

# UNITED NATIONS E-GOVERNMENT SURVEY 2018

GEARING E-GOVERNMENT TO SUPPORT TRANSFORMATION  
TOWARDS SUSTAINABLE AND RESILIENT SOCIETIES



UNITED NATIONS



Department of Economic and Social Affairs

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2018 Gearing E-Government to support transformation towards sustainable and resilient societies

2016 E-Government for Sustainable Development

2014 E-Government for the Future We Want

2012 E-Government for the People

2010 Leveraging E-Government at a Time of Financial and Economic Crisis

2008 From E-Government to Connected Governance

2005 From E-Government to E-Inclusion

2004 Towards Access for Opportunity

2003 World Public Sector Report: E-Government at the Crossroads

2001 Benchmarking E-Government: A Global Perspective

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# Foreword

To fulfil the far-reaching potential of the transformative 2030 Agenda for Sustainable Development, technologies must be used innovatively to ensure that the Sustainable Development Goals are met on time.

We are at a critical juncture, in the middle of a digital revolution that is not just about technologies, but also about the centrality of people and the planet. We are witnessing the simultaneous proliferation of big data, artificial intelligence, data science, blockchain, robotics and other frontier and fast-emerging technologies. These frontier technologies are building on and amplifying one another, affecting everything from our food systems, water and sanitation, energy, to education, health care and social services.

In particular, digital government has ushered in significant and enduring changes in the way people live and interact with each other, their environment, and public services. The 2018 Survey highlights a persistent positive global trend towards higher levels of e-government development. It examines how digital technologies and innovations are impacting the public sector and changing people's everyday lives. As evidenced by the survey assessment and case studies, exploiting digital government has far-reaching potential for countries, not just in improving institutional processes and workflows for greater efficacy and effectiveness of public service delivery, but also in ensuring inclusion, participation and accountability to leave no one behind.

However, connectivity and access to new technologies remain elusive for some regions and countries, especially the most vulnerable, in particular the African countries, the least developed countries, small island developing States and the landlocked developing countries. In addition, there is a need to consider the inherent new and unprecedented risks. Without careful design application and oversight, artificial intelligence tools could harm vulnerable populations, reinforce existing inequalities, widen digital divides and adversely affect jobs and economies, as well as privacy, denial of service and other cybersecurity issues – also examined in the 2018 Survey. It is therefore also important to develop a tailored capacity training programme to create new public policy, science ethic and data scientist professions to strengthen institutional capacities of countries in deploying digital government and digital services.



LIU Zhenmin  
Under-Secretary-General for Economic and Social Affairs  
United Nations

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Preparation of the publication was undertaken by a group of senior e-government researchers and advisers under the guidance of Vincenzo Aquaro, the Chief of Digital Government Branch and Marion Barthélemy, former Director of DPADM and then reviewed and finalized under the overall guidance of Vincenzo Aquaro and Stefan Schweinfest, Officer-in-Charge of DPIDG.

The Data Management Team was overseen by Vincenzo Aquaro. Deniz Susar, Governance and Public Administration Officer, managed the data collection, Survey research and analytical work, with support from Stella Simpas, Rosanne Greco, Madeleine Losch and Enkel Daljani, Programme Assistants, and Lydia Gatan, Staff Assistant. Wai Min Kwok, Senior Governance and Public Administration Officer, Elida Reci, Governance and Public Administration Officer and Arpine Korekryan, Governance and Public Administration Officer, provided support in the data analysis and verification. The 2018 Survey included considerable contribution in data collection and preparation of chapters from experts from the following UN organisations and academia: International Telecommunication Union (ITU), the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) and the United Nations University Operating Unit on Policy-Driven Electronic Governance (UNU-EGOV). Chapter 1 was prepared by Jeremy Millard, with substantive contributions of Vincenzo Aquaro and Wai Min Kwok, with Arpine Korekryan acting as focal point (FP) and final peer reviewer for that chapter. David Le Blanc, Chief of Institution for SDGs Branch, Aranzazu Guillán Montero, Senior Governance and Public Administration Officer and Maria Stefania Senese, Governance and Public Administration Officer provided cases and inputs to the chapter. Chapter 2 was prepared by Kim Andreasson, with Wai Min Kwok as FP and peer-reviewer; Chapter 3 by Atsuko Okuda, Chief of Information and Communications Technology and Development Section; Sanjay Srivastava, Chief, Disaster Risk Reduction Section; Keran Wang, Chief, Space Applications Section; Siope Vakataki 'Ofa, Economic Affairs Officer, of ICTDRRD of ESCAP, with Peride Blind, Governance and Public Administration Officer, as FP and final peer reviewer. Chapter 4 was prepared by Mr. Marco Obiso, Head, Mr. Maxim Kushtuev, Project administrator and Miss Grace Acayo, Cybersecurity & GCI Consultant, of International Telecommunication Union (ITU), with the substantive contribution of Deniz Susar as FP and final peer reviewer; Chapter 5 by Vincenzo Aquaro, Arpine Korekryan and Deniz Susar, with Deniz Susar also as FP; Chapter 6 by Deniz Susar, with Arpine Korekryan as FP; Chapter 7 by Delfina Soares, Head, UNU-EGOV; Demetrious Sarantis, Postdoctoral Fellow and Mariana Lameiras, Postdoctoral Fellow, of UNU-EGOV, Demetrios, with the substantive contribution of Vincenzo Aquaro and Deniz Susar; the latter also as FP; Chapter 8 by Wendy Carrara, with Elida Reci as FP and substantive contribution from Vincenzo Aquaro and Deniz Susar. The Annexes and the Methodology section were drafted by Vincenzo Aquaro and Deniz Susar, supported by external consultants Elena Garuccio, serving as a Data Statistician, and assisted by Enkel Daljani. Beth Flanders, Huichun Li and Lydia Debbie Gatan undertook the editorial revision of the Survey with Rachael Purcell, Research Assistant providing invaluable support.

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an external Ex-Post-Facto evaluation report titled “Adapting the Sustainable Development Goals” UN E-Government Survey for the period 2001-2016” carried out by Edward M. Roche, Director of Scientific Intelligence Barraclough New York LLC; and from an informal advisory working group established by DPIDG in support of the preparation for the Survey.

The first EGM was organized by DPIDG in New York in May 2017 with the support of Dinand Tinholt, Vice President, Capgemini Consulting (ICT Mega Trends), who acted under his personal capacity, while the other was organized by UNU-EGOV in Guimarães, Portugal, in June 2017.

The New York EGM experts were: Dennis Anderson, Chairman and Professor of Management and Information Technology at St. Francis College, New York City, United States; Kim Andreasson, Managing Director of DAKA advisory, Sweden; Wendy Carrara, Principal Consultant, Capgemini Consulting, France; Sara Fernandes, Special Advisor, UNU-EGOV, Portugal; Haidar Fraihat, Director of Technology for Development Division at UN-ESCWA, Lebanon; Driss Ketani, Associate Professor of Computer Science, Al Akhwayn University, Morocco; Ashok Kumar, Director, eGovernment Leadership Centre, National University of Singapore; Jeremy Millard, Director of Third Millennium Governance and Chief Policy, United Kingdom; Theresa Pardo, Director, Center for Technology in Government, University at Albany, United States; Oleg Petrov, Program Coordinator for ICT at the World Bank, Russia; Edward Roche, Evaluation Consultant for the eGovernment Survey for the period 2003-2016, United States; Fadi Salem, Research Fellow, MBR School of Government (formerly Dubai School of Government), United Arab Emirates; Dinand Tinholt, Vice President, Capgemini Consulting (ICT Mega Trends), the Netherlands; Barbara-Chiara Ubaldi, Project Manager, Digital Government, OECD, Italy; Zheng Lei, Associate Professor and Assistant Dean at the School of International Relations and Public Affairs, Fudan University, China.

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## Engaging United Nations Volunteers in the Survey

The 2018 edition continued to engage United Nations Online Volunteers (UNVs) in order to cover most primary languages of the 193 UN Member States. Since the Survey won the UN Volunteer Award in 2013, the 2018 edition was able to attract 197 volunteers with knowledge of 66 languages from 92 countries. Over the course of four months, volunteers completed 393 research surveys. Deniz Susar provided overall coordination throughout the data collection process and with the assistance of Enkel Daljani, Rosanne Greco, Lydia Gatan, Madeleine Losch and Stella Simpás, coordinated the UNVs, which were engaged in four teams. Special thanks also go to the following UN staff members who, under the supervision of DPIDG, reviewed a number of countries: Aarao Benchimol, Aisha Jeelaan, Alexandra Bettencourt, Aranzazu Guillan Montero, Benedicte Niviere, Flor Velazco-Juarez, Iwona Gardon, Laura Marrocchi, Madoka Koide, Said Maalouf, Said Maalouf, Saw Htoo, Sovanna Sun and Victoria Kim. UN staff members, with the support of interns completed a comprehensive second stage data assessment and review. Vincenzo Aquaro, Deniz Susar and Elena Garuccio worked together to update the statistical methodology. Elena Garuccio conducted the statistical regressions and data correlation analysis.

The following UNVs reviewed the national portals of the Member States: Abraham Andriamarelaza Ratsizafy, Adama Kindo, Adasena Cojocar, Adoración Hernández López, Agnieszka Kazmierska, Agnieszka Krukowska, Ahmad Khalid Slimankhil, Ahmed Yesuf, Ajna Uzuni, Aleksandar Cosic, Aleksandra Starcevic, Alexandra Sarinova, Amel Ait-Hamouda, Amirjon Abdulkodirov, Amruta Pujari, Ana Carolina Tomé Pires, Ana Kurkhuli, Anait Akopyan, Anbar Jayadi, Andreea Madalina Dinel, Andrie Jiri, Anja Vuksanovic, Anna Sanosyan, Anne Kristine Glltvedt, Annette Sagri, Anta Badji, Ayhan Onder, Bahiru Mekonnen, Batzaya Bayasgalan, Beatrice Nkundwa, Begmyrat Bayryyev, Belynda Howell Rendon, Bladimir Diaz Borges, Bogdana Storozuk, Britta Sadoun, Cai NI, Carolina González Domínguez, Charles Banda, Christy Box, Claudia Torres, Dace Abola, Debora Cerro Fernandez, Dewi Gayatri Suwadji, Dina Tarek, Doaa Badr, Douglas Kibowen, Doukessa Lérias, Edie Vandy, Edwina Fung, Elena Burés, Elena Panova, Elvia Angelica Erosa Mercado, Emperatriz Nieves, Ertem Vehid, Etoh Kokou Sitsofe, Evgeny Bachevsky, Eyasu Shishigu, Fatima Jaffery, Tieu Ngoc Diem Quynh, Feren Calderwood, Francois Kasanda Kanku, Gabriella Zsótér, Ghadeer Khader, Gudrun Helga Johannsdottir, Gulnar Ravramova, Guy Nicolas Nahimana, Hilda Sucinto, Huven Le Thi, Huven Nga Le, Hvein Kim

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