Governance and Governance Frameworks

Rieks Joosten (rieks.joosten@tno.nl)

Organizations, communities, governmental bodies, etc., consist of various constituent entities such as departments, members, project teams, processes, and IT systems. Each of these entities operates with a certain degree of autonomy, serving unique purposes akin to their own mission. Setting out and adjusting the course for its operations (i.e., setting and realizing a set of objectives) and monitoring the effectiveness thereof over time, is done in what is called a ***governance process****. That process also balances the entity's ambitions with those of the entities it needs to cooperate with.*

This document describes a governance approach that is both precise and adaptable, keeping each entity focused and on track with its specific needs and goals. We will see that it is not only useable for individual (small) entities, but also works for collaborative environments.

Terminology

A proper understanding of the workings of our governance approach is crucial, particularly in environments where data is being acquired, stored, processed and passed on, and in which various regulations are mandatory, such as, perhaps, the GDPR, the Data (Governance, Service) Acts, etc. Therefore, we start by introducing the set of core concepts that form its backbone.

We start by observing that the kinds of entities that can be governed are quite diverse. They can be an entire organization, but also an organizational unit (e.g., a division, or a department). They can also be a project, a process, an IT system or infrastructure. We will refer to such entities as the **scope** of the governance process, and use the term **governor** to refer to the party that runs the process.

Running the governance process of a particular entity, is about making sure that within that scope, the right things are done. We will see that this is about continuously setting and reviewing its **objectives**, i.e. the specific goals for which the realization is important for the entity. This entity is called the **owner** of that objective.

Every objective is associated with one or more **results**, i.e., the outcomes or achievements resulting from work that is being done (by the entity itself, or by another entity, as in outsourcing). Results are considered **valid** if they contribute to the fulfillment of their associated objectives (and **invalid** otherwise).

Objectives come in three categories that are all crucial, in different ways, for aligning efforts and ensuring coherent progress towards shared goals.

1. An **expectation** (toward another entity) is an objective of which its owner itself needs the result for some purpose of its own, but expects that the other entity assumes the responsibility for producing it.
2. An **obligation** is an objective (toward another entity) of which the owner itself is responsible for producing the associated result for the other entity, which will use it for some purpose of its own.

3. A **control** is an objective for which the owner is both responsible for producing the associated result, and using it for some purpose. Typically, controls are used to break down high-level objectives into smaller ones that are better manageable.

Monitoring the effectiveness of operations, i.e., the extent to which objectives are fulfilled, requires that **indicators** are defined, i.e., measurable factors that can be used to assess progress toward the fulfillment of objectives. It also requires that **norms** (or **benchmarks**) are established, i.e. standards or points of reference against which such progress toward the fulfillment of objectives can be judged.

The **governance process (for an entity)** is the process in which the party that executes this process (in a role called the **governor** for that entity) sets out and continually adjusts the course of the operations within the entity. It encompasses setting objectives and associated results that are pertinent to the entity, and specifying indicators and associated norms for them. It also includes regular reviews and reflecting on its effectiveness, which leads to continuous adjustments of objectives, results, indicators and norms, whenever that is necessary to ensure that the entity remains effective in the context in which it operates.

The **management process (for an entity)** complements the governance process. In this process, that is executed by a party in the role called the **manager** for that entity, its particular ways of working are organized, the resources that are needed for producing the results for which it is responsible are made available, and the operational execution of the associated work is organized.

Governance Frameworks: Balancing Compliance and Adaptability

Every entity needs to come to grips with expectations that others have. This includes legal expectations (laws and regulations), as well as expectations from other external sources, that the entity is more or less forced to comply with. We call this the **baseline framework**. It forms the foundational, non-negotiable aspect of governance, ensuring adherence to laws, ethical standards, and overarching organizational directives.

The **adaptive framework** is the set of objectives, results (outcomes), policies, and other relevant guidance specific to (governance, management and operations within) the entity. It is a dynamic result of continuous work in the governance process of each entity. It is designed to evolve in response to both internal developments and external changes.

It is typical that the expectations (of others) in the baseline framework of an entity have a corresponding (matching) obligation in its adaptive framework, and the associated results, e.g., to demonstrate compliance.

The baseline framework and the adaptive framework together form the entity's **governance framework**.

Here is an example. Suppose a company sets a company-wide goal such as 'maintaining financial health'. This would be incorporated into the baseline framework for all relevant departments. Each of these departments then integrates this goal into its own adaptive framework, by translating it into specific objectives, outcomes, and policies tailored to their departmental context.

Governance is often mentioned in combination with Risk management and Compliance (GRC). Would it be beneficial to add sections for that?
It seems that Compliance can be associated with the baseline framework, and Risk managemet to the adaptive framework (where a 'risk' (of an objective) would be defined as an assessment by (or on behalf of) the owner of the objective, of the problems that it expects having to deal with as a result of (result(s) associated with) the objective not being realized.

Collaborations

Effective governance in organizations and other collaborations relies on interconnecting the governance processes among and with their constituent entities. This interconnectedness can be categorized into two types: vertical (hierarchical) and horizontal (networked), each with distinct mechanisms for aligning objectives.

1. **Vertical (Hierarchical) Interconnectedness**: In a hierarchical (vertical) relationship, objectives set by a higher entity are imposed on lower entities, that are expected to comply with them. For example, in response to data protection legislation like GDPR, the data governance act, the digital services act, etc., a company's head office might set high-level objectives to ensure compliance across all of its divisions. This objective, part of the head office's Adaptive Framework, becomes a directive for each department's Baseline Framework. Divisions then develop their own specific objectives to align with this overarching goal, some of which they would further impose on their constituent departments, while keeping others for managing themselves. Ultimately, this would lead to the appropriate entities in the company to upgrade data processing systems, and enhancing staff training on data privacy.
2. **Horizontal (Networked) Interconnectedness**: In contrast, horizontal relationships involve negotiation and collaboration between entities at the same level. Using the previous example, different departments within the company might need to collaborate to achieve comprehensive compliance. The IT department, for instance, might develop a new data encryption tool, expecting the Human Resources department to implement this tool for secure employee data handling. In return, Human Resources could provide IT with insights on employee data usage patterns, aiding in the tool's refinement. Each department integrates these mutual expectations and obligations into their respective Adaptive Frameworks, facilitating a collaborative approach to achieving the company-wide objective of GDPR compliance.

In practice, relationships are never purely vertical or horizontal, but rather a mix. Whatever the mix, the interconnected governance ensures effective alignment of objectives, whether through compliance in hierarchical systems or through mutual collaboration in networked setups. This understanding is essential for organizations to navigate complex data management challenges and legislative requirements effectively.

Do we need an example here of a situation where 'vertical' imposing of objectives requires 'horizontal' collaborations, and where failing to monitor that such horizontal collaborations exist leads to (unacceptable) risks of the vertical objectives not being realized (as could happen, e.g., in organizational hierarchies that exist on topics such as information security, privacy, finance, etc.)?

Matching Objectives in Horizontal Relationships

In networked (horizontal) relationships, the practice of **matching objectives** between entities is crucial for successful collaboration. This process involves entities negotiating and aligning their objectives on a peer-to-peer basis, to ensure they complement and support each other.

For instance, in the context of GDPR compliance, the IT department might have an objective to develop robust data encryption tools. Simultaneously, the Legal department has the objective to ensure all data handling complies with legal standards. In this horizontal relationship, the IT department’s development of encryption tools (its obligation) matches the Legal department's need for compliant data processing methods (its expectation).

The process of matching objectives involves clear communication and agreement on the specifics of what each entity is expected to deliver and what it can expect in return from others. By aligning these objectives within their respective Adaptive Frameworks, each department commits to fulfilling its part of the collaboration, ensuring collective progress towards the overarching goal of GDPR compliance.

Review and Reflection in Governance Processes

Review and reflection of objectives and benchmarks within the governance framework of an entity is crucial for keeping it on track, true to its mission, aligned with its external context and responsive to changes therein, and effective in its ways of working.

Review is the process in which indicator measurements are compared to corresponding norms (benchmarks) to assess progress towards the fulfillment of the objectives. **Reflection** is the process in which an assessment of the progress towards the fulfillment of objectives is considered in the light of changes in context, unforeseen events, etc., and a determination is made regarding changes in objectives, expected results, indicators or norms that would be appropriate.

1. **In Vertical Relationships**: Regular reviews in vertical relationships typically involve higher entities evaluating the performance and outcomes of lower entities against the objectives set. For example, the company's head office might review each department's progress towards GDPR compliance. This reflection could lead to adjustments in objectives or strategies if certain departments are struggling, or if external conditions, such as changes in legislation, occur.
2. **In Horizontal Relationships**: In horizontal relationships, review and reflection are often more collaborative. Departments or entities engage in joint assessments of how well their matched objectives, i.e., their expectations and obligations towards each other) are being met. Continuing with the GDPR example, the IT and Legal departments might jointly review the implementation and effectiveness of the data encryption tools. This collaborative reflection allows for shared learning and adaptation, ensuring that both departments' objectives remain aligned and are effectively contributing to the company’s compliance goals.

Linking Governance to Management

While governance is about setting the right course for an organization or a specific scope within it, management (which is out of scope for this document) is about effectively navigating that course.

Where governance is about the specifications and monitoring the effectiveness of objectives and their results, indicators and benchmarks, management is about organizing the work that ensures these results are produced, and monitoring the efficiency thereof. Management ensures that the day-to-day operations can proceed, e.g., by organizing the necessary means, operators, time, money and other necessary resources. It monitors efficiency ensuring that results are produced with minimal costs, time and effort. Management monitors the organization's activities to ensure they align with the objectives and outcomes defined in the governance process.

To summarize: governance is the strategic 'what' and 'why' – it sets objectives and outcomes, while management is the tactical and operational 'how' – it involves the actions and decisions that achieve these objectives. Effective entities need both strong governance (to set the direction) and skilled management to follow through on this direction.

Appendix 1: Governance Process

This appendix specifies a generic governance process for an arbitrary entity. This process description is limited to specifying the 'what', i.e. for each activity it specifies the purpose, and the results that exist (including the conditions that they fulfill) when the activity terminates. This leaves entities free to determine the 'how', i.e., how the results are created, and their post-conditions fulfilled.

For this process description, we will use the term '**governor**' as the role that is played by the person(s) that make all decisions in this process, thus allowing for the production of results in any activity to be delegated to others.

The process consists of the following activities:

1. **create and maintain an Adaptive Framework** i.e., specifying the entity's objectives in terms of the results/effects that have to be achieved, and the ways by which (progress towards) their realization is monitored;
2. **measure results/effects** through so-called 'effect indicators';
3. **review results/effects**, not only by judging whether or not the effect indicators have met the applicable norms, but also on any circumstances (increasing insights, unexpected events, etc.) that have influenced such results;
4. **reflect on results**, learning from what happened and/or celebrating the results;
5. **decide about changes**, e.g., concerning objectives, results, indicators, etc., as appropriate.

Running the process consists of regularly evaluating the post-conditions of each activity, and start executing it when any of its post-conditions is not fulfilled. The work consists of whatever the entity decides that it takes to fulfill these post-conditions. An activity terminates as soon as that is the case.

In practice, this means that after the activity 'setting initial objectives' is terminated, the activities 2 - 5 are executed in a cycle.

Activity 1: Create and Maintain an Adaptive Framework

Purpose: provide and maintain clarity about the objectives of the entity (that runs the process).

An adaptive framework typically consists of:

- the mission of the entity, i.e., the objective for the realization of which it exists;
- objectives, the realization of which constitutes compliance with the baseline framework;
- control objectives that help ensure the realization of the above-mentioned objectives, e.g., by aiming to reduce risks to acceptable levels;
- expectations to other entities for the production of results that it needs to realize one or more objectives of its own;
- obligations to other entities, e.g., to compensate for results that such others have produced.

Post conditions:

The results of this activity are that all of the following criteria are met:

1. an Adaptive Framework exists that specifies (or refers to the specifications of) all objectives that the entity wants to keep tabs on.
2. for every objective in the Adaptive Framework,
    1. there is a specification of the results/effects that are aimed for;
    2. it is clear which entity (if not itself) will be expected to produce these results/effects;
    3. one or more effect indicators are specified, and for each of them it is specified at which point(s) in time they are to be, or have been, measured;
    4. norms that are based on such effect indicators are specified (implicitly or explicitly), as well as a point in time (that may be repetitive) that the norm must have been met;
3. the earliest future point in time has been established by which activity 5 ('decide about changes') must have been completed;
4. the Adaptive Framework has been made consistent with every unarchived proposal (that was approved by the governor) for the creation of new, or modification of existing objectives (thereby obsoleting the proposal);
5. every proposal that was obsoleted, has been archived.
6. there is a decision by the governor stating that all objectives in the Adaptive Framework are in fact to be met and the associated results/effects are to be achieved.

Activity 2: Measuring Results/Effects.

Purpose: ensure that all effect indicators have valid and timely measurements when needed for a review.

Having ‘clean’ measurements that are unprejudiced, and are available in time to be reviewed, is of great value when judging achievements, and therefore measuring and judging results/effects should be distinct. In order to guarantee this distinction, it may be necessary to have third parties execute this activity.

Post conditions:

1. all effect indicators that are associated to an objective in the adaptive framework, have been measured (i.e., have been assigned a value) that is not outdated.

Activity 3: Review Results/Effects.

Purpose: obtain clarity about whether or not the objectives have been achieved (in a manner that is sufficiently satisfactory to the governor).

Such judgement should be based on two sources of information. The first is comparing the values of the (measured) effect indicators to the norms set in activity 1. The second source is any progressing insights, unexpected events or other circumstances that might explain any deviations (both positive and negative) from the norms. It is explicitly part of this activity to identify such circumstances.

Taking both sources of information into account, judgement must be passed on each objective; this judgement says whether or not the expected results/effects have been (sufficiently) achieved. A judgment should be justified if its indicator values deviate significantly from the norm (which can go both ways).

Post conditions:

1. for every objective, it is clear whether or not its norm(s) have been satisfied;
2. for every objective, there is a judgement stating whether or not it is (sufficiently) achieved;
3. if, for some objective, the judgement differs from what would be expected given the evaluation of the norms, there is a justification for this judgement.

Activity 4: Reflection/Learning.

Purpose: obtain clarity about the next steps that should be taken.

Quite some time may elapse between setting objectives, the associated effect indicators/norms, and judging the results/effects. Meanwhile, all sorts of things can change (e.g. laws, the market, political situation, competitors, technology, the organization's obligations, etc.). Such changes may cause expectations, effect indicators or norms to become outdated. The experience of having judged the results/effects in the previous activity is invaluable, because the person that has done this will have 'felt' any contradiction or discrepancy between the effect indicator values and norms, and his own sense of whether the results/effects have been achieved. This information and feeling allows the governor (and others) to ponder, e.g. about:

- fine-tuning or modifying expectations, indicators, norms;
- modifying objectives that the organization has committed itself to realize (obligations);
- possibilities for influencing circumstances/stakeholders;
- celebrating (unexpectedly) well achieved objectives.

Post conditions:

1. for every objective it has been established whether or not it is still relevant, and if it is, what (if anything) should be modified/improved;
2. for every (still relevant) objective that needs changes, a proposal exists for modifying its description in, or referred to by the adaptive framework, such that when it is adopted, it satisfies the post-conditions of activity 1.
3. a (possibly empty) list of proposals exists for new objectives, where each proposal is such that when it is adopted, it satisfies the post-conditions of activity 1;
4. for every proposal (from points 2 or 3), there is no decision by the governor saying that it needs additional work or fine-tuning.

Activity 5: Decide about changes.

Purpose: decide about changes to make in the Adaptive Framework so as to stay on course.

This entails making (explicit) decision on which of the proposals in activity 4 will be adopted, and which not. Doing so shows that you have actually learned. Also, putting all decisions in a single activity allows the governor to delegate the work in activities 3 and 4.

Note that adopting a proposal triggers activity 1, and the cycle starts all over again.

post conditions:

1. for each objective in the adaptive framework, there is a decision stating whether or not sufficient progress has been made, or it has been achieved;
2. for each proposal from activity 4, there is a decision stating whether or not it must be adopted, or whether the proposal needs additional work or fine-tuning.

Appendix 2: Governing the Governance Process itself

Like any other process, the governance process may need to be governed. Here is how to apply the specified governance process on itself. In order to distinguish the governance process that is being governed, from the process that governs that governance process, we will refer to the latter as the **meta-governance process**.

The meta-governance process has 5 objectives, specified by the first sentence of the description of each of the 5 activities of the governance process in the previous section, as follows:

- provide and maintain clarity about the objectives of the entity (that runs the process).
- ensure that all effect indicators have valid and timely measurements when needed for a review.
- obtain clarity about whether or not the objectives have been achieved
- obtain clarity about the next steps that should be taken.
- decide about changes to make in the Adaptive Framework so as to stay on course

The effect indicators for each of them are described as the post conditions for the associated activities. The norm (benchmark) against which these indicators are to be evaluated is that at any point in time, every condition must be met.

The only thing that needs to be specified, is the data at which the earliest future point in time by which activity 5 ('decide about changes') must have been completed.

All other activities of the governance process can be followed using the aforementioned objectives, effect indicators and criteria.

Appendix 3 - An Adaptive Framework Template

This appendix presents a template that can be (modified and) used as an Adaptive Framework of a specific entity. This template includes detailed sections for objectives, results linked to those objectives, and result indicators, with clear assignments of responsibilities for producing and measuring results.

Maintaining the links, e.g., between objectives and their results, or results and their indicators, may prove burdensome for manual use. However, some (simple) support by an IT application may help here.

Adaptive Framework Template for [Scope Name]

1. Scope Identification

1. **Scope Name**: [Name of the scope/entity being governed]
2. **Governance Team**: [Names of individuals responsible for the governance process]

2. Objectives

This section contains a list of objectives. It may be convenient to arrange the objectives by topics, or any other means. For every objective, the following items would be specified:

1. **Name/Identifier** [Short text that can be used to refer to the objective]
2. **Objective** [Short text (one or two sentences) that summarize what the objective is about]
3. **Description**: [Detailed descriptions, guidance, etc. - whatever is appropriate]
4. **Timeframe**: [Specific timeframe for achieving this objective]
5. **Linked Results**: [List of results linked to this objective]

3. Results

This section contains a list of results that are to become available. Note that some results are produced (or maintained) by the entity itself, while the production (or maintenance) of others is outsourced. Here, too, it may be convenient to arrange the results by topics, or by the producing entities, or any other means. For every result, the following items would be specified:

1. **Name/Identifier** [Short text that can be used to refer to the (kind of) result]
2. **Result** [Short text (one or two sentences) that summarize what the result is about]
3. **Criteria** [List of criteria a result should satisfy in order to be valid (i.e.: contribute to the realization of an objective that has this result in its list of linked results]
4. **Producer**: entity that is responsible for producing the result (if not the entity itself)
5. **Description**: [Detailed descriptions, guidance, etc. - whatever is appropriate]
6. **Timeframe**: [Specific timeframe for achieving this objective]
7. **Linked Objectives**: [List of objectives this result contributes to]

4. Indicators and Norms

This section contains a list of indicators that are to be used (and implemented) in order to monitor progress. For every indicator, the following items would be specified:

1. **Name/Identifier** [Short text that can be used to refer to the indicator]
2. **Linked Results** [list of results for which the indicator needs to be measured]
3. **Measurement Method**: [How will this indicator be measured?]
4. **Target Value/Norm**: [Desired value or norm for this indicator]
5. **Responsible Entity for Measurement**: [Entity responsible for measuring this indicator]
6. **Frequency of Review**: [How often will this be reviewed?]

Glossary

The following table contains the definitions for the terms used in this document

Term	Description
adaptive framework (of an entity)	the set of **objectives**, **results** (outcomes), policies, and other relevant guidance specific to (governance, management and operations within) the **entity**, that ensure that the entity's mission is accomplished and the expectations of others from the **baseline framework** are complied with.
baseline framework (of an entity)	The set of **expectations** that are **owned** by other entities (such as compliance with particular laws, regulations, policies, contracts, etc.), and that the entity is or feels obliged to comply with, and that are typically non-negotiable.
benchmark	a coherent set of **norms**.
control	an **objective** for which its **owner** is both responsible for producing the associated **result**, and using it for some purpose of its own. Typically, controls are used to break down high-level objectives into smaller ones that are better manageable.
expectation (towards an entity)	an **objective** of which its **owner** needs the associated **result** for some purpose of its own, but expects that the other entity assumes the responsibility for producing it.
governance framework (of an entity)	the combination of the **baseline framework** and **adaptive framework** of the entity. In a coherent governance framework, all **expectations** from the **baseline framework** have a corresponding **obligation** in the **adaptive framework**.
governance process (for an entity)	the process in which the course of the operations within the entity is set out, and continually adjusted.
governor (of an entity)	the role that a party performs as it performs a governance process for that entity.
hierarchical relationship	a pair of entities, where one entity has expectations towards the other that it can more or less force the other to comply with. In a 100% hierarchical relationship, the first entity can impose arbitrary expectations on the other, which cannot do anything but comply with them.
indicator (for an objective)	a measurable factor, typically consisting of a value and a unit, that can be used to assess progress toward the fulfillment of the objective.
management process (for an entity)	the process in which the **manager** of the entity organizes its particular ways of working, the resources that are needed for producing the results for which the entity is responsible, and the operational execution of the associated work.
manager (of an entity)	the role that a party performs as it performs the **management process** for that **entity**.

matching objectives (between entities)	the process in which these entities communicate about their capabilities and needs, for the purpose of establishing and maintaining the set of **expectations** and **obligations** they have towards each other (i.e., their **relationship**).
objective (of an entity)	a goal that an entity pursues, for the fulfillment (achievement) of which it a set of associated **results** are specified that the entity creates or maintains, and/or uses (e.g., to realize other objectives).
obligation (towards an entity)	an **objective** of which its **owner** is responsible for producing the associated **result(s)** that are subsequently used by one or more other entities.
networked relationship	a pair of entities that have mutual expectations and obligations that are the outcome of a communication (negotiation) process. In a 100% networked relationship, both entities cannot force anything upon the other.
norm (for an indicator and objective)	a standard or point of reference against which progress toward the fulfillment of the **objective** can be judged, given (the value of) the **indicator**.
owner (of an objective)	the **entity** for which the achievement of the **objective** is important, because it produces and/or consumes its associated **results**.
reflection (on a review)	the process in which an assessment of the progress towards the fulfillment of **objectives** (i.e., the results of a **review**) is considered in the light of changes in context, unforeseen events, etc., and a determination is made regarding changes in **objectives**, expected **results**, **indicators** or **norms** that would be appropriate.
relationship (between two entities)	the set of all **expectations** and **obligations** that the two **entities** have towards each other.
review (of objectives)	the process in which **indicator** measurements are compared to corresponding **norms** (**benchmarks**) to assess progress towards the fulfillment of the **objectives**.
result	the outcome or achievement resulting from work that is being done, and that is associated to one or more **objectives** (that may be **owned** by the same, or different entities).
risk (of an objective)	an assessment by (or on behalf of) the **owner** of the **objective** of the problems it expects having to deal with as a result of (**result(s)** associated with) the **objective** not being realized.
scope (of a governance process)	the entity that owns all **objectives** that are created and maintained by/through the **governance process**. Such entities can be of various kinds, e.g. an organization or organization unit, a project, process, IT system or infrastructure, etc.
validity (of a result)	the measure in which the **result** contributes to the **objectives** to which it is asssocated. A **result** that contributes to these objectives is called **valid**. A **result** that does not, is called **invalid**.