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Digital Global Gateway: How can we help?
Towards better understanding of local needs

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The digital needs and interests of emerging economies in the Global South remain largely obscure to the EU and most EU member states that wish to strengthen engagement in this important domain by way of the Digital Global Gateway. Strengthened engagement with emerging economies will serve partner countries' development, and at the same time contribute to European companies' competitiveness and the spread of liberal digital norms such as openness, transparency and privacy. Exploring the digital needs of three partner countries – namely Kenya, Vietnam and Egypt – this Policy Brief highlights areas for cooperation. A key basic need is hard infrastructure, to which the EU Global Gateway investments are now starting to respond. In order to reap the full benefits of such infrastructure, partner countries are also keen to cooperate on cybersecurity solutions, improving digital skills and digitising micro, small and medium enterprises. Equally important are sectoral solutions – such as in agriculture, digital finance, public transportation, e-government, education and health – that help emerging economies to develop in a secure, inclusive enabling digital environment.

Introduction[1]

Two years after the launch of Global Gateway in December 2021, the EU and its member states are starting to deliver on the promise of enhanced investment and engagement with partner countries in the Global South. While still nascent, these efforts to deepen Europe's cooperation with emerging economies in the digital domain have the potential to boost the economic development of partner countries, improve the competitiveness of European companies in key emerging markets, and spread European norms of openness, transparency and privacy in the digital domain. However, policymakers face significant challenges to achieving these lofty ambitions, as they currently lack adequate information on the digital conditions of Global Gateway (GG) partners to ensure that projects are tailored for maximum impact.

Seeking to contribute to GG's objectives and enhance Dutch contributions to this effort, this Policy Brief outlines the key goals, challenges and needs in the digital domain of three partners

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1   This Policy Brief is the second of a series of three that, taken together, offer actionable steps for the Dutch government to contribute to the EU's Digital Global Gateway. See the final page of this Policy Brief for details.

in the Global South: Kenya; Vietnam; and Egypt. By aligning this selection of case studies with the Dutch Digital Agenda for Foreign Trade and Development Cooperation, this Policy Brief provides public- and private-sector actors with information necessary to create mutually beneficial opportunities for investment and growth.[2] This enhanced engagement is not without risks. In non-democratic countries, where illiberal tendencies are permeating the digital domain, acting on local needs may be a difficult balancing act. Engagement must be considered with a view to shape societies from bottom-up, based on a realistic understanding that compatibility with EU governance models may only come in the long term, if at all.

The following case studies draw on the invaluable contributions of local experts in each partner country,[3] providing keen insights into the current state of play of their digital ecosystems. These findings are further supplemented by the authors' review of policy documents and open-source data to generate a comprehensive assessment of current digitalisation efforts. The sheer challenge of identifying the right local experts in each partner country testifies to the significant potential for proactive engagement by Dutch embassies in this area. By improving their understanding of the digital landscapes of host countries and building networks with relevant specialists, Dutch diplomats could serve as a crucial link between public- and private-sector efforts to deepen digital economic partnerships.

Identifying digital needs in key partner countries

The Netherlands has identified Kenya, Vietnam and Egypt as key partners with whom to enhance both trade and economic ties, as well as development cooperation.[4] These three so-called 'combination countries' are each located in a geographically important region: Kenya in sub-Saharan Africa; Vietnam in the Indo-Pacific; and Egypt in the European Neighbourhood. They are considered key strategic partners for economic (co)development in a contested world where liberal digital norms and principles are increasingly under pressure.

As the self-styled 'Silicon Savannah', Kenya represents one of the fastest growing digital ecosystems in the Global South. With ambitions to become the centre of Africa's emerging digital and technological ecosystems, Kenya continues to require significant investments in digital infrastructure, commensurate with its lofty aspirations. Furthermore, while Kenya possesses a vibrant start-up environment, additional uptake of digital solutions will be needed to ensure it remains an attractive destination for investment and venture capital.

Turning to the Indo-Pacific, Vietnam represents a vibrant and dynamic environment for digital growth. Beneficially situated in the heart of high-growth Asian countries, it continues to enjoy increasing levels of foreign direct investment (FDI) and an expanding internal market and middle class. With a young population (about 77 per cent of the population is of working age), characterised by growing literacy, numeracy and science skills, as well as high levels of digital adoption across the population, Vietnam appears well positioned to pursue its elevated digital ambitions.

As a GG partner from the EU Neighbourhood, Egypt's digital transformation is particularly critical from a strategic perspective. Ensuring

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2   Government of the Netherlands, *Digital Agenda for Foreign Trade and Development Cooperation (BHOS)*, 31 July 2019; and Government of the Netherlands, *Policy document for foreign trade and development cooperation: do what we do best*, 10 October 2022.

3   Dr Wairagala Wakabi, Head of the Collaboration on International ICT Policy for East and Southern Africa (CIPESA); Phan Thi Thu Lan, Project Officer for Government Affairs and Project Management, GIZ Vietnam; Tran Son Tung, Project Officer for I4.0, GIZ Vietnam; and Sherif Kamel, Professor of Management and Dean of the School of Business at The American University in Cairo, Egypt.

4   Government of the Netherlands, *Policy Document for Foreign Trade and Development Cooperation*.

the interoperability of Egypt's digital systems with those of the EU and working to align its digital governance with European policy preferences will facilitate improved cooperation and investment across a broad range of economic areas.

To understand better the digital goals and needs of Kenya, Vietnam and Egypt, the following sections provide a comprehensive examination of each country in this domain.

Kenya

Kenya has adopted a number of national strategies that outline its short- and medium-term digital priorities. These plans fall into several broad categories: hard digital infrastructure and connectivity; soft digital infrastructure including e-governance; and digital skills and human capital development. Kenya's 2019 National Information, Communications and Technology (ICT) Strategy serves as the foundation for these national policies. Its five key objectives are to:

1. Create the infrastructure for use of 'always-on, high speed, wireless, internet across the country', including to support the growth of data centres as well as a secure and innovative ecosystem enabling developments in machine learning and the Internet of Things, supported by local manufacturing;
2. Grow the contribution of ICT to the (digital) economy to 10 per cent of GDP by 2030;
3. Leverage regional and international cooperation and engagements on ICT to ensure that Kenya is able to harness global opportunities;
4. Enhance education and people's skills to take more advantage of emerging trends such as the shared and gig economies, and foster an innovation and start-up ecosystem to compete regionally and globally; and
5. Gain global recognition for innovation, efficiency and quality in public service delivery.[5]

Since 2018, Kenya has worked to implement its National Broadband Strategy 2018–2023.[6] If successful, this will provide 'last mile infrastructure […] by fixed or wireless means to achieve 95% national broadband coverage', thus creating the foundational conditions for Kenya to become a regional digital powerhouse.

In 2021, Kenya published its National Digital Masterplan, containing a framework to improve the country's ability to leapfrog its digital environment and to leverage the digital economy. Its four pillars are Digital Infrastructure; Digital Government; Digital Innovation, Entrepreneurship and Digital Businesses; and Digital Skills.[7] The Masterplan sets out concrete targets across the four pillars. In infrastructure development, these include the rollout of '100,000 km of optic fibre installation to all 1,450 wards nationally'; and in skills development, to train '10,000 officers in Public Service in high-end specialised ICT areas, 300,000 civil servants on digital skills and data protection, and training of 350,000 teachers on digital skills'.

However, significant investments in Kenya's cybersecurity infrastructure will be required to safeguard the country's digital growth. As its digitalisation progresses, Kenya has faced growing cyberattacks deploying malware, ransomware, phishing and Distributed Denial of Service (DDoS) techniques. Of particular concern are attacks against Kenya's financial institutions. These vulnerabilities represent significant hurdles for further digital development and concern local policymakers and private-sector actors.

Other key areas for digital development in Kenya include the digitalisation of micro, small and medium enterprises (MSMEs) and of the informal sector, public transportation, financial technologies (FinTech) and agriculture.

5 Ministry of Information, Communications and Technology of Kenya, *National Information, Communications and Technology (ICT) Policy*, November 2019.

6 Government of Kenya, *National Broadband Strategy 2018–2023*, 2018.

7 Government of Kenya, *The Kenya National Digital Master Plan 2022-2032*, 2021.

Regarding FinTech, expansion of money transfer and digital banking services are key targets, especially given their utility for the growth of Kenya's MSMEs. By improving the availability of digital financial services, Kenya could reduce its barriers to entrepreneurship and business growth, remove bureaucratic hurdles and ensure the availability of financing for new ventures. The expansion of e-commerce is equally important, especially in its capacity to drive innovation in business-to-business (B2B), consumer-to-consumer (C2C), and consumer-to-business (C2B) services. Additionally, improving data privacy standards for individuals utilising Kenya's financial infrastructure will bolster Kenya's overall investment profile.

With regard to agriculture, precision farming through the increased availability and usage of data represents a promising area for growth. Providing farmers with digital tools to monitor and manage crops could not only increase output, but improve the long-term stability of the agriculture sector in the face of ever-increasing climate challenges. Additionally, 'digital agriculture' should not be limited to the fields, as improving digital literacy among producers and improving access to market information in local languages through digital solutions could have an equally large impact on the sector. However, the successful implementation of these types of projects will require significant hard infrastructure investments, as Kenya still faces challenges in ameliorating its urban–rural digital divide. Food security and water management also feature high on the Kenyan digitalisation agenda.

Vietnam

The National Digital Transformation Programme is the touchstone policy plan for digitalisation in Vietnam. In place since 2020, it establishes concrete goals to be achieved by 2025 and 2030. Digitalisation goals are geared to help accelerate the digital transformation of businesses, public administration and production activities. The strategy highlights three pillars: digital infrastructure; digital government; and digital economy. For digital infrastructure, expanding fibre optics and 5G networks is of paramount importance for Vietnam. Regarding digital government, Vietnam aims to provide 100 per cent of public services at so-called 'level 4' by 2030 – meaning all information and service requests, deliveries of forms and payment of public services can be made online. In relation to the developing Vietnamese digital economy, the goal is that it contributes to 20 per cent of GDP by 2025 and 30 per cent by 2030, and that the population utilising online banking services will be 50 per cent by 2025 and 80 per cent by 2030.

Cybersecurity is another area of concern. Vietnam has made good progress over the past five years, and moved from the 50th to the 25th place of Global Cybersecurity Index between 2018 and 2020.[8] Nonetheless, one area of particular attention is the prominence of phishing cyberattacks, which accounted for 35 per cent of the total attempts in 2022.[9] All actors, from MSMEs to the government, will need new tools to mitigate the risks posed by malicious online activities.

Based on its 2020 National Digital Transformation Programme, Vietnam is currently targeting a number of sectors for significant digital transformation. Besides e-government, Vietnam is also investing in bringing digital solutions to the realms of healthcare, education, finance and banking, agriculture, forestry, fishing, customs and logistics, energy and natural resources, and industrial manufacturing.

Of these sectors, agriculture is of particular importance, and further improvements in agricultural business operations could have potentially high social impact. Agriculture contributes to more than 15 per cent of Vietnam's GDP.[10] Given the criticality of this

8   International Telecommunication Union, *Global Cybersecurity Index 2018* and *Global Cybersecurity Index 2020*.

9   Việt Nam News, *Kaspersky protects more than 17 million users in VN from email phishing attacks*, July 2023.

10 Asian Development Bank, Agriculture, *Natural Resources and Rural Development Sector Assessment, Strategy and Road Map - Viet Nam 2021–2025*, January 2022.

sector to the overall economy, Vietnam continues to pursue digital solutions that can improve agricultural efficiency and output, and thus overall competitiveness. Enhancing Vietnam's capabilities in smart agriculture and precision farming will be vital for future growth. Greater availability of data at the production level would enable farmers to reduce costs through better-informed production decisions, increased labour productivity and reduced environmental impact through more targeted applications of pesticide and other potentially harmful agents. Additionally, digital solutions could improve the availability of weather forecasting and pricing and consumer data, thus improving farmers' ability to engage with domestic and foreign markets. Examples of current efforts by the Vietnamese government and the private sector in agriculture technology (AgriTech) include the expansion of hydroponic technology for small to medium-sized farming enterprises, the use of remote drone technology to conduct targeted pesticide-spraying activities, and the use of smart water-management technologies to administer rice paddies better. While efforts to achieve these digital transformations have already begun, additional innovations in the post-harvest stage are also desirable, namely in value chain management, traceability 'from farm to table', and information and sales retrieval through e-commerce and digital platforms.

Underlying Vietnam's digital transformation is the need to increase the upskilling of its labour force through digital skills education. Vietnam currently lacks the personnel required to serve its digital needs – both in quantity and quality. Furthermore, MSMEs also face challenges in digitising their operations. While most businesses were forced to adopt new digital tools and procedures quickly during the Covid-19 pandemic, progress stalled or reverted course as pandemic restrictions loosened because of limited access to funding for key digitalisation activities. The prohibitive costs of IT infrastructure, training staff, digitalising processes and ensuring reliable cybersecurity present insurmountable barriers for Vietnam that are exacerbated by a shortage of digitally skilled labour. Additionally, limited awareness

and access to information about the benefits of implementing new solutions, and difficulties in changing organisations' dynamics and ways of working, contribute to the lagging digitalisation of Vietnamese MSMEs.

Egypt

Egypt's ICT 2030 Strategy, published in 2017, serves as Egypt's primary blueprint for the development of its digital sector. This strategy aligns with the broader Egypt Vision 2030, which sets out the goal to 'achieve a competitive, balanced, diversified and knowledge-based economy', built upon inclusive development and social justice. To meet this objective, Egypt needs to develop its digital infrastructure, build knowledge capacity and encourage innovation, while ensuring that cybersecurity is not disregarded.[11]

Egypt's flagship programme for digital transformation in the country – 'Building a Digital Egypt' – is instrumental for the country to achieve its ambition of strengthening its regional and international positions. The programme supports the ICT 2030 strategy with three main pillars: (1) digital transformation; (2) digital upskilling; and (3) digital innovation.[12]

Digital technologies will be instrumental for Egypt to transform government-to-consumer (G2C) and government-to-business (G2B) services, as well as to develop and diversify its economy. This is particularly relevant as Egypt boasts a very young and growing population of over 100 million people.[13] As penetration

11 Ministry of Communications and Information Technology of Egypt, *Egypt's ICT 2030 Strategy*, 2017.

12 Digital transformation encompasses expanding digital infrastructure and transforming the government's operations to improve its relations with citizens and businesses. Digital skills and jobs deal with capacity building in the education system and for professionals, providing life-long training on digital themes. Digital innovation concerns supporting innovation, entrepreneurship and R&D, and enabling the private sector, knowledge institutions and civil society to work together.

13 Sherif Kamel, *The role of digital transformation in development in Egypt*, July 2021.

rates for mobile phones (above 97 percent) and mobile internet access (above 73 percent) grow,[14] opportunities in the digital economy will only increase.

Egypt's cybersecurity efforts currently focus on improving the security posture of its telecommunications and information infrastructure. The Egyptian Supreme Cybersecurity Council manages the National Cybersecurity Strategy 2022–2026 and focuses both on protecting against cyberattacks and advancing scientific research and innovation in this area. Improving cybersecurity awareness is also critical, as evidenced by the '90% of cyber incidents [that originate] from [wrong] behaviour of people'.[15] Despite the lack of public information and figures about the state of affairs for cybersecurity in Egypt, phishing and ransomware attacks are among the most prominent types of cyberattacks in the country. As such, as Egypt progresses in its digitalisation efforts, the country will benefit from further investments in cybersecurity.

Moreover, Egypt needs to digitise further a wide range of its public and private sectors. Doing so will improve not only enhance the economy's overall efficiency and effectiveness, but will also open new avenues for fighting corruption and improving transparency across all sectors. In the public domain, Egypt would benefit first and foremost from greater digitisation of the country's education and healthcare systems. Looking at the private sector, Egypt needs to develop further its logistics, retailing, tourism, agriculture and FinTech industries.

FinTech is the area with the highest growth potential, as the sector remains underdeveloped. Egypt would benefit from more and better solutions that can stimulate the adoption of digital finance, going beyond the currently limited offers of local FinTech companies. Those are centred on electronic and online payments, peer-to-peer transfers, as well as payroll, pension and social security payments. Only about 15 per cent of Egypt's adult population have a bank account, and cash dominates as the preferred method to make purchases and financial transactions.[16] The social and commercial benefits of better FinTech offerings will impact this vast segment of the population. However, several challenges remain, including the general preference for cash and a lack of understanding – even among entrepreneurs – of the advantages presented by digital financial services. Furthermore, the limited access to capital of start-ups and companies, including digitally-skilled human capital, curbs digital development in Egypt. Moreover, an 'unclear legal and regulatory environment, as well as interoperability issues among different systems',[17] still jeopardises adoption not only of FinTech, but of digital technologies at large.

Beyond FinTech, a key challenge for Egypt is to digitise MSMEs, which constitute the core of the country's economy. This goes, in particular, for manufacturing companies, which still lag in the adoption of cloud computing and digital services.

Shared basic needs and local priorities

Figure 1 highlights the key findings of the country case studies. It shows commonalities and differences in the sectors and industries in which Kenya, Vietnam and Egypt would most benefit from partnering with other countries and/or companies to digitise further. The EU and its member states would be wise to focus their Digital Global Gateway efforts in these fields.
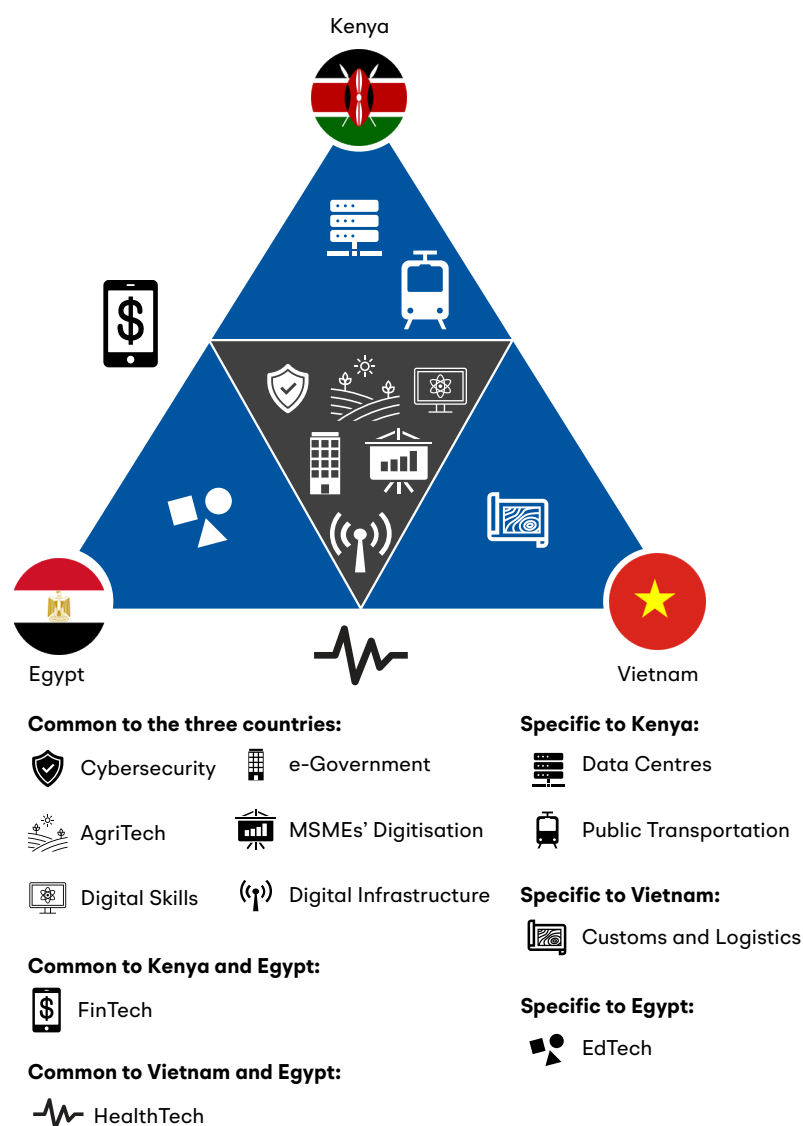
14 Ministry of Communications and Information Technology of Egypt, *ICT indicators in brief*, July 2023.

15 Telecom Review, *NTRA Egypt: effective cybersecurity strategy is proactive, collaborative and preventive*, 16 March 2023.

16 Kamel, *The role of digital transformation in development in Egypt*.

17 Kamel, *The role of digital transformation in development in Egypt*.

Figure 1   **Sectors or industries where Kenya, Vietnam and Egypt wish to strengthen their digital capabilities and solutions**

Kenya

Egypt

Vietnam

Common to the three countries:

🛡 Cybersecurity   🏢 e-Government

🌾 AgriTech   📊 MSMEs' Digitisation

🖥 Digital Skills   ((•)) Digital Infrastructure

Common to Kenya and Egypt:

$ FinTech

Common to Vietnam and Egypt:

⌁ HealthTech

Specific to Kenya:

▦ Data Centres

🚊 Public Transportation

Specific to Vietnam:

🖼 Customs and Logistics

Specific to Egypt:

◢ EdTech

Source: authors' compilation.
Note: The central triangle shows the common areas of interest in all three countries; the edges show the areas of interest of the countries connected by that edge; and the small triangles closer to each nation's flag are that country's specific areas of interest.

The case studies presented here reveal that the partner countries share a wide set of needs. Starting from the fundamentals, broad investments in Digital Infrastructure and Cybersecurity are welcome in all three countries. Besides, the MSMEs' landscape in Kenya, Vietnam and Egypt is still in the early phases of adoption for digital technologies, an observation that is applicable across sectors. This task presents several challenges for all the stakeholders involved and external partners can thus share lessons learned and best practices. The governments of the three countries are also invested in extending the portfolio of public services that they provide online, and in pushing for better education, reskilling

and upskilling of their national workforces. Finally, all three countries would benefit from assistance in implementing digital solutions in the agricultural sector.

However, these broad similarities should not distract from the unique needs of each country investigated. Kenya aspires to have a prominent regional role in the digital realm. The Kenyan government has signalled its intent to enhance digital infrastructure, with a particular focus on data centres, as a strategic priority for the country. Additionally, Kenya is dedicated to modernising its public transportation system through digital advancements. A similar focus can be seen in the FinTech sector where, as with Egypt, Kenya seeks to enable the broader adoption of digital banking and payments.

The sheer breadth of Vietnam's digitalisation ambitions offers a plethora of potential avenues for fruitful partnerships. Beyond the areas described above, Vietnam also has an interest in further digital solutions for customs and logistics. Moreover, against the backdrop of an ascendent China, Vietnam has become an increasingly important destination for companies seeking to reduce the concentration of their production operations in China and to diversify their value chains.

Egypt is of particular strategic importance for the European Union, as its location in the European Neighbourhood necessitates a greater focus on interoperability and a reduction of barriers to data transmission. While this, of course, will require greater alignment of digital norms and values, GG's focus on human-centric digitalisation means that projects under this initiative will contribute to Europe's long-term strategic objectives. The agriculture and manufacturing sectors present the highest growth potential, as both lag far behind in the adoption of digital solutions. In particular, the implementation of data-driven smart manufacturing processes could have a profound transformative effect on the Egyptian economy. To support the growing need for skilled labour in digital technologies, Egypt would benefit from partnerships in educational technology (EdTech),

which aligns with both the Digital and Education pillars of GG. Finally, FinTech is probably the area with the biggest (social and economic) growth potential in Egypt.

Conclusion

The ultimate success of Global Gateway depends on whether projects meet the real needs and goals of partner countries and their populations. To deliver on those needs, EU and EU member state officials must build a greater understanding of the priorities and policy directions of partner countries, as well as of how these partners perceive the EU and its intentions. While Germany has developed a more profound understanding of local needs thanks to local presence,[18] most EU member states – including the Netherlands – have yet to act in this field. Successful engagement with the Global South requires an approach predicated on respect, active engagement and genuine partnership, all of which cannot be achieved without an approach tailored to unique national contexts. While developing economies face common challenges in their digital transformation journeys, specificities should not be overlooked.

This initial attempt at mapping the digital needs and interests of Kenya, Vietnam and Egypt highlights the current funding and knowledge gap for initiatives that will drive their transformative agendas. Ranging from infrastructure development (such as 5G and fibre optics), cybersecurity and e-government to AgriTech, digital skills and MSMEs' digitisation, there is no shortage of common opportunities for investment between the EU and these three important partners. However, to ensure that Global Gateway projects are sufficiently tailored to the local context, streamlined information gathering and communication sharing among European officials, financing institutions and the private sector are policy imperatives.

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18 GIZ, the German Agency for International Cooperation, has about 90 offices worldwide. See: GIZ, *Organisation*.

Cybersecurity remains a key focus area for EU partners in the Global South. Vulnerabilities may be addressed through targeted GG projects that strengthen these countries' overall cybersecurity posture. Such efforts could also be mutually beneficial for the EU, as improving interoperability between European and Kenyan, Vietnamese and Egyptian security ecosystems will facilitate deeper cooperation and closer (normative) alignment in the future, especially regarding data transfers between the continents. In addition, greater cybersecurity in these countries also ensures a safer environment for the European private sector to invest in and expand operations.

In the first Policy Brief of this series,[19] we identified four digital strengths through which the Netherlands could contribute to Global Gateway. This second Policy Brief identifies the local needs and interests of Kenya, Vietnam and Egypt. To complete the miniseries, the third Policy Brief will present a match-making analysis of Dutch strengths and local needs.

Only with a good understanding of Europe's digital strengths and local digital needs can Digital Global Gateway successfully deliver on its ambition to deliver lasting social and economic benefits for local communities that are sustainable, transparent and secure.

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19 Alexandre Gomes and Maaike Okano-Heijmans, *Dutch niches for Global Gateway in the digital domain: an initial enquiry*, October 2023.

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