DIGITAL TRANSFORMATION
AND LAND ADMINISTRATION

THE COVID-19 PANDEMIC ACCELERATED THE DIGITAL TRANSFORMATION OF LAND ADMINISTRATION. ONLINE SERVICES WERE EMBRACED. WORKING AT-DISTANCE BECAME THE NEW NORMAL. LAND AND GEOSPATIAL INFORMATION FOUND NEW USERS AND INCREASED DEMAND. **ROHAN BENNETT** DISCUSSES HOW THIS HAS AFFECTED FIG'S WORK

At the onset of the pandemic, many land administration organisations were already well-equipped for the new normal, adapting to working at-distance, handling service spikes, responding swiftly to changing customer needs, and delivering novel data analytics services. Legal arrangements to support digital service delivery were often already in place or adaptable at short notice. The event even produced financial gains for many land administration organisations.

Nevertheless, it also turned the spotlight onto issues of digital exclusion, data quality, standards, staff capacity, customer awareness, and partner collaboration. These are areas where investment is most urgently needed.

Digital disruption is now the new normal for land administration organisations. Successful systems already operate with this mindset and can pivot, adapt, and learn on-the-fly– be it through leveraging off information technology infrastructure investments, fast-tracking e-conveyancing, becoming more data-driven, fostering dynamic capabilities or supporting innovation incubation hubs.

Land administration and National Spatial Data Infrastructure (NSDI) organisations should recognise digital disruption as an opportunity to improve services and data quality, find new customers, and create new services.

To be equipped, digital transformation agendas for land administration must align with broader governmental digital agendas, infrastructure developments and cybersecurity plans.

Investment plans should equally direct resources towards partnership building, capacity and skills development, communication and awareness-raising, to ensure they deliver societal benefits and bridge the digital divide.

The COVID-19 pandemic also evidenced the indispensable role that spatial and other information on tenure rights play in supporting the government to deliver on broader policy goals. They can help integrate cross-government business processes, improve data supply lines, and support streamlining of e-services for health management, emergency response, property market stimulus, economic recovery, poverty reduction, protection of women and vulnerable groups, climate change response, food security and agricultural enhancement, disaster and conflict management, infrastructure provision, government interconnectedness, open data initiatives, citizen and business activation, and coordinated cybersecurity responses.

Accelerating towards fully digital

The land sector is accelerating towards fully digital operating environments. They are establishing 'dynamic capabilities' to sense digital opportunities, seize them and continuously transform business processes. Capacity development programmes are needed to further enhance these capabilities.

Authoritative, available, accurate, accessible and unambiguous digital datasets of land parcels, buildings, rights,

restrictions, responsibilities and people must also be in place. Land administration organisations are often responsible for the quality of 11 of the 14 datasets identified as critical for effective Sustainable Development Goals (SDGs) response.

Land administration and NSDI leaders can adopt an ecosystem mindset, assisting in the creation of inter-agency goodwill, goals, sharing, and custodianship.

Future land administration systems must be ready to respond to this diverse number of post-pandemic policy priorities including severe demographic shifts, increasing societal disparities, economic volatility, newly emerging business ecosystems, anthropogenic environmental damage, decentralised operating environments, political power shifts, and rapid urbanisation.

Cybersecurity and data quality

Equally, technological developments in cybersecurity, data privacy and ethics, open data, artificial intelligence, robotics, digital collaboration, innovation incubators and crowdsourced data demand attention.

Platforms for partnerships with the business and education sectors, as part of broader capacity development and community awareness-raising, need consideration, alongside actions that better support vulnerable groups, local communities, and deliver upon their basic data needs.

Future land administration systems will require more intelligence, interoperability, inclusivity, interactivity, incorporation, and investment. They may need to explore 'as-a-service', 'platform' and 'distributed' operational models, especially if these can enhance transparency, accountability, reliability, ease of use, collaboration, cooperation, and leadership.

Redesigns must be fit-for-purpose and improve land-related decision making, land tenure security, property valuation/taxation, land use planning, land development, and land dispute minimisation.

Holistic approach, global guidance

To implement these visions, a holistic approach towards digital transformation is needed. It should incorporate key land administration stakeholders and link to broader government policy goals. It should include baseline assessments, policy alignment, benefits analysis, impact assessment, an action plan, and an investment plan.

These should consider the nine strategic pathways from the United Nations Expert Group on Global Geospatial Information Management (UN-GGIM) Integrated Geospatial Information Framework (IGIF) and the Framework for Effective Land Administration (FELA) and specific gaps and opportunities relating to those. Costing of actions, sourcing of finance, and return on investment checks are needed. Sustainable business models should consider fees and value-added services. Performance monitoring and evaluation using data analytics and dashboards linked to the SDGs achievement is essential.

Lessons from the United Nations Economic Commission for Europe (UNECE) region can transcend globally, provided contextual factors are responsibly assessed. Supportive legislative environments, coupled with economic stimulus and earlier investments into digital infrastructure, saw land administration continue uninterrupted in many non-UNECE contexts.

In many cases, service delivery reached unprecedented levels during the pandemic. In less digitally transformed contexts, halts in face-to-face service provision resulted in request backlogs. Those in rural contexts and the digitally disenfranchised – often women or vulnerable groups – tended to fare worse. Technology can be a leveller, but also a divider: equality to service access and skills development remains a key priority.

Leverage the momentum, act now

Looking ahead, land administration organisations can build from the momentum of the recent COVID-19 pandemic success

stories. They must re-evaluate current action and investment plans for digital transformation and further opportunities for acceleration.

Short-term actions should ensure requisite cross-sector committees are in place, sector-wide adoption of the disruption paradigm, and global and regional engagement, potentially with donors. Medium-term actions should seek plan adoption, investment funding and implementation. Monitoring of risks, benefits and performance measures will be necessary. Embedding of dynamic capabilities needs to be supported.

Where responsible to do so, full digital transformation is now achievable

Summary

Land administration systems now operate in a disrupted era. Digital transformation ensures ongoing system sustainability and responsiveness to changing societal demands. Ensuring inclusion of women and vulnerable groups is essential. No one can be left behind.

Building from endorsed international frameworks, pathways for digital transformation implementation and benefits realisation are offered. Cross-cutting themes including institutional development, legislative redesign, financing, quality management, open data, cybersecurity, standards uptake, partnership building, communications, and capacity development are covered throughout.

Rohan Bennett is chair elect of FIG Commission 7 (www.fig.net)