

# Developing Winning Asset Management Strategies, Objectives, and Plans

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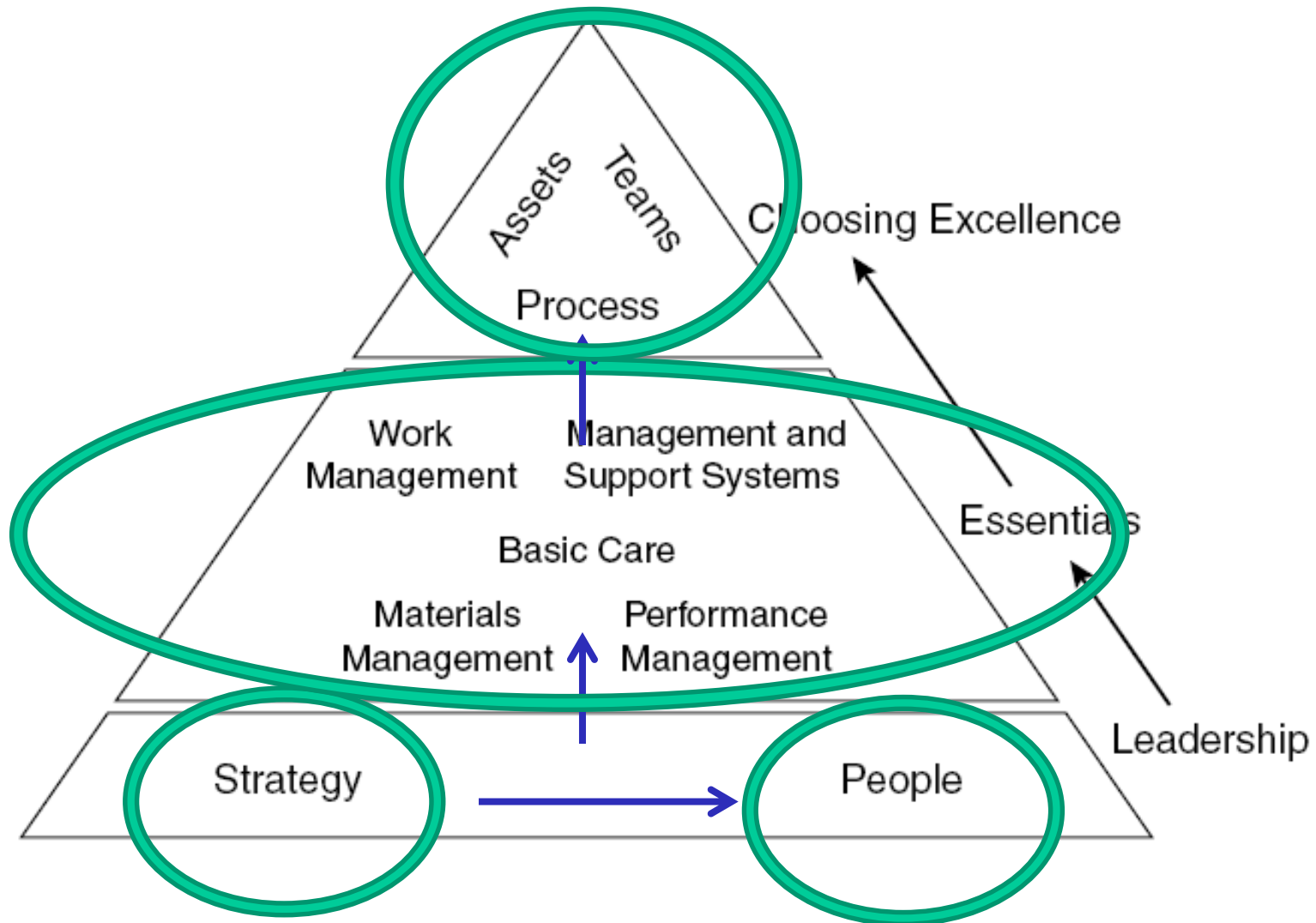
# مدیریت دارایی‌ها چیست؟ (What Is Asset Management?)

مدیریت دارایی‌ها در بند ۳.۲ استاندارد PAS 55 به این صورت تعریف شده است:

“شیوه‌ها و فعالیت‌هایی منظم و هماهنگ که سازمان از طریق آن‌ها دارایی‌ها و نیز هزینه‌ها و ریسک‌ها و عملکرد آن‌ها را در طی چرخه عمر دارایی‌ها، با هدف تحقق برنامه استراتژیک سازمانی، به طور بهینه و پایدار مدیریت می‌کند.”



# Asset Management Pyramid of Excellence



# What is “world class”?

	Strategy	People	Work Management	Materials Management	Basic Care	Performance Management	Support Systems	Asset Reliability	Teamwork	Processes
<b>Excellence</b>	Complete strategy developed with full participation including plans	Fully developed multi-skilling, autonomous teams in place	Long term planning cycles and extensive use of standard job plans.	Stockouts rare. Service level 98% plus. Inventory turns > 2 times.	Full regulatory compliance. PM program features extensive CBM. Operators do some minor PM. Equipment condition good.	Fully balanced score cards for teams. Improvement results evident in performance trends.	Full user acceptance and widespread use of management systems. CBM, reliability analysis and decision support systems in use.	PM program fully developed using RCM. RCFA used but not needed very often. Mtc inputs to design of new assets.	Autonomous teams of maintainers and operators used extensively. Support by management and specialists. Consistent maintenance standards in use.	Processes are efficient and effective. No work arounds in use. Regular reviews carried out to keep processes fresh. Support systems automate parts of the processes.
<b>Benchmark Best</b>										
<b>Competence</b>	Complete strategy developed by key personnel with plans	Multi-skilling and managed teams of maintainers and operators	Scheduling and planning well established for most work. Compliance high.	Inventory turns > 1. Service level 95% plus. Stockouts less than 5%.	Full regulatory compliance. PM program features some CBM. Operators help with PM. Equipment condition good.	Reliability measures in use and improvement programs monitored, trends being developed.	Extensive management systems used mostly by management. Some CBM.	RCM in use to define PM programs. RCFA in use.	Area or unit based teams of maintainers and operators with management. Maintenance standards applied in each area.	Processes are efficient and effective. Some work arounds may be in use. Reviews carried out infrequently.
<b>World Class</b>										
<b>Understanding</b>	Management defined strategy & plans	Some multi-skilling. Mostly distributed maintenance teams with conventional supervision	Scheduling established, compliance good. Planning for major work and shutdowns as work arises.	Inventory turns > 0.7. Service level 90% plus. Inventory analysis being performed.	Partial regulatory compliance. PM program based on fixed interval tasks with little CBM. Equipment condition fair.	Basic maintenance performance measures in use.	Management systems in use. Some reporting is used. Some CBM support systems in use.	Reliability improvement program in place. RCFA and possibly PM Optimization in use.	Maintenance working in area teams under maintenance supervision. Operations separate.	Maintenance processes reviewed. Interfacing processes untouched. Work arounds in use.
<b>Typical</b>										
<b>Awareness</b>	Documented goals but no plans	Partly de-centralized organization based on trades	Scheduling with about 50% compliance. Plans for shutdowns only	Inventory improvement plans in place. Measurement of stores performance started.	Poor regulatory compliance. PM program under development using traditional methods. Equipment condition fair.	Financial measures used to analyze spend patterns. Some downtime records.	Management systems use is spotty and providing little valuable output. Ad hoc systems still in use. CBM support being considered.	Downtime analysis is performed and some improvements are implemented.	Mix of centralized (shop) labor and individuals assigned to production areas. Conventional supervision.	Processes documented but not reviewed. Work arounds in use. Inefficiency evident particularly at functional hand offs.
<b>Innocence</b>	No documented strategy. Maintenance is largely reactive	Centralized organization based on trades demarcation	No planning, little scheduling and poor compliance to schedule	Frequent stockouts. Service level poor. Jobs frequently waiting for parts.	Poor regulatory compliance. Minimal or non-existent PM program. Equipment condition poor.	Only financial measures being watched but no analysis of costs performed.	Little to no use of management systems. May be using variety of ad hoc systems.	Plenty of downtime but no analysis of causes or attempts to improve.	No teamwork. Conventional supervision.	Processes not documented and inefficient. Plenty of work arounds. Plenty of complaining.



# نتیجه کلی ارزیابی

استراتژیهای سازمان

10

روشهای بهینه سازی فرایندهای  
نت

8

نیروی انسانی

6

روشهای مبتنی بر کار گروهی

4

کیفیت مدیریت کار

2

0

روشهای مبتنی بر قابلیت  
اطمینان

تاکتیکهای نت

مدیریت مواد، قطعات یدکی  
و ابزارآلات

فرایندهای ارزشیابی عملکرد

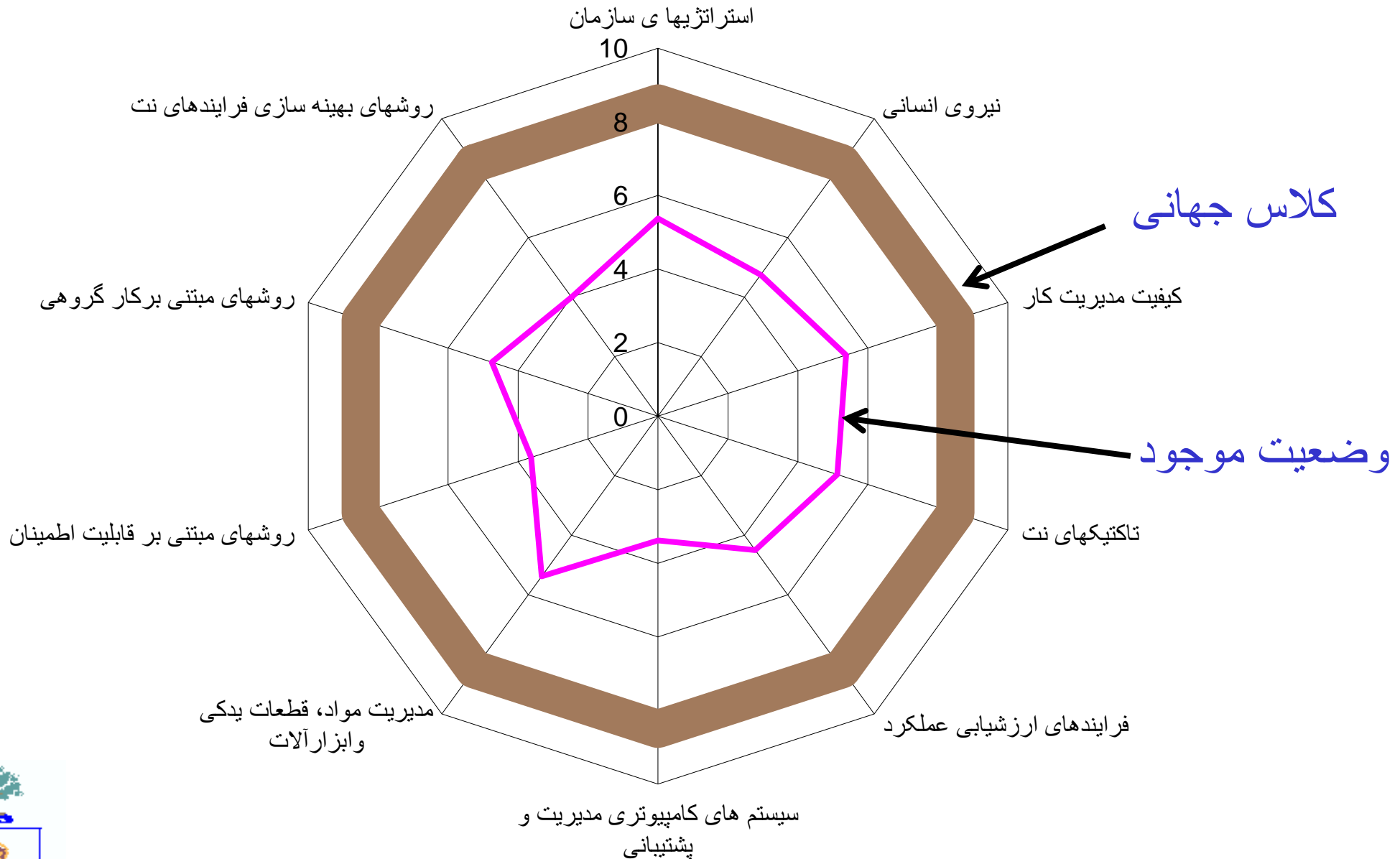
سیستم های کامپیوتری مدیریت  
و پشتیبانی

میانگین مجتمع

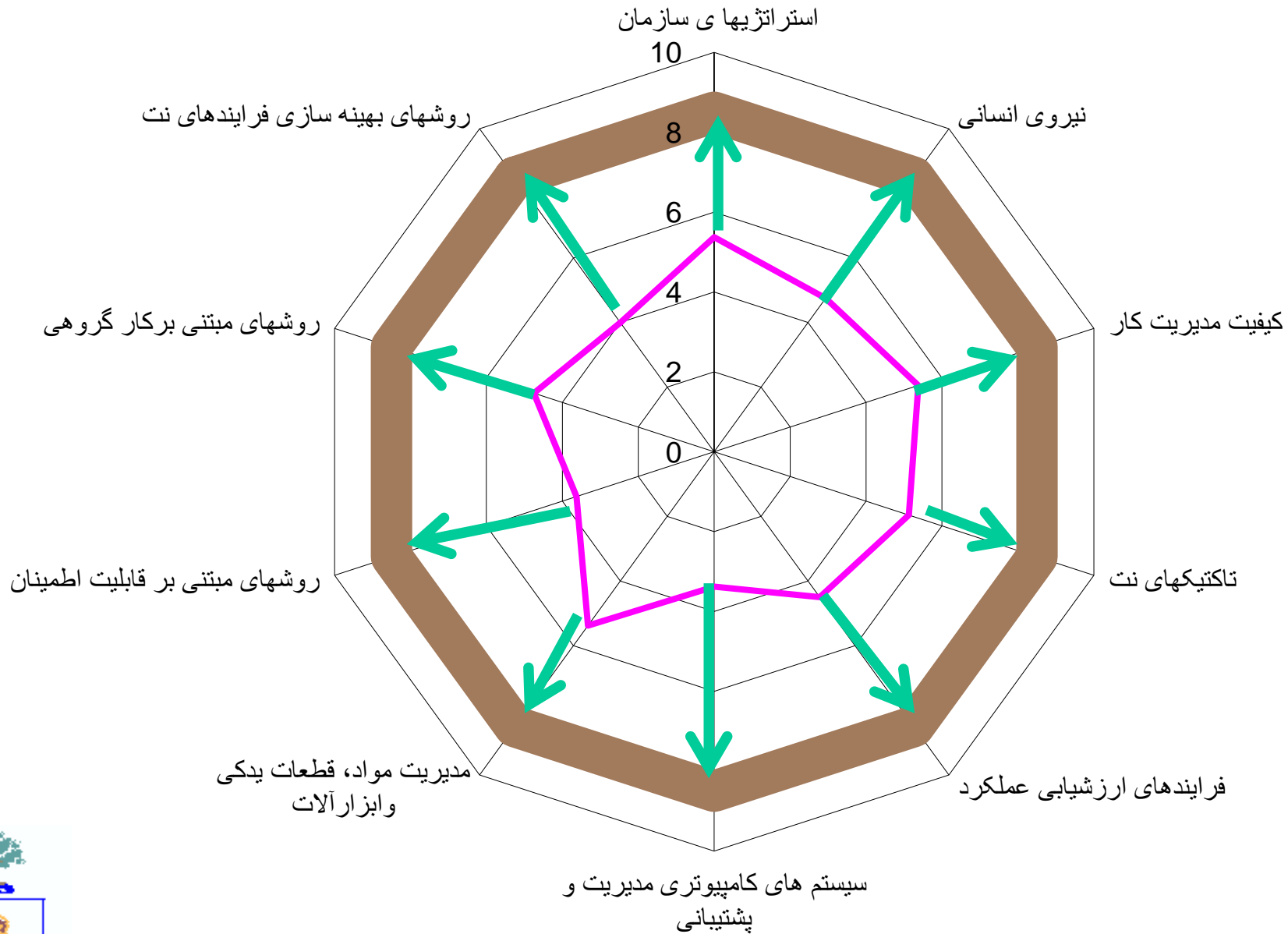
تیم ارزیاب



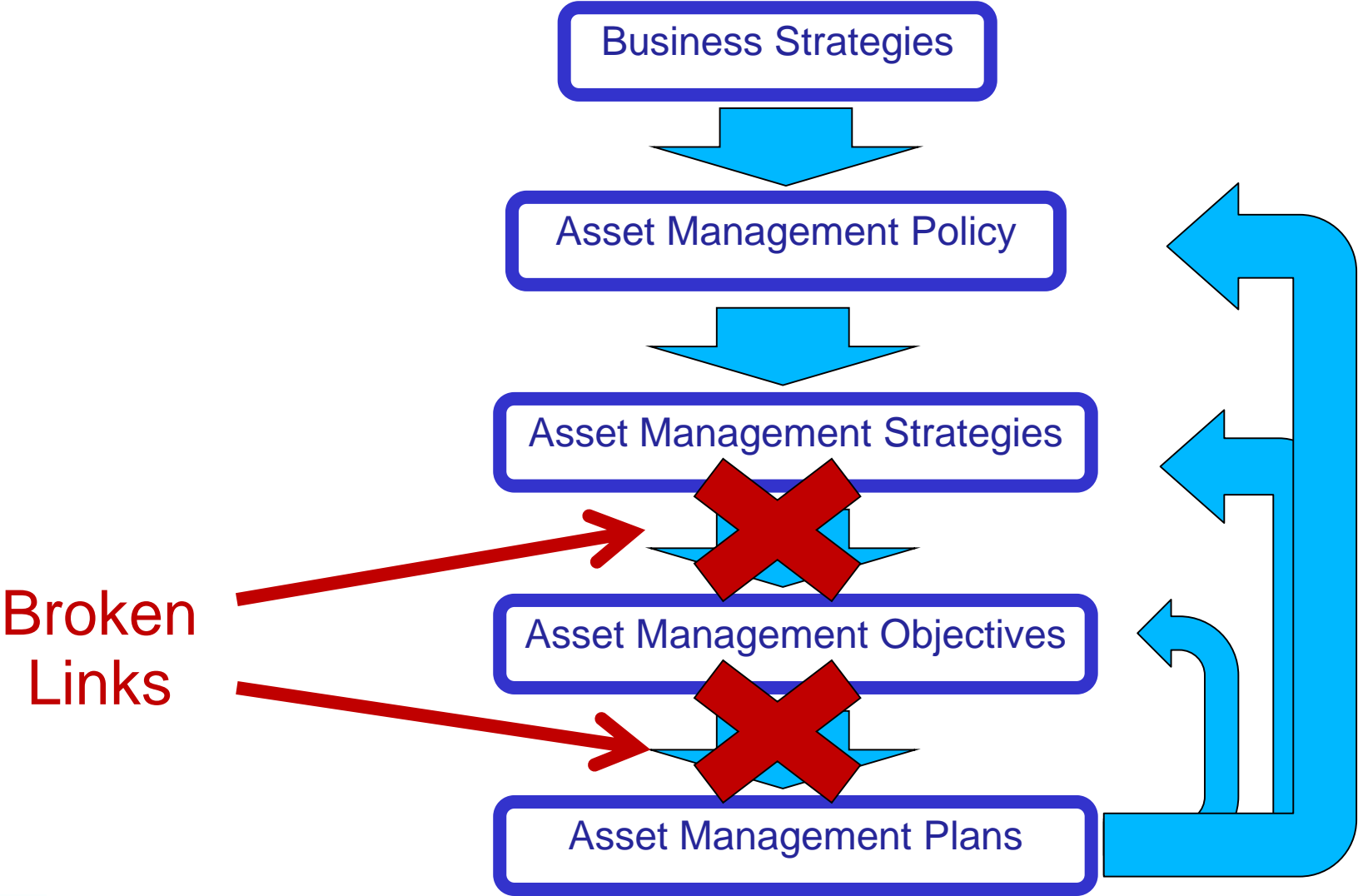
# نتیجه کلی ارزیابی و مقایسه با کلاس جهانی



# نتیجه کلی ارزیابی و مقایسه با کلاس جهانی



# Developing Asset Management Plans

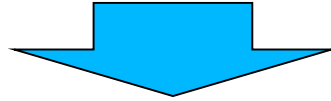




# Developing Asset Management Plans



Business Strategies



Asset Management Policy



# Strategy (Policy) is best depicted in simple and clear messages

## Today

Run down  
Fix only when broken  
No fun to work here  
Confusing  
Overly controlled  
Cost is king



## Tomorrow

It works  
Prevent breakdowns  
I like working with this  
I can find what I need  
I do what is necessary  
Invest what it takes  
My ideas matter

## Our challenges

Short term mind-set and goals  
We leave our brains at the gate  
Indifference  
No one listens anyway  
Saving money doesn't help me  
We can't change

## We are changing

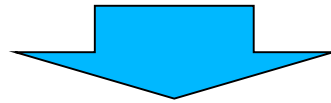
Our attitude - motivation  
Our knowledge – education  
Our practices – training  
Our processes – redesign  
Our programs – proactive  
Our equipment – care  
Our results!

## Our vision

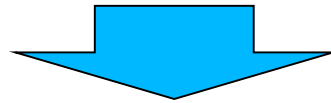
We will be leaders in  
maintenance practices  
supporting world class  
profitability and benefits in  
a company that we all  
enjoy working for



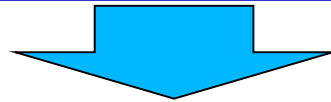
Asset Management Strategies



Asset Management Objectives



Asset Management Plans



Asset Management Measures



**Strategy:** RCM

**Objective:** 20% Most Critical Assets, by 2020, Reducing unexpected downtime by 50%, reducing safety incidents by 80%

**KPIs:** Availability, Reliability, OEE, Safety Incidents, etc

**Strategy:** Developing Job Plans

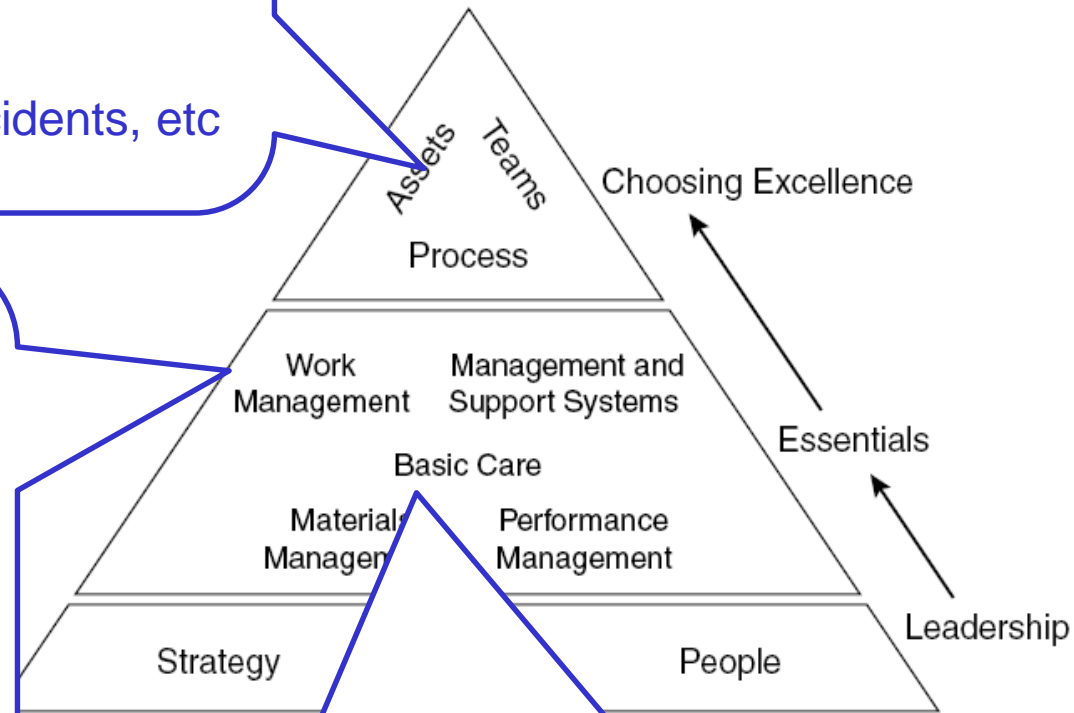
**Objective:** 40% Most Complicated task, by 2018, Reducing revisiting work by 60%, Increasing schedule compliance by 20%, reaching 80% planned work

**KPIs:** PM/Total Maintenance, Schedule Compliance, etc

**Strategy:** Defining Optimized Min/Max

**Objective:** 10% Most Critical Spares (both fast and slow moving), by 2017, Reducing inventory level by 10%, increasing service level by 15%, reducing transaction costs by 20%

**KPIs:** Inventory turnovers, Service Level, Transaction costs/work order



**Strategy:** RCM

**Objective:** 20% Most Critical Assets, by 2020,  
Reducing unexpected downtime by 50%, reducing  
safety incidents by 80%

**KPIs:** Availability, Reliability, OEE, Safety Incidents, etc



Total Assets: 800 -----> Top 20% critical: 160

2 RCM

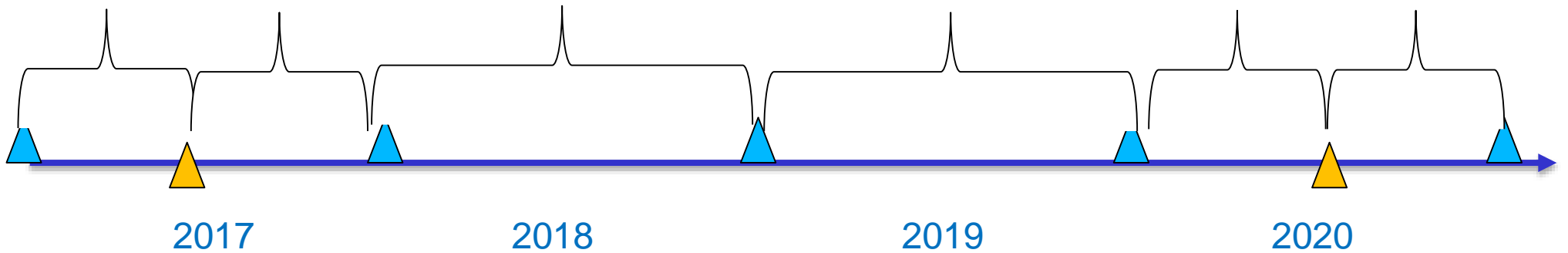
8 RCM

60 RCM

60 RCM

30 RCM

Audit/Evaluation



**Strategy:** RCM

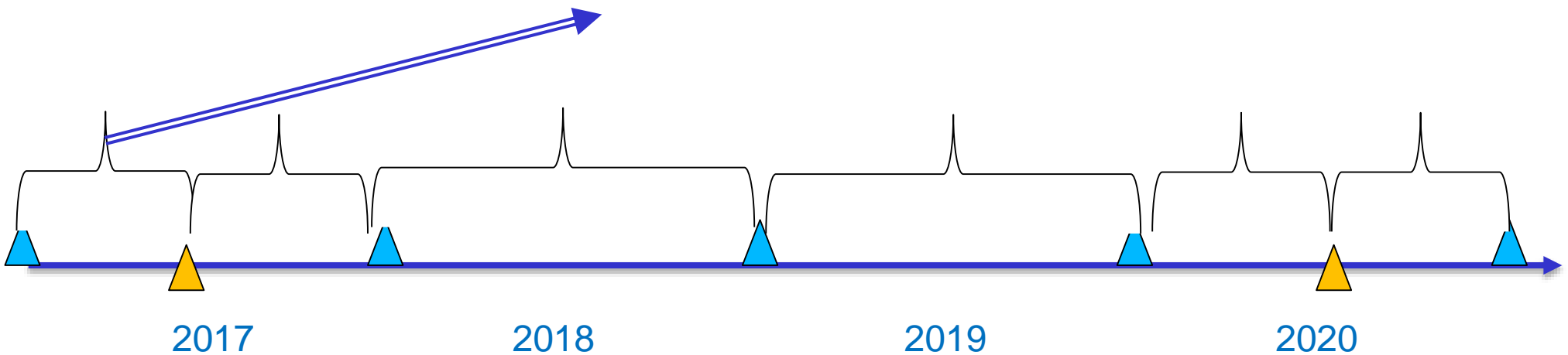
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Reducing unexpected downtime by 50%, reducing  
safety incidents by 80%

**KPIs:** Availability, Reliability, OEE, Safety Incidents, etc



Total Assets: 800 -----> Top 20% critical: 160

Select consultant, Conduct initial training, select two pilot, assets, conduct complementary training for teams, conduct the RCM Analysis, Train 8 in-house facilitators, implement the results, conduct Asset Criticality Analysis, etc



**Strategy:** RCM

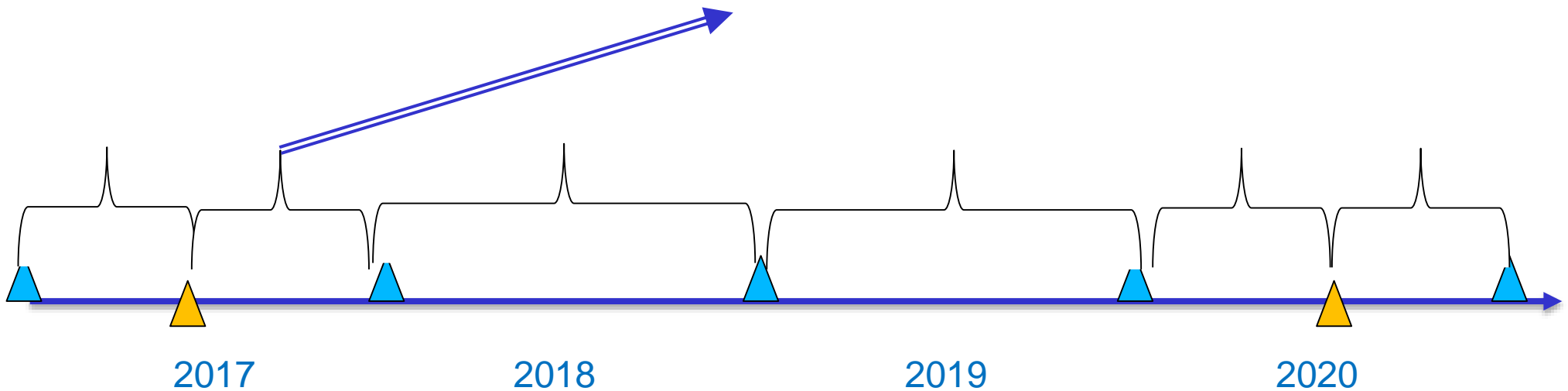
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Reducing unexpected downtime by 50%, reducing  
safety incidents by 80%

**KPIs:** Availability, Reliability, OEE, Safety Incidents, etc



Total Assets: 800 -----> Top 20% critical: 160

Conduct RCM on the next 8 assets, Train additional 20 facilitators, implement the results, audit results of the pilot RCM and make required adjustment, finalize Asset Criticality Analysis





**Strategy:** RCM

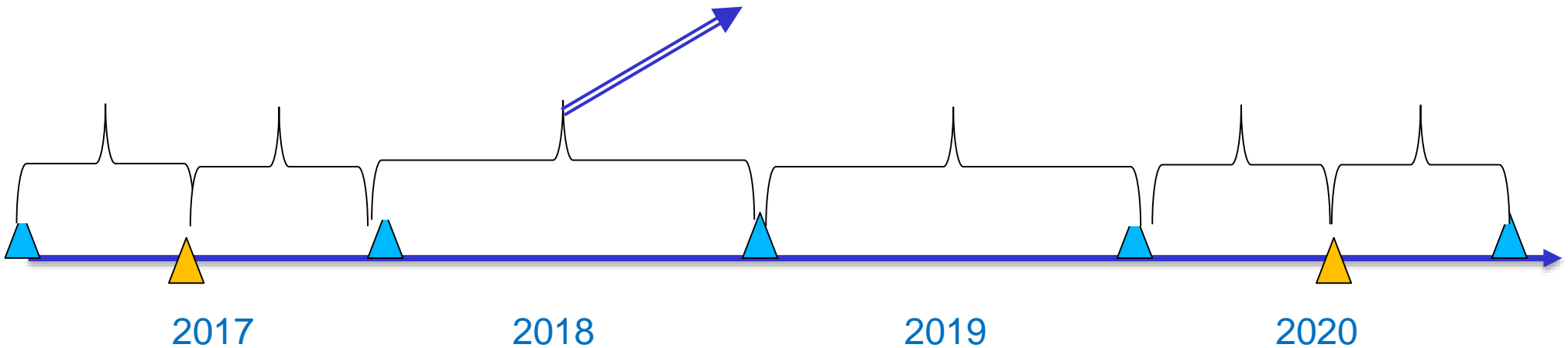
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**KPIs:** Availability, Reliability, OEE, Safety Incidents, etc



Total Assets: 800 -----> Top 20% critical: 160

Conduct RCM on the next 60 assets under consultant supervision, Enhance quality of in-house facilitators, implement the results of RCM analysis, audit results of RCM implemented in 2017 and make required adjustment



**Strategy:** RCM

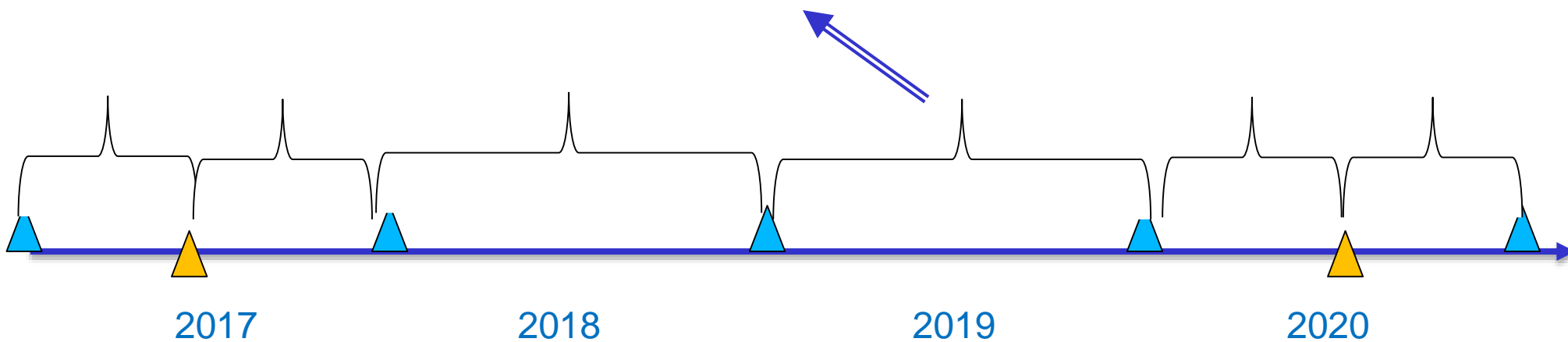
**Objective:** 20% Most Critical Assets, by 2020,  
Reducing unexpected downtime by 50%, reducing  
safety incidents by 80%

**KPIs:** Availability, Reliability, OEE, Safety Incidents, etc



Total Assets: 800 -----> Top 20% critical: 160

Conduct RCM on the next 60 assets under consultant high level supervision, implement the results of RCM analysis, audit results of RCM implemented in 2018 and make required adjustment



**Strategy:** RCM

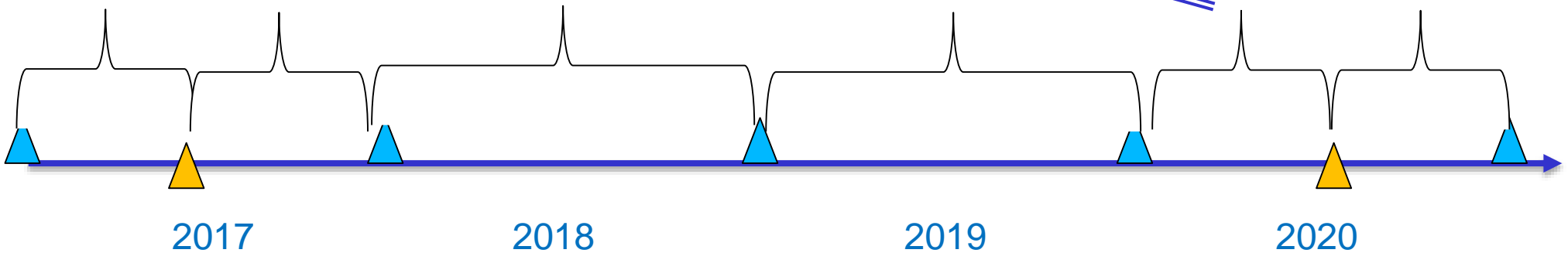
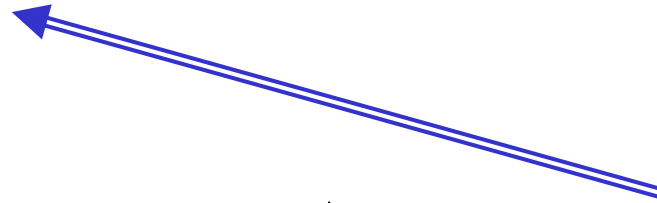
**Objective:** 20% Most Critical Assets, by 2020,  
Reducing unexpected downtime by 50%, reducing  
safety incidents by 80%

**KPIs:** Availability, Reliability, OEE, Safety Incidents, etc



Total Assets: 800 -----> Top 20% critical: 160

Conduct RCM on the next 30 assets, implement the results of RCM analysis, audit results of RCM implemented in 2019 and make required adjustment



**Strategy:** RCM

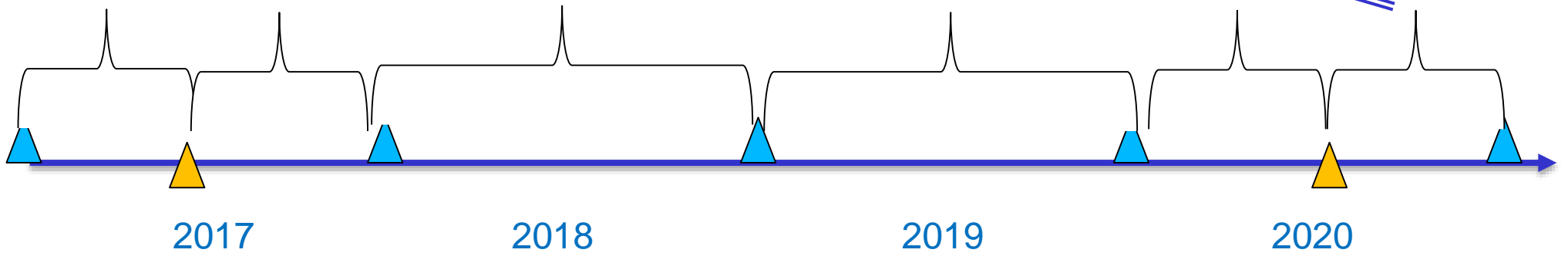
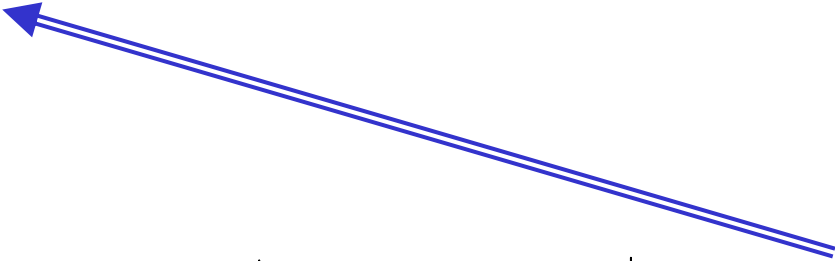
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safety incidents by 80%

**KPIs:** Availability, Reliability, OEE, Safety Incidents, etc

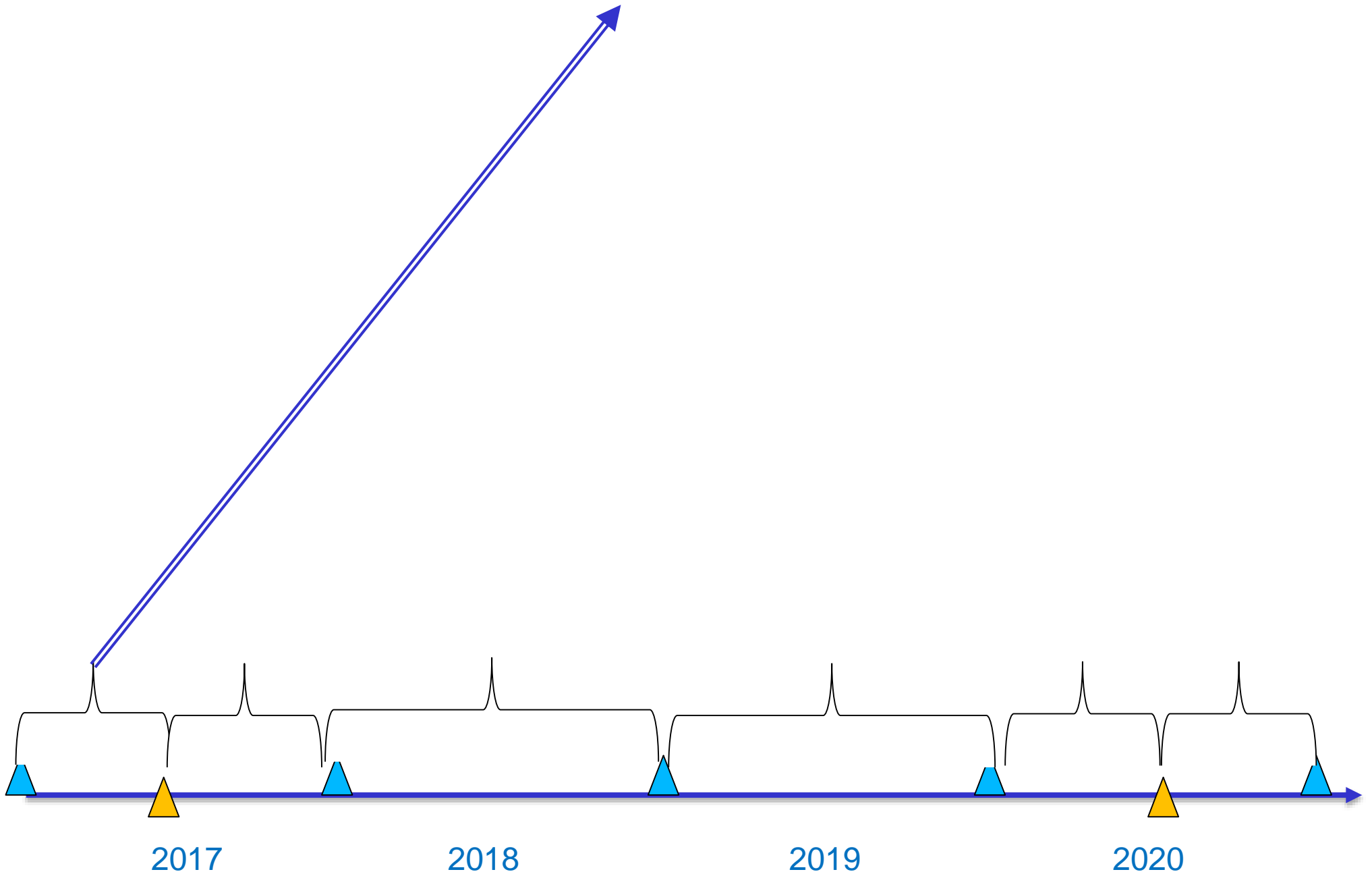


Total Assets: 800 -----> Top 20% critical: 160

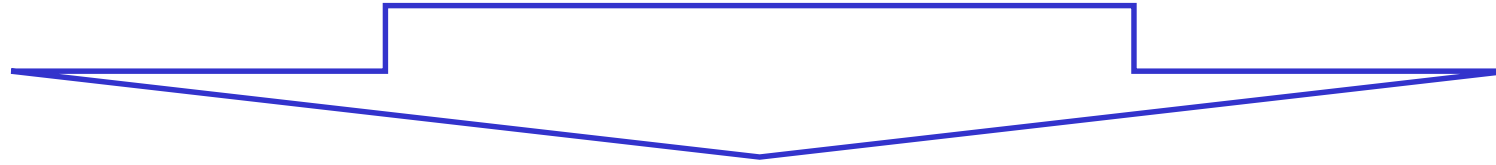
Audit results of all RCM implemented in the past and make required adjustment



Select consultant, Conduct initial training, select two pilot, assets, conduct complementary training for teams, conduct the RCM Analysis, Train 8 in-house facilitators, implement the results, conduct Asset Criticality Analysis, etc



Select consultant, Conduct initial training, select two pilot, assets, conduct complementary training for teams, conduct the RCM Analysis, Train 8 in-house facilitators, implement the results, conduct Asset Criticality Analysis, etc.



ID	Work Description	Responsible	Supervised	Informed	Date	Pre
1	Select Consultant	Aghaee	Hamidi	Amiri	30 Jan	None
2	Conduct Initial RCM Training	Consultant	Aghaee	Amiri, Hamidi	15 Feb	1
3	Select two pilot assets	Consultant	Aghaee	Amiri, Hamidi	17 Feb	1
4	Conduct complementary training for RCM teams	Consultant	Aghaee	Amiri, Hamidi	25 Feb	1,2,3
5	Conduct RCM Analyses	Consultant	Aghaee	Amiri, Hamidi	April 25	4
6	Audit the results	Aghaee	Amiri, Hamidi	Hosseini	May 5	5
7	Implement the results of RCM analyses	Aghaee	Amiri, Hamidi	Hosseini	June 25	6

# Any Questions?

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# Thank You

