

DEVELOPING AN RIA SME TEST METHODOLOGY
FOR GEORGIA, WHILE STRENGTHENING THE CAPACITY
OF THE GOVERNMENT OF GEORGIA TO UTILIZE SME RIA
TOOLS IN PRACTICE

SME TEST PRACTICAL GUIDE

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GLOSSARY OF TERMS USED WITHIN THE SME TEST GUIDELINES¹

Administration and enforcement costs, or Public Service Implementation Costs, are incurred by the Government in administering and enforcing regulatory requirements.

Administrative burdens are those costs incurred by firms, consumers, and others in obtaining, reading, and understanding regulations, developing compliance strategies, or meeting mandated reporting requirements, although excluding the substantive compliance costs.

Appraisal is the process of defining objectives, examining options, and weighing up the relevant costs, benefits, risks, and uncertainties before a decision is made.

Business as Usual (BAU) is the continuation of current arrangements as if an intervention under consideration were not to happen. It is necessary to discern what the consequences of inaction would be (even if unlikely to be acceptable), as it provides a relevant counterfactual to act as a baseline. This serves as a benchmark to compare any alternative interventions.

Cost-Effectiveness Analysis (CEA) compares the costs of alternative ways of producing the same or similar outputs.

Cost-Benefit Analysis (CBA) is a formal analysis of the impacts of a measure or program, based on welfare economics, designed to assess whether the advantages (benefits) of the measure or program are greater than its disadvantages. CBA involves monetary estimates of both costs and the effects or benefits of a measure.

Cost of capital is the cost of raising funds and is sometimes expressed as an annual percentage rate.

Counterfactual – see Business as Usual – refers to an alternative scenario, distinct from what happened or is expected to occur given planned actions or policies, should one or more elements, actions, or policies be different.

Direct impact is an effect that can be identified as resulting directly from the implementation, removal, or simplification of a regulation.

Discounting is a technique used to compare costs and benefits occurring over different periods of time.

Discount rate is the annual percentage rate by which the present value of future monetary values should be adjusted over time.

1. Adapted from the HM Treasury *Green Book*, *Irish RIA Guidelines*, the *OECD Regulatory Policy Outlook 2018*, the *UK Better Regulation Framework Manual March 2015*, and the *NICE Glossary* – see References for full details.

Economic efficiency is achieved when nobody can be made better off without another individual else being made worse off. Such efficiency enhances social welfare by ensuring resources are allocated and used in the most productive manner possible.

Evaluation is the systematic assessment of an intervention's design, implementation, and its outcomes.

Indirect impacts are incidental to the main purpose of a regulation, for example those affecting third parties, those resulting from behavioral change, or dynamic effects caused by market changes over time; also known as "second round" impacts. See multiplier effects.

Information asymmetry is a difference in the information available to parties involved in a transaction that offers an advantage to one side. This is because it is relevant to determining an efficient contract, a fair price, or for rewarding performance.

Intervention refers to a policy, program, or project that is being appraised.

Market value or price is the price at which a commodity can be bought or sold, determined through the interaction of buyers and sellers in a market.

Multi Criteria Analysis (MCA) is a technique that is sometimes employed to consider trade-offs that cannot be monetized. An MCA evaluates options against a set of criteria and measures the extent to which the objectives have been achieved through these criteria. The extent to which the options impact the criteria is typically measured through a scoring factor.

Multiplier effects measure the extent to which an intervention produces an increase in national income greater than the initial impact, through demand or supply side linkages. They are a specific form of indirect impact.

Net Present Value (NPV or PV) is a generic term for the sum of a stream of future values (those already in real prices) that have been discounted to bring them to the current value.

Net Present Social Value (NPSV) is the difference between the present value of a stream of social benefits and the present value of a stream of social costs or, equivalently, the present value of a stream of benefits net of costs as they occur over time.

Nominal terms refer to the value in the current cash prices of an expenditure at the time it takes place.

Opportunity cost is the value of the next best alternative use of an asset or resource.

Proportionality is the principle that the greater the importance or significance of a proposal, the more analyses will be required. The significance of proposals may derive from either their overall economic, social, or environmental importance or their impact on one particular sector.

Real price is the nominal price (i.e., the current cash price at the time) deflated by a measure of inflation.

Real discount rate is the nominal discount rate (i.e., the interest rate used to discount costs and benefits) deflated by a measure of inflation.

Real terms is a reference to the value of expenditure at a specified general price level (calculated by dividing a nominal cash value by a general price index such as a GDP deflator).

Regulatory Impact Assessment (RIA or IA) may refer to both the process of policymakers thinking through and understanding the consequences of governmental intervention; and the specific tool or document that enables a government to weigh and present the relevant evidence on both the positive and negative effects of such interventions.

Risks are specific uncertainties that arise in the design, planning and implementation of an intervention.

Specific impact tests are additional analyses required when there are significant specific impacts on, for example, the environment, competitiveness, poverty, equality, or social exclusion.

Standard Cost Model (SCM) provides a framework for measuring the administrative burdens of regulation.

Substantive compliance costs are the incremental costs of complying with a regulation other than administrative burdens. They only include the direct cost borne by those on whom the regulation imposes compliance obligations. Examples include implementation costs, direct labor costs, overheads, equipment costs, material costs and the costs of external services.

Substitution is where firms or consumers substitute one activity for another as a result of an intervention. As economic activity changes, it may lead to corresponding productivity changes that are costs or benefits.

Transition costs and benefits are transient, or one-off costs or benefits, which normally relate to the implementation of a measure.

PART I.

I.1. The cost calculator

One key step in performing an SME Test is conducting a quantitative analysis of the costs associated with the proposed legislative change. The cost calculator will help estimate the expected compliance costs for SMEs and for larger companies, and assess whether SMEs are facing a significant or disproportionate burden.

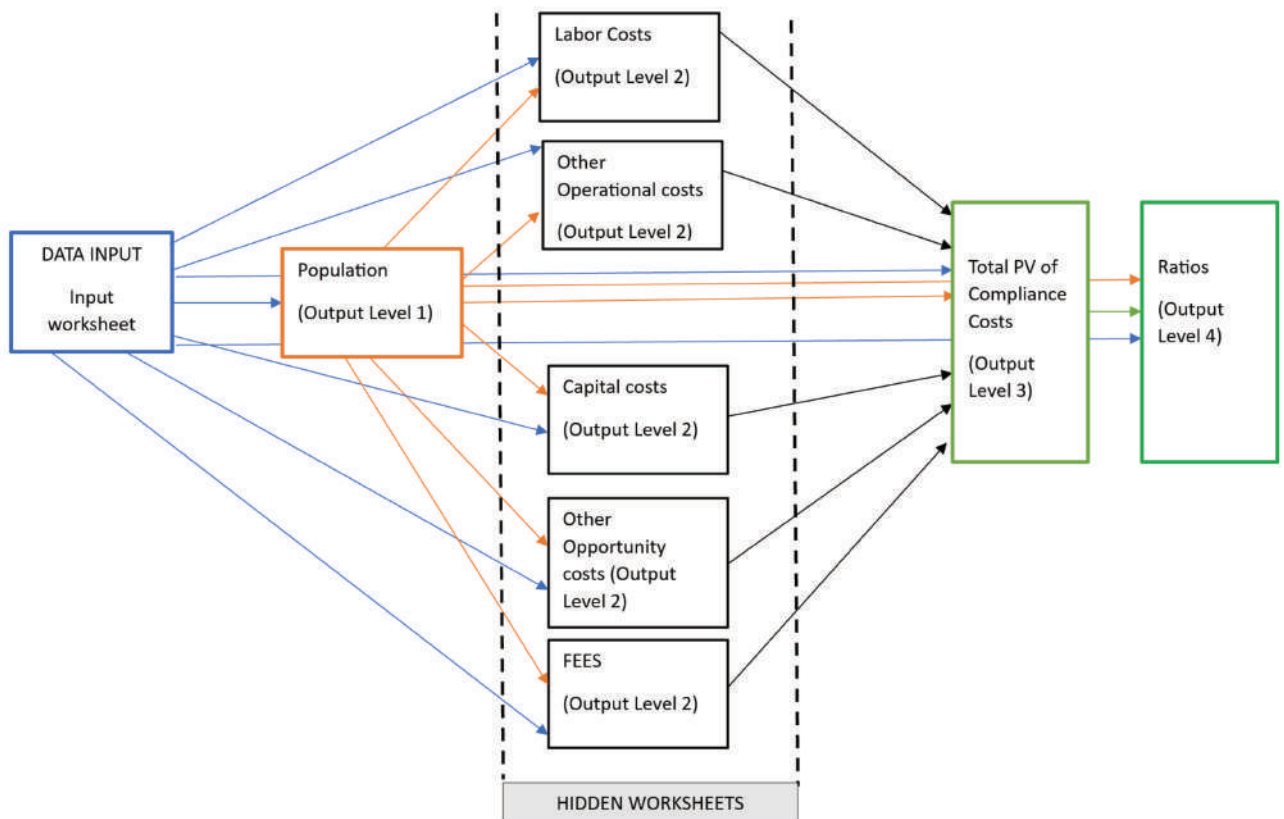
I.1.1. Cost calculator structure

The cost calculator is an Excel-based tool, consisting of 14 worksheets. A stylized graphical representation of its structure is provided below (see Figure 1.1.). Four of the worksheets (“Data input”, “Population”, “Total PV of compliance costs”, and “Ratios”) are always visible and easily accessible, while the remaining ten (“Labor costs”, “Other operating costs”, “Capital costs”, “Other opportunity costs”, and “Fees” are each divided, with one set for SMEs and another for Large companies) are hidden for simplified consultation of the calculator, however they can be made visible when required.²

The cost calculator user (you) **must ONLY enter each of the necessary inputs in the “Data input” section of the worksheet.** The formulas in the remaining worksheets use this data to calculate all outputs. The “Population” worksheet is defined as having an “Output of first level” because it solely receives inputs from the “Data input” worksheet and provides inputs to all the other output worksheets. The remaining worksheets all receive data from the input worksheet as well as from lower-level output worksheets, while also providing inputs to higher level output worksheets. Only the “Ratios” worksheet does not provide inputs to any other worksheet.

2. Please note that the worksheet names in the Excel file sometimes include abbreviations instead of full words for practical reasons.

Figure 1.1. Structure of the Cost Calculator



I.2. Using the Cost Calculator

I.2.1. Data input

During the first step, you must **fill in the values within the “Data input” worksheet**. These can be recategorized into the following nine groups:

1. Parameters for discounting
2. Period in which capital costs need to be repeated / the time boundary for the analysis (excluded)
3. Business population parameters
4. Fee values (incremental)
5. Employment and turnover statistics
6. Labor cost parameters
7. Other operating costs parameters
8. Capital costs
9. Other opportunity costs

The following subsections briefly describe the nature of the data to be inputted, what it will be used for, where it belongs in the “Data input” worksheet, and the potential data sources.

1.2.1.1. Parameters for discounting

The parameters necessary to obtain the real discount rate, used to calculate the Present Value (PV) of compliance costs, are shown in Figure 1.2., namely:

- ✓ The nominal discount rate [CELL B1], which is recommended to equate to the return on a 10-year (or the closest maturity) treasury note net of taxes.³
- ✓ The expected inflation rate [CELL B3] (typically taken as the long-term inflation target of the central bank).⁴

NOTE: we recommend changing the two values currently used in the calculator to be based solely on updated information from the official NBG website and upon consultation with the Economic Policy Department of the Ministry of the Economy (MoESD).

Figure 1.2. Data for discounting

1	Nominal discount rate (10 yrs treasury notes net of taxes)	8%
2		
3	Expected inflation rate	3%
4		

This information is then utilized in the “Total PV of compliance costs” worksheet to derive the real discount rate.

1.2.1.2. Period in which capital costs are recurring / the time boundary of the analysis⁵

In the empty cell corresponding to row 5 [CELL B5], **write the number corresponding to the first period in which capital costs would recur** (if within the time horizon set for the analysis)⁶ or the first period for which the analysis will not be conducted, whichever comes first. This number must be decided by you – based on how long you want the time horizon of the analysis to be or on the period in which capital costs must be repeated.

If you assume that capital costs are, for example, expected to recur in the fifth year (the capital acquired in period 1 would last only until the end of period 4, and would need to be replaced at the beginning of the fifth period), you would write 5 in the cell [B5]. The calculator will thus perform an analysis over 4 periods (i.e., it will stop before capital costs are repeated for the first companies entering the analysis). If for any reason you wish instead for the analysis to be performed for, for instance, only the first three years, you need to write 4 in the cell [B5].

Figure 1.3. depicts an example considering a 10-year period – the recommended standard length for regulatory analyses – hence inputting ‘11’.

3. The value currently in the cost calculator was extracted (October 2023) from the National Bank of Georgia (NBG) website. Available from the treasury note auction file: <https://nbg.gov.ge/en/statistics/statistics-data>.

4. The value currently in the cost calculator was extracted (October 2023) from the National Bank of Georgia website. Available from the long-term inflation target page: <https://nbg.gov.ge/en/page/inflation-target>.

5. The first period outside the scope of the analysis (e.g., if the scope is 10 years, you need to input a value of 11).

6. The reason for this choice is that your ideal target would have an estimate of average compliance costs over a relevant period of time. There is no great value added in extending the analysis to include time in which capital costs have to be repeated, as it would simply cause an apparent spike in averaged compliance costs, which would not correspond to a real increase in average compliance costs over the life cycle of a capital investment.

Figure 1.3. Boundary of the analysis time

5	Period in which capital costs need to be repeated/Time boundary of the analysis (excluded)	11
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A value greater than 1 (implying that the assessment is taking place for at least one period) is necessary for the calculator to generate an output. **Values greater than 10 all lead to the same results**, as an analysis is at most conducted for 10 years.

I.2.1.3. Business population parameters

This data can be obtained from the National Statistics Office of Georgia (Geostat) Business Register. You will have to write the number of Small, Medium, and Large enterprises (at the time of the analysis) into rows 8, 9, and 10 (see Figure 1.4.), respectively [CELLS B8, B9, & B10]. In rows 13, 14, and 15 [CELLS B13, B14, & B15], you will have to record the historical Compound Annual Growth Rate (CAGR) in the number of enterprises over the past 5 or 10 years (Figure 1.4.), calculated separately by enterprise size (again, small, medium, and large).

Please note that the values indicated in Figure 1.4. are illustrative, therefore you must input them all anew.

NOTE: we recommend using the most updated information from Geostat, ideally in consultation with the Economic Policy Department of the Ministry of the Economy (MoESD).⁷

Figure 1.4. Business population parameters

7	Population size (# Enterprises)	
8	Small	10000
9	Medium	5000
10	Large	1000
11		
12	Average Growth # Enterprises	
13	Small	1%
14	Medium	1%
15	Large	1%
16		

The calculator requires this information to generate projections about the evolution of the business population over the time of the analysis. You can have negative growth rates (if the number of enterprises has been historically declining), zero growth rates (if the number of enterprises has remained historically stable), or positive growth (if the number of enterprises has been expanding over time).

7. Data on the number of registered and active entities by kind of economic activity and size can be obtained from: <https://www.geostat.ge/en/modules/categories/64/business-register>. At present, updated data is officially published on the 15th day of each quarter. Historical data on business entities disaggregated by size is accessible on formal request. In such instances, one needs to contact Geostat through written correspondence at the following email address: info@geostat.ge. Please note that for disaggregated historical records, Geostat can only provide data on a number of registered entities.

If you are unable or unwilling to include a number for the growth rate of enterprises in any of the groups, the calculator will assume the number of enterprises remains stable and performs the analysis under this assumption.

You must, in every case, include the number of enterprises for each group.

1.2.1.4. Fee values (incremental)

This data should be obtained from the legislative proposal and from the existing legislation. What needs to be included here is the **incremental** value of the fees (the difference between new fees and old fees).

If there were no fees prior to the legislative proposal, the entire amount of the fee is to be considered as incremental. When there is no change in fees, the value of the corresponding row should be set to zero (or left empty). If fees decline, a negative number should be input.

Two types of fees are to be listed (see Figure 1.5.):

- ✓ Initial fees: one-time fees, required by the new legislation [CELLS B18, B19, & B20].
- ✓ Recurring fees: fees that are charged over time [CELLS B23, B24, & B25] (NOTE: you need to report the yearly amount).

For each type of fee, the calculator allows for differentiation by the size of firm.

Please note that the values indicated in Figure 1.5. are illustrative, therefore you must input them all anew.

Figure 1.5. Fees (incremental)

17	Initial/one-time Fees (incremental)	
18	Small	500
19	Medium	500
20	Large	500
21		
22	Recurring Fees (incremental)	
23	Small	300
24	Medium	300
25	Large	300
26		

This information is necessary to calculate the total change in fees paid by businesses due to legislative changes.

1.2.1.5. Employment and turnover statistics

This data can be obtained from Geostat. You will have to write in the cells [B28, B29, & B30] the average number of employees per small, medium, and large business, respectively. In the following cells [B33, B34, & B35], you will then have to include the average turnover per business, once again calculated separately by size (small, medium, and large).

Figure 1.6. illustrates this step. Please note that the values indicated here are again an example, thus you must input them all anew.

NOTE: we recommend using the most up-to-date information obtained from Geostat, ideally in consultation with the Economic Policy Department of the Ministry of the Economy (MoESD).⁸

Figure 1.6. Employment and turnover statistics

27	Average number of employees per business	
28	Small	25
29	Medium	125
30	Large	400
31		
32	Average Turnover per business	
33	Small	6
34	Medium	36
35	Large	120

This information is necessary to calculate the average cost per employee and the average cost per 1 million GEL of turnover (PV).

I.2.1.6. Labor cost parameters (repeated costs)

Labor cost parameters are divided into two main groups (see Figure 1.7.):

- ✓ Parameters to calculate staff labor costs:
 - Administrative [ROWS 38, 39, & 40].
 - Non-administrative [ROWS 41, 42, & 43].
- ✓ External labor costs:
 - Administrative [ROWS 46, 47, & 48].
 - Non-administrative [ROWS 49, 50, & 51].

For each of the rows, **you must input values for both SMEs [COLUMN B] and Large companies [COLUMN C]**. These values may be identical, although you should attribute different parameters to SMEs and to Large companies if they differ and if you know, approximately, the respective amounts.

Administrative labor costs refer to those expenses associated with an increase in administrative burden (e.g., producing extra documentation, and obtaining, filling in, and delivering documents), whereas **non-administrative labor costs** refer to all other additional activities that employees of a business or external contractors are expected to perform under the new legislation (e.g., additional maintenance work).

8. To download this data, please refer to the Statistical Survey of Enterprise. Available from: <https://www.geostat.ge/en/modules/categories/326/statistical-survey-of-enterprises>

This data can be obtained from several sources. The average hourly wage of administration and other company staff can be obtained from Geostat. However, data on the expected extra time spent on administrative tasks or other tasks within a firm, after having provided sufficient information about the expected legislative change, will have to be collected by consulting a sample of companies within each size group. Information regarding external labor costs and the expected time spent on new or expanded tasks will have to be collected from both the affected companies and from the professionals or consulting companies involved.

It is important to highlight that the calculator requires the analyst to input the time (in hours) spent obtaining, filling in, and delivering documents each time a task has to be performed. It is moreover requested that the number of times the action must be repeated is included for the course of one year (it can be 1 or more). The calculator will thereafter take care of estimating the total (repeated) yearly costs.

NOTE: you must report negative time (the number of hours saved, using a minus sign). If a legislative change reduces the time spent on administrative or non-administrative activities, it will lead to a reduction in compliance costs.

The values indicated in Figure 1.7. below are illustrative, therefore you must input them all anew.

Figure 1.7. Labor cost parameters

37	STAFF LABOR COSTS	SMEs	LARGE COMPANIES
38	Average hourly wage staff administration	4	6
39	Time spent on filling / obtaining and delivering documents (hours)	2	2
40	Number of obligatory submission / year	4	4
41	Average hourly wage other	3	5
42	Time spent on other activities required by/necessary because of new regulation (hours)	1	1
43	Number of times / year	12	12
44			
45	EXTERNAL LABOR COSTS	SMEs	LARGE COMPANIES
46	Average cost (hour) - INFO	10	10
47	Time spent on filling / obtaining and delivering documents (hours)	2	2
48	Number of obligatory submission / year	1	1
49	Average cost (hour) - OTHER	6	6
50	Time spent on other activities required by/necessary because of new regulation (hours)	1	1
51	Number of times / year	1	1

The cost calculator will use this information to determine the total additional labor costs associated with a planned legislative change for each year.

I.2.1.7. Other operating cost parameters (repeated costs)

The cost calculator also allows you to include any other operating cost affected by a legislative change; for example, additional rent, and other overhead costs, as well as additional raw material costs or non-labor maintenance expenses (e.g., spare parts, replacement parts, etc.). Including this information will raise the accuracy of your estimates, thus, to the extent it is feasible, it should be completed in line with article 19 of Ordinance No. 35 (17 January 2020).

The calculator is also designed to provide you with substantial flexibility in defining the categories of other operating costs (up to five – see Figure 1.8.).

You should simply name each of the categories you intend to include in the analysis (one row per category) and ensure that you report both the unit cost for each category [ROWS 54-58] and the quantity by which the unit cost needs to be multiplied [ROWS 59-63]. The SME values fit in COLUMN B, while values for Large companies go into COLUMN C.

You will obtain this data through consultation. You should contact the relevant ministries, samples of businesses from all size groups, and professionals operating in the field, and, at times, even analyze the international literature (this might require you to adjust the values to the situation in Georgia based on your expertise and on information collected during the stakeholder consultations).

The calculator will be using this information to estimate the total (additional) amount of other operating costs.

The values indicated in Figure 1.8. below are illustrative, therefore you must input them all anew.

Figure 1.8. Other operating cost parameters

53	Other Operating Costs	SMEs	LARGE COMPANIES
54	Unit cost - category 1	1	1
55	Unit cost - category 2	2	2
56	Unit cost - category 3		
57	Unit cost - category 4		
58	Unit cost - category 5		
59	Quantity - cost category 1	100	100
60	Quantity - cost category 2	75	75
61	Quantity - cost category 3		
62	Quantity - cost category 4		
63	Quantity - cost category 5		

I.2.1.8. Capital costs (one-time costs)

The proposed legislative changes can also require businesses to invest substantial resources into new capital goods, both material and immaterial (e.g., new hardware, new software for the development or acquisition of new patents, etc.).

If this is the case, these capital costs must be added to the calculator. One section in the “Data input” worksheet [ROWS 67-76] has been designed for that purpose (see Figure 1.9.).

As with the other operating costs parameters, the structure is flexible. Additionally, if required, you have the possibility to input up to five categories of capital costs separately. You should name the categories of capital costs in a clear manner and associate a unit cost and quantity with each category. The worksheet allows you to input different unitary costs and quantities for both SMEs [COLUMN B] and Large companies [COLUMN C].

In such cases, this data is obtained from consultation. As such, you should contact the relevant ministries, samples of businesses from all size groups, and professionals operating in the field, and, at times, even analyze the international literature (this might require you to adjust the values to the situation in Georgia based on your expertise and on information collected during the stakeholder consultations).

If a legislative change leads to a reduction in capital costs, these should be inputted with negative prices.

The values indicated in Figure 1.9. below are illustrative, therefore you must input them all anew.

Figure 1.9. Capital costs

65	Capital Costs	SMEs	LARGE COMPANIES
66			
67	Unit cost - category 1	1	1
68	Unit cost - category 2	1	1
69	Unit cost - category 3		
70	Unit cost - category 4		
71	Unit cost - category 5		
72	Quantity - cost category 1	500	500
73	Quantity - cost category 2	4000	4000
74	Quantity - cost category 3		
75	Quantity - cost category 4		
76	Quantity - cost category 5		

The cost calculator will use this information to calculate the total (additional) amount of capital costs.

1.2.1.9. Other opportunity costs (one-time and repeated)

In addition to the operating and capital costs, businesses might face other costs due to the introduction of legislative changes, such as delays in the design, production, and commercialization of goods and services. Those are typically defined as **“opportunity costs”**, because they reflect the cost of having to abandon or delay a given activity in order to comply with a proposed legislative change.

You can include such opportunity costs in the analysis by filling in the final section of the “Data input” worksheet (Figure 1.10.).

The structure of this section of the worksheet is very similar to the preceding parts – you can input up to five categories of additional opportunity costs, differentiated for SMEs and Large businesses. Equally, here you must input a unit price as well as the number of units for each type of firm, bearing in mind again that reductions in other opportunity costs can be inputted by attributing a negative price to the cost category.

Note however that, unlike before, you now have a further differentiation under two types of delay:

- ✓ Initial (one-off) delays [ROWS 79-88].
- ✓ Recurring (repeated) delays [ROWS 89-98].

To collect data about the type and length of delays you will require consultations. In particular, you can obtain this information by contacting samples of businesses from all size groups and professionals operating in the field, and, at times, even analyze the international literature (this might require you to adjust the values to the situation in Georgia based on your expertise and on information collected during the stakeholder consultations).

The values indicated in Figure 1.10. below are illustrative, therefore you must input them all anew.

Figure 1.10. Other opportunity costs

78	Other Opportunity Costs	SMEs	LARGE COMPANIES
79	Initial delay type 1	1	2
80	Initial delay type 2		
81	Initial delay type 3		
82	Initial delay type 4		
83	Initial delay type 5		
84	Cost of initial delay 1	1500	7500
85	Cost of initial delay 2		
86	Cost of initial delay 3		
87	Cost of initial delay 4		
88	Cost of initial delay 5		
89	Recurring delay type 1	1	1
90	Recurring delay type 2	2	2
91	Recurring delay type 3		
92	Recurring delay type 4		
93	Recurring delay type 5		
94	Cost of recurring delay 1	1000	5000
95	Cost of recurring delay 2	1500	10000
96	Cost of recurring delay 3		
97	Cost of recurring delay 4		
98	Cost of recurring delay 5		

The data inputted in this section allows the calculator to quantify the total amount of other opportunity costs.

The sum of the total costs obtained for each of these nine cost categories thereafter leads to the quantification of total compliance costs for each year of the analysis (in the worksheet entitled “Total PV of compliance costs”).

1.2.2. Intermediate output worksheets

The data recorded in the “Data input” worksheet is automatically elaborated in the 11 intermediate output worksheets:

- ✓ Population
- ✓ Labor costs (one for SMEs and one for Large companies)
- ✓ Other operating costs (one for SMEs and one for Large companies)
- ✓ Capital costs (one for SMEs and one for Large companies)
- ✓ Other opportunity costs (one for SMEs and one for Large companies)
- ✓ Fees (one for SMEs and one for Large companies)

NOTE: DO NOT manually input any values into these worksheets. If values are missing, check all the fields within the “Data input” worksheet.

1.2.2.1. Population

This section solely covers the population worksheet, where the other intermediate output worksheets are available in the Appendix, if required.

This worksheet calculates both the population of the three business groups for periods 1 to 10 (or from 1 to the relevant period you select) and the population change in between periods (Figure 1.11.).

The values indicated in Figure 1.11. below are only for illustrative purposes.

Figure 1.11. Population

2	PERIOD	1	2	3	4	5	6	7	8	9	10
3	Predicted population	0	1	2	3	4	5	6	7	8	9
4	Small	10000	10100	10303	10615	11046	11609	12323	13212	14307	15647
5	Medium	5000	5050	5152	5308	5524	5806	6163	6608	7156	7826
6	Large	1000	1010	1030	1061	1104	1160	1231	1320	1429	1563
7											
8		Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Period 8	Period 9	Period 10
9	New entrants	0	1	2	3	4	5	6	7	8	9
10	Small		100	203	312	431	563	714	889	1095	1340
11	Medium		50	102	156	216	282	357	445	548	670
12	Large		10	20	31	43	56	71	89	109	134

The differentiation between the two tables is significant, specifically:

- ✓ The table reporting the “Predicted population” is used to calculate the recurring costs, multiplying the unit costs times for the predicted population in a given period.
- ✓ The table reporting the “New entrants” is employed to calculate on-off costs. These are costs that companies bear only at the beginning of their activity or at the onset of new policies from legislative change. The calculator multiplies the number of new companies in any given period with the unit cost.

If the growth rate in any sized group of businesses is negative, the calculator is designed so that the values of new entrant companies are arbitrarily set to zero (with no negative capital costs or initial fees).⁹

9. While this leads to the underestimation of average costs, this error is not likely to be substantial nor should it affect the overall picture. On the other hand, modifying the model to account for this would increase its complexity substantially and require the introduction of additional arbitrary assumptions.

I.2.3. Final output worksheets

The results obtained in the intermediate output worksheets are aggregated and elaborated in the final output worksheets, namely:

1. “Total PV of compliance costs” (for SMEs and for Large companies)
2. “Ratios” (for SMEs and for Large companies)

I.2.3.1. Total PV of compliance costs

Within this worksheet, all the costs are aggregated and discounted automatically.

In the Discounted Cash Flow framework, costs and benefits must be allocated properly. Costs may be incurred at the beginning of a period, at the end of a period, or spread over a period. Crucially, the calculator takes this into account. To allow for proper discounting, each period is defined by two columns: the first corresponds to the beginning, while the second column relates to the end of the period. For example, period 1 starts at time zero and ends at time one, while the 10th period starts at time nine and ends at time ten.

Observing how the different types of cost are allocated in the worksheet (Figure 1.12. offers an example with fictional values), the cells reporting SME cash flow are highlighted in green, while those reporting the cash flows of Large companies are highlighted in red.

NOTE: at the top left of the worksheet you can find the real discount rate used in the discounting process, calculated on the basis of the nominal discount rate and the planned inflation rate.

The values indicated in Figure 1.12. are only for illustrative purposes.

Figure 1.12. PV Compliance Cost Calculator

Based on article 19, paragraph 1

REAL DISCOUNT RATE	4.85%										
	0	1	2	3	4	5	6	7	8	9	10
Labor costs	705,000	1,417,050	1,438,435	1,474,766	1,527,171	1,597,295	1,687,347	1,800,382	1,940,301	2,111,992	1,103,231
Other Operational costs	1,875,000	3,768,750	3,825,625	3,922,250	4,061,625	4,248,125	4,487,625	4,788,250	5,160,375	5,617,000	2,934,125
Capital costs	67,500,000	675,000	1,372,500	2,106,000	2,911,500	3,802,500	4,819,500	6,003,000	7,393,500	9,045,000	
Other Opportunity costs	41,250,000	71,662,500	61,551,250	63,335,750	65,822,250	69,089,000	73,239,000	78,415,750	84,798,750	92,611,750	48,453,500
Initial fees	7,500,000	7,575,000	7,727,500	7,961,500	8,285,000	8,707,500	9,243,000	9,910,000	10,731,500	11,736,500	
Recurring fees		4,500,000	4,545,000	4,635,500	4,776,900	4,971,000	5,224,500	5,545,800	5,946,000	6,438,900	7,041,900
TOTAL COMPLIANCE COSTS	118,830,000	89,598,300	80,460,310	83,436,766	87,384,446	92,415,420	98,700,972	106,463,182	115,970,426	127,561,142	59,532,756
DISCOUNT FACTOR	1.000	0.954	0.910	0.867	0.827	0.789	0.752	0.718	0.684	0.653	0.622
DISCOUNTED COMPLIANCE COSTS	118,830,000	85,450,231	73,182,736	72,376,549	72,291,629	72,914,145	74,268,088	76,400,065	79,369,749	83,260,616	37,058,743
TOTAL PV COMPLIANCE COSTS SMEs	845,402,550										

Compliance Cost Calculator - Large Enterprises											
	0	1	2	3	4	5	6	7	8	9	10
Labor costs	67,000	134,670	136,680	140,097	145,055	151,688	160,197	170,917	184,183	200,464	104,721
Other Operational costs	125,000	251,250	255,000	261,375	270,625	283,000	298,875	318,875	343,625	374,000	195,375
Capital costs	4,500,000	4,545,000	4,635,000	4,774,500	4,968,000	5,220,000	5,539,500	5,940,000	6,430,500	7,033,500	
Other Opportunity costs	20,000,000	32,700,000	25,725,000	26,570,000	27,617,500	283,000	298,875	318,875	343,625	374,000	195,375
Initial fees	500,000	5,000	10,000	15,500	21,500	28,000	35,500	44,500	54,500	67,000	
Recurring fees		300,000	303,000	309,000	318,300	331,200	348,000	369,300	396,000	428,700	468,900
TOTAL COMPLIANCE COSTS	25,192,000	37,935,920	31,064,680	32,020,472	33,340,980	34,968,888	36,880,947	39,162,467	41,847,433	44,977,664	964,371
DISCOUNT FACTOR	1.000	0.954	0.910	0.867	0.827	0.789	0.752	0.718	0.684	0.653	0.622
DISCOUNTED COMPLIANCE COSTS	25,192,000	36,179,627	28,254,903	27,775,900	27,582,412	27,582,412	27,582,412	27,582,412	27,582,412	27,582,412	27,582,412
TOTAL PV COMPLIANCE COSTS LARGE COMPANIES	171,559,539										

As Figure 1.12. shows, the capital costs and initial fees are attributed to the beginning of each period. Recurring fees, however, are attributed to the end of each period. All the other costs are spread over the entire timeframe (attributed half at the beginning and half at the end of the period).

The different types of compliance costs for each time are tallied, and the total compliance costs at each point in time are multiplied by the appropriate discount factor to obtain the discounted compliance costs. Discounted compliance costs are then added up to obtain the total Present Value (PV) of compliance costs for both SMEs and Large enterprises.

1.2.3.2. Ratios

In the example reported in Figure 1.12., the total compliance costs appear to be substantially higher for SMEs. However, SMEs are far more numerous than large companies. As such, a proper comparison and an assessment of the relative costs of a legislative change for SMEs in contrast to large enterprises requires an approach that takes this into consideration.

The “Ratios” worksheet (see Figures 1.13. and 1.14.) has consequently been developed for this exact purpose. In the worksheet, the total PV of compliance costs for SMEs and large companies has been utilized to obtain:

- ✓ The average yearly cost per enterprise, obtained by dividing the total PV of compliance costs for SMEs and large enterprises by the average number of companies in each category over the time horizon of the analysis.
- ✓ The average yearly cost per employee, obtained by dividing the average yearly cost per enterprise by the average number of employees in each category over the time horizon of the analysis.
- ✓ The average yearly cost per million GEL of turnover, obtained by dividing the average yearly cost per enterprise by the average value of turnover (in million GEL) in each category over the time horizon of the analysis.
- ✓ The average cost per enterprise, for SMEs and large enterprises, in the first year of activity.
- ✓ The average cost per employee, for SMEs and large enterprises, in the first year of activity.
- ✓ The average cost per million GEL of turnover, for SMEs and large enterprises, in the first year of activity.

Figures 1.13. and 1.14. report these values in reference to the example in Figure 1.12.

Figure 1.13. Ratios over the time horizon of the analysis

	A	B	C	D	E	F	G	H
1						SMEs		LARGE
2								
3		AVERAGE YEARLY COST PER ENTERPRISE					4,729	14,407
4								
5		AVERAGE YEARLY COST PER EMPLOYEE					81	36
6								
7		AVERAGE YEARLY COST PER MLN. TURNOVER					296	120
8								
9		Average number of enterprises in the period under consideration						
10		Small	11916					
11		Medium	5959					
12		Large	1191					

Figure 1.14. Ratios during the first year of the analysis

	A	B	C	D	E	F	G	H
13								
14								
15						SMEs		LARGE
16								
17		AVERAGE 1ST YEAR COST PER ENTERPRISE (GEL)					7,922	25,192
18								
19		AVERAGE 1ST YEAR COST PER EMPLOYEE (GEL)					135.81	63
20								
21		AVERAGE 1ST YEAR COST PER MLN. TURNOVER (GEL)					495	209.93
22								
23		Average number of enterprises in the period under consideration						
24		Small	10000					
25		Medium	5000					
26		Large	1000					

Accounting for the difference in the number of enterprises in each group apparently reverses the results observed in the previous worksheet, with the average yearly cost per enterprise becoming substantially lower for SMEs.

However, when considering the average yearly cost per employee and the average yearly cost per million GEL of turnover, the costs become substantially higher for SMEs. If this were an genuine analysis, such a result could suggest a disproportionate burden on SMEs.

Part III. of this guide will demonstrate the application of the cost calculator in quantifying compliance costs for SMEs according to the Test Methodology within the context of a real RIA exercise performed in Georgia in the recent past.

PART II.

II.1. Competition assessment

Your proposal may have an influence on competition – an important element when creating an appropriate level playing field for SMEs. As a part of the SME Test, you should therefore ascertain whether the proposal includes explicit liberalization provisions or measures that are likely to raise or lower the barriers that firms face when entering or leaving the market.

Tool #24 on *Competition* of the European Commission’s Better Regulation Toolbox and the OECD Toolkit provide guidance on testing the impacts on competition. See https://commission.europa.eu/law/law-making-process/planning-and-proposing-law/better-regulation/better-regulation-guidelines-and-toolbox/better-regulation-toolbox_en and <https://www.oecd.org/daf/competition/assessment-toolkit.htm>, respectively.

The questions below draws from the Competition Test developed by the OECD. These elements should be asked in relation to each option considered. When one of the questions is answered positively, it is necessary to justify the necessity and appropriateness of such a restriction on competition. You should also report whether a restriction is not justifiable.

Test	It is possible, if the proposal...
1. Does the proposal limit the number or range of economic actors on the market?	<ul style="list-style-type: none"> ✓ Grants exclusive rights to an economic actor ✓ Establishes a licensing, permit, or authorization process as a requirement for operation ✓ Limits the ability of certain types of economic actor to provide a good or service ✓ Significantly raises the cost of entry or exit by an economic actor ✓ Creates a barrier to the free movement of goods, services, capital, or labor
2. Does the option limit economic actors’ ability to compete?	<ul style="list-style-type: none"> ✓ Limits actors’ ability or freedom to set the price of their products ✓ Limits actors’ ability or freedom to advertise or market their products ✓ Requires technical or quality standards that provide an advantage to some economic actors over others, or that are above the level that some well-informed customers would select ✓ Treats economic actors present on the market differently from new entrants
3. Does the option reduce competition among economic actors, including a raised incentive for collusion?	<ul style="list-style-type: none"> ✓ Creates a self-regulatory or co-regulatory regime ✓ Requires or encourages the publication of information on an actor’s outputs, prices, sales, and costs ✓ Exempts the activity of a particular industry or group of actors from the application of general competition laws
4. Does the option limit the choice or information available to consumers?	<ul style="list-style-type: none"> ✓ Limits the ability of consumers to decide from whom they purchase ✓ Reduces the mobility of customers between suppliers of goods or services by increasing the explicit or implicit costs of changing suppliers

II.2. Considering indirect impacts on SMEs

Indirect regulatory impacts refer to those changes driven by affected SMEs, those resulting from their decisions to comply – or not to comply – with a regulation. They manifest along value and supply chains, in related markets and sectors, and they may be experienced by consumers and other stakeholders that are not directly targeted by the regulation.

Typically, indirect costs are passed on through changes in the price, availability, or quality of the goods and services produced in the regulated sector or value chain. Changes in these prices then ripple through the economy, requiring economic operators to reconsider their investment (purchasing) and production choices. In this process, SMEs may be early, mid, or downstream users along a chain.

The assessment of indirect costs is more complex compared to that of direct compliance costs, and it is not always necessary. A possible indication of whether to proceed with such an assessment can be discerned through direct discussions with SMEs and SME associations – see section II.3. below. If their full quantification (monetization) is not possible, you should nonetheless aim to produce at least a qualitative assessment of the indirect impacts.

Indirect costs may take several forms, where this section of the Practical Guide considers the following categories:

- ✓ Implications on productivity levels.
- ✓ Implications on R&D and innovation.
- ✓ Implications on trade.

Each of these categories may have a significant impact on the competitiveness of an SME.

Tool #21 on *Sectoral competitiveness*, Tool #22 on *Research & innovation*, and Tool #27 on *External trade and investment* from the European Commission's Better Regulation Toolbox provides insights and links to further guidance on how to quantify these impacts. See https://commission.europa.eu/law/law-making-process/planning-and-proposing-law/better-regulation/better-regulation-guidelines-and-toolbox/better-regulation-toolbox_en.

II.2.1. Implications on productivity levels

Productivity refers to the efficiency of the productive effort, as measured in terms of the rate of output per the unit(s) of input. Changes in the quality and quantity of inputs affect the capacity of a business to produce efficiently.

The following respective questions can be considered within the framework of your SME Test:

- ✓ Does the proposal affect the prices and costs for the *intermediate consumption of goods and services*? (e.g., the price or availability of raw materials or access to technologies, for instance by imposing import quotas, tariffs, or by introducing restrictions on the use of hazardous substances).

- ✓ Does the proposal affect the cost of *capital*? (e.g., the price or availability of financing, access to capital, or the cost of equipment).
- ✓ Does the proposal affect the cost of *labor*? (e.g., through changes in retirement age, minimum wages, social insurance contributions, or promoting/restricting labor mobility).
- ✓ Does the proposal affect the cost of *energy*?

II.2.2. Implications on R&D and innovation

Productivity growth is also determined by technological progress. Over time, changes in incentives and the capacity to innovate disrupt the possibility for businesses to benefit from operating at the technological frontier, thereby losing competitiveness. Such incentives to innovate may be determined by:

- ✓ The time it takes developers to market their products or services, and hence the possibility to recover their R&D investments (known as “Time-to-Market”).
- ✓ The proportion of an enterprise’s budget allocated to R&D that needs to be diverted to comply with the regulatory requirements that affect existing products (so-called “Defensive R&D”).
- ✓ The level of protection over a business’ intangible assets (e.g., intellectual property rights, patents, trademarks, etc.).
- ✓ The level of stigmatization among consumers towards a business’ products or services.

Regulation and innovation: Relevant concepts for SMEs

Time-to-Market – This refers to the length of time it takes a product, from conception until it is available for sale, to reach the market. It is relevant because the longer this period, the higher the capitalized development costs (CDCs). CDCs are incurred by developers (the innovative SME) and represent the investment made by the latter, and which must be fully recovered from the net after-tax future cash flow once the product is placed on the market. CDCs are affected by the cost of borrowing capital, by regulatory unpredictability and burdens, as well as by the size of the market.

- ✓ One example of the impact of “Time-to-Market” is the period required to place a new drug on the market. Various regulatory frameworks require developers to pass different phases of testing and scrutiny, thus the long market authorization processes may reduce the incentive for companies to invest in innovation. Notably, an important factor for the successful development and commercialization of COVID-19 vaccines was the decision by regulators to shorten the market authorization process.

Defensive R&D – This occurs when scarce R&D resources must be disproportionately diverted into the ‘defense’ (i.e., continued compliance) of existing products or processes, rather than into investments for new ideas and innovation. There are, consequently, clear opportunity costs of any regulatory decision that creates Defensive R&D for companies (the budget for research is only spent once). SMEs, whose financial assets tend to be fragile because of limited capital reserves, may not be able to finance the double costs of keeping old products on the market while also innovating. This may result in a loss of products, shrinking markets, and poorer economic dynamism.

- ✓ An example of Defensive R&D has occurred in the agricultural machinery sector in Europe. Regulations imposing stricter emission standards from tractors and combine harvester have caused vast proportions of the industry's R&D budget to be absorbed for compliance with the new requirements, thereby limiting innovation in other sectors (e.g., precision agriculture).

Product stigmatization – Stigmatization follows consumers' unfavorable perceptions of a core issue – for instance a substance; a technology; or a production characteristic. This may be influenced by social amplification of risks, sometimes triggered by the media. As a result, consumers modify their preferences and consumption patterns, which affects the incentives for developers to further invest in R&D in those projects.

- ✓ One example of product stigmatization is the placing of certain chemicals on public lists of dangerous substances, without necessarily underpinning those decisions with scientific evidence. Several applications of biotechnology have also been stigmatized.

To factor in such impacts, the following questions can be considered:

- ✓ Does the proposal affect enterprises' incentives or capacity for *product innovation*? (i.e., to bring new products (goods/services) to the market, or to improve the features of the current ones).
- ✓ Does the proposal affect enterprises' incentives or capacity to *process innovation*? (i.e., to improve the managerial and operational efficiency of the processes deployed to produce, distribute, and market their goods and services).
- ✓ Does the proposal affect access to *risk capital* or *R&D funding*? (e.g., joint ventures, national or European funds, borrowing, etc.).

II.2.3. Implications on trade

The possibility to access and draw from external markets for trade and investment is a driving factor for growth and job creation. Barriers to trade are most directly created by tariffs. For Georgia, these have largely been dismantled or reduced as a part of WTO membership and thanks to various bilateral trade agreements. Regulatory requirements, on the other hand, play a significant role and may constitute “non-tariff barriers” that hamper trade.

An SME Test should not require a dedicated appraisal of the compatibility of a proposal against the provisions of the WTO or other trade agreements. Nevertheless, it is important that you ascertain that the proposal does not disproportionately affect SMEs' capacity to trade, even if it respects the overarching obligations of Georgia vis-à-vis its international partners. Your assessment should focus on ensuring that Georgian SMEs are not adversely positioned compared to either their foreign competitors or larger domestic companies.

It is important to remember that the impacts on trade might emerge at various stages of the value chain addressed by the proposal, and not exclusively where the SMEs under consideration operate. This may involve foreign businesses that are operating in, or potentially interested in, Georgia. Accordingly, if you believe that your proposal notably affects cross-border trade, when

you carry out consultations, as a part of your RIA, you should reach out to Georgian importers and third country operators to the best extent possible.

In regard to the impacts on trade, the following questions can be considered:

- ✓ What is the likely impact of the assessed option on the *competitive position of Georgian SMEs* with respect to their direct foreign competitors?
- ✓ Does the proposal concern an area in which *international standards, common regulatory approaches, or international regulatory dialogues* exist?
- ✓ Is the proposal likely to cause *cross-border investment flows*, including the relocation of economic activity towards or outside Georgia?

II.2.4. Drawing conclusions

Once you have identified most of the potential changes from the three categories, you need to draw conclusions about the expected impacts on SMEs, including:

- ✓ What are the adjustment costs for the SMEs concerned?
- ✓ Would the sector need a major restructuring? (*e.g., closing production lines, replacing technologies, substituting skills, etc.*)
- ✓ Might this lead to enterprises closing down?
- ✓ Would SMEs or micro-businesses be able to meet the costs of restructuring?

Answering these questions will prompt you to investigate whether there is a need to devise *alternative mechanisms and appropriate mitigation measures for SMEs* – see Step IV.3 of the *SME Test Methodology*.

II.3. Tailoring SME consultation efforts

In the framework of an SME Test, your data collection and consultation rounds must be targeted and tailored to your specific needs. Reaching out to SMEs can be a part of the general consultation exercises that you conduct during the RIA process – for instance, you may add a dedicated questionnaire about and for SMEs; or you may decide to administer separate activities.

The level of effort dedicated to SME consultations may therefore vary. Considering the scarcity of resources available, it is also important to ensure a proportionate approach. As such, it is beneficial to consider two factors when determining the way forward – the complexity of your proposal and the importance of the expected impacts. You can plot these two factors in a simple consultation grid and employ the scoring scheme presented below.

Full details on the proposed approach are elaborated in the 2013 Consultation Guidelines, issued by the French Government. Available (in French) from: http://www.entreprises.gouv.fr/files/files/directions_services/dgcis/consultation-publique/guide-pratique-consultation-entreprises.pdf.

How can you tailor your efforts to consult with SMEs?

Step 1. Consider and score the complexity of the proposal

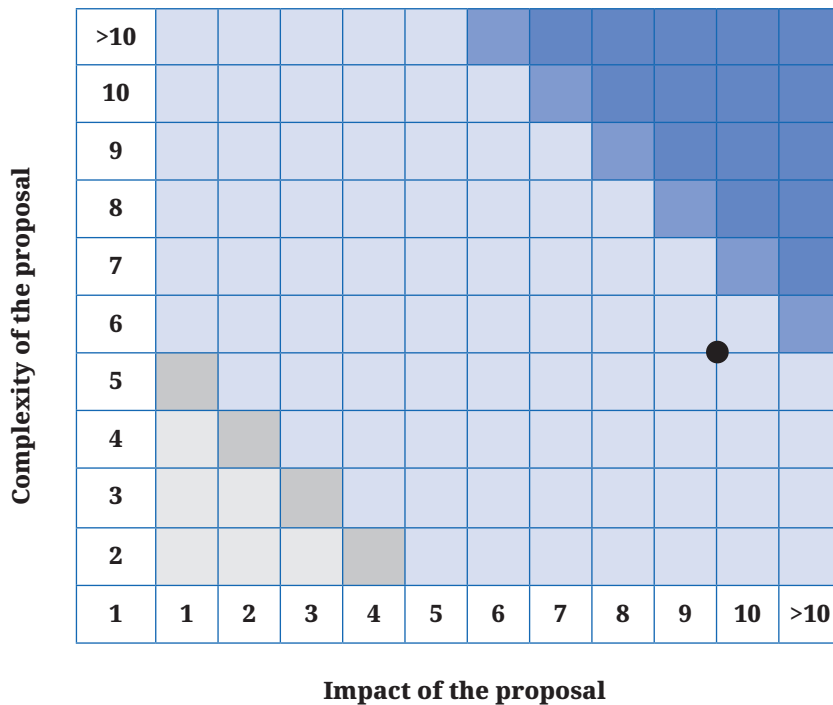
Question	Complexity of the proposal			Score	Remarks
1.a. Are there margins to choose how the measure is drafted?	No/little margin (0 points)	---	Yes, there is a relevant margin (3 points)		
1.b. Does the measure require additional compliance by SMEs?	No (0 points)	Yes, simple compliance (1 point)	Yes, complex compliance (3 points)		
1.c. Does the measure require SMEs to have a new or altered administrative procedure?	No (0 points)	Yes, modification of an existing procedure (even if simplified) (1 point)	Yes, a wholly new procedure (3 points)		
1.d. Have the provisions of the measure been modified before?	No modification in the past 5 years (0 points)	Latest amendments in the past 1-5 years (1 point)	New measure or latest amendments more recent than 1 year (3 points)		
1.e. How many public authorities would an SME have to deal with to comply with the measure?	None (0 points)	1 or 2 authorities (1 point)	More than 2 authorities (3 points)		
1.f. Do you already have a notion of the acceptance of the measure among SMEs?	I do not know / no rejection (0 points)	Expression of some discontentment (1 point)	Strong discontentment / rejection (3 points)		
TOTAL SCORE COMPLEXITY (sum of the individual scores)					

Step 2. Consider and score the expected impacts

Question	Impacts from the proposal			Score	Remarks
2.a. What proportion of businesses are affected (by number of businesses)?	Less than 3% (7,445 companies) (0 points)	Between 3% (7,445) and 20% (49,634 companies) (1 point)	More than 20% (49,634 companies) (3 points)		
2.b. Among the businesses affected, how many are SMEs?	Less than 20% (0 points)	Between 20% and 60% (1 point)	More than 60% (3 points)		
2.c. Does the measure specifically target SMEs?	No (0 points)	---	Yes (3 points)		
2.d. Does the measure contain a fee or levy?	No introduction or modification of fees / levies (0 points)	Modification of an existing fee / levy (1 point)	Introduction of a new fee / levy (3 points)		
2.e. What is the expected impact on businesses?	Minimal, or even savings (-1 point)	Medium impact (1 point)	Major impact (3 points)		
2.f. Is the quantification of compliance costs on SMEs difficult without consultation?	No (0 points)	Medium difficulty to quantify (1 point)	Highly difficult to quantify (3 points)		
TOTAL SCORE IMPACTS (sum of the individual scores)					

Step 3. Plot the total score on the Consultation Grid

The recommended form for SME consultation results use the grid below to combine the attained Complexity Score and the Impact Score.



- Simple consultation** – SMEs are notified of the proposal (e.g., by email on the ministry’s webpage) and their feedback is welcomed (but not mandatory). These consultations usually do not extend for a long period of time.

- Notice & comment** – Direct contact with SMEs, e.g., organizing a focus group meeting. If necessary, additional interviews and surveys can be conducted. Consultations should respect the minimum consultation period.

- Participatory approach** – Organization of more than one focus group meeting, if appropriate with different types of SMEs. Conducting interviews and additional surveys is strongly recommended. SMEs should be given the maximum possible amount of time to engage.

- Proposal (example)

PART III.

III.1. Introduction

III.1.1. Overview

This chapter will provide an applied example of how to conduct an SME Test. To increase its realism and underscore how performing the Test can support, and benefit from, a more general RIA exercise, an example has been developed from the *Regulatory Impact Assessment of the Draft Law on Water Management* (hereafter the Water RIA), produced by ISET Policy Institute in July 2017.¹⁰

The structure of the chapter as follows. In the remainder of the introductory section, we will present the context in which the Water RIA was conducted. The second section discusses how the stakeholder consultation was conducted during the RIA exercise – which data was collected, including where and how. It will then discuss the assumptions that were made and how missing values were estimated. We will also analyze how these actions could all have differed if the focus of the analysis was solely on producing a comprehensive SME Test; together with the additional information and data that could have been collected to improve the accuracy of the SME Test and how it could have been compiled. In the third section, we will conduct a preliminary distributional analysis using the results obtained during the previous stage. The fourth section will focus on how to use the cost calculator to quantify the PV of the total compliance costs, and to evaluate whether the impact on SMEs could be considered large or disproportionate. In section five, we will discuss how to assess alternative mechanisms and mitigating measures. The final section will explore how to complete the SME Test template.

III.1.2. Background to the example

As of 2017, Georgia had several laws and regulations governing water resources, most dating back to the late nineties. The Water Law of 1997 was the principal decree defining the foremost objectives and principles of water policy, including protection and rational use, prioritizing the supply of drinking water, and the prevention and control of harmful impacts. Other – related – laws specifically regulated groundwater (the 1996 Law on Mineral Resources) and coastal waters (the Marine Code, 1997, and the Law on Marine Space, 1998). Various provisions contained within these laws were later modified over the years. In particular, several regulatory mechanisms – deemed an obstacle to the economic development of the country – were modified or eliminated after 2003,¹¹ leaving gaps in the legislation that had not been filled.

The United Nations Economic Commission for Europe (UNECE) *Environmental Performance Review* of 2016 characterized the existing legislation as an “unworkable and fragmented system, because of [the] questionable legal validity of most of its provisions”. The existence of legal gaps between different legislative acts caused ambiguity and inefficiency in the management of

10. An electronic version of the RIA document can be downloaded from: <https://iset-pi.ge/en/publications/ria/1889-regulatory-impact-assessment-ria-on-law-of-water-resources-management>.

11. For example, charges for environmental pollution, including water pollution, together with the licensing system for surface water abstraction and for wastewater discharge had been abolished. In addition, the number of activities requiring special environmental permits to be issued by the environmental authorities had also been reduced.

major aspects characterizing the water sector, such as surface and underground water use, and pollution emissions in water bodies.

The Government of Georgia had an additional incentive to alter its water management legislation, as it was committed to meeting obligations derived from the Association Agreement (AA), signed with the EU in June 2014. Implementation of the principles of the EU Water Framework Directive (WFD) was seen as a partial solution towards the pressing challenges on Georgia's water management sector; primarily water pollution and the inefficient use of water resources.

The RIA confirmed that the Georgian Water Management System was inadequate for the sustainable and efficient management of water resources. The most problematic issues identified in the Georgian context had their roots in:

- ✓ Distorted economic incentives.
- ✓ The existence of strategic, legal, and institutional gaps.
- ✓ The lack of adequate financial resources for the proper management of water resources.

Although having a proper Water Management System was not at that stage considered a critical issue, thanks to the abundance of water resources and the limited level of economic development, the RIA report highlighted that the existing trends (increasing water consumption, alongside substantial water losses that accompanied a reduction in the quality of water bodies) suggested that water quality and availability issues were likely to emerge in the near future and would prove crucial for the sustainable development of the country, thereby placing pressure on firms and households alike.

The general objectives of the governmental intervention that emerged from the RIA analysis were:

1. Ensure the convergence of all water bodies toward good quality status.
2. Ensure the continued availability of drinking water and access to sanitation for the population.
3. Ensure access to water for all potential users.
4. Ensure the efficient allocation of water resources across alternative uses.
5. Ensure compliance with the EU WFD.

Several specific and operational objectives were associated with the general objectives listed above. Due to time and resources constraints, the RIA analysis however focused on the economic and social implications (in terms of the general objectives) of specific, high interest, aspects of the reform, namely:

- A. The introduction of a Basin Management System.
- B. The introduction of new economic instruments for water management.
- C. Changes in the permit system for water abstraction.
- D. Changes in monitoring practices and procedures.

The present example performs an SME Test focusing of points B and C (discussed briefly below) – the proposed introduction of new economic instruments for water management and changes in the permit system for water abstraction. They were selected because the RIA report highlighted that these legislative changes were likely to impact businesses.¹²

Introduction of new economic instruments for water management

Under the proposed legislation, the basis for defining the proper amounts of charges or fees was to be discerned under the “user pays” and “polluter pays” principles. The new legislation was supposed to re-introduce charges for surface water abstraction¹³ and introduce fees or charges for water discharge, thus aiming to re-align private incentives with the collective interest and to improve water use efficiency.

Changes in the permit system

Similarly to the legislation existing at the time, water use was grouped under two forms: common water use and special water use. Where Common water use was intended for non-commercial purposes, specifically to satisfy personal demands (drinking, households) with simple infrastructure (a maximum 10m shaft well or 25m borehole) that would not be subject to any permits or fees. Whereas special water use was defined as “performed with such technical infrastructure that can have a substantial impact on the water body”.¹⁴

The special water use of underground water bodies was expected to remain under the regulation of the Law on Mineral Resources,¹⁵ while for surface waters the proposed legislation would have required one of three types of permit:

- (a) water abstraction.
- (b) water discharge.
- (c) combined water use permits.

In addition, activities subject to ecological expertise would have been released from the requirement to provide water use permits on provision of the environmental impact permit.¹⁶

According to the draft legislation, to receive a water use permit an applicant would have to submit the required documents describing the technical and ecological characteristics of surface water abstraction or discharge. Permits for surface water use would have been given for 5 years for industrial purposes, 10 years for irrigation, 30 years to hydropower plants, and 30 years for water supply infrastructure. The holder of the permit would be liable to establish the required infrastructure for the treatment of wastewater and ensure the metering of water use or discharge with adequate technologies.

12. See page 47 of the RIA report.

13. These charges were intended to be defined under the Law on Fees for Natural Resource Use.

14. A substantial impact was defined as: (a) the discharge of polluting substances or (b) water abstraction of more than 20 cubic meters a day.

15. The Law of Georgia on Mineral Resources, 17 May 1997, #242-IIS.

16. Activities subject to environmental impact permits are all industrial and mining activities with an impact on the environment, including hydropower and thermal power plants with an installed capacity above 2MW and 10MW, correspondingly; reservoirs above 10,000 cubic meters; wastewater treatment plants with a capacity above 1,000 cubic meters; and the building of sewage networks. The Law of Georgia on Environmental Impact Permit, 14 December 2007, #5602-RS.

Water users that were already operating and subject to a permit would have had 12 months to equip their facilities with the necessary technologies. Monitoring compliance to the conditions set on the issuance of water users' permits for the protection of water bodies from pollution was attributed to the Department for Environmental Supervision (DES) within the Ministry of Environment and Natural Resource Protection (MENRP).

The RIA analysis compared two main options:

- ✓ Option 1: Full implementation of the proposed regulations in the presence of a data exchange portal and donor support in preparation for the River Basin and Watershed Management Project (RBWMP).
- ✓ Option 2: Full implementation of the proposed regulations without donor support or a data exchange.

Our example performs an SME Test on Option 2, which was found to have the highest costs of compliance for private firms. This was the case because the Government was not expected, under this option, to develop a data exchange service facilitating the exchange of information and data between private and public actors, or among public actors. This example relies on the data collected at the time and adopts identical assumptions for all the parameters available.

III.2. Stakeholder consultations and data collection

The RIA team opted for a multiplicity of methods to develop a comprehensive overview of the situation of water resource management, the national policy, the existing problems, and of the possible impacts of the proposed regulations in Georgia at the time. Their methods included, but were not limited to, desk research, an expert literature review assessment, requests for official data, telephone interviews, and both informal and formal in-depth interviews with the identified stakeholders.

The consultation and information gathering phases were divided into two main parts:

Phase 1: The goal of the first phase of the consultation was to identify the major stakeholders and all the institutional links within the water management system; to define problems, their nature and their causes; and to identify the major objectives of the new legislation.

Phase 2: The team received feedback on the draft law from all the identified stakeholders to understand their foremost concerns.

Table 3.1. shows the influence-interest matrix, including indication of the main stakeholders consulted at the time:

Table 3.1. Influence/interest matrix

INFLUENCE / INTEREST	LOW INFLUENCE	HIGH INFLUENCE
LOW INTEREST	National Association of Local Governments (NALAG), Local Municipalities	Ministry of Economy and Sustainable Development (MoESD), Ministry of Finance (MoF), Local Municipalities, Ministry of Labor, Health and Social Affairs (MoLHSA), Parliament
HIGH INTEREST	Industrial Water Users, Hydro Power Developers, Thermal Power Plants, Georgian Water and Power (GWP), Local Water Suppliers, Environmental Protection of International River Basins Project, Non-Governmental Organizations (NGOs)	Department of Environmental Supervision (DES), Georgian National Energy and Water Supply Regulatory Commission (GNERC), Ministry of Environment and Natural Resource Protection (MENRP), Ministry of Agriculture (MoA), Ministry of Regional Development and Infrastructure (MRDI), National Environmental Agency (NEA), United Water Supply Company of Georgia (UWSCG) - State owned company, Georgian Amelioration Ltd. (GA) - State owned company, National Food Agency (NFA), Ministry of Energy (MoE)

Source: RIA on the Draft Law on Water Management (2017)

A shortlist of the data, relevant for this exercise, that was collected during the RIA during the two consecutive phases of consultations and information gathering is provided in Table 3.2. below, together with additional information collected or assumed specifically for this exercise.

Table 3.2. Data and information collected

DATA AND INFORMATION	METHODS USED / SOURCE
Economic activity by sector from within basins (economic structure, employment, turnover, etc.)	Desk research / National Statistics Office of Georgia (Geostat)
Business statistics	Desk research / Geostat Business data
Statistics on water users, incidence by basin and sector	Consultation / USAID Survey
Statistics on water use by sector and for the Black/Caspian Sea Basins	Desk research and consultations / MENRP
Values of permit fees and water fees	Consultations / MENRP
Parameters for discounting (nominal interest rate on 10-year treasury notes and long-term inflation rates)	Desk research / NBG
Wages by sector, firm size, and occupation	Desk research / Geostat
Cost of producing permit/license documentation	Consultation with consulting companies

III.2.1. Stakeholder consultations – the main findings and what should be added in the context of an SME Test

Because it was never a consideration of the Water RIA analysis, SMEs were not directly featured during its data collection or public consultation phases. However, the evidence gathered throughout the various stages of the analysis highlighted the need for specific engagement with the stakeholders.

For such engagement, there would have been several possible channels at our disposal:

- ✓ Initially, we would have attempted to obtain information on affected SMEs by employing Geostat’s services. Significantly, it is possible to obtain disaggregated information from Geostat, yet the higher the level of disaggregation, the longer it takes to attain (which is an important factor to acknowledge when planning your data collection strategy). If Geostat were to possess such data, we could have enquired about the sources and hence acquired the information relevant to SMEs.
- ✓ Secondly, to ensure the greatest possible accuracy, we would likely have had to survey the firms operating in the river basins concerned and organize focus groups (based on prepared questionnaires, as outlined in the SME Test Methodology) with a significant sample of the active SMEs:
 - This could have been completed, for instance, by mapping a few supply chains and identifying the firms involved, and then asking whether they have relations with SMEs that are likely to abstract or discharge water.
 - Other sources of information could have been local municipal registers and networks of the relevant business associations.
 - Once the names and addresses of the small entrepreneurs was established, we would have analyzed the data to define the “standard operating SME”, i.e., the archetypical SME that would require a license for abstracting or discharging water.
 - If that were infeasible or too burdensome to elaborate, we would use sample SMEs, of various sizes, by type of sector, turnover, and geographical location, to ensure adequate diversity within cases.

III.2.2. Relevant data – presenting the data required for an SME Test. What was and was not collected (and where it could have been obtained)

DISCLAIMER: the full RIA analysis was extremely complex and performed at the basin level. For simplicity, this example uses a modified data structure inspired by the original assessment. The format in which we present the data, although not an accurate replica of the original, is designed to allow the user of this guide to understand and reproduce the logic of the assessment.

NOTE: we will be indicating, together with the information collected and used, where the relevant values must be input into Excel (under CELL, ROW, and COLUMN).

III.2.2.1. Parameters for discounting

The following data was gathered from the NBG website:

Nominal Discount Rate	10.6%	Nominal interest rate on 10-year government bonds	CELL B1
Inflation rate	3%	Long-term inflation rate target	CELL B3

III.2.2.2. Period in which capital costs need to be repeated/the time boundary of the analysis (excluded)

As the first-time that licenses and permits need to be renewed (at least for one group of licensees) is after five years, the analysis adopts a 5-year time horizon. This means we will have to input a value of 6 into the calculator in CELL B5.

Period in which capital costs need to be repeated/time boundary of the analysis (excluded)	6
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III.2.2.3. Business population parameters

Calculation of the business population affected by the reform, and of their relevant growth rates, proved to be one of the most complex and challenging exercises. It required identification of the number of businesses in each affected basin; their classification by sector; and an estimation of how many businesses would have needed to request an abstraction or discharge permit and to submit the necessary documentation with the help of a specialized consulting company. In this exercise we will assume that the information has been elaborated for all businesses in the affected basins at the aggregate level.

We first needed to estimate the initial population of firms requiring discharge or abstraction permits. In the RIA exercise, this was completed using two main tools:

- ✓ Geostat Business Statistics – reviewing the estimated number of businesses by sector.
- ✓ A USAID funded survey on water users, also classified by sector, which provided information about the share of companies that would have required discharge or abstraction permits.

Using the information about the share of companies requiring discharge or abstraction permits in each sector and multiplying it by the number of companies in each sector, we consequently obtained the number of companies, by sector, requiring discharge and abstraction permits.

As we also needed the growth rate of the population over time, we followed the following approach:

1. We estimated the growth rate of the number of businesses in each sector using Geostat data. When doing so, one should review at least a five year period (unless the data is unavailable or there are reasons to believe that trends have changed more recently, in which case a shorter time period can be utilized).
2. We calculated the shares of permits demanded by each sector.
3. We calculated a weighted average of the growth rates, weighted by the shares of permits demanded by each sector.

The numbers reported below were obtained from an ad-hoc analysis in Excel based on the available data. A depiction of the Excel worksheet with all the relevant results can be found in Table 3.3.

Unfortunately, as mentioned above, information disaggregated by firm size was unavailable at the time (nor was it required to perform an analysis by firm size). Theoretically, however, we could have obtained disaggregated data from Geostat. Concerning the case-specific data (like the USAID survey data that was instrumental to the analysis), it might have been problematic to obtain disaggregated data, as it was not designed as a data collection exercise.

In the following example, we will discuss how we could have addressed the issue were it necessary at the time.

SMEs comprise the majority of the business sector in Georgia, and this was also the case in 2017. Thus, one can assume that the distribution of enterprises in the broader population (ALL businesses) was as follows:

- ✓ Small companies – 98.4%
- ✓ Medium companies – 1.3%
- ✓ Large companies – 0.3%

However, we cannot assume this was also the share of companies needing permits. In this case, we should perform an additional investigation by addressing stakeholders and experts, and potentially conducting a survey of water users (or simply having USAID insert their survey information about the size of the company). On the assumption such research was compiled, the relevant percentages for OUR population (companies requiring permits in the affected basins) might be the following:¹⁷

- ✓ Small companies – 81% (approximately 5.5% would require permits)
- ✓ Medium companies – 15% (around 77% would require permits)
- ✓ Large companies – 4% (about 89% would require permits)

17. As permits are only required for companies with a substantial impact on water bodies, we believe these assumptions to be reasonable.

In this scenario, SMEs represent 96% of the companies requiring permits, while the share of SMEs (aggregating small and medium enterprises) needing permits would be 6.4%.

NOTE: we input the population as the estimated number of permits requested, by group [CELLS B8, B9, & B10], as the cost per permit is identical and we assume different documents need to be produced for each permit (discharge or abstraction). If a joint presentation for two requests lowered the cost of preparing the documentation, our results would slightly overestimate the total cost (only for those companies needing both types of permit – information on how often this happens is unavailable, but the differences in the shares of companies needing the two types of permits – even larger when considering different basins – indicates that this happens infrequently).

For simplicity, we will assume that the numbers of small, medium, and large companies grow at the same rate [CELLS B13, B14, & B15], although this might not be the case. If we had to estimate a different growth rate, we would have employed Geostat data (where it is available by size). This could also notionally have been compiled at the sectoral level AND by size, provided Geostat shared the required data.

Table 3.3. Preparatory analysis – data for the cost calculator

	Agric	Mining	Manuf	HPPs	Water Sys	TPPs	Oth. EGW	Constr	Trade	Hotels	Transport	Real est	Education	Health	Other serv	Total
Number of companies	849	522	7969	72	34	5739	32791	4390	3680	8915	1154	1797	2136	70091		
% needing discharge	0.13	0.3	0.04	1	1	0	0.013	0	0.013	0	0.01	0	0.018	0.06		
% needing abstraction	0.2	0.5	0.07	1	1	0	0.015	0.1	0.01	0.01	0.016	0.05				
Number needing discharge	110	157	319	72	39	0	0	459	0	57	0	89	0	32	128	1462
Number needing abstraction	170	261	558	72	39	0	0	918	492	439	37	89	0	29	107	3211
Total permits	280	418	877	144	78	0	1377	496	37	178	0	61	235	4673		
Share of permits by sector	5.992%	8.945%	18.767%	3.082%	1.669%	0.000%	29.467%	10.529%	0.792%	3.809%	0.000%	1.305%	5.029%			
Growth rate # businesses in sector	5.5%	4.2%	3.9%	0.0%	0.0%	0.0%	5.1%	2.7%	5.8%	7.6%	3.6%	2.6%	1.9%	7.3%		
Contribution to growth rate	0.330%	0.376%	0.732%	0.000%	0.000%	0.000%	1.503%	0.284%	0.060%	0.137%	0.000%	0.025%	0.367%			
Average growth rate	4.43%															
Assumptions share companies	Permits															
Small	81%															
Medium	15%															
Large	4%															
	TOTAL SMEs															
	Share of SMEs needing permits															
	6.42%															
Shares in total population	Companies															
Small	68970															
Medium	911															
Large	210															
	Total employees															
	329112															
	145463															
	233589															
	Total turnover															
	22970.7															
	16568.3															
	32201.1															
	Average employees															
	4.7718138															
	159.67398															
	1112.3286															
	Average turnover															
	0.3330535															
	18.186937															
	153.33857															
	Employees in sample															
	18061.315															
	111931.46															
	208005.44															
	337998.22															
	Turnover in sample															
	1260.608															
	12749.04															
	28674.31															
	42683.96															
	% empl															
	5.3%															
	33.1%															
	61.5%															
	67.2%															
Average wages	Average salaries															
Small	776.1															
Medium	1196.9															
Large	1195.9															
	Admin %															
	Admin salary															
	4.5842878															
	95.84%															
	6.5122191															
Average cost per permit	Hourly wage															
Discharge	1500															
Abstraction	800															
	Weighted average cost per permit															
	1019.0028															

Population size (# Enterprises)	
Small	3,785
Medium	701
Large	187
Average growth (# Enterprises)	
Small	4.43%
Medium	4.43%
Large	4.43%

III.2.2.4. Fee values (incremental)

The values of fees to be paid by the respective companies were as follows:

- ✓ **Permit/license fees:** all companies abstracting surface water or discharging into surface water bodies had to acquire the corresponding license/permit, incurring a cost of 100 GEL each (separate permits were required for abstracting and for discharging).
- ✓ **User fees (surface water abstraction):** abstractors of surface water had to pay for the water they abstracted. For simplicity, we will be attributing a constant cost of 0.01 GEL per/cub.m and we will be assuming the following average yearly consumption for group of companies:
 - Small companies: 8,000 cubic meters
 - Medium companies: 24,000 cubic meters
 - Large companies: 100,000 cubic meters

The corresponding yearly costs have been included within the table below.

NOTE: we have two options when inputting fees into the calculator (including none, one, or both, depending on the case we are studying):

- ✓ Input one-time (typically initial) fees [CELLS B18, B19, & B20].
- ✓ Input recurring fees (repeated yearly – input the yearly amount) [CELLS B23, B24, & B25].

Initial/one-time fees (incremental)	
Small	100
Medium	100
Large	100
Recurring fees (incremental)	
Small	80
Medium	240
Large	1,000

III.2.2.5. Employment and turnover statistics

This analysis was not performed in 2017. Therefore, the respective data was not collected. If needed, however, this information could be obtained from Geostat within its Statistical Survey of Enterprises.

As Geostat provides aggregated values of employed people and turnover by group size, to define the average number of employees and average turnover, one would have had to divide the total number of employees and the aggregate turnover by the number of businesses in each group.

The calculation steps can be seen in Table 3.3. above, while the summary statistics are reported below. The average number of employees per business and per size of group must be added into Excel [CELLS B28, B29, & B30], equally the average turnover per business and per size group must also be input [CELLS B33, B34, & B35].

Average number of employees per business	
Small	4.771814
Medium	159.674
Large	1112.329
Average turnover per business (mln. GEL)	
Small	0.333054
Medium	18.18694
Large	153.3386

III.2.2.6. Labor cost parameters (repeated costs)

In this particular case, there were only internal administrative costs for the management of the licenses and for reporting information to the Ministry.

The consultations with stakeholders indicated that an average of four hours per year was spent for all companies. In the RIA, we had just one hourly rate. However, if we had to calculate the average cost for SMEs and large companies from average earnings, using Geostat data, we could have proceeded as follows (also see Table 3.3. above).

1. Study the average earnings per employee, per each size group.
2. Calculate the weighted average of earnings per employee for the SMEs in our sample (Geostat provides data about small and medium enterprises separately). The weights would be the shares of small and medium enterprises in the sample of companies needing permits.
3. Calculate average hourly salaries, assuming 22 working days per month at 8 hours per day.
4. Adjust the hourly salaries to reflect the relationship between the average salary per employee and average salary for clerks (ISCO classification). In our case, in 2017, they appear to receive 95.84% of the average salary.

As we are dealing with recurring administrative staff costs, we need to complete ROWS 38-40. Values for SMEs are inserted in COLUMN B, while those for Large companies fit into COLUMN C.

It is important to remember that the calculator requires the time spent obtaining, filling in, and delivering documents (in hours) inputting each time the task has to be performed. It is also requested that the number of times the action must be repeated in one year (in this case, 1) be input. The calculator will take care of estimating the total (repeated) yearly costs.

Staff labor costs	SMEs	LARGE
Average hourly wage of administration	4.58	6.51
Time spent filling in, obtaining, & delivering documents (hours)	4	4
Number of obligatory submissions per year	1	1

III.2.2.7. Other operating costs parameters (repeated costs)

There were no other operating costs expected. However, for the sake of this exercise, we assume that it was necessary to engage service providers for regular checkups to ensure that companies would keep meeting the requirements of the legislation.

We will estimate that the yearly cost of this service was 150 GEL for SMEs and 750 GEL for large companies. In this case it is also necessary to input further cost for these additional services [ROW 54, COLUMN B for SMEs & C for Large companies] and the number of times the cost is repeated in a given year [ROW 59, COLUMN B for SMEs and C for Large companies]. If you have more than one payment (of the same amount), you would simply include the amount of one payment and indicate the correct number of payments in a given year.

If you have varying payment amounts, there are different options at your disposal. The best course would be to have a different row for each payment. However, in case the calculator runs out of rows, you could instead calculate the average amount per payment and report that in one row as a unit cost, while reporting the total number of payments in the row for the quantity.

Other operating costs	SMEs	LARGE
Unit cost	150	750
Quantity	1	1

III.2.2.8. Capital costs (one-time costs)

In this category we include the costs associated with the production of the documentation necessary for permit requests, and as they were required every five or more years (depending on the type of business) these were not repeated annual costs.

Permit/license documentation: all companies abstracting surface water or discharging into surface water wishing to obtain a permit or license have to submit the required documentation. The cost for obtaining such documentation has been quantified (after consultation with the largest company in Georgia providing such services) at 1,500 GEL for the preparation of documentation for abstraction and 800 GEL for documentation relating to discharge.

Given that we did not distinguish between these two types of requests in the Excel data within the previous sections, we will input the weighted average cost per permit here; considering that 31.3% of requests were expected to be for discharge permits and 68.7% for abstraction permits. The average cost per permit then becomes 1,281 GEL.

Like before, it is necessary to input both the information about the unit capital cost [ROW 67, COLUMN B for SMEs and C for Large companies] and the number of times the cost is repeated in the initial year [ROW 72, COLUMN B for SMEs and C for Large companies].

No further capital costs were expected or quantified at the time.

Capital costs	SMEs	LARGE
Unit cost permit documentation	1,281	1,281
Quantity permit documentation	1	1

III.2.2.9. Other opportunity costs (repeated costs)

No additional opportunity costs were identified. For the purpose of this exercise, we will be assuming, however, that – every year – the day of inspection by the service company (subsection III.2.2.7.) will result in a loss of profits averaging 250 GEL for SMEs and 2,000 GEL for large companies.

In this instance, we must input information about both the number of times the cost is repeated in a given year [ROW 89, COLUMN B for SMEs and C for Large companies] as well as the unit cost [ROW 94, COLUMN B for SMEs and C for Large companies].

Other opportunity costs (recurring)	SMEs	LARGE
Quantity in a given year	1	1
Unit cost - additional opportunity cost	150	2,000

III.2.3. Distributional analysis

The distributional analysis is the first step of an SME Test and its result suggest whether to continue the Test or stop the process if it does not appear to be necessary.

There are several questions one should answer to inform this decision. Here are a few suggestions from the Methodology document:

Guiding questions:

- ✓ *What economic sectors sub-sectors fall within the scope of the proposal?*

ANSWER: our preliminary analysis indicates that effectively all sectors will be impacted.

- ✓ *Are SMEs up or down the supply chain affected?*

ANSWER: yes, the analysis suggests that SMEs will be impacted both up and down the supply chain.

- ✓ *How many are there, and what is the proportion of medium, small, and micro-enterprises, respectively?*

ANSWER: our estimates indicate that potentially 6.4% of all SMEs will require permits (about 5.5% of small enterprises and 77% of medium enterprises) both up and down the supply chain.

- ✓ *What is the proportion of each SME category in terms of employment, annual turnover, market share, or under other relevant metrics?*

ANSWER: our estimates indicate that small businesses will constitute 81% of those affected, with 15% of medium businesses and 4% of large companies impacted. The affected small businesses will amount to 5.3% of the total employment in the sample and 3% of the total turnover, while the respective statistics for medium sized businesses will be 33.1% and 29.9%. The employment share and turnover shares of large companies will be 61.5% and 67.2%, respectively.

- ✓ *Are there expected negative impacts of any type for SMEs?*

ANSWER: yes, our preliminary analysis has identified several negative impacts on SMEs, in terms of additional fees to be paid, bureaucratic procedures to conduct, the hiring of external consultants, and due to the additional capital, operational, and further opportunity costs.

Simply from this preliminary analysis, it already appears that a notable share of SMEs would be negatively affected by the legislative changes, thus warranting continuation of the analysis.

III.2.4. Impact analysis

Having input the collected data, the results generated by the cost calculator are presented at this stage.

III.2.4.1. Total PV compliance costs

In this worksheet all costs are aggregated and discounted. The analysis, as shown above, covers five periods.

Concerning how the different types of cost are allocated in the worksheet, the cells reporting SME cash flows are highlighted in green, while those reporting the cash flows of Large companies are highlighted in red.

NOTE: at the top left of the worksheet you can find the real discount rate, used in the discounting process and calculated on the basis of the nominal discount rate and the planned inflation rate.

Table 3.4. PV Compliance Cost Calculator

Compliance Cost Calculator - SMEs

Based on article 19, paragraph 1

REAL DISCOUNT RATE	7.98%										
	0	1	2	3	4	5	6	7	8	9	10
Labor costs	41,092	84,006	87,725	91,609	95,667	48,869	-	-	-	-	-
Other Operational costs	336,450	687,825	718,275	750,075	783,300	400,125	-	-	-	-	-
Capital costs	5,746,566	254,919	265,167	277,977	289,506	-	-	-	-	-	-
Other Opportunity costs	336,450	687,825	718,275	750,075	783,300	400,125	-	-	-	-	-
Initial fees	448,600	468,500	489,200	510,900	533,500	-	-	-	-	-	-
Recurring fees		471,040	491,920	513,600	536,400	560,080	-	-	-	-	-
TOTAL COMPLIANCE COSTS	6,909,158	2,654,115	2,770,562	2,894,256	3,021,673	1,409,199	-	-	-	-	-
DISCOUNT FACTOR	1.000	0.931	0.867	0.808	0.752	0.701	0.652	0.608	0.566	0.527	0.491
DISCOUNTED COMPLIANCE COSTS	6,909,158	2,471,735	2,402,880	2,337,654	2,272,877	987,149	-	-	-	-	-
TOTAL PV COMPLIANCE COSTS SMEs (GEL)	17,381,453										

Compliance Cost Calculator - Large Enterprises

Labor costs	2,435	4,974	5,195	5,429	5,664	2,800	-	-	-	-	-
Other Operational costs	70,125	143,250	149,625	156,375	163,125	83,250	-	-	-	-	-
Capital costs	239,547	249,795	261,324	272,853	284,382	-	-	-	-	-	-
Other Opportunity costs	187,000	382,000	399,000	417,000	435,000	83,250	-	-	-	-	-
Initial fees	18,700	800	900	900	900	-	-	-	-	-	-
Recurring fees		187,000	195,000	204,000	213,000	222,000	-	-	-	-	-
TOTAL COMPLIANCE COSTS	517,807	967,819	1,011,044	1,056,557	1,102,071	391,390	-	-	-	-	-
DISCOUNT FACTOR	1.000	0.931	0.867	0.808	0.752	0.701	0.652	0.608	0.566	0.527	0.491
DISCOUNTED COMPLIANCE COSTS	517,807	901,314	876,868	853,374	828,968	274,170	-	-	-	-	-
TOTAL PV COMPLIANCE COSTS LARGE COMPANIES (GEL)	4,252,501										

In Table 3.4. above, the total compliance costs appear to be substantially higher for SMEs. However, SMEs are much more numerous than large companies, as such proper comparison and an assessment of the relative costs of legislative changes for SMEs and for large enterprises requires an approach that takes this into account.

III.2.4.2. Ratios

The “Ratios” worksheet (Figures 3.1. and 3.2.) has thus been developed for this purpose. In this worksheet, the total PV of compliance costs for SMEs and for large companies has been utilized to obtain:

- ✓ The average yearly cost per enterprise, obtained by dividing the total PV of compliance costs for SMEs and large enterprises by the average number of companies in each category over the time horizon of the analysis.
- ✓ The average yearly cost per employee, obtained by dividing the average yearly cost per enterprise by the average number of employees in each category over the time horizon of the analysis.
- ✓ The average yearly cost per million GEL of turnover, obtained by dividing the average yearly cost per enterprise by the average value of turnover (in million GEL) in each category over the time horizon of the analysis.
- ✓ The average cost per enterprise, for SMEs and large enterprises, in the first year of activity.
- ✓ The average cost per employee, for SMEs and large enterprises, in the first year of activity.
- ✓ The average cost per million GEL of turnover, for SMEs and large enterprises, in the first year of activity.

Figure 3.1. Ratios over the time horizon of the analysis

	A	B	C	D	E	F	G	H
1						SMEs		LARGE
2								
3		AVERAGE YEARLY COST PER ENTERPRISE (GEL)				709		4,165
4								
5		AVERAGE YEARLY COST PER EMPLOYEE (GEL)				24		4
6								
7		AVERAGE YEARLY COST PER MLN. TURNOVER (GEL)				227		27
8								
9		Average number of enterprises in the period under consideration						
10		Small	4136					
11		Medium	766					
12		Large	204					

Figure 3.2. Ratios during the first year of the analysis

	A	B	C	D	E	F	G	H
15						SMEs		LARGE
16								
17						1,540		2,769
18								
19						53.14		2
20								
21						494		18.06
22								
23								
24								
25								
26								

Accounting for the difference in the number of enterprises in each group apparently reverses the results observed in the previous worksheet, with the average yearly cost per enterprise becoming substantially lower for SMEs. However, when one factors in the average yearly cost per employee and the average annual cost per million GEL of turnover, and – more so – these average costs in the first year, expenses appear to be substantially higher for SMEs. If this were a genuine analysis, such a result could suggest a disproportionate burden on SMEs.

III.2.5. Assessment of alternative mechanisms and mitigating measures

Interestingly, although not in its scope, the 2017 Water RIA report itself had identified a potential disproportionate impact on SMEs (especially on small enterprises). Within the qualitative analysis on expected impacts on SMEs, the report included the following:

The costs associated with the reform are not expected to be substantial for medium and large companies (more than 50 employees and yearly turnover over 12 mln. GEL). However, they may prove significant for small enterprises (up to 50 employees and yearly turnover up to 12 mln. GEL). For this reason, the government may want to consider introducing a simplified regime for small enterprises and even the introduction of a longer transition period and/or the realization of special support programs for such enterprises.

Performing an SME Test, and the availability of the cost calculator, would have clearly shown the reasoning behind this statement, while also supporting the analysts in their quantification of the negative impact on SMEs.

The 2017 RIA was correct to underscore two possible decisions, longer transition periods for compliance and the need for the support and assistance of SMEs, to mitigate the disproportionately negative impacts in Option 2 of the Assessment.

One example of such assistance might, for instance, take the form of streamlining the procedure for preparing the necessary documentation for a permit or license to abstract surface water or to discharge into surface water. To that end, because of the similarities between firms, providing standardized templates and forms ought to be considered so that SMEs could use the background

values and information already provided, where available. Promoting the creation of consortiums of SMEs affected by the proposal would also be a beneficial recommendation; under which enterprises could pool resources and share the costs of preparing for such applications. Existing organizations and associations of stakeholders could additionally be supported in the provision of training and expert advice to SMEs.

A further possible mitigation measure, not explicitly mentioned in the Water RIA but worth consideration, is the utilization of the regulatory enforcement phase as a window of opportunity for SMEs to “catch up” with regulatory requirements (i.e., obtaining the necessary licenses) if they failed to do so initially. In that context, enforcing authorities, instead of imposing fines, could inspect SMEs, offer support, facilitate filing, and (if conditions are met) the release of licenses, thus helping ensure the proper functioning of firms according to the regulation. Such a possibility could be offered to the SMEs for a defined period – for instance, within the first 3-4 years of the regulation coming into force, after which the usual sanctions regime would apply.

III.2.6. Completing the template

The SME Test Report is the key output from your analysis. It presents the ministry’s evidence-based judgements and responses to the questions set out in the Test.

Under a standardized SME Test template, we would elaborate the Report along those uniform standards. This fosters transparency and consistency, and it increases the chances that the findings are taken into account during the decision-making process.

To make our findings matter, we recommend following some good practices, including:

- ✓ Use clear and concise (yet precise) language, avoiding complex technical terminologies and administrative jargon.
- ✓ Be measured and prudent in your claims, substantiating them with facts and references.
- ✓ Rephrase, or explain in footnotes, technicalities, or include them within the technical annexes attached to the report.
- ✓ Do not present opinions as facts, checking the accuracy of every claim and acknowledging where facts may be inconclusive.
- ✓ Make your document easy to navigate, ensuring sections are clearly marked and following a coherent logical flow throughout, while using visuals and tables clearly.

REFERENCES

- BIS. (2015). *Better Regulation Framework Manual: Practical Guidance for UK Government Officials*. Department for Business, Innovation and Skills, London, March 2015. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/583871/bis-13-1038-Better-regulation-framework-manual.pdf.
- Department of the Taoiseach. (2009). *Revised RIA Guidelines: How to Conduct a Regulatory Impact Analysis*. Dublin, June 2009. https://govacc.per.gov.ie/wp-content/uploads/Revised_RIA_Guidelines_June_2009.pdf.
- HM Treasury. (2018). *The Green Book: Appraisal and Evaluation in Central Government*. The Stationery Office, London. Updated March 2018. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/685903/The_Green_Book.pdf.
- National Institute of Clinical Excellence. (2020). *Online Glossary*. Accessed 25 Aug 2020 from <https://www.nice.org.uk/glossary>.
- OECD. (2018). *OECD Regulatory Policy Outlook 2018*. OECD Publishing, Paris. <https://doi.org/10.1787/9789264303072-en>.

APPENDIX

NOTE: the values indicated in the following figures are simply illustrative and in place to offer you an idea of how output worksheets (generated automatically by the calculator) should appear.

A1. Labor costs

LABOR COSTS: 1. Labor costs of complying with information obligations (staff)		Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Period 8	Period 9	Period 10
Expected TIME needed per business	Time spent on filling / obtaining and delivering documents (hours)	2	2	2	2	2	2	2	2	2	2
	Number of obligatory submission / year	4	4	4	4	4	4	4	4	4	4
WAGES	Average cost of relevant staff (hour)	4	4	4	4	4	4	4	4	4	4
POPULATION	Number of entities	15000	15150	15455	15923	16570	17415	18486	19820	21463	23473
Total Cost		480000	484800	494560	509536	530240	557280	591552	634240	686816	751136

LABOR COSTS: 2. Labor costs of complying with information obligations (external)		Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Period 8	Period 9	Period 10
Expected TIME needed per business	Time spent on filling / obtaining and delivering documents (hours)	2	2	2	2	2	2	2	2	2	2
	Number of obligatory submission / year	1	1	1	1	1	1	1	1	1	1
WAGES	Average cost (hour)	10	10	10	10	10	10	10	10	10	10
POPULATION	Number of entities	15000	15150	15455	15923	16570	17415	18486	19820	21463	23473
Total Cost		300000	303000	309100	318460	331400	348300	369720	396400	429260	469460

LABOR COSTS: 3. Other labor costs of complying with regulation (staff)		Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Period 8	Period 9	Period 10
Expected TIME needed per business	Time spent on other activities required by/necessary because of new regulation (hours)	1	1	1	1	1	1	1	1	1	1
	Number of times / year	12	12	12	12	12	12	12	12	12	12
WAGES	Average cost of relevant staff (hour)	3	3	3	3	3	3	3	3	3	3
POPULATION	Number of entities	15000	15150	15455	15923	16570	17415	18486	19820	21463	23473
Total Cost		540000	545400	556380	573228	596520	626940	665496	713520	772668	845028

LABOR COSTS: 4. Other labor costs of complying with regulations (external)		Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Period 8	Period 9	Period 10
Expected TIME needed per business	Time spent on other activities required by/necessary because of new regulation (hours)	1	1	1	1	1	1	1	1	1	1
	Number of times / year	1	1	1	1	1	1	1	1	1	1
WAGES	Average cost of relevant staff (hour)	6	6	6	6	6	6	6	6	6	6
POPULATION	Number of entities	15000	15150	15455	15923	16570	17415	18486	19820	21463	23473
Total Cost		90000	90900	92730	95538	99420	104490	110916	118920	128778	140838

A2. Other operating costs

OTHER OPERATING COSTS:		Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Period 8	Period 9	Period 10
Price per cost category	Unit cost category 1	1	1	1	1	1	1	1	1	1	1
	Unit cost category 2	2	2	2	2	2	2	2	2	2	2
	Unit cost category 3	0	0	0	0	0	0	0	0	0	0
	Unit cost category 4	0	0	0	0	0	0	0	0	0	0
	Unit cost category 5	0	0	0	0	0	0	0	0	0	0
Quantity per cost category	Quantity cost category 1	100	100	100	100	100	100	100	100	100	100
	Quantity cost category 2	75	75	75	75	75	75	75	75	75	75
	Quantity cost category 3	0	0	0	0	0	0	0	0	0	0
	Quantity cost category 4	0	0	0	0	0	0	0	0	0	0
	Quantity cost category 5	0	0	0	0	0	0	0	0	0	0
POPULATION	Number of entities	15000	15150	15455	15923	16570	17415	18486	19820	21463	23473
Total Cost		3.75E+06	3.79E+06	3.86E+06	3.98E+06	4.14E+06	4.35E+06	4.62E+06	4.96E+06	5.37E+06	5.87E+06

A3. Capital costs

CAPITAL COSTS:		Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Period 8	Period 9	Period 10
Price per cost category	Unit cost category 1	1	1	1	1	1	1	1	1	1	1
	Unit cost category 2	1	1	1	1	1	1	1	1	1	1
	Unit cost category 3	0	0	0	0	0	0	0	0	0	0
	Unit cost category 4	0	0	0	0	0	0	0	0	0	0
	Unit cost category 5	0	0	0	0	0	0	0	0	0	0
Quantity per cost category	Quantity cost category 1	500	500	500	500	500	500	500	500	500	500
	Quantity cost category 2	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
	Quantity cost category 3	0	0	0	0	0	0	0	0	0	0
	Quantity cost category 4	0	0	0	0	0	0	0	0	0	0
	Quantity cost category 5	0	0	0	0	0	0	0	0	0	0
POPULATION	Number of entities	15000	150	305	468	647	845	1071	1334	1643	2010
Total Cost		67500000	675000	1372500	2106000	2911500	3802500	4819500	6003000	7393500	9045000

A4. Other opportunity costs

OPPORTUNITY COSTS		Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Period 8	Period 9	Period 10
Average days of initial delay	Days of delay type 1	1	1	1	1	1	1	1	1	1	1
	Days of delay type 2	0	0	0	0	0	0	0	0	0	0
	Days of delay type 3	0	0	0	0	0	0	0	0	0	0
	Days of delay type 4	0	0	0	0	0	0	0	0	0	0
	Days of delay type 5	0	0	0	0	0	0	0	0	0	0
Cost per day of initial delay	Cost of delay 1	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
	Cost of delay 2	0	0	0	0	0	0	0	0	0	0
	Cost of delay 3	0	0	0	0	0	0	0	0	0	0
	Cost of delay 4	0	0	0	0	0	0	0	0	0	0
	Cost of delay 5	0	0	0	0	0	0	0	0	0	0
POPULATION	Number of entities	15000	150	305	468	647	845	1071	1334	1643	2010
Initial Opp Cost		22500000	225000	457500	702000	970500	1267500	1606500	2001000	2464500	3015000

OPPORTUNITY COSTS		Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Period 8	Period 9	Period 10
Average days of recurring delay	Days of delay type 1	1	1	1	1	1	1	1	1	1	1
	Days of delay type 2	2	2	2	2	2	2	2	2	2	2
	Days of delay type 3	0	0	0	0	0	0	0	0	0	0
	Days of delay type 4	0	0	0	0	0	0	0	0	0	0
	Days of delay type 5	0	0	0	0	0	0	0	0	0	0
Cost per day of recurring delay	Cost of delay 1	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
	Cost of delay 2	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
	Cost of delay 3	0	0	0	0	0	0	0	0	0	0
	Cost of delay 4	0	0	0	0	0	0	0	0	0	0
	Cost of delay 5	0	0	0	0	0	0	0	0	0	0
POPULATION	Number of entities	15000	15150	15455	15923	16570	17415	18486	19820	21463	23473
Recurring Opp Cost	Number of entities	60000000	60600000	61820000	63692000	66280000	69660000	73944000	79280000	85852000	93892000
Total Opp Cost		82500000	60825000	62277500	64394000	67250500	70927500	75550500	81281000	88316500	96907000

A5. Fees

FEES		Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Period 8	Period 9	Period 10
Recurring fees	Small Enterprises	300	300	300	300	300	300	300	300	300	300
	Medium Enterprises	300	300	300	300	300	300	300	300	300	300
Initial fees	Small Enterprises	500	500	500	500	500	500	500	500	500	500
	Medium Enterprises	500	500	500	500	500	500	500	500	500	500
POPULATION	Total number of Small Ent.	10000	10100	10303	10615	11046	11609	12323	13212	14307	15647
	Total number of Medium Ent.	5000	5050	5152	5308	5524	5806	6163	6608	7156	7826
	New Small Ent.	0	100	203	312	431	563	714	889	1095	1340
	New Medium Ent.	0	50	102	156	216	282	357	445	548	670
Total recurring fees		4500000	4545000	4636500	4776900	4971000	5224500	5545800	5946000	6438900	7041900
Total initial fees		7500000	7575000	7727500	7961500	8285000	8707500	9243000	9910000	10731500	11736500

