This policy paper – the second of two – looks at the opportunities and challenges of implementing interoperable, instant and inclusive digital payment systems, which are essential for e-commerce and cross-border trade in Africa. Digital economic integration is critical for the financial inclusion of millions of small traders – of whom 70% are women – as well as vulnerable communities in border regions.

The paper focuses on the East African Community (EAC) – one of the most economically integrated regions in Africa – and its efforts to promote digital economic integration in three member states, namely Tanzania, Kenya and Uganda. Finally, it provides policy recommendations for the European Union on how to strengthen its support to the EAC and its member states in implementing cross-border interoperable digital payment systems.

The analysis suggests the need for a solid regulatory framework at national, regional and continental levels to increase the volume of cross-border trade under the African Continental Free Trade Area (AfCFTA) on top of the interoperability of digital payment systems. Regional Economic Communities (RECs) are leading the harmonisation of standards and regulations for interoperable payment systems at the regional level. Yet, as the case of the EAC shows, without the political buy-in of member states and key players within those states, their efforts at implementing these systems remain limited. In this context, it will be important to increase the cooperation between national governments, RECs, the private sector and international partners.
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Acronyms

ADF | African Digital Financial Initiative
AEDIB | African-European Digital Innovation Bridge
AfCFTA | African Continental Free Trade Area
AfDB | African Development Bank
AI | Artificial Intelligence
AU | African Union
CBK | Central Bank of Kenya
COMESA | Common Market for East and Southern Africa
CRDB | Cooperative and Rural Development Bank
DRC | Democratic Republic of the Congo
DSM | Digital Single Market
EAC | East African Community
EAPS | East African Payment System
ECDPM | European Centre for Development Policy Management
EU | European Union
GIZ | Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
GDP | Gross Domestic Product
GSMA | Global System for Mobile Communications Association
ICT | Information and Communication Technology
ID | Identification
IGAD | Intergovernmental Authority on Development
ITU | International Telecommunication Union
KNPS | Kenya National Payment System
KYC | Know Your Customer
MNO | Mobile Network Operators
NDICI | Neighbourhood, Development and International Cooperation Instrument
NMB | National Merchant Bank
PAPSS | Pan African Payments and Settlements System
P2P | People-to-People
P2G | People-to-Government
REC | Regional Economic Communities
REPSS | Regional Payment and Settlement System
RTGS | Real-Time Gross Settlement
SEPA | Single Euro Payments Area
SMEs | Small and medium-sized enterprises
SWIFT | Society for Worldwide Interbank Financial Telecommunications
TIPS | Tanzania Instant Payment System
UNCDF | UN Capital Development Fund
UNISS | Uganda National Interbank Settlement System
1. Introduction

Mobile money like M-Pesa has been vital in improving financial inclusion among millions of poor people who are unbanked or underbanked. In East Africa, the cradle of M-Pesa, user rates have increased exponentially, reaching a financial inclusion level of over 80% in Kenya alone (CBK 2021). At the core of most digital transactions are people-to-people (P2P) transactions such as domestic and cross-border transfers of remittances, wage disbursements or spontaneous bill payments. People-to-government (P2G) transactions are also increasing in the region as governments like Kenya and Tanzania augment their e-government capacity and implement e-citizen platforms that accept mobile money. The advent of mobile money has revolutionised the lives of those who used to send and receive cash in envelopes via costly and risky bus rides. However, digital transactions are yet to transform customer-to-business (C2B) payments, which continue to be largely settled in cash. This is because limited interoperability between different mobile money providers, especially across borders, and missing or outdated regulatory frameworks hinder the widespread adoption of digitised merchant payments, one of the prerequisites and key drivers of e-commerce and cross-border trade.

In this policy paper - the second of a series - we analyse the opportunities and shortcomings of the current payments ecosystem in East Africa. The EAC, the origin of mobile money, has achieved considerable interoperability among the mobile money operators and the banking sector respectively, but there is still very limited interoperability between the services of the two sectors. This leaves a gap for merchant payments since neither bank services nor mobile money transfers seem to persuade customers and businesses to settle their transactions digitally. This is a missed opportunity because micro-entrepreneurs, 70% of whom are women, are the backbone of East Africa’s economy. Their limited digitalisation is hindering financial inclusion, e-commerce and cross-border trade in the region. In this sense, we look at national and regional efforts to improve cross-border interoperability of digital payments. Although the EAC Secretariat promotes interoperability of payment systems and addresses the bifurcation of the digital payments industry, six challenges stand out, including a lack of political buy-in from its member states, low uptake of the current regional payment system, lack of capacity and knowledge exchange to achieve regulatory and technological interoperability of cross-border digital payment systems, and low uptake of both national and regional payment systems due to lack of trust in digital technologies. Finally, we suggest several strategies on how the EU can assist the EAC and its member states to overcome these challenges.

The policy paper is based on desk research and interviews with a selected number of African and international stakeholders. While acknowledging the advanced level of interoperability in the region, we illustrate the bottlenecks that hinder e-commerce and cross-border trade, not least because the use of mobile money remains fairly limited in merchant payments. Based on three case studies - Kenya, Tanzania, and Uganda - we note that the political economy at the national level accounts for different degrees of national and regional interoperability and varying standards of regulation. Regional efforts to enhance e-commerce and cross-border trade may, therefore, receive contrasting inputs from different member states, but also experience different levels of national implementation.

2. Challenges of driving scheme interoperability in the EAC

The EAC, as one of the most integrated RECs according to the Africa Regional Integration Index (2019), has committed to deepening its digital economic integration (AUC et al. 2019). In July 2022, the EAC adopted an e-Commerce Strategy aiming to harmonise laws to facilitate cross-border e-commerce in the region (EAC n.d.-a). The strategy also aims to strengthen cross-sectoral and public-private collaboration in developing regional approaches to cross-border e-commerce. As part of deepening its digital economy, the EAC has developed a vision, roadmap and framework to create a Digital Single Market (DSM) for East Africa, with a view of facilitating the seamless
movement of people, goods and services across the region. The Common Market Protocol, ratified in 2010, has already contributed to increasing intra-regional trade, which in September 2022 surpassed $10 billion, representing a 20% share of the region’s global trade (EAC n.d.-b; EAC 2023a). This trend is set to continue as the EAC works towards the establishment of a common currency. In 2022, the World Bank earmarked $15 million to support the bloc’s ambitious objective to drive digital economy integration.

Digital payment system operators have mushroomed across East Africa. Banks have traditionally specialised in bulk transfers that process high-volume, scheduled payments, and wire transactions that often involve high values. However, these services do not suit the needs of millions of poor people who therefore remain underserved or unserved by the banking sector. With the rise of mobile phones over the past ten years, mobile network operators (MNOs) stepped up to fill the void, tailoring their services to P2P transactions in order to facilitate remittances, wage disbursements, or spontaneous bill payments such as topping up the phone balance or prepaid electricity metres (for instance, Stima in Kenya, Luku in Tanzania). Over half of the 763 million registered accounts in Sub-Saharan Africa in 2022 are from East Africa, which has also been the region recording the highest volume of transactions (GSMA 2022; Statista 2023a). Transfers are instant and generally characterised by low volumes and relatively low values. However, neither bank services nor mobile money transfers have been tailored to merchant payments between customers and businesses. Like in other emerging economies, the limited access to banking services has hampered the adoption of debit and credit cards which underpin retail payments in developed countries. In Tanzania, only 5% of the population has ever used digital retail payments even though more than 40% of the population owns a mobile money account (Roessler and Walsh 2023). This shows that C2B transactions continue to be settled in cash which is in sharp contrast with the widespread use of mobile money for P2P transactions in East Africa.

Despite apparent political will and international support, the EAC faces six challenges in enabling and promoting the interoperability of digital payment systems in order to enhance cross-border trade and e-commerce in the region. Firstly, limited capacity and knowledge sharing among regulators and government officials have delayed regulatory harmonisation and implementation (Owino 2022).

Secondly, the existing East African Payments System (EAPS) has low uptake and this is hindering seamless digital payment systems interoperability. Designed as a real-time gross settlement (RTGS) system, the EAPS facilitates high-value transfers of money or securities between different banks in the region but is unattractive for MNOs and unsuitable for most mobile money transactions which tend to be low in value. This means that in its current form, the EAPS is out of reach for most micro-enterprises, women, and marginalised communities in remote areas who do not have access to bank accounts but are the backbone of the informal economy and key drivers of economic growth (Cheruiyot 2022; TanzanianInvest 2023; Okumu and Buyinza 2020). Without being able to prove their income from cash-based revenues, they often lack access to loans that would allow them to upgrade their activity. On the customers’ side, women in rural areas may receive remittances through mobile money but live far away from a cash-out agent. Being able to buy household supplies with the balance on the mobile wallet saves them from a time-consuming, costly and risky trip to town to withdraw money.

Thirdly, high currency exchange fees in cross-border transactions continue to inhibit transactions, despite the fact that the EAPS operates under a multi-currency system to avoid the exchange risks arising from dollar transactions (Bech et al. 2020; CBC 2021). Although the EAC states’ central banks have made considerable progress towards the harmonisation of monetary and exchange rate policies, industry players still complain about high fees in cross-border digital transactions (TradeMark Africa 2022). Small cross-border traders like women or minority groups, who often have very limited access to the internet and other sources of information, are therefore unaware of current
currency exchange rates. Consequently, they have to rely on costly and opaque conversions offered by official or unofficial agents near the border.

Fourthly, amid widespread personal experiences of online scams, some users have grown wary of storing higher amounts of money for longer periods or online purchases over long distances (interviews), restricting the use of mobile money in spontaneous merchant purchases. Despite the existence of a continental African Union (AU) Convention on Cyber Security and Personal Data Protection, in EAC, only Rwanda has ratified it. From a trade perspective, weak consumer protection discourages e-commerce. Various member states struggle with the implementation and enforcement of regional and national legislation, which is key for promoting trust in laws regulating data privacy, cybersecurity, or consumer protection. As the EAC Secretariat is small and with fairly weak competences, its ability to strengthen the political buy-in of member states to push initiatives through is limited.

Fifthly, industry incumbents who want to protect their commercial and competitive positions have long undermined efforts towards full interoperability. In this context, the increased pressure to implement national interoperability platforms, driven by the boom of mobile money users in the region and the adoption of fintech by banks, is bringing a sense of urgency and is driving industry incumbents to shift their positions to promote interoperability of cross-border payments by liberalising their digital markets (Cracknell 2023). The private sector has been leading the process of digital payments implementation in East Africa, while this has resulted in rapid technological innovation, it has also come with limitations on clear leadership and oversight coordination (interview; Cook 2021).

Finally, overlapping membership creates competition between the EAC and Common Market for East and Southern Africa (COMESA) regional payment systems. The payment systems of Kenya, Rwanda, and Uganda are connected to both EAPS and COMESA’s Regional Payments and Settlement System (REPSS) (Songa and Ronceray 2023). While some local commercial banks and their respective central banks tend to prefer EAPS for its cost-effectiveness and convenience, the multi-currency system of EAPS can be a barrier in low-value trade corridors (for instance, Rwanda-Uganda) due to low reserves in the respective foreign currencies. Other local banks prefer COMESA’s REPSS because of the easier Society for Worldwide Interbank Financial Telecommunication (SWIFT) messaging (G:Enesis 2017).

These challenges have consistently emerged as important limitations to digital market integration in East Africa, as well as the financial inclusion of underserved communities. There are, however, incentives in place that inform the negotiations between EAC member states, financial institutions, and international partners to address these challenges related to the low uptake, lack of interoperability between digital payment providers, and coordination between key players at the regional level. Beyond the EAC, addressing these challenges offers key lessons for the implementation of the Pan African Payments and Settlement System (PAPSS), the first continental-wide platform to facilitate easier cross-border payments, to foster the implementation of the AfCFTA, as concerns have been raised it might face similar setbacks.

3. Opportunities to enhance interoperability of cross-border digital payments in the EAC

Despite the aforementioned challenges, the EAC and member states are taking steps to improve the interoperability of digital payment systems for cross-border trade. The EAC states’ central banks have committed to promoting interoperability at the national level, enhancing the EAPS at the regional level, and engaging with stakeholders at the continental level for further integration of cross-border payment systems (EAC 2023b). These commitments to
improve technological interoperability should be accompanied by regulatory actions that encourage the use of interoperable payment systems in cross-border trade and e-commerce.

Firstly, the EAC should bring together regulators, governments, and payment services providers and offer a space to exchange experiences and lessons learned (EAC 2022; WB 2018; EABC 2022). The EAC could take inspiration from other platforms and initiatives that can help improve communication between member states such as Intergovernmental Authority on Development (IGAD) or the Horn of Africa Initiative. The UN Capital Development Fund (UNCDF), Smart Africa Alliance, and Africa Nenda also promote collaboration between industry players. Better collaboration between different stakeholders would also foster industry coordination or strong oversight coordination which is key to improving the integration of cross-border digital payments.

Secondly, the EAC Secretariat should encourage the harmonisation of existing national laws including data protection, e-commerce and cybersecurity regulation rather than negotiating new EAC-wide policies. By building on existing regulations, the EAC could avoid one of the main bottlenecks with regard to regional policies, that is, their implementation at the national level. When promoting regulatory harmonisation, the EAC efforts should also complement the ongoing negotiations of the AfCFTA’s Protocol on Digital Trade or the AU digital identification (ID) interoperability framework to facilitate continental e-commerce through binding provisions on interoperable cross-border digital payments. Digital ID can foster trust by facilitating the authentication of sellers’ identities when accompanied by sound and robust regulation. Countries like Tanzania and Uganda, where the limited availability of national identification still represents a barrier to access to financial products and services and hinders ‘Know Your Customer (KYC)’ compliance, would particularly benefit from regional and continental inputs (National Council for Financial Inclusion 2023; Murwanashyaka 2023). Growing concerns about data privacy have pushed governments to legislate data protection laws and create their national data protection commissions (Musoni et al. 2023). Most member states have some regulations related to consumer protection, but these tend to be weak, rarely enforced, or outdated. The EAC Secretariat is elaborating data privacy guidelines while some hope that payment systems integration may also help to combat tax evasion and money laundering by increasing transparency for national authorities and system participants.

Thirdly, regulators and industry players should put in place incentives to deepen the digitalisation of merchant payments. As opposed to P2P transactions where senders and recipients have the same incentives to use mobile money, C2B payments are a two-sided market and therefore more complex (CGAP 2019). Customers and businesses have different needs and they will only switch to digitised payments once there is a sufficient critical mass of users on both sides. In other words, the digitisation of merchant payments hinges on cross-side network effects, where merchants adopt digital payment solutions once there are enough customers in the system and customers pay digitally when enough merchants offer this possibility. From the supply side, deepening the financial sector, for example, by bridging the gap between MNOs and banks, is critical to create an incentive for customers and merchants to use digital payment solutions (National Council for Financial Inclusion 2023). Improving interoperability, including bridging the gap between MNOs and banks, would reduce coordination costs and level the playing field (Roessler and Walsh 2022). Studies have shown a significant productivity improvement for firms in Sub-Saharan Africa which use both mobile money and traditional financial services (Konte and Tetteh 2023). The seamless integration of services offered by mobile network operators and banks would even allow merchants to use their retail sales revenue for wholesale, large-value wire transfers or scheduled bulk transfers without having to deposit money in a bank account. Similarly, it would help them demonstrate their average income when applying for a loan as accessing a line of credit from a financial institution remains a significant obstacle, especially for women-led small and medium-sized enterprises (SMEs) (Calice et al. 2012). Banks would gain a large, new customer base of currently unbanked or underbanked micro-enterprises and SMEs, thereby complementing the services of MNOs with traditional banking services that may be beyond the legal scope of non-financial institutions. At the national
level, Kenya is taking steps to bridge the bifurcation between banks and MNOs towards a fully integrated digital payments industry. As part of this objective, in 2022, the Kenyan Central Bank and PSPs launched full interoperability of MNOs (CBK 2023). Similarly, the Bank of Tanzania is about to launch the Tanzania Instant Payment System (TIPS), the national payment system which comprises both banks and MNOs.

Finally, merchants and customers must gain digital skills not only to use online payment systems but also to spot phishing scams which are creating distrust in mobile money. Awareness campaigns conducted by the Better Than Cash Alliance, the UNCDF, and the African Digital Financial Initiative (ADFI) have aimed to inform merchants in particular about the advantages of digital payments.

4. How do national efforts affect the regional interoperability of payment systems in the EAC?

At the national level, payment systems integration varies widely among EAC member states, with implications for their engagement within the EAC. Depending on their connectivity levels and the maturity of their digital economy, some have achieved limited interoperability focused on a few operators, while others are more advanced in comprising the entire national market, or have regional or even continental reach by linking their national payment systems with regional and continental payment systems. Meanwhile, some of the least developed members are still struggling to overcome low levels of digital infrastructure before developing their national digital payment systems. For instance, the African Development Bank (AfDB) is supporting South Sudan to develop its digital payment system through the EAC Payment and Settlement Systems Integration Project. In this section, we look in depth at the spectrum of national and regional payment systems integration with a focus on Kenya, Tanzania and Uganda with a view of identifying what is hindering their contribution to regional and continental efforts to improve digital payment system interoperability.

Kenya

Kenya is regarded as a leader in terms of access to digital infrastructure in Africa, including digital financial services, with significant strides in the interoperability of payment systems at the national level. The launch of the famous M-Pesa mobile payment service in 2007 by Safaricom has contributed to the increase of digital financial inclusion in the country from 26% in 2006 to 83.7% in 2021, as it was introduced in the market to cater for the needs of people without access to the formal banking sector (Kivuva 2023; McKinsey 2022). Thanks to this, Kenya records higher financial inclusion rates than its East African counterparts and Sub-Saharan Africa, which stands only at 39% as of 2022 (Chinoda and Mingiri Kapingura 2022). Since the launch of M-Pesa and its success, mobile money penetration has reached 132.5% in 2023, and the country’s digital economy is expected to contribute 9.24% of the country’s gross domestic product (GDP) by 2025 (Mburu 2023; Domingo 2023). Kenya is leading Smart Africa’s digital economy blueprint and through this framework, it can share its experience in promoting digital innovation in the financial sector with neighbouring countries and stir conversations on common regulatory frameworks as well as technological interoperability to boost East Africa’s digital economy.

At the national level, Kenya has introduced measures to improve collaboration between different industry players through competition policies, while it is taking positive steps to address the fragmentation of the digital payments industry. As a key step towards this goal, in 2022, the Central Bank of Kenya announced the full interoperability of mobile money payment systems amidst growing interest to integrate low-value transactions (CBK 2022a). This came after the Kenyan Banking Association launched and upgraded its PesaLink, a platform that allows merchants to transfer payments between banks in real-time and at a low cost through multilateral agreements. The Central Bank
of Kenya has also put a National Payments Strategy (2022-2025) to provide the framework and actions for a more integrated digital payments industry. Kenya’s success in achieving a high level of interoperability of payment systems at the national level has been mainly due to banks’ interest in expanding their commercial reach.

At the regional and continental level, Kenya aims to improve its trade of goods and services with EAC and COMESA members, as well as promote regional and continental e-government cooperation (Ministry of ICT, Innovation and Youth Affairs 2022). Its geopolitical ambitions and the pressure to accelerate its digital economy to create jobs for its youth have encouraged Kenya to play an active role in digital economy integration at the regional and continental levels. For example, in September, the Commercial Bank of Kenya joined PAPSS after signing an agreement with PAPSS during the 30th AfreximBank Annual Meeting held in Accra in June 2023. Kenya has also announced its bid to host PAPSS (Kombo 2023). If successful, this will position the country as a financial hub in the march towards establishing a single, common market under the AfCFTA (Munda 2023).

The Kenyan National Payment System (KNPS), which is a RTGS system allowing transactions between bank accounts, is already linked with the REPSS and EAPS regional cross-border payment systems allowing the country to integrate with COMESA and EAC regional markets. The system has been developed by strengthening payment systems, enabling both large-value payment systems and low-value high volume payments, allowing the participation of banks as well as mobile money operators who provide digital financial products for smaller merchants. As indicated in the country’s National Payments Strategy 2022-2025, Kenya’s strong commitments to participate in regional and continental initiatives are anchored in the ongoing implementation of regional interoperability systems and upgrading of the EAPS to run on a single shared technology platform. The objective of this is to support the EAC’s integration agenda through harmonised payment systems regulatory frameworks, which is a more integrated clearing and settlement systems infrastructure.

Kenya is one of the EAC partner states that benefits the most from the interoperability of payment systems at the regional level. It is the country with the highest volume of regional transactions and it has active bilateral corridors for senders and receivers of digital payments between Kenya-Uganda, Kenya-Tanzania, Kenya-Rwanda, and Burundi, which also sends to all these countries. Furthermore, Kenya dominates 90% of the transaction in dollars through the REPSS, and its transactions through the EAPS account for over 98% of the transaction value (Anyanzwa 2019). Its dominance in these two regional digital payments has been heightened by other countries’ reluctance to transact with other national currencies in the region. The political influence of Kenya at regional forums such as the EAC has also been of concern to other member states with more protective digital market regulations. However, Safaricom and private companies that have a strong transnational presence can play a key role in promoting the digital economy integration agenda (Macdonald 2023).

Despite the positive progress of the interoperability of digital payments at the national level, there are some caveats to consider. Although mobile money policy and regulatory frameworks have evolved rapidly to respond to technological innovation, without hindering it, Kenya has not achieved a fully integrated ecosystem that is seamlessly interoperable. Despite the growth of the digital payments sector in Kenya and the government’s aim to build on the benefits of P2P interoperability, cash payment remains the preferred payment method for merchants due to various reasons including the slow digitalisation of payment methods, trust and lack of awareness about mobile money methods, digital skills, et cetera. Looking forward, Kenya may be able to mentor countries in East Africa in particular through pilot projects, in the area of digital financial inclusion. Furthermore, the Kenyan Government wants to increase remittances in the region, and it can only do this through helping increase the take-up of the regional payment systems through harmonisation of policies as well as technological interoperability (CBK 2022b). Finally, the government needs to increase investment in digital infrastructure through building public-private partnerships (Ministry of ICT, Innovation and Youth Affairs 2022).
Tanzania

Tanzania performs well in national interoperability but remains reluctant at the regional level. Thanks to various bi- and multilateral agreements between different MNOs, Tanzania used to enjoy one of the highest user rates of mobile money in East Africa albeit mainly for remittances. However, in July 2021 the Tanzanian Government introduced a levy on P2P and cash-out transactions with detrimental effects on the use of mobile money (GSMA 2021). Even though the government has subsequently reduced the levy and finally scrapped it for P2P transactions in July 2023, the uptake has not reached pre-levy levels yet (RadioTadio 2023). Regardless of this setback, the government has taken different measures with the stated aim of becoming a cashless society. Most importantly, digital P2G transactions have become the norm for bill payments, taxes, or fines. To further national interoperability between all financial service providers, the Bank of Tanzania aims to implement TIPS, a fully integrated national system by the end of 2023. With support from Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ), the EU delegation in Dar es Salaam and UNCDF, a large number of stakeholders have been consulted to design a user-friendly system that appeals to banks, MNOs, and other private sector players. As the second-largest EAC member state after the Democratic Republic of the Congo (DRC), Tanzania’s 60 million population allows for a considerable degree of economies of scale at the national level (Arnold 2022). Despite the gender gap in mobile money account ownership (40% of women compared to 49% of men), more than 40% of the population possesses a mobile money account, bringing about the network effects necessary for a thriving digital payment ecosystem (Statista 2022; Holliday 2023).

Despite the political will and cooperation of financial service providers, progress to digitise merchant payments has been slow. Most merchants in bigger cities such as Dar es Salaam or Arusha offer customers to ‘Lipa kwa namba’ (pay by number) where the merchant uses a single mobile account number to receive payments from any other mobile account provider. This number is shortened to six (rather than nine) figures to ensure the merchants’ privacy. It is worth noting that some of the main banks (for instance, the Cooperative and Rural Development Bank [CRDB], and the National Merchant Bank [NMB]) also offer mobile wallets which allow interoperable payments. According to the merchants themselves, the uptake of ‘Lipa kwa namba’ by customers is sluggish (interviews). Customers lament that digital payments are significantly more costly than cash transactions because merchants insist on ‘tuma na kutolea’ (send with cash-out fee) which requires customers to add the fee that merchants will be charged when cashing out the money. This fee hurts the low-income segments of the population and disproportionately affects women due to the high-income gap in relation to men (National Council for Financial Inclusion 2023). Accepting digital payment is still considered a ‘favour’ to the client rather than a service to both merchant and customer.

At the regional level, bi- and multilateral agreements between MNOs in different EAC member states, as well as the future TIPS, pave the way for technological payment systems interoperability. Nevertheless, compared to other EAC member states, Tanzania’s political economy has weakened the country’s broader integration into the regional digital ecosystem, for several reasons. Although the bi- and multilateral interoperability agreements and high uptake of mobile payments are a success story, the Tanzanian market is generally less tech-savvy than Kenya’s or Rwanda’s. Moreover, Tanzania’s start-ups and SMEs, which developed in a relatively protectionist economy, might not be ready for fiercer competition from neighbouring countries and Kenya in particular.

The Tanzanian Government and authorities face stronger challenges in capacity development than Kenya. In all EAC member states, the government administration or independent authorities may lack the necessary expertise when it comes to implementing highly technical regulations. Kenya, however, is in a more advantageous position because it can usually outsource more specialised tasks to its tech-savvy private sector (interview). By contrast, in other EAC member states including Tanzania, there are very few private companies which possess the necessary expertise or capacity to consult the authorities on such matters. Further delays or even barriers to implementation arise when
this restricted base of expertise must be accessed with limited resources for the recruitment process of potential experts (interview).

While Tanzania is set on its course towards market-wide interoperability between payment service providers at the national level, the government needs to broaden its outlook to unlock the full potential of intra-regional trade. Although Kenya retains leadership in regional trade, Tanzania could take advantage of regional interoperability in order to enhance trade, especially with its fast-developing western neighbours: Burundi, Rwanda, and the DRC. A more export-oriented outlook would also place Tanzania as a key driver of cross-border trade in the least developed areas near the Great Lakes region while promoting economic growth domestically. To address these shortcomings, the Tanzanian Government and authorities should not shy away from seeking external support including from fellow EAC member states (for instance, Kenya) or experienced international partners such as GIZ, UNCDF or the EU. At the same time, the government should work on a long-term strategy to build domestic capacity in the domestic realm. Thereby, the government should not only seek external expertise but actively support the local tech community with financial incentives, regulatory adjustments, and political backing, if needed. With these measures, Tanzania could repeat its interoperability success at the national level in a regional context.

Uganda

Uganda follows Kenya and Tanzania in terms of the adoption of mobile money but still records low levels of financial inclusion with only 10% of people owning a bank account and nearly 50% using mobile money services as of 2021 (Wasswa 2023). As of March 2023, there were 37.3 million registered mobile money accounts while the industry recorded 1.44 billion mobile money transactions, up from 1.40 billion transactions at the end of December 2022, showing positive growth in transactions (Uganda Communications Commission 2023). This indicates that for the vast majority of the population, mobile money has the potential to increase financial inclusion because it offers an avenue for financial services that they otherwise cannot access from formal bank institutions. Although mobile money dominates remittances in Uganda (Statista 2023b), the adoption and use of mobile money services by merchants remains low in Uganda compared to the other countries due to the high transaction costs (Malinga and Maiga 2019). The country is also behind Kenya and Tanzania in the implementation of a national digital payment system that can serve as a platform for bringing together emerging payment solutions. To accelerate interoperability, the Bank of Uganda is in the process of developing a national payment system (Monitor 2021a).

Prior to the 2020 National Payments Systems Act, the fintech industry boomed in a mostly unregulated environment. Activities of MNOs, including mobile wallets and transactions, were regulated by the Uganda Communications Commission mandated with their licensing and supervision. In 2013, in an attempt to provide a ‘regulatory’ framework, the Bank of Uganda issued Guidelines for operators of mobile money services that required them to establish a partnership with a licensed financial institution. Despite this, a lacuna existed in terms of which institution was responsible for regulation and oversight of payment systems. Smaller fintech start-ups exploited a regulatory grey zone as they were not subject to the same regulations as financial institutions (interview). The National Payment Systems Act (2020) and subsequent National Payment Regulations in 2021, give regulatory and oversight powers to the Central Bank, including on the licensing of digital payment systems in the country. Although this is considered a positive effort towards building trust in the various payment systems and enhancing consumer protection, the stringent requirements imposed on financial institutions, mobile money operators as well as fintech start-ups have stifled innovation and eliminated many fintech start-ups from the market (interview). The main obstacles for smaller start-ups include the onerous bureaucratic requirements, many of which are paper-based and intransparent, as well as limited capacity and resources to comply with the new law (interview). Moreover,
minimum capital requirements, application and licensing fees are together viewed as prohibitive to small entrants. Nevertheless, compliance challenges persist as the regulator struggles with limited technical and resource capacity, leading to sporadic enforcement.

A positive aspect is that the National Payment Systems Act through its sandbox regulations allows for new entrants to test innovative payment before meeting all the market operation requirements. This provides an opportunity for fintechs to live-test novel innovations that are interoperable within the traditional banking industry (FITSPA 2022).

Among mobile money users, the demand for interoperability in mobile financial services is high, both for transferring money across networks and for cash-in and cash-out at agents (FSD Uganda 2017). Likewise, driven by the need to serve all customers, the demand for interoperability is high among mobile money agents, but it is negatively affected if commission is charged (FSD Uganda 2017). Interoperability largely remains limited (Murwanashyaka 2023), and where it exists, is at the level of bilateral agreements between MNOs, compounding transaction costs of having such bilateral arrangements with multiple partners. As such, the cost of off-net transactions is preventing increased uptake of mobile financial services and impeding the deepening of financial inclusion in the country (FSD Uganda 2017). There is no centralised payment infrastructure in the country making the development of a national switch timely.

Although the country has experienced positive success with P2P payments, efforts to digitise merchant payments remain limited, with cash preferred for such payments. Some examples include MoMo Pay, Airtel Money Pay and Stanbic Bank’s FlexiPay, which offer merchant payment services, among other services such as utility bill payments. However, merchant payments come with costs, disproportionately felt by low-income users, and transparency issues remain, for example, indicating from whom the payment is received (interview). In addition, taxation of mobile money transactions remains a challenge. The Excise Duty (Amendment) Act of 2018 introduced a 1% tax on mobile money, an amount later reduced to 0.5% for mobile money withdrawals following criticism that it raised the cost of transactions of mobile money. Nevertheless, the 0.5% tax is still seen as prohibitive, especially for the low-income population (Bierer et al. 2021), with calls for its further reduction or cancellation.

Regionally, the national RTGS, the Ugandan National Interbank Settlement System (UNISS), connects to both EAPS and REPSS, cross-border transactions are dominated by mobile money transactions which rely on bi- and multilateral agreements with payment service providers mostly in Kenya, Rwanda, and Tanzania. Integration at the regional level is curtailed by operation in silos with limited communication and sharing amongst the existing national payment systems (interview). Added to this, industry has lamented the inadequate representation of their interests at the regional level as the minister they liaise with at the national level is not the same one representing them at the EAC level (Minister for EAC Affairs), resulting in a disconnect between the pace at which industry wants to develop and the pace at which regulations are developed at the regional level (interview). Technical complexities based on differences in national payment systems and switch designs also limit their interoperability. The licensing system introduced by the National Payment Systems Act is a gatekeeper to regional and continental interoperability because only licensed operators fulfil the requirements to connect to such interoperable systems.

The Bank of Uganda has indicated it wants to transition to a cashless economy (Monitor 2021b), yet, achieving this requires a concerted effort to foster an inclusive digital financial payment system. Overall, Uganda is on the right path with the introduction of laws and regulations to govern payment services providers and operators, enhance consumer protection as well as grant oversight powers to the Central Bank. However, lack of interoperability remains a key challenge, and the country can learn from both Kenya and Tanzania who have achieved progress in the

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1 The lowest threshold for a payment service operator is UGX 100 million (approximately EUR €24,735), while that for a payment service provider is UGX 250 million (approximately EUR €61,836) (ALN 2022).
interoperability of payments. Discussions are ongoing for the development of a national switch which provides an opportunity for inter-regional experience sharing with its neighbours as well as from external partners, including enhancing competition and stakeholder collaboration.

**Figure 1:** Interoperability of digital payment systems of EAC countries at national and regional level

5. **How can the EU support interoperable payment systems to foster e-commerce and cross-border trade?**

The launch of the European Digital Single Market in 2014 put the EU at the forefront of e-commerce and cross-border trade. To promote online trade in goods and services, the EU has adopted new regulations and harmonised existing laws to implement an integrated payments landscape across EU member states. This included the Single Euro Payments Area (SEPA), which created a single market for euro bank transfers in the banking sector, while the 2020 Retail Payments Strategy aims to ensure the seamless interoperability of wider digital payment systems across the EU and to encourage innovation (Teevan 2023). The EU was able to expedite the implementation of its digital single market through already advanced economic integration, its common currency and monetary policy, as well as solid regulatory frameworks and consumer protection throughout the Union. Yet it remains a work in progress.

As African RECs, such as the EAC, face different conditions and a more premature regulatory environment, African businesses and authorities have developed many creative solutions to overcome context-specific challenges. The invention of M-Pesa is a case in point. Nevertheless, the EU possesses invaluable expertise in digital market

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2 Over the past months, the central banks of Djibouti, Zambia and Zimbabwe joined PAPSS. In the EAC, the Kenyan Central Bank joined PAPSS in late September and Rwanda is connected to the system through the country’s RSwitch.
integration, leaving ample scope for the EU to share lessons learned, especially in the field of regulatory harmonisation.

Following our discussions with different stakeholders in East Africa and the highlighted challenges and opportunities, we identify four ways in which the EU could play a greater role in the digital payment sector at the regional level:

1. **As the EU seeks to increase its investment in Africa’s digital infrastructure, its engagement should become more systematic and should not overlook support for the implementation of interoperable digital payment systems.** Like the economy in African states, the African digital market is very dynamic and evolving quickly. The EU’s direct support of the digital economy or, more specifically, the interoperability of payment systems remains low and scattered in small initiatives. Some of these examples include its financial and capacity-building support to the Horn of Africa Initiative helping Djibouti, Somalia, Kenya, Ethiopia and Eritrea boost their digital economy combined with the support to individual African governments through the Centre for Digital Transformation in Kenya, for instance. Through the GovStack initiative, a coalition formed by Germany, Estonia, the International Telecommunication Union (ITU) and the Digital Impact Alliance, Team Europe members support the development of digital public infrastructure in Djibouti, Kenya, and Somalia. As part of the GovStack, the EU member states collaborate with relevant governments, Information and Communication Technology (ICT) ministries and regulators to help develop strong regulatory frameworks such as data protection including providing capacity-building for data protection commissioners and sharing interoperable software components that allow governments to roll out e-government services. In Eastern Africa, the EU and GIZ collaborate with IGAD countries to further the digital economic integration of the region. The mid-term review of the EU’s Neighbourhood, Development and International Cooperation Instrument (NDICI-Global Europe) offers an opportunity to make EU support more systematic and concrete. Possibly as part of the various national and regional digital Team Europe initiatives, the EU could also step up its support for the implementation of interoperable digital payment systems in line with its stated aim to support the implementation of the AfCFTA.

2. **In the crowded field of digital development, the EU must differentiate its engagement from that of other development partners.** To find its place in this field, the EU should consider focusing on a few niche aspects without losing sight of a holistic digital transformation. Digital payment systems integration could be one of those niches where the EU already possesses unique expertise, both in terms of regulation and infrastructure. A first step in this direction is the African-European Digital Innovation Bridge (AEDIB) with strong engagement by Belgium, France, Germany, and the EU itself. It clearly defines e-payments and e-commerce as a priority for EU action. Building on and scaling up initiatives like this could make the EU the go-to partner to develop inclusive and interoperable digital payment systems that support the broader trade and digital transformation agenda, in line with the AfCFTA’s objectives.

3. **The EU should scale up its regulatory assistance and tailor it to the needs of African partners.** The EU possesses exclusive experience in building a Single Digital Market. Its digital policies such as the General Data Protection Regulation, Digital Markets Act, Digital Services Act, Payment Service Directive, or the currently negotiated (Artificial Intelligence) AI Act set the global benchmark for regulating the online space. Drawing on its ‘domestic’ expertise, the EU’s support to Africa has focused on holistic strategies to accelerate a sustainable digital transition. On the continental level, the EU, through DataCipation, is supporting the implementation of the AU Data Policy Framework, as well as the wider AU Digital Transformation Strategy. Yet, at the national level, challenges arise from the peculiar political economies of different African states. Thus, the EU should tailor its support to the needs of individual member states. While Kenya is in a leadership position within the EAC, Tanzania contends with low technical capacity and would benefit from external financial and technical support. By contrast, Uganda has yet to boost domestic and regional payment systems
interoperability and reform its regulatory framework. External inputs from neighbouring countries and from international partners such as the EU are therefore critical to pave the way for digital market integration. In practice, this could include creating working groups constituted by European and African regulators to address issues related to the implementation of regional frameworks at the national level. This support should also be extended to the RECs such as the EAC that are playing a key role in promoting interoperability of payment systems and digital ID to increase cross-border trade.

4. **The EU should strengthen cooperation with other development partners to draw lessons from successful projects across the various RECs.** Among others, the World Bank, the African Development Bank, and GIZ are supporting interoperable payment systems at the EAC level, while UNCDF and the Better Than Cash Alliance are important partners in different member states. Projects that are in the inception phase like the World Bank’s Eastern Africa Regional Digital Integration Project, which is still at the stage of assessing the needs of African partner countries, represent an opportunity for the EU and its member states to find synergies with other global partners and complement their engagement.

6. **Conclusion: A world to build**

During the Smart Africa Transform Africa Summit in April 2023 in Victoria Falls, Zimbabwe, key industry players restated that ‘the time (for implementing cross-border interoperable payment systems) is yesterday’. Following the revolutionary invention of mobile money which led to the unprecedented financial inclusion of the poor, the implementation of the AfCFTA has greatly increased the focus and momentum towards expanding digital economic integration. In this report, we argued that the next step is to bridge the interoperability gap between different payment service providers, including MNOs and banks, and to expand the use of mobile money from remittances to low-value trade. The discussions around the AfCFTA leave no doubt that increasing cross-border integration will be critical to generate the economies of scale, network effects and cooperation necessary to enable firms to compete regionally and globally.

A closer look at the EAC illustrated the important strides made to deepen the integration of the digital economy in East Africa. Although the EAC is spearheading the adoption of regulatory frameworks and standards to harmonise regulations and promote technological interoperability, progress within the region remains uneven. The national implementation of these policies hinges on the digital transformation levels, political ambitions and economic interests of the member states. Kenya, the member state with the highest levels of digital financial inclusion, leads the discussions not only within the EAC but is also piloting continental initiatives such as PAPSS. Other member states such as Tanzania and Uganda also demonstrate a political interest in furthering payment systems interoperability and digitising low-value payments but suffer from lower levels of digitalisation and sometimes unfavourable policies. Burundi and South Sudan are still focusing on basic digital infrastructure in order to catch up with their more advanced neighbours.

Despite the remarkable progress overall, the levels of interoperability and financial inclusion in East Africa are far behind the desired outcomes, and there is a sense that African governments and their private sector cannot run the race alone. International partners, notably the EU, can play a crucial role in supporting the EAC and member states’ efforts at advancing digital payment interoperability. While the EU is a latecomer in the digital economy sector in Africa (for example, the World Bank investing greatly in digital ID implementation as well as developing big packages on digital economy integration), it can provide technical assistance in implementing a digital single market by sharing its experience on developing strong regulatory frameworks and common standards for an integrated continental digital market. This can be complemented with investment in last-mile connectivity, as well as digital skills for innovation.
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