

## Blockchain Adoption by Governments

Nation	Projects	Technology	Status
Australia	<p>Perth Mint Gold Token(PMGT) issued by InfiniGold[L20][L26]</p> <p>Commonwealth Bank of Australia Issued Virtual Crypto Bond for QTC [L20][L24]</p> <p>The Australian Securities Exchange (ASX) will replace CHES by a blockchain-based platform developed by Digital Asset [s13][L25]</p>	<p>Ethereum Proof-of-Identity</p> <p>Proof-of-Concept</p>	<p>“Gold for the Blockchain Era” Launched on Oct 11, 2019</p> <p>World’s First Blockchain Bond issued by any government entity in Jan 2017</p> <p>Announced in Dec 2017 and proposed system fully replace CHES by April 2021. CHES: Post-trade settlement system</p>
China	<p>The first blockchain-based e-government service platform in Chancheng district [i1]</p> <p>The blockchain-based smart platform used to trace life-cycle of every tree[L28]</p> <p>Blockchain Service Network(BSN) designed and constructed[L27]</p> <p>Blockchain-based asset custody system (PSBC) [s13]</p>		<p>Launched in 2016 and project extended to community supervision and correction of ex-offenders on May 11, 2018</p> <p>Under Xiongan’s afforestation project launched in May 2018</p> <p>Beta version released on Oct 15, 2017</p> <p>Live since Oct 2016</p>
Denmark	Blockchain-based Secure internal e-voting by Danish political party [i2][L6] or [L7][s9]		Announced in 2014
Estonia	<p>electronic ID (e-identity) [s13][i2][a1][s16][L30][sd3][s9]</p> <p>Electronic Health Record (e-health records) [s13][i28][a10][L31]</p> <p>e-Residency [s13][i2][a1][s16][L30][sp21][sd3]</p>	<p>Proof-of-ID</p> <p>KSI Blockchain</p> <p>Proof-of-ID</p>	<p>Can be used for i-Voting, national health insurance, digital signatures, tax claims and many more</p> <p>Create a common record so that every patient can access records online</p> <p>Launched on Dec 1, 2014 (first of its kind a transnational digital identity)</p>

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Finland	Unique digital Identities (IDs) for asylum seekers and refugees [sp10][L1][L2]	Ethereum	The project started in 2015 when Finnish Immigration Services with MONI startup company linked prepaid MasterCard debit cards with corresponding eIDs. In 2019 MONI cards were replaced with PFS cards.
France	New rules embraced by the government that will permit banks and fintech institutions to create blockchain-based platforms for unlisted securities trading[s13]		Announced in December 2017
Georgia	Exonum Land title registry project by National Agency of Public Registry(NAPR) [s13][a3][L19][L32][L20][sp2]	Bitcoin Exonum's Timestamp Proof-of-Work	Launched in April 2016, NAPR with Bitfury provides a digital certificate of land registry.
Ghana	Land-registry projects [a4][L33][L20]		Announced in 2014 with Bitland and in 2018 with IBM
Honduras	Real estate registry project [i2][a4][s13]	Proof-of-Land ownership	Announced in 2015 and discontinued now
India	Land Registry on blockchain under the government of Maharastra and Department of Revenue [L44]	Proof-of-Concept	Launched in Jan 2019
Israel	Built an ecosystem for blockchain startups[s16]  Israeli Securities Authority(ISA) integrate blockchain solution in their internal messaging system "Yael"[L9]		"The Startup Nation"[L10]  The particular solution was developed by Israeli cybersecurity firm Taldor and integrate in Oct 2018
Luxembourg	Chipcard based National eID provided by LuxTrust [sp10][L3]  Infrachain Blockchain Governance[a3][L4][L5]	Ethereum    Blockchain-as-a-service platform	LuxTrust was an initiative by the government in Luxembourg to provide national trust services includes eIDs. LuxTrust was founded in 2005 and co-owned by the government.  Announced on Nov 23, 2016, and Infrachain network officially created on May 18, 2017. This project aims to accelerate the adoption

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			of blockchain and provides services to all aspects of the economy by creating a community-driven permissioned Blockchain network.
Malta	Blockcerts: Blockchain-based program to instantly verifies academic credentials[a3][L20][L22]	Bitcoin Proof of work	Completed first national pilot & signed MoU with Learning Machine in Feb 2019
Netherlands	<p>Pension Infrastructure: Community-based pension administration blockchain back-office[a3][L19]</p> <p>Ownership of medical records by providing permissioned-based healthcare system[a10][L18]</p> <p>Stadlerpas Smart Voucher: The blockchain-based redistribution system provides benefits to low-income residents [a3][L19]</p>	<p>Ethereum Proof-of-Work</p> <p>Proof-of-Concept</p> <p>Zcash Proof-of-Authority</p>	<p>The prototype started in 2018 aims to improve pension administration</p> <p>Ongoing since Sep 28, 2017 and created several medical applications till now</p> <p>Fully operable since 2016</p>
New Zealand	<p>Research funding for higher-value edibles by providing food products with solid provenance[s16][L11]</p> <p>SolarShare by P2 Power: Peer-to-peer solar power platform for the sales, purchase and distribution of solar energy[L12]</p> <p>To deploy a P2P blockchain-enabled energy trading platform without any intermediary retailer[L12]</p>	<p>Proof-of-Work</p> <p>Ethereum</p>	<p>The research aims to restore trust in the food we choose to eat. Announced in 2016</p> <p>Launched in 2016</p> <p>Successfully tested in Aug 2016 by electricity distributor Vector and Australian company Power Ledger</p>
Nigeria	Blockchain-based passenger manifest scheme(PAM) [L20][L21]		Launched in July 2019
Norway	<p>Norwegian Tax Administration[a1][L8]</p> <p>Norwegian Labour and Welfare Administration[a1][L8]</p>	<p>Proof of Concept (PoC)</p> <p>Proof of Concept (PoC)</p>	<p>Trials held in 2014</p> <p>Trials held in 2014</p>
Russia	<p>Digital voting in Moscow City Duma election[s13][L23]</p> <p>Blockchain-based documents management system [s13]</p>	Ethereum	<p>First deployed on Sep 8, 2019</p> <p>Announced in 2016</p>

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	<p>Blockchain-based land registry system [L34]</p> <p>Russia's ministry of health is launched a blockchain pilot [s13]</p>		<p>Pilot tested in the first half of 2018</p> <p>Announced on Aug 10, 2017</p>
Singapore	<p>Project "Ubin" for clearing and settlement of payments and security s[13][L35][L20]</p>	<p>At different phases of the project:</p> <p>Corda</p> <p>Hyperledger Fabric</p> <p>Quorum</p> <p>Azure</p> <p>Proof-of-Concept (PoC)</p>	<p>The project has been initiated in 2016 and since then five phases are already launched.</p>
South Korea	<p>Blockchain-based pilots to prevent "illegal alteration" of defense business data.[L14][L16]</p> <p>Pilot blockchain platform for tracking containers in Port of Bushan and Beef traceability [L14][L17]</p> <p>Ministry of Science and ICT revealed 6 Blockchain pilots with \$9 million funds[L14][L15]</p> <p>Smart contract based voting solution for community funding[s16][L13][sp12]</p>	<p>CoinStack</p>	<p>Defense acquisition program administration(DAPA) announced in April 2019.</p> <p>Announced in Dec 2018 to improve efficiency and cutting waste.</p> <p>Announced in June 2018 and the project will focus on shipping logistics, online voting, cross-border e-document distribution, customs clearance and livestock supply chain management.</p> <p>Under the Ddabok program, Blocko's platform enables residents to propose ideas for funds and vote on community aid initiatives(Ongoing from Mar 2017)</p>
Sweden	<p>Swedish Land Registry(Lantmäteriet) blockchain pilot [s13][a4][a3][L20][L36]</p>	<p>PostChain</p>	<p>Announced in 2016 and after 3 phases of testing live property transactions were done in June 2018.</p>
Switzerland	<p>Zug offers uPort digital identity to their residents [s13][sp10][a3][L37]</p>	<p>Ethereum</p>	<p>Announced in 2017 and still in the testing phase</p>

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	The city of Zug started accepting bitcoin as payment for government services [s13]		Since July 2016
The United Arab Emirates (UAE)	<p>Under Smart Dubai initiative various Blockchain-based projects including healthcare record management, electronic voting system, digital passport, asset registry and management, and eID management with record-keeping were announced or launched [s13][i2][a10][sp10][L20][L29][s9]</p> <p>The central banks of the United Arab Emirates and Saudi Arabia announced to launch a pilot for cross-border payments [s13]</p>		<p>Ongoing since its launch in 2013 in attempts to make Dubai “the happiest city on earth”</p> <p>Announced in December 2017</p>
Ukraine	<p>Partnered with Bitfury to transfer government data onto the blockchain platform [L37]</p> <p>E-vox (blockchain-based election platform) [s13]</p> <p>Blockchain-based “e-Auction” system [i32][s13]</p>	Ethereum	<p>Announced in April 2017</p> <p>Announced in 2016</p> <p>Announced in 2016 and carried out the first trial transaction in Sep 2018</p>
United Kingdom (UK)	<p>Completed pilot to track the distribution of meat in a cattle slaughterhouse [L39][L20]</p> <p>Blockchain-based cryptocurrency [s13]</p> <p>Blockchain as a service for each government department [i2][s16][s13]</p> <p>The Department of Work and Pensions (DWP) pilot a blockchain system used to distribute welfare payments[s13][L40]</p>	Proof-of-Concept	<p>Announced on July 2, 2018, by Food Standards Agency</p> <p>UK’s Financial Conduct Authority (FCA) approves blockchain startup Tramonex to issue a cryptocurrency in Feb 2017</p> <p>Available since August 2016</p> <p>Announced in July 2016 and successfully finished trials</p>
United States (US)	US Naval Air Station exploring blockchain-based supply chain to	SIMBA Chain Microsoft Azure	Announced in Sep 2018

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	<p>track aviation parts in the maintenance facility [L41][L20]</p> <p>Real-estate registry pilot program in Vermont City [L42][L20]</p> <p>The state of Illinois launched the blockchain pilot to digitize birth certificates [s13][L43][L20]</p> <p>Arizona bill to make blockchain smart contracts “legal” [s13]</p>	Smart Contract-as-a-Service	<p>Launched in Jan 2018</p> <p>Announced on Aug 31, 2017</p> <p>Officially became state law on March 29, 2017</p>
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