

# TUTORIAL on FISCAL TRANSPARENCY PORTALS

A USER-CENTERED DEVELOPMENT

## MODULE 5

Internal communication  
for external publication



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## Tutorial on Fiscal Transparency Portals

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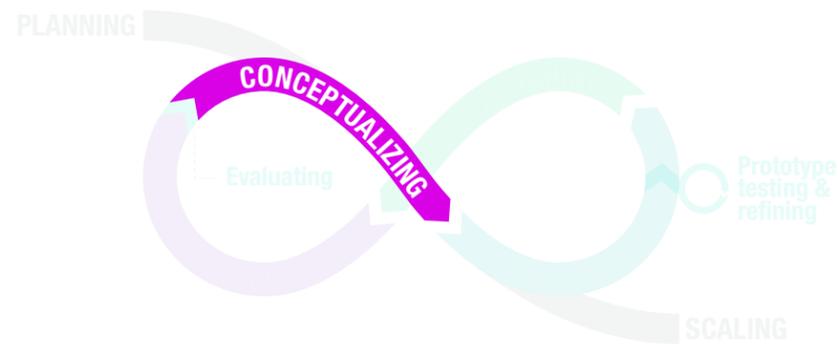
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### Global Initiative for Fiscal Transparency

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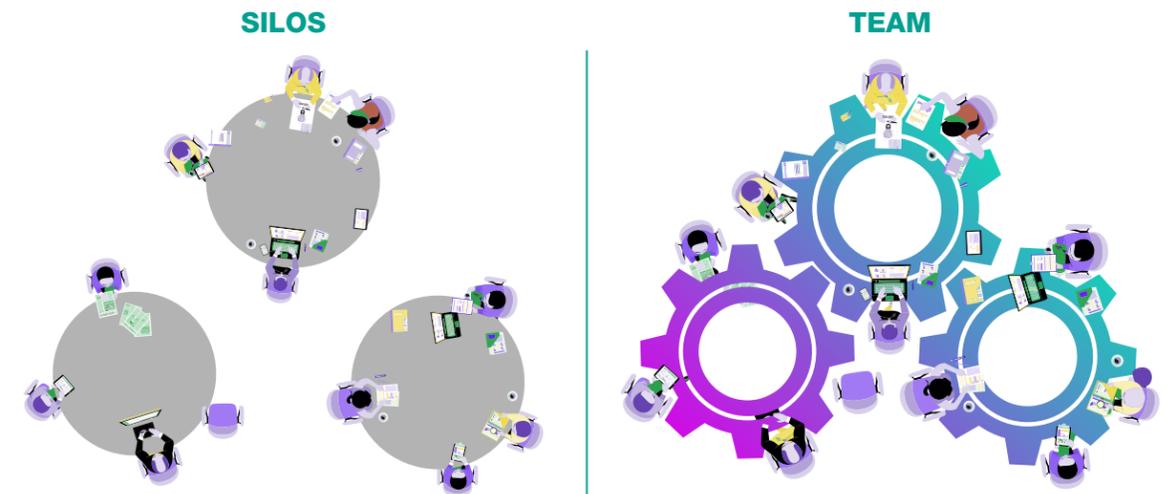
Continuing with the conceptualizing stage, *team coordination* and *data connectivity systems* are presented in this module.



## 5.1 Team coordination

The assignment of clear roles in the development of a fiscal transparency portal may seem like a basic requirement, however it is one that has often not been met. A lack of clear leadership and defined roles within the teams responsible for generating fiscal information and public finance can lead to incomplete and limited implementations, or even duplicate tasks, potentially resulting in fragmented publications and the administration of parallel content, design and communications. Cases where the approved budget was published on one portal, while spending was published on another, with different visualizations, formats and disaggregation, provide a clear example of how this can practically manifest itself. This sort of situation creates confusion for users and internal inefficiency, since it requires double the maintenance.

As previously mentioned in the description of fiscal transparency portal evolution, one of the pillars of third-generation portals is linked information. Therefore, it is imperative to be conscious of the need for coordination between the areas managing the project from the very beginning.



To have possible, specific and real requirements, whether technological or informational, constant coordination between the project leader team, the technology team and the additional areas that manage the information to be published, is vital. This implies that within the ministry, a decision has been made at the highest level to promote a portal project, and that a project leader has been appointed with the authority to coordinate the areas that generate and publish relevant information.

Coordination allows the team to share a vision of:

### What is being built

Although team members may have personal clarity on what is being built, this understanding can vary from one member to another. The vision of the team should be aligned with the defined objective.

### What is NOT being built

Understanding what is not being built can help in determining, for example, which objectives are being left for a later iteration, as well as the priorities of the development.

The following section delves into team structure and coordination based on a number of frequently asked questions made by governments and civil society organizations within the context of the GIFT network.

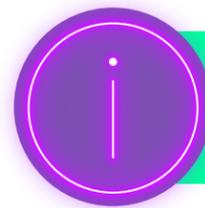
### 1. In which part of the organizational structure should the publication's leading team be located?

Firstly, it is important to reiterate that the information included in a fiscal transparency portal can emanate from several different areas, sources and systems and vary in nature. Accordingly, there is no correct or incorrect answer for which area should take the lead on the publication. Although these sites have often been led by the budget area or department, there are examples of sites led by a transversal area of an organization.

Ultimately, what is important is that the leading area has the institutional support necessary to achieve high-level coordination in the development of a publication.

The leading area should, to a greater or a lesser extent:

- Oversee or support the development of the portal or platform's key content, including by carrying out encounters with potential users to ensure that content delivery is user-centered.
- Prioritize site iterations, which will depend mainly on the demand, the existence and maturity<sup>1</sup> of information, and any possibilities with regard to available materials and human resources.
- Head the development of technological requirements in coordination with the area that manages the information to be published, including use cases.
- Establish the characteristics of the data to be collected from the areas generating information.



**Tip:** It is important for there to be leadership in the coordination of data and information collection in order to have alignment and standardization between content and its consumption for the user.

- Authorize the visual design of the development--in coordination with the communications area if existent within the ministry--taking into account the test with users.

### 2. How many people should make up the team leading the publication?

In reality, the number of people involved will vary depending on the dimension and complexity of the project. These publications however do require the work of multidisciplinary teams that must include:

- Project management, which coordinates the technological and substantive areas, handles delays, and facilitates communication between teams.

1. By maturity, we mean the level of consolidation and systematization of data collection and its processes within government.

- Graphic and web design, which develops the visual and interactive aspects of the platform. As we will discuss further ahead, design is a crucial part of a project's success.

- Data analysis. In the era of open data publication, it is important that the leading team can: standardize the way in which data is formatted and acquired from different areas or systems; use the data for storytelling in coordination with the design profiles; and carry out tests on the correct publication of data, in coordination with the area that manages the data, before an initial launch takes place.

### 3. What is better: internal development or outsourcing?

To answer this question, those interested in developing a publication must gauge the capabilities of the internal team and the availability of resources for outsourcing; a decision can then be made based on those factors.

A common problem with hiring external service providers is that often the service agreements do not include internal team capacity building to enable the continued platform maintenance by internal resources, once the external services have been concluded. For example, it's not uncommon to find that the portal uses a programming language not typically used within the organization, or that detailed operation manuals have not been included. The result of this is that the publication becomes outdated in the medium or long term, or that a dependency on the external supplier is generated, that can become a limiting factor if there are no further resources available to contract maintenance services.



#### Tips:

1) When opting to hire a third-party developer, the contract should, in addition to development, make provision for usability testing with potential users and post-test refinement; delivery of complete documentation related to development; and training on the management of both content and code.

2) If development will be carried out externally, the contract requirements should include the characteristics, programming languages and databases of the server to be used; ensure that they are supported by existing internal infrastructure; and that they allow for simple maintenance and internal escalation.

### 4. How can we improve communication between the substantive areas and the team in charge of technological development?

It is possible that these teams use different technical terms and have a different understanding about the challenges to be faced at each stage of development. Therefore, constant and fluent communication, flexibility and adaptation based on user testing are all key to a project's success as well as to avoiding delays. To facilitate communication and development, it is advisable to approach

the project as an agile software development. Agile software development simply refers to the creation of and response to change in software development with an orientation to people, which stems from the following manifesto:

**Individuals and interactions**  
over processes and tools

**Working software**  
over comprehensive documentation

**Customer collaboration**  
over contract negotiation

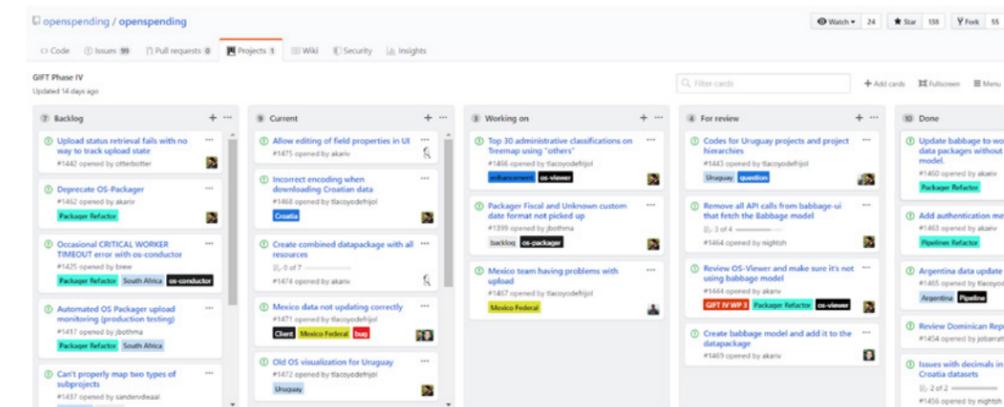
**Responding to change**  
over following a plan

That is, while there is value on the items on the right, we value the items on the left more.<sup>2</sup>

Example of a paper board:



Example of an online board for the development of the Open Fiscal Data Package:



While agile software development goes beyond tools, two main techniques for the agile management of technological projects are **scrum** and **kanban**:

**SCRUM**

A form of agile project management based on “sprints”. Sprints are time intervals of a maximum of one month in which parts of a product are developed or potentially made deliverable based on the determined priorities. Short daily meetings are held for planning, with changes for production, reflections and evaluations occurring at the end of each sprint.<sup>3</sup>

**KANBAN**

Kanban is a visualization method that helps track the workflow across teams. It seeks to show inefficiencies in the workflow. Unlike scrum, in which there are sprints, kanban is a continuous process.

Each partial development is packaged for launch as soon as it is finished.<sup>4</sup>

There are hundreds of tools that can help in monitoring agile software development, from paper boards to technological platforms, such as Mural, GitHub, MeisterTask, Trello and GitScrum. A comparison of the different platforms currently available can be found in this [blog](#).

2. The manifesto was first devised by 17 leaders of opinion in software development, who upon meeting in Snowbird, Utah, discovered that they were facing many of the same problems, that their approaches for software development were based excessively on plans, and that they felt as if they weren't obtaining the types of results they could reasonably achieve. To learn more about agile software development and its twelve principles, consult: [www.agilealliance.org](http://www.agilealliance.org)

3. To learn more about the technique, see the scrum official guide at: <https://www.scrumguides.org/docs/scrumguide/v2017/2017-Scrum-Guide-Spanish-SouthAmerican.pdf#zoom=100>

4. To learn more about how kanban works, see this blog: <https://medium.com/the-super-serious-lab/beginners-guide-to-kanban-6d1ed3babe86>

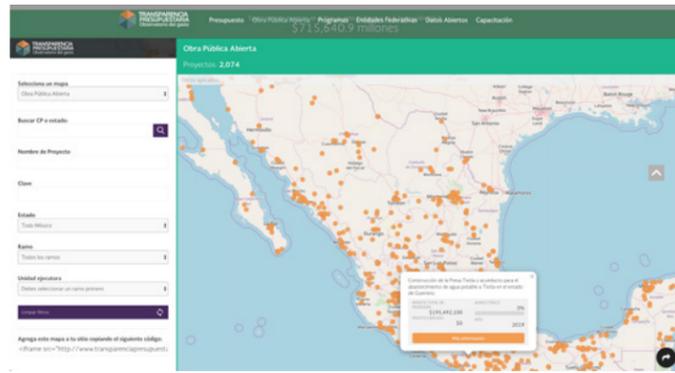
## 5.2 Systems and data connectivity

Connecting the publication of data to internal systems is an important element for portal sustainability for two main reasons:

- 1) **Consistency**, in order to avoid human manipulation of data that can generate errors in the publication.
- 2) **Efficiency**, since avoiding intermediate steps within the publication is more productive. This becomes more noticeable as the publication grows, whether by number of data sets or by frequency of publication.

Even if the associated internal financial management information systems are not unified, it is possible to visualize different data sets from several different sources in the same platform. This can be achieved by establishing a data warehouse and/or APIs, which will not affect the operation of transactional systems or generate security vulnerabilities.

This is evident in the 2018 version of Mexico's Public Works platform, which displayed physical investment projects georeferenced on an interactive consultation map, with data from three different systems: the Investment Project Planning System, the Investment Project Monitoring System and the Budget Integration System.



Public Works platform of Mexico in its 2018 version.

Another method is demonstrated by El Salvador's portal, launched in 2018, which stores all the information behind the publication in its integrated financial management system (SAFI), a set of subsystems interrelated and integrated in its centralized and decentralized operations, wherein each subsystem plays a role in normative centralization.



**Tip.** See this technical note from the International Monetary Fund on how to design a financial management information system with a modular approach: <https://www.imf.org/-/media/Files/Publications/HowToNotes/HowToNote1903.ashx>

### Data mapping

Based on the experiences of different countries, data extraction from different sources is normally required for a consolidated publication. This should however not hinder the publication. The important thing to understand is which data is relevant to the achievement of the established

objectives, where it's located, what characteristics it has and if there are shared IDs that will be used to connect them. That is, we must map: 1) the systems containing the data and 2) the specific fields that require extraction.

A simple solution is to use mapping templates. To do this, a spreadsheet should be generated and a column assigned for each applicable element that needs to be mapped. This will also help identify if there are any missing data fields. The importance of this increases with project complexity involving more areas and systems.

*Hypothetical example of mapping for the construction of a platform on investment projects:*

Field	System containing the data	Name of the field in the system	Field characteristics	Necessary algorithm	Notes
Project ID	Investments system	PROJECT_ID	Alphanumeric	N/A	
Project name	Investments system	PROJECT	Alphanumeric	N/A	
Responsible ministry ID	Budget system	SECTOR_ID	Catalog	N/A	
Responsible ministry	Budget system	SECTOR	Catalog	N/A	
Latitude	Investments system	LATITUDE	ISO 6709:2008/Cor 1:2009	N/A	Various points, separated by ;
Longitude	Investments system	LONGITUDE	ISO 6709:2008/Cor 1:2009	N/A	Various points, separated by ;
Total budget	Budget system	N/A	Numeric	$\sum_n$ budget adjusted per year + $\sum_n$ estimated budget subsequent years	Use tight budget
Approved annual budget	Budget system	APPROVED	Numeric	N/A	
Budget paid in the year	Treasury system	PAID	Numeric	N/A	
Total paid budget	Treasury system	N/A	Numeric	$\sum_n$ paid paid per year	Use paid budget
Physical advance	Investments system	PHYSICAL ADVANCE	Numeric	$\bar{X}$ of partial advances	
Link to pre-investment studies	Investments system	COST-BENEFIT	URL	N/A	Various points, separated by ;
Link to environmental impact studies	Investments system	ENVIRONMENTAL IMPACT STATEMENT	URL	N/A	Various points, separated by ;
Fila N...	System...				

A mapping spreadsheet can be downloaded from the Open Fiscal Data Specification or the Open Contracting Data Standard; a column should be added to identify the systems from which each data field will come.

### Disaggregation

A common misconception in the publication of data, is that in order for data to be better understood by users, it must be more aggregated. Another is that most users will not have the ability to use big databases. However, aggregated data unfortunately generates more limited interaction opportunities and, beyond that, as Renzio and Mastruzzi (2016) state, users generally want more disaggregated and accessible data. Technology and digitalization provide the ability for external analysis, consultation and visualization.

For example, imagine a neighborhood organization interested in improving local health services. They would need data on health spending in the community, perhaps observing the budget of the closest hospitals. They would also need to know what constitutes that expenditure--how much is allocated to each line-item of current and capital expenditure--among other relevant data. Published aggregated health spending data with a functional classification only, or even up to the sub-function level, would severely limit the ability of the organization to use the data.

To solve this paradox of the required degree of information disaggregation, it is necessary to revert to the concept of *progressive disclosure* previously mentioned. This could entail the use of consumption visualizations and filters that allow users to consult the data they interested in without overwhelming them with massive data volumes, displaying the information along multiple screens based on the users' different needs, goals and capabilities.

### Importance of the use of catalogs and codes

While working on the publication process, it is possible to encounter suboptimal situations, such as realizing that one of the systems has an outdated catalog of administrative classification codes or that the nomenclatures of some classifications are not coming from a catalog and thus require cleaning and standardization. Chapter 6 of the [Open Data Tutorial: "Opening and Use of Budget Data"](#) provides information in this regard.

The probability that the systems contain identifiers that connect processes, catalogs and standardized codes, is also increased through enhanced coordination between the different teams. The improvement of these data links will also prove useful for the general enhancement of financial management.

An example of this is connecting the stages of a transaction<sup>5</sup> within e-procurement systems.

### Data integrity

Data integrity refers to the accuracy and completeness of the information in a database, without variations or alterations on the original information, which results in the publication of accurate information that generates trust in users. Fiscal processes are however complex, with many different information consolidation systems and mechanisms. This can hinder complete fiscal transparency.

It is thus essential to keep these types of possibilities in mind, and seek to consolidate information in advance through compilation processes that have guidelines and standardized structures. These should be implemented during the design phase. When data integrity is met correctly and in a planned manner, the stored data remains complete and accurate, regardless of its update frequency.



**Tip: Always consider data integrity, that is the maintenance and guarantee of the accuracy and consistency of data during its life cycle. This is a critical aspect for the design, implementation and use of any system that stores, processes or recovers data.**

### Data comprehensiveness

Comprehensive information is at the core of quality published data. When discussing fiscal information, it must be presented in a consolidated manner in gross terms across the entire central government. It is important to provide the user with clarity on the included data, as well as on the data which is not part of the publication. This will avoid misinterpretations and facilitate communication between publishers and users.

To learn more about data comprehensiveness, consult the pillars of the Fiscal Transparency Code of the International Monetary Fund<sup>6</sup>.

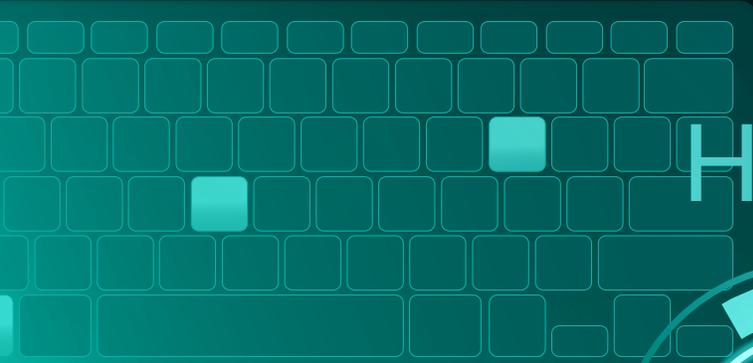


**Tip: If it is not possible to publish all the expected data and achieve your objectives in the first iteration, consider adding the work plan of future iterations on the site.**

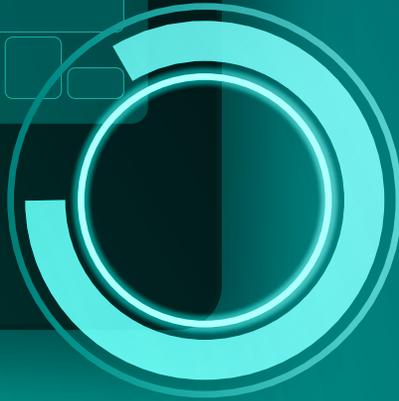
5. Pattanayak, Sailendra. Expenditure Control: Key Features, Stages, and Actors Prepared by Sailendra Pattanayak Fiscal Affairs Department. International Monetary Fund, 2016.

6. Fiscal Transparency Evaluation of the International Monetary Fund <https://www.imf.org/external/np/fad/trans/>

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HTML >>



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