DIGITAL TWIN
OF AN
ORGANIZATION

Supporting Better Enterprise Decision Making

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WHAT IS A DIGITAL TWIN OF AN ORGANIZATION?

n the physical world, the digital twin is a digital replica of the assets, processes, and systems that comprise a physical object. The digital twin creates a living simulation that updates and changes as its physical parts change. One of the current applications for digital twin of a physical thing comes from the industrial sector, which leverages digital twin in order to optimize the operation and maintenance of physical assets such as windmills in a wind farm. GE argues that this technology can boost one wind farm's energy production by as much as 20% and create $100 million in extra value over the lifetime of the farm.

Recently, Gartner has applied that idea to business, saying "A digital twin of an organization (DTO) is a dynamic software model of any organization that relies on operational and/or other data to understand how an organization operationalizes its business model, connects with its current state, responds to changes, deploys resources and delivers expected customer value." (Marc Kerremans, *Market Guide for Digital Twin of an Organization Technologies*) The digital twin has many applications that range from enterprise performance and cost optimization to customer experience management, but all applications of the digital twin are intended to support organizations in their decision making processes. Creating a virtual copy of an organization is meant to help business leaders explore their options, engage in scenario planning, and minimize the risk of the organization's chosen path.

By 2018, CIOs who rely on a DTO for digital business transformation will turn the 70% failure rate of transformation initiatives into a 70% success rate

DTO: Waze for Business

Think of a DTO like Waze for the Executive Team. You know where you want to go – and you think you know how to get there but you can't predict where the traffic jams or the speed traps are. The most efficient route is generated by inputting your destination and connecting every asset that falls within the context of your organization to help navigate and anticipate obstacles as they emerge.

Mavim offers software that facilitates the creation of a dynamic, virtual representation of an organization in its operational context. Every asset that falls within the context of an organization (processes, technology, architecture, infrastructure, customer interactions, business capabilities, strategies, roles, responsibilities, products, services, distribution channels) can be connected, reported upon and visualized. Bi-directional functionality facilitates change making to both the live and virtual environments in order to keep the two worlds in sync. This helps business leaders assess the impact of change in a controlled environment.

The data visualized in Mavim provides insight into an organization's current state, which can be continuously infused with new information to give feedback on how the organization is responding to changes, deploying resources, and delivering customer value.

THE BENEFITS OF A DTO

For many organizations, digital business holds the key to future growth; however, the challenges associated with the full integration of digital business can be overwhelming and costly. Not only do organizations need to keep up with market changes and innovations, but at the same time, they need to optimize their cost structure to remain competitive. The digital age is simultaneously increasing the magnitude of opportunities for the companies that know how to react and increasing the difficulty of getting it right. While technology can relieve people of the mundane tasks of the past, the remaining tasks are becoming increasingly complex – whether it be synthesizing vast and disparate pieces of information or dealing with customers in a world where customer centricity is expected 24/7/365.

To make matters worse, companies are struggling to overcome the hurdles preventing successful transformation. This includes (but is not limited to) a lack of fact based insights in the business case for large IT investments, overly complex process and IT landscapes that make it difficult to change rapidly, large incoherent project portfolios without clear insight in the added value of the separate initiatives, poorly defined governance and poor master data quality. To overcome these challenges and to enable successful transformation, companies need to become agile process organizations.

Recent research by Gartner indicates that there is a light at the end of the metaphorical tunnel—and the way to get there has everything to do with transforming operations from both inside-out and outside-in. Gartner has even gone so far as to predict that organizations who utilize a Digital Twin of an Organization to transform will turn the 70% failure rate of transformation into a 70% success rate. But capturing this value requires a new level of business operations that must include more robust and effective processes and technology in the back office delivered through an integrated operating model. It is not only about lean/agile internal operations. Nor is it only about putting the customer at the center of the operations universe. Combining these two requires a radical transformation of business operations. In today's world, the atomized approach is not enough. Total transformation requires an integrated approach.

USE CASES

Here are a number of actionable opportunities for creating business value with a Digital Twin of an Organization. While the Mavim platform addresses numerous distinct business issues, these use cases were chosen as representative based upon the hundreds of customers who were able to achieve tangible, repeatable results.
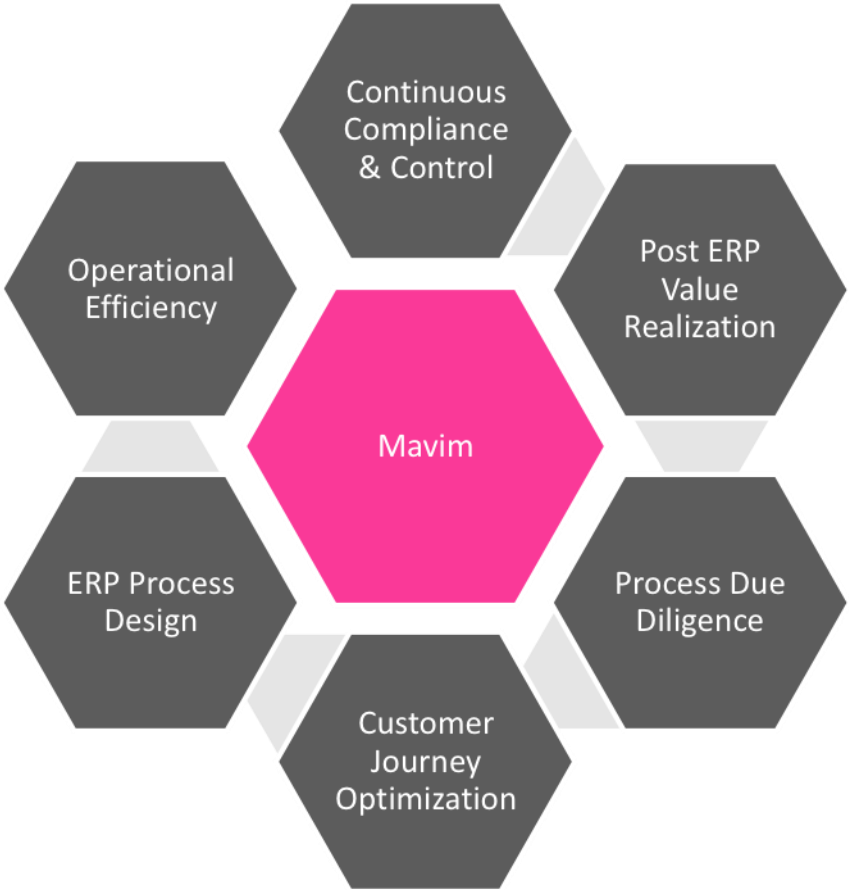
CONTINUOUS COMPLIANCE

Value

- It enables you to monitor (and predict) potential compliance deviations real-time and prevent potential reputational and/or financial damages
- It helps you to gain the trust of clients and other stakeholders by showing you are in control of your processes, including watertight controls
- You save a lot of time and effort in preparation for audits since you can report fact-based on deviations including their root causes and solutions

Results

- 30-50% reduction in preparation efforts for audits
- 20-40% reduction in manual BI efforts for compliance reporting
- 80% faster response time in case of breach of compliance
- Increased customer and stakeholders trust by a proven capability to monitor and control compliance in real-time

Approach
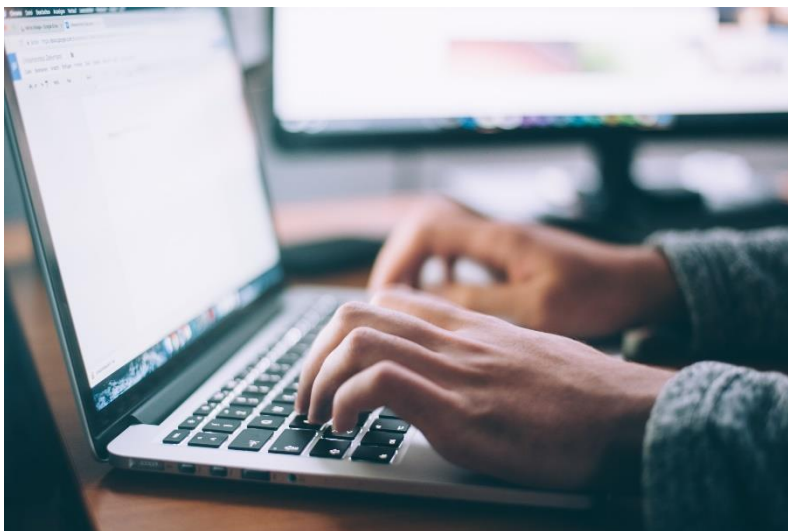
- Identify risks & controls
- Identify process data tables and build data model
- Perform process mining analysis and validate with the business/stakeholders
- Define and implement data upload frequency (monthly/weekly/daily/ real-time, etc.)
- Build monitoring dashboard
- Define user access rights for reporting and analysis toolkit

OPERATIONAL EFFICIENCY

Value

- Precisely spot bottlenecks in the process with their root causes
- Automatically visualize your actual end-to-end process state
- Get real time, detailed and factual reporting of business process performance from your existing back-office systems
- Benchmark your organizational entities, products or customers on business process performance
- Target & execute process improvements based on facts and identify the areas with the highest priority
- Track the results of process improvements faster and more accurately

Results

- Significant value improvements, between EUR 20-50 million (per process domain) globally
- 10-20% shorter average lead-times
- 2-5% decreased working capital (lower DSO, less procurement spend without a contract, etc.)
- 90% reduction of effort in as-is process analysis
- Increased standardization in global business processes
- Increased span of control over the large portfolio of improvement initiatives leading to significant reduction in spend and increased return on investment

Approach

- Identify risks & controls
- Identify process data tables and build data model
- Perform process mining analysis and validate with the business/stakeholders
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PROCESS DUE DILIGENCE

Value

- Significant time-savings in generating insights in your new acquired company's/ merging partner's process performance
- Identify your full productivity improvement potential within just weeks
- Generate fact-based insights fast in where to start improving and why
- Size your integration effort based on fact-based insights in both process and system performance
- Get the full picture faster, more efficiently and based upon empirical evidence

Results

- 40-60% shorter lead-times relative to the traditional approach
- Gain insights into process & system requirements leading to significant value improvements of between EUR 20-50 million (per process domain) globally
- Gain insights into pre-integration transformation and standardization efforts
- 90% reduction of effort in as-is process analysis
- 60% efficiency gain in system design and roll-out phase
- Increased standardization in global business processes

Approach

- Define end-to-end process domains
- Define improvement hypotheses
- Identify process data tables and build data model
- Perform process mining analysis and validate with (business) stakeholders
- Define and implement data upload frequency (monthly/weekly/daily/ real-time, etc.)
- Create a fact-based, prioritized and quantified (business case) improvement roadmap
- Build monitoring dashboard
- Define user access rights for reporting and analysis toolkit

Digital Twin of an Organization

CUSTOMER JOURNEY OPTIMIZATION

Value

- Understand how customer journeys actually run and what the customer value drivers are per touchpoint.
- Get behavioral insights in (potential) customers
- Create a focused roadmap of digital improvements and continuous process improvements
- Identify and convert unknown visitors to involved customers
- Defining an optimal customer contact strategy
- Continuous monitoring and management of personas

Results

- Identification of online and offline customer behavior
- Connection and insight between customer journeys and operational processes
- Continuous optimization of customer journeys
- Continuous process improvement
- 2-10% cost savings operational processes
- 10-20% shorter average customer lead-times
- Fact based prioritized (customer) process improvement roadmap

Approach

- Linking customer needs and value drivers to internal activities
- Identify customer behavior through web- and process analysis
- Refine customer segments and enrich customer insights
- Plot and prioritize digital opportunities
- Map (digital) capabilities needed to deliver optimal services and experience
- Continuous design and implementation of improvements

ERP PROCESS DESIGN

Value

- It enables you to perform a process performance scan based on existing data in in your current ERP systems (e.g. SAP, Salesforce, Siebel etc.) leading to a fact-based improvement/ transformation business case and a concrete set of requirements

- It helps you show inefficiency in current processes caused by the current ERP system and translate these into a fact based and quantified improvement business case combined with estimations of how much of that will be accomplished by transferring to the new ERP.

- It also provides insights into your standardization and transformation efforts for each organizational entity, resulting in a more efficient build- and roll-out phase

Results

- Gain insights into system requirements leading to significant value improvements of between EUR 20-50 million (per process domain) globally

- Gain insights into pre-roll out transformation and standardization efforts

- 90% reduction of effort in as-is process analysis

- 60% efficiency gain in design and roll-out phase

- Increased standardization in global business processes

- Increased compliance to the new template

Approach

- Define end-to-end process domain

- Define improvement hypotheses

- Identify process data tables and build data model

- Perform process mining analysis and validate with the business/stakeholders

- Define and implement data upload frequency (monthly/weekly/daily/ real-time, etc.)

- Create a fact-based, prioritized and quantified (business case) improvement roadmap

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POST ERP VALUE REALIZATION

Value

- The ability to track and quantify the added value of the new ERP system by performing fact-based analysis on process performance and compare this to the performance measured in the old ERP system
- Measure fact-based how different entities are using the new template compared to how it was designed and quantify the results of not conforming
- Continuously optimize processes and the supporting ERP template already during roll-out by measuring results of previously deployed entities

Results

- Fact-based insights into value realization vs the business case
- 30% faster value realization after roll-out
- 40% higher value realized
- 50-70% increased compliance to the new template
- 10-20% reduction in roll-out costs based upon lessons learned from fact-based analysis of previously deployed entities

Approach

- Define end-to-end process domains
- Define best practice to-be process design and set it as the standard
- Define value tracking KPI's/PPI's
- Identify process data tables and build data model
- Perform process mining analysis and conformance checking (to the standard) and validate with the business/stakeholders
- Create a fact-based, prioritized and quantified (business case) improvement roadmap
- Build monitoring dashboard

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HOW TO GET STARTED

t can be daunting to contemplate where to begin with a DTO initiative. The good news is that technology like Mavim already exists to support you on your journey to gaining control over your organization. The first and most important place to begin is with identifying a which problem needs attention and determining which information you need in order to begin designing your digital twin. It is advisable to keep the initial scope manageable, and to scale once your digital twin is operable and delivering results.

Why You Need A Platform

Platform technology is necessary in order to support sustainable transformation and to assist with change management at scale. A lack of a single source of truth hinders the ability to analyze and further leverage the data collected. Additionally, platform technology like Mavim helps the workforce understand where to find the information they need and the metrics they are being measured upon, which has proven extremely effective in bringing about the desired behavioral changes.

DEFINE AND DOCUMENT YOUR STRATEGY, GOALS AND KPI'S

HOW MAVIM SUPPORTS THIS:

- By facilitating you in documenting your strategy, goals and objectives
- Define and connect relevant KPI's to each goal, as a basis for valuating and prioritizing your change portfolio
- Several methodologies can be used to support your in- and external analyses (Balanced Score Card, Business Capability Mapping, SWOT Analysis, Business Model Canvas, etc.)
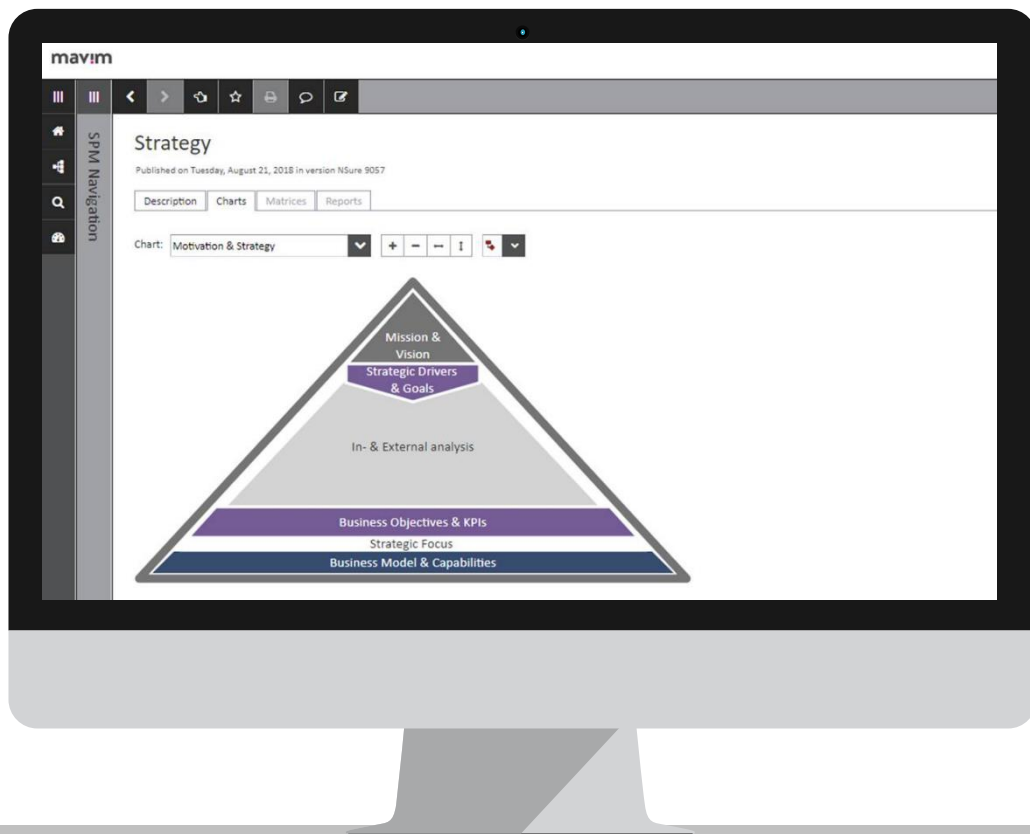
DESIGN YOUR OPERATING MODEL AND MAP THE JOURNEY
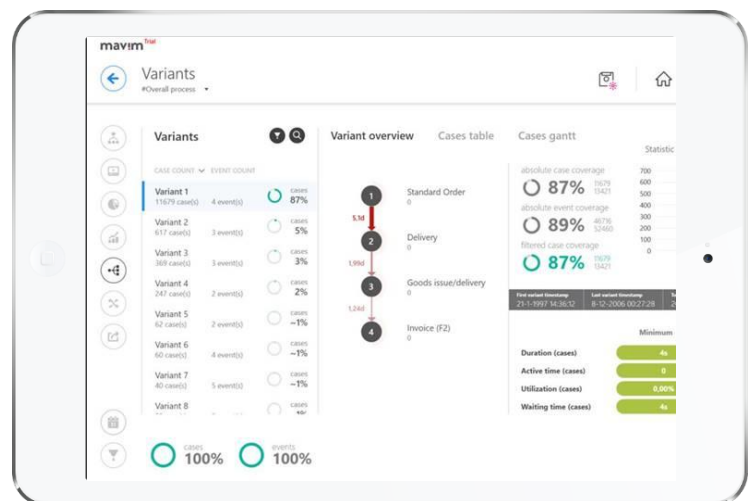

HOW MAVIM SUPPORTS THIS:

- The entire operating model is designed in order to provide guidance and structure to your transformation
- Derived from the strategy, the As-Is and To-Be processes, the distribution and communication channels and the application, systems and IT infrastructure supporting these processes are defined
- Operational bottlenecks and related improvements towards the desired state are identified, visualized and managed

HOW MAVIM SUPPORTS THIS:

- By enabling you to perform analyses to identify the actual current state of your business and IT processes
- Creating fact-based insights in how your customer journeys and the related operational processes actually run vs how you have designed them
- This offers you the possibility to create the optimal balance between optimizing your customer experience and at the same time lowering your operational costs

## ANALYZE CURRENT STATE OF ORGANIZATIONAL PERFORMANCE

Digital Twin of an Organization

DESIGN YOUR STRATEGY EXECUTION PLAN

HOW MAVIM SUPPORTS THIS:

- Based on the defined strategy, goals and objectives, supported by fact-based insights, a prioritized and quantified improvement roadmap is derived
- This provides structure and insights in the strategic value of each change initiative towards driving business results and customer value
- All this is used to set-up a Project Portfolio Management environment for your PMO organization
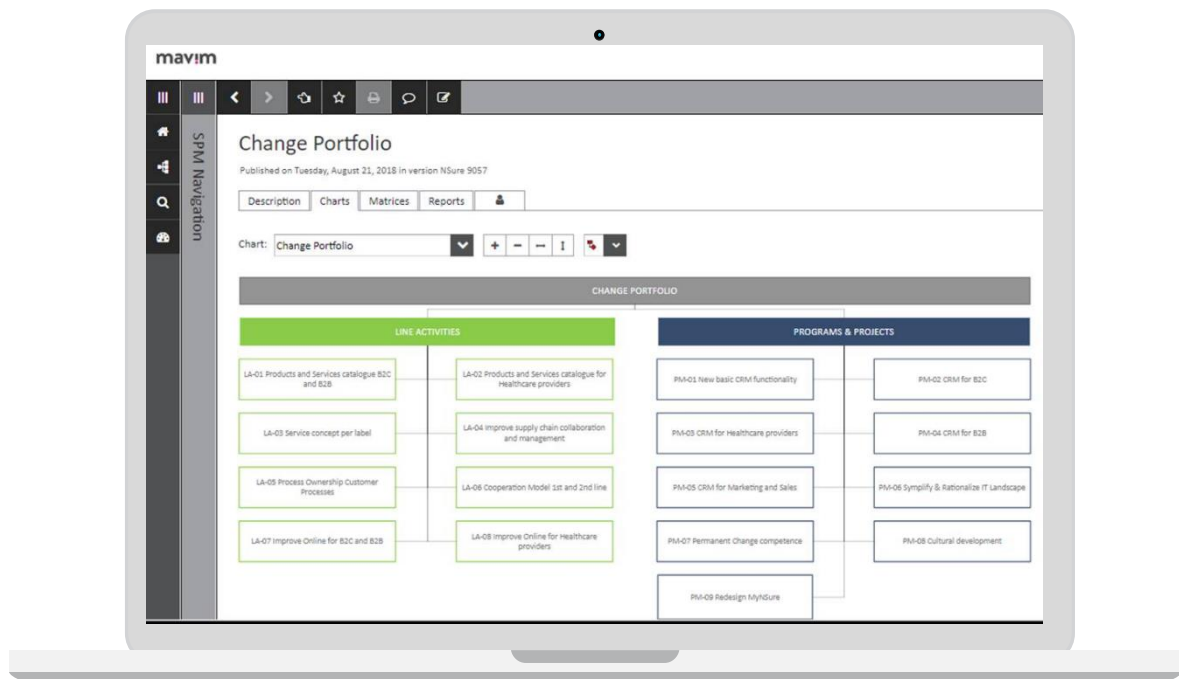
# EXECUTE AND MONITOR YOUR STRATEGY EXECUTION PLAN
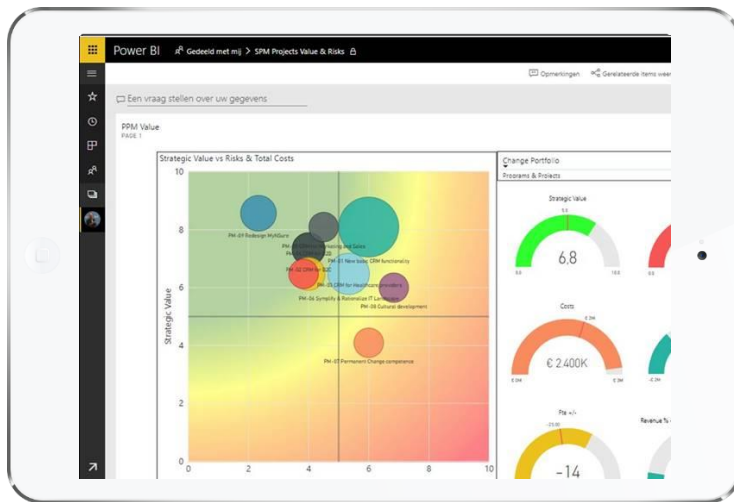
HOW MAVIM SUPPORTS THIS:

- Based on the strategy, goals and objectives and related KPI's visualizations can be made to monitor and manage the status and progress of your change portfolio
- This also facilitates managing and mitigating potential risks

HOW MAVIM SUPPORTS THIS:

- Through (near) real-time monitoring of your client's in- and external processes, channels and systems you are able to anticipate future needs and potential risks or bottlenecks
- Formerly passive process and channel related information transforms into active and timely management steering information
- This enables your to take appropriate and timely measures towards realizing the intended goal

PERFORM PROACTIVE SITUATIONAL ANALYSIS
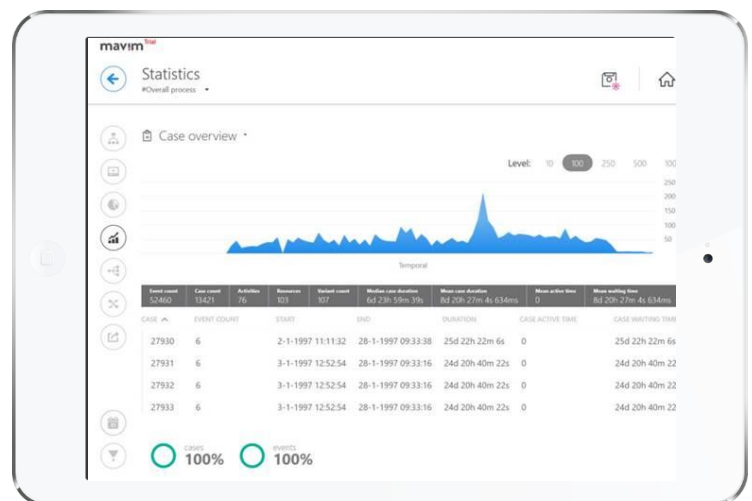
MAKE INFORMED BUSINESS DECISIONS TO DRIVE VALUE

HOW MAVIM SUPPORTS THIS:

- Underpin the strategic business value and priorities of your transformation
- Manage the complexity of change
- Become more flexible and proactive (agile)
- Envision the change for business and IT
- Communicate the impact for all stakeholders
- Create commitment and adoption
- Create context and visibility into operations
- Deliver real-time feedback on (digital) business initiatives
- Generate fact-based insights into your process and system landscape
- Drive continuous improvement
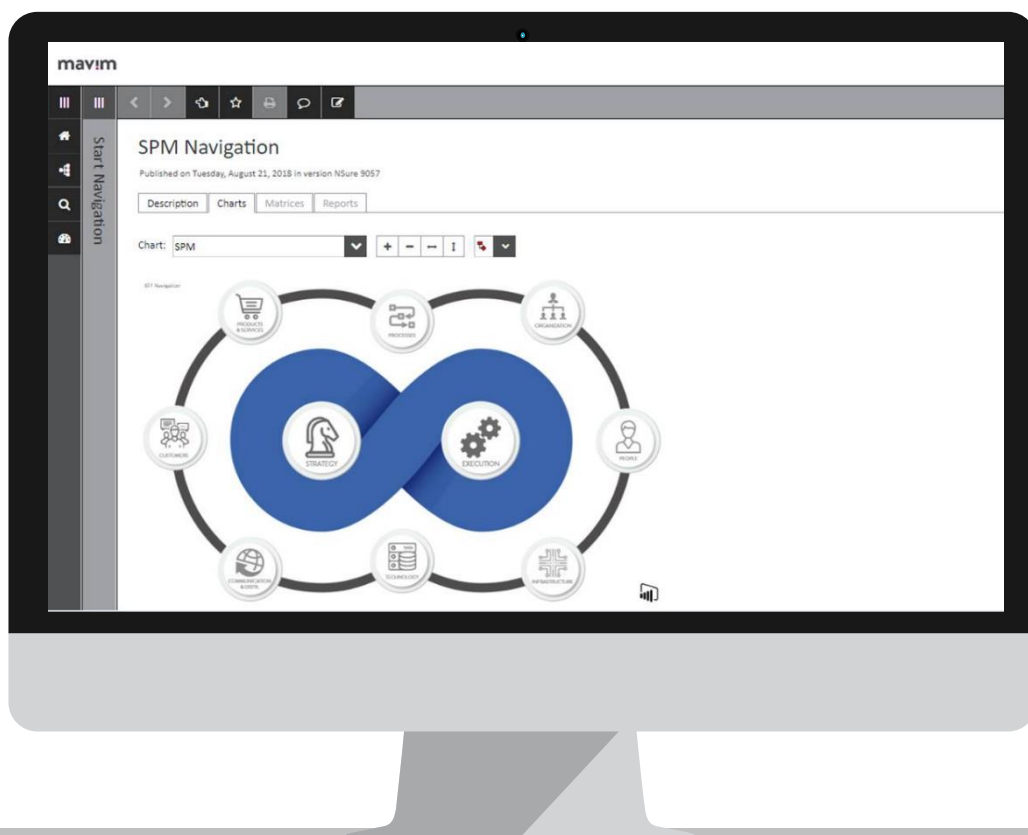
For complex global organizations that are changing or re-inventing their operating models in order to become digital businesses and who want to transform into agile organizations prepared to adapt continually to a fast changing environment, Mavim provides software that enables major business transformation. Mavim offers a Microsoft-based platform that empowers the visualization, alignment, and prioritization of innovation initiatives with a company's strategic vision. By connecting and managing strategy, projects, personnel, processes, technology, risks, architecture, customers, and infrastructure in one platform, Mavim increases the success rate of major transformation.

Mavim supports the management and integration of the primary Business and IT Management themes that enable successful transformation. Mavim brings these critical disciplines together in one platform, which facilitates the elimination of silos and creates impact for the entire business.

Headquartered in Amsterdam, Mavim has a global customer base of a million end-users worldwide. Our extensive partner network spans 27 countries and includes such familiar names as Microsoft, EY, PWC, Infor, and Eclipse, a DXC Technology Company.

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