



Digital government toolkit

Digital Government Strategies: Good Practices



Colombia: Excellence and Appropriation Centres on Big Data, Data Analytics and on IoT

The OECD Council adopted on 15 July 2014 the Recommendation on Digital Government Strategies. The Recommendation provides a set of 12 principles structured around 3 pillars. The OECD Secretariat is developing a Digital Government Policy Toolkit to support OECD member countries and non-member adhering countries with the implementation of the Recommendation. This practice was submitted by the government of Austria to be considered as a good practice in the implementation of one or more of the principles contained in the Recommendation.

Description of the practice:

Organisation: Ministry of Information and Communications Technologies

Name of the practice: Excellence and Appropriation Centres on Big Data, Data Analytics and on IoT

Principles implemented: Principle 3 – Create a data-driven culture in the public sector

Principle 5 – Secure leadership and political commitment

Principle 6 – Ensure coherence in the use of technology across policy areas and levels of government

Principle 7 – Establish effective organisational and governance frameworks to co-ordinate the implementation of digital government strategies

Principle 9 – Develop clear business cases

Principle 12 – Ensure that general and sector specific legal frameworks allow digital opportunities to be seized.

Description: Excellence and Appropriation Centre (CEA) reunites three key stakeholders: i) High-ranking universities with proven research capabilities ii) Companies as ICT world leaders in big data and IoT technologies respectively and iii) Companies as non-ICT sectors national leaders in respective economic sectors.

The alliance is the gateway for the development of four components:

- Training



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Generation of research capabilities with R&D teams in universities that specialize in big data and IoT respectively. Training decision-makers to understand ICT as strategic business assets.

- Applied R&D

Emphasize research capabilities in solving real and proven problems as well as the seizing of business development and creation opportunities. The pairing of non-ICT sector problems and opportunities with ICT-based solution through analytics and IoT. Thus acquiring the position of ICT in strategic business processes.

- Entrepreneurship

Take advantage of knowledge transfer and development to further sectors' development with new ICT-based companies: start-ups and spin-offs.

- Innovation and Appropriation of ICT

Ensure use and appropriation of ICT solutions at decision-making business levels: positioning the CIO figure as a relevant actor of business strategy. Strengthen the competitiveness of firms with ICT so they can be leaders in their respective sectors in a digital economy.

The alliance forged between the ICT Ministry and Colciencias (Administrative Department for Science, Technology and Innovation) grants a sustained overview of programme development in the eyes of government. Moreover, the alliance that constitutes the centre – as requirement from the bid process at its inception – institutes a governance body via a Directive Council where all parties are represented. This instance is led by a General Director.

Excellence and Appropriation Centre on Big Data and Data Analytics : www.alianzacaoba.co

Excellence and Appropriation Centre on IoT: www.cea-iot.org

Results

It is still – as of the second semester 2015 and the first semester 2016 – an on-going process

Development

Design: 2014

Representatives from:

- High-ranking universities with proven research capabilities.
- Companies as ICT world leaders in big data and IoT technologies respectively.

Companies as non-ICT sectors national leaders in respective economic sectors.



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Testing: 2014

Round tables and discussions with interested parties.

Implementation: 2016

Open bid processes for ICT – STI projects.

Resources:

Staff:

- Senior Advisor to IT Vice-ministry
- Junior Advisor to IT-Vice-ministry
- Senior Manager for ICT Sector at Colciencias
- Junior Advisor for ICT Sector at Colciencias

Budget:

- \$ 1.170.000 USD in 2015 for Initial development for the centre in big data and data analytics
- \$ 834.000 USD in 2015 for Initial development for the centre in IoT

\$ 2.925.840 USD in 2015 as financing by allied partners from academia and industries in addition to resources from ICT Ministry.

Diffusion and scaling:

Round tables and discussions with interested parties coupled with Open bid processes for ICT – STI projects.

Partnerships: Private Sector, Academics and Public Sector Organisations

Three types of partners:

- High-ranking universities with proven research capabilities.

Their role is to generate applied research capabilities in Big Data and IoT respectively. They must ensure research teams with masters and doctoral students as well as PhDs to lead research.

They must also design and execute training programs at graduate levels in these areas as well as training courses for decision-makers in public and private sectors

- Companies as ICT world leaders in big data and IoT technologies respectively.



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Their role is to ensure knowledge transfer in areas of expertise and worldwide leadership. In addition, it is required of them to work hand in hand with universities to develop entrepreneurship opportunities that result in start-ups, spin-offs and patents. Finally, they must align project, product and service developments with non-ICT sector needs and opportunities.

- Companies as non-ICT sectors national leaders in respective economic sectors.

Their role is to ensure knowledge transfer in non-ICT sector areas of expertise to encourage applied research and innovative products and services. In addition, it is required of them to work hand in hand with universities and ICT companies to develop entrepreneurship opportunities that result in start-ups, spin-offs and patents. Finally, they must appropriate ICT as a strategic asset in business models and plans to further competitiveness.

Excellence and Appropriation Centre for Big Data and Data Analytics:

- Pontificia Universidad Javeriana (Bogotá)
- Universidad ICESI
- Universidad de los Andes
- Universidad EAFIT
- EMC
- SAS
- IBM
- Departamento Nacional de Planeación
- Nutresa
- Grupo Bancolombia
- Cluster CreaTIC – Parquesoft Popayán

Excellence and Appropriation Centre for IoT:

- Pontificia Universidad Javeriana (Bogotá)
- Pontificia Universidad Javeriana (Cali)
- Universidad Autónoma de Bucaramanga
- Universidad Tecnológica de Pereira
- Universidad Santo Tomás
- HP
- Microsoft
- Intel
- Hospital San Ignacio
- Banco Pichincha
- Fundación Logyca
- Totto
- Zona Franca Bogotá
- Fundación para el Desarrollo de la Innovación y el Emprendimiento



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- SAGE Montreal
- Ubidots

Lessons learned

The forging of alliances between entities from different backgrounds and with different interests is – although difficult – paramount.

Legal frameworks render improbable the formal alliances (like the constitution of new entities) and because of that, alliances must find alternative associative models.

Conditions required: The recognition of added value by and with counterparts that become allies for ICT-driven business.

Additional information: