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Digital Transformation & Strategic Change Management in the Public Sector

Guidelines for European governments and institutions

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Abstract

Digital technologies are transforming our lives and the public sector is not exempt from this evolution. Rankings regarding the **citizens' sense of well-being**, their **satisfaction with healthcare**, **education trust in juridical systems**, illustrate a highly segmented Europe with significant differences on the grade of maturity for each one of these areas. In this context, within the **activities of Research and Development** of the **Government Practice, NTT DATA Italia** identified and analyzed the most recent technological advancements in the field of digital transformation for the public sector. Thus, the present paper aims in providing a **comparative framework of analysis**, presenting on one hand the most important developments of the leading countries, while detecting on the other hand main areas of improvements for states following in this transformation.

The overall goal of this work is to provide a specific set of practical guidelines in order to contribute with applied knowledge in the public sector's ongoing transition towards **digital government, service orientation** and **citizen centricity** for the overall improvement of **European citizens' well-being**. In addition, the paper focuses on the **strategic change management** as a support to the **organizational transition into higher levels of productivity, efficiency, value production and citizen centricity**. In the last part, specific **success factors, challenges** and some practical **Key-Takeaway notes** are illustrated and discussed.

Objectives

- Define the **implications of Digital Transformation** in the **Public sector**. Illustrate the **actual situation** among European Countries, **both innovation leaders** and **followers**.
- Identify **instruments and methodologies** for the **assessment of the governments' maturity** in their **digital transition**.
- Present **best practices** and **major areas of improvement** in order to **raise awareness** in the modern perspectives of **citizen-centricity, service-orientation, openness and transparency**, towards the innovative model of **Society 5.0**.
- Analyze the needed **tools** to support a smooth transition of governments towards **digital government** using **strategic change management**.
- Finally, to provide **critical success factors, lessons-learned, challenges** and practical **suggestions** to ensure a faster, efficient and long-lasting **change in all directions**.

The most recent technological advancements in the field of digital transformation for the Public Sector.

Digital Transformation in Governments

Understanding the current situation: instruments for the assessment of governments' digital maturity, with focus on the main drivers and best practices already adopted.

During the last two decades, a lot has been made by many countries to improve both their **governance**, (intended as policy making by the public sector), and their **government** (consisting in the way that decided policies are executed in a practical level). ICTs, in this scenario, played an important role in different ways: for instance, Baltic countries principally invested to the improvement of their modern democratic processes, Scandinavian countries focused in higher service quality and citizens' involvement in policy making. Central and southern European countries, in this context, either focused in adopting basic European guidelines (like data security and privacy), or simply followed these advances by renovating their digital infrastructures according to already consolidated frameworks. To measure these performances, and thus, to identify lessons learned and best practices to divulgate and to support the less advanced countries, European Commission, developed a specific performance measuring indicator. In this scenario, the so-called **Digital Economy and Society Index (DESI)** is a composite indicator that summarizes relevant evidence on Europe's digital performance and tracks the evolution of EU Member States, across five main dimensions:

- **Connectivity**
  among users and public organizations
- **Human Capital**
  Internet & Development user skills
- **Use of Internet**
  Internet use / activities / transactions
- **Integration of Digital Technology**
  Business / ecommerce
- **Digital Public Services**
  e-Government/citizen-centricity

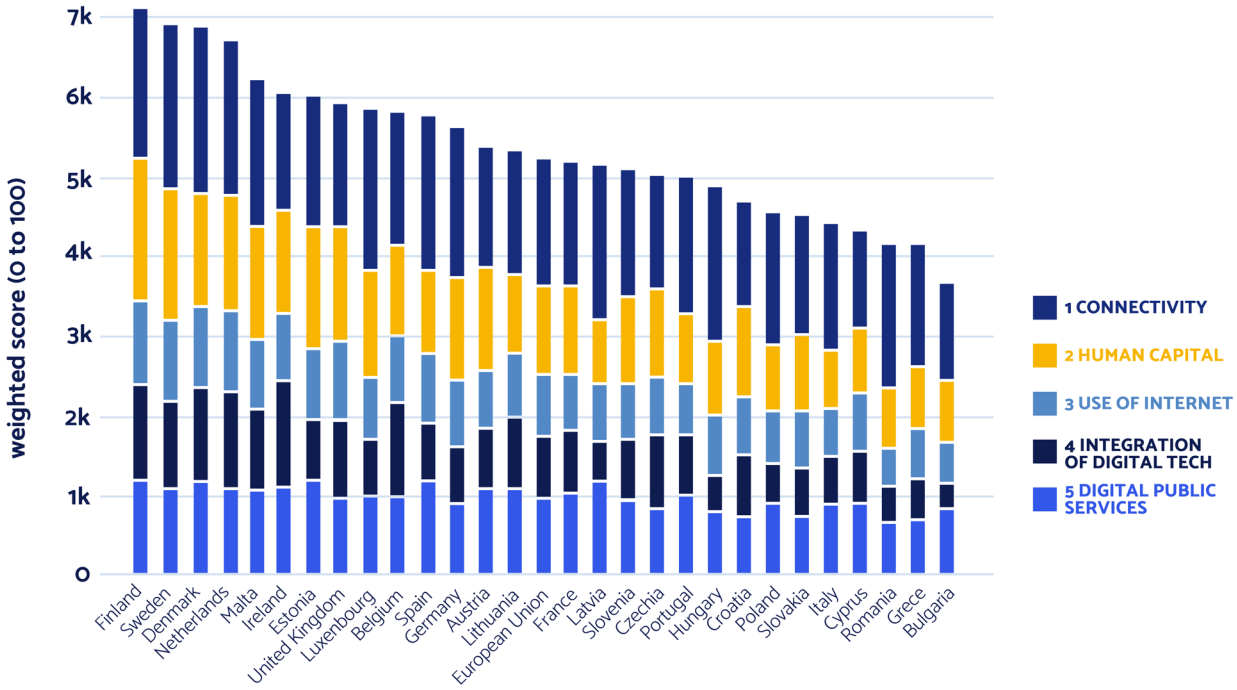

Fig. 1 - Digital Economy and Society Index (DESI-2020)

According to DESI's last release (2020), all EU countries were shown to be improving their digital performance. **Finland, Sweden and the Netherlands** scored highest ratings making them global leaders in digitalization. These countries are followed by Malta, Ireland and Estonia. Unfortunately, there are several countries still having a long way to go; among the last 5 players, **Italy, Romania** and **Greece** barely reach the 40% of the DESI scale. An ongoing evolution of the index, introduced in 2018, regards the **Women in Digital Index (WiD)**; that represents one of the actions put in place to assess women's inclusion in digital jobs, careers and entrepreneurship. Also in the WiD scoreboard, Italy, Romania and Greece are shown to hold the last five positions with significantly low inclusion of women in the digital transformation. Both these scoreboards, that constantly assess Member States' performance in the aforementioned areas, represent ways to benchmark governments' progress across Europe in their journey of digital transformation.

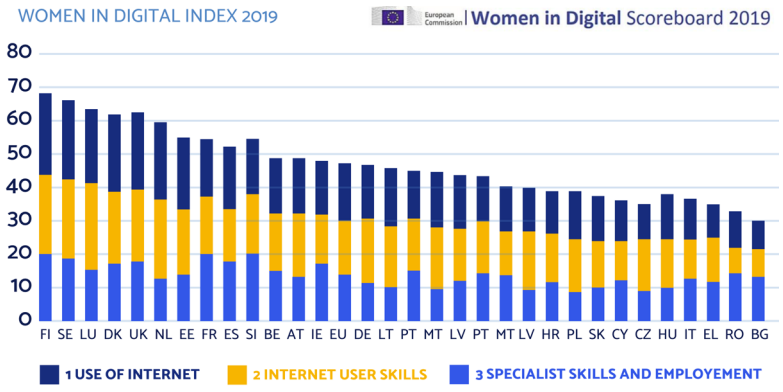

Fig. 2 - The Women in Digital Scoreboard (WiD-2019)

Despite the value that the aforementioned tools provided in the assessment of a so called "digitality" among European countries, they both remained somehow vague for the specific needs of the governments' digital transformation. DESI index was initially conceived in early 2010s and first launched in February 2015, at that time some of the concepts now taken for granted were still evolving.
Thus, a third tool, specifically designed to evaluate digital transformation of the public sector, was needed and finally designed by **O**rganization for **E**conomic **C**o-operation and **D**evelopment (**OECD**): The **Digital Government Index** (Fig. 3). To realize the instrument, specific metrics based on wide research on the international guidelines and recommendations for the governments' digital transformation were defined and implemented. The same metrics represented the pillars of a quite well-defined framework able to describe in which way digital transformation penetrates a determined society.

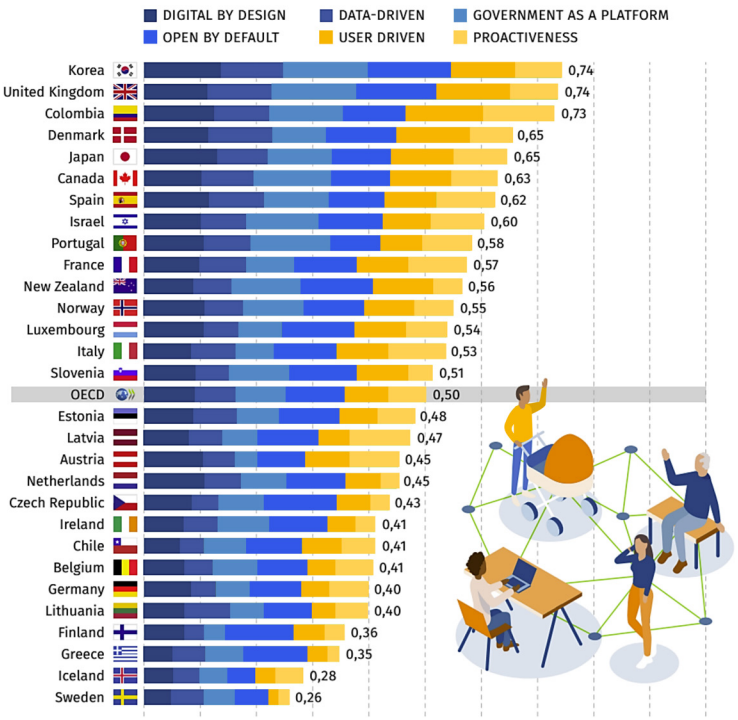

Fig. 3 – The OECD Digital Government Index (DGI-2019)

The DGI represents a cornerstone of the European Commission and OECD's work on digital government and public sector's advancement. Built on the OECD and European Commission's (EC) recommendations on Digital Government Strategies, the DGI responds to the need for a measurement instrument that tracks the adoption of a strategic approach, policy levers, implementation and monitoring mechanisms for digital government across European & OECD partner countries. According to the framework, a mature digital government:

- **IS DIGITAL BY DESIGN** as it supports governments in leveraging digital technologies to re-engineer public processes, simplify procedures, and create new channels of communication and engagement with public stakeholders;
- **IS DATA-DRIVEN** because valorizes data as a strategic asset and establishes the governance to create value co-generation opportunities for business and other public bodies;
- **ACTS AS PLATFORM** when deploys a wide range of platforms, standards and services, promoting co-creation and focusing on user needs in public service design and delivery;
- **IS OPEN BY DEFAULT** as makes government data and policy-making processes (including algorithms) available to the public, within the limits of existing legislation, data security, policies and in balance with national and public interest;
- **IS USER-DRIVEN and CITIZEN ORIENTED** as it accords a central role to people's needs and convenience in the shaping of processes, services and policies; and by adopting inclusive mechanisms that enable this to happen;
- **IS PROACTIVE** as it anticipates citizens' needs and expectations, responding to them rapidly, and avoiding the need for cumbersome data and service delivery processes.

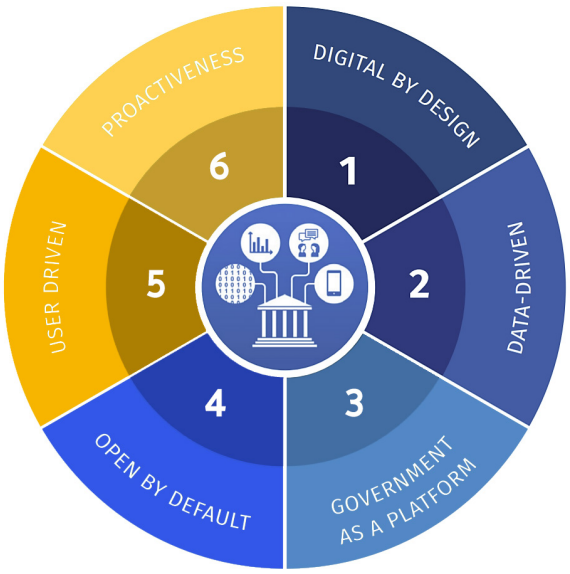

Fig. 4 – The six main recommendations for a mature digital government

The framework containing the aforementioned drivers of a mature digital government is summarized in figure 5.

Openness and Engagement	Governance and Coordination	Capacities to support Implementation
1. Openess, transparency and inclusiveness	5. Leadership and political commitment	9. Development of clear business cases
2. Engagement and partecipation in a multi-actor context in policy making and service delivery	6. Coherent use of digital technology across policy areas	10. Reinforced institutional capacities
3. Creation of a data-driven culture	7. Effective organizational and governance frameworks to coordinate	11. Procurement of digital technologies
4. Protecting privacy and ensuring security	8. Strenghten international cooperation with other governments	12. Legal and regulatory framework

Fig. 5 – The complete Framework on Digital Government Strategies of OECD & EC

Digital (=Strategy) Transformation (=Change)

Is your public Body ambitious and mature enough to optimize and transform?
What are the key-phases and main activities needed to implement organizational change?
What kind of stakeholders' management strategy best fits your organization's needs?

The aforementioned are only some among the many existing questions that each public organization actually facing change, needs to respond.
Organizational change in the public sector refers to the actions in which a governmental body alters a major component of its structure, such as its culture, the underlying technologies or implemented infrastructure, in order to move onto a new configuration characterized by a higher state of value.

OECD's and European Commission's recommendations, discussed in the last paragraph, provide a valid example for actions designed in order to support a public organization to achieve a higher level of **value**. In this scenario, the conceptual definition of "**value**" remains a unique concept for each organization and when change is needed, methodologically speaking, the direction that each organization considers valuable remains rather irrelevant, as soon as a doable and well-defined **strategy** exists to implement the needed actions. To support the success of a chosen **strategy, change management** mainly acts in the human factor, preparing, supporting and helping individuals, teams and the overall context, to accept and welcome the needed change. In this scenario, an organizational change, designed with the central aim to boost the **citizens' expectations with the leverage of digital technologies**, represents a practical definition of the **Digital Transformation** in a **Citizen-Centric Society**.

Fig. 6 – Digital Transformation Framework for the government of a citizen-centric society

Focus on the Digital Strategy

The approach to a **digital strategy** can be discussed trough several schools of thought. A **prescriptive approach** would outline how Digital Strategies should be designed while a **descriptive approach** would focus on how strategies should be put into practice. While the prescriptive approach consists in **analytic processes** and **methodologies** describing how goals are achieved, descriptive approach represents more **general guiding principles** to be applied in the whole organization. In both cases, the Management of a digital Strategy can be defined as the ongoing planning, monitoring, analysis and assessment of all necessary actions of a public body needed to meet its long-term goals & objectives.

Strategic management is ...

What managers do to develop the organization's strategy;

Decisions & actions that determine long run-success;

The way performance is measured, and results are analyzed.

Why is it important?

Guarantees higher organizational effectiveness;

Enables faster adaptability in changing environments;

improves organizational unit coordination focusing on goals.

From a methodological point of view, strategic management helps public organizations in taking stock of their present situation, chalk out strategies, deploy them and analyze their long effectiveness with respect to the organizational goals. This process usually has six steps:

1. **Mission:** purpose of the organization, current and future, documented in a statement;
2. **External Analysis:** environmental scanning (internal/ external) for opportunities & threats;
3. **Internal Analysis:** assessment of organizational resources/ competences/strengths/ weaknesses;
4. **Strategy Formulation:** strategic alternatives for obtaining objectives & organizational goals;
5. **Strategy Implementation:** identification, budgeting and planning of the needed initiatives;
6. **Evaluation of Results:** how effective have been strategies on achieving organization's goals.

Focus on the Change Management

Change Management is a broad term for any government. Some changes are sweeping, for instance, a substantial evolution in an organization's purpose of existence. Other are drastic, focusing instead on a smaller part of the organization like a process or one of its goals. In all of these cases, change management regards actions undertaken to move the organization from its current state, to a future state, **characterized by higher value**.

From a methodological perspective, changes are managed within two different approaches: **Planned** & **Improvisational**.

The **planned approach** consists in three consecutive and plannable phases: unfreezing that works on the preparation of the context by reducing those individual resistances that maintain the actual state in a stable equilibrium. This is done with a mix of actions between increasing the driving forces to the change and reducing retention to the actual state. Transformation is the phase where planned modifications are implemented. Also in this step there are many strategies suitable for different leadership approaches and the contextual needs. Centralized transformation is based on the replacement of key stakeholders; cooperative transformation forces on the collaboration between different groups that work parallelly on the available options, problem finding, solving and future planning; while decentralized transformation acts trough monitoring with KPIs, education, training and openness to change. Finally, refreezing is the set of actions needed to stabilize the context in the new equilibrium, able to provide greater organizational effectiveness. In this new state, retaining forces are monitored to be stronger that the "return" forces to the past configuration.

Fig. 7 – Organization Change Management from a Value Perspective

Improvisational approach is founded on the assumption that changes are associated with technological implementations that constitute an ongoing process rather than an event with an end point after which the organization can expect to return to a reasonably stable state. The model also considers these organizational changes, by definition, impossible to be anticipated ahead of time. The improvisational approach can be considered a change driven paradigm that proposes three different types of changes to be implemented iteratively over time, rather than a predicted and pre-planned set of actions.

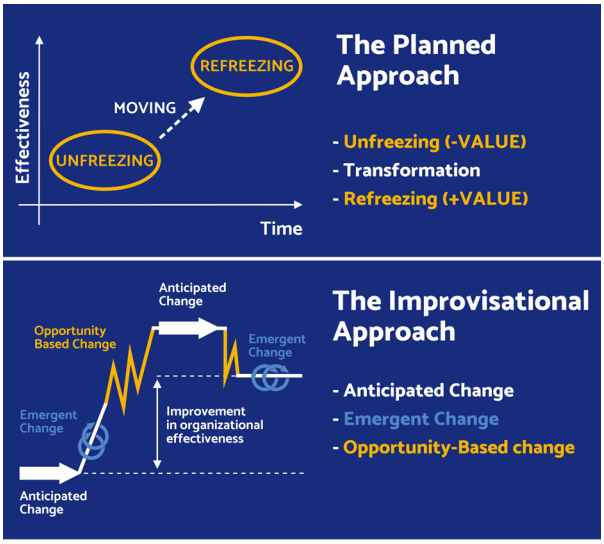

Fig. 8 – The Planned and Improvisational Approach for Change Management

- **Anticipated changes** are the type of change less connected to the contextual constrains and with relatively localized impacts in the organization, thus, this is the only type of change that can somehow be planned ahead of time.
- **Emergent changes** are changes that arise spontaneously from local innovation agents during the natural evolution of any public organization. These changes could usually not be originally anticipated or intended but created thanks to the constant intention and awareness of the public body to absorb innovation and to exploit opportunities for improvement.
- Finally, **opportunity-based changes**, are introduced purposefully and intentionally during the change process of a public body in response to an unexpected opportunity, event, or breakdown.
  Even in this case they are not anticipated nor intended, however, they are introduced thanks to a commonly accepted awareness of innovation and intention to convey external events for the benefits of the organization.

Kotter's framework to manage change

8 steps to revolutionize leadership in an organization, create or renovate a commonly accepted vision and freeze developments assuring long lasting change.

Cultivated for over 4 decades from John P. Kotter (Emeritus Professor of Leadership in Harvard Business School), the 8-Step Process for Leading Change has demonstrated to be a robust practical framework already applied in countless transformation programs around the globe.

As its name suggests, Kotter's framework manages change undergoing 8 distinct steps executed within three different phases: creation of the climate for change, enabling the organization to accept transformation, change implementation and sustainment.

Fig. 9 – The 8-step Kotter's Framework to manage Change

CASE STUDY

Digital Transformation of an Online Service provider

Kotter's model is one of the best-known methodologies for managing change.
It has been applied with success between 2019 and 2020 for the digital transformation of a major online service provider in Italy.
The client started a coulple of years ago an effort to modernize its digital infrastructure and renovate its data management procedures aiming at **simplifying and improving the customer experience across all digital channels within payment, financial, insurance and logistic services.** The chosen approach consisted in defining a complete **digital strategy for the client,** based on a **customer-centric orientation**. To manage this transformation, a **planned approach for change management** has been applied E2E to all the teams of the client while working with the **assessment and renovation of the system's components**.
The main **key-success factor** of the project has been the time as the **chosen methodology speeded up the whole process** ensuring the **success of all the project's objectives**.

Change challenges & success factors

Strategic change management oriented to the digital transformation of a public organization is definitely challenging.

Cultural issues, change resistances, lack of financial resources and skills, all create significant obstructions towards innovation and sustainable development. Comprehending these challenges represents an important step for public bodies in order to analyze their weaknesses, act with specific measures and finally overtake them in a long-lasting way. In this scenario, the following **Key Takeaway notes**, describe some of the **most common challenges and success factors** for the **digital transformation of the public administration:**

1 In the field of digital transformation for the public administration, **best practices** and innovative **methodological frameworks** have been theorized and released by most European Institutions (European Commission, OECD, Member states' governments etc.). The main success factor resides in applying them.

2 **Single planned actions as well as localized digital transformation** are likely to **fail** because of contextual complexity, infrastructures and stakeholders.
In this scenario, **act both on systems and on the human factor**, consider **digital strategy**, **planning** and **change management** in a holistic approach.

3 Digital transformation is a long and painful process, requires resources, commitment, internal and external awareness.
Don't create illusions, **ensure top management support** and **commitment** along with clear awareness on the time and efforts needed.

4 **Take time!** Success of the digital transformation specifically in the public sector **comes from people**. The human factor needs time to **feel the urgency, understand the need and welcome the change**. Rushing is not a good option in this phase.

5 **Sticking the Change** seems to be one of the hardest parts in the digital transformation. **Persisting retaining forces** tend to **recover** the **past habits**, **nullifying efforts** and **strengthening change resistances**. To overcome this risk invest in sustaining the change, divulgating results and sharing success with the organization.

6 Unfortunately, **limitations** to **managerial action** in making change happen, does exist. Change management acts on the human factor so the **right leadership capability** is crucial to make it work. In case change leadership is not available consider a functional reorganization starting from the top.

7 **The need for change may make it harder to change.** Change in the context of digital transformation is **not an emergency scenario**; it is rather a long-lasting **virtuous modus operandi** to planned and applied.

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