



**The 5 myths of  
Predictive  
Maintenance**



## Starting point

Today, we would like to give you an overview of what PdM is, how it pays off and what common pitfalls we have seen in past projects

### Situation

- Large amounts of **marketing material** have created a **huge buzz** around PdM
- In many cases, customers now expect **more than is currently possible**
- Majority of industrial goods manufacturers are **just starting to pilot offerings** and develop their solution
- But also: Many organizations are looking to intensely work **with their suppliers and customers**



### Objective for the next 30 minutes

Provide answers to **three critical questions**

1. How is **predictive maintenance** defined?
2. **What benefits** can it provide to industrial goods manufacturers?
3. **What do most organizations** **get wrong?**

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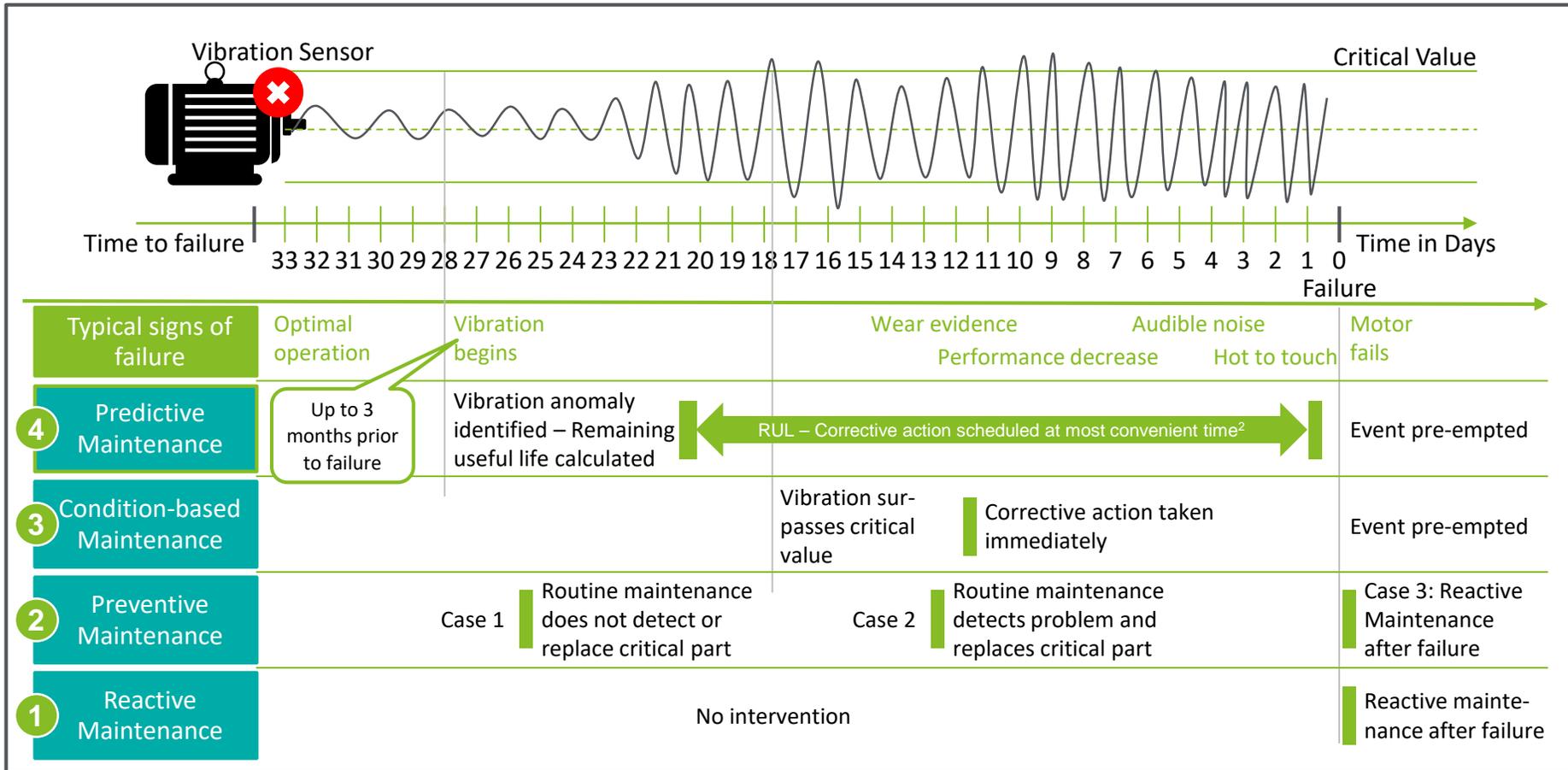
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# Illustrative PdM definition

In its essence, predictive maintenance is about digitally automating the process of identifying failure patterns before they actually occur



We want to prevent system downtime by reliably predicting component or asset failures

This must hold for the overall piece of equipment – but also underlying components

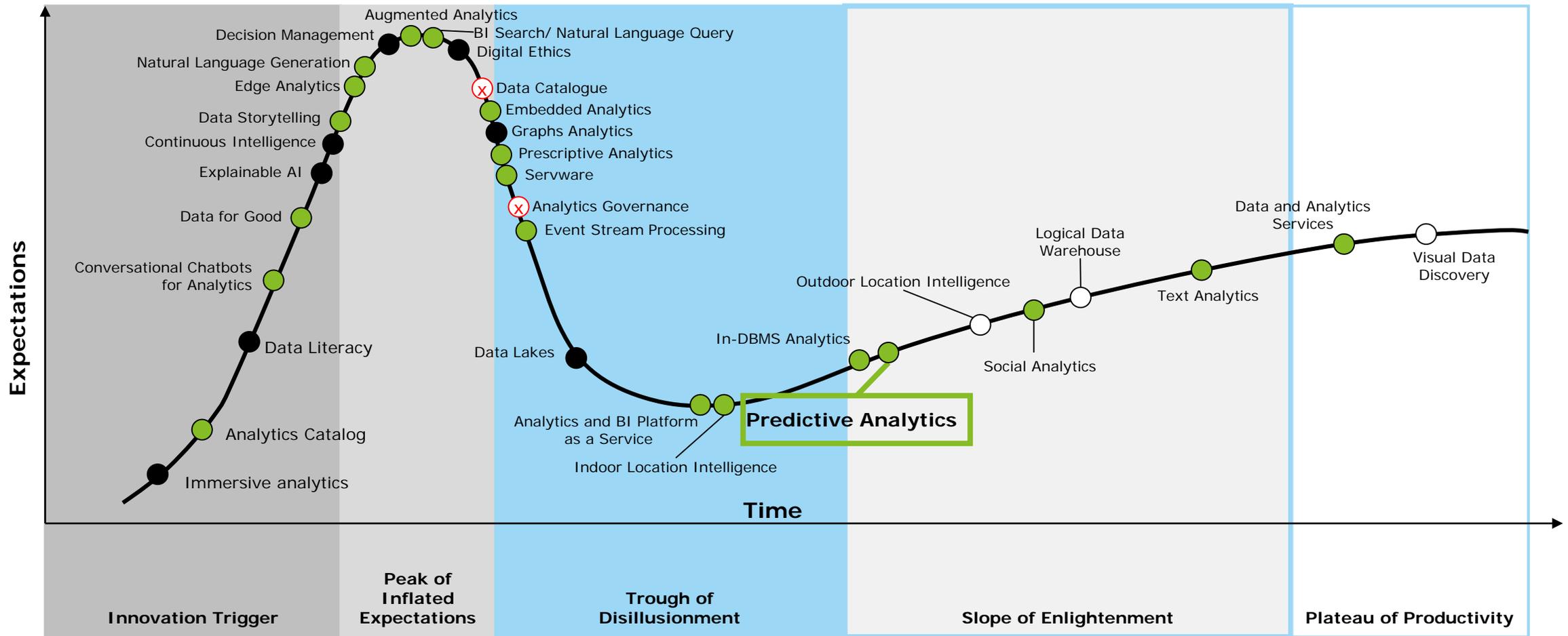
Customer may opt for different visualization options (e.g. platform, notification, report)

Predicting equipment failure as early as possible is the key customer requirements

Source: Monitor Deloitte based on IoT analytics

# Gartner's hype cycle

Predictive analytics has just passed the "Trough of Disillusionment" – underlying that many PdM initiatives are just starting to take off



Source: Gartner (2019)

2019 Monitor Deloitte

**Plateau will be reached in:**

○ Less than 2 years  
● 2 to 5 years

● 5 to 10 years  
▲ More than 10 years

⊗ Obsolete before plateau

Monitor  
**Deloitte.**

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## PdM benefits

PdM drives maintenance efficiency gains and unlocks new innovative business models and thus generates value from the OEM as well as customer perspective

### Predictive maintenance value<sup>1</sup>

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#### Increased OEE

5% - 15% (availability, quality, performance)



#### Increased throughput and on-time delivery

10% - 20%



#### Reduced unplanned downtime

15% - 30%



#### Reduced maintenance costs

20% - 30%

### Other potential benefits

- Increased customer satisfaction with improved ability to make **deliveries on-time** and to deploy smarter MRO services
- **Improved forecasting of equipment shut-downs** with less “fire fighting”
- **Enhanced spare parts planning** and inventory optimization
- Improved resource **planning and technician dispatching**
- Continuous data collection allows for **developing additional data-based services**

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# The five myths of Predictive Maintenance

With all the buzz around predictive maintenance, we have identified 5 common myths



**#1**

OEMs have an advantage over pure software players



**#2**

Equipment competitors set the pace for PdM offerings



**#3**

Building PdM in-house is important to protect IP



**#4**

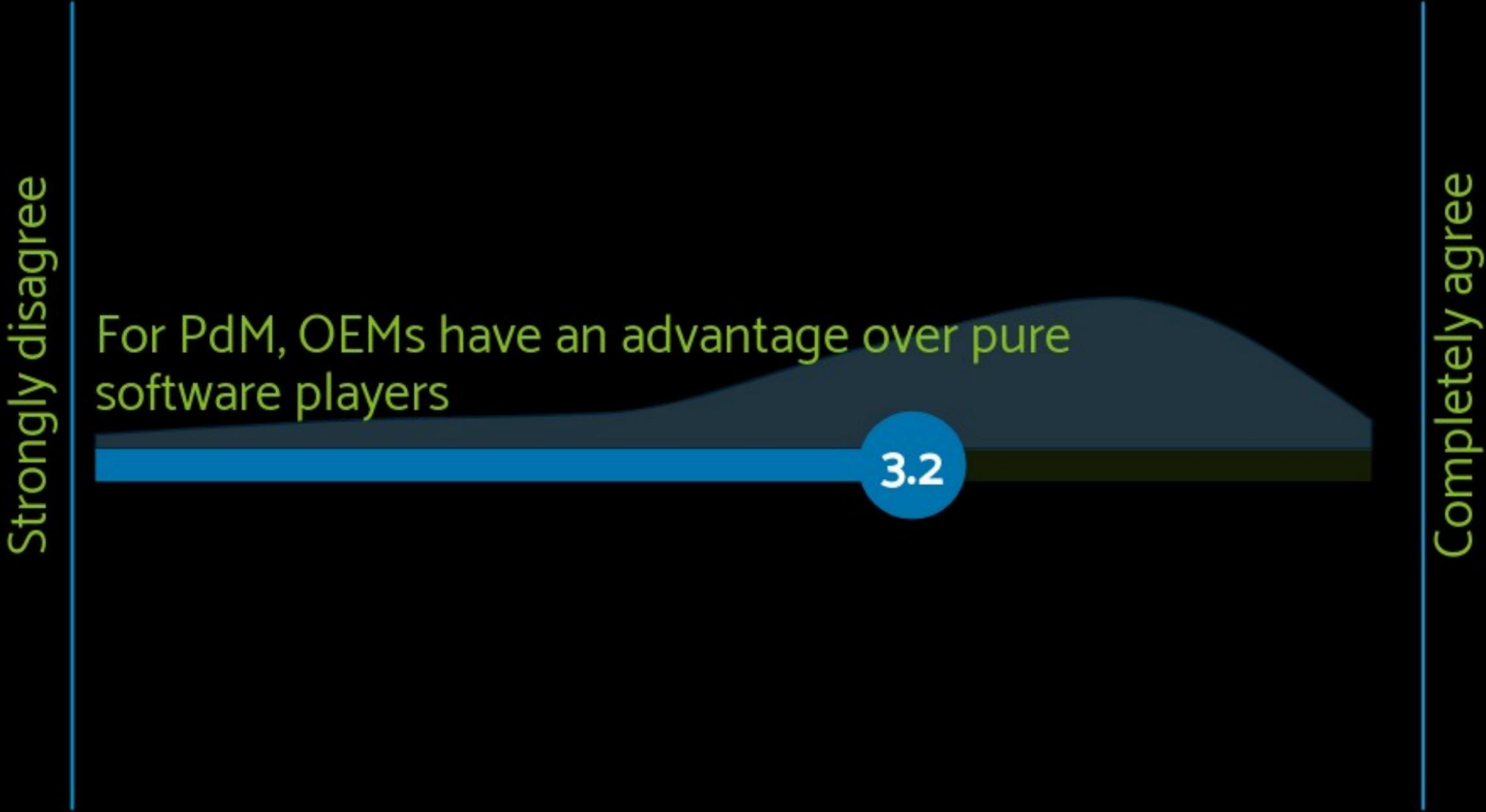
The more accurate and holistic a PdM offering is, the better it will sell



**#5**

Predictive maintenance is the single most important digital service

# Myth #1



# Myth #1 | OEMs have an advantage over pure software players

While having an installed base does help in developing PdM offerings, 3<sup>rd</sup> party providers have shown that its not an entry barrier

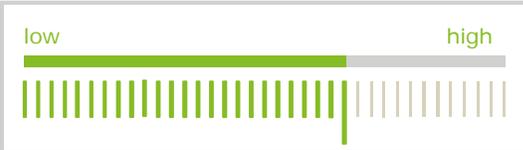
## Myth



## Description

Those companies that build the actual equipment **have a key advantage when it comes to predictive maintenance** because they gain in-depth knowledge **during engineering**, design and manufacturing

## Myth truth score



## Key learnings

 Having an installed base helps to build solutions, **but is not required**

 Traditionally, larger OEMs have been **developing in-house solutions**

 Success of "pure" software players is **fuled by mid-sized OEMs**

## How to win

- 

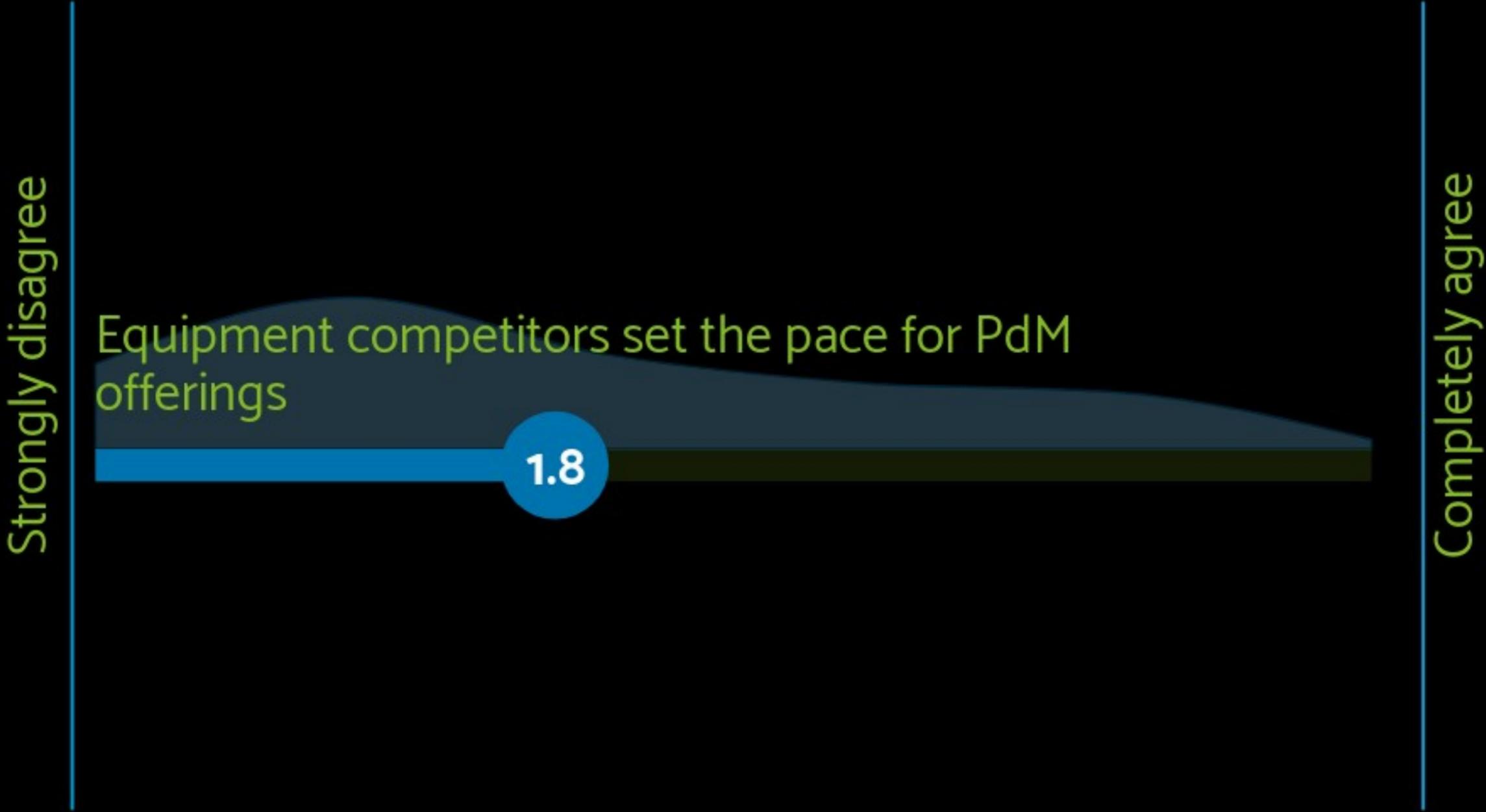
**Talk to customers** – are they already running PdM on your equipment?
- 

**Work with customers** – PdM solutions are best developed jointly
- 

**Inside-out approach** - Pilot the solution internally before go-to-market
- 

**Pick your battles** – select one application case for PdM

# Myth #2



# Myth #2 | Equipment competitors set the pace for PdM offerings

Coping with new competitors requires to clearly define the intended level of integration for the PdM solution and to establish strategic partnerships – time to act is now!

Myth	Description	Myth truth score
<p><b>Equipment competitors set the pace for PdM offerings</b></p>	<p>When it comes to PdM services, <b>OEMs will face a multitude of different competitors</b> – some of them were not relevant in the traditional business before</p>	

## Key learnings

- Completely new players** are entering the industrial market
- These **new market entrants** are often pure software players, no IB
- Organizations **compete on various layers** with their PdM service

## How to win

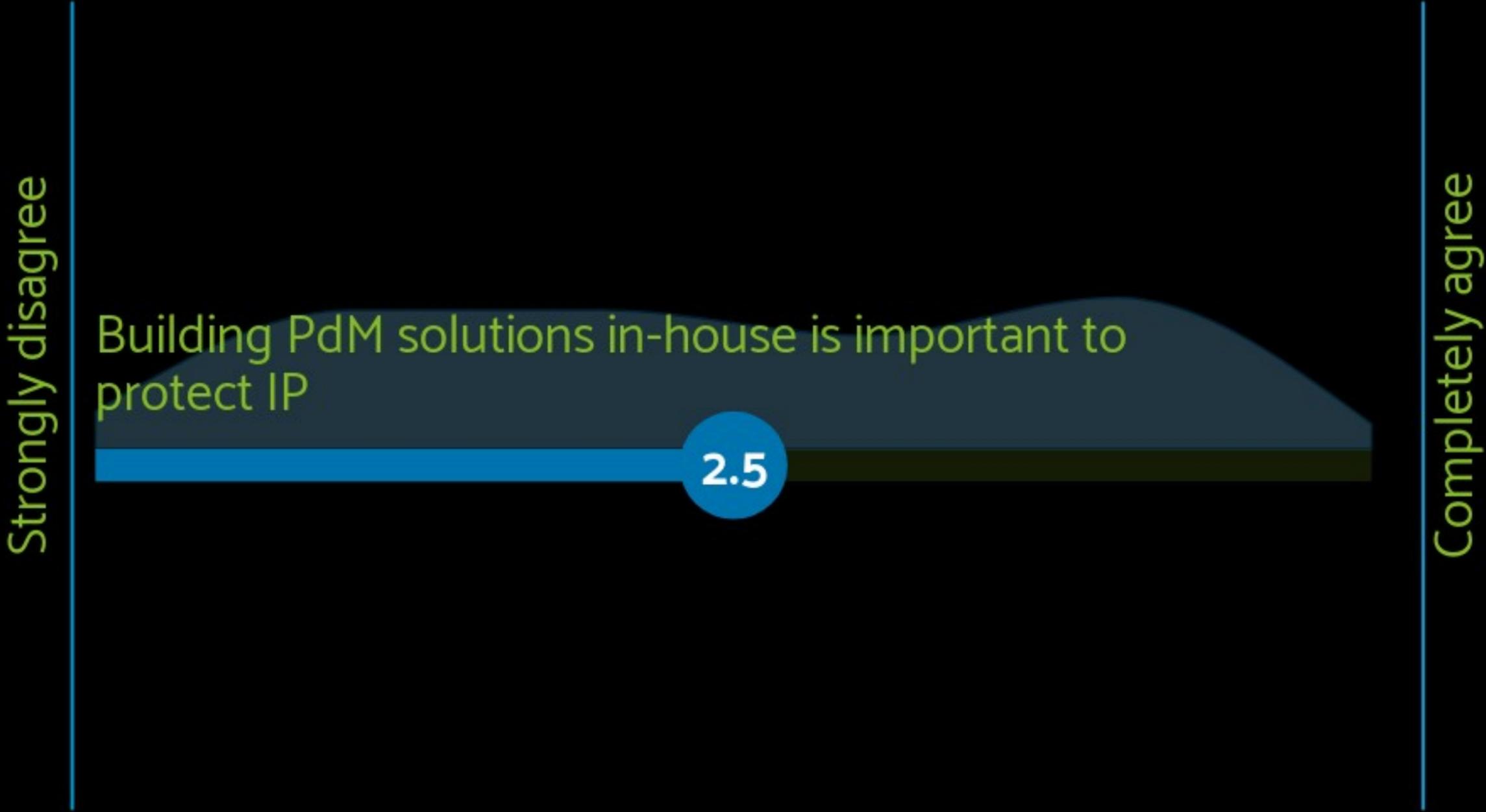
Define a **clear solution focus** and scope

Establish **strategic partnerships and alliances**

Develop an **ecosystem mindset**

Promote your recognition as **provider of digital service solutions**

# Myth #3



# Myth #3 | Building PdM solutions in-house is important to protect IP

If organizations choose to do everything on their own, they risk not being on time and on quality

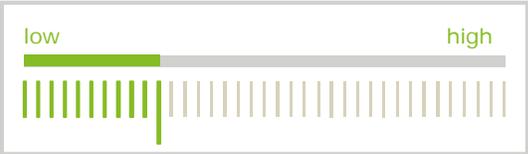
### Myth



### Description

Organizations are thought to largely drive PdM solution development and deployment individually to **protect their equipment knowledge**

### Myth truth score



### Key learnings

 Most organizations **cannot cover PdM without any outside support**

 For most PdM **applications, new capabilities are required**

 **New alliances** are constantly evolving (e.g. ADAMOS)

### How to win

**Ask yourself** – what application case is the most promising for you?

**Prove yourself** – what are your core competencies?

**Identify your gaps** – what capabilities are you missing?

**Screen the market** – what companies are predestinated for partnering?

# Myth #4



*The more accurate and holistic a PdM offering is, the better it will sell*

 Mentimeter



To what degree do you believe this myth is right or wrong?

# Myth #4 | The more accurate and holistic a PdM offering is, the better it will sell

Many players try to offer everything without considering their actual maintenance maturity, customer needs and areas of competence – don't get distracted!

Myth	Description	Myth truth score
<p>The more accurate and holistic a PdM offering is, the better it will sell</p>	<p>Depending on mission critical requirements and maintenance process maturity, companies should <b>thoroughly choose the breath of their predictive maintenance solution</b></p>	

### Key learnings

- 

Many companies **try to offer everything** and miss **scoping the PdM solution to their areas of competence**
- 

Companies tend to **develop PdM solutions because it is currently en vogue** and often haven't investigated the **actual solution objectives before**
- 

Companies often **overestimate their analytical capabilities**

### How to win



Don't get distracted by **trying too much**



Evaluate **portfolio fit** of solution



Clearly define **solution goals** (growth and/ or efficiency)



Define **solution scope** and determine intended offering elements



Ensure a **customer-centric approach**



Determine **capability needs and gaps**

# Myth #5



# Myth #5 | Predictive maintenance is the single most important digital service

While predictive maintenance is probably the most interesting digital service for many organizations, there is a multitude of other extremely important offerings

Myth	Description	Myth truth score
 <p>PdM is the single most important digital service</p>	In simple terms, this myth implies that being active within the PdM domain <b>already includes all relevant digital service initiatives</b>	 <p>low high</p>

## Key learnings

-  Predictive Maintenance is **one of the most promising digital service**
-  Along the value chain, PdM is **just one element** among many
-  Other digital services also **represent huge financial potential**

## How to win

 <p><b>Think broader</b> – what services do your customers need?</p>	 <p><b>Look left and right</b> – what are others offering?</p>
 <p><b>Talk to customers</b> – they often (but not always) know best</p>	 <p><b>Pick your battles</b> – only play where it's relevant for you business</p>

# Summary

If you'd forget everything I just presented, here are the five things you really should remember

**1.** While building the equipment **helps**, no **installed base is required** for PdM



**2.** OEMs need to be prepared to compete **against totally new competitors**



**3.** Partnering is key – **teaming up with leading software players** will pay out



**4.** Before investing heavily, **OEMs should define their specific PdM ambition**



**5.** PdM can “only” be part of the overall **digital service solution suite**



# Contact details

Let's talk!

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