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# Digital Transformation of Business Process Governance

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# Abstract

Many organizations have started digital transformation initiatives. New digital tools are available with increasing regularity – and many of them have a major impact on business processes. However, only a small number of organizations have their business processes sufficiently under control to realize the full business potential of new digital technologies. Appropriate business process management (BPM) capabilities, have a significant impact on the value achieved through digitalization. This is especially true for establishing appropriate business process governance. Process governance keeps processes on track. It identifies necessary adjustments of the process, defines the required actions, and ensures their execution.  This has a significant impact on the realization and sustainment of the target-ed digitalization benefits as well as the ongoing performance of the processes. However, digital operational processes have new requirements for process governance. And digital process management tools provide new opportunities for effective governance.  Therefore, process governance must go through adigital transformation itself, leveraging appropriate tools such as process mining or dynamic process modelling and simulation tools. Result is digital process governance, an important foundation of successful digital transformation

**Keywords**

# 1. The Impact of Digital Transformation on Process Governance

Most organizations have launched or planned digital transformation initiatives (Kirchmer, e.a., 2020). New digital tools are available with increasing regularity – and many of them have the potential for a major impact on business processes. Hyper-Automation has become a reality which changes the way business processes are organized and executed (Stoudt-Hansen, e.a., 2019). However, only a small number of organizations have their business processes sufficiently under control to realize the full potential of new digital technologies and the related transformation (Kirchmer, 2019) (Cantara, 2015). Appropriate business process management (BPM) capabilities, delivered through the process of process management, have a significant impact on the value achieved through digitalization initiatives (Antonucci, e.a., 2020). This is especially true for establishing appropriate business process governance. Process governance drives the realization of the targeted digitalization benefits as well as the on-going improvement and change of digital processes (Kirchmer, 2015) (Rosemann, 2015) (Hove, e.a., 2015) (Franz, Kirchmer, 2012). Process governance identifies necessary adjustments of the process, defines the required actions, and ensures their execution. It enables the desired level of process performance. In a digital environment where an increasing number of applications is housed in the cloud, processes, hence the way how to use the digital tools, have become a key asset of an organization (Kirchmer, 2017) (Abolhassan, 2016). To manage those assets successfully, governing digital processes properly is crucial.

Digital processes require a new governance approach to realize their potential. Speed, flexibility, and effectiveness must be combined. The new process governance leverages the opportunities of digitalization systematically to deliver the targeted value.

The tools and technologies supporting a digital business process deliver data about a process that has not or not fast enough been available with traditional business processes.

This includes data about the performance of a process as well as about its compliance with the process design and related compliance requirements.Process governance in a digital environment can use this data to increase its effectiveness. This enables the necessary speed and flexibility in adjusting digital processes and frees up time to deal with people-related topics that cannot be automated. The resulting agility is a main benefit of digital transformations.

The ongoing adjustment and re-configuration of digital technologies can more and more often be done by the involved business departments, without using the information technology (IT) organization. Process supported through robotic process automation (RPA), for example, are most effective if at least routine adjustments of the used bots are done by the business users (Smeets, e.a., 2019) (Kirchmer, Franz, 2019). Management oversees bots and humans. Therefore, digital processes require a hybrid workforce management, addressing people and technologies. Process governance needs to reflect this new business reality to simplify compliance and performance management.

Business process governance must go through a digital transformation itself, lever-aging appropriate tools, such as process mining or dynamic process modelling and simulation, to meet those needs of a digital environment. The result is digital process governance, leveraging the opportunities operational digital processes provide by applying appropriate digital tools themselves. Digital process governance is value-driven, tool-enabled, and people-centric. The impact of digital transformation on process governance is visualized in figure 1.

This whitepaper, which is based on a previous article (Kirchmer, 2021), identifies key digitalization opportunities for process governance. Then it examines how digital process governance can be achieved. After presenting first practice experience the articles concludes with a short outlook.
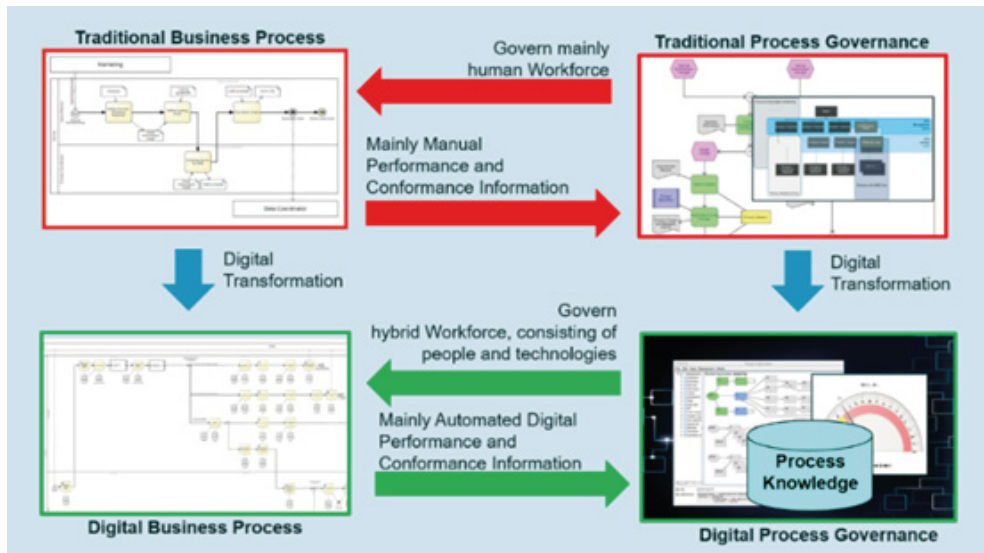
**Figure 1: Impact of Digital Transformation on Process Governance**

# 2. Opportunities for Digital Transformation of Process Governance

A digital business environment provides opportunities to move process governance to the next level enabling improved performance of operational business processes.

After defining process governance in general and identifying its key components, specific digitalization opportunities for process governance will be identified. This provides the basis for the definition of digital process governance and its components.

# 2.1 Definition of Process Governance

Process governance is the organizational framework to establish and maintain end-to-end process performance in an organization. It exists in parallel to the structural, of-ten function-oriented, organization with its reporting lines. Process governance man-ages the alignment of different activities with the requirements of internal and external clients.

Governance in general relates to processes and decisions that seek to verify performance, define actions, and grant power (Wikipedia, 2022).

This definition can be transferred to business process governance: Process Governance relates to processes and decisions that seek to verify performance, define actions, and grant power related to the management of operational processes through the "process of process management" (Kirchmer, 2017) (Hove, e.a., 2015) (Rosemann, 2015). Process governance does not replace the existing organization structure. It adds an additional market and customer-focused view to ensure appropriate business process performance (Spanyi, 2015) and with that the realization of the overall goals of a company.

Business trends, corporate strategies, legal requirements, and other aspects, like the use of specific supporting technologies, influence the design of a process governance approach.

The application of process governance must be defined in the context of a specific organization. It is delivered through a combination of different mechanisms (Janssen, 2015):

- **Structural:** Business process related roles and responsibilities are defined, for example the role of a process owner.

- **Procedural:** Governance processes are defined, for example how to measure the end-to-end performance of a process and define improvement initiatives.

- **Relational:** Informal relationships between people enable process governance, for example the long tenure and reputation of one department head can be used to align an end-to-end process across several departments.

## Appropriate Performance of a Business Process

### Process Governance

| Verify Performance | Define Actions | Grant Power |

| Structural Mechanisms | Procedural Mechanisms | Relational Mechanisms |
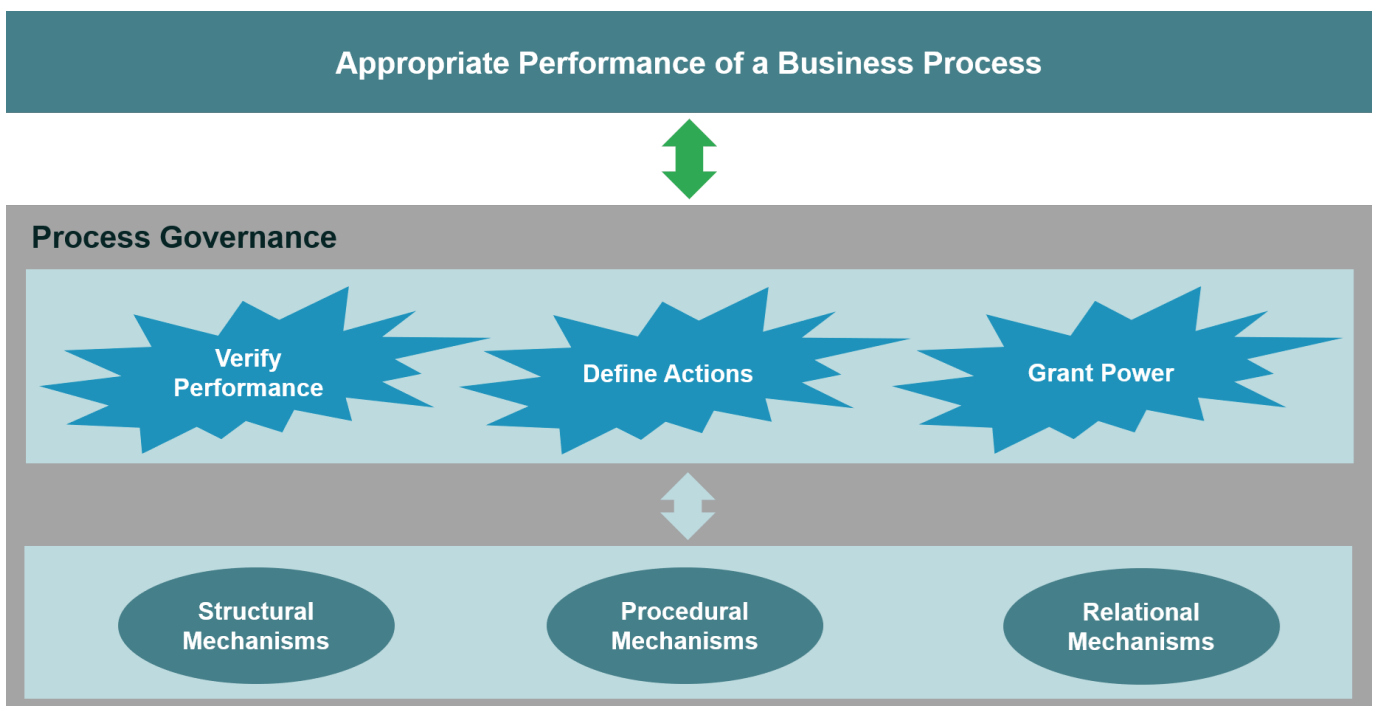
**Figure 2: Definition of Process Governance**

The definition of process governance is visualized in figure 2.

Process governance addresses the entire lifecycle of a business process: design, implementation, execution, and control. Its key focus is on the running process, hence the execution control phase and delivering the required direction for the design and implementation of new and enhanced processes.

All process components, as described in the ARIS architecture, are relevant for the governance approach: organization, functions, data, deliverables, and control flow, as well as the technology support of process execution (Scheer, 1998). This leads to a close relation between process governance and other governance approaches, such as IT governance or data governance. The alignment with those related governance organizations needs to be reflected in the process governance approach.

# 2.2 Key Components of Process Governance

This definition of process governance is operationalized to establish it in an organization. It is realized through six key components (Kirchmer, 2017):

- A high-level identification of the company's main, cross-functional processes.

- Clarity on the goals to frame the definition of key performance indicators (KPI) of these business processes.

- Accountability and ownership for the management of business processes, combined with the appropriate empowerment, control and guidelines.

- Management of the knowledge about processes to achieve the necessary transparency enabling fast well-informed decisions and related actions.

- Aligned recognition and reward systems.

- A set of priorities to focus on what matters most for an organization.

In order to govern business processes, those processes need to be identified, from the external event that starts them until the result of value they deliver. The goals of those processes are to be defined clearly as basis to measure and verify the process performance.

Key performance indicators (KPI) operationalize those goals by defining how to measure success. Accountabilities and ownership, combined with appropriate empowerment and direction, must be defined to enable necessary performance improvements. This is the core structural component of a process governance approach which reflects the people-centricity. It also includes the definition of the relation to other governance bodies, such as data governance. To enable fast decisions and the definition of required actions, the right degree of transparency over the business process and its behavior is required. This is achieved though the appropriate management of knowledge about the business process and the way it is executed. Recognition and reward systems must be aligned with the defined ownership roles and accountabilities to provide the right motivation of the involved people. This can include, for example, bonus payments for the achievement of specific process performance goals, measured through the defined KPIs. A company only competes through 15-20% of its business processes (Franz, Kirchmer, 2012). These high impact processes must be in the focus of process management and improvement initiatives. Also, various initiatives related to those processes are of different importance for the overall process goals. Hence, appropriate priorities for the use of resources must be set and applied as part of the process governance.

The key components of process governance are summarized in figure 3. The graphic illustrates the central role of ownership and accountabilities for effective process governance. Hence, it stresses the people centricity. Priorities and process goals reflect the value-driven approach.
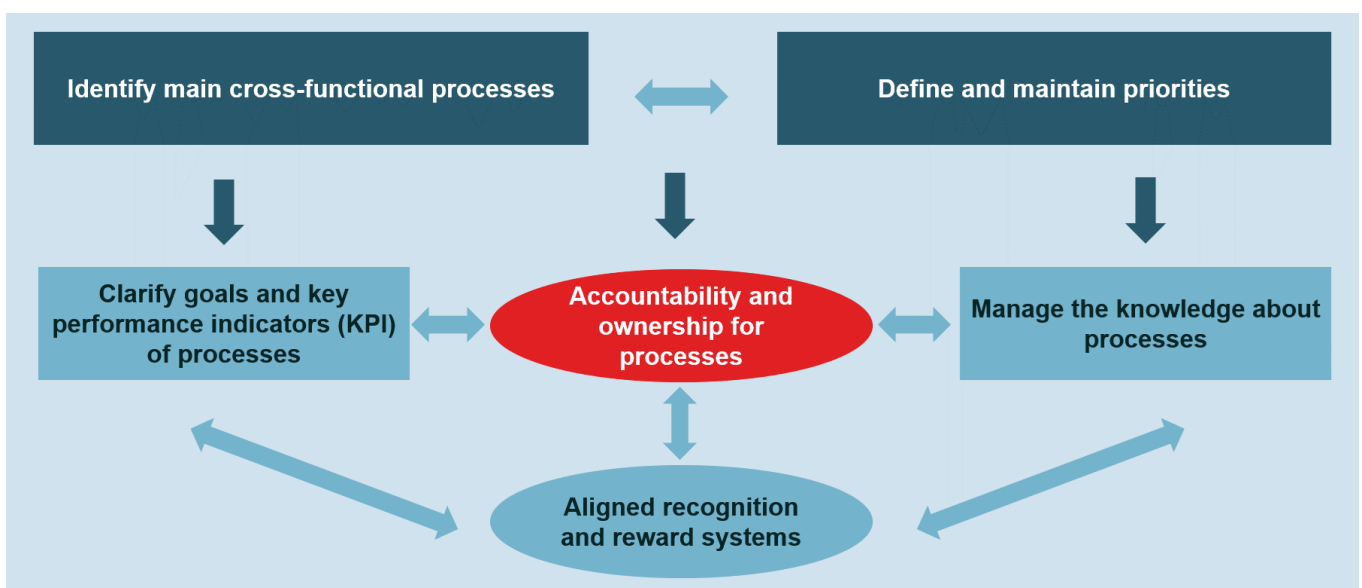


**Figure 3: Key Components of Process Governance**

# 2.3 Enhancement Opportunities for Process Governance through Digitalization

The possible improvement of process governance through digitalization is examined using the six key components of process governance as a basis. These governance components are impacted in two ways through the effects of a digital transformation:

- Faster and more comprehensive information about the operational process through the underlying digital technologies and the data they produce.

- Use of digital tools to support process governance processes themselves, especially process and project prioritization, modelling and repository, process mining and intelligence tools.

Hence, all process governance components are examined regarding improvement opportunities through those digitalization effects. Goal of this improvement is to im-prove effectiveness and efficiency of process governance. This leads to more agile and reliable ongoing adjustments of processes.

The identification of the key business processes is not really impacted though the digitalization. However, leveraging process reference models in a dynamic digital format, leveraging a repository tool, can simplify this activity (Kirchmer, Franz, 2020c) (Kirchmer, 2017). The reference models can be used as guideline to identify the company specific core processes and describe those on a high level as basis for the process governance. Having the company specific process models available in a digital formal also enables the ongoing adjustment of the process scope. Process mining tools may also help identifying processes if they are already sufficiently automated. Results are cost and time savings as well as more reliable results.

The goals of processes and related KPIs are defined based on the overall business strategy of the organization. Digital process and project prioritization tools can help to break down strategic imperatives into value-drivers and to assess the impact of sub-processes on those value-drivers.

Process KPIs describe the relation of sub-process to value-drivers. The stronger the impact of a subprocess on a value-driver is, the more important is it to define a KPI enabling the management of this impact. Digital tools support the definition of the most relevant of KPIs in and efficient way.

The availability of performance data about digital processes helps to establish the baseline for KPIs and set realistic improvement targets. Process mining tools can help extracting this information. However, the availability of an increasing amount of data in a digital environment increases the risk of defining too many KPIs and with that create unnecessary administrative effort. Process governance may lose focus. The controlled definition of the KPIs, described above, reduces this risk.

The definition of ownership and accountabilities, remains the key aspect of process governance. This reflects the people-centricity of the governance. Digital trans-formation does not change this organizational activity itself. However, it simplifies its realization and day-to-day application. The availability and easy access to relevant governance information allows to streamline the structure of the governance organization. This is the same effect information technology has on the organizational structure of a company where middle management positions can be cut out since their role to aggregate data is no longer required (Hammer, Champy, 1993). Having comprehensive and accurate information about the process, delivered through process repositories and mining tools, speeds up decision making and increases the acceptance of those decisions as well as the resulting actions. Digitalization of process governance makes therefore ownership and accountabilities more effective and allows to broaden the scope as required to meet performance goals. The collaboration between different people involved in process governance can be supported through digital collaboration and workflow tools which increases those effects even further.

Basis for all process governance activities is the availability and management of the required knowledge about the process. This governance component can be significantly improved in a digital environment.

The availability of performance and conformance information though process mining applications used by the governance organization allows fast-well informed decisions and focused actions (Scheer, 2018) (Van der Aalst, 2016). Structural information about the process, captured in process modelling and repository tools (Kirchmer, Franz, 2020b) (Kirchmer, 2017) (Fluxicon, 2021), is important to create a baseline and manage the process conformance, for example, compliance requirements or consistency the actual process execution with the process design. The use of process reference models as design templates across business units simplifies the governance of process standardization and makes it more effective.

Recognition and reward systems reflect the achievement of end-to-end performance goals of a business process. This is in general independent of the digital process transformation. However, the simpler and more reliable measurement of KPIs through tools like process mining improves this governance component.

The simple access to information about process priorities and process models further supports this governance activity.

Using the right priorities when defining process governance actions and related improvement initiatives is also independent of the degree to digitalization of a process. High impact low maturity processes are the best targets for optimization and innovation initiatives since they are most important for the realization of the strategy of an organization (Franz, Kirchmer, 2012). Process governance priorities need to reflect this and evaluate initiatives based on their effect on those high impact processes. Digital tools supporting a process and project impact assessment as well as the resulting prioritization enhance this governance component (Kirchmer, Franz, 2020c). Process mining tools deliver the required information about actual processes to confirm or adjust those priorities.

The main enhancement opportunities for process governance through digital trans-formation are summarized in figure 4.



Components of Process Governance

| | Identify Processes | Definition of Goals and KPIs | Ownership and Accountability | Knowledge Management | Alignment of rewards | Prioritize |
|---|---|---|---|---|---|---|
| Prioritization / Strategy Execution Tools | no/minimal | medium/high | low | medium | medium | high |
| Modelling and Repository Tools | low | low | medium | high | low | low |
| Process Mining and Intelligence Tools | low | medium | medium/high | high | medium/high | medium |
| Process Automation / Digitalization of operational processes | no/minimal | low | low | high | medium | low |

○ no / minimal impact   ◔ low impact   ◑ medium impact   ◕ medium / high impact   ● high impact

**Figure 4: Main Enhancement Opportunities of Process Governance through Digitalization**

# 3. Digital Process Governance

The realization of the improvement opportunities of process governance results in digital process governance. The use of digital enablers is examined further.

This is the basis for a discussion of the impact on the governance organization and its processes.

# 3.1 Digital Enablers for Process Governance

In order to realize the improvement opportunities of process governance through digitalization a combination of key process management tools is required:

- Prioritization tool to target best value for the organization.

- Process modelling and repository tool to manage knowledge about the process type and its design.

- Process mining tool to provide conformance and performance information about process instances.

These tools must be appropriately integrated with the digital technologies supporting the execution of the operational business processes. This allows the efficient collection of the required data. The right integration among each other further supports the digital process governance by re-using information. General digital tools, like a workflow system, are added to further enhance governance processes.

Examples for digital prioritization tools are the SAP Process Insights (SAP, 2022), BPM-D Application (BPM-D, 2022) or i-Nexus (i-Nexus, 2022). Those tools help identifying high impact low maturity processes and the definition of related improvement projects delivering best value for the organization (Kirchmer, Franz, 2020c) (Kirchmer, e.a., 2017). To enable this process and project prioritization, the process hierarchy, defined in a process repository is re-used. The technical integration between the prioritization and modelling tool is less important since it is a small volume of data that is transferred in a low frequency.
The prioritization tool allows to move changing business conditions rapidly into adjusted priorities, supporting an agile governance approach.

There are numerous process modelling and repository tools available (Kirchmer, 2017). Specific examples are SAP Signavio (Signavio, 2022b) or the ARIS Tool (Software AG 2022a). These tools enable the design of process types; hence they are used to set the baseline for how the process should be organized to meet performance and conformance requirements. Conformance requirements are especially important to meet legal compliance regulations. Analytics capabilities, such as simulation of process types, support an appropriate design or modification of an existing process definition. Process modeling methods, such as BPMN (Fisher, 2021), help to make the use and impact of digital technologies transparent.

While most of the use cases of such modelling tools are during the design and implementation of digital processes, the tools and their content also support the ongoing process governance (Kirchmer, 2018). The tools provide the structured digital models of the target process. This allows to govern actual process instances towards those targets.

The governance of process standardization is supported through reference models that show where a process can be modified to reflect, for example, product or geography specifics and where it must follow the company-wide standard (Kirchmer, Franz, 2020b). Process repository tools enable the efficient use and roll-out of such reference models.

The process models in the repository can be integrated with even more detailed standard operating procedures (SOP) so that those can be easily accessed and maintained in the end-to-end process context. This helps to meet compliance requirements.

The integration of process modelling and repository tools with the applications supporting the operational processes drives the configuration of those applications according to business requirements (Kirchmer, 2017). This simplifies the governance of business-driven process changes. Practice has shown, however, that this does in general not mean that the operational systems are adjusted automatically. Hence, the models are in most cases used as guideline for configuration adjustments. An integration of process modelling tools with process mining tools, helps to compare the process design with actually executed process instances to govern the process conformance.

Process models also identify digital technologies that can be modified directly through the business units. If adjustments are required to meet process performance goals, this enables the definition of governance actions suited for a hybrid workforce.

Process modelling and repository tools require a governance approach for them-selves. This is necessary to keep the models up to date and usable by the process governance organization (Kirchmer, 2017) (Franz, Kirchmer, 2017). Repository governance defines, for example, who can see or modify models or when an update is necessary.

Performance and conformance related data are extracted from the system logs of the applications supporting the digital processes using process mining tools (Van der Aalst, 2016), sometimes complemented through task mining tools. Examples for such process mining tools are Celonis (Celonis, 2022), Disco (Fluxicon, 2022),

SAP Signavio Process Intelligence (Signavio, 2022a) and ARIS Process Mining (Software AG, 2022b). SAP Signavio and ARIS offer an entire process management suite, including the process modelling and repository tool as well as execution software. This simplifies the required integration. Process mining tools use event information from system logs of applications to calculate performance information, for example the cycle time of a process and of different process components. This information is key to govern a process towards the desired performance level.

Aligning the extracted events, with the appropriate steps of the defined process design, shows where specific process instances, is handled according to the design and where the actual process execution deviates from it. This allows corrective actions or the adjustment of the process design.

The analysis of as-is processes at the beginning of digitalization projects is often seen as the main usage scenario for process mining tools (Reinkemever, 2020b). However, numerous organizations still have many processes with lots of manually executed steps or they use different systems which do not deliver consistent events across different sub-processes. This lack of appropriate data limits the use of process mining. This is different for the governance of digital processes. The technology support is more consistent, and the degree of automation is higher. Hence, the use of process mining tools to govern those processes is more effective and simplifies governance processes significantly (Reinkemever, 2020a).
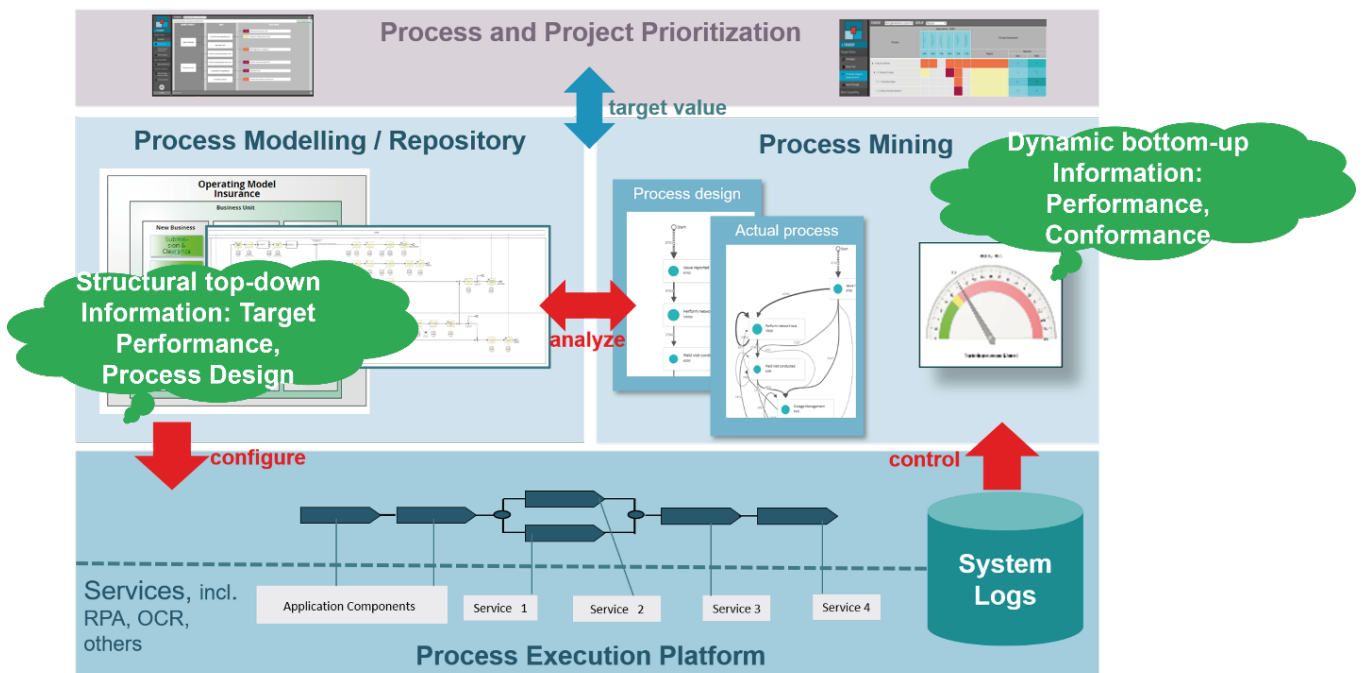


**Figure 5: Tool Architecture to Support Process Governance**

The use of process mining is especially well suited in environments where an operational process is supported through an automation platform that integrates different applications and other digital services. Such a platform provides consistent information in the various logs and a simple access to the relevant data. No-code or low-code platforms, such as Unqork (Unqork, 2021) or Appian (Appian, 2021), allow a customized support of a specific operational process and agile adjustments.

Especially the use of no-code approach, as provided by Unqork, simplify the execution of governance actions.

An architecture of tools to support digital process governance is shown in figure 5. This tool architecture can be leveraged to support the larger BPM-Discipline (Kirchmer, 2015). However, in this article we focus on the aspects as they relate to process governance.

# 3.2 Simplified Organization for Process Governance

Structural mechanisms, especially a formalized process governance organization, is the core component of an effective process governance. It makes people-centric governance sustainable and scalable. It helps to create the right balance of power be-tween the process management and functional management, based on the official organizational structure of a company. The timely availability of reliable information about processes and their performance allows the process governance organization to act effectively across organizational boundaries. The interaction between members of the governance organization and the functional leadership is simplified through a digital data-driven process management approach. People can discuss facts, not anecdotes.

The described digital tools are the foundation for this effective people-centric governance.

The roles forming the process governance organization are summarized in figure 6 (Kirchmer, Franz, 2020a). Extended roles are part of the operational business units where they apply the principles of process management. The core team, often organized as BPM center of excellence (CoE), supports the extended roles through deep process management know and skills. In a specific company context, it is defined for each role if it is centralized or decentralized, project-based or permanent, in-house, or out-sourced.
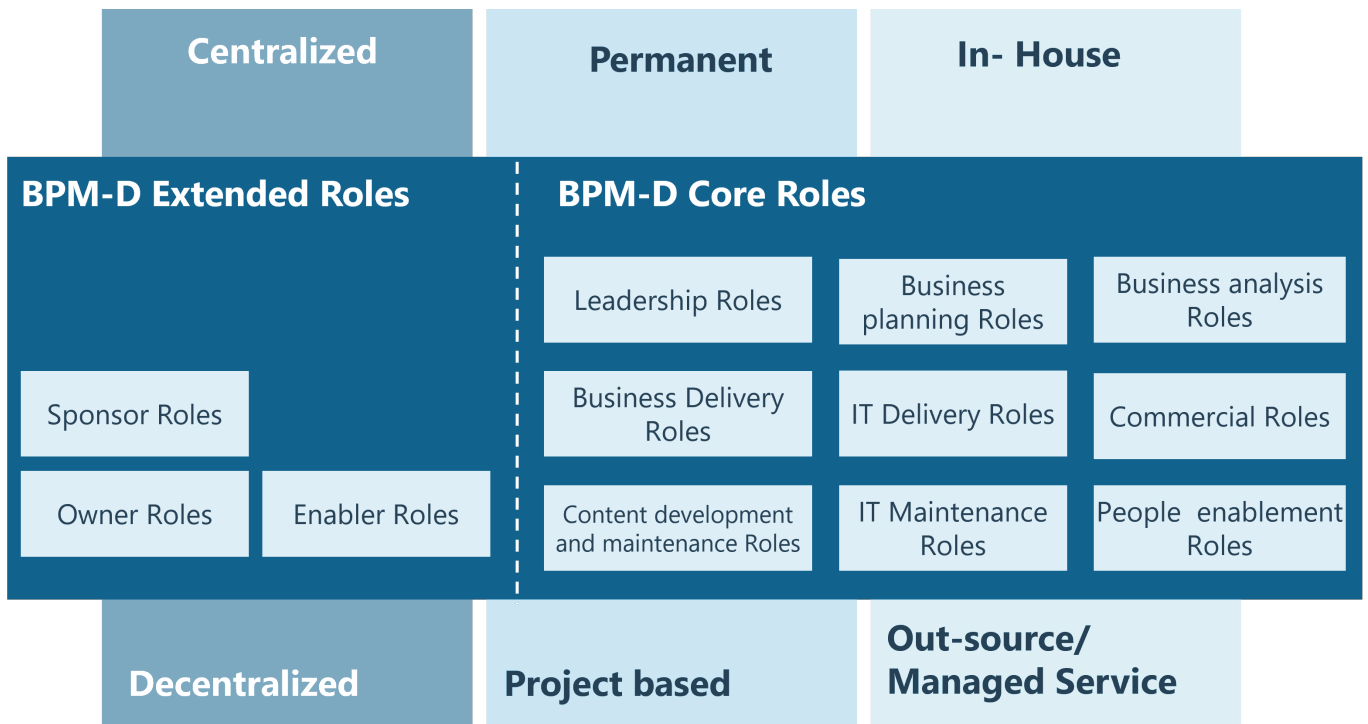


**Figure 6: Main Groups of Roles Forming a Process Governance Organization**

Ownership roles and the definition of supporting roles with their accountabilities is a key component of process governance (Kirchmer, 2017) (Franz, Kirchmer, 2012). A key role is the process owner, managing an operational process on a daily basis. Main accountabilities include:

■ Define and manage process-oriented KPIs.

■ Ensure the compliance with company standards and process design.

■ Initiate process improvements based on external events or performance issues.

■ Review proposed changes to the process and governance structure.

■ Review integration issues between the various processes.

■ Promote the business process management vision and strategy.

■ Initiate process related training.

■ Function as a point of escalation, when required.

■ Collaborate with functional leaders and other governance organizations.

The process owners are often complemented through process stewards who represent the process view in different functional areas. This is especially important in larger organizations. Process sponsors are responsible to set overall directions and resolve conflicts, for example between process and functional leaders.

These extended governance roles are supported through a BPM core team, in most cases a BPM CoE. This BPM CoE includes roles like business process analysts and architects, various project delivery roles as well as roles required to maintain the process management infrastructure. An emerging leadership role is the chief process officer (CPO) who owns the process of process management (Kirchmer, Franz, 2014). The CPO provides the link of the process organization to the top-management and oversees its roll-out.

The different governance roles are collaborating which resulting in governance bodies, such as oversight teams or working groups. Figure 7 shows a typical example for such a process governance organization, reflecting its people-centricity (Kirchmer, Franz, 2020).
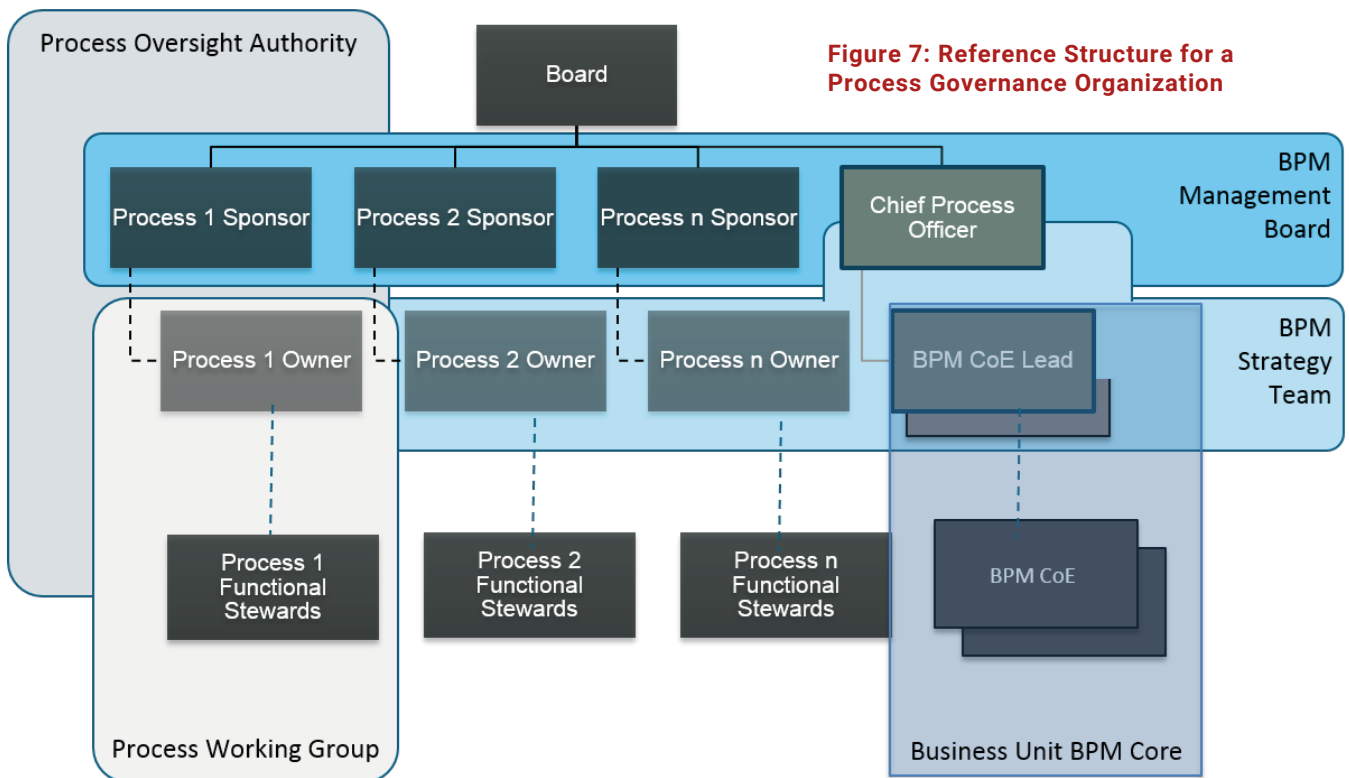


**Figure 7: Reference Structure for a Process Governance Organization**

In a digital governance approach the process owner role becomes even more effective. Performance and conformance information can be obtained faster and easier. Larger organizations often define a hierarchy of process owners, for example, global regional or local process owners. In those cases, the digital governance approach can reduce those hierarchy levels. The global process owner can manage target processes designs based on the models in the repository as well as receive the required information about regional and local processes through a process mining tool. Hence, the collaboration with process stewards in the different functions can be sufficient to ensure appropriate governance. This must, however, be decided in the context of a specific organization. Digital process governance reduces administrative governance work. This frees up time for people-related activities and reduces the overall cost. Process owners can concentrate on using information to set appropriate action.

The effort for ongoing support of digital tools, to be delivered through the BPM CoE, increases through a digital process governance approach. While tools for modelling, mining or related activities are also required for process improvement activities, now they become part of the "business as usual". The ongoing more intense use of those tools and their content increases the needs for maintenance, tool governance and support service levels.

The enterprise-wide roll-out of the tools becomes more important which requires appropriate enablement activities, especially training. In larger organizations an eLearning approach may be required to support a rapid roll out of governance tools and techniques.

The CPO manages the progress of the process of process management, hence of the BPM-Discipline. While people related activities still stay in the center of CPO activities, the definition of appropriate tool strategies and their role-out becomes more important.

# 3.3 Improved Processes for Process Governance

Process governance is delivered through appropriate governance processes (Kirchmer, 2015) (Rosemann, 2015). Digital process governance improves those processes leveraging suitable digital tools. Those governance processes are defined in the context of a specific organization.

The digital transformation of governance processes requires a more formal process definition to facilitate the appropriate value-driven use of the digital tools. An overall governance approach is defined first and then detailed in process models explaining the tool support in the different activities. The seamless collaboration between process ownership roles and the supporting BPM CoE is especially important to achieve and maintain the desired governance level. Examples for typical governance processes are:

- Ongoing performance management.

- Managing process standardization and compliance.

- Launch of improvement and transformation initiatives.

- Acceptance and roll-out of process improvements.

- Collaboration between governance bodies.

An example of an overall governance approach of a health research organization is shown in figure 8. Here the process owners manage key digital governance components, such as process modelling, analytics, and automation. The BPM CoE supports this.
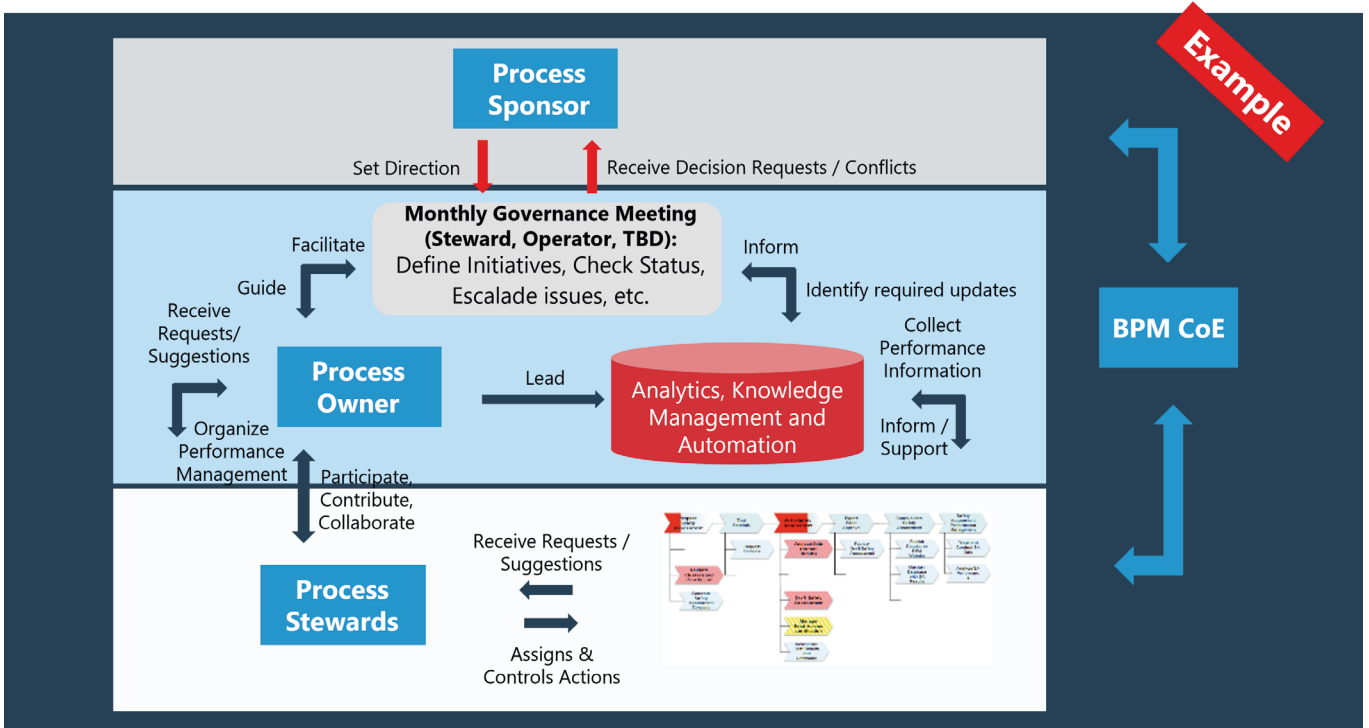
**Figure 8: Example of an Overall Process Governance Model Leveraging Digital Tools**

Figure 9 shows an example of a detailed governance process in BPMN format. This is an excerpt of the process for ongoing performance management. It shows how the process mining tool Celonis is used to determine performance levels and identify potential issues while the modelling tool Signavio is used to analyze potential issues and define necessary actions.

The careful definition an ongoing management of those governance processes are the foundation for an effective governance.
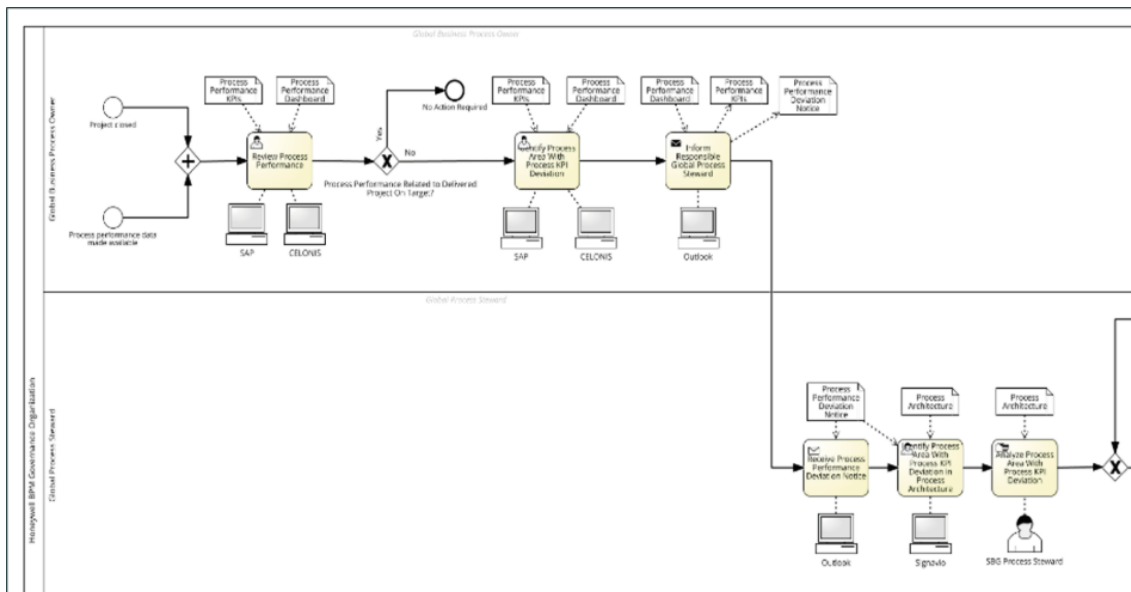


**Figure 9: Example of an Overall Process Governance Model Leveraging Digital Tools**

# 4. Practice Experience

While an increasing number of organizations plans or introduces digital process governance, it is still an emerging approach. Hence, there is not much practice experience available, especially since main effects of process governance can only be validated over longer period of time. First experience with digital process governance is dis-cussed now using two case examples.

A major global technology company has launch multiple digital transformation initiatives, including the processes procure-to-pay, opportunity-to-cash, idea-to-product, and integrated supply chain. The organization decided to combine the digitalization with the introduction of a new process management organization and enhance its basic process governance. This is supported mainly through two digital tools: Signavio for process modelling and Celonis for process mining. Process maturity and impact assessments as well as the related prioritization are currently still done manually, possible digital tools are under evaluation.

Due to the size of the organization and its structure in product-oriented business units, the ownership for processes is defined on two levels: global process owners (Level 1) and business unit process owners (Level 2). Level 1 process owners govern global process standards for all business units as well as centralized corporate processes to ensure consistent use of best practices, documented in company specific reference models using Signavio. This includes the identification of areas where business units can deviate from the standard. Twice a year they assess the adherence to the standards and provide recommendations for improvements or suggestions. If necessary, they trigger adjustments of the design. In monthly meetings which include functional leadership, the process owners exchange experience and decide on actions relevant for several processes, such as the roll-out of efficiency tools like RPA.

The business unit specific performance management is provided through Level 2 owners. They receive performance information through Celonis process mining as well as traditional monitoring tools. Process models are used to manage the value realization and evaluate the maturity level of the existing processes. Depending on the complexity of the process, the Level 2 owners are supported through process stewards. Process owners are organizationally part of the business units.

A newly founded BPM CoE supports the governance organization and ensures the appropriate service levels for the tools und supports improvement and transformation projects, requested by the business units through the process owners. Further, decentralized BPM CoEs, are planned for the different business units. The corporate CoE provides then the necessary standards and guidelines, whereas the decentral units focus on the execution of improvement and transformation projects, applying those guidelines.

The mining tool is mainly used to get process performance information. Conformance information is collected through regular process audits, hence, in a traditional way. The supporting software landscape is still very heterogeneous so that a broader use of the mining software has been considered as too complex so far. The modelling and repository tool houses the reference models for processes, describing best practices in form of company-wide process reference models. Business units adopt those as required, based on guidelines provided by Level 1 process owners. The process variants are also stored in the repository. This enables the collaboration of the community around a process to identify improvement opportunities, guided by the Level 2 process owners.

Figure 11 describes the governance approach, well linked to the strategic objectives of the organization. Resulting governance processes are described in BPMN and included the BPM Playbook, outlining the entire BPM-Discipline of the organization. Significant process improvements, including cost reductions and increased service quality, have been sustained through this governance approach.
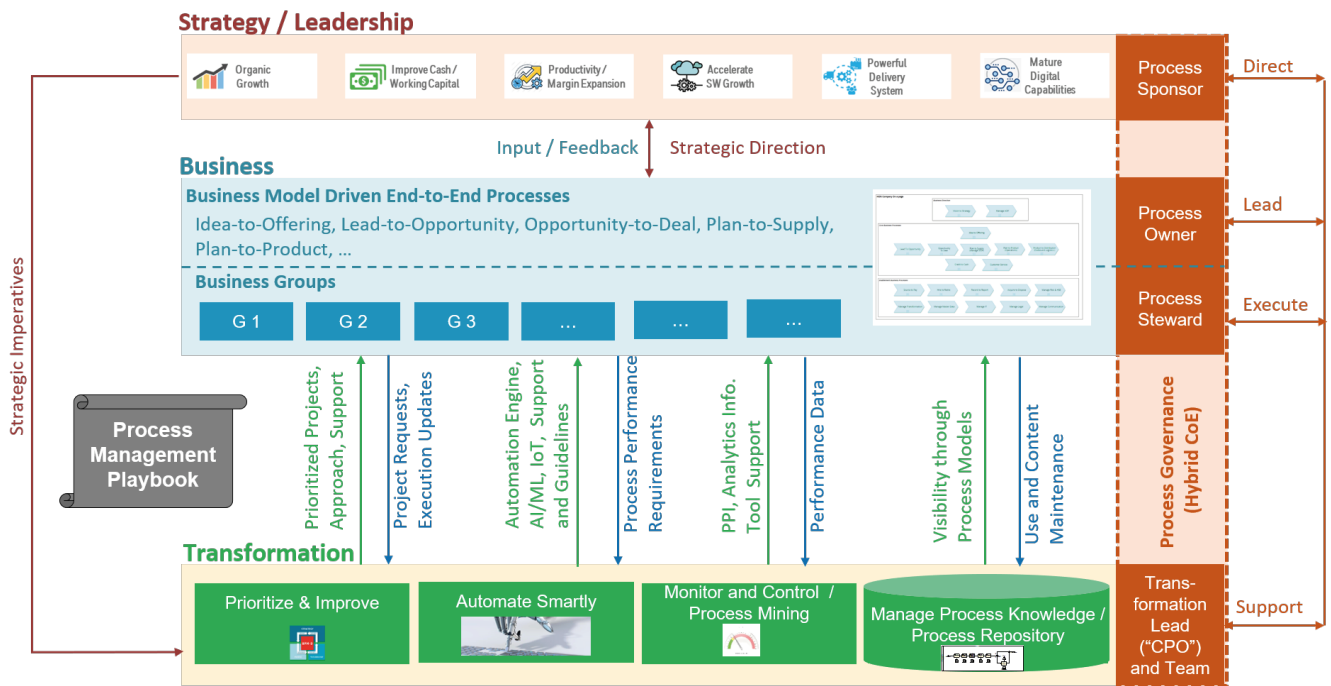
**Figure 10: Example of a Process Governance Model Leveraging Digital Tools in a Technology Company**

A leading biologics company decided on an incremental digitalization of their mainly manual processes. While doing this, they build a basic process management discipline, including process governance. They leverage the BPM-D Application for prioritization activities, Signavio as modelling tool, and some self-developed analytics tools to support the collection of KPIs. The integration of process models with the digitally available standard operating procedures is currently evaluated. For four core processes the owners are defined and for complex sub-processes additional sub-process owners. A newly founded BPM CoE owns the tools and provides the necessary information in form of priorities, process models and KPIs to the owners who use the information to support decision making and define follow up actions. Here the Signavio's collaboration environment, the Collaboration Hub, plays a key role.

The strategic value-drivers, process hierarchy, and the process impact assessment matrix are stored and updated in the prioritization tool. This information is used to prioritize improvement initiatives since the demand from business is higher than available resource capacities. All process models are stored in the process repository, helping process owners to manage their processes towards the defined standards. This is supported by reports generated through the repository, referred to as Process Play-books.

They transfer the process models into a tabular description of each step, the input and output data as well as the accountabilities. This allows to give clear instructions to the people involved in the process without teaching the formal modelling methods.

Process mining is currently not applied since the degree of system support of the operational processes is still too low to deliver sufficient data. Mining initiatives are planned for a second step. Related Signavio capabilities are currently tested. The process hierarchy in the modelling and repository tool are currently redundantly kept in the prioritization too, so that they need to be aligned manually. So far, this has not been an issue due to the low number of changes in the first three levels of the process hierarchy.

The overall governance approach is shown in figure 12. In this specific environment it has been important to define clearly how the process management and governance approach aligns and interacts with the business organization by handling improvement requests and delivering appropriate solutions. The entire process organizations, including the governance processes, is documented as Process of Process Management in the repository, complemented by a BPM Playbook, describing the overall BPM-Discipline. The governance approach led so far to a sustained reduction of compliance issues and with that to cost and cycle time reduction.

In both cases the process governance relies on the use of digital tools. They provide the transparency required to govern the processes while minimizing the effort required for this. However, both organization in an early stage of their digital process governance. It will be step by step improved and rolled out into the organizations.
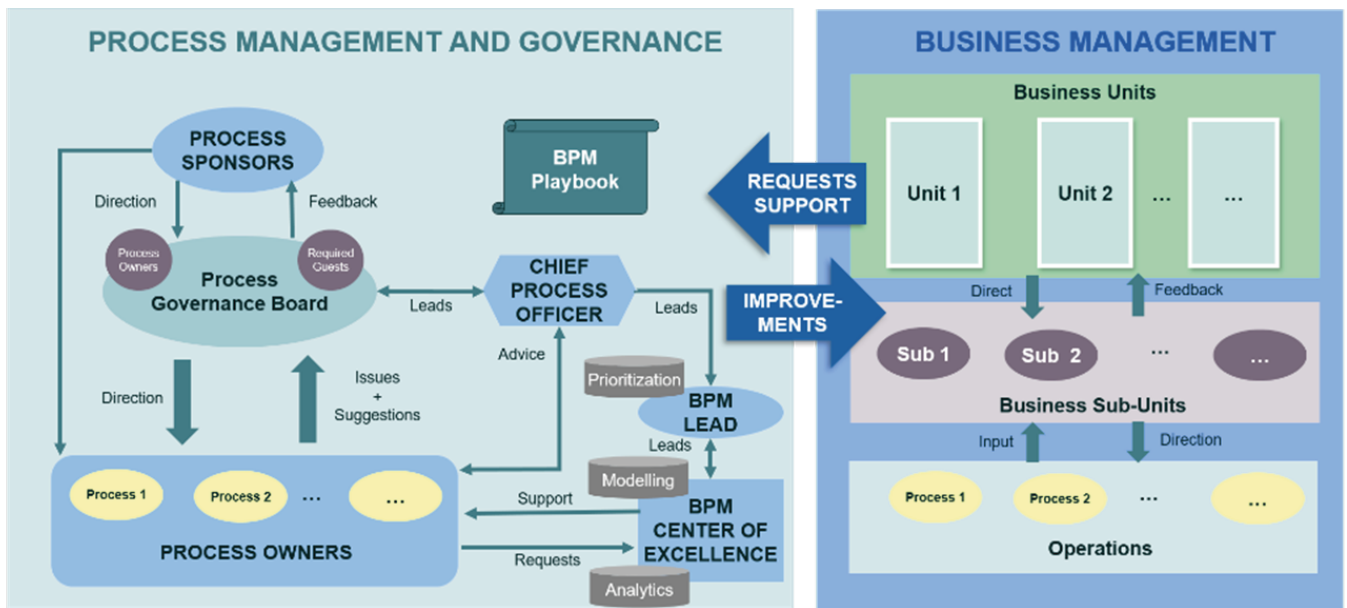
**Figure 11: Example of a Process Governance Model Leveraging Digital Tools in a Biologics Company**

# 5. The Future in Digitalization of Process Governance

Process governance has become a main topic for many organizations. The interest in this field has increased due to digitalization initiatives. In order to benefit from new technologies, such as process automation or the digital integration of devices, companies need to govern their processes appropriately, so that the full potential of the digital transformation is realized, and the expected value is delivered. A highly flexible no-code platform, for example, only leads to real business agility if it is clearly de-fined who decides on adjustments and how to execute them rapidly. Process governance addresses those topics.

Key challenge of process governance is still the definition of appropriate responsibilities and accountabilities. The availability of timely accurate information about business processes, simplifies this task. It is easier to justify decisions and set appropriate actions if you have the required information at your fingertips.

The digital transformation of process governance enhances all key governance components, it increases effectiveness of governance and makes it more cost and time efficient. Therefore, digital transformation of process governance is becoming an important component of digitalization initiatives in general. Result is digital process governance.

Digital process governance is still in an emerging state. Research and development activities are required to move it to the next level. Establishing digital process governance improves the overall performance of the BPM-Discipline and its role in strategy execution. This leads to an improved process lifecycle management and with that the systematic transfer of strategy into technology and people-based execution, at pace with certainty (Kirchmer, 2015).

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Dr. Kirchmer has led numerous transformation and process improvement initiatives in various industries at clients around the world. He has published 11 books and over 150 articles. At the University of Pennsylvania and at Widener University he has served as affiliated faculty for over 20 years. He received a research and teaching fellowship from the Japan Society for the Promotion of Science.

## ABOUT SCHEER AMERICAS

Scheer America excels as a leading authority in Value-driven Business Process Management. Leveraging our profound knowledge of process management, we empower organizations to attain swift and dependable outcomes. Our expertise lies in connecting business strategies with processes and improvement initiatives to precisely target and realize value, all while establishing a sustainable process management discipline. Through our comprehensive solutions, we enable effective process and data governance, implement process modeling, repositories, and process mining utilizing cutting-edge tools.

Scheer America provides invaluable assistance to organizations operating in diverse industries including Financial, Health, Manufacturing/Technology, Consumer Goods, and more, facilitating their journey towards optimal Process Performance and Digitalization. By establishing and implementing business process management capabilities, we facilitate rapid process improvement and transformation, effectively prepare for intelligent automation, develop stakeholder journey plans, and establish a robust process management discipline. Our consulting and education solutions offer the necessary guidance, ensuring the right organization, governance, and process management tools are in place, including modeling and mining software.

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