

Chapter 4

eGovernment Vision Elicitation

Strategic planning is the most relevant phase of the eGovernment information system life cycle for achieving a clear understanding of the alignment between the political vision, the context of intervention, and the actual ICT goals, architectures, and infrastructures.

Nevertheless, eGovernment planning often lacks detailed and structured knowledge of the domain of intervention suitable to produce clear requirements supporting the choice of services and of the right project configuration implementing them. Part of this knowledge is the *eGovernment vision* that can be captured by strategic documents and interviews with the main stakeholders. This activity allows to clarify *macro-objectives* from the general vision of governmental institutions and a set of related *micro-objectives* (namely the specific initiatives that must be carried out).

Indeed, the aim of the *eGovernment vision elicitation* step is to collect and organize the knowledge about the principles and the policies adopted in the country where the eGovernment intervention is going to take place, in order to provide a detailed and structured perspective on the facets of the political vision and on the related goals (in terms of macro- and micro-objectives). In the right side of Fig. 4.1 we show the issues considered in the chapter for each layer of the eG4M methodological framework and, with straight lines, the relationships among them for which we provide a detailed description; dashed lines represent relationships described with less detail. The eGovernment vision elicitation step deals mainly with principles, policies, laws and considers both social context and the available technological systems.

The step considered in this chapter is composed of the activities shown in Fig. 4.2, namely

- preliminary eGovernment vision elicitation;
- strategy modeling, composed of the subactivities (i) building the AS-WISHED business model and (ii) documenting the AS-WISHED business model, where the AS-WISHED business model expresses the requirements of the eGovern-

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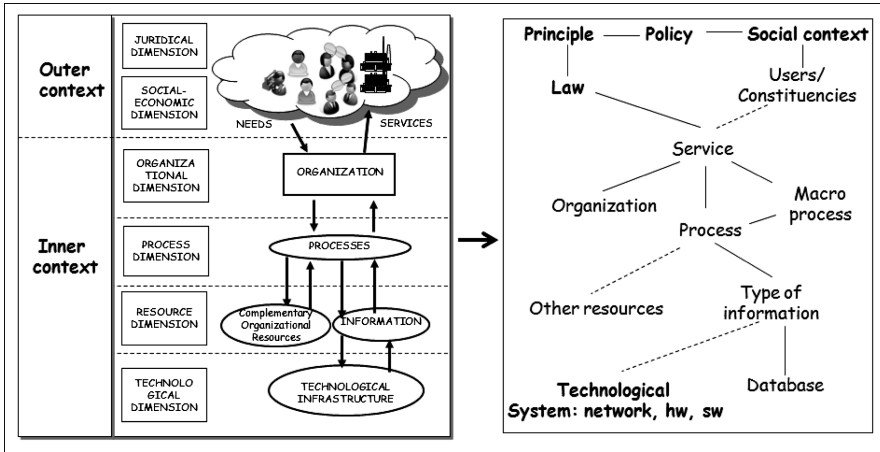


Fig. 4.1 Issues and relationship between them considered in eGovernment vision elicitation

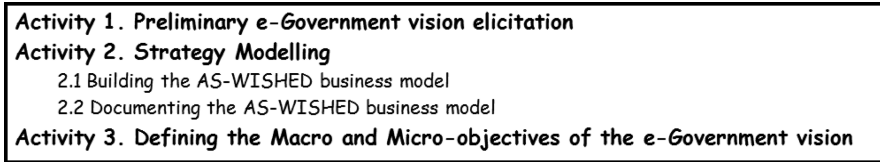


Fig. 4.2 Activities of the eGovernment vision elicitation step

ment initiative on the basis of the vision of the public decision maker who wants to adapt these requirements to the domain of intervention at hand¹;

- *defining the macro- and micro-objectives of the eGovernment vision.*

It is important to note that this step does not substitute strategy analyses carried out by eGovernment units or consultants, and its goal is to provide an instrument which allows (i) to reduce the complexity of the (often) huge documentation produced by these analyses, (ii) identifying the set of principles and rules supporting the definition of common strategies and goals in terms of macro-objectives, and (iii) focusing on a limited and precise set of area of interventions, defined by what we have called micro-objectives. Under this perspective, the eGovernment vision elicitation step is complementary to traditional approaches of strategic advisory.

The outputs of eGovernment vision elicitation are

- a set of descriptions of the principles, the policies, and the micro-macro-objectives of the eGovernment projects and
- a set of matrices showing the inter-relationships between principles, legal and technological drivers, and AS-IS socio-organizational impacts.

¹ For a discussion of the prevalent views on systems change and fitness relationships between business models and system functionality models, see [193].

Taking these issues into account, in Sect. 4.1 we discuss the role of principles and policies in the definition of strategies and goals of eGovernment initiatives. Then we discuss the main activity of the step, namely the *preliminary eGovernment vision elicitation* (Sect. 4.2) which provides the input to the *strategy modeling* activity described in Sect. 4.3. The modeling activity adopts the *map* model briefly introduced in Sect. 4.3.1. Finally, the resulting documentation (Sects. 4.3.2 and 4.3.3) is used to define the macro- and micro-objectives of the eGovernment vision (Sect. 4.4).

4.1 Policies and Principles

In general terms, a *policy* is “a definite course or method of action selected from alternatives and in light of given conditions to guide and determine present and future decisions. However, the term may also be used to denote what is actually done, even though it is unplanned” [148]. Furthermore, focusing on government, a policy can be defined as

a set of decisions which are oriented towards a long-term purpose or to a particular problem. Such decisions by governments are often embodied in legislation and usually apply to a country as a whole rather than to one part of it [194].

Besides action, policies also involve *intention(s)*. A specific case of policy intention is a *principle* that can be defined as a general view “about how public affair should be arranged or conducted” [163].

Finally, as pointed out by Theodore J. Lowi a public policy can be considered synonymous with law, rule, statute, edict, and regulation, when considered as “an officially expressed intention backed by a sanction” [131]. Figure 4.3 shows the Lowi’s classical typology of public policies [130, 201] with the dimensions corresponding to the likelihood of the application of the government’s coercive power (*remote* or *immediate*) and the target of the potential coercion (*the individual* or *the environment of conduct*). These latter dimensions and targets produce four categories of policy:

- *Distributive policy* has a remote likelihood of coercion and mostly applied to individuals.
- *Regulatory policy* has an immediate likelihood of coercion and mostly applied to individuals.
- *Redistributive policy* has an immediate likelihood of coercion and mostly applied through the environment.
- *Constituent policy* has a remote likelihood of coercion and mostly applied through the environment.

Nevertheless, even if all public policies must be understood as coercive [131], coercion is only one of the characteristics of rules and laws that besides coercion may confer powers or privileges without imposing obligations [102]. In this regard, the final outcome of policies is strictly related to the inspiring principles and the

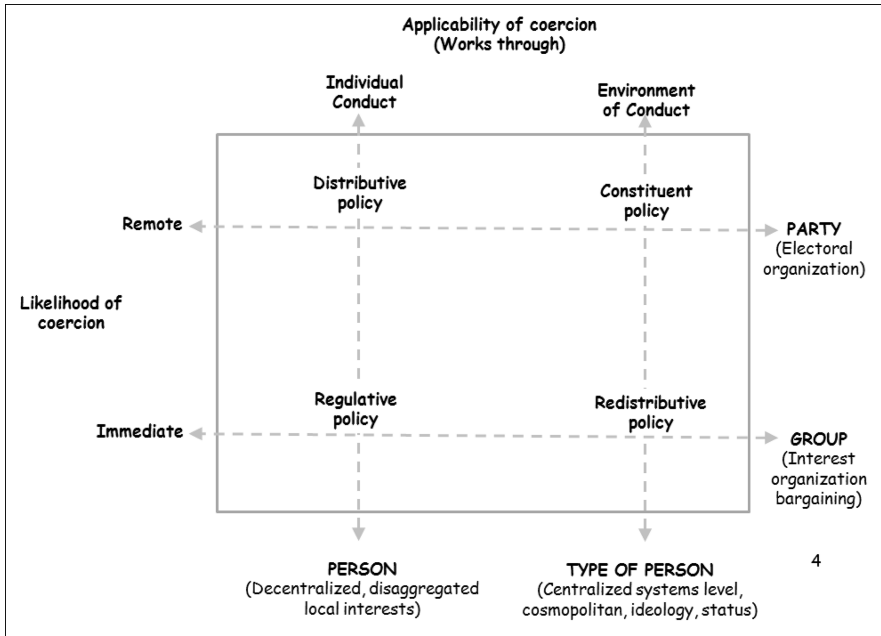


Fig. 4.3 Policies, politics, and related likelihood of the application of the government's coercive power and the target of the potential coercion, adapted from [130]

rules which enact the policies chosen. On the other hand, each principle can be described in terms of a corresponding quality dimension which supports the assessment of the policy achievements and targets for the considered principle in terms of quantitative measures (we broadly discuss quality issues in Chap. 7).

At the state of the art, two main policy perspectives characterize the different approaches to eGovernment, namely (i) a *market-oriented perspective*, whose goal is the efficiency of the action of the public administration evaluated in private sector terms such as cost reduction and return on investment [55], and (ii) a *public-oriented perspective*, where the main goal is the effectiveness in the achievements of government programs in terms of public value (see [150] and in this book Chap. 1). It is worth noting that market-oriented perspectives have been influencing new public management programs of public sector reforms (see again Chap. 1). As said above every policy considered as action is guided by principles defining the policy intentions. Some of the most important principles are, among others:

1. *Efficiency* of the administrative activities that deliver services to citizens and businesses, in terms of (efficient) use of resources and achievement of the final goals.
2. *Effectiveness* of the enactment of political programs in terms of public value.
3. *Transparency* of institutions, government, and public administration, i.e., the right of citizens and enterprises to access all types of information and knowledge produced by institutions and administrations, not covered by secret (so-called *public data*).

4. *Simplification* of administrative activities, the elimination from administrative activities of all types of interactions and burdens not strictly needed by law.
5. *Sustainability* of policies and projects, especially financial sustainability, i.e., feasibility of the initiatives connected to ICT projects within the available budget.
6. *Quality and effectiveness of the legal framework*, i.e., the characteristics of laws and norms that allow to apply them with effective results in the ICT initiatives.
7. *Security and privacy*, i.e., the right of the citizen to have sensitive and personal information protected with respect to incorrect use.
8. *eInclusion and overcoming of digital divide*, the establishment of the right of every citizen to access and benefit from eGovernment services, independently from their culture, economic condition, available access devices, or language.

Among these principles,² *market-oriented policies* consider citizens as customers of the government agency, interested in achieving principles such as (i) *efficiency*, often considered in terms of productivity; (ii) *effectiveness*, in terms of citizens (as customers) satisfaction and entrepreneurial attitude in the public administration management [66]; and (iii) *accountability* in terms of *transparency* of the process supporting the service delivery (at any time, citizens can control the stage of administrative procedures involving them, in the same way they could trace a book, e.g., on an online bookseller).

Whereas the *public-oriented policies*, on the one hand, share the goal of improving the *efficiency* of the public administration with the market-oriented ones; on the other hand, they relate this goal to the basic principles of democracy such as *impersonality* and *equality* of services provided by the public administration, where the *effectiveness* of the service is strictly related to public value and to the degree of *transparency* for citizens of the service provision in terms of impersonality and equality of the back-end procedures.

Besides these issues, the two perspectives show a different focus on the principle of *integration* of the information systems and of public administrations, where market-oriented policies are more focused on *disaggregation* of information systems in different administrations. It is important to note that the focus on disaggregation rather than on integration may result in the adoption of quite different types of technologies, which may enable eGovernment initiatives. Furthermore, defining the principles of the political vision and relating them to a corresponding policy allow to produce a first framework, which is useful to evaluate laws and rules and their impact on the initiatives to be planned.

As an example of political vision that is mainly focused on market-oriented and new public management policies, we shortly discuss the Italian experience during the 1990s (in the following we refer to [19, 89]). The need for an administrative reform in Italy in the early 1990s was driven by different factors, such as (i) an obsolete administration (no government-wide reforms since 1865), (ii) an inefficient administration with isolated cases of excellence, (iii) a costly administration, with consequent crucial need to balance the budget and reduce public debt.

² The proposed list of principles concern the highest ones cited in literature and eGovernment programs. The list can be enlarged on the basis of the context of intervention.

The most relevant tools of the Italian administrative reform have been

- a broad “delegating law,” where parliament delegates to the government the power to adopt “legislative decrees” (primary-level regulation) in defined areas;
- a delegislation mechanism, i.e., the parliament authorizes the government to substitute primary laws with governmental decrees (secondary-level regulation) in two main sectors, namely administrative procedures and organization of public offices.

The main areas of the reform have been devolution, outsourcing and administrative federalism, reorganization of central government, civil service reform, a performance-oriented public sector management, simplification of the regulatory and administrative procedures, and the new public budgeting [19].

In the following sections we discuss the different activities of the eGovernment vision elicitation step, exploiting principles and policies in order to clarify the goals of the eGovernment initiatives.

4.2 Preliminary eGovernment Vision Elicitation

As discussed in the previous section, principles orient policies toward the different ways of conceiving and implementing the eGovernment strategy, influencing all future activities. Indeed, public managers in the first place need to be aware if they are working on a strategy defined by market-oriented or public-oriented policies. Furthermore, they need a way to share with other actors and stakeholders the knowledge related to their strategy in a fairly structured way in terms of requirements documentation.

To these ends, in the preliminary eGovernment vision elicitation activity we first introduce a simple checklist where principles are outlined for the main policies discussed in the previous section. On the basis of the policy orientation a first set of principles can be chosen in order to better detail them in terms of requirements for the strategy definition.

For reasons of clarity, we focus on two principles, listed in Fig. 4.4, namely *efficiency* and *effectiveness* of public administration, that we analyze in more detail in Fig. 4.5. As described above, efficiency is relevant for both the market-oriented and the public-oriented policies, while effectiveness, even if considered explicitly in an entrepreneurial way mainly by the market-oriented policies, in the public-oriented policies is strictly related and results from the realization of both the accountability and transparency principles.

The table aims to provide a first representation of the requirements related to the implementation of efficiency and effectiveness in terms of four dimensions:

- the specific *strategies* that satisfy the principle (in the running example, embedding administrative procedures in ICT for the efficiency principle, and information management and coordination for the effectiveness principle);

| Principle/policy | Market- oriented | Public- oriented |
|------------------|------------------|------------------|
| Impersonality | | ✓ |
| Fairness | | ✓ |
| Equality | | ✓ |
| Personalization | ✓ | |
| Decentralization | ✓ | |
| Delegation | ✓ | |
| Subsidiarity | ✓ | |
| Wholeness | ✓ | |
| Disaggregation | ✓ | |
| Cooperation | ✓ | ✓ |
| Integration | | ✓ |
| Uniformity | | ✓ |
| Efficiency | ✓ | ✓ |
| Simplification | ✓ | |
| Productivity | ✓ | |
| Effectiveness | | ✓ |
| Adequacy | ✓ | ✓ |
| Accountability | ✓ | ✓ |
| Transparency | ✓ | X |

Fig. 4.4 The principle/policy matrix

| Principle | Strategy | Rule | Enabling technology | Socio-organizational impact (AS-IS) |
|----------------------|--|---------------------------|------------------------------|-------------------------------------|
| <i>Efficiency</i> | Embedding administrative procedures in ICT | Simplification laws | Cooperative architectures | Improve administrative processes |
| <i>Effectiveness</i> | Information management and coordination | Laws on digital signature | Digital signature technology | Reducing burden on citizens |

Fig. 4.5 Principles, strategies, related rules, enabling technologies, and AS-IS socio-organizational impacts

- the *rule(s)* that facilitate the actuation of the principle (in the running example, simplification laws for the efficiency principle, and laws on digital signature for the effectiveness principle);
- the *enabling technologies* for the actuation of the strategy satisfying the principle (in the running example, cooperative architectures for the efficiency principle-related strategy and rules for digital signature for the effectiveness principle-related strategy);
- the actual *socio-organizational impacts* of the application of the principle (in the running example, improving administrative processes for the efficiency principle and reducing burden on citizens for the effectiveness principle).

This first set of requirements is based on a first analysis of the documents and unstructured interviews to public managers and previous experiences of the consultants and of the eG4M analysts leading the planning phase.

It is important to note that rules and enabling technologies in the table are only drafted at the very general level in this activity of eGovernment vision elicitation step, on the basis of the background knowledge of public managers or from available documentation considered by the eG4M analyst; further steps of the methodology are in charge of verifying their applicability in the context of the intervention and to validate them as the most suitable solutions.

In the running example, in order to implement the effectiveness principle, the table shows that a target strategy is to improve information management and coordination between public administrations and that this latter strategy can be achieved by enforcing laws for digital signature enabled by corresponding related technologies.

4.3 Strategy Modeling

A relevant activity in this step is to provide a formal representation of the strategy which leads the implementation of the political vision in the eGovernment initiative(s) and the alignment with IT and complementary organizational resources [106, 148]. Representing strategy in a formal and structured way is a major challenge in both the public and private sectors (for a wider discussion see also Sect. 1.3) [44]. A solution is provided at the managerial level by tools such as strategy maps [121], but as argued by Bleistein et al. [31] the alignment research focuses mainly on performance evaluation, ignoring the connections to system requirements.

As discussed in Sect. 1.3, business modeling provides a first set of frameworks for an explicit link between system requirements and the objectives of business strategy. Furthermore, concepts and tools supporting business modeling are fewer and less developed than tools and concepts that already exist for business process management such as the business process modeling notation (BPMN) discussed in Appendix B.

At the state of the art [116] the most comprehensive and well-defined languages and frameworks for business modeling (based on their own ontology) are the *resource–event–actor (REA) framework*, the *e3value framework*, and the *Business*

Model Ontology (BMO). The *REA framework* [141] is focused on representing increases and decreases of value in an organization, having its origins in business accounting. The core concepts in REA are Resource, Event, and Actor; every transaction can be described as two events where two actors exchange resources. *e3value framework* [92] explicitly focuses on resources exchange as value objects. The basic concepts in the e3value ontology are actors, value objects, value ports, value interfaces, value activities, and value exchanges. The *BMO* [162] provides a framework that consists of nine core concepts classified under four categories, as described in the following: the category product as a single concept, that is value proposition; the category customer interface has three concepts, namely target customer, distribution channel, and relationship; the category infrastructure management has three concepts, namely value configuration, capability, and partnership; the category financial aspect has two concepts, cost structure and revenue model.

In the *building the AS-WISHED business model* activity we adopt the *map* representation systems [187–189]. Map is based on a goal-driven approach aimed at going beyond the functionality-based view of conceptual modeling [220], to extend the modeling of the information about the universe of discourse [202] from “what is done by the system” approach to the “why is the system like this” [186]. To these ends, map conforms to existing *goal models*, such as *i**[4, 74, 151, 232], by recognizing the goal as intention, but departs from them by introducing the concept of strategy to attain an intention. As pointed out by Rolland [186], the introduction of the concept of strategy is motivated by the following reasons:

- the distinction between *what* to achieve (the goal) and *how* to achieve it (the strategy);
- the evidence coming from practice that managers do not distinguish between *goals* and *strategies*;
- increasing the size of the goal models and to a difficult recognition of alternatives for business;
- the need to introduce variability in the information systems, because of the new constraints of flexibility due to constant and dynamic changes in organizations and in the interactions with customers and other businesses;
- the need to capture the variability in goal models by means of strategy.

In particular, the *map model* has been used to provide a uniform representation of business goals and system functionalities; where to provide a shared view of the strategic level (business goals) and operational level (system functionalities), as we have seen, represents a major issue in the strategic alignment to business model.

4.3.1 The Map Model

Figure 4.6 shows an example of map that we discuss in the following in order to deepen the characteristics and the basic constructs of the map model. The discussion

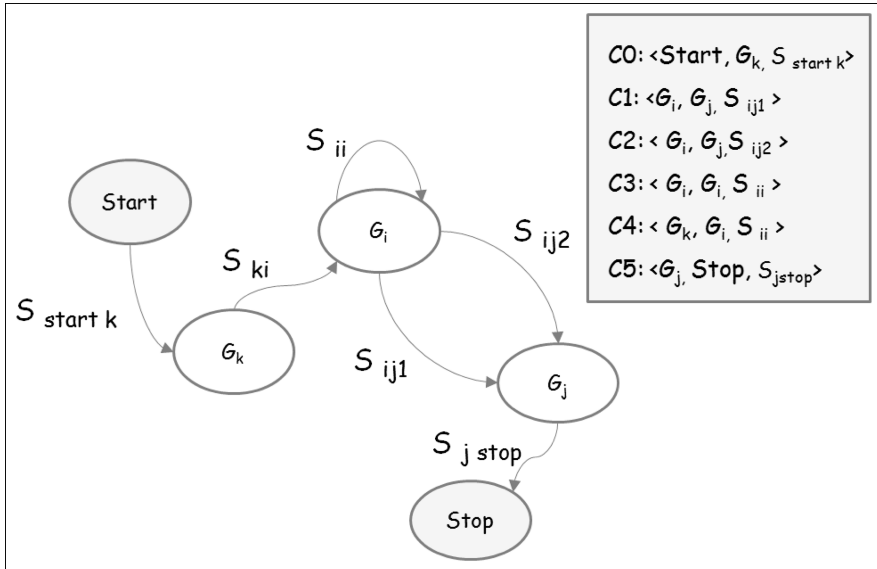


Fig. 4.6 An example of map, adapted from [193]

is based on Salinesi and Rolland [193] and Rolland [186]. A map is a labeled directed graph with *intentions* (intention is a goal to be achieved by the execution of the process) as nodes and *strategies* as edges between goals (in this context a strategy is a way to achieve an intention). A map is graphically represented through a begin *start* node and a final *stop* node. The directed nature of the graph shows which intentions can follow other previous intentions. An edge enters in a node if its strategy can be used to achieve the corresponding intention. A map can represent the different strategies that can be used for achieving an intention, by means of multiple edges entering a node.

An *intention* can be achieved by the performance of a process. As anticipated above, each map has two special intentions, start and stop, to start and end the process, respectively. A strategy is a way of achieving an intention. The strategy S_{ij} characterizes the flow from the source intention G_i to the target intention G_j and the way G_j can be achieved once G_i has been achieved.

A *section* is a triplet $\langle G_i, G_j, S_{ij} \rangle$ and represents a way of achieving the target intention G_j from the source intention G_i following the strategy S_{ij} . Each section of the map captures the condition to achieve an intention and the specific manner in which the process associated with the target intention can be performed. Sections of a map are connected to one another, allowing three relationships between sections, namely *thread*, *path*, and *bundle* leading to different map topologies, such as multi-thread and multi-path topologies. A *thread* relationship occurs when a given intention can be achieved with different strategies. This is represented in the map by several sections between a pair of intentions. Such a map topology is called a *multi-thread*.

A *path* occurs when a task can be performed by several combinations of strategies. This is represented in the map by a pair of goals connected by several sequences of sections. Such a topology is called a *multi-path*. In general, a map from its start to its stop intentions is a multi-path and may contain multi-threads.

A *bundle* relationship occurs when a given section which is bundle of other sections expresses only one of its sections that can be used in realizing the target intention. As an example, the map of Fig. 4.6 contains six sections C0–C5. It can be seen that C1 and C2 together constitute a multi-thread, whereas C4–C1 and C4–C3–C2 are two paths between G_k and G_i constituting a multi-path. Taking these issues into account, one of the most relevant features in the map model is to allow the refinement of sections from a higher general level to a very detailed section level. This is useful in order to challenge conceptual mismatches between the *whys* captured in the business model (BM) and the *whats* available in the *system functionality model* (SFM) [193], through the analysis of fitness relationships among them or strategic alignment [209, 210]. This coupling is achieved in the map formalism by simply relating each section of a map to a system functionality. Therefore, any section can be considered from two viewpoints: the business viewpoint and the system viewpoint. As a result, a map section expresses a direct relationship between a system function and a business process [193].

As seen in Chap. 2, *refinement* is the primitive that allows to proceed from abstract representations to more detailed ones. Indeed, *refinement* is a design mechanism by which a given entity is viewed as a set of interrelated entities; such a refinement mechanism is required for handling the fitness relationship in a systematic, controlled manner [193]. Refinement allows to see a fitness relationship not as a monolithic, flat structure. In the map approach a refinement is defined as a mechanism to refine a section of a map at level i into an entire map at a lower level $i + 1$ [193].

Therefore, a *fitness relationship* represented in a section of the map is refined as a graph of sections, corresponding to sub-relationships between the business and the system. Furthermore, to control the complexity derived from mastering different levels of abstractions in a refinement, Salinesi and Rolland [193] relate this issue to the black box/white box principle [222] that points out the usefulness of seeing an entity as a black box at a level of abstraction i and then as a white box at level $i + 1$. When a system is seen as a black box, its internal properties are hidden and the emphasis is on the relationship between the system and other systems and when it is seen as a white box, on the contrary, the internal area of the system is visible. The white box analysis shows the critical issues to be managed when the content of the black box covers different levels of abstraction (as in the case of a fitness between business model and system functionality model). These issues have also been challenged in recent works on map model focused on investigating its use to design strategic alignment between strategic and functional goals, by defining contribution links between the components of the strategic and of the functional model [209, 210].

To the end of strategy modeling, it is important to note that an *intention of strategic level* is specialized by (i) a *strategic objective*, that is an intention that motivates

an act on an imprecise temporal horizon and by (ii) a *strategic goal* that corresponds to the results an organization wants to achieve on a given date [209, 210]. Whereas an *intention of functional level* is specified by (i) a *non-functional goal* that represents an expected quality which cannot be expressed in a functional way (e.g., extensibility or maintainability) and (ii) a *functional goal* that corresponds to a service required by the user within its context of activity [209, 210].

Taking into account these issues, the map model is useful to integrate the set of matrices proposed above to support the planning activity in the *eGovernment vision elicitation* step. In the following sections we provide an example.

4.3.2 Building the AS-WISHED Business Model

The first task of the strategy modeling activity aims to build the AS-WISHED business model, namely the business model representing the desired strategic outcomes before having made any assessment of the AS-IS state of the context of intervention.

In order to better detail the requirements for the AS-WISHED business model of the eGovernment projects [193], we consider the elements in the table represented in Fig. 4.5 as input to a modeling task where we adopt the map formalism.

Figure 4.7 shows a map at the more abstract level which represents the project intentions and strategies for the political vision of the running example that aims to *improve public administration service quality*. For the sake

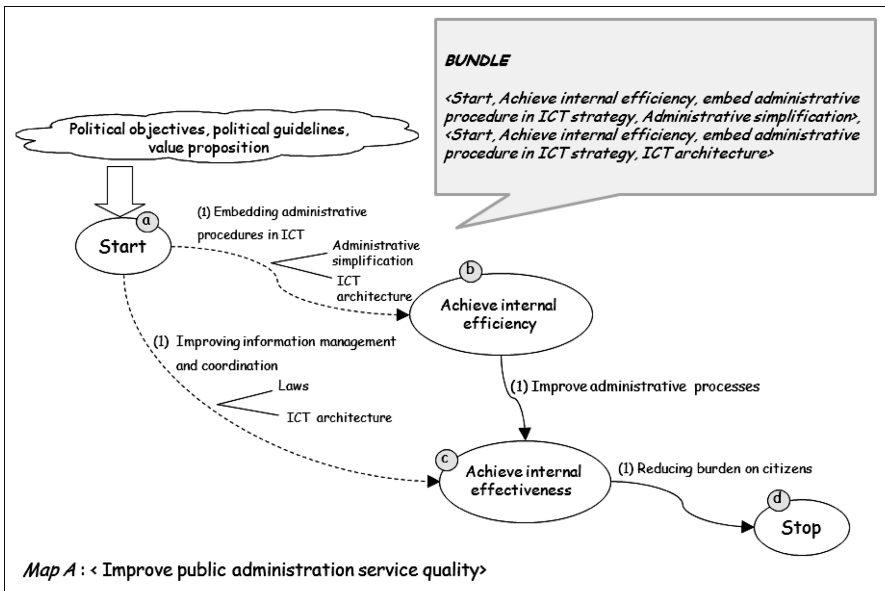


Fig. 4.7 Higher level map which represents policy that aims to improve internal efficiency and effectiveness

of simplicity, in a unique map we have represented strategies and intentions for the implementation of both the *efficiency* and the *effectiveness* principles, where Achieve internal efficiency is the general intention for what concerns *efficiency* and Achieve internal effectiveness is the general intention for the *effectiveness* realization in public administration service quality. It is important to note that the strategies for achieving internal efficiency and effectiveness, namely Embedding administrative procedures in ICT by administrative simplification or ICT architecture strategy and Improving information management and coordination by laws or ICT architecture strategy, respectively, are *bundles* of exclusive or strategies.

At this level the map shows a possible choice for the project requirement definition. In fact, choosing a legal strategy for efficiency (i.e., Embedding administrative procedures in ICT by administrative simplification) could have a positive final outcome in terms of effectiveness in reducing the administrative burden on citizens. Indeed, administrative simplification could improve administrative processes, supporting the achievement of internal effectiveness by means of the strategy Improving information management and coordination by an ICT architecture.

In brief, the requirements for the AS-WISHED projects could ask for an integrated initiative considering (i) a legal intervention for process simplification (achieve internal efficiency) and (ii) a technological intervention for information management and coordination.

In order to detail these hypotheses and verify the correct interpretation of the available documentation, we further refine the map of Fig. 4.7 in a map that details the strategy aiming to Improve information management and coordination (see Fig. 4.8). Indeed, this latter encompasses both technological and legal strategies.

First, we consider the paths of the two intermediate intentions aiming to Improve information management and coordination, namely

1. Improve administrative cooperation (specializing the higher level intention of efficiency)
2. Reduce burden for administrative services (specializing the higher level intention of effectiveness).

For what concerns the first intention we choose the following path (*ab1-bc1-cd1* in Fig. 4.9):

<Start, Improve administrative cooperation, enforcing simplification laws>,
 <Improve administrative cooperation, reduce burden for administrative services, improving data governance>
 <Reduce burden for administrative services, Stop, digitalizing information flows>

The path specializes the higher level hypothesis of a legal intervention for process simplification (achieve internal efficiency), by defining the requirements in terms of the enforcement of simplification laws.

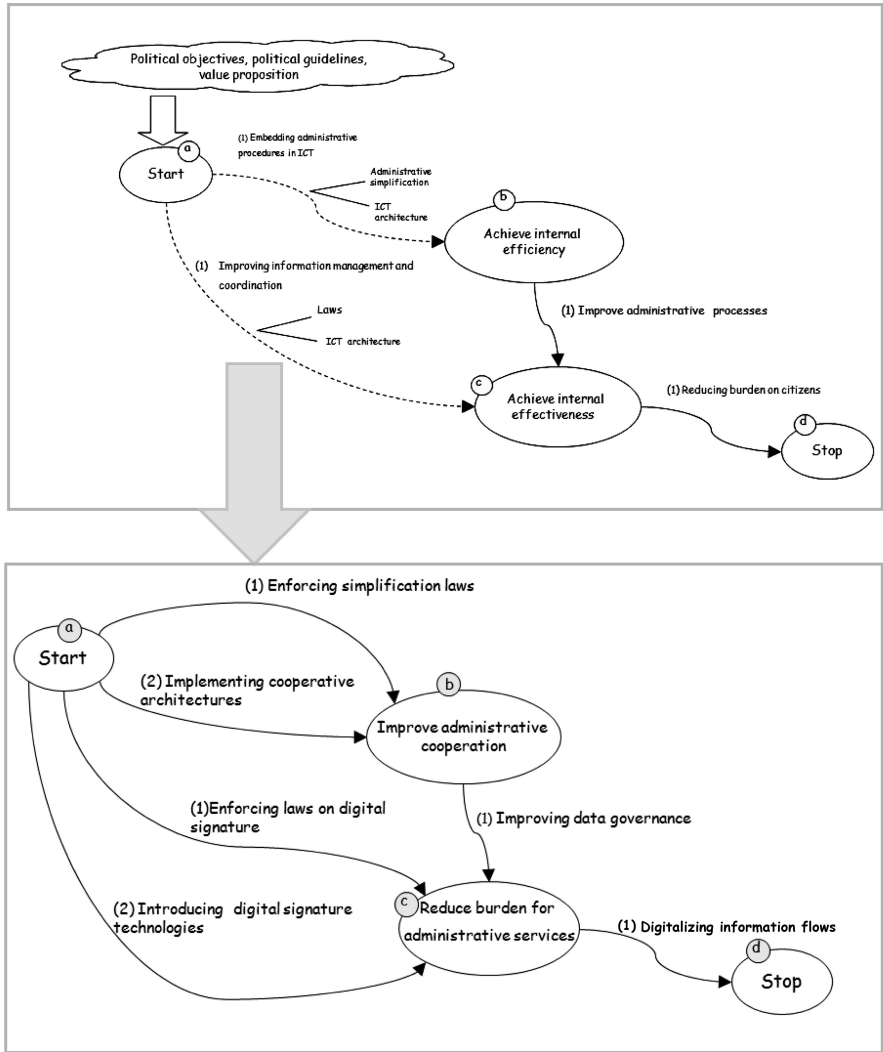


Fig. 4.8 The refinement of the high-level map of Fig. 4.7 into a detailed map of section ac1 in Fig. 4.9

For what concerns the second goal (specializing the higher level goal of *effectiveness*), we choose the following path (*ac1cd1* in Fig. 4.9):

<Start, Reduce burden for administrative services, Introducing digital signature technologies>,
<Reduce burden for administrative services, Stop, digitalizing information flows>

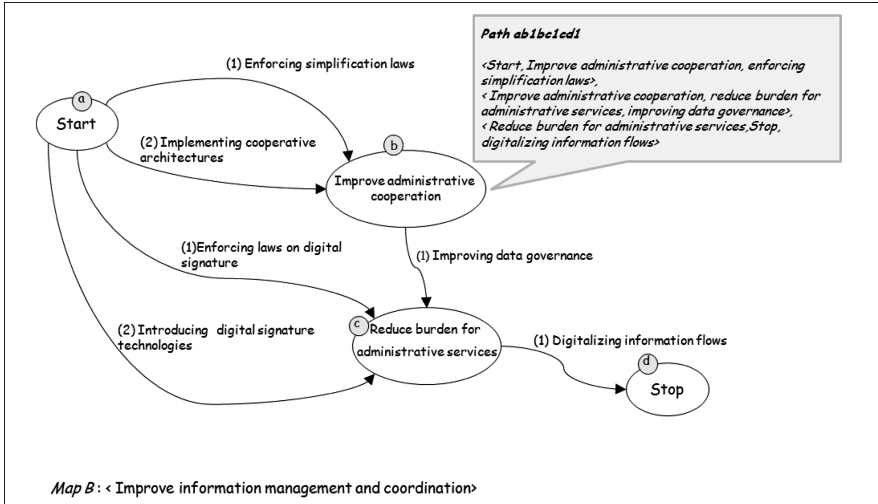


Fig. 4.9 A map which represents the intentions and strategies refining policies of Fig. 4.7

At this level, we notice that the strategy for effectiveness cannot be merely technological if laws on digital signature are not available in the considered country. In this case, the public decision maker should start the eGovernment initiatives by adopting a legal strategy to improve both the efficiency and the effectiveness of public services.

As an alternative, the choice could be the adoption of (i) a technological strategy for efficiency by *implementing cooperative architectures* (*ac2* in Fig. 4.9) and (ii) a legal strategy for effectiveness by *enforcing laws on digital signature* (*ab1* in Fig. 4.9). Both the alternatives must be evaluated on the basis of further results of *assessment* steps (see the following Chaps. 6 and 7). Nevertheless, at this level of analysis the map representation points out the legal requirements as constraints for an effective adoption of the technological solutions: too often the lack of consideration of legal issues in the planning phase leads to technological initiatives which could ask for additional investments.

4.3.3 Documenting the AS-WISHED Business Model

Finally, the produced maps are documented in a form which is sharable with the involved public managers, allowing the comparison between the intentions of different strategies implementing the different principles for a common vision. The form template encompasses the following fields:

- *Principle* is the policy intention represented in the map.
- *Vision* is the declared intention of the political initiative.
- *Code* is the section in the map.
- *Starting intention* is the initial intention.

- *Strategy* is the means leading to a final intention.
- *Type of strategy* refers to the facets of the context of intervention where the strategy impacts (legal, organizational, technological, social, economic facets).
- *Final intention* is the target intention of the strategy adopted.

Figures 4.10 and 4.11 show, respectively, the documentation for the efficiency and effectiveness principles of the political vision which aims to improve public administration service quality in the running example.

Focusing on Fig. 4.10, the form documents the higher level map shown in Fig. 4.7 for the efficiency principle in terms of

- *intentions* (starting and final) and
- *strategies* (classified on the basis of the facet on which they impact (in this case juridical, organizational, and technological) implementing the considered intentions.

Whereas Fig. 4.11 documents the higher level map shown in Fig. 4.7 for the effectiveness principle.

| Principle | Efficiency | | | |
|--------------|---|---|------------------------------------|--------------------------------|
| Vision | Improving public administration service quality | | | |
| CODE | Starting intention | Strategy | Type of strategy | Final intention |
| a <i>b</i> 1 | Realizing efficiency | Embedding administrative procedures by means of administrative simplification | Legal | Achieve internal efficiency |
| | | Embedding administrative procedures by means of ICT architectures | Technological | |
| b <i>c</i> 1 | Achieve internal efficiency | Improving administrative process | Organizational/ technological | Achieve internal effectiveness |
| c <i>d</i> 1 | Achieve internal effectiveness | Reducing burden on citizens | Organizational/technological/legal | Efficiency realized |

Fig. 4.10 A refined documentation for eGovernment vision (focus on efficiency principle)

| Principle | Effectiveness | | | |
|------------|---|---|------------------------------------|--------------------------------|
| Vision | Improving public administration service quality | | | |
| CODE | Starting intention | Strategy | Type of strategy | Final intention |
| <i>acI</i> | Realizing effectiveness | Improving information management and coordination by means of laws | Legal | Achieve internal effectiveness |
| | | Improving information management and coordination by means of ICT architectures | Technological | |
| <i>cdI</i> | Achieve internal effectiveness | Reducing burden on citizens | Organizational/technological/legal | Effectiveness realized |

Fig. 4.11 A refined documentation for eGovernment vision (focus on effectiveness principle)

At this level, the documentation shows a common final intention for both the principles, i.e., the achievement of internal effectiveness of the public administration realized by means of different strategies (see the gray boxes in Figs. 4.10 and 4.11).

In order to provide a synthesis of the previous documentation, we introduce the form shown in Fig. 4.12. Here we have a concise representation for both the efficiency and effectiveness principles of the common intentions (2 of 4 total intentions) and strategies (6 of 13 strategies). It is important to note that we document here the results for both the higher level map (see Fig. 4.10) and its refinement (see Fig. 4.11). The resulting common intentions to focus on in order to choose the appropriate objectives for the eGovernment initiatives are as follows:

- Achieve internal effectiveness (of the public administration).
- Reduce burden for administrative services.

In the following section we further discuss how the documentation output of the task *documenting the AS-WISHED business model* is exploited to define macro- and micro-objectives in the running example.

| # of principles | # of intentions | # of strategies |
|-----------------------------|---|--|
| 2 | 4 | 13 |
| Principles | Common intentions | Common strategies |
| «Efficiency, effectiveness» | 2 | 6 |
| Map A | «Achieve internal effectiveness» | «Improving administrative processes, improving information management and coordination by means of laws, improving information management and coordination by means of ICT architecture» |
| Map B | «Reduce burden for administrative services» | «Improving data governance, enforcing laws on digital signature, introducing digital signature technologies |

Fig. 4.12 Documentation for eGovernment vision resuming the common goals and strategies for the considered principles)

4.4 Defining the Macro- and Micro-objectives of the eGovernment Vision

According to the analyses carried out in the *strategy modeling* activity and the resulting documentation, the planning activity now is devoted to finding a first set of strategic/political objectives (in the following *macro-objectives*) compared with the actual strategies of development (in the following *micro-objectives*). Macro- and micro-objectives depend, respectively, on the final intention and associated strategies, resulting from the *strategy modeling* activity; in the example of Sect. 4.3 a macro-objective is defined on the basis of the final intention *achieve internal effectiveness*, while the micro-objectives are defined on the basis of the strategies *improving administrative processes* and *improving information Management and coordination by means of laws* or *ICT*. The set of macro-objectives must be clustered on the basis of their impacts on the context of interventions in terms of laws, services, organization–processes, technology adopted. The set of micro-objectives must be defined on the basis of macro-objectives, starting from the available documentation and asking opinions of public decision makers and managers by means of questionnaires or involving them in focus groups.

In the running example (see Fig. 4.13), due to the relevance of providing an accountable way for evaluating the effectiveness of the processes supporting the

| Common intentions | Common strategies | Macro-objectives | Micro-objectives |
|---|--|---|--|
| «Achieve internal effectiveness» | «Improving administrative processes, improving information management and coordination by means of laws, improving information management and coordination by means of ICT architecture» | 1. Effectiveness of the administrative activity (organization–process) 2. Simplification of administrative activities (laws) 3. Improve registry services (service) | 1. Simplify administrative procedures for registry services (organization–process–laws) 2. Deploy new proactive registry services (service) |
| «Reduce burden for administrative services» | «Improving data governance, Enforcing laws on digital signature, introducing digital signature technologies» | 4. Use innovative ICTs (technology) | 3. Services accessible with multiple channels (technology) |

Fig. 4.13 Documentation for eGovernment vision defining the macro- and micro-objectives resulting from the common goals and strategies for the considered principles

available services (actually provided also in a non-digital way), a macro-objective is *to improve registry services to achieve internal effectiveness*. This macro-objective can be implemented through the achievement of a set of micro-objectives such as (i) *to simplify administrative procedures for registry services* (specifying the strategy improving administrative processes) and (ii) *to deploy new proactive registry services* which ask for innovation at the legal and technological levels (specifying the strategy improving information Management and coordination by means of laws or ICT). For what concerns innovation at the technological level, issues such as digital signature ask for the *use of innovative ICTs* as macro-objective in order to provide *services accessible with multiple channels* (a relevant condition also to provide new proactive services).

The resulting macro- and micro-objectives together with the outputs of the strategy modeling activity are the inputs for the following steps of the strategic planning phase and in particular for the definition of priority services and value target step of the operational planning phase.

4.5 Summary

In this chapter we discussed how the eG4M methodology allows to define clear objectives for the eGovernment initiatives to be planned. In particular, we have shown how to model the (implicit) strategy adopted, starting from the set of principles and policies underlying the statements of the political vision declared by public decision makers. The output is a structured documentation eliciting the eGovernment vision for the following steps and phases of the methodology.



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