

# DG DIGIT Unit.B2 (Interoperability & Digital Government)

# Open Source Software Country Intelligence Report

Philippines

2023

This research by OpenForum Europe, was carried out for the Interoperable Europe initiative under the Digital Europe Programme. The report provides an overview of open source software (OSS) in the Philippines as of August 2023. This report is based on publicly available information that was gathered through desk research.



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## **Philippines**

## **Executive Summary**

The Philippines has a long history of using and developing open source software (OSS) in its public and private sector. The surge of open source adoption in the Philippines mirrored the broader movement in Southeast Asia during the early 2000s aimed at developing local operating systems. The Philippines notably introduced its own system, Bayanihan GNU/Linux<sup>1</sup>, while consistently upholding the use of open-source software within public administrations over the past two decades.

While there are no official ministries responsible for the regulatory work on open source in the Philippines, the Department of Information and Communications Technology is in charge of ICT policies and is supported in its analysis by the Advanced Science and Technology Institute which created an open source group in 2004. Initiatives on open source were also started around this time in other departments.

There is no legislation at the national level which would give an official preference to open source, despite past proposals to regulate this. However, the Philippine government does have some sectoral law requiring the sharing of source code based on transparency needs.

More recently, the Philippines has renewed its engagement in international partnerships through the United Nations' Digital Public Goods Alliance and the reuse of software related to development goals. Benefiting from an active open source community, the Philippines has the potential to further develop open source solutions for its administrations.

### **Actors**

This section presents the key governmental bodies responsible for setting OSS policies and the main strategic players that work together with the government at all levels to raise awareness of OSS.

### Policy makers

• The Department of Information and Communications Technology (DICT) is the primary policy and coordinating government agency in the Philippines for ICT.<sup>2</sup> It was created in 2016<sup>3</sup>, replacing the Commission on Information and Communications Technology and merging other existing departments related to the functioning of telecommunications.

<sup>&</sup>lt;sup>1</sup> https://launchpad.net/bayanihan

https://dict.gov.ph/about-us/vision-and-mission/

https://dict.gov.ph/about-us/republic-act-no-10844/

- The Department of Science and Technology (DOST).<sup>4</sup> Set up as a full cabinet in 1987, it coordinates scientific and technological efforts of the Philippines. It is composed of various departments and is in charge of the development of innovative technology.
- The Advanced Science and Technology Institute (ASTI)<sup>5</sup> is one of the institutes of the Department of Science and Technology (DOST). It is the lead agency when it comes to government use, adoption, and innovation of OSS. Notably, it founded an open source group which was leading the efforts in government agencies for several years, starting in 2004.

### Strategic players

- The Department of Social Welfare and Development (DSWD)<sup>6</sup> is in charge of protecting the social welfare rights of Filipinos and promoting social development in the Philippines. It is one of the most prominent users of open source in the Philippines government.
- Open Source Software PH (OSSPH),<sup>7</sup> launched in 2021, it is a civil society organisation that aims at supporting the open source developer community in the Philippines. This initiative promotes local projects from various authors.<sup>8</sup> Other user groups related to particular projects existed before OSSPH was launched but OSSPH is the current largest umbrella organisation in the country.

### Policy and legal framework

This section summarises the main OSS-related policies and legal acts in the Philippines, including the first known milestones in this domain. The list is presented in chronological order, starting from the most recent milestone.

- E-Government Masterplan (EGMP) 2022, 2019<sup>9</sup>: This plan sets the building blocks and strategies directed towards the vision of developing the country's e-Government systems. Aiming at creating an interoperable and integrated government ICT infrastructure, including networks, this plan encourages openness, open standards and the development of an open source framework.
- Center For People Empowerment In Governance (CenPEG) V. Commission on Elections (COMELEC), G.R. No. 189546, 2010<sup>10</sup>: The Supreme Court found in favour of CenPEG (an NGO) in their request that specific parts of the source code of voting machines used in national elections be made available to CenPEG and "all other interested groups". It confirmed the conditions in which

<sup>&</sup>lt;sup>4</sup> https://www.dost.gov.ph/transparency/about-dost/mandate-mission-and-vision.html

<sup>&</sup>lt;sup>5</sup> Our Mandate | DOST-ASTI

<sup>&</sup>lt;sup>6</sup> DSWD

<sup>&</sup>lt;sup>7</sup> osspł

<sup>&</sup>lt;sup>8</sup> <u>GitHub - OSSPhilippines/pinoy-made: A collection of libraries, and open-source projects lead by Filipino authors/maintainers.</u>

<sup>&</sup>lt;sup>9</sup> https://dict.gov.ph/ictstatistics/wp-content/uploads/2020/03/EGMP-2022.pdf

<sup>10</sup> http://www.cenpeg.org/2010/sep/source\_code\_SCruling\_.pdf

the source code of automated election systems is to be released, looking at the particular case of sharing Data Capturing Systems (DCS) utilities.

- Republic Act No. 9369, 2007<sup>11,12</sup>: The act authorising the Commission on Elections to use an automated election system was adopted by the Philippine Congress to help modernise the election system of the country. This Act creates the obligation for the source code of the election system to be released to relevant political parties and stakeholders. The Commission on Elections supported the release of the source code of its newly created system as a means to enhance trust among citizens. This Act was the legal basis of the above-mentioned 2010 Supreme Court case.
- House Bill No. 1716<sup>13</sup> (Filed 1 August 2007) was a proposal for mandatory adoption of Free Open Source Software (FOSS), open standards, and open formats in all government agencies. It specifically called for the adoption of RAND licences for Open Standards, and the creation of an Office for FOSS Migration. It also addressed the question of policy development and procurement as well as the creation of training and education for open source in the Philippines. Furthermore, it proposed amending the Intellectual Property Code (RA 8293) to clarify that computer programs and protocols cannot be patented. While it failed to be adopted in Parliament it displayed an important understanding of open source in the public sector. An initial version of the text can be found online.<sup>14</sup>
- Philippine ICT Roadmap of 2006<sup>15</sup>: Prepared by the Commission for Information and Communications Technology (CICT) this roadmap describes the strategic planning of ICT systems in the Philippines. It calls for the use of open source as a less costly alternative to proprietary software.
- Memorandum Circular of 2006 of the DSWD<sup>16</sup>: Following its first 2005 Memorandum Circular, the DSWD went further in its recommendation on the use of open source by stating that all software should be replaced with FOSS. It also planned for training in FOSS implementation for the department's employees.
- Memorandum Circular of 2005 on Information Systems Development Guidelines<sup>17</sup>: Published by the
  Department of Social Welfare and Development, it outlines the necessary steps to use open source
  for the development of ICT systems for the DSWD.

<sup>&</sup>lt;sup>11</sup> R.A. 9369

<sup>&</sup>lt;sup>12</sup> Briefing Paper on Republic Act No. 9369 and the Automated Election System | IFES

<sup>13</sup> https://publicoss.files.wordpress.com/2008/02/hb-1716-foss.pdf

<sup>&</sup>lt;sup>14</sup> Republic of the Philippines HOUSE OF REPRESENTATIVES Quezon City THIRTEENTH CONGRESS Third Regular Session HOUSE BILL NO. 5769 I

<sup>15</sup> PHILIPPINE ICT ROADMAP INTRODUCTION

https://www.dswd.gov.ph/issuances/MCs/MC 2006-018.pdf

https://www.dswd.gov.ph/issuances/MCs/MC 2005-001.pdf

## Open source software initiatives

This section presents an overview of the main OSS-related initiatives in the Philippines. The list is presented in a chronological order, starting with the most recent initiative.

- Project AEDES, 2021<sup>18</sup>: The AEDES prototype is a locally developed automated information portal
  that correlates cases of dengue fever and deaths with real-time data from climate, Google
  searches, and satellite maps. It was recognised as a digital public good in 2021 for its beneficial
  impact on the population. It was also supported by the DOST which nominated it to become a
  digital public good.<sup>19</sup>
- Philippine Identification System (Philsys), 2020<sup>20</sup>: Established by the Republic Act No. 11055<sup>21</sup>,
   Phylsys is based on an open source identification platform (MOSIP<sup>22</sup>). It allows citizens to have proof of identity provided by PhilSys which will simplify public and private transactions.
- openIMIS in universities, 2020<sup>23</sup>: openIMIS is an OSS package which supports the administration of health financing and social protection schemes and is also recognised as a digital public good.<sup>24</sup>
   It has been adopted as part of a partnership between local organisations and the openIMIS Regional Hub Asia, a regional community of practice.
- Laoag City and Corcuera Local Government Unit, 2013<sup>25,26</sup>: Local government uptake of open source has been seen in various public institutions. The use of open source in Laoag City has been maintained up to date for services such as Health Certificate Management System and WordPress templates.
- Integrated Government Philippines (iGovPhil), 2013<sup>27,28</sup>: Initiated as part of the e-Government Master Plan of 2013-2016, the platform was developed and released as open source until 2022. Its role was to communicate information and public services to citizens. It has since been replaced by the GovPh portal for which, although it has a public repository, the source code does not seem to be available.<sup>29</sup>

<sup>&</sup>lt;sup>18</sup> Project AEDES

<sup>&</sup>lt;sup>19</sup> <u>UNICEF, DOST-PCIEERD call for open-source tech solutions to join the Digital Public Goods</u>
Alliance

<sup>&</sup>lt;sup>20</sup> Philippine Identification System (Philsys) Project Information Memorandum: Systems Integrator

<sup>21</sup> Republic Act No. 11055 An Act Establishing the Philippine Identification System

<sup>&</sup>lt;sup>22</sup> Mosip - Modular Open Source Identity Platform · GitHub

<sup>&</sup>lt;sup>23</sup> Application of openIMIS in Medical Universities in the Philippines

<sup>&</sup>lt;sup>24</sup> Registry » Digital Public Goods Alliance

<sup>&</sup>lt;sup>25</sup> City Government of Laoag · GitHub

<sup>&</sup>lt;sup>26</sup> https://github.com/corcueraromblon

<sup>&</sup>lt;sup>27</sup> https://web.archive.org/web/20131114193948/http://i.gov.ph/about-us/

<sup>&</sup>lt;sup>28</sup> iGov Philippines Project · GitHub

<sup>&</sup>lt;sup>29</sup> GOVPH - National Government Portal project of the Republic of the Philippines

- Open Source Info Management System for DOST regional offices:, 2008<sup>30</sup>: Units of the Department
  of Science and Technology were trained by the ASTI to use database management systems
  developed in-house. The system is linked to the national network of libraries of the DOST,
  Universities, and other agencies of government, better known as the SCINet.<sup>31</sup>
- Project POSITIVE, 2005<sup>32</sup>: This project was conceived by the European Innovation, Technology, and Science Center Foundation (EITSC), with the German development organisation Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) and the wireless service provider Wireless Services Asia (WSA). POSITIVE is aimed at both educational institutions and the private sector and sought to create a pool of skilled open source developers. It had a partnership with several public universities in the country.<sup>33</sup> It also aimed at promoting the use of open source in the Philippines.
- UP Manila National Telehealth Center (NTHC)<sup>34</sup> Medical record system, 2004<sup>35</sup>: The NTHC developed and deployed the Community Health Information and Tracking System (CHITS) which is the first Electronic Medical Record system in the Philippines and is based on the Open Medical Record System (OpenMRS). CHITS was developed through a grant from the International Development Research Centre of Canada. Since 2004, CHITS has been expanding to rural health units around the country.<sup>36</sup>
- International Open Source Network (IOSN), 2004<sup>37</sup>: This was a support initiative for open source in the Asia-Pacific Region. It shaped its activities around Free/Open Source Software (FOSS) technologies and applications. IOSN was an initiative of the UNDP Asia-Pacific Development Information Programme. Via a small secretariat based at the UNDP Regional Centre in Bangkok and three centres of excellence IOSN ASEAN+3, IOSN PIC (Pacific Island Countries), and IOSN South Asia, based in Manila, Suva and Chennai respectively IOSN's goals were to facilitate open source network and human resources related to it in this region. The vision of IOSN was that developing countries in the Asia-Pacific Region could achieve rapid and sustained economic and social development by using affordable yet effective FOSS ICT solutions to bridge the digital divide. Among other things, this initiative created reports on the state of open source initiatives in member countries.<sup>38,39</sup> The project seems to have run until 2014.
- ASTI's open source group, 2001<sup>40</sup>: Originally composed of seven people to develop an open source desktop solution in July 2001, this was a project lasting for several years that created Bayanihan

<sup>30</sup> Info Management Systems Rolled Out to DOST Offices in Northern & Central Luzon

<sup>31</sup> DOST SciNet-Phil

<sup>32</sup> https://web.archive.org/web/20070223184021/http://www.positive.ph;80/aboutus.php

https://web.archive.org/web/20070105191511/http://www.positive.ph/partners.php

<sup>&</sup>lt;sup>34</sup> National Telehealth Center | National Institutes of Health

<sup>35</sup> GitHub - alisonperez/chits: Community Health Information Tracking System

<sup>&</sup>lt;sup>36</sup> https://web.archive.org/web/20140608212241/http://chits.ph/?page\_id=7

<sup>37</sup> https://web.archive.org/web/20060816055805/http://www.iosn.net/about/

https://web.archive.org/web/20060701234154/http://www.iosn.net/country-reports/

<sup>39</sup> https://web.archive.org/web/20060615162912/http://www.iosn.net/country/malaysia/country-report

<sup>40</sup> https://web.archive.org/web/20020701000618/http://bayanihan.asti.dost.gov.ph/about.html

GNU/Linux. Promoting the early version of the system on roadshows around the country, the open source group also advocated for open source and its philosophy among universities and public institutions.<sup>41</sup> The name Bayanihan references a Filipino tradition where people in a community help their neighbour with physically moving their house to a different place.

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<sup>41</sup> https://web.archive.org/web/20020628074118/http://bayanihan.asti.dost.gov.ph/