

Service Pricing

Attachment 6 – Conceptual Model

Attachment 7 – Explanations and comments

Attachment 6 – Conceptual Model

N.B.: This spreadsheet is a "Conceptual Model", intended merely to illustrate the concepts and procedures that may be adopted; all data and informations, expressed in annual terms, are fictional.

COSTING CENTRES															
Items \ Areas	Institutional		Central Administrative and Support Areas							Central Institutional Areas				Totals	
	Chairman's Offices	Internal Auditing	Executive Officer	Staff Admin.	Supplies Admin.	Proprety Admin.	Equipment Admin.	Central Accounting	Janitorial Services Admin.	IT Admin.	Public Relations	Education	Promotion		Regional Offices
Local Costs (\$1.000)															
Payroll and Accessories	250.000	180.000	45.000	130.000	98.000	80.000	115.000	180.000	100.000	170.000	70.000	85.000	65.000	55.000	1.623.000
Indemnities	-	2.000	-	5.000	2.000	4.000	6.000	-	6.000	-	3.000	-	-	3.000	31.000
Travel and Boarding	10.000	12.000	2.000	1.000	-	-	-	2.000	1.000	3.000	5.500	3.500	1.800	2.100	43.900
Voice Communication	5.000	2.000	3.000	500	200	300	200	700	100	400	2.500	1.200	1.300	1.200	18.600
Data Communication	1.500	3.500	2.000	300	150	100	300	1.200	200	5.000	2.500	1.800	1.600	1.300	21.450
Occupancy:															
Rentals - Paid Out	-	-	-	300	500	-	-	-	600	-	-	-	-	2.200	3.600
Rentals - Attributed	7.000	3.000	5.000	2.000	1.000	1.500	1.000	1.500	800	1.200	1.700	1.500	1.300	-	28.500
Equipment:															
Leases - Paid Out	3.000	1.000	500	-	800	100	2.000	4.000	5.000	2.500	-	800	-	900	20.600
Leases - Attributed	1.000	2.500	1.500	1.300	800	500	1.500	500	200	1.500	1.800	1.900	1.700	3.500	20.200
Totals	277.500	206.000	59.000	140.400	103.450	86.500	126.000	189.900	113.900	183.600	87.000	95.700	72.700	69.200	1.810.850
Remote Costs															OK
Total Costs															OK
Physical Count															
Staff (N)	12	25	3	15	11	8	19	35	28	25	18	21	17	22	259
Floor Space (m ²)	120	60	35	60	180	66	110	240	75	100	95	120	95	120	1.476
IT Equipment (N)	5	35	20	18	7	2	12	19	2	20	15	19	15	14	203
Other Equipment (N)	7	6	5	3	15	3	4	6	1	15	8	12	2	5	92

EARNING CENTRES												OVERALL TOTALS
Finalising Areas											Totals	
Patents				Trade Marks	Franchise Confirmatio n	Industrial Design	Computer Programme s	IT Circuit Topography	Geographic Identity	Totals		
Request Receival	Preliminary Analyses	Detailed Analyses	Conclusion and Delivery									
Items \ Areas												
Locale Costs (\$1.000)												
Payroll and Accessories	115.000	145.000	180.000	175.000	165.000	120.000	60.500	64.500	59.850	86.000	1.170.850	2.793.850
Indemnities	2.200	2.800	-	300	500	-	300	-	-	220	6.320	37.320
Travel and Boarding	-	1.500	1.800	120	-	2.000	200	-	-	3.500	9.120	53.020
Voice Communication	200	350	280	180	300	800	100	950	200	450	3.810	22.410
Data Communication	300	400	380	310	150	200	150	1.200	300	300	3.690	25.140
Occupancy:												
Rentals - Paid Out	300	-	-	200	-	-	-	-	-	180	680	4.280
Rentals - Attributed	1.500	2.200	2.800	1.800	250	300	280	260	230	200	9.820	38.320
Equipment:												
Leases - Paid Out	2.500	-	-	150	800	-	300	400	-	-	4.150	24.750
Leases - Attributed	5.500	10.000	17.500	12.500	3.600	1.500	1.200	2.400	2.800	1.800	58.800	79.000
Totals	127.500	162.250	202.760	190.560	170.600	124.800	63.030	69.710	63.380	92.650	1.267.240	3.078.090
Remote Costs	182.194	231.851	289.738	272.305	243.783	178.336	90.068	99.614	90.568	132.394	1.810.850	
Total Costs	309.694	394.101	492.498	462.865	414.383	303.136	153.098	169.324	153.948	225.044	3.078.090	
Physical Count												
Staff (N)	26	34	41	40	38	28	18	20	19	22	286	545
Floor Space (m ²)	165	290	280	295	280	190	200	180	180	190	2.250	3.726
IT Equipment (N)	22	28	35	38	15	12	15	18	17	12	212	415
Other Equipment (N)	15	7	8	-	-	3	2	-	-	8	43	135
Processes (N)												
A - Under Way	500	1.500	2.000	500	13.200	2.500	1.800	1.200	3.500	450		
B - Delivered	4.000	800	750	2.500	23.000	1.800	550	2.600	2.800	380		
C - Average Time (= A/B)	0,13	1,88	2,67	0,20	0,57	1,39	3,27	0,46	1,25	1,18		
Average Unit Cost (\$1)	77,42	492,63	656,66	185,15	18,02	168,41	278,36	65,12	54,98	592,22		

Attachment 7 – Explanations and Comments

Opening Explanatory Note: This paper was prepared following a meeting, held on 23jul2020, with **INPI** professionals involved in ascertaining and supervising the Institute's costs.

Initial Alert: The model presented and discussed in this paper constitutes a preliminary proposal for short-term developments and improvements in the costing system employed by **INPI**. It should be stressed that the model, as presented, is conceptual, aimed at illustrating the supplemental concepts and procedures which may be adopted; all data and information, expressed in annual terms, are fictitious. It is hoped that, after adopting the model, other improvements may be introduced as deemed convenient.

1. Terminology

a. **Organisational Divisions:** Such divisions, usually termed "Responsibility Centres", are structural divisions or departments charged with certain services, functions or activities – they may be:

a.1. Costing Centres: Divisions charged with rendering Administrative or Internal Support services to other divisions within the organisation; as a rule, they are not charged with relating to the market in order to deal with requests for service. For lack of deeper information, the divisions for "Public Relations", "Education", "Promotion", as well as "Regional Offices" have been included among these Centres.

a.2. Earning Centres: Divisions specifically charged with dealing with the market in order to accept requests for service and collect the expected fees. According to **INPI** terminology, these are the "Finalising Areas". Merely as an example, one of the Earning Centres – Patents – has been divided into a few sub-centres.

b. **Cost Classification:** Groups of Cost Items have been classified, regarding their relationship with the several Responsibility Centres, as follows:

b.1. Immediate Costs: Cost items occurring directly entered, or arising, in the several Centres.

b.2. Remote Costs: Items which, having arisen in one Centre, are transferred to others by means of objective criteria.

2. Basic Information

The model to which this paper refers was built based on two documents supplied by **INPI**, as follows:

- a. **Annual Costing Methodology** (1st Edition – 2018), prepared by **INPI**'s *Cost Analyses Office (SEANC)*.
- b. **Report on Costs – 2019**, prepared by **INPI**'s *Budgeting and Costing Division (DIORC)*.

On analysing these two papers, it was found that the methodology described is sound and was well implemented, there being no reason to criticise it as far as it goes. The only shortcoming that was found was that the Report on Costs does not reach the level of unit costs for end-services – it stops one level before this.

In order to cover this gap, a supplemental procedure was developed that should enable the system to produce the final output data expected. This procedure, included in the model proposed, depends on the availability of two basic data, for each service, and **INPI** has stated that these data are available and easily recoverable: a) the number of demands being processed each year, and b) the number of demands delivered by the end of each year.

The procedure in question is relatively simple and can be introduced on very short notice.

3. The Model

Refer to the “Costing Model” (**Attachment 5**) attached (in Excel, covering two linked spreadsheets).

a. Organisation Structure

In building the model, the organisation structure adopted is fictional, vaguely reminiscent of **INPI**'s actual structure.

b. Data Input Areas

On the attached spreadsheets, these areas are on yellow backgrounds.

c. Cost Structure

Likewise, the cost structure is fictional, as follows (clarifications where needed):

c.1. – Immediate Costs – Cost items entered directly in each Responsibility Centre

- ▣ Payroll and Accessories – the recurrent costs spent on HR compensation and surcharges (compulsory and institutional)
- ▣ Indemnities – non-recurrent costs paid out occasionally to HR
- ▣ Travel and Boarding
- ▣ Voice Communication
- ▣ Data Communication
- ▣ Occupancy
 - Rentals – Paid Out – actual expenditures due to the use of property belonging to third parties
 - Rentals – Attributed – opportunity costs due to the use of property belonging to **INPI** (or other government organisations). From an Accounting viewpoint, these figures would tend to be represented by Depreciation, which does not reflect the Market values applicable. It is suggested that the figures should be ascertained by valuing the property based on the rates offered on Federal Bonds
- ▣ Equipment
 - Leases – Paid Out – actual expenditures due to the use of equipment belonging to third parties
 - Leases - Attributed – opportunity costs due to the use of equipment belonging to **INPI** (or other government organisations). From an Accounting viewpoint, these figures would tend to be represented by Depreciation, which does not reflect the Market values applicable. It is suggested that the figures should be ascertained by valuing the equipment based on the rates offered on Federal Bonds

c.2 – Remote Costs – Cost items entered in Cost Centres (i.e., Institutional and Central Administrative divisions) and appropriated to Earning Centres.

The basic criterion used in the model to transfer these items is proportional to the distribution of Immediate Costs among the Earning Centres. This single criterion, however, is solely for the purpose of completing the illustration; **INPI**'s methodology adopts multiple criteria, which is considerably better, and should, if feasible, be used in the final actual system.

c.3 – Total Costs – As its title suggests, this item presents the final total costs (Immediate + Remote) for the Earning Centres

Naturally, for the Cost Centres, this item will always be null, due to the fact that their Immediate Costs will have been transferred to the Earning Centres, under the heading of Remote Costs.

c.4 – Physical Count – self-explanatory

c.5 – Processes – self-explanatory

c.6 – Average Unit Cost (refer to the last line of the 2nd spreadsheet).

d. Building the Model

It was assumed that the following input data are available:

- Number of Processes Under Way (i.e., request for Patents, Trade Marks &c.) at the end of each year, and
- Number of Processes Delivered (i.e., requests completed and delivered during the year).

Note: In the meeting mentioned above, the INPI team stated that these data exist and can be recovered easily.

With these data, calculating the Mean Unit Cost for each type of process will be quite simple, as follows:

A: Dividing the Total Costs of each Earning Centre (“Finalizing Areas”) by the corresponding indicates the mean annual cost of processing each request;

B: Dividing the number of Processes Under Way by the number of Processes Delivered indicates the mean duration of each process, and

(This procedure is similar to what is used in Finance to determine the Inventory Turnover period.)

C: Multiplying the mean annual cost of processing each request (step A) by the corresponding by the mean duration (step B) indicates the **Mean Annual Cost for each Process**.

4. Further Notes, Comments and Criticisms

As mentioned elsewhere, the model’s cornerstone (the supplemental procedure outlined above) is relatively simple and, basically, only depends on the availability of the data on Number of Processes *Under Way* and *Delivered*. But it should be noted that:

- Simplicity is a bonus, because it indicate that the adoption of this supplement tends to be relatively easy, and
- If the data on Processes Under Way and Delivered are not immediately available, it will probably be easy to recover them.

The focus of the workstreams for which this model has been studied is on providing stepping-stones toward the *Pricing* of **INPI**'s services; it is not intended – and may not be adequate for the purposes of implementing managerial controls. If this is the case, further improvements may be needed.

In the attached model, the procedure for appropriating “indirect” costs to the several Earning Centres is simpler than what is proposed in **INPI**'s “Methodology”, though there is no actual conflict between the two versions; to the extent that the data involved can be recovered, the appropriation criteria could (and should) be perfected, so that the resulting system would be useful both for *Pricing* and for *Controls* purposes.

It must be stated that **INPI**'s schedule of fees, deals with c. 300 services. Such a number of costing objects would almost certainly be intractable. However, on browsing through the schedule, many instances of what appear to be redundancies or overlapping cases were found. In order to implement the system, it will almost certainly be necessary to “compact” the list of services drastically.

The spreadsheets attached contain a few cells in which the message “**OK**” are presented – they are internal consistency checkpoints and are of no particular use once the spreadsheets have been filled in, but they may be meaningful when data are being input; they contain formulae that compare certain key-figures under two different procedures. If the cross-check is in order, the message is “**OK**”, otherwise it is “**Verify**”.

