



Shared Prosperity Dignified Life



# Open Government Case Study - Sample Case Submission Form

*[Open Data, Participation, Collaboration, Citizen Engagement, and Public Sector Innovation]*

## Important Information

The Economic and Social Commission for Western Asia (ESCWA) and the Organisation for Economic Co-operation and Development (OECD) are conducting a joint study on the economic and social impact of open government for the Arab region. The study will reflect on literature review and previous studies and reports made by OECD and ESCWA and other organizations, and it will consider case studies and best practices from Arab and OECD countries. As such, and for the preparation of the study, this Sample Case Submission Form is intended to help the collection efforts for inspiring case studies and best practices from government entities and agencies in the Arab region. It should be noted that selected cases may be published within the ESCWA portal for the open government, which is under design and implementation, as well as the [OECD Open Government case platform](#)<sup>1</sup>. Furthermore, the relevant experiences will be featured in the planned Joint OECD-ESCWA meeting of the MENA Working Group on Open and Innovative Government this year, in coordination and collaboration with authorities concerned by these experiences.

The attached form serves as a submission form for open government activities that have been or are currently being developed and implemented at any level of government, and specifically those authorities that are working on open government development in the country, including local levels. The Case Study might cover one of the following topics: Open Government, Open Data, Stakeholder Participation, Collaboration, Citizen Engagement, Transparency, Accountability or Innovation in the Public Sector.

In the context of the attached form, an “activity” refers to any processes and actions taken to work towards the achievement of open government at national, area or local levels. An activity can consist of one or more actions. Participants can submit as many activities they wish, and it is preferable to choose activities with an economic or social impact. ESCWA will make the analysis of the contributions and may contact participants with follow-up questions.

To share a case, please complete the MS Word form, either in English or in Arabic, as many times as you wish. We must receive all submissions no later than [15/05/2020]. Should you have any questions, do not hesitate to send an email to Ms. Nibal Idlebi, chief of Innovation at ESCWA (email: [idlebi@un.org](mailto:idlebi@un.org), & [escwa-tdd@un.org](mailto:escwa-tdd@un.org)) and to the OECD Open Government Unit ([Opengov@oecd.org](mailto:Opengov@oecd.org)).

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<sup>1</sup> [https://oecd-opsi.org/case\\_type/open-government/](https://oecd-opsi.org/case_type/open-government/)

## 1. Organisation Details

### 1.1. Organisation Name

*Smart Dubai Department*

### 1.2. Organisation Type

*[Government, NGO, International, Academia, Private Sector]*

*Government*

### 1.3. Country

*UAE*

### 1.4. Primary Sector

*[Economic affairs, Education, Public administration, Health, Transport, etc.]*

*Cross-Cutting*

## 2. Activity Case Study

Now, we are going to ask you several questions about your activity. We are very excited to find out what you did, how you did it and who benefited from it. The more comprehensive your answers are, the easier it will be for the reviewers and readers to appreciate the aims and achievements of your activity.

### 2.1. Title

*[a title for your activity]*

*Smart Dubai – Establishing a Center of Excellence in Data*

### 2.2. Website

*[the website about your activity, if existed]*

<https://www.dubaipulse.gov.ae/> (consists of partial information about the entire activity)

### 2.3. Year Your Activity was Put Into Practice

*2015*

### 2.4. Which of the following best describes your activity?

*[Please mark the main category]*

	<i>Open Data</i>
	<i>Participation</i>
	<i>Collaboration</i>
	<i>Citizen Engagement</i>
	<i>Transparency</i>
	<i>Accountability</i>
<i>X</i>	<i>Public Sector Innovation</i>

### 2.5. Summary (Short and Simple Explanation)

The summary should describe your activity and be short and simple (few sentences), and it should use clear language, compel the reader to continue reading, use simple, not sector-specific terminology (no idioms, slang, or domain-specific "buzz" words). The summary should answer the following questions:

- What the activity is?
- Why it was developed or the problem/opportunity being addressed?
- And who it benefitted?

*[response of no more than 100 words]*

*Smart Dubai launched its innovative Dubai Data initiative to competitively position Dubai as a global leading city in data. The initiative established clear and highly advanced governance frameworks to manage data as a strategic asset, and build a citywide data platform to manage open data with value added services. With the overall aim of creating a flourishing 'Data Economy' and in turn positioning Dubai as a "Center of Excellence in Data", the initiative creates enormous value from data whose economic impact is estimated to add USD 2.8 billion to Dubai's economy each year by 2021. It has benefited public sector institutions, private sector companies, NGOs, academia, students, developers, various data processing institutions and the public at large as consumers and producers of data by facilitating open and also private commercial data.*

## 2.6. Case Study Overview

The Overview is an overview of the activity and outcomes. You will have the opportunity to elaborate on some of the details. Please tell us:

- What problem the activity solves or what opportunity was taken advantage of
- What the activity is
- Objectives
- Beneficiaries
- How is it envisioned for the future? For example, how will it be institutionalised in its current context? How will it scale even bigger?

*[response of no more than 500 words]*

*The Smart Dubai initiative, smart city initiative of Dubai, was unveiled in 2014, with the aim of using digital technology to make Dubai the happiest city on earth. In this context, Smart Dubai launched its Dubai Data initiative in 2015 whose main objectives were to establish:*

- *Clear governance frameworks to manage data as a strategic asset,*
- *A flourishing 'Data Economy in Dubai',*
- *An open data platform to provide citywide data, and*
- *A "Center of Excellence in Data".*

**Dubai Data Law and Policies:** *Dubai became one of the pioneering cities in the world by enacting a dedicated Data Law in October 2015 and instituting the Dubai Data Establishment (DDE) afterwards with a clear mandate to oversee its implementation.*

*Dubai Data Law and the additional 5 Dubai Data Policies provide clear guidance on:*

- *data classification,*
- *data protection,*
- *IPR protection*
- *data sharing,*
- *data use and reuse.*

**Dubai Data Standards:** *In addition, DDE has issued a Dubai Data Manual consisting of a modularized set of 15 standards and best practices to manage data in accordance with the Dubai Data Law. Compliance is driven through periodic reporting to the top of government, compliance clinics, rewards for data publishing, sharing and usage through a 'Data First' Challenge.*

**Dubai Data Curriculum:** *The Dubai Data Champions initiative provides practical and customized training programs to equip hundreds of government employees with the data skills required to drive data collection across government entities. It has also partnered with academic institutions to create specialized programs and degrees around data science in Dubai.*

**Dubai Pulse Versatile Data Platform:** *DDE has implemented its citywide data platform - Dubai Pulse - through a Public Private Partnership (PPP) approach. The platform housed initially almost 500 open and shared data sets (with more than 2,000 datasets already in the pipeline) with associated data sharing agreements, serving entrepreneurs, city planners and business owners seeking to drive value out of data in a secure manner. It incorporates a Developers' Zone with a complete deployment environment in the cloud supporting IaaS, PaaS and DaaS schemes.*

*More recently in 2020, Smart Dubai has undertaken the following advanced data economy actions:*

**Decentralized Data Marketplace:** *DDE is currently scoping a decentralised data sharing platform and accompanying governance sandbox. With the principal aims of testing both the technology and the (monetisation of) business models behind cross-sectoral data exchange at scale. DDE is managing its infrastructure and technology, standards, governance and markets and monetisation.*

**Private Sector Engagement:** *In 2019 DDE launched a city-wide private sector data strategy, recognising the vital role of the private sector - as both data holders and processors - in the city data economy. This work is the basis for advanced cross-sectoral data sharing, data commercialization and data science use case development work in pilot sectors.*

**Advanced, Adaptive Data Governance:** *Building on the previous two actions, DDE is very active in this area, having launched in 2019 the first city-level guidelines and self-assessment toolkit for Safe, Fair and Ethical AI. These are open for use by public and private sector entities. We have also developed 'Trusted Dubai Data', a new set of technology neutral standards to support the safe, fair and easy exchange of data, including that from the private sector.*

**Data Science Activation:** *Acknowledging that a 'leading by doing' approach is needed to promote the utility of data science in government analytic and the creation of digital products and services, DDE has trawled all of the data assets contained in Dubai Pulse, with the aim of creating use cases and production ready software applications that are closely tied to user need and desired policy outcomes. DDE has also introduced agile and ~~outcomes-based~~[outcomes-based](#) project methodologies so that data science achieves the impact it deserves.*

**Beneficiaries** *included public sector institutions, private sector companies, NGOs, academia, students, developers, various data processing institutions and the public at large as consumers and producers of data.*

**Scaling Up:** *DDE's well-established institutional strength and robust citywide data governance have allowed it to scale up at the city level and incorporate all stakeholders encompassing rich public sector data and economically viable and value adding private sector commercial data.*

## 2.7. What Makes Your Activity Different, Unique, or Innovative?

*[response of no more than 100 words]*

*The Dubai Data Initiative is truly all-encompassing – we are each of data governor, provider and enabler - and rooted in outcomes. Advanced data classification and sharing techniques for open and other forms of data, and city-wide co-ordination of foundational, high quality data registers form the strategic and foundational layer that allow data to enhance city experiences and happiness. Multi-stakeholder engagement leads to participation and co-production in governance and regulation that is seen as enabling and value giving rather than limiting. On top of this sit further enablers of the city data economy - programmes aimed at skills and talent, start-ups and private sector, data related programs delivered with academia aimed at strengthening public sector capabilities.*

## 3. Development

### 3.1. Collaborations & Partnerships

Were there partners involved? Describe what each brought to the table and why it was important to the case. These may include: Citizens, Government officials, Civil society organisations, and Companies.

*[response of no more than 100 words]*

*Dubai Data initiative has established strategic partnerships with all the public sector entities, strong collaboration with the private sector, civil society organizations and academia. DDE governs and manages the entire initiative with the public sector entities as strategic partners in governance, policies and standards formulation and also in open data provisioning. Concomitantly, DDE pioneered an innovative public-private partnership (PPP) with its strategic private-sector partner, "Du" (a major integrated telecommunications service provider in UAE) to implement its smart-city platform called Dubai Pulse. DDE collaborates very closely with the private sector to establish cross sectoral and multi-business use cases to boost Data Economy in Dubai. Finally, DDE. Specific examples such as the AI Ethics Board are great illustrations of how we bring together the cross-sectoral and interdisciplinary expertise (legal, tech business, data security, AI developer) to formulate policies and practice (including public tools) to enhance a city government's approach to an emerging technology.*

### 3.2. Users, Stakeholders & Beneficiaries

Who are the users, beneficiaries, and stakeholders targeted? How each group are affected. These may also include: Citizens, Government officials, Civil society organisations, and Companies.

*[response of no more than 100 words]*

*Dubai Data initiative has a broad multi-stakeholder base and a multitude of beneficiaries. First and foremost, Dubai Pulse platform provides rich city-wide data to the public at large and also all the organizations in Dubai and even outside. Public sector entities use cross-sectoral data in their planning, decision making and services provisioning. Private sector uses both public sector in Dubai Pulse and also commercially available private data in the Decentralized Data Exchange to enhance their planning and commercial operations. Similarly, start-ups and entrepreneurs use city data to develop new digital services and mobile apps. Researchers in academia use city-wide Dubai Pulse data to conduct their analyses and research.*

## 4. Reflections

### 4.1. Results, Outcomes & Impact

- What results and impacts have been observed from the activity so far?
- How have the results and impacts been measured (e.g., methodologies used)?
- What results and impacts do you expect in the future?
- To the extent possible, please indicate the tangible or numeric results.

*[response of no more than 300 words]*

*The prominent success of Dubai Data initiative has resulted in producing one of the first city-wide Data Laws in the world. Additionally, the Dubai Data Law was augmented with 5 targeted policies and 15 complementary standards providing clear guidance to all the city stakeholders.*

*A city-wide data platform, called Dubai Pulse, was implemented through a strategic partnership (PPP) with private sector. The risks and the rewards were jointly shared by partners in a well-defined, jointly formulated framework agreement. Dubai Pulse platform has collected approximately 500 city-wide open datasets initially with nearly 2,000 more in the pipeline. The initiative clearly targets opening and sharing 100 percent of public sector data.*

*Initially, the initiative has identified key staff in public sector entities in terms of data leadership, administration, stewardship and other specialist roles. Applicable competencies were identified for each role and related curricula based specialized training and certification programs were provided to more than 380 public sector staff through partnership with academic institutions.*

*Several public and private sector use cases have been identified in different sectors and implemented using publicly available open data and the commercially available private sector data. These include crowd management/people flow, tools to aid business location decisions and career choices for students, an economic dashboard (drawing on innovative private sector data) and retail intelligence tools to provide city leadership and mall operators and retailers with up to the minute views on consumer behaviour patterns. These use cases have been extremely important in contributing to Smart Dubai's vision of becoming the smartest and the happiest city in the world.*

*They have also been instrumental in establishing and positioning Dubai as a strong Data Economy. By 2021, open and shared data (both private and governmental) is projected to add USD 2.8 billion to Dubai's economy each year. Open government data alone would result in an added value of USD 1.2-1.8 billion annually as of 2021. This is equivalent to 0.8-1.2% of Dubai's estimated GDP for 2021.*

*The initiative in the future will further penetrate in strategic sectors of Dubai and identify additional high value adding use cases socially and economically. The Decentralized Data Exchange will engage with a broader base of private sector companies and start-ups to commercialize data driven solutions and related products and services.*

### 4.2. Challenges

- What challenges have been encountered?
- What failures have been encountered along the way (e.g., structural failures or significant setbacks)?
- And how, if at all, have those challenges and/or failures been responded to?

*[response of no more than 300 words]*

*The ambitious positioning of Dubai Data initiative to become a leading globally competitive Data Economy and "Center of Excellence" posed challenges which were overcome by meticulously mitigating them with targeted actions.*

*Lack of city-wide data governance (which is a common challenge for almost all cities) was overcome by enacting Dubai Data Law early on during the inception of the initiative. The potential ambiguity in data governance was subsequently mitigated by formulating clear policies and standards to help public sector entities implement the law comfortably.*

*Data management and data science were relatively scarce skills across the world. Dubai Data initiative took notice of that early on and built well-defined curricula and training programs to boost such skills in an accelerated manner. The skills acquired were put into practice immediately during the implementation of the initiative. Similarly, sophisticated city-wide data management platforms operating skills and related technology expertise were not readily available in DDE as it was a newly established entity early on during the initiative. Hence, Dubai Pulse used a unique PPP model with a private sector partner as it was the most expedient and efficient alternative for harnessing the potential in the public and private sectors to meet the goals of the Dubai Data initiative.*

*In building a Data Economy, overcoming private sector hesitancy to share its private and commercial data between one another and with the public sector has required significant engagement and advanced governance arrangements to build trust. Hence, Dubai Data initiative worked collaboratively with the private sector to formulate a private sector data strategy. As part of that strategy, a Decentralized Data Exchange is being piloted to enable the private sector to maintain data in its own premises while publishing its availability and testing market demand and, subsequently its value, in a decentralized marketplace. This has paved the way for the next stage of private sector engagement and more value-rich private sector use cases.*

### 4.3. Conditions for Success

What conditions do you think are necessary for the success of your activity? Conditions for success may include:

- Supporting infrastructure and services
- Policy and rules
- Leadership and guidance
- Human and financial resources
- Personal values and motivation

*[response of no more than 500 words]*

**Leadership:** *The ambitious vision and strong drive for the achievement of the goals of the initiative came from the highest ranks in the Government. H.H. Sheikh Mohammed Bin Rashid Al Maktoum UAE Vice President, Prime Minister and Ruler of Dubai has provided leadership and oversight during the initiative. Publishing and exchanging data in a shared platform were seen by top leadership as the key for creating seamless city experiences, enhancing the happiness of residents and building the innovation economy.*

**Governance:** *The governance and strategic monitoring of the initiative were put in place early on and has been instrumental for overseeing different aspects of its implementation. The Dubai Data Law defines clear roles and responsibilities for Data Providers and for the Dubai Data Establishment (DDE). The Dubai Data policies and standards further defined internal governance arrangements for managing the publication and exchange of data. Clear accountabilities and responsibilities enabled data teams, and data providers at large, to implement the initiative successfully.*

**Collaboration and Partnerships:** *The city-wide initiative required close collaboration and cooperation of multiple stakeholders throughout. The initiative initially spent substantial efforts to bring on board a large number of public sector entities which would be critical in its success throughout. Joint planning and implementation activities achieved early buy-in and participation. DDE also facilitated huge efforts to boost the skills of public sector entities which synergized the partnerships and collaboration further.*

**Infrastructure and Services:** *The initiative contributed to Dubai economy by enabling innovation through new products / services and even new ICT related sectors (e.g. data driven mobile apps, open data utilization, digital services, etc.). The data infrastructure and services availability are very important to expedite implementation. DDE has partnered with private sector to implement the city-wide data platform and relied on private sector expertise and*



co-investments to accelerate its implementation.

**Alignment:** The alignment of stakeholders in a city-wide initiative is critical. It was initially very important to align public sector entities' staff with the overall vision and the goals of the initiative. Clear delineation of roles and responsibilities and achievement of accountability were important throughout the initiative. Compliance audits, transparent reporting and awarding success have been very important. Other high profile Dubai Government level programs and awards were aligned with the vision and the strategy of this initiative to incentivize participation of public sector data providers and to utilize city-wide Dubai Pulse platform services.

**Knowledge and Skills Building:** Ongoing trainings, workshops and awareness events were held to enhance platform services and data related skills. Additional city-wide awareness sessions, educational programs and hackathons drive data usage and enhance the insights unlocked from data. Partnerships with academia were built to develop joint data management and data science programs for existing staff in public and private sector organizations. Additionally, new university programs and courses were developed for students to ensure sustainability of data skills in the future.

#### 4.4. Replication

Has the activity been replicated to address similar problems? If so, how? In your opinion, what is the potential for it to be further replicated in the future? You may wish to discuss how the activity has already been used by others, as well as how you believe it could be used by others in the future. These others may be in: Other organisations, within your organisation, larger or smaller agencies, organisations or governments.

*[response of no more than 300 words]*

Smart Dubai's unique experience of how Dubai is driving its smart and sustainable city initiatives – including Dubai Data initiative and its establishment of a city-wide platform, data teams, unifying standards, collaborating with data providers, incentivizing participation and tracking the impact - can be potentially replicated by other cities. The particulars of aforementioned issues may vary based on each city context (e.g. specific policies and related direction setting statements, implementation specifics, etc.). However, the overall framework, processes and the issues identified in Dubai Pulse and Dubai Data initiative in terms of law, policies and standards, and skills building aspects are very much applicable to other cities which intend to undertake similar initiatives.

Dubai Pulse (city-wide platform) as a concept and the PPP Agreement as a framework are both transferable to other cities. Particular aspects of Dubai have determined the actual scope of services in Dubai Pulse; however, a good majority of these services would be applicable to other cities since they entail commonly needed aspects of IoT, data management, digital transformation needs, etc.

The smart financing aspect of Dubai Pulse is also easily expandable and transferable to other cities. Smart financing model through PPP identified various issues around the partnership model and incorporated a flexible framework addressing innovation in terms of platform and services expansion in the future with well-defined contribution from partners as well as risks undertaking transparently. Hence, the particular context of Dubai played a relatively minor role, rendering transferability viable to other cities.

Dubai Pulse and Dubai Data initiatives have both been defined and designed upfront to be scalable for future expansion both from a scope and also from a financing perspective. Technical flexibility has been incorporated into the design to accommodate future expansion and innovation at the city level. Similarly, various clauses have been incorporated by partners to scale up financing aspects of the platform in the face of increased demand from city entities and participants to address future sustainability. Similarly, the legal framework in terms of law, policies and standards also accommodate future concerns and growth of city-wide data.

#### 4.5. Lessons Learned

What lessons from your experience would you like to share with others like you? Where there any pitfalls to avoid?

*[response of no more than 300 words]*

*The lessons learnt are summarized below briefly.*

**Establish data governance early on; be ready to adapt it as technology advances:** *Dubai Data initiative swiftly addressed all regulatory and governance issues during its inception. It has paved the way for well-defined roles, responsibilities and accountabilities among the partners and other stakeholders.*

**Focus on value of data and use cases rather than technology:** *Dubai Data initiative early on established a private sector partnership (PPP) to implement Dubai Pulse, its city-wide data platform. This partnership enabled DDE to focus on value creation by data, collaboration with partners and their skills enhancement, rather than protracted and cumbersome technology and infrastructure implementation issues. This "data as core business focus" has enabled Dubai to achieve accelerated outcomes towards its vision.*

**Active communication, engagement and inclusiveness:** *Dubai Data initiative promoted extensive participation and the usage of Dubai Data by focusing on real use cases and policy problems in the city and demonstrating visual analytical findings to government entities. By showcasing how Dubai Pulse and data publication and exchange can help solve real life challenges that city planners face, Dubai entities were more eager to take part in these initiatives. Furthermore, there is ongoing communication about the progress of these initiatives and the activities conducted through direct and indirect channels.*

**Facilitate demand and supply:** *The value of Dubai Pulse relies on the supply and demand of its data. Without use and reuse of data, the value derived from opening and sharing data will be limited. DDE has played a facilitation role in determining the priority list of platform services and the datasets to be opened and shared with data providers. Unnecessary investment in generating, opening and sharing data that are not conducive to value creation is avoided through a robust, collaborative, needs-based prioritization approach.*

**Measure Impact:** *From the inception, DDE has started estimating and measuring impact. Efforts have been underway to estimate the social and economic impact of Dubai Pulse and opening and sharing of data, to develop value drivers to achieve intended impact. DDE set baselines and targets to measure and track the economic and social impacts.*

#### 4.6. Anything Else

Is there any other information you would like to share about the activity?

*[response of no more than 300 words]*  
 Considering the future, the serious shock and paralysis that Covid-19 Pandemic has delivered to cities like Dubai underscores the need for the advanced approaches to city data management set out here. More foundational registers (e.g. of patients and health service assets) and strengthening of data science approaches are vital as we move out of the immediate response – in which a very high demand was placed on data and the cities data infrastructure - and into longer-term city resilience and a return to health. Our advanced governance and data security also means we stand ready to implement safely and securely vital data-dependent measures like contact tracing, designed to track and manage our social interactions and health. Other highly developmental and advanced elements of our work like decentralised data exchange increase the opportunity for data to be an element in economic recovery and to cement the rapid digitization we have witnessed in recent months.

### 5. Materials

#### 5.1. Materials

Do you have online materials you would like to include with your submission? Please use the fields below to insert your links.

Link for images	<a href="#">[https://...]</a>
Link for supporting files	<a href="#">[https://...]</a> <a href="https://www.smartdubai.ae/data">https://www.smartdubai.ae/data</a> <a href="https://www.dubaipulse.gov.ae/">https://www.dubaipulse.gov.ae/</a>
Project-Related Video URL 1	<a href="#">[https://...]</a>
Project-Related Video URL 2	<a href="#">[https://...]</a>
Other related URL	<a href="#">[https://...]</a>
<b>5.2. Could you give us the permission to republish the data and information, or part of them, included in this form?</b>	<i>[Yes, No] Yes</i>
<b>5.3. Please provide the correct reference for re-publishing purposes.</b>	<i>[response]</i>