The Innovation and Creativity Access Barometer is a product of the Global Innovation Policy Center’s Value Ingenuity Project

**Key GIPC Take-aways:**

- Innovation thrives in an environment where new technologies and creative work are widely accessible to all on commercial terms.

- Licensing of intellectual property and related technology transfer are critical mechanisms for the dissemination of creative content and innovative products and technologies.

- A country’s investment in the innovative and creative sectors through a strong intellectual property system can be undone by market interventions.

- Developed and developing countries alike are prone to abuse of pricing and regulatory power in ways that limit the access of their citizens to IP-intensive products, services, and technologies.

- Government interventions in markets tend to reduce the availability of innovative and creative goods, services, and technologies in that market, and effectively prevent technology transfer.

- Access to innovation and creativity is optimized when governments facilitate market-based transactions through respect for the full exercise of private property rights.

**Value Ingenuity:**

In the last three hundred years, life has improved more rapidly and dramatically than in all the millennia that proceeded them—the result of technological breakthroughs and the longevity and social and economic mobility they enabled. The economic and policy underpinnings of this innovation revolution remain misunderstood and under-appreciated, leading to a danger—perhaps an increasing reality—that future innovation could be taken for granted, cheapened, and ultimately forfeited.

The Value Ingenuity project is telling the story of innovation, its roots, its impact, its social and moral imperatives, and the public policy prescriptions that will assure a continued upward trajectory for the generations to follow. Our objective is to advance globally a shared purpose of mutual investment in sustainable innovation.
In today’s knowledge economy, access to the latest innovative and creative products, services, and technologies is essential to national competitiveness and growth.

INTRODUCTION

Growth in international trade resulting from global accords put in place over the last seven decades has had enormous socio-economic benefits, lifting millions out of poverty worldwide. Since the birth of the General Agreement on Tariffs and Trade (the “GATT”) in 1947 or even the World Trade Organization in 1995, economic activity has grown more complex and technologically sophisticated year by year. Those trade pacts created a legal infrastructure—and facilitated a logistical infrastructure—for trade in goods, and later services; today’s economy similarly demands a legal and logistical infrastructure for trade in knowledge and ideas.

The Innovation and Creativity Access Barometer is a new tool by which to measure commercial access to innovative and creative works in a given market. Beginning with 20 leading economies (the G-20 nations, plus Algeria), the Barometer consists of 16 indicators in four categories, measuring, 1) localization requirements; 2) licensing and technology transfer; 3) creative works; and, 4) bio-pharmaceutical products. The first two categories are cross-sectoral, i.e., they affect most if not all sectors of an economy; the second two categories are sector-specific, highlighting some of the most knowledge-intensive industries in today’s economy.
### The Access Barometer Indicators

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<thead>
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<th>Category 1: Freedom of access to a national market—Localization requirements</th>
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<tr>
<td>1. Import substitution policy/import bans</td>
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<td>2. Manufacturing/local content requirements for market access</td>
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<td>3. Technology transfer/divulging of IP as requirement for market access</td>
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<td>4. Local partnering requirement for market access</td>
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<td>5. Procurement preferences for local producers; better price, tendering preferences, etc.</td>
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<td>6. Bans on foreign ownership</td>
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<td>7. Digital trade barriers: Restrictions on cross-border data transfers and ICT-based services/data localization requirement</td>
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**Category 2: Barriers to licensing and international technology transfer**

| 8. Registration and disclosure requirements of licensing deals | 1.00 |
| 9. Government direct intervention in the setting of licensing terms between licensee and licensor | 1.00 |

**Category 3: Barriers and import restrictions: Creative works**

| 10. Quotas and/or distribution and screening barriers in place on foreign imports of creative works (e.g., film) | 1.00 |
| 11. Local broadcasting quotas and local content requirements television | 1.00 |
| 12. Local broadcasting quotas and local content requirements radio | 1.00 |

**Category 4: Price and access regulation of national biopharmaceutical market**

| 13. Overarching pharmaceutical P&R philosophy of health system is geared towards cost containment (regardless of P&R methodology used) versus recognition of/enabling innovation. This can be through market-based pricing or appropriate recognition within P&R systems and decision-making. | 1.00 |
| 14. P&R decision making and process. Extent to which P&R process is transparent, follows due process, and comparisons (whether through international reference pricing or product comparisons) are made on the basis of reaching the lowest possible price or rate of reimbursement or retain fairer comparisons (e.g., on a country level and/or product level) and regard for level of innovation. | 1.00 |
| 15. Biopharmaceutical-specific procurement preferences | 1.00 |
| 16. Availability of new, innovative biopharmaceutical treatments and products | 1.00 |

**Total Possible Score: 16.0**
SPOTLIGHT ON CATEGORIES OF ACCESS

CATEGORY 1: LOCALIZATION REQUIREMENTS

The Barometer identifies policies that protect, favor, or stimulate domestic industries at the expense of those of other nations, including requirements for local ownership in some form of research, manufacturing, and commercialization capabilities.

As with the overall scores, with respect to localization policies there is a substantial discrepancy between the two halves of the country sample. Most of the developed economies assessed place few restrictions on foreign direct investment, and do not condition market entry on the use of local content, domestic manufacturing, or technology sharing. Category One is the sole category where the United States, penalized for restrictive “Buy American” procurement practices, fails to record a top score. Developing and emerging markets, meanwhile, drop off quickly, with only Brazil and Saudi Arabia scoring at or above 50 percent. Russia, China, Indonesia, and Algeria display industrial policies featuring highly coercive localization measures that put their score at or below 11 percent.
SPOTLIGHT ON CATEGORIES OF ACCESS

CATEGORY 2: BARRIERS TO LICENSING AND INTERNATIONAL TECHNOLOGY TRANSFER

Technology transfer and licensing are critical mechanisms for commercializing research and transferring related rights between market participants in order to develop usable products and commercially available technologies. The Barometer examines government interventions that impose a centralized, top-down approach that seeks to mandate where and how licensing and technology transfer takes place.

Most economies measured score well on Category Two, outperforming their overall results. The economies sampled achieved a mean score of 59 percent, the highest average score of the four categories of the Barometer. Most economies included do not intervene or directly interfere with international licensing and technology transfer activities; many do, however, have licensing registration requirements in place ranging from the straightforward (Japan, Argentina, Mexico) to the burdensome (France). China and Indonesia provide the exception: The Chinese government actively intervenes, reviews, and sets the terms for licensing activity within China. In general, licensing agreements must receive government approval prior to execution. In addition, China imposes restrictions on the rights of foreign IP owners to negotiate market-based contractual terms relating to the transfer of technology to China. Similarly, both licensing and technology transfer are highly regulated in Indonesia with onerous registration and disclosure requirements in place.
SPOTLIGHT ON CATEGORIES OF ACCESS

CATEGORY 3: BARRIERS AND IMPORT RESTRICTIONS: CREATIVE WORKS

The Barometer assesses limitations and restrictions on the distribution of imported content, including quotas, local content requirements, and censorship. Movies, television, and radio here serve as a proxy for similar restrictions on other types of creative content.

Scores on Category Three reveal widely contrasting approaches to access to global content and efforts at cultural preservation and promotion. Here, economies that otherwise embrace rigid protectionism and import substitution policies, like Turkey (scoring 67%) and Russia (92%) are more open and liberal with the distribution, sale, and broadcasting of foreign works. Conversely, some of the most open and free economies, including all EU Member States, Australia and Canada limit access to foreign creative works through significant quotas and local content requirements. France (25%) goes beyond already restrictive EU-wide parameters to reserve 60 percent of airtime for European content and 40 percent for strictly French programming. Canada (33%) and Australia (33%) have similarly detailed quotas and local content rules in place for television and radio broadcasters.
SPOTLIGHT ON CATEGORIES OF ACCESS

CATEGORY 4: PRICING, REIMBURSEMENT AND ACCESS REGULATION TO A NATIONAL BIOPHARMACEUTICAL MARKET

Pricing and reimbursement policies in wide use by developed and developing economies, alike, are the most common set of barriers to the commercial availability of innovative medicines. These include direct price controls, regulation of national formularies, and international reference pricing, among others.

Of the four categories measured by the Barometer, economies performed the worst on Category Four. Both developed high-income economies and emerging markets pursue policies that penalize innovation in favor of cost containment. Many economies also have in place either de jure or de facto price and government preferences for domestic biopharmaceutical manufacturers. Among a “basket of horribles,” policies widely employed in this sector include outright import bans, import quotas, high tariff rates, regulatory approval delays, local preferences, formulary restrictions for reimbursements, regulatory obscurity, and indirect or outright price controls. Italy (56%), France (63%), the United Kingdom (67%), and Germany (69%) all impose policies that penalize innovation in favor of cost containment. Similarly, Korea (35%), Australia (48%), and Canada (58%) all impose policies that penalize innovation in favor of cost containment. Turkey (3%), Russia (7%), and Indonesia (17%) deploy import substitution policies—mandatory localization permeates all aspects of pricing and reimbursement policymaking. Only the United States (96%) stands out for enabling market-based pricing—and recent regulatory and legislative proposals have thrown that achievement into serious question.
COMPARE AND CONTRAST: THE GAP BETWEEN IP AND ACCESS

Since 2012, the U.S. Chamber of Commerce has produced an annual International IP Index (the “Index”), which benchmarks the IP environment in countries around the world. Correlating scores on the Index to socio-economic outcomes shows a strong, positive relationship between intellectual property protection and economic activity. Altogether, a growing body of evidence suggests a positive link between the strengthening of intellectual property rights and economic growth and development, job creation, technology transfer, and increased rates of investment and innovation.

Many countries have recognized this reality and made intellectual property rights central to their economic development strategies. The Barometer shows, however, that these same countries have often undone a considerable share of the benefit from strong intellectual property policies by restricting the access of their citizens to the foreign products of intellectual property. For example, all EU Member States, Japan, the United Kingdom, Australia, and South Korea have consistently scored in the top quartile of the Index, yet those same countries score poorly on categories of the Barometer related to copyright and creative content.

Scores related to patent rights and access to innovative medicines tell the same story. Many economies have laws in place that protect the intellectual property rights of foreign and domestic producers, alike, while failing to enable the access of their citizens to resulting technological breakthroughs at the same level. Consumers are left with fewer choices and less ability to enjoy the latest technologies.
POLICY IMPACT ANALYSIS: PATIENT ACCESS

Broadly speaking, the subset of policies that have a direct impact on patient access to innovative medicines can be categorized in three areas: 1) pricing; 2) reimbursement; and, 3) procurement.

A given economy’s approach to these three policy areas puts that market somewhere on a continuum between a policy orientation that prioritizes innovation and one that prioritizes cost containment. Pricing, reimbursement, and procurement policies have a direct impact on how, when, and what type of products patients in a given health system can access. Free pricing countries historically have a larger number of launched innovative drugs than countries with a more challenging pricing and reimbursement environment. In a 2007 study of OECD and middle-income economies, those employing price controls suffered a 75% reduction in product launches compared to countries with no price controls; another study of 20 economies measuring time to market showed launch lags of up to eight years for 266 innovative drugs in those countries with more challenging regulatory and marketing approval processes.

In these countries with historically long lag times even the arrival of global biopharmaceutical supply chains, integrated markets, and harmonized regulatory standards has not been enough to overcome long lag times as a consequence of the pricing regulatory and pricing and reimbursement environments in those markets.
The Chamber’s Global Innovation Policy Center is working around the world to champion innovation and creativity through intellectual property standards that create jobs, save lives, advance global economic and cultural prosperity, and generate breakthrough solutions to global challenges.

The U.S. Chamber of Commerce is the world’s largest business federation representing the interests of more than 3 million businesses of all sizes, sectors, and regions, as well as state and local chambers and industry associations.

This report was conducted by Pugatch Consilium (www.pugatch-consilium.com), a boutique consultancy that provides evidence-based research, analysis, and intelligence on the fastest growing sectors of the knowledge economy. Authors of this report are Meir Pugatch and David Torstensson.

**Professor Meir Pugatch, Managing Director and Founder**
Prof. Pugatch founded Pugatch Consilium in 2008. He specializes in intellectual property policy, management and exploitation of knowledge assets, technology transfer, market access, pharmacoeconomics and political economy of public health systems. He has extensive experience in economic and statistical modeling and indexing, valuation of assets and design of licensing agreements, and providing strategic advice to international institutions, multinational corporations, and SMEs from all sectors of the knowledge economy. In addition to his work at Pugatch Consilium, he is an IPKM Professor of Valorisation, Entrepreneurship and Management at the University of Maastricht in the Netherlands, as well as the Chair of the Health Systems Administration and Policy Division at the School of Public Health, University of Haifa in Israel. He is author and editor of an extensive number of publications and serves as a referee and editorial board member of numerous peer review journals.

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Dr. Torstensson specializes in innovation, tax and intellectual property policy, with a particular focus on the health care, information and communication technology and content industries. He has wide experience in policy and economic analysis, as well as data sampling and creation of strategic operational and advocacy plans. He is the author of a number of academic and commissioned reports and publications and is the co-author of all seven editions of the U.S. Chamber International IP Index.