



## **The IMD World Digital Competitiveness ranking celebrates its third edition, studying 63 economies**

- Top 5 unchanged: USA, Singapore, Sweden, Denmark and Switzerland
- New additions to Top 10: Hong Kong SAR, Republic of Korea
- Knowledge and agility remain of paramount importance for digital performance
- A full breakdown of the IMD World Digital Competitiveness Center's Ranking as well as the [63 economies studied](#)

### **REGIONS**

#### **Asia and Asia Pacific**

**Singapore** came 2nd, securing top place in the technology factor, 3rd in knowledge and 11th in future readiness. Singapore's strongest performance at the sub-factor level was in talent and technological framework, ranking 1st in both. It also ranked highly in training and education and IT integration (4th in both).

**Hong Kong SAR** moves up to 8th from 11th in 2018. Hong Kong ranked the highest in technology (4th) and placed 7th in knowledge. Under knowledge, its highest spot was in talent - 4th - and its lowest in scientific concentration, 16th. In technology, Hong Kong ranked 3rd in the technological framework sub-factor and 12th in the regulatory framework.

**Republic of Korea** broke into and rounded up the top 10, rising from 14th in 2018. Its strongest performance was in the future readiness factor (4th) in which it ranked 4th in the adaptive attitudes sub-factor and 5th in business agility but placed at 21st in IT integration.

For **Taiwan, China** there was a positive trend in executive perceptions about talent availability and access to capital. Taiwan also experienced improvements in the future readiness factor (22nd to 12th) particularly in terms of business agility (13th to 3rd).

The largest increases in the overall ranking was led by **China**, moving from 30th to 22nd, and **Indonesia**, from 62nd to 56th. In the case of China, the improvement originated mainly in the knowledge factor (18th) in which it progressed in the training & education sub-factor (from 46th to 37th) and in scientific concentration (21st to 9th). For **Indonesia**, its progress was driven largely in the technology factor (47th) with improvement in executive perceptions about the effectiveness of its regulatory framework (57th to 51st) and about the availability of capital for technology development (34th to 26th).

**Thailand** dropped one place to 40th as a result of a mixed performance across the three digital factors. Future Readiness (50th) declined while Knowledge (43rd) and Technology (27th) factors improved compared to 2018. Several indicators related public investments in education, agility of companies and use of big data and analytics in firms declined.



## Europe

**Sweden** ranked 3rd overall, placing 4th, 7th and 6th for knowledge, technology and future readiness (respectively). The country's highest ranking at the sub-factor level was in training and education (2nd). It performed strongly in scientific concentration (3rd), capital (4th) and regulatory framework (5th) Sweden's lowest sub-factor ranking is in business agility (13th).

**Denmark** ranked 4th. At the factor level, it placed at 6th, 11th and 2nd in knowledge, technology and future readiness, respectively. Its strongest performance among the sub-factor was in adaptive attitudes and IT integration (1st in both). It also performed well in talent, and training & education (6th in both).

**Switzerland** held on to 5th place. In the knowledge factor, it placed 2nd, in technology it ranked 10th, and in future readiness 10th. At the sub-factor level. Switzerland's highest ranking was in talent (2nd) and it performed well in scientific concentration and IT integration (7th in both). Switzerland's weakest ranking among sub-factors was for capital (16th), and training and education (15th).

**The Netherlands** rose from 9th in 2018 to 6th. Its strongest performance came in the future readiness factor (3rd) in which it ranks 3rd in IT integration, 7th in business agility and 9th in adaptive attitudes. In the technology factor, it ranked 6th reaching 5th in capital, 6th in regulatory framework and 10th in the technological framework sub-factor.

**Finland** ranked 7th. In knowledge, it came 9th, 8th in technology, and 7th in future readiness. Its highest ranking at the sub-factor level was in IT integration (2nd) and adaptive attitudes (6th). Finland's lowest sub-factor ranking was 27th in business agility.

**Norway** dropped from 6th to 9th. Its strengths were in the technology factor (3rd), in which it ranked 3rd in regulatory framework, 6th in technological framework and 7th in capital. Norway came 8th in the future readiness factor, placing 5th in adaptive attitudes and 9th for IT integration. Norway's weakest sub-factor ranking was 23rd in business agility.

**France** progressed from 26th to 24th. Its strengths originated in a supportive regulatory environment (Regulatory Framework subfactor, 8th) and focus on R&D (Scientific Concentration subfactor, 12th). France was in the top 10 for utilisation of robots in industry (8th), and in robots employed in education and R&D (5th).

**Germany** rose to 17th. Despite important declines in executive's perceptions about companies' agility and flexibility to changing market conditions, the country strengthened its leadership in Scientific Concentration (4th), Training and Education (14th) and in the adoption of digital technologies by its citizens (Adaptive Attitudes, 16th).

**Ireland** advanced from 20th to 19th. This result stemmed from improvements in e-government indicators as well as positive executives' perceptions on aspects related to supportive legislation for innovation, talent and capital availability. Investments in R&D as well as average internet bandwidth speed and wireless broadband penetration experienced a decline compared to 2018.

In terms of the biggest declines, **Croatia** dropped from 44th to 51st, **Iceland** from 21st to 27th while **Austria** slipped from 15th to 20th and the **United Kingdom** declined from 10th to 15th. **Croatia's** decline was mainly the result of a drop in the regulatory framework



particularly in terms of the process of starting a business; adaptive attitudes where it experienced a decrease in e-participation; and in IT integration specifically in regard to E-government. Iceland's performance was negatively affected by a decline in e-participation and business agility. **Austria** saw a decline in the technological framework sub-factor, particularly in high-tech exports. In addition, the country's performance in business agility was affected by negative executive perceptions in terms of how well enterprises manage opportunities and threats, and the use of big data and analytics.

The **United Kingdom's** performance was affected by negative perceptions about access to relevant talent; specifically, the attractiveness of the country for overseas highly-skilled personnel, the availability of managers with international experience and digital/technological skills. Business agility and IT integration also experienced a decline.

## **Middle East**

**Israel** ranked 16<sup>th</sup>, losing four positions. However, the country remained a key regional player in digital competitiveness. While business agility and e-government indicators experienced a decline, the country topped the ranking in areas such as talent development (Training and Education sub-factor, 3rd) and R&D intensity (Scientific Concentration, 5th).

The **United Arab Emirates** progress was due to an improvement in the training & education sub-factor. It also improved in aspects of the regulatory framework such as starting a business (from 29th to 15th) and the effectiveness of the scientific legislation (12th to 7th). There was a positive shift in IT integration (14th to 8th) mainly as a result of improvement in e-government (28th to 21st).

**Saudi Arabia** advanced by three places to 39th. This result was driven by increasing positive perceptions of the business community in areas such as regulatory support for technology adoption and capital availability for investments. On the contrary, R&D intensity and e-government indicators experienced a decline.

## **Americas**

The **USA** ranked 1st in the overall digital ranking, while topping the knowledge and future readiness factors, and it placed 5th position in the technology factor. At the sub-factor level, under knowledge, the USA was 1st for scientific concentration but 14th in talent and 25th in training and education (its lowest sub-factor ranking). Future readiness offered the USA's strongest performance at the sub-factor level, ranking 2nd in adaptive attitudes and business agility, and 5th in IT integration.

**Canada's** slide out of the top ten originated mainly in the executive perceptions about the availability of the relevant talent and the effectiveness of the regulatory framework. It was negatively affected by the prioritization assigned to the training of employees and issues related to the technological framework such as high-tech exports.



**Brazil** remained 57th in 2019. Indicators related to education and R&D (Knowledge factor increases from 62nd to 59th) and technology adoption (Adaptive Attitudes sub-factor, 33rd) showed improvements. The Technology factor experienced a decline.

**Peru** declined by one position (61st). However, it displayed improvements in technology adoption by citizens (Adaptive Attitudes up from 59th to 49th in 2019) and education (public expenditure in education and the share of graduates in sciences increased).

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