
MAT – The Industry 4.0 Solution for Smart Maintenance

Alacero Technology Committee Meeting

November 5, 2017

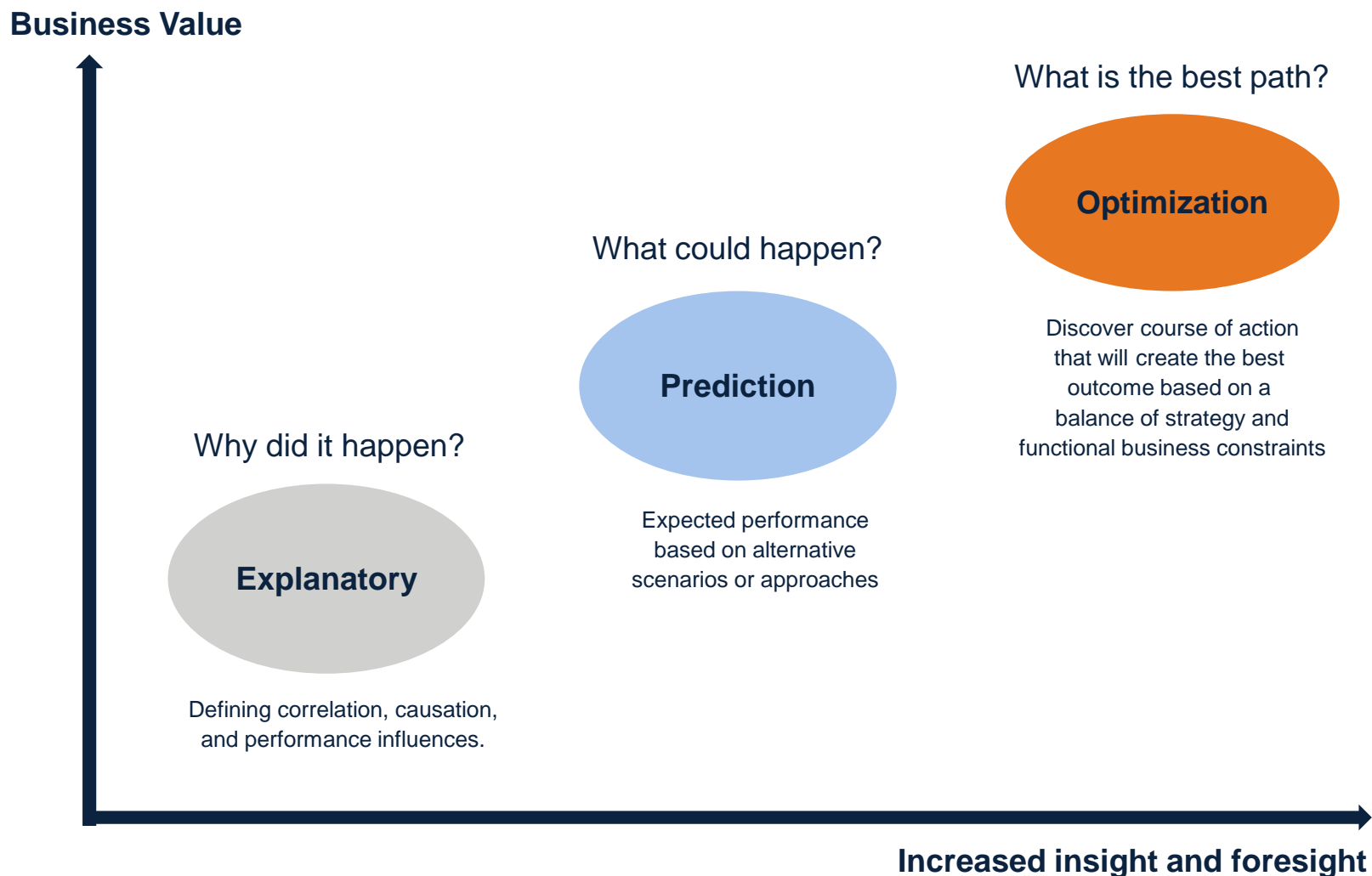
Cancun, Mexico

Key questions you need to answer when running your operations

- Do you know the criticality level of each equipment you are operating?
- Are you sure that you have chosen the best possible asset strategy?
- How often are you re-evaluating your asset strategy?
- Do you know why you spend hundreds of thousands of dollars on condition monitoring?
-



Steps in creating business value based on improved knowledge and analytics



PAST

Traditional maintenance practice

- Static maintenance strategy
- Based on empirical experience of hard to get experts
- Mostly time cycle or break down based maintenance actions
- Random condition monitoring investments without clear overall strategy
- Focus on “in budget”
- Less focus on total cost of ownership
- CMMS Systems focusing on tracking and data archiving

FUTURE

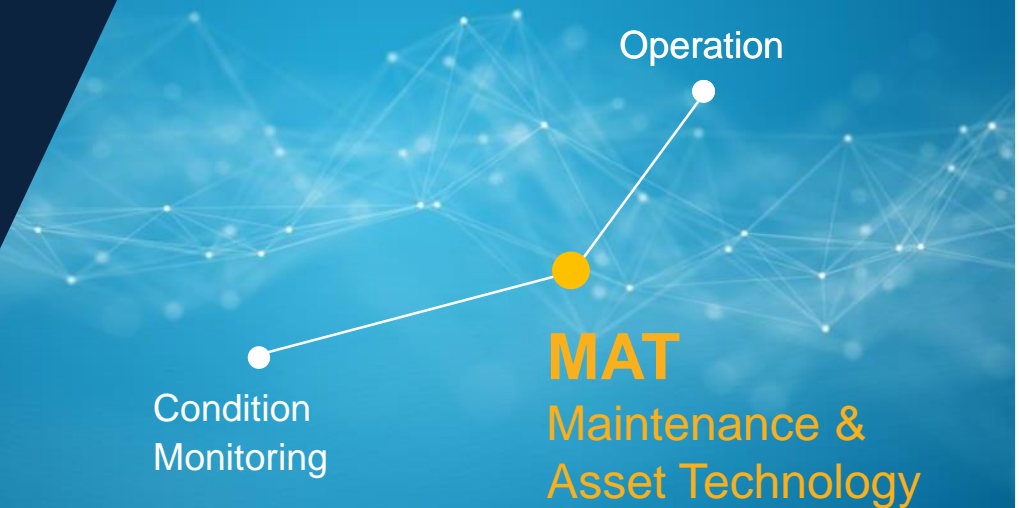
Smart maintenance & asset management

- Dynamic adjustment of strategy
- Condition based, predictive, preventive measures
- Continuous analysis of weaknesses
- Clear transparency on where to invest in condition monitoring
- Focus on creating value and total cost of ownership
- Decisions supported by data analytics
- Learning on both empirical experience and information based

MAT is an Industry 4.0 know how system bringing the future of maintenance to your operations

MAT is a know how system and stands for Maintenance & Asset Technology

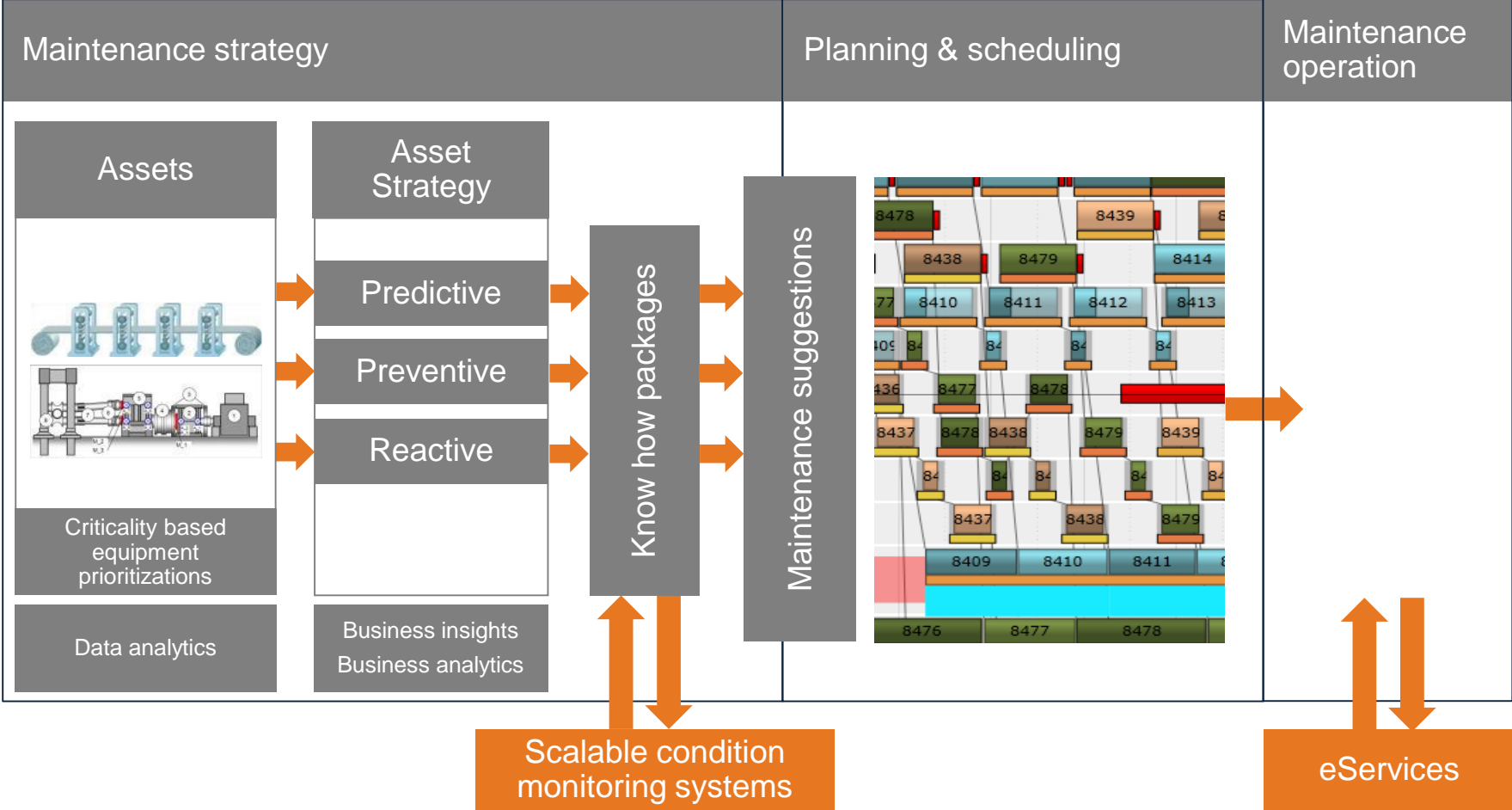
- Streamline your maintenance processes
- Select the right maintenance strategy to max asset performance
- Grow your maintenance know how
- Make use of advanced analytics
- Link maintenance and operations
- Create actionable items for your team from condition monitoring information



How MAT is ensuring a holistic approach when supporting your maintenance operation



MAT



MAT is consisting of different packages which is supporting a step by step implementation approach



MAT Basic Package

- Hierarchical data management
- Criticality based equipment prioritization
- Advanced scheduling
- Mobile work execution
- Traditional CMMS functionality

MAT Know How Packages

1

Predictive Maintenance

=> Maintenance and inspection suggestions

2

Planning and Shutdown Optimizer

=> Minimum number of shutdowns
=> Maximum net production

3

Reporting / Business Intelligence

=> Insights and analytics

4

Strategic Asset Management

=> Risk/Cost optimization of maintenance activities

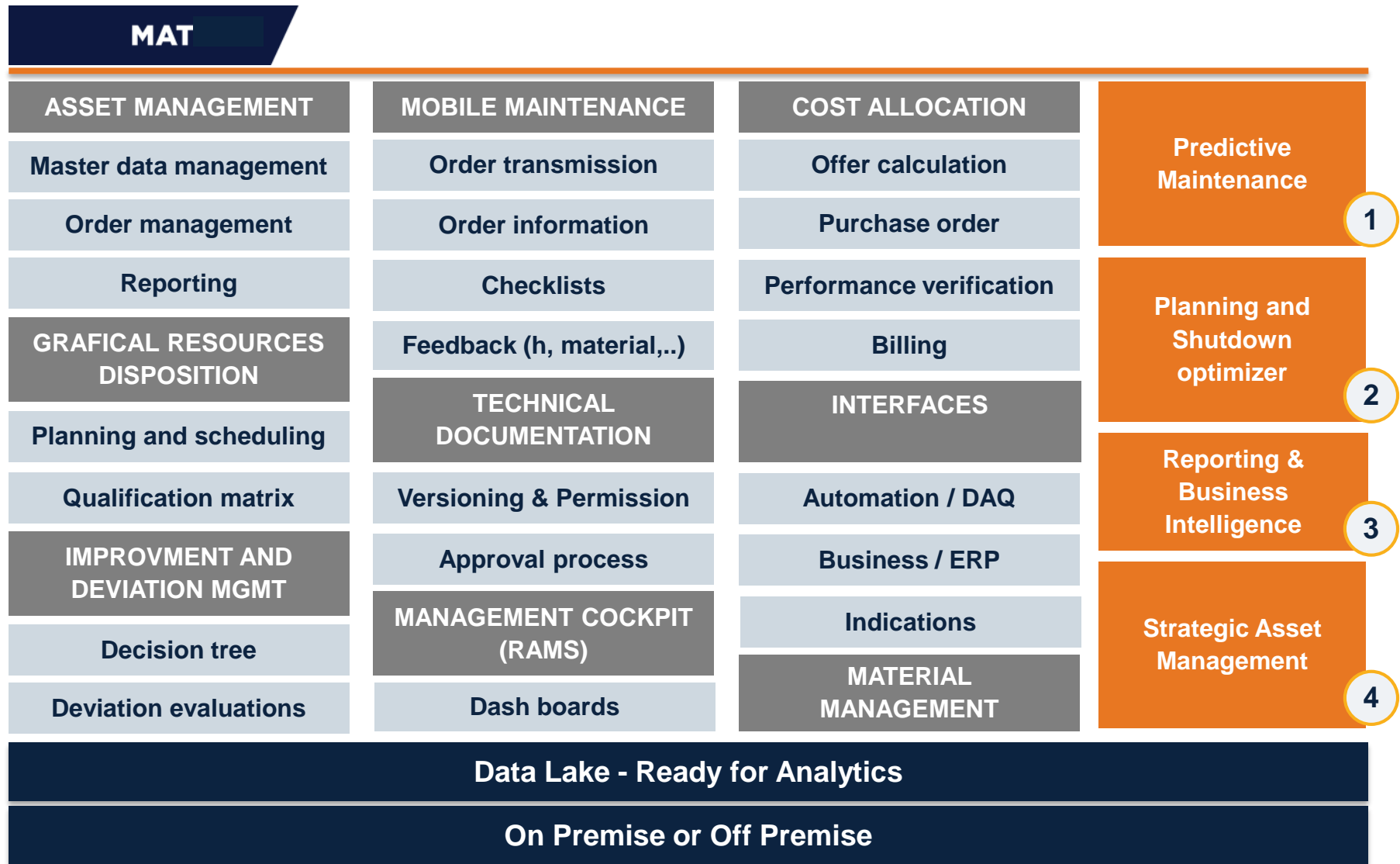


Condition
Monitoring



Production
Planning

The MAT Basic Package is covering all minimum aspects for your maintenance

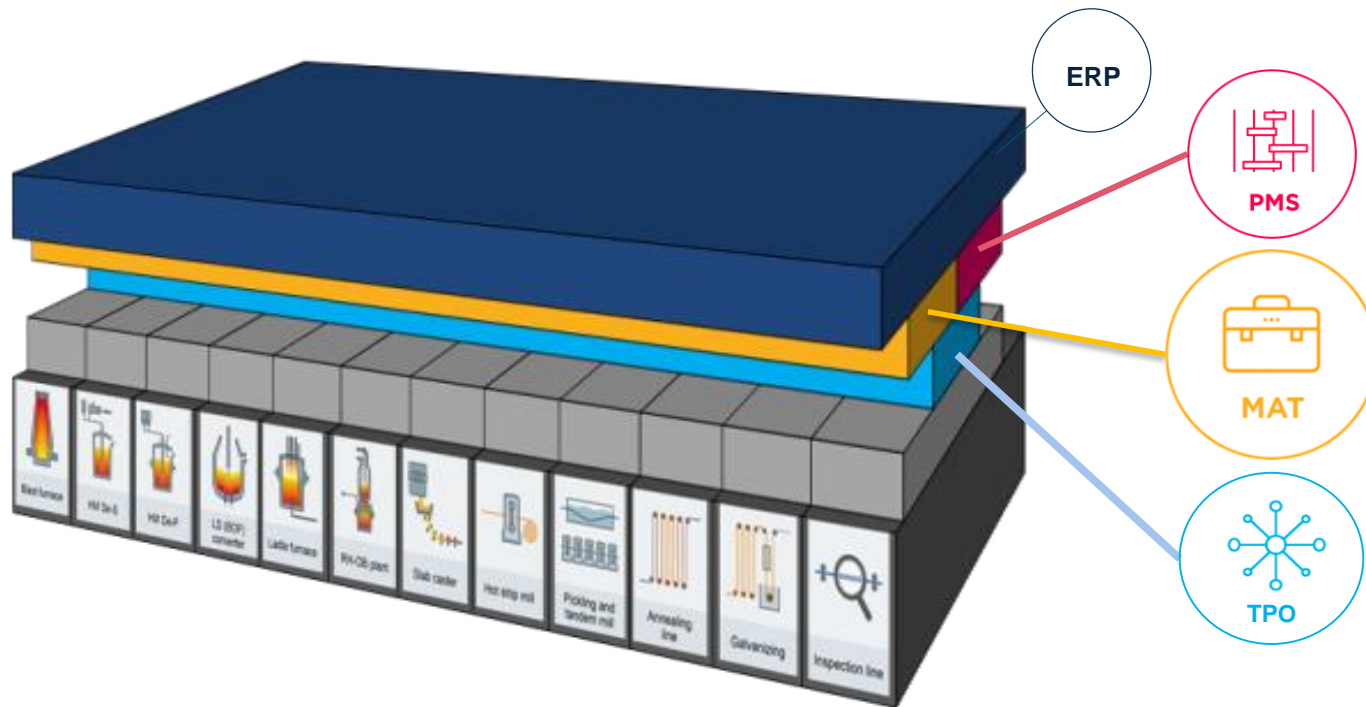


Step by step to Industry 4.0 smart maintenance within one year



		Initial landscape	After 3 months	After 6 months	After 1 year		
Level of Domain Know How	4	Orchestrate APS / TPO					
	3	Product loss accounting				MAT	
		Strategy assessment				MAT	
		Asset reliability and criticality analysis			MAT	MAT	
	2	Analytics and KPI monitoring			MAT	MAT	
		Optimized Maintenance routines			MAT	MAT	
	1	Actionable Information			MAT	MAT	
		CMS and PDA Interface			MAT	MAT	
	0	Failure registration		Paper	MAT	MAT	MAT
		Actual works registration		Paper	MAT	MAT	MAT
		Scheduling process		XLS	MAT	MAT	MAT
		Spare parts and work orders planning (automatically)		G A P	MAT	MAT	MAT
		Spare parts and work orders planning (manually)		XLS	MAT	MAT	MAT
		Technical documentation management		Sharepoint	MAT	MAT	MAT
		Hierarchy of equipment		SAP PP	MAT	MAT	MAT

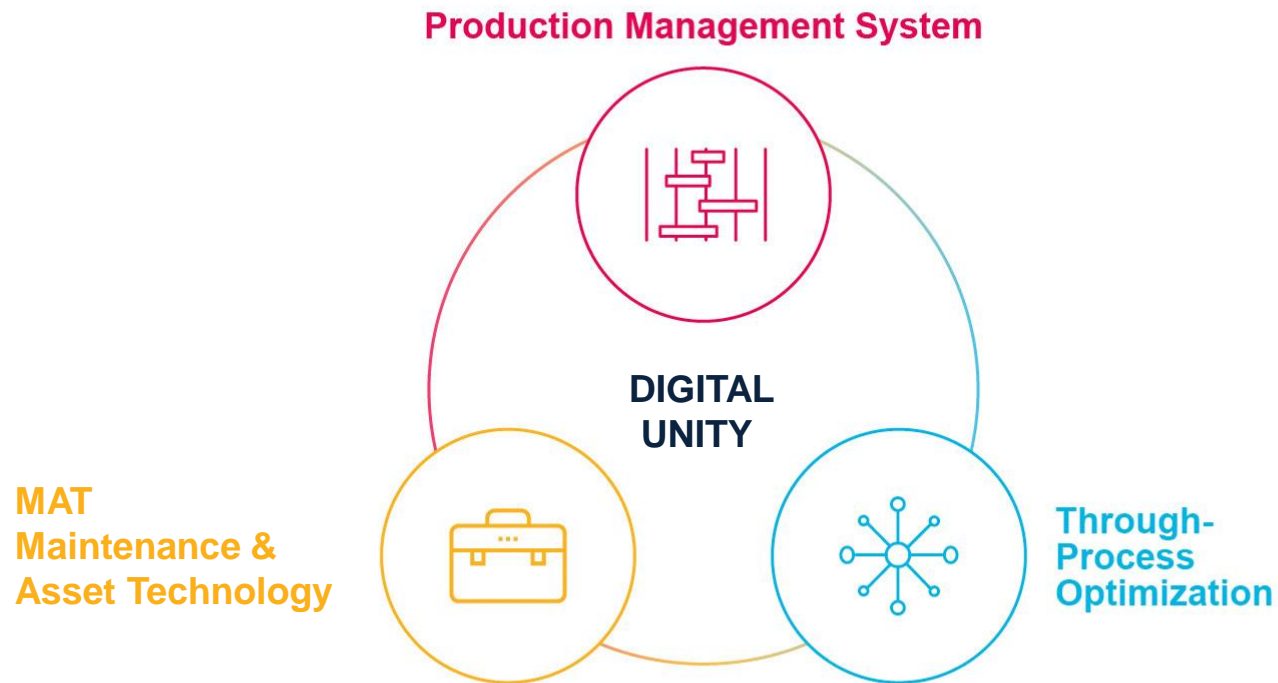
MAT will help you to reducing your maintenance cost and increasing your overall productivity



Benefits

- Reduction of maintenance cost
- Increase in productivity
- Enabling and building maintenance domain know how
- Optimization of maintenance operation and asset performance
- Possibility in analytics on maintenance supporting strategic decisions
- Ensuring interface to ERP, L2, L1, CMS

The ultimate Industry 4.0 goal is to maximize productivity by ensuring digital unity among key operating systems





THANK YOU

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