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Blockchain, the Digital State, and the New World Order

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ABSTRACT

Governments across the world are grappling with the emergence and integration of new technologies. Front runner Estonia provides the model for how a country might completely transform their government operations, economy, and society through a purposeful, strategic program of digitization. This chapter considers how such countries are approaching digital transformation, outlining considerations for governments and submitting the new paradigm outlined in the BS4SC model of a citizen-centric, data-driven, and decentralised economy.

INTRODUCTION

Together, governments and stakeholders must shape a common digital future that makes the most of the immense opportunities that digital transformation holds to improve people's lives and boost economic growth (OECD, 2018).

We live in a world where technological advancement is a constant. The recent pace of technological advancement is unprecedented. In fact, it is predicted that by 2020, 1 million new devices will come online every hour. The impact of the Internet of Things (IoT) and digitization is ubiquitous. This is represented by the Technology block in the B4SC Model.

The European Commission cites that soon 90% of jobs in careers such as engineering, accountancy, nursing, medicine, art, architecture, and many more will require some level of digital skills (c.f. Cisco, 2018). Technology can transform businesses, governments and drive global innovation. Digitization will enable countries to maintain global competitiveness, increase GDP, foster innovation and create new jobs. Due to the pace and constant advancements in technology, how do countries compete?

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Figure 1. Current Influences and Drivers - Technology



An increase in the number of successful government transformations could help solve society's greatest challenges, serve citizens better, and support the more productive use of public resources. (Allas et al., 2018)

Integrating digital technologies and the user experience into the design and delivery of public services yields efficiency and productivity gains for both government and industry, increasing public value and driving broad public sector modernization, thus promoting greater openness, transparency, public engagement and trust in government (OECD, 2016). Estimates from the UK government suggest that by introducing digital tools into government service delivery, their economy can save between GBP1.3-2 billion annually by 2020 (Andrews et al, 2016). In a report commissioned by Adobe, Deloitte (2015) found the economic benefits of digitizing consumer transactions for the Australian government could potentially produce \$17.9 billion per annum in cost savings by 2025 if the government digitised only twenty per cent of its current 40 per cent traditional service delivery (Deloitte Access Economics, 2015).

Indeed, many research studies have found a positive relationship between technology penetration and a country's GDP. For instance, the Inter-America Development Bank (IDB) found that a 10% increase in broadband penetration in Latin America was associated with a 3.19% increase in GDP and a 2.61% increase in productivity (Cisco, 2018). Accordingly, governments around the world know that to deliver for citizens, they must transform the services they provide; aging populations are putting pressure on health and social services, education needs to equip young people for a digital future and increased population in cities is placing new demand on urban infrastructure. However, around 80 percent of government efforts to transform government performance don't fully meet their objectives - a key finding of a survey of nearly 3,000 public officials across 18 countries. This failure rate of governments to adapt to a new era is far too high, representing a missed opportunity to address society's greatest challenges more effectively, give citizens a better experience with government and make more productive use of public resources. Indeed, McKinsey estimate if governments matched their more technologically progressive counterparts, they could save as much as \$3.5 trillion a year by 2021, while maintaining today's current service quality (Allas et al., 2018).

The Institute for Government (2016) find that where lack of technological development is discernible, the primary hurdle is found to be political will. By upgrading legacy systems that silo data and encourage

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