State of the Postal Sector 2024

150 Years of the UPU, and Beyond

Presentation by the International Bureau

SPS 2024: presentation overview

Historical Analysis

- 150 Years of Evolution
- Key Development Metrics
- Internationalization

2IPD

- Methodology Changes
- 2024 Results
- Regional Analysis

Strategic Recommendations

Future Scenarios

- Regression
- Resilience
- Renaissance

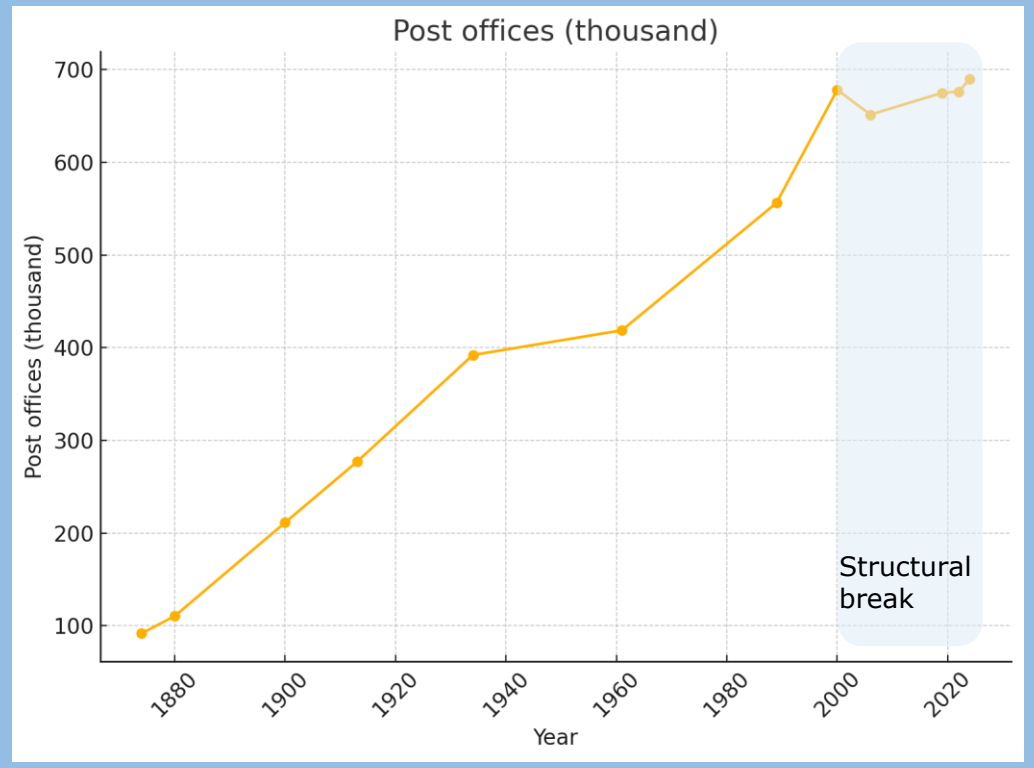
Postal Potential

- Natural Postal Development
- Over-achievers
- Technical Cooperation Tool

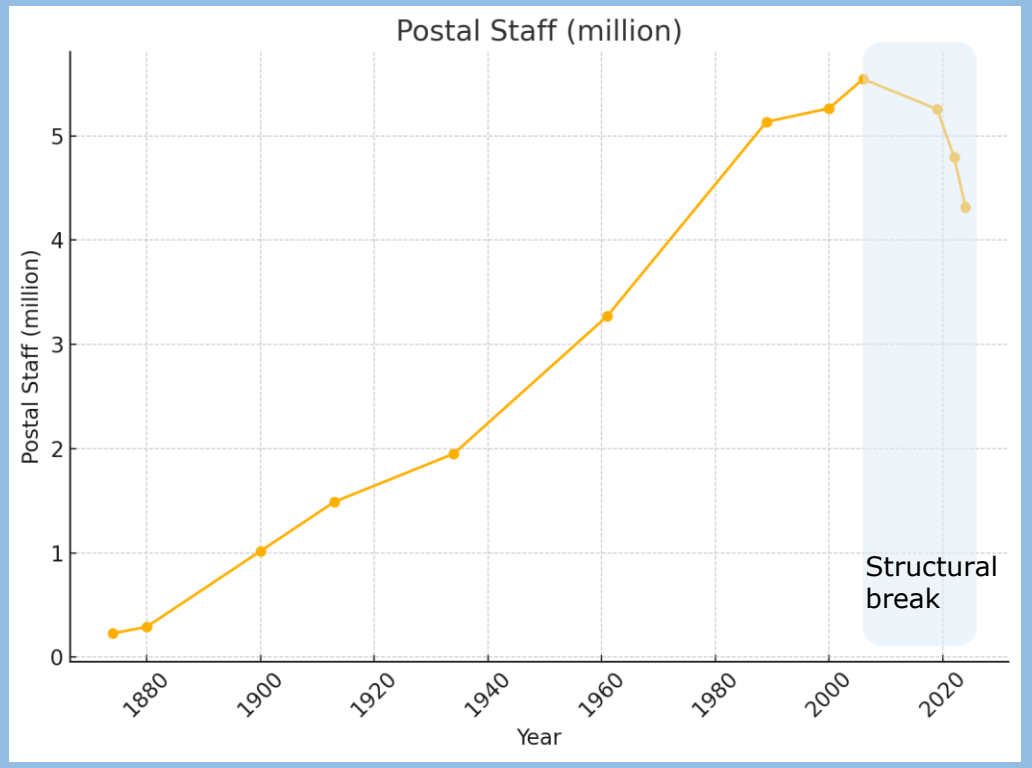
Historical Analysis

Section 1

Postal infrastructure development: a long-run perspective



Source: UPU Postal Statistics (1875-2023), UPU KCTT statistical modelling and estimates



Source: UPU Postal Statistics (1875-2023), UPU KCTT statistical modelling and estimates

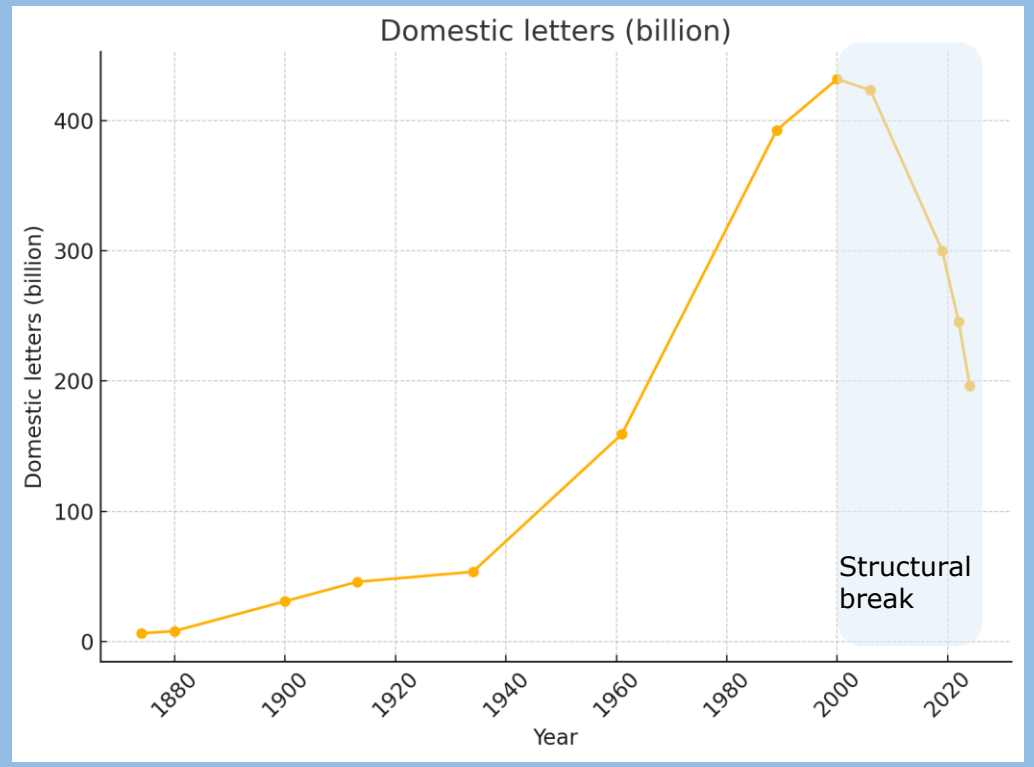
1874-2024: network x 7.5 (capital factor)

Growth in the **number of post offices** underscores the enduring importance of the **physical network access** as a **key asset for successful postal development**

1874-2024: staff x 19 (labor factor)

Growth in the **number of postal staff** highlights the **traditionally labor-intensive nature of delivering postal services**

Letter post development: a long-run perspective



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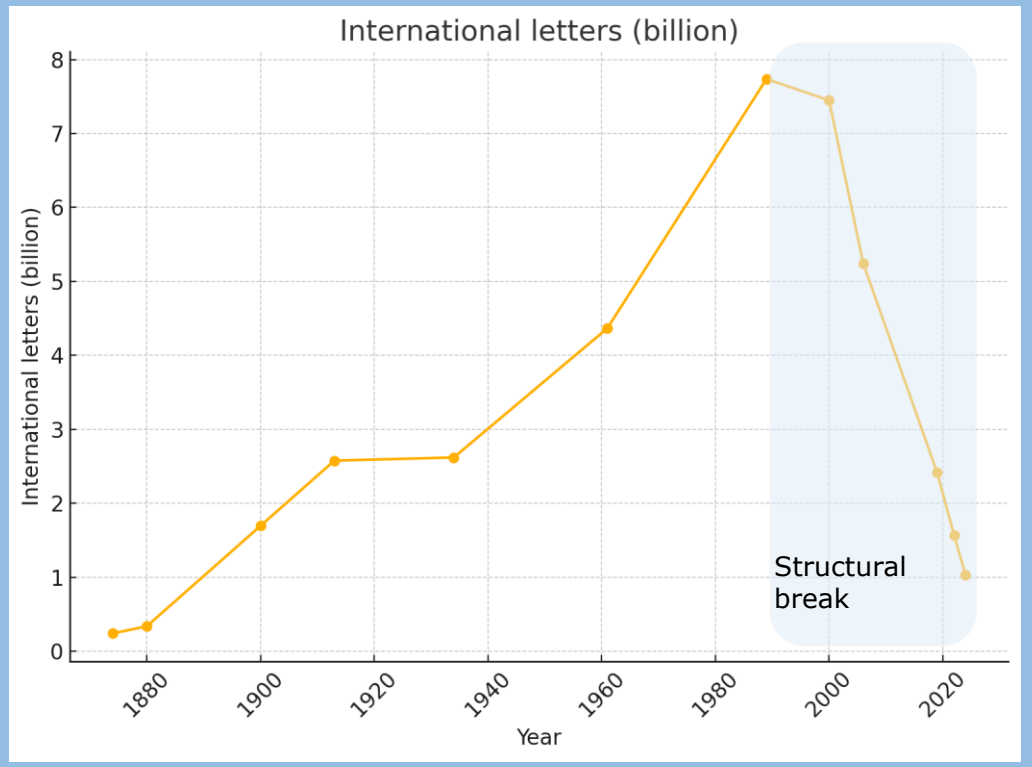


Source: UPU Postal Statistics (1875-2023), UPU KCTT statistical modelling and estimates (global volumes excluding small packets)

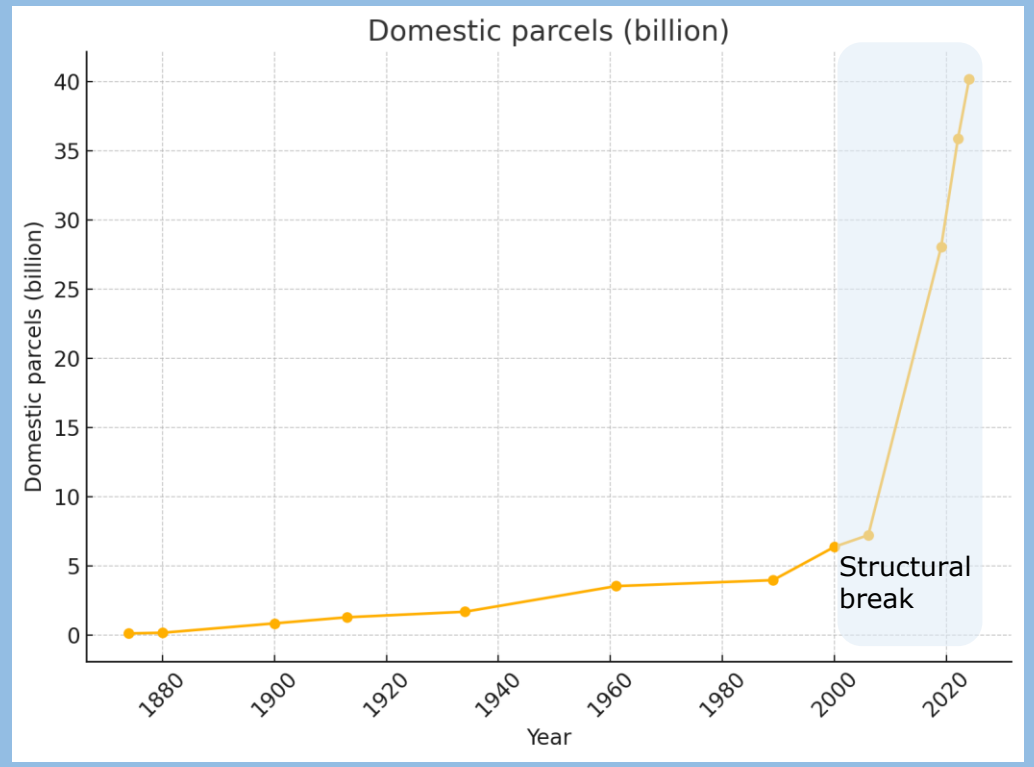
1874-2024: domestic traffic x 32 (x 70 in 2000)

Domestic letter post traffic **now at the same level observed in 1965** as a result of electronic substitution of mail

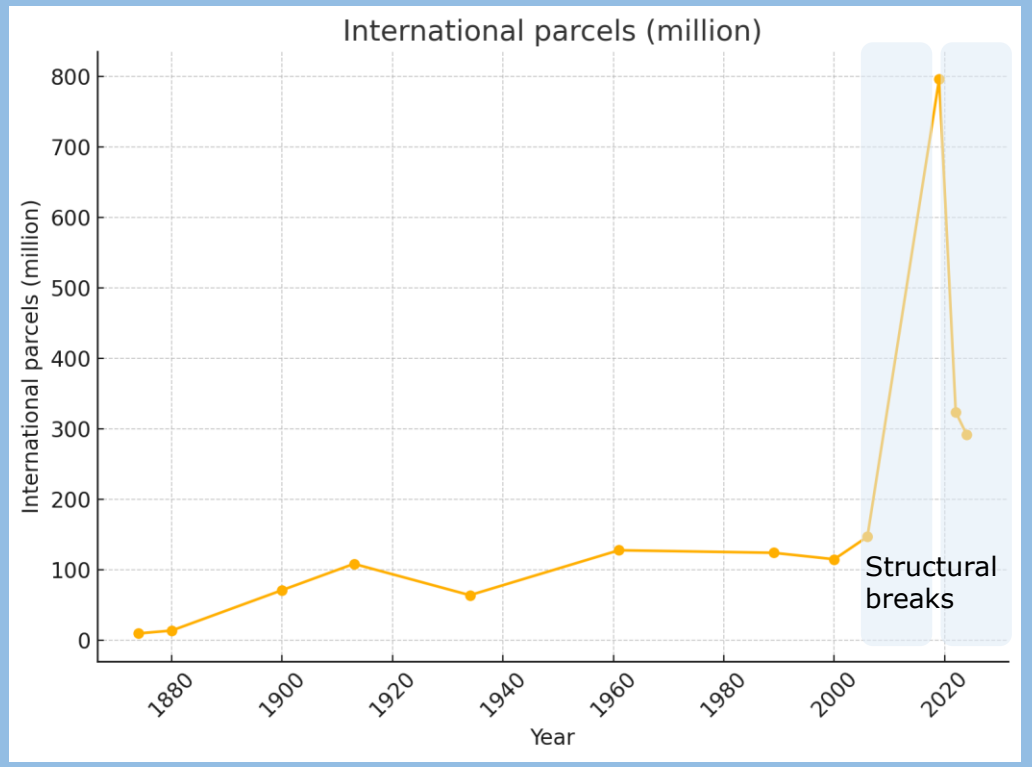
1874-2024: international traffic x 4.3 (x 35 in 1991)

International letter post traffic **now at the same level observed in 1888**, erasing more than a century of international growth in the past 35 years

Parcel post development: a long-run perspective



Source: UPU Postal Statistics (1875-2023), UPU KCTT statistical modelling and estimates (global volumes including small packets and express)



Source: UPU Postal Statistics (1875-2023), UPU KCTT statistical modelling and estimates (global volumes including small packets and express)

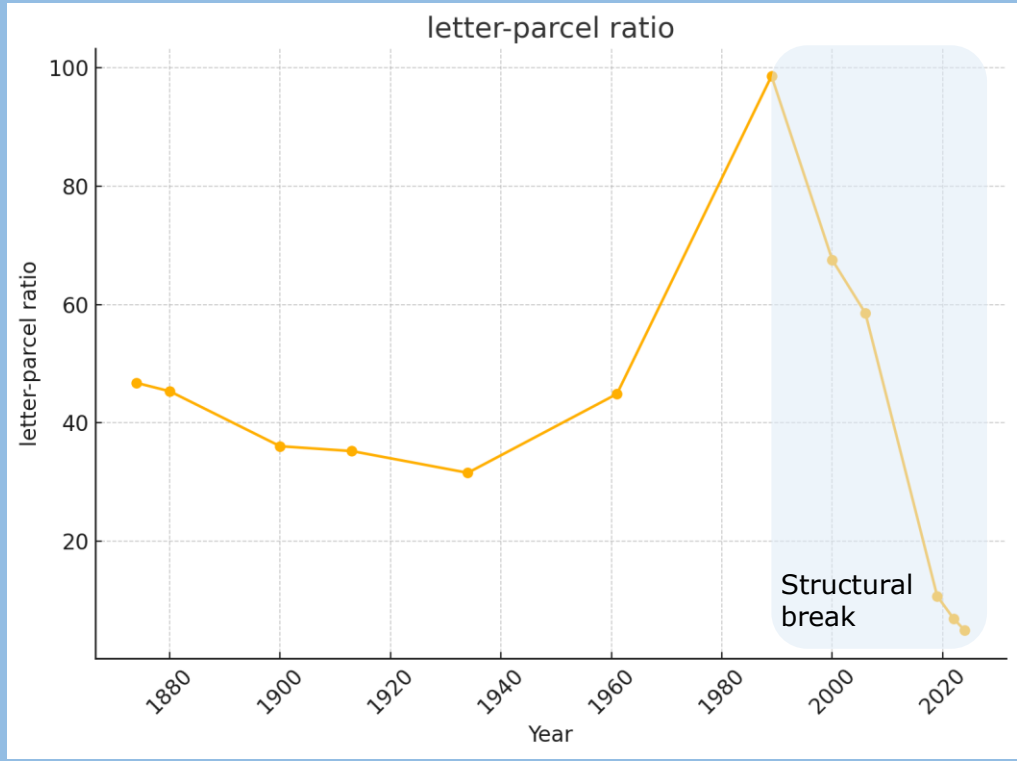
1874-2024: domestic traffic x 304

Domestic parcel post traffic **now at record high** as a result of **e-commerce exponential growth** since 2000

1874-2024: international traffic x 29 (x 79 in 2019)

Traditional B2C international postal parcels and small packets: **sharp volume decline of nearly 60% by 2024 after peaking in 2019** with **traffic diversion towards non-postal B2B2C** e-commerce parcel models (cargo, forward located inventory)

Letter parcel ratio evolution: towards next gen of postal models



Source: UPU Postal Statistics (1875-2023), UPU KCTT statistical modelling and estimates (excluding small packets from letter post and including them in parcel post)

1874: 48 letters for one parcel

1990: 100 letters for one parcel

2024: 5 letters for one parcel

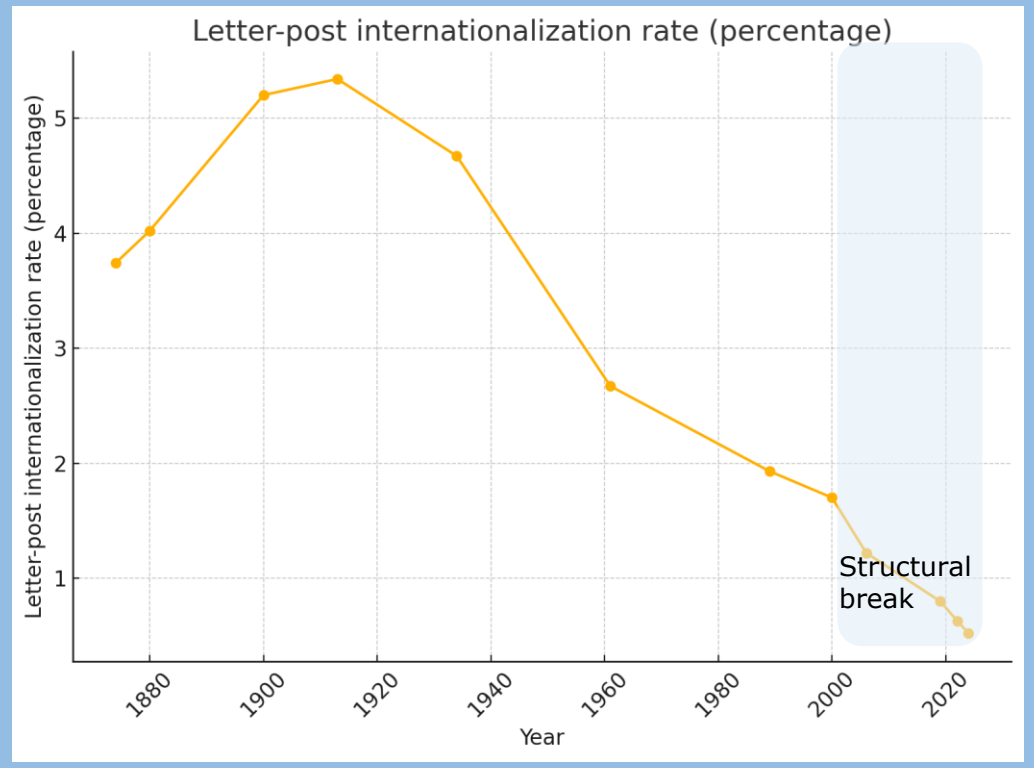
Are postal networks, business and policies **adapting fast enough to this structural change**? Are they standing the **APS test**?

Agility (A) in operational models? New approaches required by the shift from traditional letter and documents delivery to tailored parcel and goods logistics services powered by AI

Profitability (P) in business models? New eco-systemic value propositions and pricing needed in response to the shift from sender-driven to recipient-driven delivery experience

Sustainability (S) in policy models? New postal sector vision to cope with the shift from heavily regulated letter-post monopolies to smartly supervised co-opetitive parcel markets

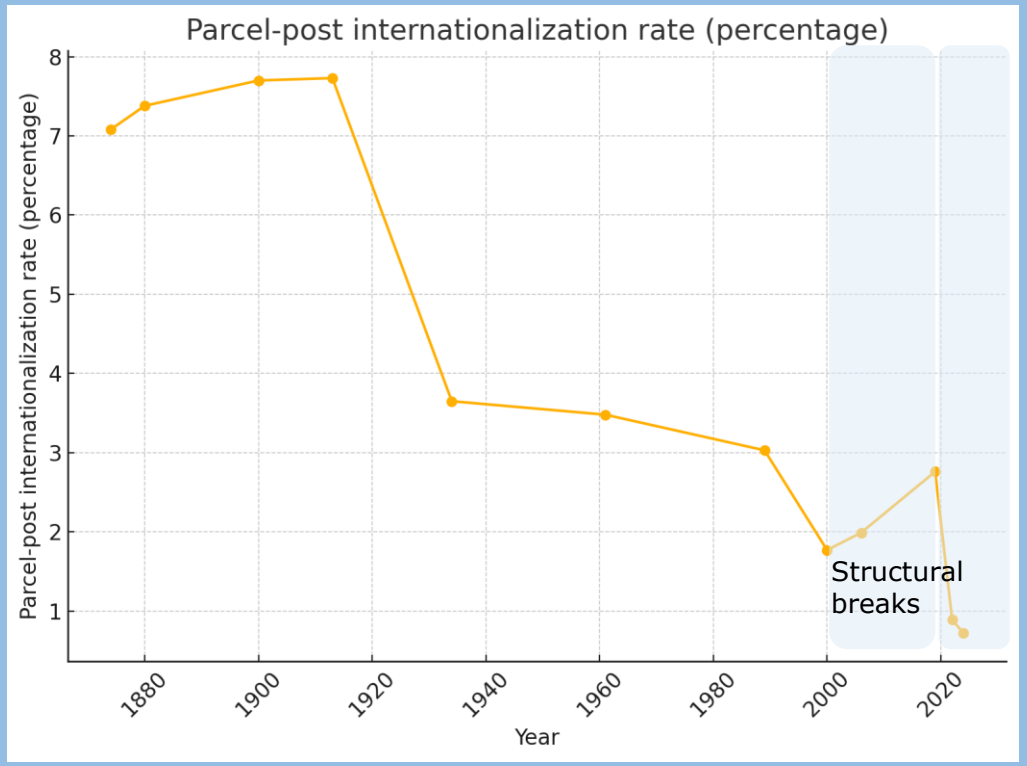
Internationalization of postal services: a long-run perspective



Source: UPU Postal Statistics (1875-2023), UPU KCTT statistical modelling and estimates (excluding small packets from letter post items)

From peak of 5.4% (1913) to low of 0.5% (2024)

The old declining trend for the importance of letters as an international communication media reveals a **lack of innovation and policy failures**

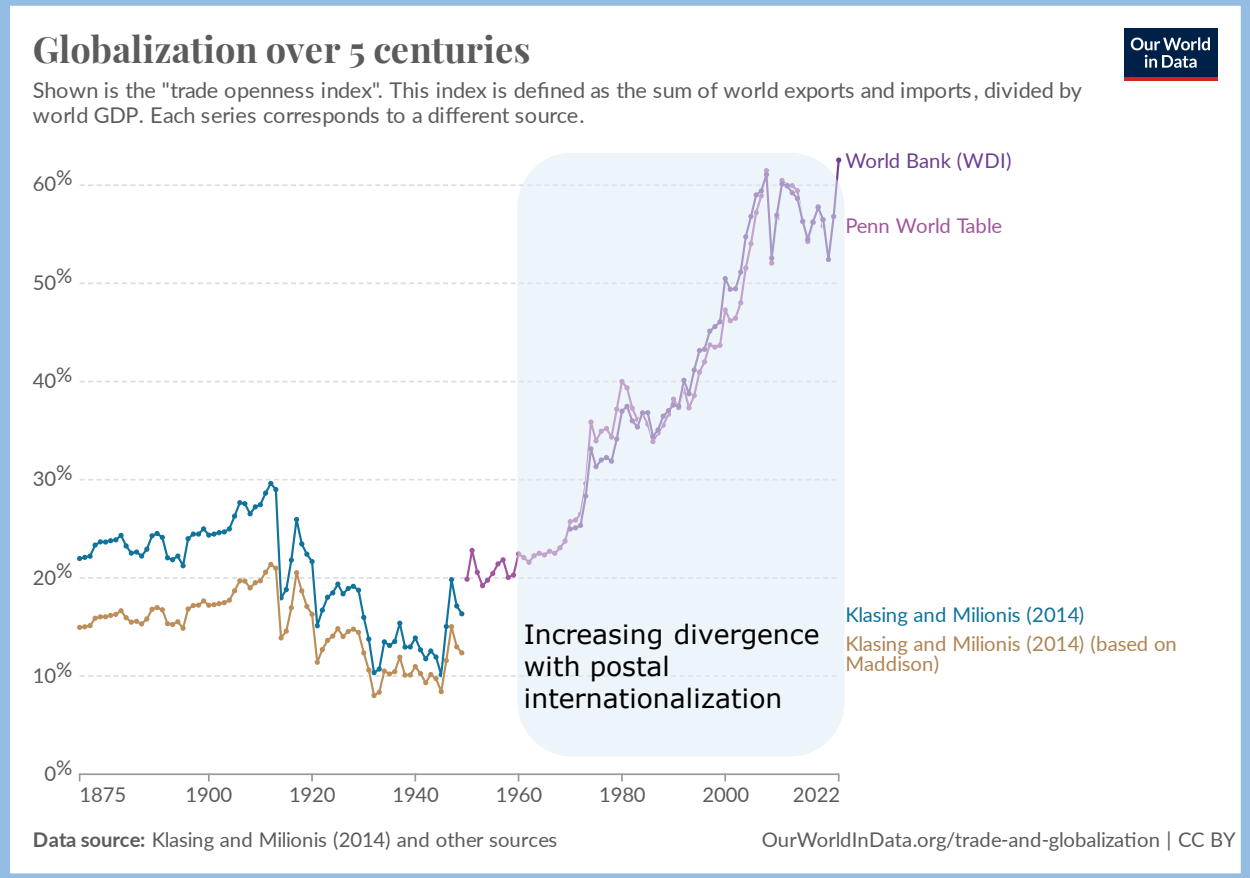


Source: UPU Postal Statistics (1875-2023), UPU KCTT statistical modelling and estimates (including small packets in parcel post items)

From peak of 7.7% (1913) to low of 0.7% (2024)

The volatile evolution of the share of international parcels in total parcel traffic related to **very competitive and innovative global CEP markets**

Postal internationalization and globalization: converging and diverging trends



Source: Our World in Data (2024)

1874-1913 convergence:
growing globalization and greater postal internationalization

1913-1945 convergence:
declining globalization and reduced postal internationalization

1960-2024 increasing divergence:
expanding globalization (trade/GDP) and contracting postal internationalization (international post / (domestic post + international post))

Boosting **trade facilitation and compliance role of postal services?**

Future scenarios

Section 2

Postal internationalization over the next 50 years: three scenarios

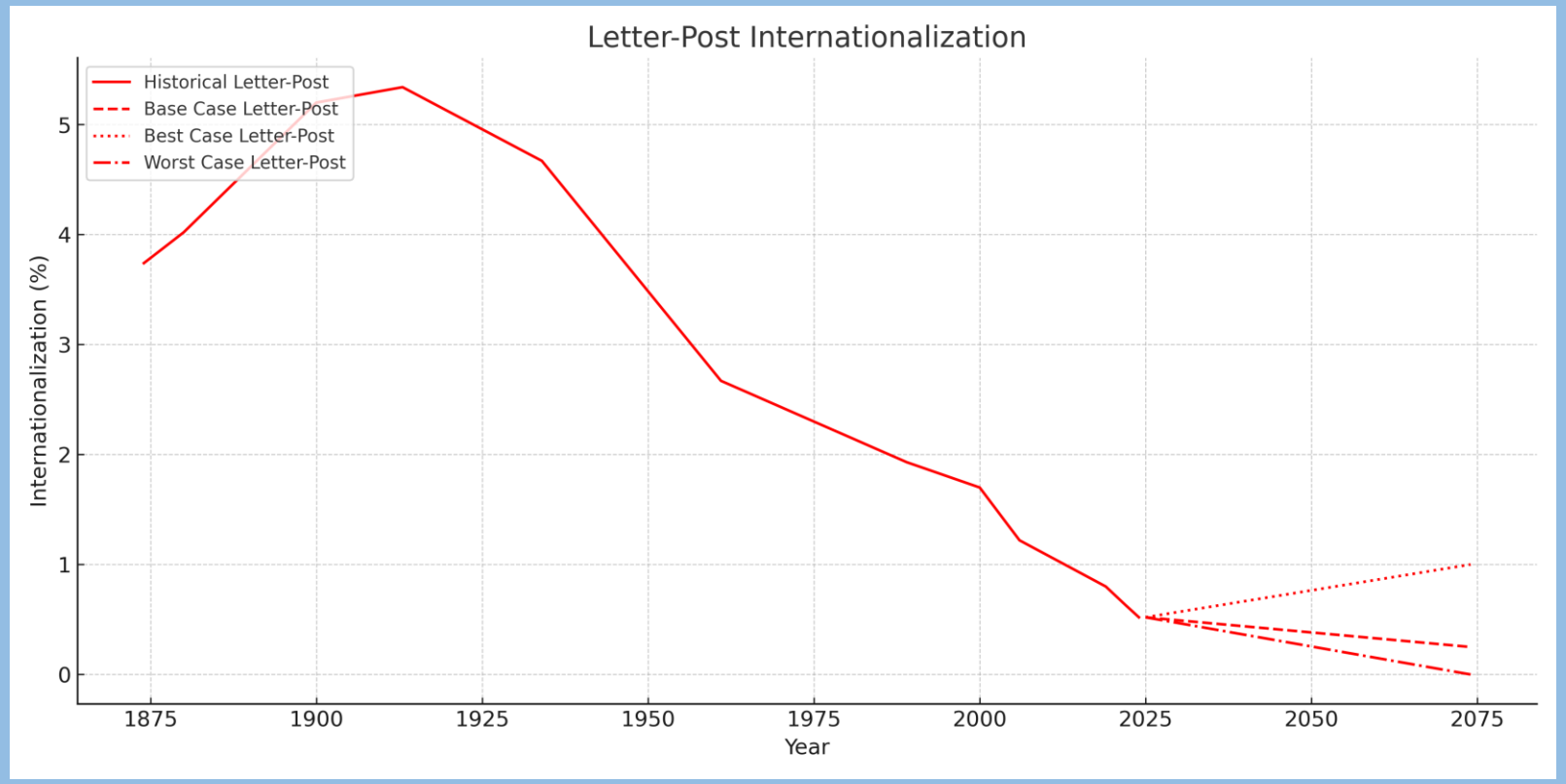
Past Facts	Worst-case scenario: Regression (R^{-1})	Base-Case scenario: Resilience (R^{0})	Best-Case scenario: Renaissance (R^{+1})
Postal internationaliza-tion as a fraction of globalization (F1)	**5**	**3**	**2**
Slow adaptation of international postal services (F2)	**4**	**3**	**1**
Parcel post internationaliza-toin below long-run potential (F3)	**5**	**2**	**1**
			Scale: 1 (completely false)-5 (completely true)

Even at its peak in 1913, the **internationalization of letter post and parcel post** remained significantly **lower than the share of international trade** flows in global GDP

International postal services have often been reactive rather than proactive **falling behind as global dynamics shifted** over time

Despite the **explosive growth of e-commerce**, **international parcel post** has consistently **failed to realize its full potential**

Letter post internationalization: regression or resilience?



Source: UPU Postal Statistics (1875-2023), UPU KCTT statistical modelling, estimates, forecasts and scenarios simulations (excluding small packets from letter post items)

Regression (worst-case):

Sharp decline in international postal services going on after 2024

Continued structural decline as new digital players dominate

Risk of service obsolescence in some regions

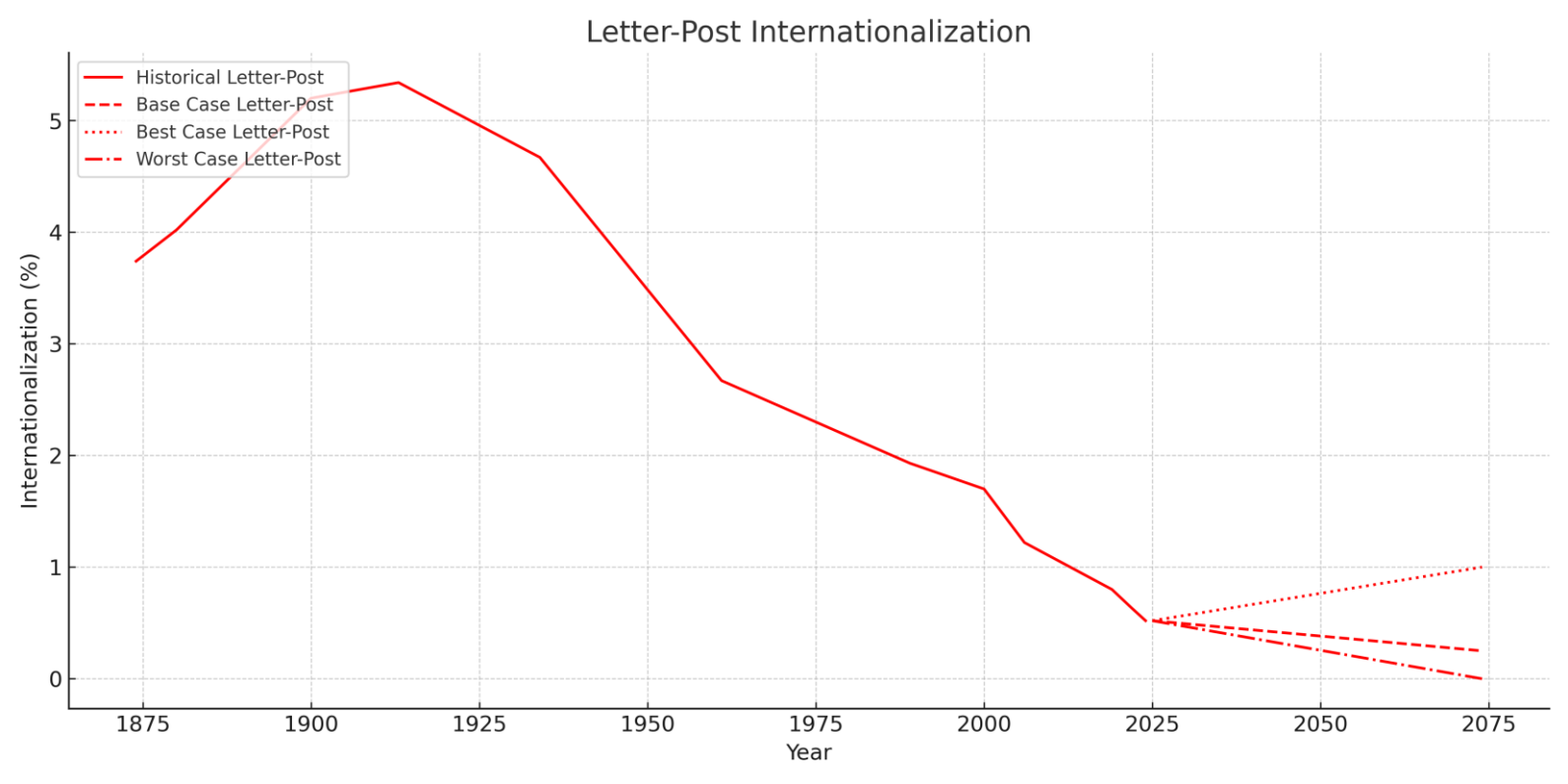
Resilience (base-case):

Stabilization of decline around 0.25% internationalization rate

Maintains relevance in niche markets (official/legal communication)

Strategic adaptation to preserve core services

Letter post internationalization: a path to renaissance?



Source: UPU Postal Statistics (1875-2023), UPU KCTT statistical modelling, estimates, forecasts and scenarios simulations (excluding small packets from letter post items)

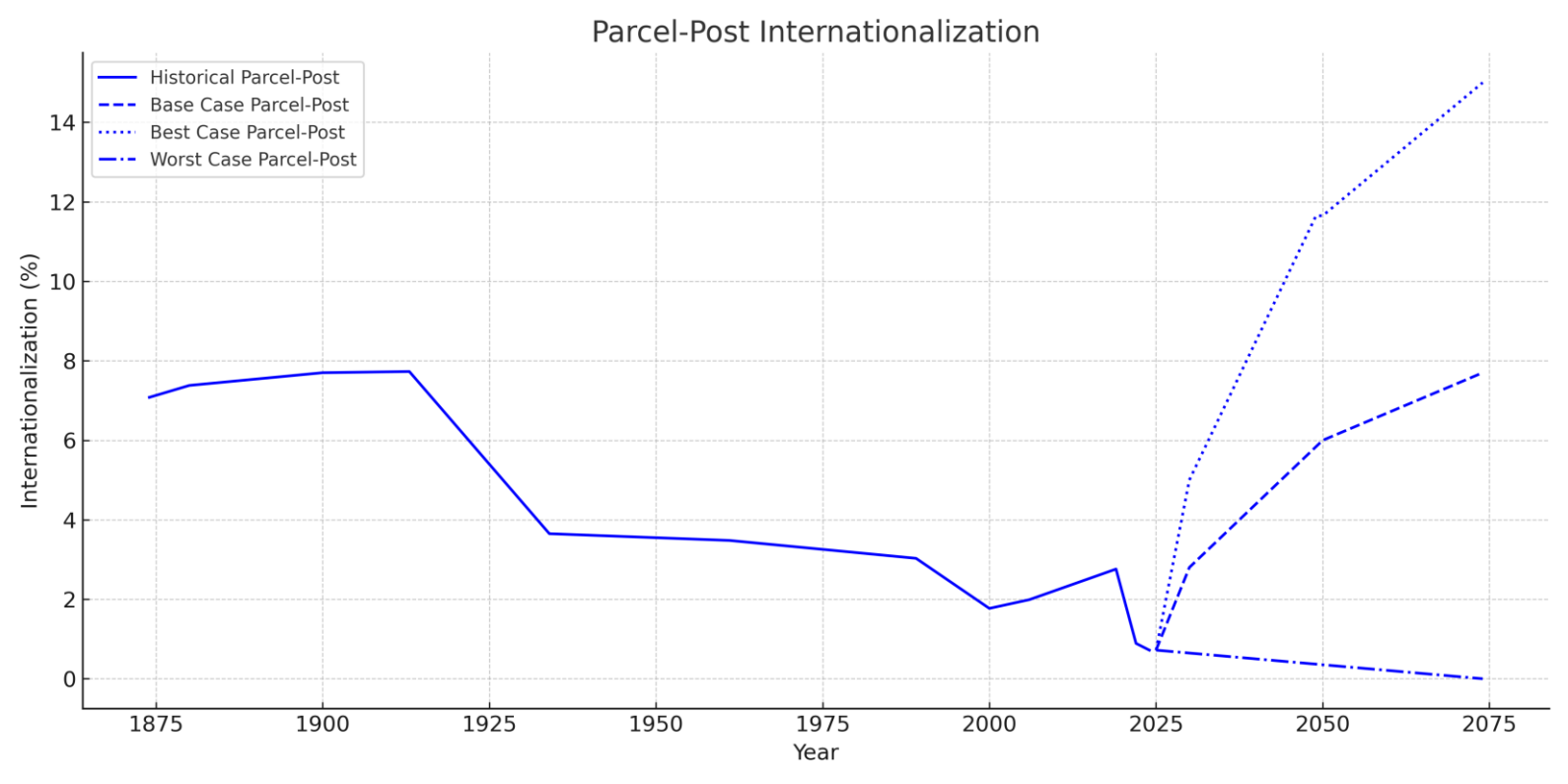
Renaissance (best-case):

Upward trend reaching 1% internationalization rate by 2074

Full integration with digital technologies

Part of unified international postal ecosystem

Parcel post internationalization: regression or resilience?



Source: UPU Postal Statistics (1875-2023), UPU KCTT statistical modelling, estimates, forecasts and scenarios simulations (including small packets in parcel post items)

Regression (worst-case):

Sharp decline with internationalization rate approaching zero by 2074

Growing dominance of private-sector alternatives

Market fragmentation and regional disconnection from global trade networks

Failure to modernize legacy systems

Resilience (base-case):

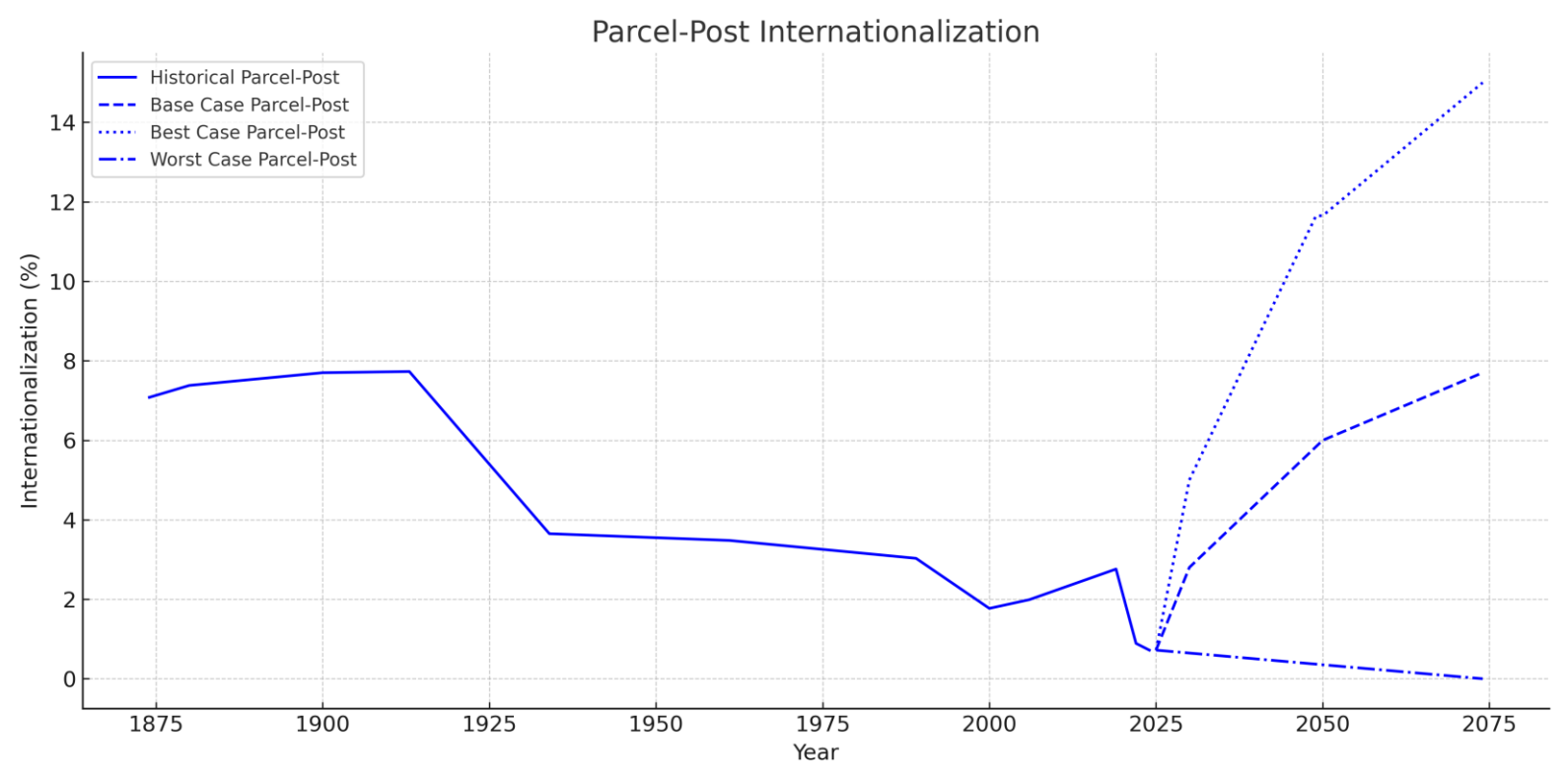
Clear rebound reaching ~8% internationalization by 2074

Strategic investments in automation and digital technologies

Enhances partnerships with e-commerce platforms

Improved track-and-trace and last-mile logistics

Parcel post internationalization: a path to renaissance?



Source: UPU Postal Statistics (1875-2023), UPU KCTT statistical modelling, estimates, forecasts and scenarios simulations (including small packets in parcel post items)

Renaissance (best-case):

Dramatic resurgence reaching nearly 15% internationalization by 2074

Full integration of AI, real-time customs clearance, and autonomous delivery

Leadership role in global e-commerce delivery ecosystem

Seamless integration with global digital trade networks

2IPD

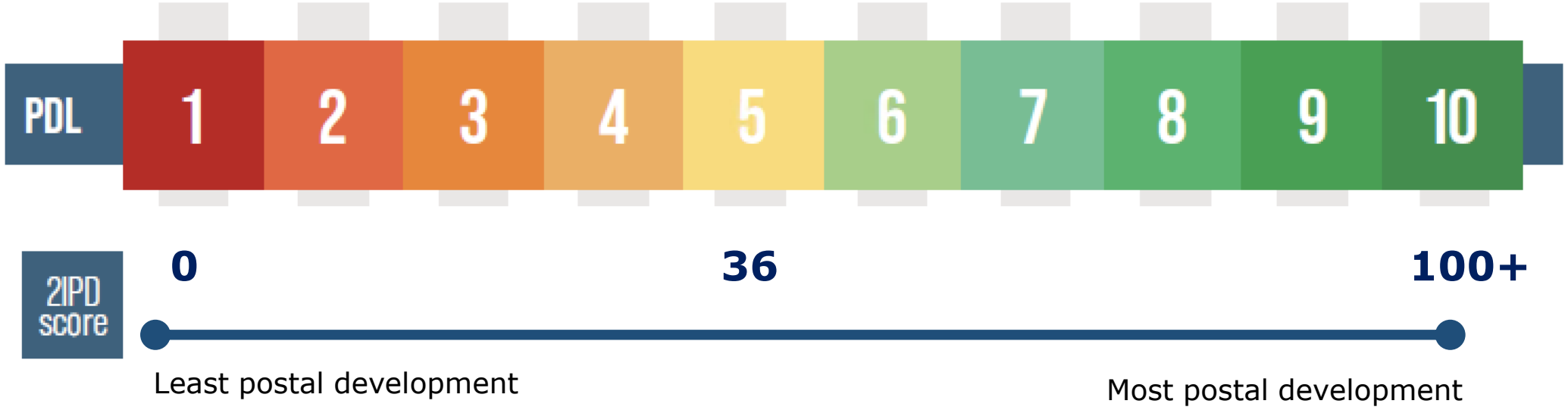
Section 3

New 2IPD

How is the new 2IPD score calculated from 2024 onwards?

	New 2IPD score				
The four Rs + bonus	**(R_1) Reliability**	**(R_2) Reach**	**(R_3) Relevance**	**(R_4) Resilience**	**++(B) Bonus++**
What does each R measure? What does the bonus reward?	Assesses the **development** of customers' **delivery experience** from a delivery **speed** and **predictability** perspective at national level	Evaluates the **level of international postal connectivity** with the rest of the world from an **inbound and outbound** perspective	Measures the **relative success** of different postal **business models** from the **demand and network** development perspectives	Estimates **capacity to engage with customers** through accurate data and **overcome** economic, social and technological **shocks in a sustainable way**	**Rewards high-quality** answers to UPU **postal statistics** questionnaires, participation in **carbon reporting** systems and **decarbonization** efforts
Key changes between the old and new 2IPD	**Geographical challenges better taken into account** Speed: best result between average and median delivery time Predictability: best result between standard deviation and interquartile range	**Adds the inbound perspective to the outbound perspective** Uses a greater variety of EDI messages (POST*Net + GXS) to better measure connectivity Best score between PREDES and EMSEVT analytical outcomes	**Balanced evaluation of success of letter post, parcel post, financial and other new services** Better ways of measuring network development (post offices + out-of-home delivery + rural access points) Best score between alternative formulas	**Assesses the quality of mail tracking event data to sustainably engage with senders, recipients and platforms** New parcel/letter ratio Improved comparisons between different diversification strategies	**Considers quality of data provided for the production of official UPU postal statistics** Evaluates the intensity of decoupling between postal carbon emissions and postal traffic evolutions through participation in the UPU's OSCAR or IPC's SMMS

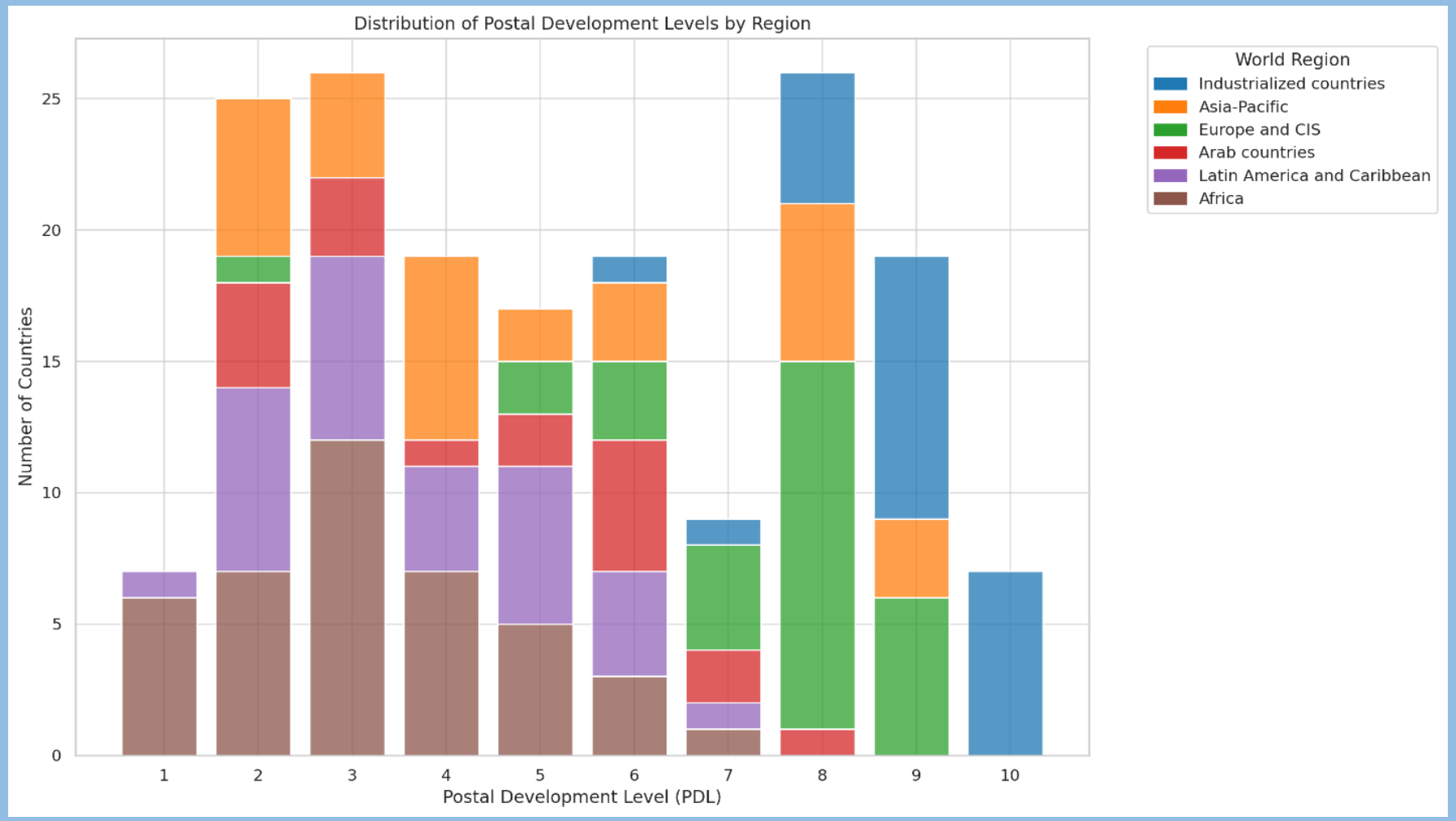
10 postal development levels (PDLs)



Higher postal development leads to higher levels of income per capita, **greater economic growth and resilience**, and a **higher gross domestic product (GDP)**

UPU research shows that **postal services contribute** approximately **7% of GDP** in the median country (compared to the hypothetical scenario of a country without postal services)

Global postal development: mapping the disparities



Main data sources: UPU Postal Statistics (2022) and UPU Postal Big Data (2023)
Note: New 2IPD methodology applied (2024)

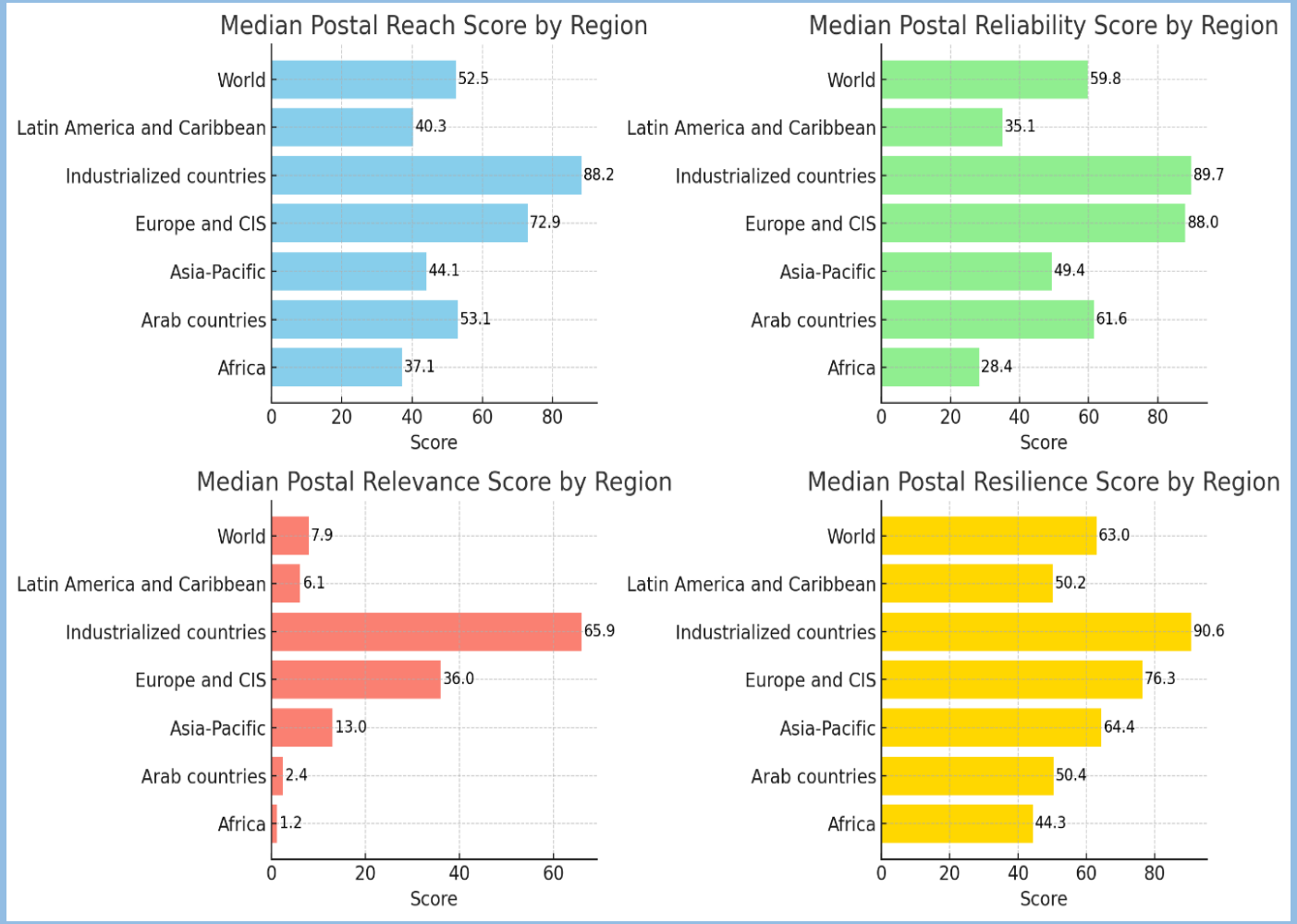
Global postal divide: significant development gaps persist between regions and countries

Out of 192 countries, 18 not evaluated as a result of a lack of reliable data

77 countries in low postal development levels

Median 2IPD score of 43.0

Four Rs: mapping regional disparities



Main data sources: UPU Postal Statistics (2022) and UPU Postal Big Data (2023)
Note: New 2IPD methodology applied (2024)

Clear development gaps

Industrial countries lead around all dimensions

Significant divide between developing and developed regions

Consistent pattern: ICs > Europe/CIS > Asia-Pacific/Arab > Latin America/Africa

Key performance indicators

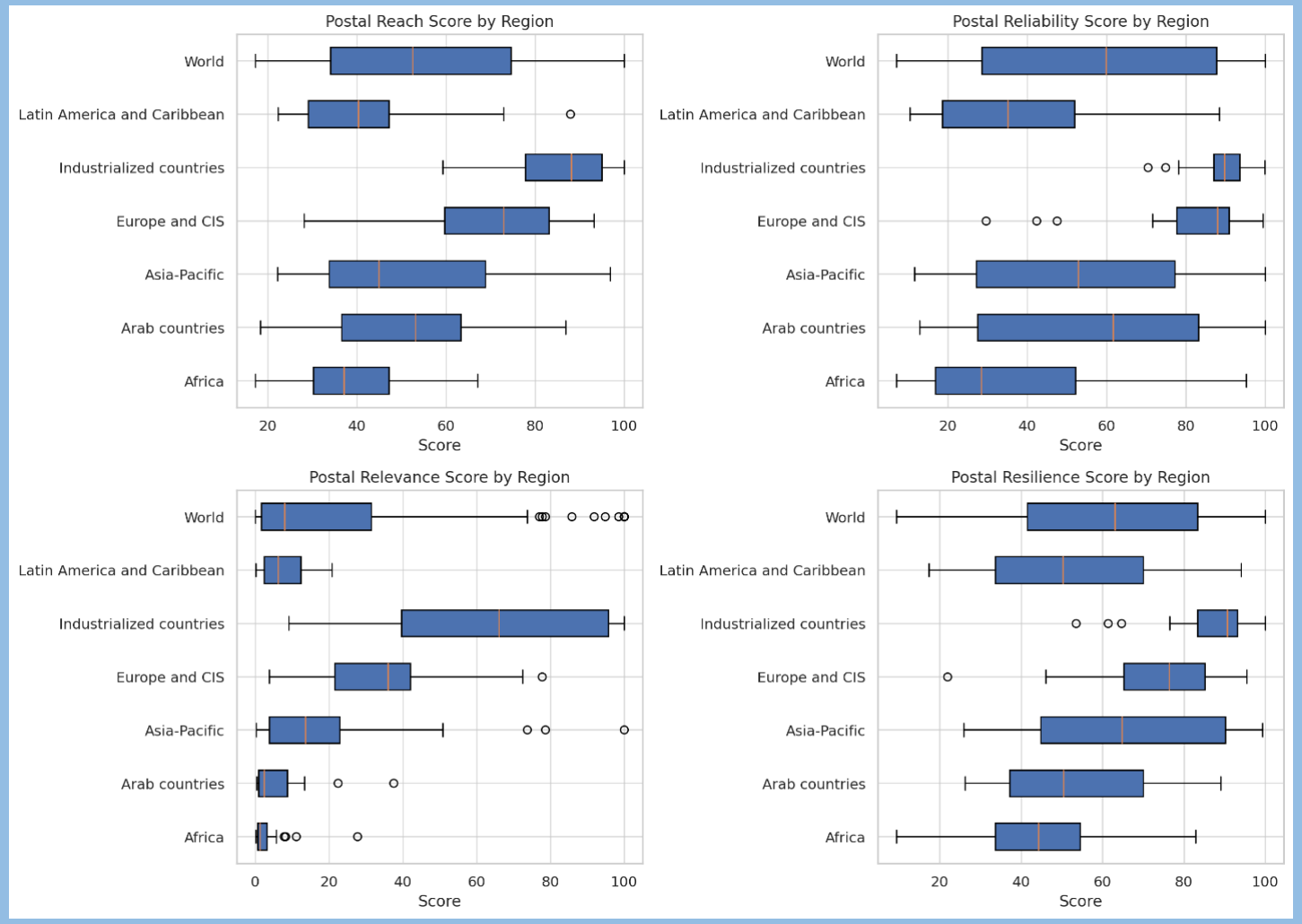
Reach: Only ICs and Europe/CIS maintain sufficient cross-border connectivity

Reliability: mirrors regional development levels

Relevance: most striking divide

Resilience: most balanced KPI

Four Rs: heterogeneous regional performance



Main data sources: UPU Postal Statistics (2022) and UPU Postal Big Data (2023)
Note: New 2IPD methodology applied (2024)

Regional distribution analysis

ICs show highest and most consistent performance across dimensions

High variability in Asia-Pacific and Arab region, especially in reliability

African scores consistently low with minimal variation

Variability within regions

Reach: lowest variability in highest and lowest performing regions

Reliability: wide score range in most developing regions

Relevance: stronger variability in higher performing regions with multiple outliers

Reach vs reliability: strong positive correlation

Main data sources: UPU Postal Statistics (2022) and UPU Postal Big Data (2023)
Note: New 2IPD methodology applied (2024)

Reach-Reliability connection

Strong correlation (R^2 = 0.70) shows interdependence in postal systems

Well-developed infrastructure enables both wider reach and better reliability

Successful internationalization drives service reliability improvements

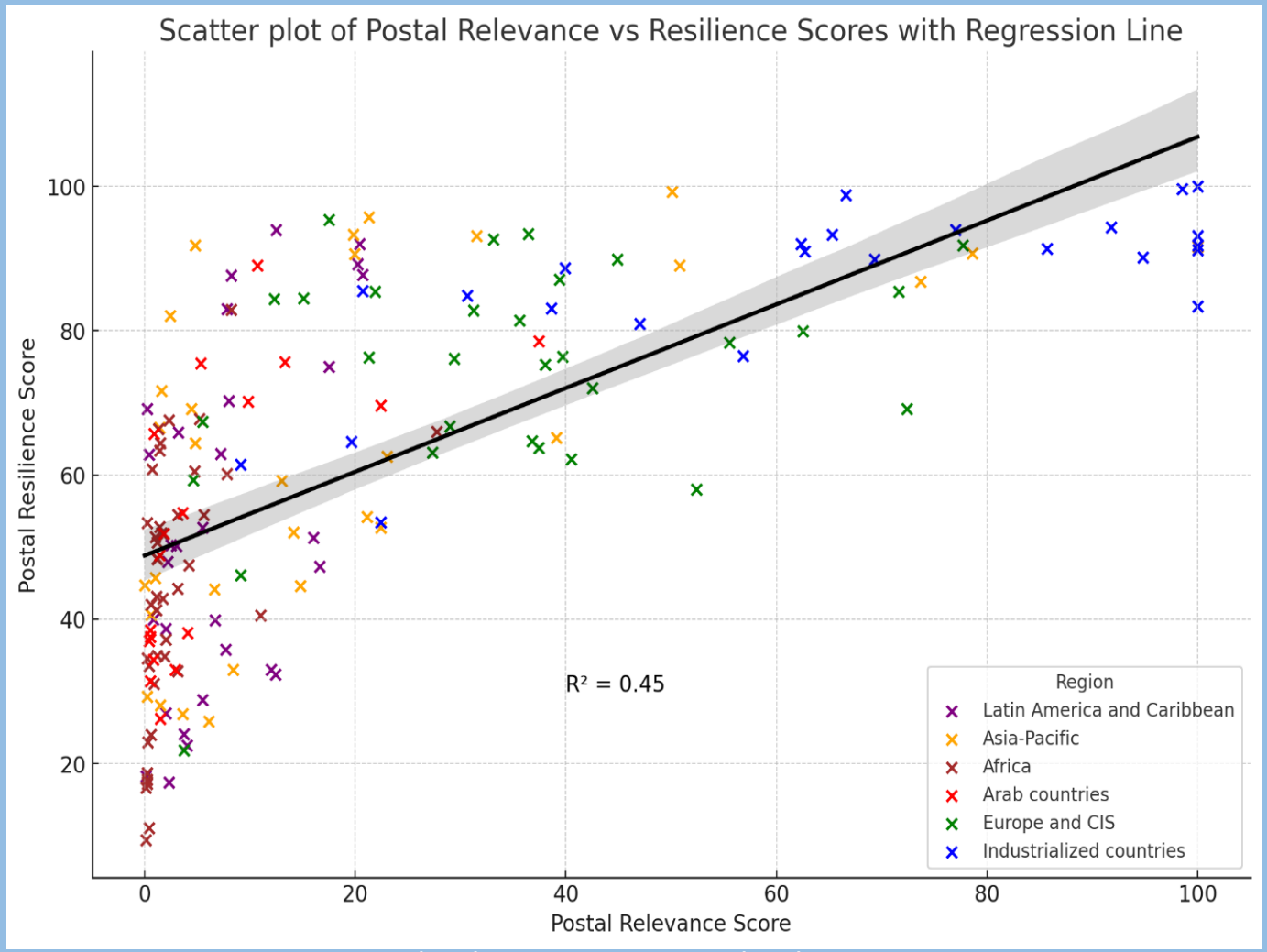
Regional performance

ICs/Europe-CIS lead but show reliability gaps due to legacy letter-focused networks

Developing regions' low scores in both dimension limit cross-border capacity

Some countries outperform regional average, showing improvement potential

Relevance vs resilience: weak positive correlation



Main data sources: UPU Postal Statistics (2022) and UPU Postal Big Data (2023)
Note: New 2IPD methodology applied (2024)

Relevance-Resilience connection

Moderate correlation (R^2 = 0.45) shows partial but significant relationship

High relevance often indicates sustainable adaptability to market changes

Digital advancement and service innovation drive both dimensions

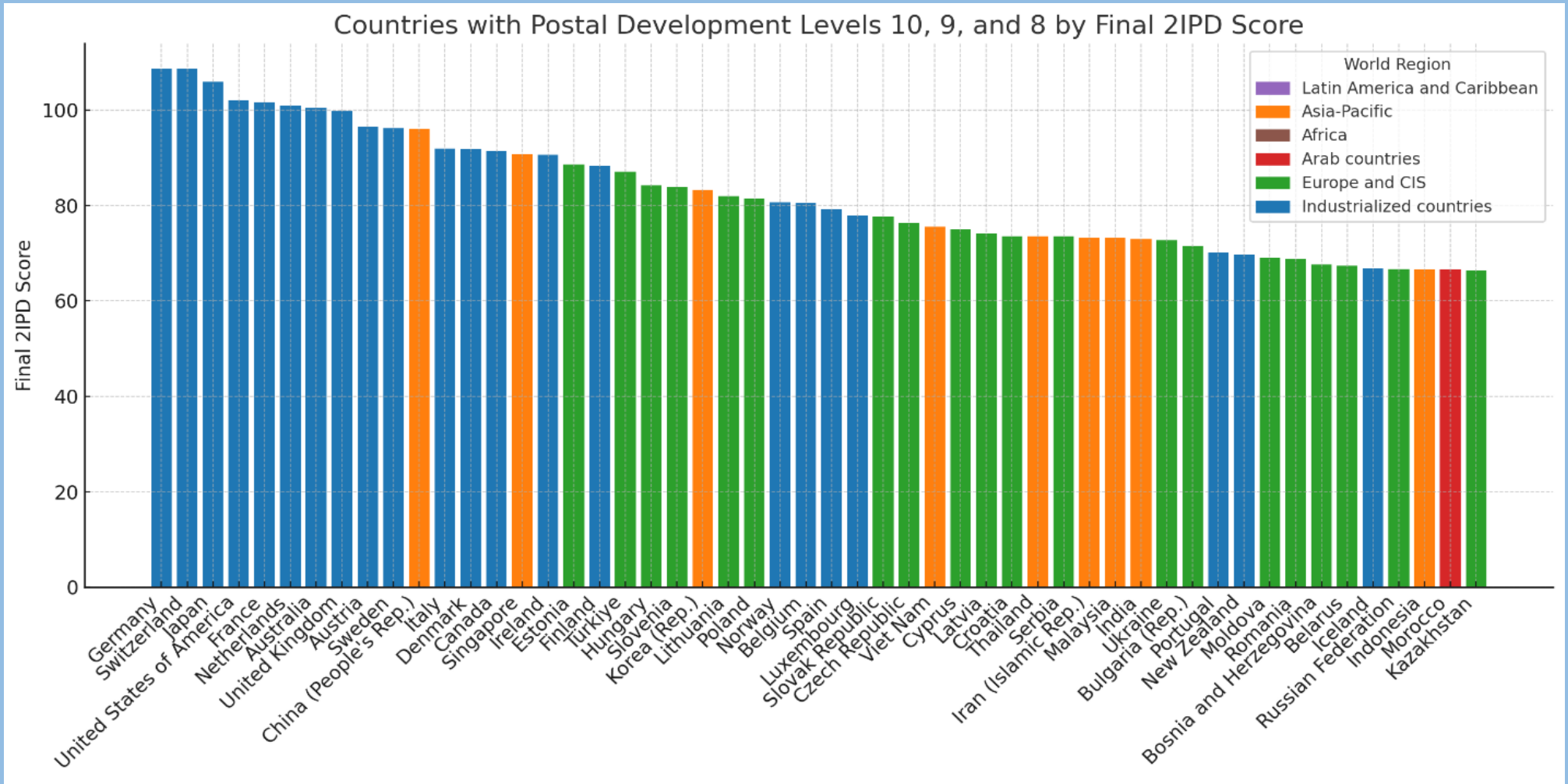
Regional patterns

ICs lead but show varying adaptations to digital transformation

Africa/Arab regions show concentrated low scores, with few exceptions

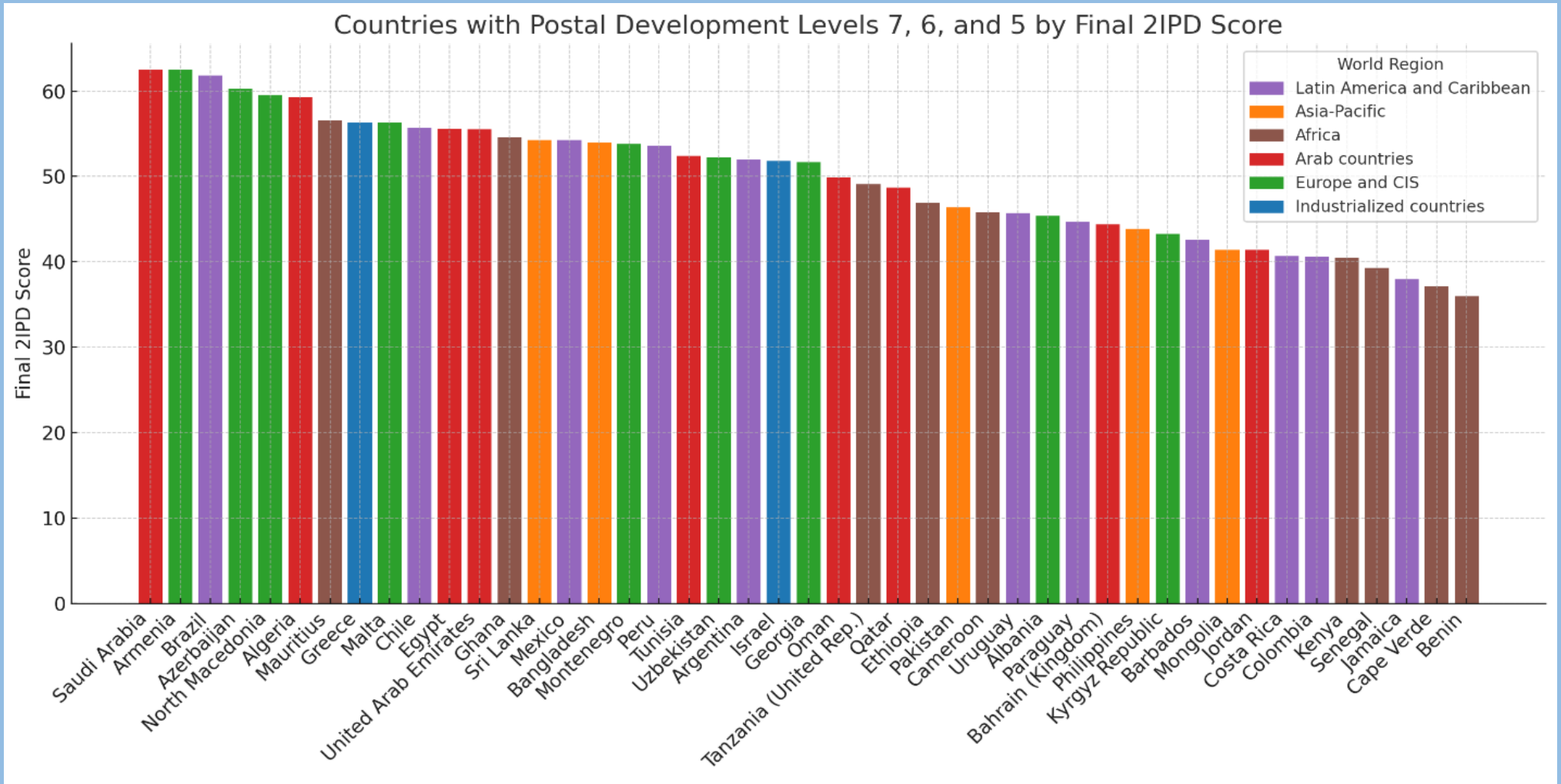
Stronger resilience needed for competitive cross-border delivery edge

2024 2IPD results: countries with PDL 10, 9 and 8



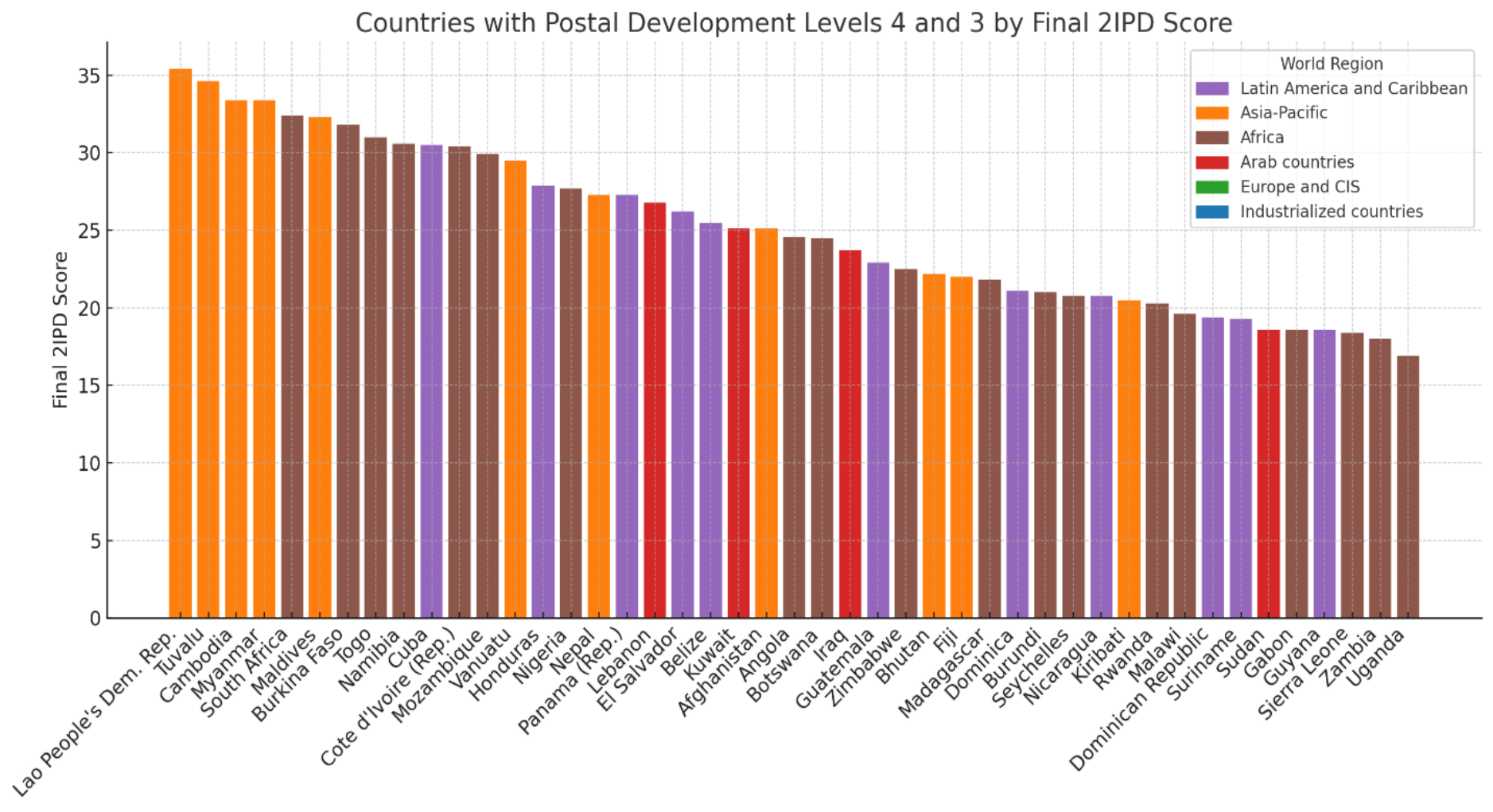
Source: UPU Postal Statistics and Big Data used in UPU KCTT postal development modelling and 2IPD calculations

2024 2IPD results: countries with PDL 7, 6 and 5



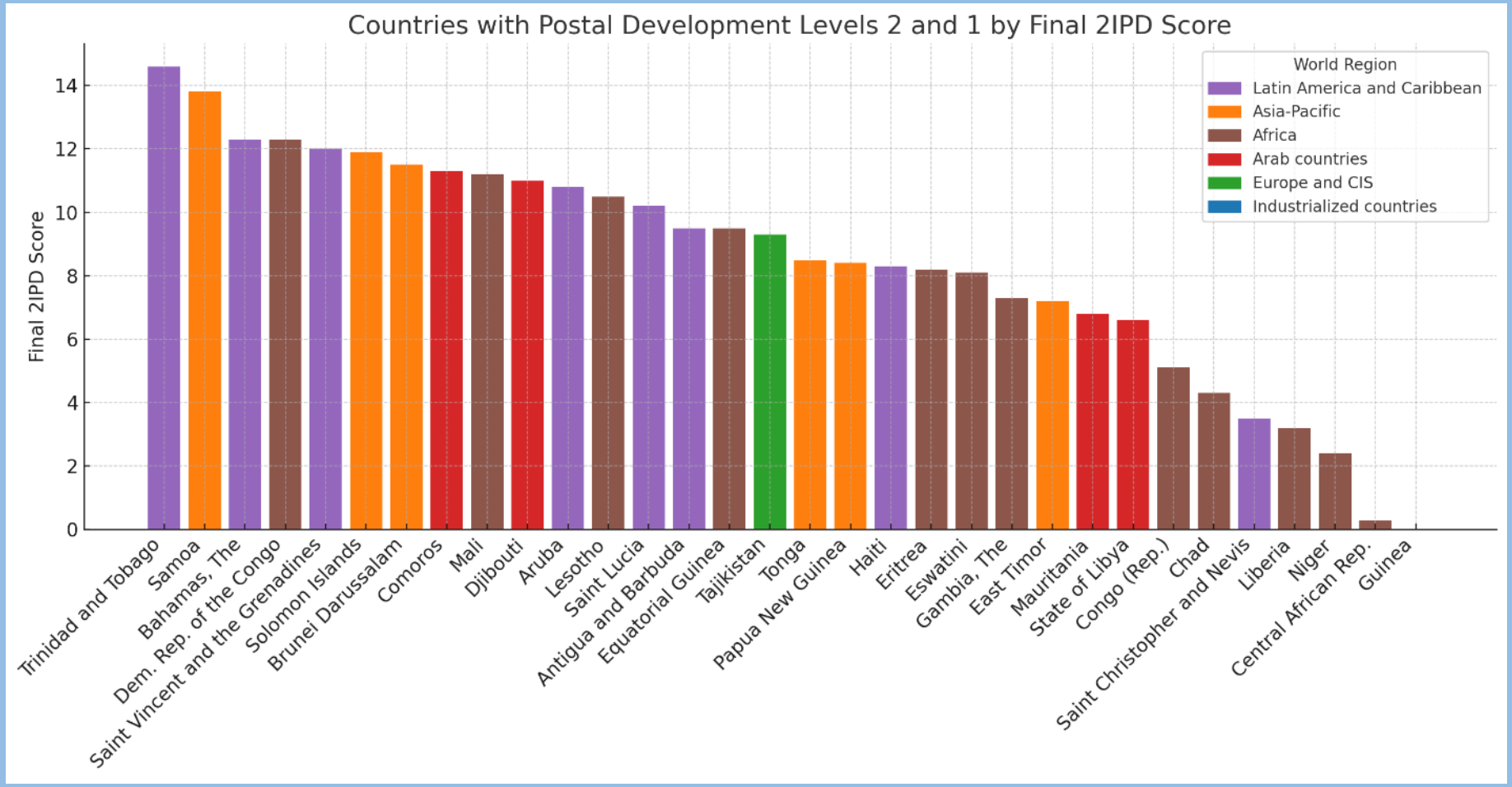
Source: UPU Postal Statistics and Big Data used in UPU KCTT postal development modelling and 2IPD calculations

2024 2IPD results: countries with PDL 4 and 3



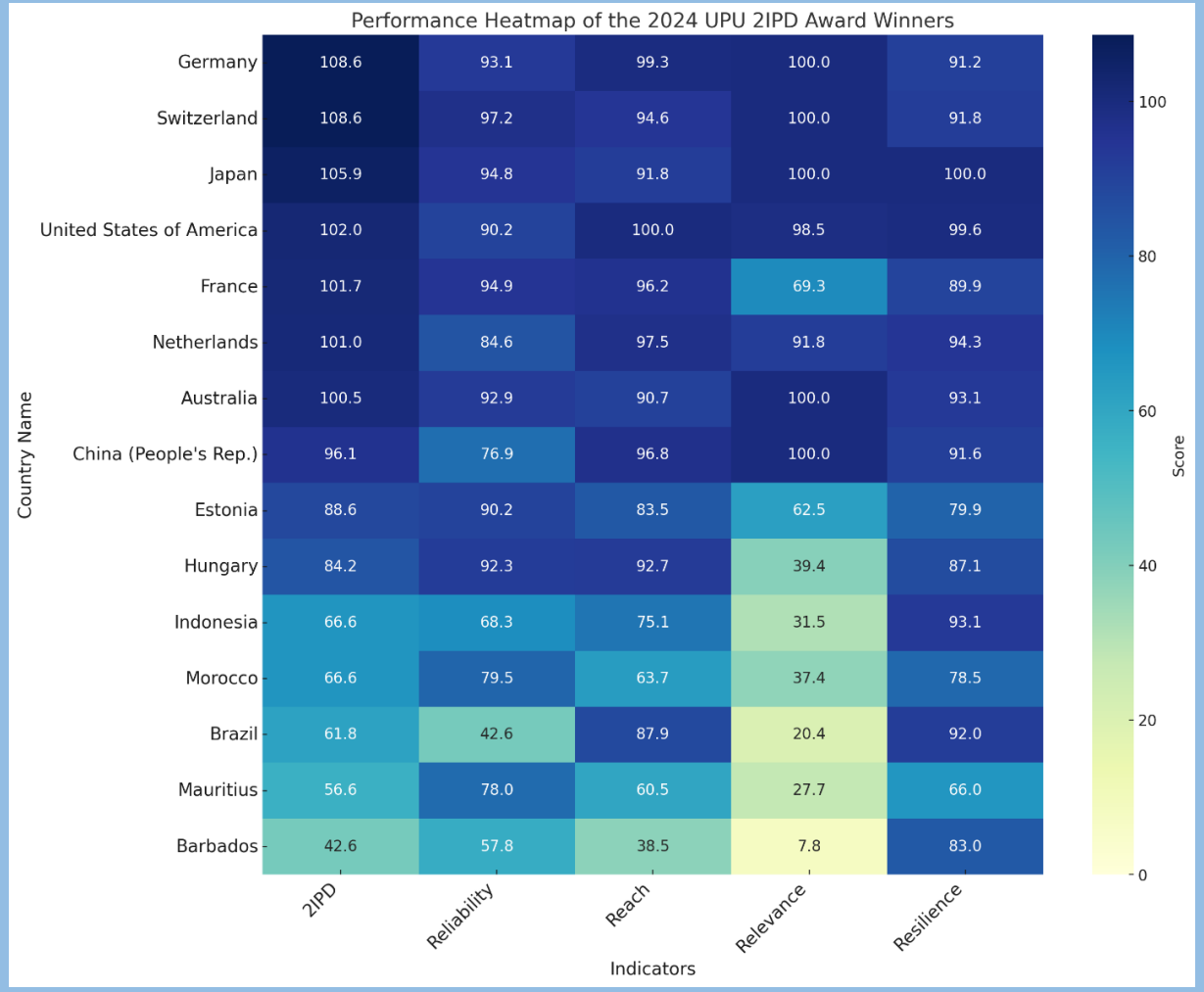
Source: UPU Postal Statistics and Big Data used in UPU KCTT postal development modelling and 2IPD calculations

2024 2IPD results: countries with PDL 2 and 1



Source: UPU Postal Statistics and Big Data used in UPU KCTT postal development modelling and 2IPD calculations

2024 2IPD awards: excellence leaders, regional champions and rising stars



Main data sources: UPU Postal Statistics (2022) and UPU Postal Big Data (2023)
Note: New 2IPD methodology applied (2024)

2IPD excellence leaders (PDL 10)

Germany & Switzerland tie for top position (108.6): near perfect combined reliability, reach, relevance and resilience scores

Japan excels with perfect relevance/resilience (105.9)

USA, France, Netherlands, Australia complete top-tier (>100)

Regional champions & rising stars

Champions: China (People's Rep.), Estonia, Morocco, Brazil, Mauritius

Rising stars: Hungary, Indonesia, Barbados

Notable achievements across reach and resilience across winners

Postal Potential

Section 4

2IPD and natural postal development: key concepts

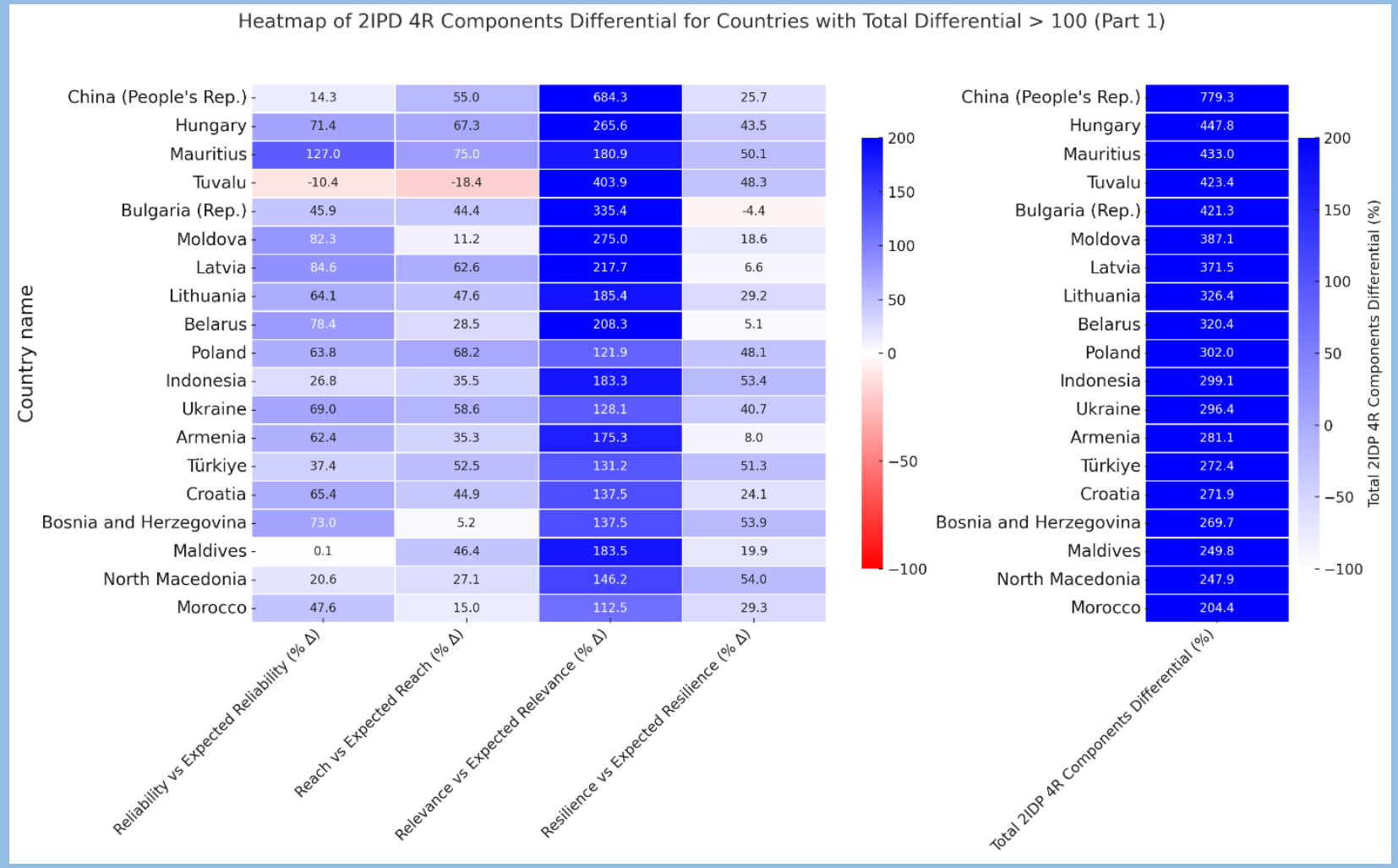
- **Natural postal development**: A benchmarking system measuring expected postal performance based on a country's inherent geographic and economic conditions (i.e. *what postal sector performance should be*)

- **Performance analysis**: Uses the 2IPD framework (reliability, reach, relevance, resilience) to compare actual postal development against predicted natural levels (*i.e. what postal sector performance actually is*)

Key variables: Incorporates geographic factors (e.g. island/landlocked status, ruggedness of terrain) and economic development indicators to determine expected performance levels

Measurement method: Employs machine learning and regression analysis to predict individual 2IPD components, creating country-specific benchmarks for meaningful comparison

Natural postal development score: top 2IPD outperformers (part 1)



Source: UPU Postal Statistics and Big Data used in UPU KCTT postal development modelling and 2IPD calculations

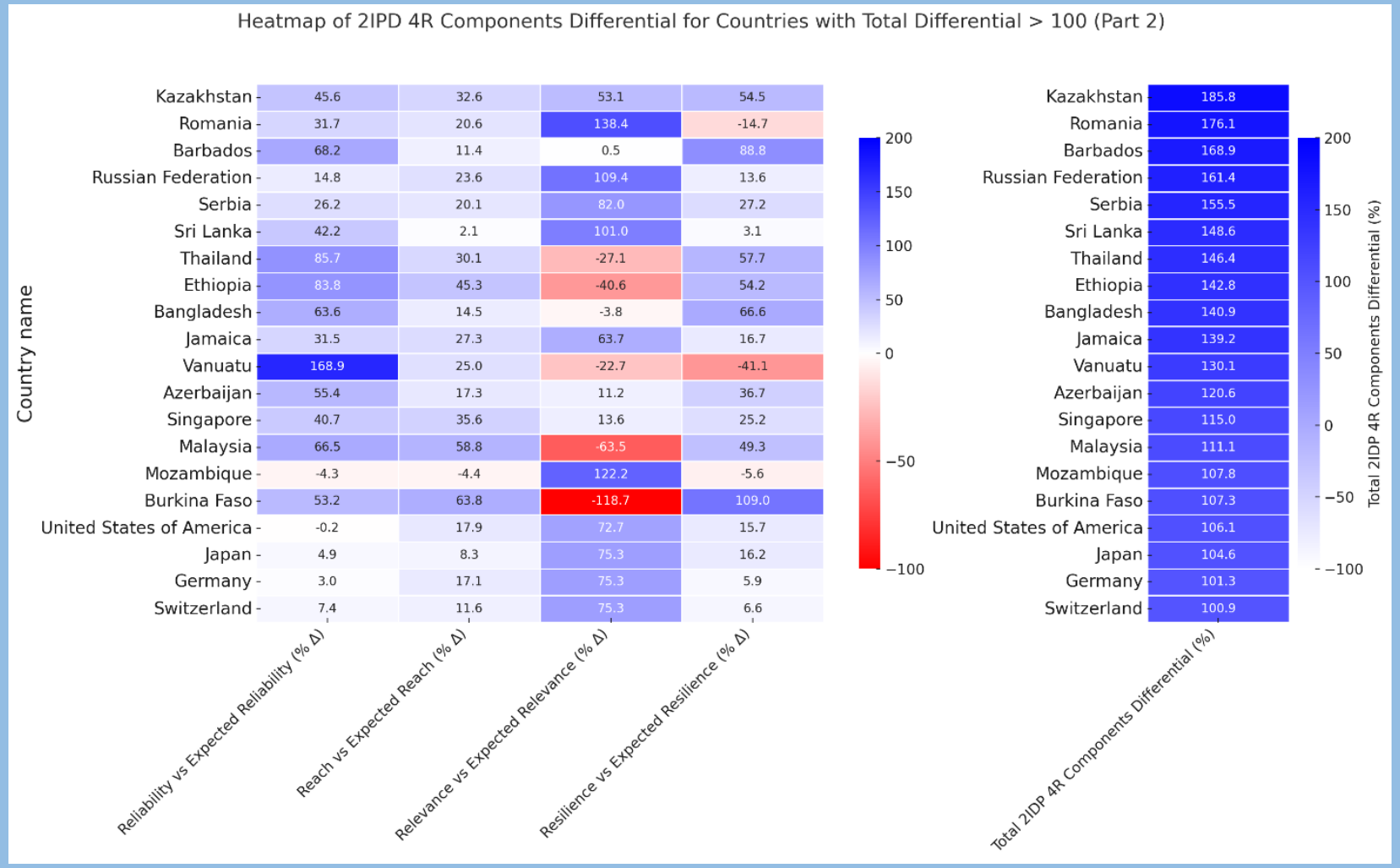
Global top performers analysis

Outstanding performers exceeds natural benchmarks by >100 percentage points

Performance measured across all 4Rs: Reliability, Reach, Relevance, Resilience

Achievement spans different PDL categories

Natural postal development score: top 2IPD outperformers (part 2)



Country name	Reliability vs Expected Reliability (% Δ)	Reach vs Expected Reach (% Δ)	Relevance vs Expected Relevance (% Δ)	Resilience vs Expected Resilience (% Δ)	Total 2IDP 4R Components Differential (%)
Kazakhstan	45.6	32.6	53.1	54.5	185.8
Romania	31.7	20.6	138.4	-14.7	176.1
Barbados	68.2	11.4	0.5	88.8	168.9
Russian Federation	14.8	23.6	109.4	13.6	161.4
Serbia	26.2	20.1	82.0	27.2	155.5
Sri Lanka	42.2	2.1	101.0	3.1	148.6
Thailand	85.7	30.1	-27.1	57.7	146.4
Ethiopia	83.8	45.3	-40.6	54.2	142.8
Bangladesh	63.6	14.5	-3.8	66.6	140.9
Jamaica	31.5	27.3	63.7	16.7	139.2
Vanuatu	168.9	25.0	-22.7	-41.1	130.1
Azerbaijan	55.4	17.3	11.2	36.7	120.6
Singapore	40.7	35.6	13.6	25.2	115.0
Malaysia	66.5	58.8	-63.5	49.3	111.1
Mozambique	-4.3	-4.4	122.2	-5.6	107.8
Burkina Faso	53.2	63.8	-118.7	109.0	107.3
United States of America	-0.2	17.9	72.7	15.7	106.1
Japan	4.9	8.3	75.3	16.2	104.6
Germany	3.0	17.1	75.3	5.9	101.3
Switzerland	7.4	11.6	75.3	6.6	100.9

Source: UPU Postal Statistics and Big Data used in UPU KCTT postal development modelling and 2IPD calculations

Success factors

Strong policy frameworks and innovative business models

Strategic investment in postal infrastructure

Effective technology leverage

Balanced improvement across all dimensions

Approach as a key tool for technical cooperation

Strategic Recommendations

Key recommendations for postal sector development

1. **Prioritize ecosystemic growth**
   - Embrace hyper-collaboration across postal networks and partners
   - Enhance international policy coordination
   - Foster synergies between governments, operators and private sector

2. **Drive innovation**
   - Leverage AI, blockchain and advanced analytics
   - Enhance delivery speed and reliability
   - Integrate digital solutions across supply chain

3. **Strengthen global framework**
   - Harmonize international standards
   - Improve customs processes and data sharing
   - Enhance operational interoperability

4. **Ensure sustainability and inclusion**
   - Invest in green technologies
   - Focus on underserved regions
   - Integrate with local economic ecosystem

5. **Leverage data and build resilience**
   - Invest in comprehensive data analytics
   - Build operational flexibility
   - Diversify revenue streams

Q&A

Thank you!