



Greek Tax Agency Benchlearning and Evaluation Project

Deliverable D.2
“Benchlearning
Methodology and Data
Gathering Template”



Project Title: Greek Tax Agency Benchlearning and Evaluation Project

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Introduction

Starting from the input coming from the assessment of the Greek tax online services 'as is' (Deliverable D.1), as to which area of impact and indicator(s) the benchlearning cases will have to focus on, the present deliverable presents the methodology and data gathering template to be used for the Greek case and the two international cases.

As designed and foreseen in the Tender Offer and work plan, the methodology and data gathering template would entail:

- A. Discussion and definition of the indicators best suited for the specificities of online tax provision in general and explanation of their strategic relevance;
- B. Selection of relevant impact indicators, applicable given the input from D.1 to the Greek case. The indicators will be selected among those proposed by the EU sponsored study eGEP, so as to ensure that this study by the Greek Observatory would provide valuable results for the ongoing work carried out by the DG INFSO of the EU Commission in the field of eGovernment Impact Measurement;
- C. Identification of the relevant metrics for each chosen indicator;
- D. Production of a template for gathering the data needed for the calculation of the chosen indicators;
- E. Production of a template for gathering background data, only for the two international cases.

Section 1 presents short background information on the eGEP Measurement Framework and on the benchlearning concept.

In section 2 of this report we address the issue A in the list above, characterising the specificities of the online tax services with respect to the expected results and strategic objectives and accordingly we identify which are the most appropriate impact indicators among those proposed by the eGEP Measurement framework¹. In doing so, therefore, we join together with issue A also part of issue B, namely the reference to the eGEP model. It is worth noting that in paragraph 1.4 we propose also a general "Key Performance Indicators" list for the online provision of tax services.

In section 2 we then identify the indicators to be used in the three cases of the benchlearning exercise, which are shaped by the findings of deliverable D.1. (Issue B)

Finally, in section 3 we specify the metrics needed to calculate the selected indicators and provide some basic guidelines for their calculation that will have to be then adapted and modified depending on the peculiarities of the data available for each case (issue C). The data gathering templates (issues D and E) are included as Annexes.

¹ The full list of eGEP proposed indicators is included in the annex

1. eGEP Measurement Framework and the Benchlearning concept

Before proceeding further, let us present a brief synthesis of the eGEP Measurement Framework (henceforth simply eGEP MF) and how this study has led to the launch of the concept of benchlearning.

1.1. eGEP Measurement Framework

eGEP MF is built on a very general and universalistic definition of the three-fold mission that any public agency or programme should pursue for the delivery of public value to:

- **User as tax-payer:** the search for efficiency gains through dynamic, productivity-driven and value for money internal operations and service provision;
- **User as citizen and voter:** the enhancement of democracy through open, transparent, accountable, flexible, and participatory administration and policy-making;
- **User as consumer:** the search for quality services that are inter-active, user-centred, inclusive, and maximise fulfilment and security;

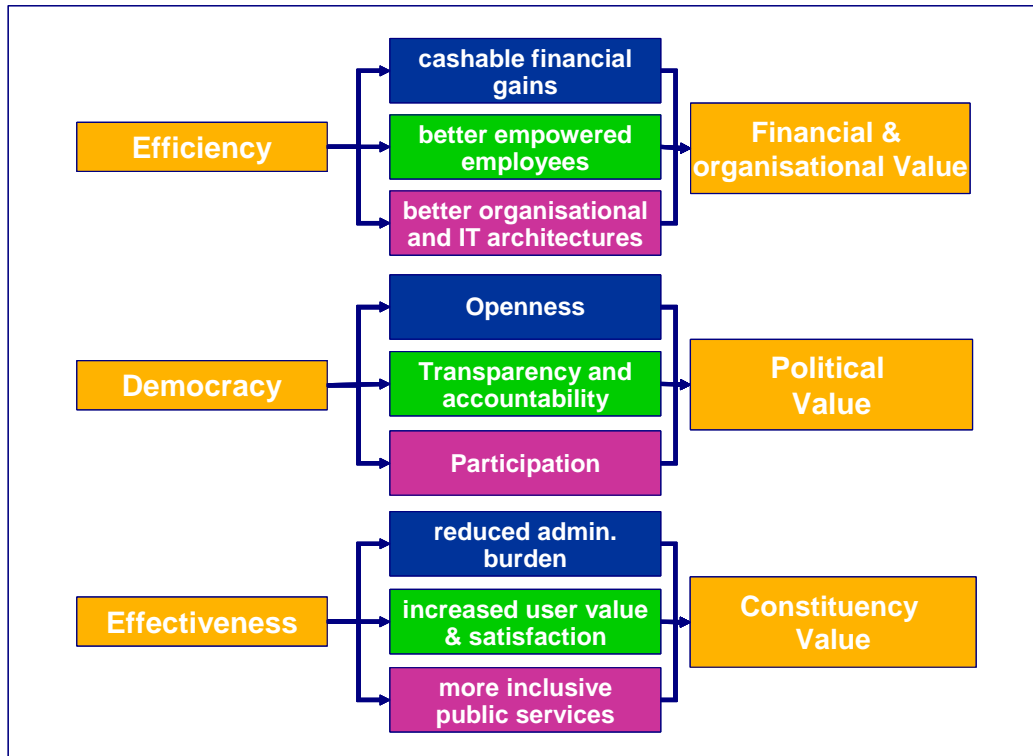
Correspondingly the framework is built along three value drivers :

1. Efficiency;
2. Democracy;
3. Effectiveness;

eGEP MF analytical structure is synthesised in Exhibit 1 below, where at the right end side it is initially possible to observe that all the impacts contribute to the creation of different types of public values:

1. Financial & Organisational value;
2. Political Value.
3. Constituency Value;

Exhibit 1 eGEP Measurement Framework Analytical Model



1.2. The concept of benchlearning

While the concept of benchlearning existed already especially in the domain of private sector management², it has been proposed for the first time in a revised fashion as an instrument to advance the understanding of the concrete impacts of ICT enabled public services delivery by Cristiano Codagnone in the final recommendations contained in eGEP report³ and in occasion of a major EU sponsored conference on eGovernment impact⁴.

In order to further flesh out the concept of benchlearning to be applied in the course of this study, it is worth briefly reconstructing the rationale leading the eGEP study to propose eGovernment impact benchlearning exercises. eGEP has produced a comprehensive and exhaustive eGovernment measurement framework aimed at going beyond the simple monitoring of the supply side (number and sophistication of public services online) by

² See for instance: P. V. Freytag and S. Hollensen "The process of benchmarking, benchlearning and benchaction", *The TQM Magazine*, Volume 13 . Number 1 . 2001 . pp. 25-33; Karlöf, B., Lundgren, K, Edenfelt Froment, M. *Benchlearning – Good Examples as a lever for development*, Wiley and Sons, 2001

³Cristiano Codagnone, eGEP, *Measurement Framework Final Version* (http://217.59.60.50/eGEP/Static/Contents/final/D.2.4_Measurement_Framework_final_version.pdf), pp. 39-42

⁴ Cristiano Codagnone, "Bench-learning in government – reflections from eGEP experience and beyond" (<http://www.egovgoodpractice.org/download.php?PHPSESSID=b2aead7a7d7734eb42e817bad57133d5&fileid=877>)

proposing indicators of concrete impacts (Full Time Equivalent Gains, Reduction of Administrative Burden, User Satisfaction, etc). In doing so it has proposed a number of very sophisticated indicators, which in the short term would not lend themselves to be applied in a traditional quantitative international benchmarking across EU Member States for two reasons. First of all, the main challenge is the **comparability** of some of the more sophisticated impact indicators, given the relevant peculiarities and differences existing in the public administrations structures and traditions of EU Member States. Second, given the novelty of measuring eGovernment, many of the data needed to calculate eGEP indicators would have to be gathered from scratch, which requires **measurement capabilities** not yet evenly widespread among public agencies across Europe.

Therefore, benchlearning in the field of measuring eGovernment impacts has been proposed as a short term alternative to a large scale quantitative benchmarking in order to overcome the problem of comparability and, at the same time, to build measurement capacity from the bottom up.

Given this background we can now proceed to fully define our concept of benchlearning for impact measurement of ICT enabled services to be used in this study, which represents a further refinement and elaboration of what was already proposed in the eGEP study. The definition of the concept is as follows:

A bottom-up collaborative benchmarking based on a peer-to-peer experimental exchange among fairly comparable public agencies from at least two different EU Member States, designed as a symmetric learning process, that with the support of experts in the role of facilitator will implement and calculate more sophisticated indicators in a chosen area of impact of the ICT enabled services the selected agencies provide, and in the process will build transformative capacities.

Applying this concept to the object of this study means that the project team assembled:

- 1) Will select two tax agencies from across EU Member States that are fairly comparable to the Greek Tax Agency in terms of the online public services delivered and of their organisational/ institutional context;
- 2) In its role of facilitator will help all involved agencies gather data and calculate impact indicator(s) to compare such indicators but also to more broadly exchange experience;

Some further considerations are in order here to better qualify the implication of the definition of benchlearning. First, the "peer-to-peer" and "symmetric" characterisation implies that **there is no one best performer** against which the selected agencies must be compared and from which they must learn. This distinguishes our approach from how

benchlearning is used in the private sector where it is based on the idea of taking a recognised best performer and helping other organisation learn from it. As long as the three agencies are comparable, the issue is not who is the best performer, but rather to join experiences to define and calculate an indicator that is comparable and that could later be scalable to a larger number of agencies. Second, therefore, while calculating a common indicator of impact for the three involved agencies it is important, the focus of the study is not the mere comparison as such but it is rather on: a) building across them the awareness and capacity to measure their ICT enabled service provision in a given area of impact; b) collaboratively test the relevance, feasibility and comparability of the chosen indicator(s) with respect to their context specific goals, structures and processes. Third, since the experimental and collaborative measurement of the impact indicator(s) will by necessity entail an analysis of the ICT enabled services set up and delivery processes, the "learning" and the "transformative capacity building" will be not only about the measurement itself but also about the what is behind the impacts actually measured, namely the key enabling and success factors or the main barriers. In synthesis our concept of benchlearning aims in the first place to produce organisational 'meta-results' and not merely at the delivery of the score for the impact indicator(s) calculated for each agency. These 'meta-results' are:

- The building of sustainable organisational measurement capacity through the collaborative implementation and calculation of impact indicator(s);
- The comparative learning of key enablers and success factors and key barriers through the unstructured and qualitative exchange of narratives;
- The establishment and/or consolidation of collaborative and exchange international network.

2. Online Tax Provision, eGEP indicators and Key Performance Indicators (KPI)

2.1. Type of online public services and strategic impact

The EU financed research eUser, in analysing the take up of eGovernment services, has provided the following very useful typology of public services⁵:

- 1) **Legally enforced administrative services** (paying taxes, making a declaration, applying for a license or permit) that reach in most cases the fully transactional level;
- 2) **Administration services enabling citizens to apply and obtain welfare and other kind of entitlements**, that entail two way communication and that in some cases are also transactional;

⁵ eUser, *Work package 5: Synthesis and Prospective Analysis (D.5.1: First Synthesised Inputs to Knowledge Repository, Including Initial Survey Results and Good Practice Examples)*, p. 42.

- 3) **Elective services that citizens may choose to use for everyday life**, for improving their access to opportunities and their participation to the public (communication about life events, enrolling in education, housing, information on jobs, education and eLearning, health related services, culture, transport, eDemocracy, open and transparent policy making). These are mostly information/content services, entailing some interaction, but generally no transaction.

Online public services in the first category shaped by the eUser research, have been the first to be digitalised and made fully transactional for the simple reason that they entail a large amount of data entry and processing work load for public administration and thus presented the highest potential for efficiency gains and rationalisation of work procedures. Citizens cannot improve their life chances and opportunities simply by using such services online, as they are an obligation required by the government and not something they choose to use. On the other hand, probably they would expect to comply with such obligations in the easiest possible way and at the least possible cost. Citizens benefit from such services mostly indirectly, as long as the efficiency gains are monetised and in aggregate save their money as taxpayers.

The second type of services entails mostly information and two ways interactive communication and some moderate level of end-to-end online transactions. They still provide efficiency and rationalisation gains for public administration, but they also ensure an important benefit to citizen by making easier the access to their entitlement; this is particularly important for the socially excluded, many of whom often do not even know and claim what there are entitled to.

The third type of online services is the most valuable to citizens, while the direct tangible efficiency gains for public administration in this case are marginal, and actually providing such services can increase overall costs. This third type of services is potentially the most important for citizens as they can introduce them to better opportunities and access to life chances, and strengthen democracy by increasing participation. Not surprisingly, the mentioned eUser research found that in terms of intentions to use different levels of eGovernment services, the potential demand is highest for information services in all countries in the sample. Next come communication services and, finally, transaction services, i.e. the least sophisticated services are in most demand⁶. For these services it makes sense to look at impact of effectiveness in terms of providing better opportunity and life chances, more

⁶ eUser, *Work package 5: Synthesis and Prospective Analysis (D.5.1: First Synthesised Inputs to Knowledge Repository, Including Initial Survey Results and Good Practice Examples)*, p. 46

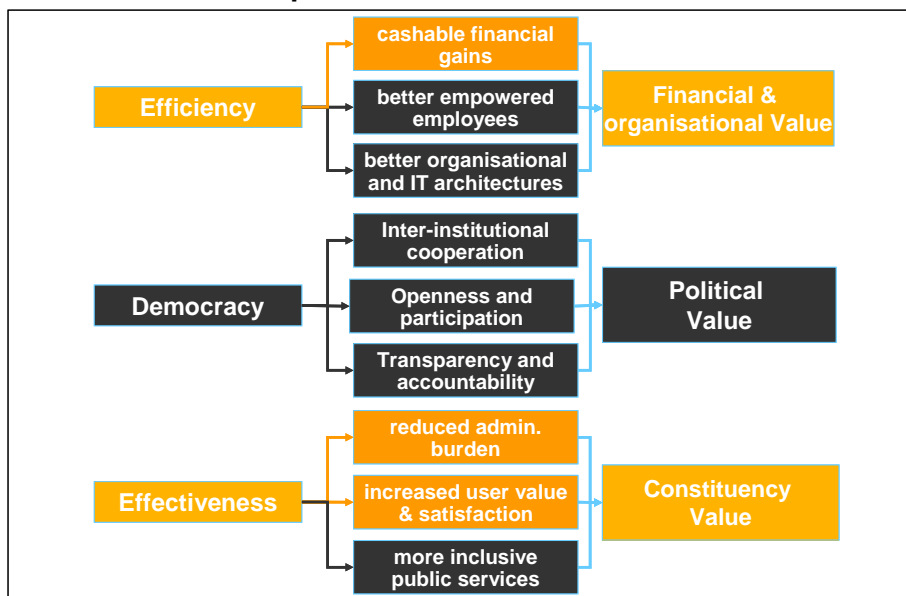
inclusion, more openness and transparency. As they are the most evaluated by users, user satisfaction with respect to their online provision is also a strategic impact.

Online tax services fall in the first category and, thus, the most strategic area of impact is that of efficiency. The democracy driver could also be applied (openness and transparency of procedures), but it is certainly less strategic. For what concerns effectiveness, the most important component is "reduction of administrative burden". User satisfaction is also important but to a lesser degree. When fulfilling government obligations, the most important thing for citizens is to do it easily and in the least possible amount of time. If this occurs, satisfaction would be a side effect, but could never be as important as the level of satisfaction one may achieve finding a new job through an online public job searching service.

So, if for reasons of feasibility and resources one must choose among the eGEP wide possibility of measurement (3 value drivers with a total of 9 sub-components and 100 indicators in total), in order of priority the most strategic impact for assessing online tax provision are those listed below and outlined in orange in exhibit 2:

- Efficiency in both directly monetary and indirectly monetisable components (see later);
- Effectiveness: reduction of administrative burden;
- Effectiveness : users satisfaction

Exhibit 2 eGEP components most relevant for tax online services



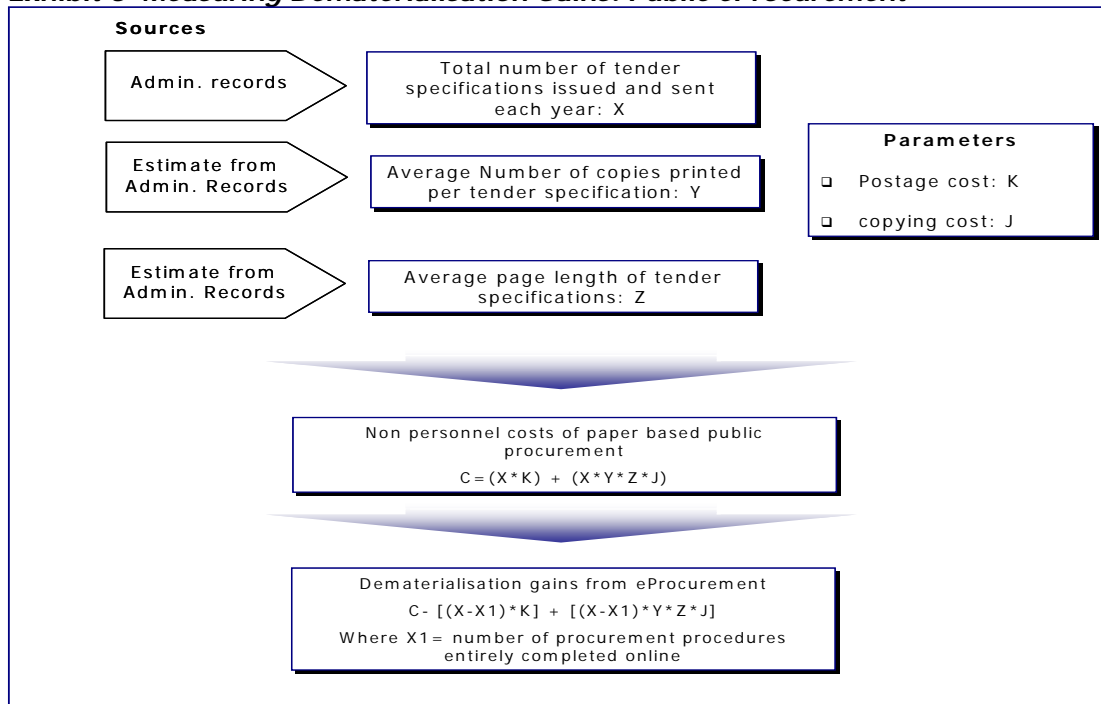
We can now turn to discuss further these three areas of impact and the possibly corresponding indicators in light of the eGEP measurement framework, a final general element must be established.

2.2. eGEP: relevant efficiency indicators and related metrics

The efficiency impacts considered in the eGEP model have three dimensions. The higher efficiency stemming from the offer of services online, opportunely supported by the necessary organisational changes, generates "Financial Value" by producing: a) directly cashable gains from material cost avoidance/saving; b) gains from increased labour productivity that can be monetized as opportunity values and that can be potentially cashed; c) gains in terms of increased revenue. Let us discuss each of these separately and extract the relevant indicators.

► **Cost avoidance/saving.** Gains from material cost avoidance/saving are directly cashable, in the sense that they are immediately subtracted from the public administration budget and enable to maintain output delivery constant at lower costs. Typical long-hanging cash benefits are cost avoided as a result of processes dematerialisation (less paper, prints, regular mailing), of less travel needed by public agencies staff, economy of scales in using overhead, reduced rental and other costs related to physical locations. The Italian Tax Agency, for instance, as a result of the digitalisation of tax collection, closed down a number of local tax offices (LTO) saving €20 million yearly in rental costs. Exhibit 3 below shows, just for exemplificative purposes, how to calculate dematerialisation gains in the case of public eProcurement. The same logic can be applied to any other transactional services that make unnecessary the printing and mailing of documents to citizens or businesses.

Exhibit 3 Measuring Dematerialisation Gains: Public eProcurement



Source: eGEP Measurement Framework Compendium, *op. cit*, p. 31

The general indicator corresponding to this type of impact that can be extracted from eGEP is

- **K€ saved in overhead costs (print, paper, mailing, travel, rental, electricity, etc).**

The sources of data for the metrics needed for the calculation of this indicator are:

- internal administrative records (comparison of relevant cost items in the budget before and after digitalisation);
- Web metrics (needed to calculate the amount of files and cases handled digitally for a proxy estimation of the savings to be compared with budget data).

► **Gains from increased productivity.** Greater gains, however, can accrue from the increased labour productivity that the combination of reorganisation and ICT enabled production and delivery of public services can yield, including: task elimination (i.e. data entry), reduced processing times, reduced errors and need to re-work, less time needed for face-to-face interaction with users, additional gains from receiving data already in digital form, etc. All of this can produce either of the two impacts listed below, both of which are expressed with respect to an established base line:

- Less hours of work are needed to perform the same amount of internal operations and provide the same amount of services (**you do the same with less**);
- In a given time unit more output is produced with the same amount of work hours (**you do more with the same**)

Accordingly the two indicators are:

- **K€ value of full time equivalent gains:**
- **Increase in case handled per processing full time equivalent**

The first indicator "K€ value of full time equivalent gains" can be given a monetary value, which must be intended as an opportunity value and not already as a cash gain deriving from reduction in budget through personnel cut. Such gain does not necessarily have to be monetised by releasing redundant personnel, but such personnel can actually be used to produce new and better services and thus lead to productivity gains: better and more output without increasing costs.

As stated, the calculation of this indicator requires a baseline of the full personnel costs of processing cases in paper form, so it requires an in depth knowledge of business processes. As clearly explained and recommended in eGEP Expenditure Study Report⁷, the robust calculation of such efficiency indicator requires the application of **Activity Based Costing** (Henceforth ABC). This would be a leading-edge choice for EU public administrations; our desk research shows that it is being adopted or recommended in countries such as the US⁸, Australia⁹, and Brazil (in the State of Sao Paulo¹⁰). ABC is relevant to measuring impact of ICT enabled public services as it will enable a more precise and robust calculation of the cost of a process when is ICT enabled compared to a traditional process. This will enable the definition of a clear baseline against which the calculation of increased efficiency in the following years will be almost automatic. All the processes, in fact will be mapped, and all activities will be assigned a baseline cost, thus the calculation of efficiency indicators in the following years will only have to input the differential data. Moreover, at the end of the zero measurement, agencies will be left with a new management expertise and capacity that will help them not only in measuring the indicators but also in analysing the overall effectiveness and efficiency of their organisational processes and take corrective actions if needed.

A less sophisticated alternative to the Full Time Equivalent Gain indicator is the "Transaction Cost Saving" indicator. The example for a more precise calculation of this indicator is given in exhibit 4. The difference between the offline and online overall costs of transactions, if

⁷ See eGovernment Economics Project (eGEP), Expenditure Study Final Version, 2006 (http://217.59.60.50/eGEP/Static/Contents/final/D.1.3Expenditure_Study_final_version.pdf), pp. 23-26.

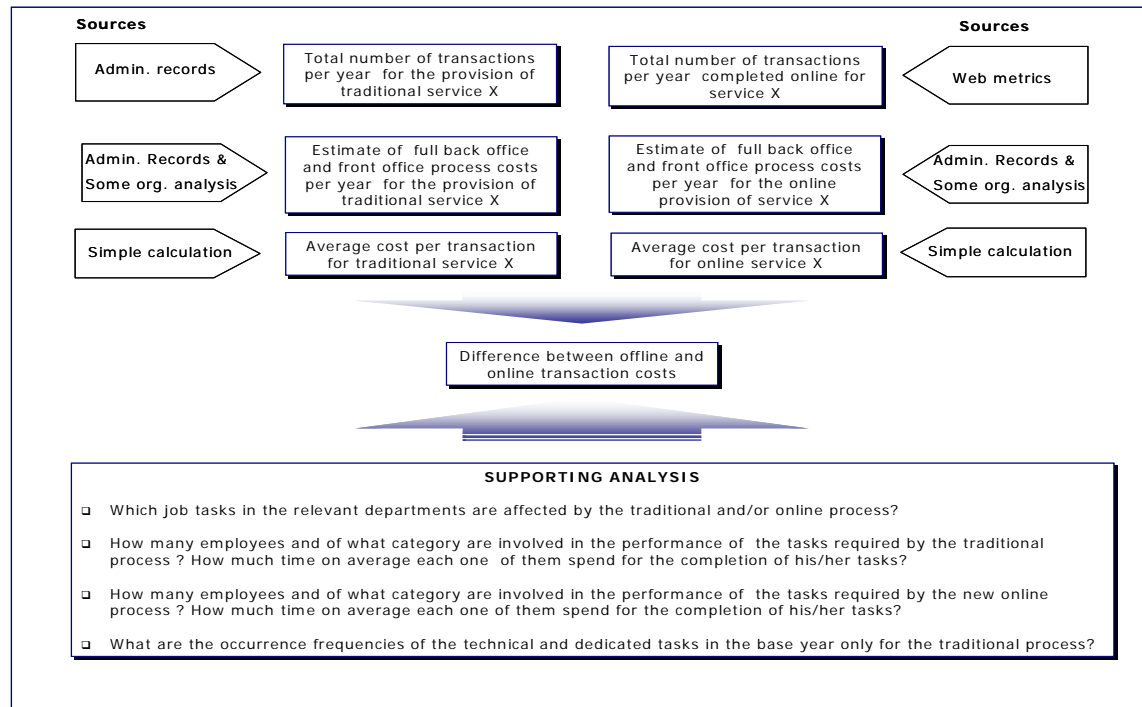
⁸ ABC is, for instance, the required cost monitoring methodology recommended by the US State of Tennessee in its dedicated eGovernment portal <http://www.state.tn.us/guidelines/pg.html>. This is not surprising since the OBM Circular A-76, cited earlier, explicitly proposes the concept of Most Efficient Organisation as an agency which, among other things, uses ABC (Executive Office Of The President Office Of Man-agement And Budget Washington, DC 20503 May 29, 2003 Circular No. A-76 (Re-vised) (<http://www.sba.gov/a76/circular.pdf>), accessed January 2006), p. B-10.

⁹ Australian National Audit Office (ANOVA), Measuring the Efficiency and Effectiveness of E-Government, Audit Report No.26 2004-05 (<http://www.anao.gov.au/WebSite.nsf/Publications/2C3CDF64278872A9CA256FA2007F445E>), Chapter 3.).

¹⁰ Crescia E., Measuring e-gov Impact: The experience of São Paulo, Brazil, February 2006, available at <http://web.worldbank.org/wbsite/external/topics/extinformationandcommunicationandtechnologies/extedevelopment/0,,contentmdk:20797310~menuupk:828158~pagepk:64020865~pipk:51164185~thesitepk:559460,00.html>

positive, gives the monetary value of the efficiency gains in terms of "Full Time Equivalent of Staff". This still requires data on processes and personnel costs (matched by web metrics) but to a lesser degree of sophistication than in the ABC case.

Exhibit 4 Calculating Transaction Cost Savings



Source: eGEP Measurement Framework Compendium, *op. cit*, p. 31

A possible shortcut to calculate the transaction cost savings from channel shift is to choose one of the benchmarks available internationally and reported in the table below.

Table 1 Benchmarks of Transaction costs savings from channel shift

Channel shift cost savings	Cost saving	Channel comparison
Canadian Government data	€ 28,6	Face-to-face to web
Tameside MBC (2004/05)	€ 20,9	Face-to-face to web
Tameside MBC (2004/05)	€ 1,7	Telephone to web
Giga (market research)	€ 7,3	Telephone to web
Forrester (market research)	€ 24,3	Telephone to web
McKinsey (market research)	€ 5,6	Telephone to web
Average channel shift cost savings	€ 24,8	Face-to-face to web
Average channel shift cost savings	€ 9,7	Telephone to web

Source: Publicly available evidence (web search)

Using one of this benchmarks in combination with web metrics data on the number of transactions completed online, one could produce a first proxy of the overall potential Full Time Equivalent gains achieved. To increase its robustness, one would also have to control

that transactions using other channels have decreased. This is a much more feasible approach but naturally not as accurate as the one illustrated earlier.

The second indicator "Increase in case handled per processing full time equivalent" is truly an indicator of productivity that can be simply given a volume measurement. This is, actually, a combined efficiency-effectiveness impact as it implies faster processing times and more or better services, and thus should result in reduced waiting times and better delivery for the citizens and businesses. The calculation of this indicator can be done only with the detailed data that can be provided by the application of the ABC method.

► **Increased revenues.** Improved efficiency through a faster and cheaper analysis of citizens' and firms' data can bring up a part of the submerged economy, fight tax evasion and generate new tax revenues. This is exactly what happened in Italy, although with a lag time of 4-5 years, since when the digitalization of services and processes became fully operational in 2001: for the first time in years, the revenue collection for 2006 have substantially increased. The relevant indicator from the eGEP framework is:

- "K€ increase in revenue collected from enlarged coverage"

The data for this indicator should be easy to recover from internal administrative records, but given the time lag it is difficult to apply such indicator in a short one-shot benchlearning exercise, as a longitudinal analysis of data would be necessary to identify the increase in revenues and correctly attribute it only to the digitalisation of processes. Moreover, such gain occurs not simply if tax services are offered online but also if ICTs are pervasively used in the back-office and for data mining purposes. As a summary of the discussion the table below presents the indicators of monetisable efficiency relevant for the measurement of impacts of online tax services.

Table 2 Indicators for monetisable efficiency

Type of gain	Indicator (s)
Cost avoidance	K€ saved in overhead costs (print, paper, mailing, travel, rental)
Increased productivity	- K€ value of full time equivalent gains; - Increase in case handled per processing full time equivalent
Increased revenues	K€ increase in revenue collected from enlarged coverage

In concluding this section on efficiency two contrasting considerations can be made. On the one hand, the indicators of efficiency discussed above are included, in some form or another, in all major national and international eGovernment measurement methodologies adopted from 2002 onwards in Europe, USA, Canada, Australia. On the other hand, reliable and steady calculated results are still scant. More so for the European context (with the exclusion of the UK case) and less for Australia, the US and, as seen, increasingly Brazil, where more

sophisticated techniques area being applied. The reasons for this lag are two. First, the process of data gathering and indicators construction, especially the first time when the zero-measurement is produced, can be fairly challenging. Second, results of such measurement might be politically sensitive to communicate externally, as well as internally. This is linked to the fact that the actual realisation of such gain is often thought as automatically leading to personnel cuts, which in some countries is not possible without introducing reforms to the public sector labour market regulation. While the second reason is difficult to impact, benchlearning projects can start impacting the first, even when they produce proxy indicators.

2.3. eGEP: relevant effectiveness indicators and related metrics

► **Reduction of administrative burden (AB).** The traditional definition of AB for businesses and citizens is as follows: Administrative burdens are the costs to the businesses and individuals of complying with the information obligations resulting from Government-imposed legislation and regulations. It includes both compliance with obligations and the exercise of rights and the application for public services

This area of impact, in general and not specifically on ICT enabled public services, is one where a lot of advancement has been made in terms of measurement, especially for what concern reduction of burden for businesses. On the wake of an initiative launched by the OECD, a community network working on the measurement and reduction of the administrative burden for businesses has emerged¹¹ and various publications have been released. Among these we can cite the international manual on the use of the Standard Cost Model to measure and reduce the administrative burden¹².

Also the European Union has been pointing out the importance to reduce the administrative burden. One of the most recent initiatives of the European Commission, the Communication on a strategy for the simplification of regulatory environment¹³, sets the strategy for administrative simplification at the EU level, demanding to Member States to implement the identified initiatives in the various fields within their territories through National Reform Programmes (NRP). As a direct follow-up of this Communication, the First progress report on its implementation¹⁴ inserts, among the national initiatives included, administrative costs reduction and adoption of eGovernment and ICT solutions.

¹¹ <http://www.administrative-burdens.com/>

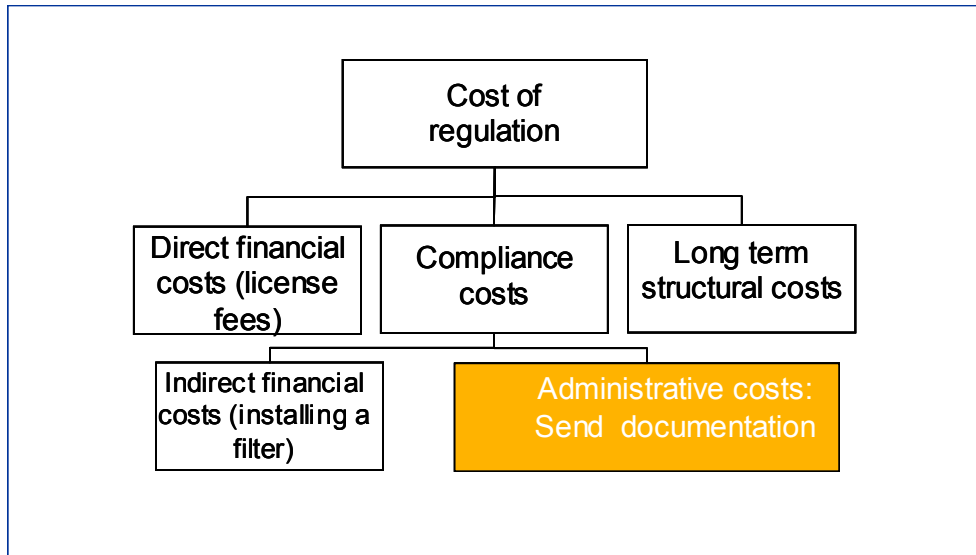
¹² Standard Cost Model Network, *International Standard Cost Model Manual: Measuring and Reducing Administrative Burden for Businesses* (<http://www.oecd.org/dataoecd/32/54/34227698.pdf>)

¹³ COM/2005/0535 final

¹⁴ European Commission, *First Progress Report on the strategy for the simplification of the regulatory environment*, Brussels, November 2006, available at http://ec.europa.eu/enterprise/regulation/better_regulation/docs/en_690.pdf, (accessed December 2006)

Exhibit 3 overleaf clearly explains what the administrative burden is and how it differs from other components of burden imposed by government through regulation.

Exhibit 5 Defining Administrative Burden



As anticipated, the most widespread method to measure administrative burden and its reduction is the Standard Cost Model. Businesses and individuals are confronted with numerous rules and regulations imposed by the Government (central Government, joint-Governments, regulatory company bodies). Complying with these rules and regulations usually involves costs, which can be divided into various different categories or cost drivers (reporting, labelling, research, planning, maintaining). **The Standard Cost Model is a quantitative methodology that can be applied in all countries.** It was developed and implemented in the Netherlands, Denmark, Norway and Sweden and was compiled by an international working group on administrative burdens consisting of Denmark, Sweden, Norway, Belgium, the UK and the Netherlands. The Netherlands is a forerunner in Europe in terms of the quantitative measurement and monitoring of the development of administrative burdens. The methodology to quantify administrative burdens that was developed - the so-called standard cost model (SCM) - identified the demands in legislation and puts a price tag on these demands consisting of time and money spent to fulfil the requirements, as shown below

$$AB = T * Q * F * P$$

Where:

T= time spent on information obligations;

Q= number of citizens / businesses;

F = yearly frequency of complying with information obligations

P = Tariff per hour (straightforward for businesses, more difficult for citizens)

To quantify the administrative burden, also known as 'red tape effect', the time normally spent on fulfilling an individual information requirement is valued at the going labour costs rates (tariff). This shows how much the individual information requirement costs ($P = \text{time} \times \text{tariff}$). By multiplying the price with the frequency of the information obligation (e.g. monthly, annually) and the amount of company's involved (Q) the total burden is calculated. Within this methodology the administrative costs are identified at a detailed level of individual information demands and their price. As already anticipated in the introduction, in 2005 the Legislative Burden Department of the Dutch Ministry of Finance analysed that the top 100 obligations with the most severe administrative burden in the Netherlands amount up to €17.7 billion, or 3.7% of GDP.

The SCM, however, is a method to measure and reduce the AB in general and does not single out the effect of ICT supported work and delivery per se. We know, however, that administrative simplification is increasingly driven by ICT, both in the internal production and in the external delivery of services. Simplified forms (with less data fields), not asking the same information twice, pre-populated e-forms, e-dossier, one stop shop portals for businesses, these are all ICT enabled applications that can substantially reduce the AB, even without changing regulation. In this respect, the Netherlands are again a forerunner, since at the end of 2005 the Dutch Ministry of the Interior introduced a new method to measure AB that has the potential to identify the impact of ICT per se. This method is "the multiple use of information monitor" (henceforth simply Monitor)¹⁵. Monitor's primary goal is to assess the reduction in the amount of information requested by government organisations from citizens and businesses. It measures the information demand of the public sector, and how this has changed over time. It also reveals to what extent the deployment of ICT helps to reduce the administrative burden and improves services to citizens and businesses. One important advantage of this methodology is its practical nature, as its focus is on government services requested or completed (transaction) by means of a form. By taking the information requested on the forms as a starting point (baseline), this method does not constitute a relevant additional burden for the government organisations assessed. In fact, it is enough that they provide evaluators access to the online forms and then they can evaluate the amount of information requested and whether is less than in the case of paper based services and over time. This also makes it easier to apply in international comparisons and eventually in benchmarking. Concretely the method categorises and counts data fields on forms.

¹⁵ Dutch Ministry of Interior and Kingdom Relations (2006). *MONITOR. Multiple Use of Information*, document obtained from John Koostra of the Dutch Ministry of Interior and Kingdom Relations. This methodology was also presented by Mr. Keuzenkamp of the Dutch Ministry of Interior and Kingdom Relations at eGEP final conference (Vienna 8 February 2006). The quite synthetic and very clear report illustrating in English the principle and practical implementation of this methodology can be downloaded at <http://www.minbzk.nl/contents/pages/65347/monitor.pdf>.

Currently Cristiano Codagnone, in collaboration with Capgemini, is developing an enhanced version of this method, which is only at its piloting stage. This enhanced method would measure the time needed to fill in the form. The formula would then be for a specific service delivery process:

$$[\text{nr of data-fields}^{16} \text{ an applicant must fill in}] * [\text{the frequency of the interaction}] * [\text{a standard cost per time unit}].$$

The important difference with the SCM is that the outcome of the measurement will not be measured for all costs drivers but only for the information requirement. Moreover, an important advantage is that when applied to a well defined service or set of services, the effort needed will be limited and the outcome could be comparable even at an EU25 level. Finally, whereas the SCM needs external data gathering by way's of interviews, surveys, focus groups, the enhanced re-use of information method can produce measurement indicators with only little efforts on the side of the public agencies participating to a benchlearning pilot and eventually, through the lessons learnt from such pilot, a measurement could be entirely be produced without any efforts on the side of the public agencies.

All the discussion above must be integrated by a major caveat: whereas it is easy to give a monetary value to the time saved by business (using an average tariff per hour of the cost of personnel), the same does not apply to citizens, as the monetary value of their time is more difficult to be given a monetary value.

For administrative burden reduction the eGEP relevant indicators are:

- **Amount of time saved by citizens**
- **Value of material costs saved by citizen (transportation, mailing, paying professional intermediaries)**
- **K€ value of time saved to businesses**
- **Value of material costs saved by businesses (transportation, mailing, paying professional intermediaries)**

The calculation of the indicators focussing on time, requires the comparative application of the Standard Cost Model method first to calculate the time (valorised for businesses) needed to comply (in our case to file taxes) using the traditional delivery and then to calculate the time (valorised for businesses) using the online delivery. The difference between these two calculations is the net impact in terms of reduction of administrative burden.

Data for such methodology come from three sources: a) knowledge of administrative procedures to quantify the frequency of the obligation; b) statistics and consolidated benchmark for the valorisation of time; c) interviews with citizens and businesses to have a

¹⁶ Per category: for example Basic fields applying to all applicants, Situational field, Compulsory field, Non compulsory field on the form(s).

direct estimate of the time required, or in alternative d) simulation by the evaluators to calculate the time.

When considering time savings, one has to distinguish between two kinds. The first is strictly related to the time of filling in the form. The second is related to the time needed to go to a tax office and present the form. In respect to the first kind of time saving, the methodology currently under development by Codagnone and based on the verification of amount of data requested in online forms, is a possibility for using source (d) in alternative to direct interviews. Evidently, however, the results can be very large or null, depending on how the digitalisation has been produced. In the extreme case of success if online forms are pre-populated by the public administration and users have only to change a few field or simply validate and send them, the impact is maximum as the time required to users is almost zero. If online delivery amounted simply to the digitalisation of paper forms, the time saving in actually filling the forms will be almost non existent, and the real saving will only amount to the fact that users do not need to go to local tax offices.

Material costs saving (for transportation, mailing, paying a professional intermediary) can be gained again either through interviews or thorough evaluators simulation and/or estimation. Evidently the cost of paying professional intermediaries is saved in as much as the digitalisation of tax services have also entailed a simplification. Otherwise users will still have to pay advisors to understand what to fill in and then return online the tax forms.

So in general the results of this indicator can vary greatly depending on the business model adopted for the delivery of online tax services in the various countries.

► **Users satisfaction.** There are two dimensions of user satisfaction contemplated in the eGEP model, one is deemed "unobservable and subjective" the other "observable and objective".

The first is the user satisfaction that is explored through users surveys, asking citizens and/or businesses if they are satisfied with a particular service. It is subjective in as much as respondents provide answers not just after using the services and such answers may often reflect either expectations or prejudices, and not necessarily a fair assessment of the service. While this method is quite widespread, the eGEP study has illustrated the limits of this approach¹⁷. Such limits have actually led to the proposal of applying the Mystery User Methodology for the Greek case.

Apart from such methodological limits, the users' satisfaction survey source is not applicable to a short-time benchlearning exercise for simple practical reason. The three institutions involved in the benchlearning may each have their own survey data (but we know that this is

¹⁷ See eGEP, Measurement Framework Compendium, *op. cit.*, pp. 35-43

not the case for the Greek Tax Agency¹⁸), but the data of these surveys would not be comparable, as they would be based on different methodologies and questions. On the other hand, conducting a common survey for the three cases would require more time and resources than those available for this project.

In practice there are two ways to measure the quality, and consequently the satisfaction users may derive from services:

1. Directly asking users through a survey of the general public (subjective);
2. Indirectly evaluating the quality of the outcomes of the services assuming that this will increase satisfaction (objective).

In the case of administratively enforced transactional services, from which users cannot gain benefits, other than simply comply and forget about it, the most evident and objective quality outcome is the reduction in waiting times to receive the final clearance that they have successfully complied with the obligation. Accordingly, the indicator from those proposed by eGEP that is more relevant for tax services can take two forms that are variation around the same issue:

- **Reduction in the time needed to receive tax clearance;**
- **Reduction in the time needed to receive tax refunds (when applicable)**

. As a summary of the discussion the table below presents the indicators of monetisable efficiency relevant for the measurement of impacts of online tax services.

Table 3 Indicators for effectiveness

Type of gain	Indicator(s)
Reduction of Administrative burden	<ul style="list-style-type: none"> - Amount of time saved by citizens - Value of material costs saved by citizen - K€ value of time saved to businesses - Value of material costs saved by businesses
Users satisfaction	<ul style="list-style-type: none"> - Reduction in the time needed to receive tax clearance; - Reduction in the time needed to receive tax refunds

The data for these indicators should be readily available from internal administrative records. Besides this indicator, there are other possible ways to indirectly measure quality and satisfaction that we discuss below, although they will not be applied to our benchlearning study as they require sophisticated web analytics software that are not in use at GSIS. We discuss them as possibility for future use and as producing data that should be included in the general system of Key Performance Indicators discussed in par. 1.4.

These alternative ways are based on the increasingly and sophisticated use of metrics taken from web analytics, as an indirect measure of users satisfaction, on the basis of the

¹⁸ General Secretariat for Information Systems (GSIS)

assumption that repeated usage and especially cross-usage (equivalent of cross-selling in a market context), namely users that after using service X come back and use service Y, indicate the equivalent of what in a market context is considered the customer loyalty and fidelisation springing from the quality of the services provided. Indeed, web tracking methodologies can provide very rich data on traffic patterns, users' behaviour, and site performance by using so called "clickstream" (data left by web users), visitor log files, and server data. A combined use of such data can produce the following kinds of individual-level data:

- Number of visitors that see a particular page
- Number of users during off-hours (Saturday, Sunday, or after 8 p.m. as this show that the 24/7 availability provide convenience of use)
- Percent of visitors who click on a particular link
- Where visitors click next
- Time required to load pages (slow page delivery)
- Number of repeat visitors
- Number of unique visitors
- Average time spent on any one page
- Exit rate, or how fast users move off site

Using such approach, it is possible to measure impacts in terms of satisfaction and citizen centricity in a fairly manageable, feasible and comparable way. The eGEP indicators covering this new area are:

- **Increase in number of unique users repeatedly using online services**
- **Increase in number of unique users cross-using services**
- **In off-hours service usage/info downloads**
- **Improvement in technical performances of online applications (page load time)**
- **Decrease in exit rates (number of users who start and then abandon a service)**

If a sophisticated web analytic software is used all this data are generated periodically, consistently and at no personnel cost, except that of summarising and elaborating such data.

2.4. General KPI system for tax online provision

A Key Performance Indicator (KPI) tableau du bord for the provision of online delivery of tax services is something different from an Impact Measurement System, in the sense that it

includes also indicators of performance that are not in themselves an impact, such as, for instance, supply side and take up parameters.

In this paragraph, in light of the discussion above and of the results of deliverable D.4 (desk research report on tax online service in EU25), we present what we consider a list of KPIs that should be used for online tax delivery. This list is prescriptive, in the sense of 'what should be', regardless of what is available and feasible. In this sense it is worth stressing that this KPIs list is not related to the indicators that will be actually used for the benchlearning cases as these are selected in light of the availability of data from GSIS (see next section).

In structuring such list we have included some of the indicators above into the take-categories.

Supply side

1. Number of services available online
2. Services Score on the CapGemini Online sophistication index (1=information only; 2= download of forms; 3= two ways interaction; 4= transaction; 5= citizen centricity.)

Demand side / take up

3. Total number of citizens/ businesses submitting taxes online;
4. Number of unique users;
5. Number of registered users;
4. Number of users using more than one service;
5. Amount of usage during off-hours.

Comment. Indicator number 3 is the key one for the demand side, as an internal benchmark a tax agency should consider for the use of eGovernment services in general by the population. According to the last available data produced by the Observatory for the Greek Information Society, only 3% of citizens in the relevant age group used eGovernment transactional services in 2006¹⁹. Given the importance of tax services, take up of tax online services should be at least 3% of the relevant population group (15-64). From the data we have on individual tax forms (E1), for instance, take up was 5.6% in 2006 (399.000 forms submitted online divided by the population in age group 15-64). Considering that total Internet penetration in Greece in 2006 was 26.5%, according to the data provided by the Greek Observatory, the relative take up ratio of tax online services among Internet users is 21.1% (5.6% divided by 26.5%). This normalised figure can be used for international comparison. In Italy, for instance, 2 million users directly submit tax forms online, which amount also to 5% of the relevant population (15-64), but because the Internet penetration

¹⁹ The annual measurement of the eEurope and i2010 indicators conducted by the Observatory for the Greek Information Society, p. 3

is higher than in Greece (35%), the relative take up ratio of tax online services is only about 14%. On the other hand, a consideration hinting at the difficulty of comparison, this figure cannot be taken as the real comparison, because in the Italian model a lot of forms are submitted online by intermediaries on behalf of citizens.

Technical/Usability performance

6. Page load times;
7. Decrease in exit rates (number of users who start and then abandon a service);
8. Overall usability score (to be assessed through usability tests);

Efficiency Impact

9. K€ saved in overhead costs (print, paper, mailing, travel, rental, electricity, etc);
10. K€ value of full time equivalent gains;
11. Increase in case handled per processing full time equivalent;
12. K€ increase in revenue collected from enlarged coverage.

Effectiveness Impact

13. Amount of data fields requested to fill in for online forms;
14. Number of online services for which pre-populated forms are available;
15. Amount of time saved by citizens;
16. Value of material costs saved by citizen (transportation, mailing, paying professional intermediaries);
17. K€ value of time saved to businesses;
18. Value of material costs saved by businesses (transportation, mailing, paying professional intermediaries);
19. Reduction in the time needed to receive tax clearance;
20. Reduction in the time needed to receive tax refunds (when applicable).

Comment. Indicator 13 and 14 are instrumental for indicators 15 and 17.

In next page table 4 presents a synoptic summary of the above KPIs

Table 4 Complete list of KPIs for tax online service

Dimensions	Indicator (s)
Supply side	1. Number of services available online 2. Services Score on the CapGemini Online sophistication index
Demand side (take up)	3. Total number of citizens/ businesses submitting taxes online 4. Number of unique users 5. Number of registered users 4. Number of users using more than one service 5. Amount of usage during off-hours
Technical performance	6. Page load times 7. Decrease in exit rates (number of users who start and then abandon a service) 8. Overall usability score (to be assessed through usability tests)
Efficiency impacts	9. K€ saved in overhead costs (print, paper, mailing, travel, rental, electricity, etc) 10. K€ value of full time equivalent gains 11. Increase in case handled per processing full time equivalent 12. K€ increase in revenue collected from enlarged coverage.
Effectiveness impacts	13. Amount of data fields requested to fill in for online forms 14. Number of online services for which pre-populated forms are available 15. Amount of time saved by citizens 16. Value of material costs saved by citizen (transportation, mailing, paying professional intermediaries) 17. K€ value of time saved to businesses 18. Value of material costs saved by businesses (transportation, mailing, paying professional intermediaries) 19. Reduction in the time needed to receive tax clearance 20. Reduction in the time needed to receive tax refunds (when applicable)

3. Indicators selected for Benchlearning cases

3.1. Key findings from D.1

The findings of D.1 provide the framework of feasibility for the selection of the indicators to be considered in benchlearning.

First, consolidated historical data area available for individual tax form (E1) and VAT declarations, which are also internationally the two most used online tax services and, therefore, are selected as the focus of analysis for the calculation of the indicators.

Second, because of difficulties in finding the more detailed data needed to calculate the " Full Time Equivalent gain" indicator, for the efficiency value driver, a proxy indicator will be calculated (see infra).

Third, lack of data on the structure of costs will not allow calculating the efficiency indicator of saving in overhead costs. Same applies for indicator about increased revenues.

Fourth, and moving to the effectiveness value driver, data are available to consider reduction of waiting times for tax clearance.

Fifth, a proxy calculation of the reduction of administrative burden for citizens and business will be possible.

Sixth, since no data on users satisfaction surveys are available no indicator of subjective user satisfaction will be calculated in the benchlearning exercise. Naturally, only for the Greek case, insights on this topic will come out of the Mystery User Methodology implementation.

3.2. Selected Feasible Indicators

So, in light of the six facts above, given the data that GSIS is capable of pulling out, the following are the indicators that appear feasible to calculate and with a minimum of relevance and comparability values:

Efficiency Value Driver:

- Proxy estimate of Full Time Equivalent Gain in the form of: opportunity monetary value of the time saved for data entry by LTOs employees in the Greek case, and by the comparable equivalent for the two international cases.

Effectiveness Value Driver:

- Reduction of waiting times for citizens and businesses to receive tax clearance in the Greek case and for a comparable equivalent for the International cases;
- Time and other resources (transportation, mailing, paying intermediaries) saved by citizens and businesses through online submission (same for all cases), in short "Reduction of administrative burden".

3.3. Other issues to be explored for the international cases

For the Greek case and for the two international cases the data needed to calculate these three indicators will be gathered and the indicators calculated (see next section on the calculation).

In addition to this, for the two international cases information will be sought also on: a) background and various areas addressed in the D.1 for the Greek case; b) possibly information on other indicators already calculated within the two cases.

This is reflected in the differences of the data gathering templates for the international cases, which include an initial part on background, one on the existence of already running measurement system and on possible indicators already calculated, and one on the selected indicators for the bench-learning exercise.

4. Metrics and calculation for selected indicators

The metrics and calculation of the indicators should be already clear from the discussion in section 1, and below we provide simple operational guidelines.

4.1. Metrics and calculation for efficiency indicator

Table 5 Metrics and sources for efficiency indicator

Metric	Source
Time needed for data entry by employees when receiving forms in paper form	Extrapolation from interviews
Number of forms received online each year	Web metrics
Average per hour cost of employees involved in data entry	Internal administrative record

Calculation procedure:

1. Establish an average time needed for data entry;
2. Verify that it can be assumed that when forms are submitted online, data entry time = zero;
3. Multiply average data entry time by the numbers of forms submitted online = time saved by employees (if possible year by year);
4. Calculate the average per hour cost of employees involved in data entry;
5. Multiply the time saved (calculated in step 3) by the average established in step 4= opportunity monetary value of the data entry time saved by employees.

4.2. Metrics and calculation for reduction of administrative burden

Table 6 Metrics and sources for reduction of administrative burden for citizens

Metric	Source
Time needed for filling paper based forms=T	Interviews or Simulation/Estimation by Evaluators (IS/EE)
Time needed for hand delivery of the forms (if required)=TH	IS/EE
Cost of transportation= TC	IS/EE
Cost of postage= PC	IS/EE
Cost of professional intermediaries=PIC	IS/EE
Frequency of obligation (how many time a year)= F	Regulation
Time needed for filling online forms=TO	IS/EE

Calculation Procedure for citizens:

1. Apply adapted version of standard cost model and calculate Amount of Time Saved to Citizens, $ATSC = (T * F + TH * F) - TO * F$. For the citizens this cannot be given a monetary value and remains expressed in volume.
2. Calculate as follows Material Costs Saved to Citizens, $MCSC = TC * F + PC * F + PIC * F$; this is the value of the indicator, assuming online submission brings to zero all these costs.

Table 7 Metrics and sources for reduction of administrative burden for business

Metric	Source
Time needed for filling paper based forms=T	Interviews or Simulation/Estimation by Evaluators (IS/EE)
Time needed for hand delivery the forms (if required)=TH	IS/EE
Average hour cost of personnel = P	Business Statistics/ benchmarks
Cost of transportation= TC	IS/EE
Cost of postage= PC	IS/EE
Cost of professional intermediaries=PIC	IS/EE
Frequency of obligation (how many time a year)= F	Regulation
Time needed for filling online forms=TO	IS/EE

Calculation Procedure for citizens:

1. Apply standard cost model and calculate Monetary Value of Time Saved to Businesses, $MVTSB = (T * F * P + TH * F * P) - TO * F * P$
2. Calculate as follows Material Costs Saved to Businesses, $MCSB = TC * F + PC * F + PIC * F$.
3. Add MVTSB to MCSB and obtain aggregate value of the indicator.

4.3. Metrics and calculation for reduction of waiting time

As anticipated, the data for these indicators should be readily available from internal administrative records. It would suffice to randomly extract from the archives a number of files (for the same type of service) handled in the traditional modality and an equal number handled online and then very simply proceed following these steps:

1. For each paper based file, identify when the user sent all required forms and when the file was closed (with the sending of tax clearance or the paying of a tax refund)= number of days the users waited for clearance or refund;
2. Repeat this for each of the other paper based files included in the sample and thus calculate = Traditional Delivery Average Waiting Time (TDAWT);
3. Repeat step I for the files based on online submission by users;
4. Repeat step II for the files based on online submission by users leading to the calculation of Online Delivery Average Waiting Time (ODAWT);
5. TDAWT- ODAWT= value of the indicator.

Annex I: Full list of eGEP indicators

Table A.1 Legend of Indicators Data Sources Acronyms

Acronym	Full Description of Source
OS	Official Statistics
ADRE ²⁰	Administrative Records Data, for instance: <ul style="list-style-type: none"> <input type="checkbox"/> Personnel costs; <input type="checkbox"/> Material costs; <input type="checkbox"/> Volumes of outputs (files, cases, transaction processed); <input type="checkbox"/> Description of standard procedures and business processes and of corresponding working times; <input type="checkbox"/> Other
SCMC ²¹	Standard Cost Model Calculations
ISA ²²	Internal Self-Assessment based on qualitative Scale
RSS ²³	Random sample survey for users' Satisfaction and usage Data and index construction ²⁴
ESUR	Employees Surveys
POPS ²⁵	Pop-up Surveys.
TPA ²⁶ .	Third Party Assessment
WCR	Automatic Web Crawler Software
WMET ²⁷ .	Web Metrics Data: <ul style="list-style-type: none"> <input type="checkbox"/> Number of hits or user contact sessions; <input type="checkbox"/> Number of document downloads; <input type="checkbox"/> Amount of time users spend on a site; <input type="checkbox"/> Number of transactions completed; <input type="checkbox"/> Web analytics (click streams, repeat use, cross-usage)

²⁰ On how to use this data for the calculation of efficiency indicators See *Measurement Framework Compendium*, pp. 30-32 (exhibits 6 and 7).

²¹ See *Measurement Framework Compendium*, pp. 32-33.

²² See example in *Measurement Framework Compendium*, pp. 33-35 (exhibit 8).

²³ This topic is discussed in full details in the *Measurement Framework Compendium* (paragraph 3.2).

²⁴ For a concrete example see *Measurement Framework Compendium* (pp. 39-40 and Exhibit 10).

²⁵ See *Measurement Framework Compendium* (pp. 37-38).

²⁶ See *Measurement Framework Compendium* (pp. 36-37 for the Accenture methodology and 42-44 for eGEP approach on the topic).

²⁷ See *Measurement Framework Compendium* (pp. 35-36).

Table A.2 eGEP Indicators Full Template, Sources, and Signposts Relevance

EFFICIENCY			
Impacts	Indicators	Source	Signposts
Cashable financial gains	1. Δ % case handled per processing full time equivalent	ADRE	2
	2. Δ % in average length of time to process a standard case	ADRE	2
	3. Δ % K€ full time equivalent gains	ADRE	2
	4. Δ % K€ in overhead costs (postage, paper, print)	ADRE	2
	5. Δ % K€ dematerialisation savings from e-procurement	ADRE	2 / 3
	6. Δ % K€ in maintenance costs	ADRE	2
	7. Δ % of overall business as usual budget	ADRE	2
	8. Δ % e-tendering as a % of total transactions	ADRE/WMET	2 / 3
	9. Δ % economy of scale gains	ADRE	2
	10. Δ % in revenue gains from improved coverage	ADRE	2
Better empowered employee	11. Δ % in number of employees re-trained	ADRE	2 / 1
	12. Δ % public servants eGov/ICT skills	ISA/ESUR	2
	13. Δ % in number of employees tele-working	ADRE	2
	14. Δ % job flexibility score	ISA	2
	15. Δ % in improved job content score	ISA	2
	16. Δ % in employees' satisfaction score	ISA	2
	17. Δ % in overall job attractiveness score	ISA	2
	18. Δ % in overall job empowerment score	ISA	2
Better organisational and IT architectures	19. Δ % in number of transactions performed online	WMET	2
	20. Δ % in revenue collection cycle length	ADRE	2
	21. Δ % in number of internal protocols needed for cross-agencies services	ADRE	2
	22. Δ % in number of personnel redeployed to front line activities	ADRE	2
	23. Δ % in number of IT enabled face-to-face contact points	ADRE	2 / 1
	24. Δ % in ratio of professional to general service staff	ADRE	2
	25. Δ % in number of re-designed business processes	ADRE	2
	26. Δ % in number of integrated services available in main Government Portal	ADRE/TPA	2 / 3
	27. Δ % in improved organisation score	ISA	2
	28. Δ % in improved inter-operability score	ISA	2
	29. Δ % in activity standardisation score	ISA	2
	30. Δ % in improved planning and policy-making score	ISA	2
	31. Δ % in IT infrastructure coherence score	ISA	2
	32. Δ % of public agencies with integrated IT financial and resource planning.	ADRE	2
	33. Δ % in improved internal management score	ISA	2
	34. Δ % in improved internal communication score	ISA	2
	35. Δ % in volume of authenticated documents exchanged with other national public agencies	ADRE/WMET	2 / 4
	36. Δ % in volume of authenticated documents exchanged with public agencies across EU	ADRE/WMET	2 / 4
	37. Δ % in the number digital knowledge sharing platforms for public agencies	ADRE/TPA	2 / 3
	38. Δ % in the number of Public Private Partnership supported by a digital platform	ADRE/TPA	2 / 3
	39. Δ % in the volume of document exchanged digitally within PPP	ADRE/WMET	2 / 3
	40. Δ % in overall in inter-institutional cooperation score	ISA	2 / 4
DEMOCRACY			
Impacts	Indicators	Source	Signposts
Openness	41. Δ % in number of policy drafts online for consultation	TPA	5
	42. Δ % increase in number of government website with Constituency Relationship Management Applications	TPA	5
	43. Δ % in response time to queries received online	ADRE/TPA	5
	44. Δ % increase in number of government website providing platform for digital interaction and consultation (online forum, e-petitioning, etc)	TPA	5
	45. Δ % in number of government website providing in two-ways interaction with users	ADRE/WMET	5
	46. Δ % change in aggregate openness score	TPA	5
Transparency and accountability	47. Δ % in number of government processes fully traceable online	TPA	2
	48. Δ % in number of transactional services enabling online case tracking	TPA	2
	49. Δ % in number of public agencies reporting their budget and expenditure online	TPA	2

Continued

Continued

Transparency and accountability	50. Δ % in number of public agencies publishing online full organisational chart with indication of responsibility and contact information of each public servant	TPA/WCR	2	
	51. Δ % in overall volume of administrative and legislative documentation online	TPA/WCR	2	
	52. Δ % in online public information clarity and accuracy score	TPA	2	
	53. % Δ in externally assessed transparency score	TPA	2	
Participation	54. % Δ in online public services with certified accessibility	WCR	5	
	55. % Δ in externally assessed participation score	TPA	5	
	56. % increase in queries submitted online	WMET	5	
	57. % increase in online forum interaction	WMET	5	
	58. % increase in policy drafts downloaded	WMET	5	
	59. Availability of online appeals procedure and e-ombudsman	TPA	5	
EFFECTIVENESS				
Impacts	Indicators	Source	Sign-posts	
Reduced administrative burden	60. Δ % in time saved for citizens	SCMC	2	
	61. Δ % in valorised (K€) time saved for businesses	SCMC	2	
	62. Δ % K€ cost savings for citizens (travel, postage, fees to intermediaries)	SCMC	2	
	63. Δ % K€ cost savings for businesses (travel, postage fees to intermediaries)	SCMC	2	
	64. Δ % users reporting e-service saved time over traditional methods for a standard bundle of services	POPS	2	
	<i>Observable (objective) Tangible dimension</i>			
Increased Users' Value and Satisfaction	65. Δ % in number of officially filed complaints	ADRE	2	
	66. Δ % in waiting times for a standard bundle of services	POPS	2	
	67. Δ % in off-hours service usage/info downloads	WMET/POPS	2	
	68. Δ % in number of unique users repeatedly using elective online services	WMET		
	69. Δ % in number of unique users cross-using services in Government Portal	WMET	2	
		<i>Unobservable (subjective) Intangible dimension</i>		
	70. Δ % in number of users reporting eGovernment services to be useful	RSS	2	
	71. Δ % in number of users reporting information available in government website to be accurate and credible	RSS	2	
	72. Δ % in number of users reporting government website to satisfactorily address security and privacy issue	RSS	2	
	73. Δ % in number of users reporting they trust providing personal information online	RSS	2	
	74. Δ % in overall eGovernment users' satisfaction index	RSS	2	
	75. Δ % in overall eGovernment users' satisfaction index by age/income/educational attainment	RSS		
		<i>Externally Measurable Functional dimension</i>		
	76. Δ % in number of government websites providing customer service (online/ call centre)	TPA	2	
	77. % increase in usage of transactional Pan-European eServices (*)	TPA	2 / 4	
78. Δ % in usability score	TPA	2		
79. Δ % in seamless service provision score	TPA	2		
80. Δ % in innovative service provision score	TPA	2		
81. Δ % in overall quality of service score	TPA	2		
	<i>Citizens</i>			
More Inclusive Public Services	82. Δ % in usage of public Job Portals	WMET	1	
	83. Δ % in usage of public eLearning Portals	WMET	1	
	84. Δ % in usage of public eHealth Portals	WMET	1	
	85. Δ % in usage of online forms to receive Welfare benefits	WMET	1	
	86. Δ % of Internet penetration by age/ income/ educational attainment	RSS	1	
	87. Δ % increase of eGovernment usage by socially disadvantaged groups	RSS	1	
	88. Δ % in inclusion related public e-services usage score	Elaborated from WMET	1	
		<i>Businesses</i>		
	89. Δ % in number of SME bidding for public tenders electronically	WMET	1	
	90. Δ % in usage of government portals for businesses	WMET	1	
	91. Δ % in number of SME handling export requirements online	WMET	1	
	92. Δ % in usage of government portal on funding opportunities	WMET	1	

Annex II: Data Gathering Template for International Cases

TEMPLATE FOR INTERNATIONAL CASES PART I: GENERAL BACKGROUND	
1. GENERAL INFORMATION BEFORE ONLINE SERVICES INTRODUCED	
1.1 Overall structure	<ul style="list-style-type: none"> • Identify the entity in charge of tax collection (autonomous agency or Directorate within Ministry); • Describe its basic structure (Central directorate and business units , number of local offices) • How many employees engaged in handling paper based file? • What was approximately the yearly total cost for handling taxes?
1.2 Activities and volumes	<ul style="list-style-type: none"> • What types of taxes were handle by the entity described above (i.e. individual income taxes; company taxes; VAT declarations, other type of taxes; other mandatory payments such as social insurance)? • How many: individual tax payers, companies, VAT payers, etc?; • Total amount of paper based files processed yearly? (i.e. Italian Tax agency processed 44 million document before online services introduced) • What was the yearly total amount (in Euro) of revenues collected? • At any given year end what was the amount of backlog, meaning files that cannot be considered settled yet (because refund still to be paid or because of errors/litigation, or for other reasons)? • What was the amount Tax litigation cases pending at year end?
1.3 Time of tax online launching	<ul style="list-style-type: none"> • When was the provision of online tax services first started to be discussed? • When the work to make the first online service available was launched?
1.4 Players involved	<ul style="list-style-type: none"> • Which entity gave the main impulse? • Which entity has been involved in the implementation?

2. PREREQUISITES	
2.1 Legal-institutional framework	<ul style="list-style-type: none"> • Was new legislation needed to launch and implement the new online services? If yes, which law for which services to address which issue? • Were institutional change introduced (i.e. creation of new entities or transferring of function from one to another)?
2.2 Initial drivers and leadership	<ul style="list-style-type: none"> • Which were the key drivers leading to the decision to launch online tax services? • Which institutions/senior officials/politicians played a key leadership role in making online tax services be launched?
2.3 Existing data systems, technological assets, legacy problems	<ul style="list-style-type: none"> • What type of data systems existed when the first tax online services were launched? • Were they maintained as legacy and integrated with new application or abandoned altogether? • Have legacy issues represented a main problem?
3. INPUTS	
3.1 Strategic objectives	<ul style="list-style-type: none"> • Which was the strategic objective formally formulated in official documents for each of the online tax services? (are mission and vision statements documents available?) • Were these strategic objectives matched by specific quantitative and qualitative targets to be reached and measured?
3.2 Political support	<ul style="list-style-type: none"> • Were political support and stimula steady for tax online service provision? • Were there any difficult/controversial phases in the development of the services that required seeking new/reinforced support?
3.3 Capital investments and running costs	<ul style="list-style-type: none"> • Is it possible to have a total estimate of what can be considered as capital investments (that is different from yearly running and maintenance costs) for each of the online services that were made from the launch of implementation of each of service up to the moment when the service became fully operational? Please provide this estimate disaggregated into: a) hardware; b) software; c) telecommunication networks; d) Call centres/help line e) technological consulting; f) reorganisation and change management costs (using as proxy amount spend for management and organisational consulting; g) training cost; h) labour relations costs (compensations to dismissed employees, if any;

	<p>incentive to be paid for change of job tasks and/or re-qualification; costs of early retirement for redundant employees)</p> <ul style="list-style-type: none"> • Is it possible to have an estimate of the yearly running and maintenance costs for each tax online service, including: a) cost of employees involved in running and maintaining the online services; b) hardware maintenance costs; c) software licenses; d) other costs.
3.4 New Skills	<ul style="list-style-type: none"> • Were new human resources with specific skills hired for the launching of online tax services? • Was existing personnel ad hoc retrained during the initial phase of launching?
3.5 Technological solutions	<ul style="list-style-type: none"> • Which are the main technological solutions adopted that characterise the tax online services? (i.e. issues such as authentication, eID, inter-operability, document and workflow management, etc)
4. PROCESSES AND CHANGES (DURING IMPLEMENTATION PHASE AND BEYOND)	
4.1 Re-organisation and/or change management	<ul style="list-style-type: none"> • During the implementation phase and afterwards, when services became operational, was any major re-organisation undertaken (BPR and the like)? If yes please specify and describe. • During the implementation phase and afterwards, when services became operational was any change management initiative and internal communication campaign implemented? If yes please specify and describe
4.2 Training	<ul style="list-style-type: none"> • Especially after that the services became operational was any main programme of personnel training launched? • Is training steadily undertaken on an yearly basis
4.3 Technological developments	<ul style="list-style-type: none"> • Which were the major new technological developments and changes introduced after the services became operational? • Why were they needed?
4.4 Take up strategy/ communication campaign	<ul style="list-style-type: none"> • Was a strategy to raise awareness and help take up of serviced elaborated and implemented when services became operational? If yes which where the main levers? • Are periodic communication campaign and commercials run to increase take up? • Are usability test with users carried out periodically to improve the quality of online service delivery?

4.5 Barriers and key enabling factors	<p>Discuss with the interviewees, in an open and unstructured way without any structured questions, which have been/are in their opinion the key barriers/resistances/bottleneck encountered during the implementation and/or at work in the running of the services, and in the same fashion the key success factors</p>
5. MAIN CHARACTERISTICS AND PARAMETER OF ONLINE SERVICE DELIVERY	
5.1 Activities and volumes	<p>This partially repeat the questions contained in 1.1, to compare the overall situation before (1.1) and after (this cell) online tax services were introduced.</p> <ul style="list-style-type: none"> • As of the latest available data (probably 2006) how many: individual tax payers, companies, VAT payers, etc?; • As of the latest available data (probably 2006) which is the total amount of files processed yearly? What % is still paper based and what % goes through online services?(provide data disaggregated by type of tax and of corresponding online services) • As of the latest available data (probably 2006) which is the yearly total amount (in Euro) of revenues collected? • As of the latest available data (probably 2006) what was the amount of backlog, meaning files that cannot be considered settled yet (because refund still to be paid or because of errors/litigation, or for other reasons)? • As of the latest available data (probably 2006) what was the amount of Tax litigation cases pending at year end?
5.2 Online service offers	<p>List and briefly describe the complete set of services offered online</p>
5.3 Tax declarations/payment mandatory online	<ul style="list-style-type: none"> • Identify, if any, for which taxes the use of the online channel is mandatory, that is 100% of files is handled digitally
5.4 Information specific by each service (row to be repeated by X number of times, where X= number of online services offered by Taxisnet) 5.4.1 Service 1	<p>Provide for each service an overall description of its functioning model and a more detailed description and identify if any of the following applies:</p> <ul style="list-style-type: none"> • Authorisation to online services (PIN code distributed, eID solution, digital signature, ect) • Pre-filled tax return available • e-filing of tax returns, payments, refunds • Notification to users of receipt and of assessment • Possibility for taxpayers to constantly access their data (i.e. check their tax position • Push delivery of updated information (new rules and regulations, etc)

5.4.X Service X	<ul style="list-style-type: none"> • Other
5.5 Sophistication level of each service	<p>Summarising the information from 5.4.1 through 5.4.X assign to each service a score on the basis of the EU normative scale reported below:</p> <ul style="list-style-type: none"> • Stage 1- Information: online information about public services; • Stage 2 - Interaction: downloading of forms; • Stage 3 - Two-way interaction: processing of forms, including authentication; • Stage 4 - Transaction: case handling; decision and delivery (payment).services became operational? <p>Add also for each services information concerning the 5th level (citizen centricity/targetisation):</p> <ul style="list-style-type: none"> • Is personalisation available (service recognised registered user and store his/her profile) • Is multichannel delivery available (call centres, mobile, ect);
5.6 Usage by services	<p>Gather statistic on usage by service and please distinguish between:</p> <ul style="list-style-type: none"> ○ Usage of the online services by the final users (citizens/businesses) ○ Usage of the online services by intermediaries on behalf of final users (tax accountants or other professional intermediaries)

TEMPLATE FOR INTERNATIONAL CASES PART II: MEASUREMENT

6. Existing Measurement system

6.1 Is there a system in place to measure performances and impact/outcomes of service delivery	<ul style="list-style-type: none"> • Yes • No
6.2 If answer yes , provide description	<ul style="list-style-type: none"> • When was the system decided and why? • How was it implemented? • Which are the main organisational model and responsibilities behind its functioning
6.2 Key indicators and metrics	<ul style="list-style-type: none"> • Please illustrate and describe the key indicators and metrics used in the existing measurement system

7. IMPACT INDICATORS FOR COMPARISON WITH GREEK CASE

7.1 Efficiency indicator	<p>Gather data on the following metrics (for sources see section 3.1 of this document)</p> <ul style="list-style-type: none"> • Time needed for data entry by employees when receiving forms in paper form; • Number of forms received online each year ; • average per hour cost of employees involved in data entry
7.2 Effectiveness indicators: reduction of administrative burden for citizens	<p>Gather data on the following metrics (for sources see section 3.2 of this document)</p> <ul style="list-style-type: none"> • Time needed for filling paper based forms; • Time needed for hand delivery the forms (if required) • Cost of transportation • Cost of postage • Cost of professional intermediaries • Frequency of obligation • Time needed for filling online forms

<p>7.3 Effectiveness indicators: reduction of administrative burden for businesses</p>	<p>Gather data on the following metrics (for sources see section 3.2 of this document)</p> <ul style="list-style-type: none"> • Time needed for filling paper based forms; • Time needed for hand delivery the forms (if required) • Average hour cost of personnel • Cost of transportation • Cost of postage • Cost of professional intermediaries • Frequency of obligation • Time needed for filling online forms
<p>7.4 Effectiveness indicator: reduction of waiting times</p>	<p>Request the Tax agency to extract a random sample of files handled in paper form and an equal sample of files handled online and then calculate the reduction of waiting times following the procedure indicated in paragraph 3.3 of this document</p>
<p>8. OTHER INDICATORS</p>	
<p>8.1 Efficiency/Effectiveness</p>	<p>Any other indicator of efficiency/effectiveness for which data is available should be included. In particular it would be interesting if:</p> <ul style="list-style-type: none"> • The Tax agency would be able to provide data on the amount of work needed to manage taxes before and after introduction of online services to calculate Full Time Equivalent Gain • The Tax agency would be able to provide data on time efficiency, that is average time needed to process a file on paper and online. Or to put it differently increase in output per FTE, that is to say how many more files can be handled by X employees supported by online delivery as compared to X employees processing only paper based files • The tax agency can provide data on the structure of costs and calculate savings in overhead costs due to the digitalisation of tax services and internal procedures

Annex III: Data Gathering Template for Greek Case

TEMPLATE FOR INTERNATIONAL CASES PART II: MEASUREMENT	
1 Efficiency indicator	Gather data on the following metrics (for sources see section 3.1 of this document) <ul style="list-style-type: none"> • Time needed for data entry by employees when receiving forms in paper form; • Number of forms received online each year ; • average per hour cost of employees involved in data entry
2 Effectiveness indicators: reduction of administrative burden for citizens	Gather data on the following metrics (for sources see section 3.2 of this document) <ul style="list-style-type: none"> • Time needed for filling paper based forms; • Time needed for hand delivery the forms (if required) • Cost of transportation • Cost of postage • Cost of professional intermediaries • Frequency of obligation • Time needed for filling online forms
3 Effectiveness indicators: reduction of administrative burden for businesses	Gather data on the following metrics (for sources see section 3.2 of this document) <ul style="list-style-type: none"> • Time needed for filling paper based forms; • Time needed for hand delivery the forms (if required) • Average hour cost of personnel • Cost of transportation • Cost of postage • Cost of professional intermediaries • Frequency of obligation • Time needed for filling online forms
4 Effectiveness indicator: reduction of waiting times	Request the Tax agency to extract a random sample of files handled in paper form and an equal sample of files handled online and then calculate the reduction of waiting times following the procedure indicated in paragraph 3.3 of this document



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