	Maturity Level	Goal/Applications	Method	Description	Advantages	Disadvantages
Descriptive analytics (**what** happened)	**Level 1** Process mining aware	• Proof-of-concept • enhance technical understanding of how to do PM [29]	PDM	Methodology to perform process diagnostics based on PM. Gain quickly insights in the processes of the organizations and their support by information systems [3].	• easy method • focuses on the core activities of PM (Data collection, Data preprocessing, Mining & Analysis) • provide quickly a broad overview of a process [3] • emphasises on avoiding the use of domain knowledge during the analysis [3]	• method is limited • covering only a small number of PM techniques: activities that have nothing directly to do with the PM are not addressed (Stakeholder support & involvement, Define research question, Organizational & strategic alignment) • less applicable for larger, more complex projects [3] • not explicity encourages iterative analysis [3] • Provides a very basic abstraction level.
	Level 2 Partial process coverage	• First analysis • some interesting insights [29]				
Diagnostic analytics (**why** dit it happen)	**Level 3** End-to-end process coverage	• first full end-to-end process analysis [29] • analysis is linked to value stream KPIs [29] • root cause analysis is providing actionable insights [29]	L*	Describes a PM project method consisting of five stages. Goal is to increase the maturity of PM as a new tool to improve the (re)design, control, and support of operational business processes [2].	• covers many different aspects of PM and touches on broader topics like process improvement and operational support [3] • defining a set of guiding principles and listing important challenges [2]	• PM areas like 'Organizational & strategic alignment' is not addressed • 'Stakeholder Support & Involvement' and 'Define research question' are only dealt with in passing • was primarily designed for the analysis of structured processes (Lasagna processes) and aims at discovering a single integrated process model [3] • not suitable for every project (e.g. unstructured processes (Spaghetti processes)) • not explicity encourages iterative analysis [3]
	Level 4 Live process data	• operationalised ETL (data pipeline) [29] • live data supports day-to-day process management [29] • process experts rely on analyses for their operations [29]	PM^2	Guide the execution of PM projects. Is highly iterative and emphasises the need for close collaboration between process analysts and business experts [3].	• designed to support projects aiming to improve process performance or compliance to rules and regulations [3] • covers a wide range of PM and orher techniques • suitable for the analysis from structured and unstructured processes • concrete steps to be executed • quick analysis iterations and evolving insights [3] • taking existing best practices into account [3] • well structured with steps and activities • shows the importance of the knowledge from the Business experts and the PM-knowhow from the Process analysts • sets a focus on project execution	• 'Stakeholder Support & Involvement' could be described in more detail. The method does not address the problem of involving management or other stakeholders to establish PM in the long term. • the problem of integration into the organization is not addressed
Predictive analytics (**what will** happen)	**Level 5** Predictive Process Mining	• predictive process analysis [29] • stakeholders use PM for alerts & forecasting [29]	(PM^2) + PM framework for correlating, predicting & clustering dynamic behaviour	The framework unifies a number of approaches for correlation analysis proposed in literature, proposing a general solution that can perform those analyses and many more [16].	• involve process characteristics related to different perspectives (control-flow, data-flow, time, organization, cost, compliance, etc.)	• focus on correlating, predicting and clustering dynamic behaviour. No general guideline/framework.
Prescriptive analytics (**what is the best that could happen**)	**Level 6** Action-oriented Process Mining	• live process data triggers situationally aware automations [29]	(PM^2) + A general framework for Action-oriented PM	A general framework for action-oriented PM that supports the continous management of operational processes and the automated execution of actions to improve the process [18].	• thinks PM to the end and ends not with a optimized process or insight of a process. • gets input streams for continous monitoring and optimization • continously transforms process diagnostics into proactive actions for process improvement	• no guideline for PM. Shows only how to use PM continously and not only for a single research question and project