

# Entraves ao avanço da Pesquisa e Pós- Graduação

GT FOPROP

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# GT

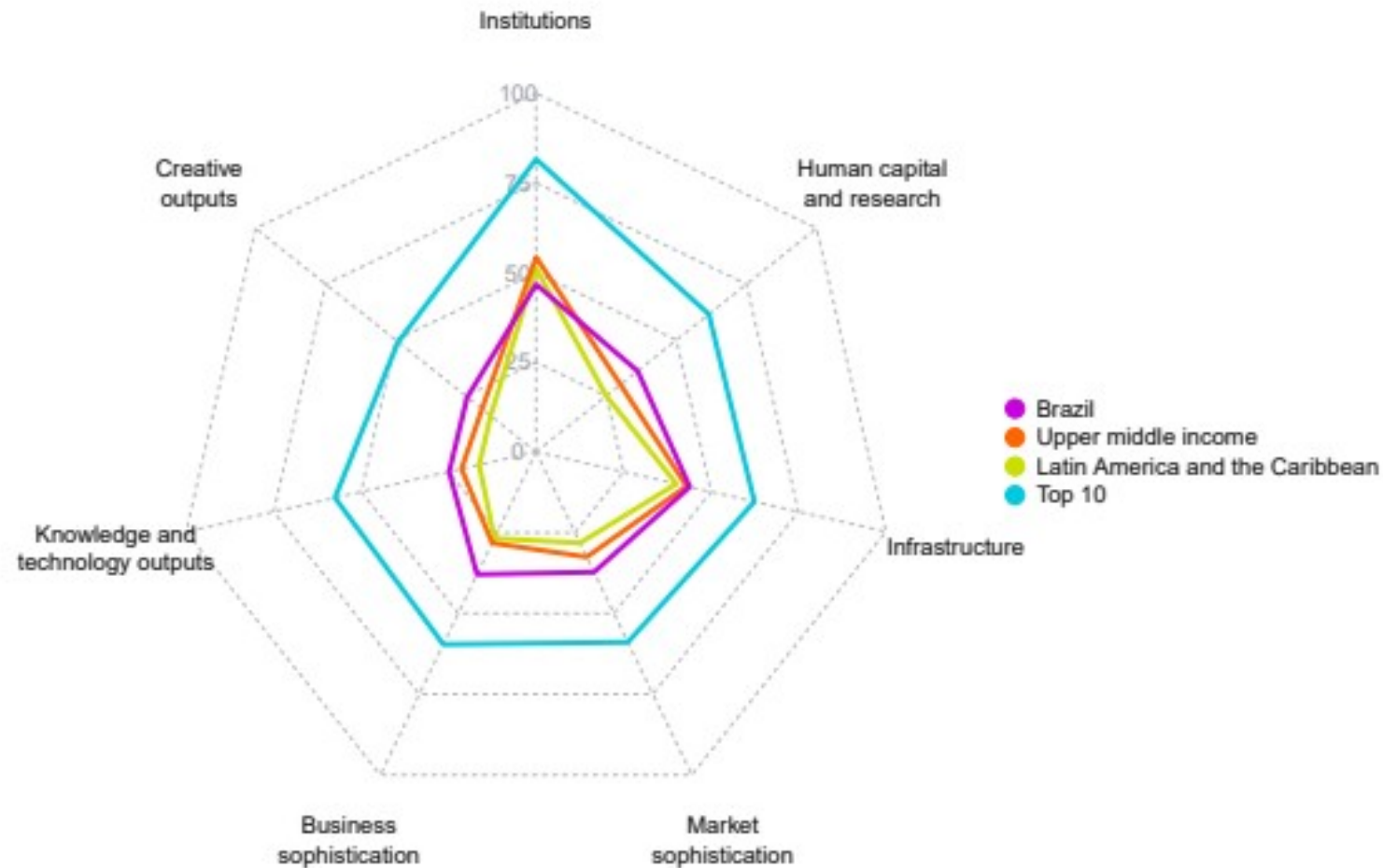
- Abilio Afonso Baeta Neves
- Alvaro Toubes Prata
- Jorge Nicolas Audy
- Emidio Cantidio
- Wanderlay de Souza
- Carlos Henrique de Carvalho
- Robério Rodrigues da Silva
- Francisco de Assis Mendonça
- Connie McManus (presidente)

# Situação do Brasil - WIPO

- 1 cluster de inovação no top 100 mundial (São Paulo)
  - Países de “Middle – income”
    - 3 clusters (Rio de Janeiro e Porto Alegre)
  - Serviços financeiros domina inovação (quinto andar, bancos)
  - Baixa produtividade e inabilidade de firmas adotar novas tecnologias

# BENCHMARKING AGAINST OTHER UPPER MIDDLE-INCOME GROUP ECONOMIES AND LATIN AMERICA AND THE CARIBBEAN

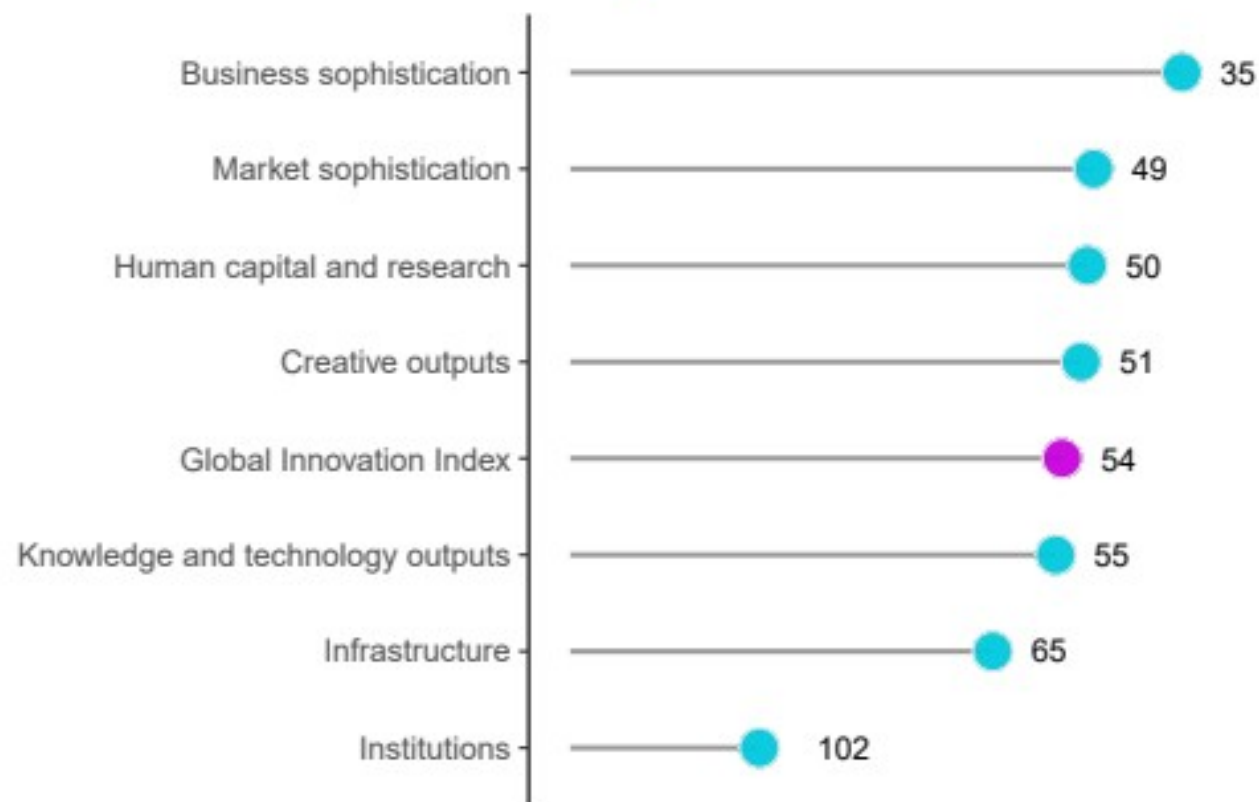
## The seven GII pillar scores for Brazil



## OVERVIEW OF RANKINGS IN THE SEVEN GII 2022 AREAS

Brazil performs best in Business sophistication and its weakest performance is in Institutions.

### The seven GII pillar ranks for Brazil



Note: The highest possible ranking in each pillar is 1.

# Sistema de Ciência e Tecnologia no Brasil



# Agências







# Pesquisadores



# Sentimentos

Lentos

Sozinho

Fundações não ajudam

Burocracia

Projeto de País

Lentos

Complicação

Pesadelo

Impraticável

Impossibilidade

NIT não ajudam

Legislação

Castigado

Cartesiano



# Desafios

Insegurança

Profissionais

Modernizar Modelo PG

Valor

Formação

Assédio

Plano de Carreira

Saúde

Treinamento para ser Orientador

Moral

# Trabalho do Professor de Pós-Graduação

Lecionar

Graduação

Pós-graduação

Outras IES  
(Colaboração)

Administrar

Interna

Externa

Comitês

GTs

Pesquisar

Colaboração

Atualização

Orientar

Graduação

Pós-graduação

Laboratório

Compras

Maquina

Escrever  
projeto e  
relatório

Publicar

Revisar  
para  
revistas

Editar

Extensão

Palestras

Sociedade

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Outras IES

Administrar

Interna

Externa

Pesquisar

Laboratório

projeto e relatório

Publicar

Revisar para revistas

Editar

Extensão

Palestras

Blogs

< 40%

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Publicar

Revisar para revistas

Editar

Extensão

Palestras

Blogs

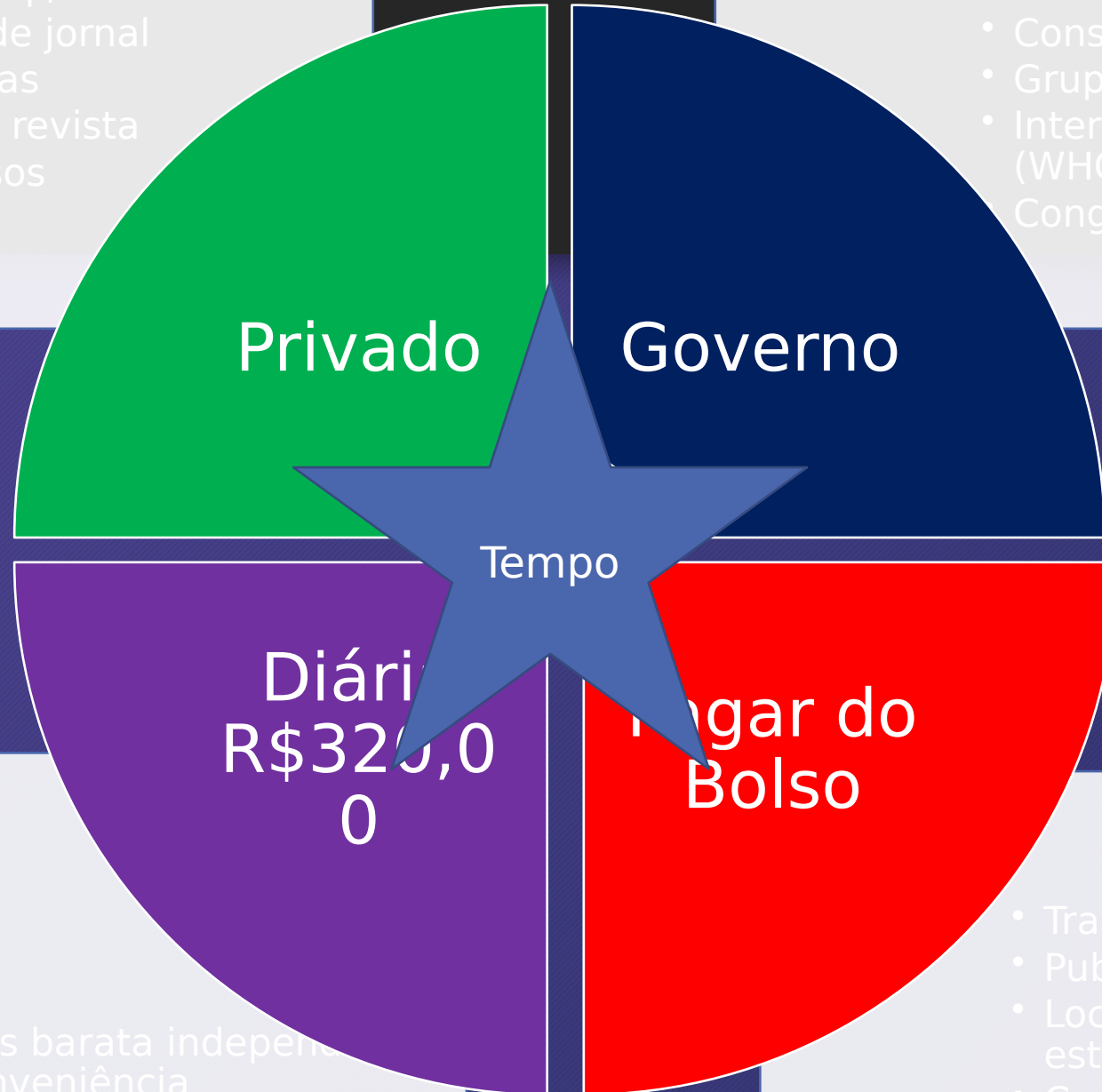
Sem pagamento

# Elementos

Sem reconhecimento institucional

- Pareceres p/revistas
- Opinião de jornal
- Entrevistas
- Editor de revista
- Congressos

- Pareceres
- Conselhos
- Grupos de Trabalho
- Internacional (WHO/FAO/UNESCO etc)
- Congressos



- Hotel
- Alimentação
- Taxi
- Passagem mais barata independente da hora ou conveniência

- Trabalho de Campo
- Publicações
- Locação/ estacionamento
- Congressos
- Material de













# Visão Empresarial



Há demanda de pesquisa dentro das empresas



Empresas contratam para fazer pesquisa nas IES e tem  
fila de experimentos  
Falta professores e gestão



Alunos formados bem, mas sem visão empresarial  
Sabem fazer experimento, mas não a utilidade dele  
As Fundações de Apoio melhoraram relação com as IES



Falta infraestrutura básica de sistemas de produção nas  
IES para dar mais sustentação aos projetos de pesquisa  
(perto de mercado)



# Sugestões





# Orientações

**Termo de Entendimento**  
Ausência de Estrat

**Internacional**  
Plataforma

**Flexibilização**  
Setor Empresarial

**Excelência**  
Prática

**Eficiência**  
Cartão

**Definição de Entendimento**  
Áreas Estratégicas

**Regime Diferenciado**  
GT Deslegislação

**Excelência**  
Resolver

**Médio e Longo Prazo**  
Impacto

**Regime Diferenciado**  
GT Deslegislação

**Rubrica Unica**  
Flexibilização

# Metas

**Convivência Internacional**

**Ousadia**

**Ampla Reforma Ensino Superior**

**Reconhecimento**

**Profunda Reorganização do Sistema de Fomento**

**Protagonismo**

**Solução de Problemas**

**Médio e Longo Prazo**

**Alto Risco**

**Valorização**

**Foco no Resultado**

**Relevância**

**Redes Internacionais**

**Prioridades**

**Reafirmar Missões das Agências**

## Strengths and weaknesses for Brazil

Strengths			Weaknesses		
Code	Indicator name	Rank	Code	Indicator name	Rank
2.1.1	Expenditure on education, % GDP	20	1.3.1	Policies for doing business	103
3.1.3	Government's online service	20	1.3.2	Entrepreneurship policies and culture	66
3.1.4	E-participation	18	2.1.4	PISA scales in reading, maths and science	68
4.3.3	Domestic market scale, bn PPP\$	8	2.2.2	Graduates in science and engineering, %	82
5.3.1	Intellectual property payments, % total trade	14	2.2.3	Tertiary inbound mobility, %	105
5.3.2	High-tech imports, % total trade	19	3.2.3	Gross capital formation, % GDP	108
5.3.3	ICT services imports, % total trade	25	4.1.3	Loans from microfinance institutions, % GDP	57
6.1.5	Citable documents H-index	23	4.3.1	Applied tariff rate, weighted avg., %	107
7.1.1	Intangible asset intensity, top 15, %	17	7.2.2	National feature films/mn pop. 15–69	56
7.1.2	Trademarks by origin/bn PPP\$ GDP	19	7.2.4	Printing and other media, % manufacturing	83










A close-up photograph of a person's hand pouring blue liquid detergent from a white plastic cap into the detergent dispenser of a front-loading washing machine. The machine's door is open, and the interior drum is visible. The background is a plain, light-colored wall.

roupa suja

se lava em casa

Obrigada

Output rank	Input rank	Income	Region	Population (mn)	GDP, PPP\$ (bn)	GDP per capita, PPP\$			
53	58	Upper middle	LCN	214.0	3,437.6	16,169			
		Score/Value	Rank			Score/Value	Rank		
		<b>Institutions</b>	46.7	192			<b>Business sophistication</b>	37.9	35
1.1	<b>Political environment</b>		52.8	91	5.1	<b>Knowledge workers</b>		45.9	[40]
1.1.1	Political and operational stability*		65.5	74	5.1.1	Knowledge-intensive employment, %		24.5	59
1.1.2	Government effectiveness*		40.1	94	5.1.2	Firms offering formal training, %		n/a	n/a
1.2	<b>Regulatory environment</b>		63.2	70	5.1.3	GERD performed by business, % GDP		n/a	n/a
1.2.1	Regulatory quality*		40.9	84	5.1.4	GERD financed by business, %		43.5	37
1.2.2	Rule of law*		41.5	71	5.1.5	Females employed w/advanced degrees, %		14.4	53
1.2.3	Cost of redundancy dismissal		15.4	62	5.2	<b>Innovation linkages</b>		24.7	58
1.3	<b>Business environment</b>		24.1	121	5.2.1	University-industry R&D collaboration <sup>†</sup>		40.4	78
1.3.1	Policies for doing business <sup>†</sup>		35.4	103	5.2.2	State of cluster development and depth <sup>†</sup>		49.8	51
1.3.2	Entrepreneurship policies and culture*		12.8	66	5.2.3	GERD financed by abroad, % GDP		n/a	n/a
					5.2.4	Joint venture/strategic alliance deals/bn PPP\$ GDP		0.0	86
					5.2.5	Patent families/bn PPP\$ GDP		0.1	53
		<b>Human capital and research</b>	36.2	50	5.3	<b>Knowledge absorption</b>		43.3	30
2.1	<b>Education</b>		51.4	67	5.3.1	Intellectual property payments, % total trade		1.9	14
2.1.1	Expenditure on education, % GDP		6.1	20	5.3.2	High-tech imports, % total trade		13.2	19
2.1.2	Government funding/pupil, secondary, % GDP/cap		21.4	43	5.3.3	ICT services imports, % total trade		2.6	25
2.1.3	School life expectancy, years		15.6	44	5.3.4	FDI net inflows, % GDP		3.5	37
2.1.4	PISA scales in reading, maths and science		400.0	68	5.3.5	Research talent, % in businesses		26.6	48
2.1.5	Pupil-teacher ratio, secondary		16.3	79			<b>Knowledge and technology outputs</b>	24.8	55
2.2	<b>Tertiary education</b>		22.2	86	6.1	<b>Knowledge creation</b>		20.0	48
2.2.1	Tertiary enrolment, % gross		55.1	58	6.1.1	Patents by origin/bn PPP\$ GDP		1.7	43
2.2.2	Graduates in science and engineering, %		18.5	82	6.1.2	PCT patents by origin/bn PPP\$ GDP		0.2	54
2.2.3	Tertiary inbound mobility, %		0.2	105	6.1.3	Utility models by origin/bn PPP\$ GDP		0.8	26
2.3	<b>Research and development (R&amp;D)</b>		35.0	33	6.1.4	Scientific and technical articles/bn PPP\$ GDP		18.9	51
2.3.1	Researchers, FTE/mn pop.		887.7	53	6.1.5	Citable documents H-index		38.6	23
2.3.2	Gross expenditure on R&D, % GDP		1.2	34	6.2	<b>Knowledge impact</b>		30.8	54
2.3.3	Global corporate R&D investors, top 3, mn USD		46.5	32	6.2.1	Labor productivity growth, %		0.8	66
2.3.4	QS university ranking, top 3*		42.5	30	6.2.2	New businesses/th pop. 15-64		2.7	48
		<b>Infrastructure</b>	43.9	65	6.2.3	Software spending, % GDP		0.3	40
3.1	<b>Information and communication technologies (ICTs)</b>		80.4	45	6.2.4	ISO 9001 quality certificates/bn PPP\$ GDP		5.7	50
3.1.1	ICT access*		81.4	81	6.2.5	High-tech manufacturing, %		37.5	32
3.1.2	ICT use*		62.9	63	6.3	<b>Knowledge diffusion</b>		23.7	64
3.1.3	Government's online service*		87.1	20	6.3.1	Intellectual property receipts, % total trade		0.3	36
3.1.4	E-participation*		90.5	18	6.3.2	Production and export complexity		44.0	53
3.2	<b>General infrastructure</b>		26.0	75	6.3.3	High-tech exports, % total trade		2.6	53
3.2.1	Electricity output, GWh/mn pop.		2,922.5	64	6.3.4	ICT services exports, % total trade		1.1	85
3.2.2	Logistics performance*		43.7	55			<b>Creative outputs</b>	24.5	51
3.2.3	Gross capital formation, % GDP		17.3	108	7.1	<b>Intangible assets</b>		41.8	33
3.3	<b>Ecological sustainability</b>		25.3	71	7.1.1	Intangible asset intensity, top 15, %		72.1	17
3.3.1	GDP/unit of energy use		10.2	67	7.1.2	Trademarks by origin/bn PPP\$ GDP		82.7	19
3.3.2	Environmental performance*		43.6	60	7.1.3	Global brand value, top 5,000, % GDP		34.7	41
3.3.3	ISO 14001 environmental certificates/bn PPP\$ GDP		1.0	69	7.1.4	Industrial designs by origin/bn PPP\$ GDP		1.4	58
		<b>Market sophistication</b>	37.2	49	7.2	<b>Creative goods and services</b>		6.8	93
4.1	<b>Credit</b>		22.1	82	7.2.1	Cultural and creative services exports, % total trade		0.5	51
4.1.1	Finance for startups and scaleups*		40.7	38	7.2.2	National feature films/mn pop. 15-69		1.1	56
4.1.2	Domestic credit to private sector, % GDP		70.2	48	7.2.3	Entertainment and media market/th pop. 15-69		6.0	44
4.1.3	Loans from microfinance institutions, % GDP		0.0	57	7.2.4	Printing and other media, % manufacturing		0.5	83
4.2	<b>Investment</b>		17.2	38	7.2.5	Creative goods exports, % total trade		0.2	83
4.2.1	Market capitalization, % GDP		59.8	32	7.3	<b>Online creativity</b>		7.6	51
4.2.2	Venture capital investors, deals/bn PPP\$ GDP		0.0	53	7.3.1	Generic top-level domains (TLDs)/th pop. 15-69		1.6	85
4.2.3	Venture capital recipients, deals/bn PPP\$ GDP		0.0	44	7.3.2	Country-code TLDs/th pop. 15-69		8.9	42
4.2.4	Venture capital received, value, % GDP		0.0	22	7.3.3	GitHub commit pushes received/mn pop. 15-69		8.3	47
4.3	<b>Trade, diversification, and market scale</b>		72.4	18	7.3.4	Mobile app creation/bn PPP\$ GDP		11.5	34
4.3.1	Applied tariff rate, weighted avg., %		8.4	107					
4.3.2	Domestic industry diversification		94.2	27					
4.3.3	Domestic market scale, bn PPP\$		3,437.6	8					

NOTES: ● indicates a strength; ○ a weakness; ◆ an income group strength; ◇ an income group weakness; \* an index; † a survey question. ○ indicates that the economy's data are older than the base year; see appendices for details, including the year of the data, at [https://www.wipo.int/global\\_innovation\\_index/en/2022](https://www.wipo.int/global_innovation_index/en/2022). Square brackets [ ] indicate that the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level.