Information Technology Governance for Tunisian Universities
(ITG4TU)

IT Governance development plan

ITG4TU CONSORTIUM

AMENDMENT HISTORY

Version	Revision	Date	Author	Modification
1	0	18 Sept 2017	Beatriz Gómez Suárez	Initial Version
2	0	19 Sept 2017	Carlos Juiz García	Description of steps
3	0	29 Sept 2017	Antonio Fernández Martínez	Depicted framework

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1. Introduction

This project is aimed to gather a set of researchers from four European universities with a wide experience in developing and deploying IT Governance framework models from three different countries (Spain, Germany and Norway) to develop, adapt and test a new IT governance framework to be implemented in several Universities in Tunisia. Therefore, the expected results of this project include a new governance model for IT in Tunisian HEIs as well as an overall modernization of the governance processes, related to IT, for HEIs and a contribution of the cooperation between EU and Tunisia.

Problems in IT Governance (ITG) are not particular of a given country or continent. Taking this into account, IT Governance artefacts can be common to almost all country in the world. However, special needs in the deployment are purely local (i.e. dependent on the University teaching portfolio, the ownership of the HEI, the level of knowledge on the topic, the local governance rules, the governance culture, etc.). This lead to the fact that already implemented approaches in ITG for Universities can be used as inspiration for a "Glocal" Tunisian initiative. However, this cannot be done without the active participation and competence of Program Countries. In other words, previous success case studies and current competence on the topic will lead to a better ITG setup. This active participation cannot be reached without European cooperation.

To reach this aim, specific objectives of the project were categorized in distinct phases:

- Phase 1: Perform specialized training modules for building ITG models in Tunisian universities (already completed). This training targeted three types of stakeholders of universities: professors, students and administrators/managers. Professors were trained in two ways, those professors who wished to acquire new knowledge to include ITG as a teaching and research discipline. Regarding, graduate students from related studies of IT and even in Management/Business Administration could acquire new skills to ensure their further professional or academic integration. Of course, the main target of this project was the intermediate management and board executives of universities, as well as functional IT departments that could take this opportunity to better align their IT strategies, and are able to support this project.
- Phase 2: Build ITG frameworks, adaptable to each institution, for the participants of the project. As a result of the aforementioned training in ITG, Tunisian universities in collaboration with EU must be able to implement their own ITG framework and their corresponding instruments of ITG. To know every Tunisian university reality, European partners visit each institution and assess their individual IT governance situation.
- Phase 3: Perform training to employers in IT sector, mainly mid-size and large companies both public and private. ITG has been shown as a facilitator to produce higher ROI of enterprises, coming from further development of IT assets. This training will result in a greater connection between Tunisian universities and the surrounding economic and social stakeholders. It will also provide project sustainability, since once

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Tunisian trainers (professors) of local universities were accredited, they may continue providing specific training to local businesses.

The purpose of this document is explaining how to progress in detail the second phase, so each Tunisian university can build their own IT governance framework and evaluate its IT governance maturity.

2. IT Governance development plan

Nowadays, in almost all organizations, the use of IT is crucial for the maintenance and sustainability of the strategy and business objectives. There is a large literature on IT governance that explains and details its importance within organizations and how best practices contribute positively to the value creation of IT assets. One of the diffusion tasks of the project is that Tunisian scientific partners make a systematic literature research on the HEI IT governance (already in review by European partners). Thanks to the different trainings in Palma and Almeria, the different assessment visits in each Tunisian institution and this systematic literature research, the Tunisian partners are in an ideal position to develop their own governance framework.

2.1. ISO/IEC 38500 standard

Governing bodies should govern IT through three main tasks, represented in the Figure 1 – IT Governance model (source: ISO/IEC 38500).

- Evaluate the current and future use of IT.
- Lead the preparation and implementation of strategies and policies to ensure that the use of IT is aligned with business objectives.
- Monitor compliance with norms, rules and laws, and
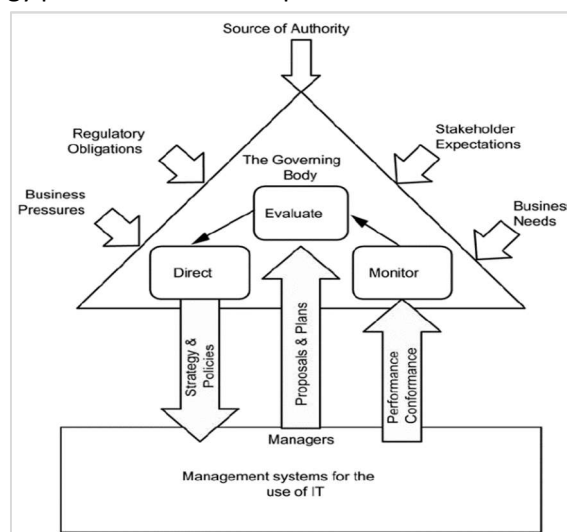- Measure strategy performance development.

Figure 1 – IT Governance model (source: ISO/IEC 38500)

2.2. Preparation of the action plan

From now on until October 2018 (to the end of the project approx.), the following incremental evolution methodology will be performed to implement an IT governance framework:

1. Define and validate a common ITG Framework: structures (people), the strategic alignment artifacts (processes, procedures, best practices…) and the communication issues, necessary to assure a good governance of IT. **(Activity 2.5. Governance framework development)**
2. Design and validate an ITG Maturity Model based on this ITG Framework. This tool will be useful to establish the current ITG maturity of each university, select the goal maturity level and describe the best practices that each university must implement to achieve it. **(Activity 2.5. Governance framework development)**
3. Evaluate the current ITG maturity level through the previous analysis of the best practices and propose a future maturity level. **(Activity 2.5. Governance framework development)**
4. Design an improvement ITG plan based on the best practices to achieve the ITG maturity level proposed for each university. Specify how the creation of such structures will be done, which kind of alignment activities will be performed and what documentation to communicate that will be required. **(Activity 2.5. Governance framework development)**
5. Assess, by the European partners, of the proposed plan and the viability of the activities. **(Activity 2.6. Governance framework assessment)**
6. Implement, by the Tunisian partners, the approved plan including the recommendations if any. **(Activity 4.5. Governance framework deployment)**
7. Follow-up, by the European partners, on the evolution of the plan. **(Activity 4.6. Governance framework monitoring)**

Step 1: Define and validate a common ITG Framework: structures, strategic alignment and communication

Review each "Initial ITG Best Practices" spreadsheet used to assess the current situation in each Tunisian university and define a framework that include all the structures, strategic alignment and communication described in these best practices.

Each Tunisian university must review this model and propose its own version. Later, all the proposals must be discussed and create a common final version of the framework.

Step 2: Design and validate an ITG Maturity Model

Review the Spanish ITG Maturity Model to be used as the future Tunisian ITG Framework.

Each Tunisian university must review this maturity model and propose changes. Then, all the proposals must be discussed and create a common final version of the model.

Step 3: Evaluate the current ITG maturity level and propose a goal level

Use the ITG Maturity Model to self-evaluate the current ITG maturity level of each university.

Then, select the goal maturity level that each university wants to be achieved.

Step 4: Design an improvement IT Governance plan

Design an improvement ITG plan that includes all the best practices each university need for implementing to achieve the ITG maturity level proposed previously.

Each university must select **areas to improve** based on their own available resources and make a realistic "IT Governance Plan" considering people, resources and time. To select these areas, based on the previous review, each Tunisian university must assure they have structures, alignment and communication tools.

Step 5: Proposed plan assessment and viability

As indicated above, the action plan for the implementation of an IT Governance framework in Tunisian universities follows the methodology of incremental evolution, that is, continuous improvements are made to each of the elements until it is reached the optimal level according to the characteristics and needs of the entity and midterm goals established in step 2. For this it is necessary to follow the evolution of each one so that through the information obtained can take the most successful actions to the level reached. This step corresponds to the activity *2.6. Governance framework assessment* leaded by the European partners.

Step 6: Implementation of the IT Governance plan

Once a realistic plan is done (activity 2.5) and reviewed (activity 2.6) it is time to implement it. The idea is having adjusted resources, people, and time (remember, the available time for the full phase 2, including all steps, is one year approx.) in the plan to be performed in each institution. In this step, some structures will be set, some activities will be initiated and documentation of all of them should be properly recorded. This step corresponds to the activity *4.5. Governance framework deployment*.

Step 7: Monitoring the evolution of the plan

Again, following the methodology of incremental evolution, European and Tunisian partners, all together, will monitor the executed plan after these steps are performed. Because of that it is important having documented properly all the steps done, not only in terms of transparency and best practices of IT governance, but also is of significant help for the continuous improvement of the framework and the sustainability of the project. This step corresponds to the activity *4.6 Governance framework monitoring*.

For more details please see Annexes I and II below.

2.3. Agenda

The following table shows an approximation of the steps in terms of agenda:

Table 1 - Calendar of steps

Step	Planned Date	Updated Deadline
1. Definition and validation of a common ITG Framework: structures, alignment and communication	15 May 2017	15 October 2017
2. Design and validate an ITG Maturity Model	15 May 2017	15 October 2017
3. Evaluate the current ITG maturity level and propose a goal level	15 May 2017	31 October 2017
4. Specification an improvement ITG plan	15 May 2017	6 November 2017
5. Assessment of the proposed plan	15 June 2017	15 November 2017
6. Implementation of the plan	15 July 2018	15 July 2018
7. Monitoring the evolution of the plan	15 October 2018	15 October 2018

3. Conclusions

This report presents an implementation guide for IT Governance within the scope of this project. It is important to study carefully the situation ad specific necessities of each institution to adapt this guide into a realistic and affordable plan, regarding resources, involved people and time. European partners should give support to reach phase 2 appropriately.

Annex I - Instructions to define and validate a Tunisian IT Governance Framework and Maturity Model

We propose you to complete the actions above mentioned by running the following procedure to achieve it:

Step 1: Define and validate a common ITG Framework: structures, strategic alignment and communication

Each Tunisian university must review the Spanish model and propose its own version. Then, all the proposals must be discussed and create a common final version of the framework:

1.1.   Your ITG group must review "Initial ITG Best Practices" spreadsheet (you can find it in Dropbox in a folder called "TU Framework").

1.2.   Discuss if these best practices are adequate to be included in the final version of a Tunisian ITG framework.

1.3.   Write a report with the changes you propose and put it in the folder "TU Framework/*your_University*" with the name "Framework proposals"

Step 2: Design and validate an ITG Maturity Model

Each Tunisian university must review the Spanish Maturity Model and propose its own version. Later, all the proposals must be discussed and create a common final version of the Maturity Model:

1.1.   Your ITG group must review "ITG Maturity Model" spreadsheet (you can find it in Dropbox in a folder called "TU Framework").

1.2.   Discuss if these best practices are adequate to be included in the final version of a Tunisian ITG Maturity Model.

1.3.   Write a report with the changes you propose and put it in the folder "TU Framework/*your_University*" with the name "Maturity Model proposals".

About Spanish ITG Maturity Model:

1. In fact, this Maturity Model includes six different models, one per each Governance principles of the ISO 38500 (Responsibility, Strategy, Acquisition, Performance, Conformance and Human Behaviour).

2. Each model describes six levels of maturity (from 0 to 5)

3. To achieve a higher level, it must be satisfied all the best practices described in this level.

4. Each principle is described by 3 different actions: Evaluate, Direct and Monitor. To achieve a new maturity level, it must be satisfied all the best practices of the 3 actions.

Please complete these processes before **October 15th**. Then, (between **October 15th and 31st**) we will check your reports and proposals.

Step 3: Evaluate the current ITG maturity level and propose a goal level

You will find a document called "ITG current maturity" in the folder "TU Framework/*your_University*" where the satisfied best practices appear green coloured.

You must select the goal maturity level that you want to achieve at your university. Please, write with red colour the best practices you want to satisfy in a period of one year. Try to mark in red enough practices to achieve a higher level of maturity at each principle. Save this document as "ITG goal maturity" in the folder "TU Framework/*your_University*".

Step 4: Design an improvement IT Governance plan

Design an improvement ITG plan that includes all the best practices each university need for implementing to achieve the ITG maturity level proposed previously.

Discuss this plan with the rest of the ITG group of your university, write a short report describing your plan named "ITG Plan" and save it in the folder "TU Framework/*your_University*".

Please complete these processes before **November 6th**. We will produce together an assessment report on **15th November** in Berlin meeting.

Annex II – What is meant by structures, alignment and communication tools

Each Tunisian university must assure they have structures, alignment and communication tools following the next recommendations:

Structures

The necessary IT Governance structures are mainly two: for example, the IT Governance Steering Committee and the IT Governance Advisory/Technical Committee.

The **ITG Steering Committee** should consist of people within the organization (at the concerning area, university, school, department, in which the ITG will be developed) who hold senior positions of responsibility whose activities include decision-making, corporate strategy direction, strategic plan assessments, among others, in addition to the IT director/CIO. During the assessment visits some clues and indications were made to the responsible of each university. The **ITG Advisory/Technical Committee** should be made up of people from the IT department as the director/CIO and IT area coordinators, some IT professors, etc. Note that the director/CIO occupies a position in both structures since its role is crucial to establish a bridge of communication between the two concerning areas.

The creation of these or any other committees must be done in a formal way of the institution to ensure the continuity and feasibility of the structures (the roles, not the individuals). Once

established, meetings are held periodically, whether real or virtual. The optimal frequency of the steering committee should be a couple of months, being possible a meeting every month in case of necessity. It is normally established on the same date of the existing board meeting to address IT issues of a decisive, non-technical nature, i.e. the ITG advisory committee will be responsible for the elaboration of the agenda of topics to be raised at the governance level and the ITG steering committee will only make decisions on whether to accept, reject or postpone the topic to be dealt with. In addition, the steering committee will instruct the advisory committee on time before presenting the report of the results obtained. This is achieved by: a) both committees understand and assume their responsibilities based on the level they occupy and b) improve communication between both aligning IT activities to the business strategy of the organization by participating jointly in decision making. Of course, some formal communication issues should be defined to hold the relationships between committees. Former existing committees may be reused if roles are updated following the project definition.

In the specific case of Tunisian partners, after having reviewed the spreadsheet, they should find a way to implement these ITG structures, both adapted to the current situation in Tunisia in terms of conformance, people involved and time and the local constraints.

Strategic alignment

There are several types of processes that serve to align IT strategy with the business strategy of the organization: for example, service catalog, project portfolio selection and investments prioritization. Good IT governance practices indicate that the ones selected by the organization should be aligned with strategy, but if the organization's IT governance maturity level is not optimal, ITG committees should choose some of them, the ones most promising that require the most attention or the ones that increase the value of IT, and to develop them with the assessment of European partners.

Again, based on the spreadsheet obtained in the assessment, each Tunisian partner should select the processes and best practices better suited to its situation, resources, people involved in the committees…, and should elaborate a plan to develop them

Communication

Correct internal and external communication to the committees must be ensured. Internal communication comprises a series of documents and reports exchanged between ITG committees for the management, evaluation and measurement of IT. Examples of these are: Strategic Plan of the organization, IT Budget proposal, Catalog of Services proposal, Project Portfolio Selection for the current period, IT Risk Report, IT Quality Indicators Report, IT User Satisfaction Report, ...

External communication is that given to external members to committees, i.e. different stakeholders, including faculty, administration, other departments that are affected by IT, etc. The publication of the results of IT activities is not only good governance practice in

transparency but also an effective way of presenting the objectives achieved and the future plans that will be realized.

To carry out the action plan for the implementation of the IT Governance framework, it is necessary to carry out an initial review in order to know in which situation the organization is, what objectives must be achieved and what actions must be taken to get them. That is easy to do studying the spreadsheet previously fulfilled and preparing a descriptive document analyzing the current situation of the institution and selecting the areas to be improved, as explained above in the steps.