for research use, and sharing of income and benefits from technology commercialization. The Research Funding Agreement may also

include instances where private funds are involved together with government funds. The Research Funding Agreement shall also be referred to as RFA in these Rules. The term other funding agencies may include private entities.

(r) *"Revenue"* refers to all monetary and non-monetary benefits derived as a result of the development, production, transfer, use and/or commercialization of IPRs, including income from assignments, and royalties from licenses.

(s) *"MSMEs"* refer to Micro, Small and Medium Enterprises as defined in Section 3 of R. A. No. 9501 which states that:

"MSMEs shall be defined as any business activity or enterprise engaged in industry, agribusiness and/or services, whether single proprietorship, cooperative, partnership or corporation whose total assets, inclusive of those arising from loans but exclusive of the land on which the particular business entity's office, plant and equipment are situated, must have value falling under the following categories:

Micro: not more than P3,000,000
Small: P3,000,001 - P15,000,000
Medium: P15,000,001 - P100,000,000

The above definitions shall be subject to review and adjustment by the Micro, Small and Medium Enterprises Development (MSMED) Council under Section 6 of this Act or upon recommendation of sectoral organizations concerned, taking into account inflation and other economic indicators. The Council may use other variables such as number of employees, equity capital, and assets size."

(t) *"Technology"* refers to knowledge and know-how, skills, products, processes, practices, inventions and/or innovations.

(u) *"Technology Transfer"* refers to the process by which one party systematically transfers to another party the knowledge for the manufacture of a product, the application of a process, or rendering of a service, which may involve the transfer, assignment or licensing of IPRs.

(v) *"Technology Transfer Protocol,"* as defined in Chapter I, Rule 3 (cc) of the Implementing Rules and Regulation of R. A. No. 10055, refers to policies, strategies, and processes or procedures, which RDIs adopt to identify, protect, manage and commercialize IPs and/or IPRs and undertake technology transfer activities. These include, but are not limited to, the following:

i. Policies and procedures governing incentives to researchers to produce and to disclose IP derived and generated from publicly funded research and development to the RDI including the sharing of revenues between the RDI and its researchers as provided under these Rules;

ii. Policies and procedures for evaluating and processing invention and other IP disclosures in order to determine (1) who shall be recognized as the inventor(s), author(s), creator(s) of the IP and who will therefore be entitled to a share in revenues as provided under the Act and these Rules including mechanisms for resolving disputes on inventorship, authorship and creatorship and revenue sharing; (2) patentability/registrability; (3) commercial potential of IP; and (4) the most efficient mode for protecting and commercializing or transferring the IP;

iii. Policies and procedures for determining meritorious cases in which a researcher-employee can commercialize or pursue commercialization or participate in spin-off companies;

iv. Appropriate guidelines for the management of conflict of interest between the RDIs and the researcher-employee;

v. Policies and procedures governing trade secrets and other similar confidential information pursuant to the objectives of these Rules;

vi. The employer-employee contract and all other related agreements shall contain, but shall not be limited to, the following: duties and responsibilities of the parties, membership of the research team, degree of involvement of the researchers and the support staff, ownership of IP, sharing of monetary and non-monetary benefits, technology disclosure and management of conflict of interest.

**SEC. 5.** *Coverage.* – The following are covered by these guidelines as provided under the Act:

(a) All R&D activities carried out on behalf and for the interest of the Philippine Government by RDIs receiving grants directly from GFAs;

(b) All intellectual property rights derived from R&D activities funded by government;

(c) All government agencies that fund R&D activities as well as provide financial, technical or material support to such R&D activities; and

(d) All institutions that implement government-funded R&D.

## CHAPTER II
## GUIDING PRINCIPLES ON INTELLECTUAL PROPERTY COMMERCIALIZATION AND INFORMATION SHARING

**SEC. 1.** *On the Primacy of Achieving the Objective of the Act.* The State calls upon all RDIs that perform government-funded R&D to take on technology transfer as their strategic mission and to effectively translate results of government-funded R&D into useful products and services that will redound to the benefit of Filipinos, notwithstanding the income

generated from intellectual property rights (IPRs) and technology transfer activities. While the law authorizes GFAs and RDIs to raise or generate income or revenue through technology transfer or intellectual property commercialization activities, said income or revenue generation efforts should not hamper, thwart or displace the primary objective of the law as provided under the Act which is to promote and facilitate the transfer, dissemination, and effective use, management, and commercialization of intellectual property, technology and knowledge resulting from research and development funded by the government for the benefit of the national economy and taxpayers. The foregoing guiding principle has numerous implications for decisions pertaining to intellectual property and technology transfer. For instance, the decision as to whether an exclusive license should be granted should be based not on considerations of income or revenue but rather, whether the exclusive license would serve as an efficient and effective means to encourage the private sector to make the necessary investment to commercialize the technology or IP to enable the public to have reasonable access to the same.

**SEC. 2.** *Adherence to the Constitutional Provision on Giving Preference to Filipinos who Possess the Required Qualifications.* GFAs and RDIs, shall, in transferring technology and IPs produced through publicly-funded research, comply with par. 2, Sec. 10, Art. XII of the 1987 Constitution, which provides that: "In the grant of rights, privileges and concessions covering the national economy and patrimony, the State shall give preference to qualified Filipinos." GFAs and RDIs shall exercise their sound discretion in determining who are qualified Filipinos.

**SEC. 3.** *Private Sector Collaboration, Particularly with Small and Medium Enterprises, for Efficient and Effective Technology Transfer and IP Commercialization.* The State acknowledges that the successful transfer of government-funded R&D results depend on the proper management of intellectual property, development of capacity by RDIs to become self-sustaining and competitive, and on enhancing interaction and cooperation with the private sector, particularly small and medium enterprises through collaborative and contract research based on equitable, fair access, and mutual benefit for all involved partners. As an overwhelming number of business entities in the Philippines are SMEs and the Act is intended to benefit the national economy and taxpayers, GFAs and RDIs are encouraged to engage in collaborative and contract research with private sector entities determined to be qualified by the RDIs, particularly with SMEs for the purpose of making technology transfer and IP commercialization more efficient and effective. GFAs and RDIs are likewise encouraged to transfer appropriate technologies and IPs to qualified SMEs.

**SEC. 4.** *Provisions to Implement the State Policy of Ensuring Greater Public Access to Technology and IP generated through Publicly-Funded R&D.* The State shall establish the means to ensure greater public access to technologies and knowledge generated from government-funded R&D while enabling, where appropriate, the management and protection of related intellectual property. This being the case:

a. It is the duty of RDIs to adopt a Technology Transfer Protocol, which must provide, among others, for a mechanism for determining the marketability or commercial viability of technology or IP, the most efficient mode(s) for commercializing or transferring the same and providing the criteria

for selecting qualified IP commercialization partners or technology transferees. GFAs and RDIs must use their sound discretion in determining whether IP protection should be sought and enforced for technologies developed using public funds in order to efficiently and effectively transfer the same for the benefit of the public. In some instances, the monopoly rights provided under intellectual property laws may serve as effective incentives to the private sector to bear the risks needed in order to make such technologies available to the public. In other cases, however, the State recognizes that technologies can best be transferred for the benefit of the public through the performance of the traditional mandates or functions of GFAs and RDIs.

b. GFAs and RDIs should use reasonable and cost-effective means in order to disseminate information regarding research results, technology and IP generated using public funds, subject to the requirement of IP management and protection as well as any non-disclosure or confidentiality agreements, in order to improve the capacity of the economy to absorb new technologies and to promote fairness, efficiency and transparency in technology and IP commercialization activities. Information dissemination activities regarding available appropriate technologies/IPs for transfer or commercialization should be directed especially to Filipinos and SMEs possessing the required qualifications that would enable them to make the technologies/IPs reasonably accessible to the public.

c. GFAs and RDIs are required to include the following in research funding agreements, research agreements as well as technology transfer and IP commercialization agreements:

(1) A notice in IP commercialization agreements stating that: "The intellectual property under this transaction was created with support from the Republic of the Philippines under (identify the agreement/s) awarded by (identify the GFA/s). The Republic of the Philippines has certain rights in the intellectual property under Art. VII of the Philippine Technology Transfer Act of 2009."

Said Article states, among others, that the grounds, terms and conditions for the use by government or third person authorized by government and/or compulsory licensing as provided under the Intellectual Property Code of the Philippines shall apply to all IPRs produced under the Act. Furthermore, GFAs and/or the Parent Agency, as defined under the Act, may assume ownership of any potential IPRs in cases of national emergency or other circumstances of extreme urgency, or where the public interest requires, and particular concerns for national security, nutrition, health, or the development of other vital sectors of the national economy, as determined by the head of the Parent Agency.

(2) A provision allowing the RDI to use research findings or results for academic, research and other scholarly purposes and for the same to be published within a reasonable period of time, subject to the requirement that the same will not constitute a prejudicial disclosure, nor include the disclosure of confidential information as agreed upon by the parties involved.

(3) A provision stating that the GFA or RDI reserves the right for itself and others to make and use, solely for non-commercial research purposes, the technology or IP which is the object of the technology transfer or intellectual property commercialization agreement.

d. GFAs and RDIs are strongly encouraged to consider requiring a commitment on the part of the technology transferee, including for instance licensees, to diligently bring the technology to the market and to make the same reasonably accessible to the public. If practicable, time-limited performance development milestones should preferably be set, with termination or conversion of, for instance, an exclusive into a non-exclusive license as a penalty for breach of the obligation subject to limited but reasonable provisions allowing the licensee to rectify or "cure" said breach. GFAs and RDIs should also consider including take back provisions, e.g. the reversion of all rights to the transferor of the IP or technology including, for instance, regulatory filings and related research results and data in technology transfer arrangements, as penalty in the case of inexcusable violations made by the technology transferee.

e. Licensing and other modes for commercializing IP or transferring technology that involve the transmission of less encompassing rights is preferred over an outright sale.

f. Non-exclusive licensing, through which a license may be granted to more than one licensee, is generally preferred but in some cases, as when the nature of the technology or significant investments of financial and other resources are needed to bring the technology to the market, an exclusive license is often necessary and appropriate as the same will provide an incentive to the licensee to bear the risks of commercial development.

g. As the monopoly rights conferred by intellectual property coupled with exclusivity may limit the public's access to said IP, GFAs and RDIs are encouraged to consider including the following provisions in exclusive licensing agreements:

(1) provisions which limit the exclusive license only to certain territories and fields of use, e.g. a field which is part of the licensee's intended core business so as to enable GFA or RDI to develop the technology for other fields of use that may not have been anticipated at the time of initial licensing.

(2) provisions which reserve the right of the GFA or RDI to grant a license to third parties to address unmet market or public health needs.

h. It would be prudent for GFAs and RDIs to be mindful of Sections 87 and 88 Chapter IX of the Intellectual Property Code of the Philippines that are intended to prevent abuses of intellectual property rights through the curtailment of free competition and trade. If warranted, GFAs and RDIs are encouraged to file a request with the Documentation, Information and Technology Transfer Bureau of the Intellectual Property Office of the Philippines for the review of their relevant technology transfer arrangements.

**SEC. 5.** *Information Sharing by the* Documentation, *Information and Technology Transfer Bureau (DITTB) of the Intellectual Property Office of the Philippines (IPOPHL).* The DITTB of the IPOPHL shall make available, upon request from GFAs and RDIs, information pertaining to exemptions granted by said Office from the provisions of Sections 87 and 88 of the IP Code.

**SEC. 6.** *Sharing by GFAs and the IPOPHL of Information that RDIs Need for IP Valuation in order to Promote Commercialization and Transfer of Publicly-Funded IP and Technology.* GFAs and the DITTB are encouraged to undertake studies for the purpose of providing general, non-confidential information regarding average upfront fees, milestone payments and/or royalty rates for comparable IPs/technologies, in particular, industries which may be useful for conducting IP valuations.

## CHAPTER III
## GUIDING PRINCIPLES ON TECHNOLOGY-BASED INTELLECTUAL PROPERTY VALUATION

**SEC. 1.** *Rationale.* This section is intended to provide a general introduction to the concept, context and process of technology and intellectual property valuation especially in relation to technology-based IP commercialization. Because of the complex issues involved in technology and IP valuation, it is incumbent upon GFAs and RDIs to keep abreast of developments in the field. Nothing in this Chapter is intended to substitute, supersede, or interfere with the sound and reasonable exercise of discretion of GFAs and RDIs nor the professional judgment of experts that GFAs and RDIs are encouraged to consult in valuing IP. GFAs and RDIs are encouraged to value IP following the relevant or appropriate professional standards.

**SEC. 2.** Valuation Principles

a. *Value and Price Are Different.* Valuation, in the context of IP commercialization or technology transfer activities, refers to the process of calculating the intrinsic worth of the technology or IP using approaches and methods which tend to produce a range of numbers without taking into account whether the same would be acceptable to another party. Pricing, on the other hand, means using valuation findings for the purpose of producing the proposed consideration for a transaction (e.g. in the case of licenses the upfront fee and

royalty rate and base) with the end in view of reaching an agreement with the other party. Value, which may be based on the subjective opinion of one party, is not necessarily equivalent to price or the consideration, which is the outcome of negotiations. In other words, IP or technology valuation must be done in order to enable GFAs and RDIs to prepare for and properly negotiate IP commercialization or technology transfer agreements, as potential transferees or IP commercialization partners will likewise have their own valuation conclusions.

b. *Premise of Value.* IP valuation is often described as being both an art as well as a science. While there are generally accepted approaches and methods within approaches for valuing IP (science), valuators have to make reasoned decisions and qualitative judgments (art), which are critical to making the proper valuation. In the case of patents, for instance, a qualitative evaluation involves, among others, examining the strengths and weaknesses of the patent in terms of the number and quality of the claims, whether the application has been granted or is pending, whether the validity of a granted patent has been contested as well as the outcome of said challenge, etc. Since value is the present monetary worth of all future benefits of ownership computed or expressed as a single payment, the valuation has to take into account the premises of value. Before valuators make use of quantitative methods in order to calculate the monetary value of the IP or technology, they have to identify:

(1) exactly what rights over the technology or IP are to be valued. Further, does the agreement involve a sale, or a license? Is it a license to use, make, sell, and/or import? Is the license exclusive or non-exclusive? What territories are covered? Does the agreement involve only rights covered by patent or patent and related undisclosed information (trade secrets)?

(2) the context for the valuation, which include:

(a) the purpose for the valuation. The assumptions and methods used for valuing IP for infringement litigation or for complying with reportorial requirements may differ from those used for the transfer (e.g. sale or licensing) of technology-based IP;

(b) the "beholder" or person/(s) from whose perspective the valuation is made. For instance, the value of IP for a lending institution, which can only sell the IP in the event of a foreclosure sale, is different from that of the value of IP for an entity seeking to acquire rights for its business.

(c) the timeframe for the valuation, e.g. prospective, as in the case of a sale or licensing negotiation, or retrospective, as in the case of infringement litigation. Since value can change depending on whether future benefits flowing from rights over

the IP or technology can increase or decrease as stated below (depending on market conditions, risks, physical or legal obsolescence, etc.), value is often expressed in terms of a given moment e.g. value "as of" a specific date.

(3) the approaches and methods that will be used for the valuation based on the identified context. The factors that may affect the value of the IP/technology depending upon the approach or approaches used for the valuation include:

a. market conditions near the valuation date;
b. the near term and long term market demand for the subject IP/technology;
c. effects of relevant contractual or legal restrictions;
d. in the event the IP or technology has to be developed further to make the same marketable, the time required to bring the IP/technology to the market;
e. risks associated with ownership of the IP/technology such as R&D risks (success and failure of research activities), manufacturability risks, marketing risks, risks associated with government regulation, and other legal risks, e.g. activities needed to secure the exclusivity provided by IP rights.

(4) the data required for said methods.

c. *Valuation Approaches.* Three broad approaches may be used to value IP: *Cost, Market* and *Income.* While some texts discuss various methods to value IP, these are really forms of the basic broad approaches. For instance, Monte Carlo simulations which rely on probability analysis of estimated ranges to produce a statistical prediction of expected value, or option valuation methods, which are used to value longer term and high risks intangibles when early expenses are significant and projected returns are in the distant future, are methods which fall within the Income approach.

(1) *Cost Approach* – The cost approach involves aggregating the expenditures in developing the IP or technology to be valued. The assumption behind the approach is that the cost to develop the IP or to acquire the same is commensurate with the economic value of the service that the IP can provide during its lifetime. The approach simply assumes that there are economic benefits that would flow from the IP and are of sufficient amount to justify the cost to develop or acquire it. The cost approach does not directly incorporate information about the economic benefits flowing from the property which is affected by market demand, the trends in economic benefits, which may increase or decrease, the duration over which economic benefits will be enjoyed as well as risks associated with the economic benefits (e.g. risk that benefit will not be realized because of regulatory requirements, invalidation of patents, etc.).

Cost of reproduction and cost of replacement are two distinct methods for the cost approach. Cost of reproduction refers to the aggregate expenses needed to produce an exact replica of the IP or technology. Detailed records of the historical costs (e.g. salaries of personnel, overhead costs for utilities, research space, clerical support, raw materials, prototype construction and testing, pilot plant expenses and other similar items) incurred in developing the IP adjusted in terms of the present value of said costs provide an indication of the amount needed to reproduce the property. One problem associated with using historical costs is estimating what expenses are directly attributable to the development of the IP being valued. For instance, it may not be clear when the research, which led to the development of the IP began and ended, e.g. the IP may have been the unintended consequence of basic research or products and processes may need to undergo continuous refinement. Cost of replacement, on the other hand, measures value by estimating the expenditures needed to develop or obtain a similar (having the same utility) non-infringing IP or technology.

Cost of reproduction is generally used in accounting and bookkeeping but has limited uses for IP commercialization and technology transfer transactions.

Computing the past expenses incurred by the technology transferor for the development and protection of the technology and adding a margin for profit is generally considered as not being an appropriate method for technology transfer negotiations since from the perspective of the transferee what is relevant is the potential economic benefit of the technology for its business and, as stated above, the factors affecting the realization of said economic benefit is not directly taken into account by this approach.

It is possible for technology transferors to use cost of replacement not for valuation per se but for the purpose of preparing for negotiations (pricing) by estimating the costs to be incurred by a transferee in obtaining or developing similar (competing) but non-infringing technology. It can be reasonably assumed that the transferee will use said cost estimate in order to design around the deal being offered by the transferor. This being the case, the transferor can in turn anticipate how to provide an offer that will appear to be reasonable to the transferee.

(2) *Market Approach* - The value of IP or associated technology is estimated by examining comparable transactions involving similar IP or technology between independent (unrelated) parties. Selection criteria for identifying "comparable" IP may include the following considerations:

a. The IPs/technologies will be used in similar products and processes within the same industry or market;

b. The IPs/technologies have similar profit potentials (as measured by the net present value of benefits to be realized);
c. The IPs/technologies are covered by similar contractual stipulations, e.g. exploitation rights, exclusivity, geographic limitations, duration, grant back rights, and other similar provisions;
d. The IPs/technologies are at the same stage of development and possess a similar degree of uniqueness.

There are disadvantages to using the market approach for IP valuations. The uniqueness of IP may make it difficult to find similar IP. Complete information, which would allow comparisons to be made, however, is usually not available to the public. There must also be an active market for similar IP in order to make comparisons relevant and reasonable. Finally, the approach assumes that industry norms or benchmarks are correct.

Knowledge of a comparable transaction in the same industry could, however, at least provide a check for the valuation of a particular IP or technology using other approaches.

(3) *Income Approach* - The value of IP can be measured by the future income to be received over the life of the property, which future income is discounted by taking into account, inflation, opportunity cost, e.g. interest on risk-free investments, and the risks associated with converting the IP or technology rights conveyed into a stream of profits (discounted cash flow).

While the literature suggests that this is the approach most suited for the valuation of technology-based IP for technology transfer or IP commercialization purposes, one challenge associated with this approach is that the same requires making projections of future income, estimating the useful life of the property (in some cases, the economic life of a technology covered by a patent is shorter than the legal life of the property since the technology may become obsolete or outdated) as well as selecting a proper discount rate.

Unlike other transactions involving a going concern, in the case of early stage technologies such as those usually produced by universities and research institutes, there is an absence of historical or past data regarding manufacturing costs, revenue and profit history of the technology or IP being valued with which to make projections. Further, there is a risk that the technology developed in the laboratory may not actually be commercially viable.

It is recommended, therefore, given that all approaches have limitations, that a variety of approaches and methods be used to value IP. Comparison of the values resulting from different approaches and methods will either provide support for conclusions or help identify inconsistencies that the

valuator(s) should examine. In other instances, data from one approach may be useful for providing support for the use of another approach. Using the income approach (discounted cash flow) which requires identifying changes in the flow of economic benefits at different times and under different conditions can be used to identify what past technology transfer transactions can provide comparable data for using the market approach.

**SEC. 3.** *Recommendation regarding Referral to Expert Interdisciplinary Team.* Since expertise in various fields, e.g. finance, marketing, economics, knowledge of how to interpret patent claims, etc., is required for technology-based IP valuation, it is recommended that valuations be done by an interdisciplinary team.

**SEC. 4.** *Contents of Valuation Report.* It is suggested that a valuation report made in preparation for the negotiation of IP commercialization or technology transfer arrangements contain at least the following:

(1) definition of key terms used in the report;
(2) complete description of the legal interest in the technology/IP being valued including relevant transactions covering the technology i.e. previous technologies and whether these are protected by IPRs, geographic scope of IPR protection as well as other relevant physical, functional technical or economic parameters of the IP/technology;
(3) the purpose, context, approaches and methods used for the valuation as well as the assumptions, limiting conditions and reasons made by the valuator/s for selecting said approaches/methods;
(4) the sources of the information or data used for the valuation; and
(5) valuation date.

## CHAPTER IV
## AMENDMENTS, REVIEW, SEPARABILITY AND EFFECTIVITY

**SEC.1.** *Amendments.* The Parties, either jointly or individually, may initiate amendments to these guidelines. Prior to the conduct of any public hearing for the proposed amendment, the initiating party shall first inform the other parties of the same at least 30 days prior to the date of the first public consultation.

**SEC. 2.** *Review of Guidelines.* After two years from the effectivity of these guidelines and every two years thereafter, the Parties shall jointly review the same.

**SEC. *3*.** *Separability Clause.* – If any provision of these guidelines is declared unconstitutional, the same shall not affect the validity and effectivity of the other provisions hereof.

**SEC. 4** *Effectivity.* – These guidelines shall take effect fifteen (15) days after its complete publication in at least two (2) newspapers of general circulation and upon filing a copy thereof with the UP Law Center Office of the National Administrative Register as required by law.

**NOW THEREFORE**, the parties have herein below affixed their signatures to the Joint DOST-DTI-IPOPHL Administrative Order No. 001 this 26 day of June 2012.

**RICARDO R. BLANCAFLOR**
Director General
Intellectual Property Office of the Philippines

**MARIO G. MONTEJO**
Secretary
Department of Science of Technology

**GREGORY L. DOMINGO**
Secretary
Department of Trade and Industry

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