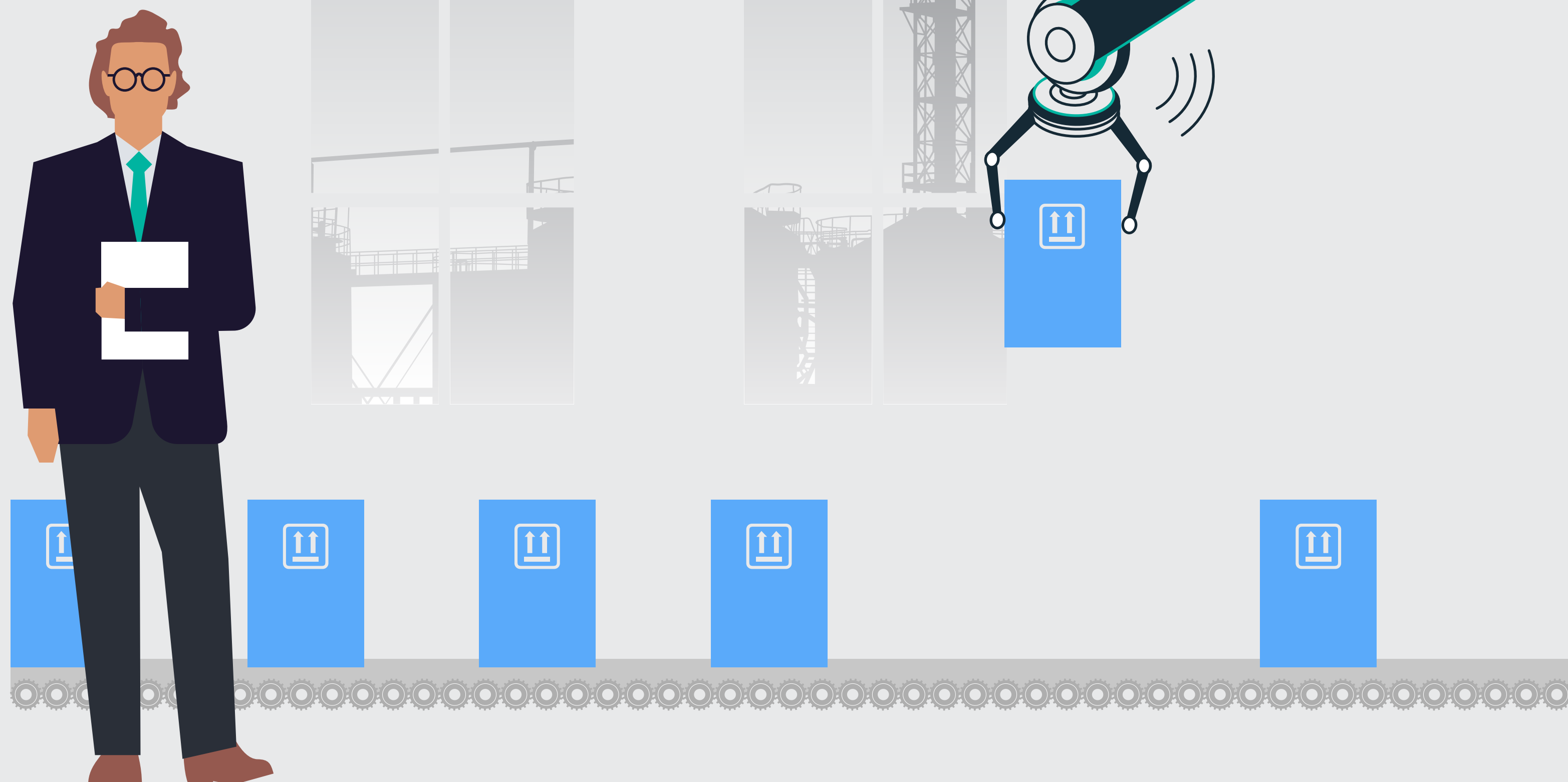


# Want to get more out of your asset management efforts? Time to include predictive maintenance.

Spending on predictive maintenance is forecasted by Gartner to grow nearly 4x by 2022 to \$12.9 Billion<sup>9</sup>

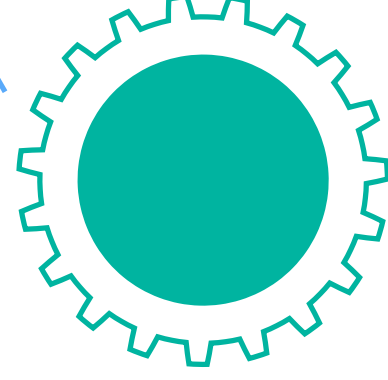


**It's critical to think about how effective your maintenance practices are. For many organizations, there is significant waste in costs and resources.**

## It is time to listen to your assets!

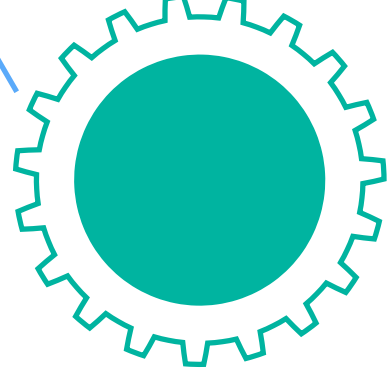
**40%**

of scheduled maintenance costs are spent on assets with negligible effect on uptime failure<sup>1</sup>



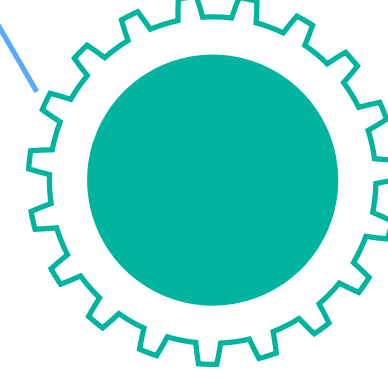
**30%**

of maintenance activities are carried out too frequently<sup>1</sup>



**45%**

of all maintenance efforts are ineffective<sup>2</sup>



Traditional maintenance is often time or usage-based. Yet this is often not the best approach for all assets or industries.

## Here is the challenge:

only **18%** of assets have an age related failure pattern<sup>3</sup>

and **82%** of asset failures appear random<sup>3</sup>

Predictive maintenance is a data and analytics-driven approach that helps you predict potential issues before they occur.

## and yet...

A full **40%** of organizations are not using any form of predictive maintenance.<sup>4</sup>

Only **23%** of organizations that are using predictive maintenance integrate work order systems.<sup>4</sup>

On one oil rig **99%** of data collected from sensor-enabled assets went unused.<sup>5</sup>

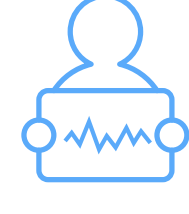
## How do you know where to spend your time, money and resources?

Predictive maintenance is the first step. By using data and analytics to make better decisions, you can reduce downtime and minimize operational risk.

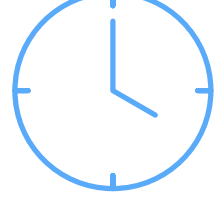
In the future for certain asset classes, you can build on this capability to monitor conditions in real-time, trigger maintenance actions, and provide prescriptive repair advice to ensure the right fix the first time.



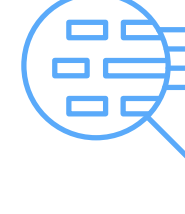
## You can:



Monitor and analyze asset health data, both historical and real-time



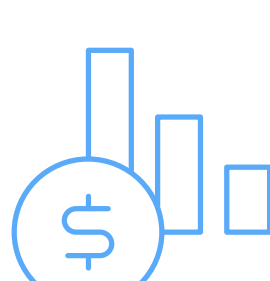
Intervene at the right time, before assets go down



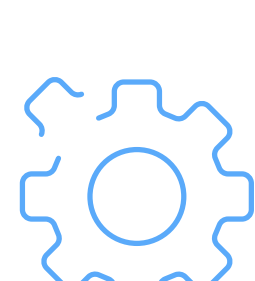
Prioritize and optimize resources

## The results speak for themselves:

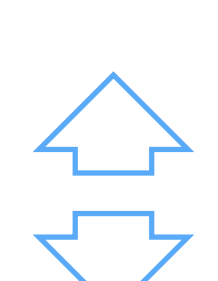
Reduce maintenance costs by up to **25%**<sup>6</sup>



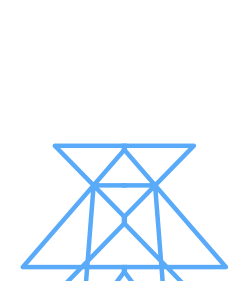
Eliminate of breakdowns up to **70%**<sup>7</sup>



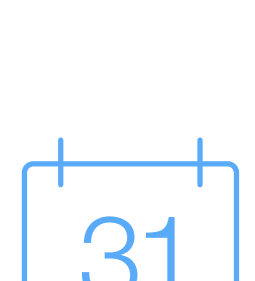
Reduce downtime by up to **50%**<sup>5</sup>



Cut unplanned outages by up to **50%**<sup>6</sup>



Reduce scheduled repairs by up to **12%**<sup>7</sup>



Reduce capital investment by **3-5%**<sup>5</sup>



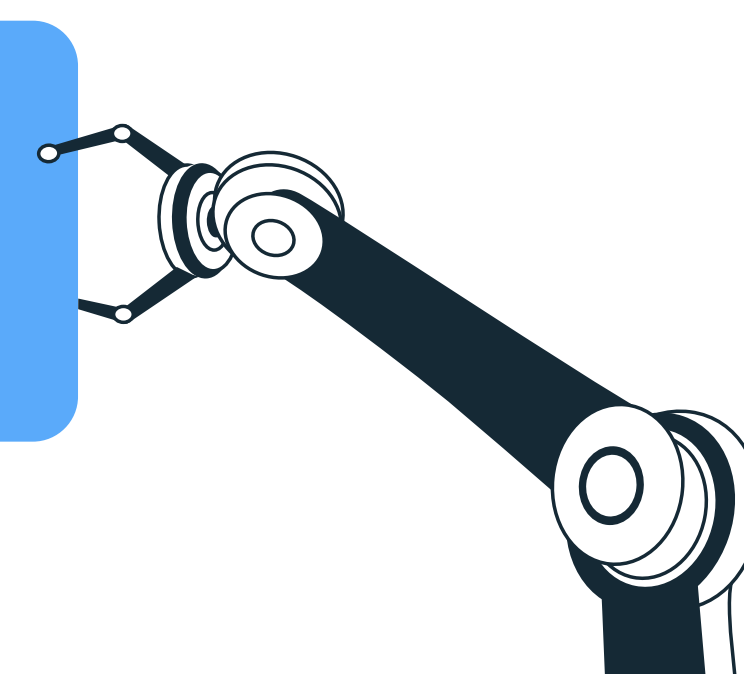
## By implementing predictive maintenance:

Total spend on preventive maintenance can be reduced by up to **50%**<sup>4</sup>

Total preventive maintenance hours can be reduced by **50%-70%**<sup>8</sup>

Efficiency of repairs can be improved up to **50%**<sup>4</sup>

## Your machines are talking. Are you listening?



## Ready to maximize uptime of your critical assets?

Learn more

Watson IoT™



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<sup>1</sup> Source: Oniqua Enterprise Analytics, Reducing the Cost of Preventative Maintenance, <http://www.plant-maintenance.com/articles/PMCOSTReduction.pdf>

<sup>2</sup> Source: T.A. Cook, Maintenance Efficiency Report 2013, August 2013. [http://uk.tacook.com/fileadmin/files/3\\_Studies/Studies/2013/T.A.\\_Cook\\_Maintenance\\_Efficiency\\_Report\\_2013\\_En.pdf?tracked=1](http://uk.tacook.com/fileadmin/files/3_Studies/Studies/2013/T.A._Cook_Maintenance_Efficiency_Report_2013_En.pdf?tracked=1)

<sup>3</sup> Source: ARC view, Optimize Asset Performance with Industrial IoT and Analytics, August 2015 <http://www-01.ibm.com/common/ssi/cgi-bin/ssialias?subtype=WH&infotype=SA&htmlfid=WWL12350USEN&attachment=WWL12350USEN.PDF>

<sup>4</sup> Source: Enterprise Asset Management and Field Service Management, ARC Advisory Group, 04/17/2015. <http://www.arcweb.com/market-studies/pages/enterprise-asset-management.aspx>

<sup>5</sup> Source: McKinsey [https://www.mckinsey.de/sites/mck\\_files/files/unlocking\\_the\\_potential\\_of\\_the\\_internet\\_of\\_things\\_full\\_report.pdf](https://www.mckinsey.de/sites/mck_files/files/unlocking_the_potential_of_the_internet_of_things_full_report.pdf)

<sup>6</sup> Source: Fortune <http://fortune.com/2015/07/22/mckinsey-internet-of-things/>

<sup>7</sup> Source: G.P. Sullivan, R. Pugh, A.P. Melendez and W.D. Hunt, "Operations & Maintenance Best Practices: A Guide to Achieving Operational Efficiency, Release 3.0," Pacific Northwest National Laboratory, U.S. Department of Energy, August 2010.

<sup>8</sup> Source: IDC ON Inc., Optimize your Preventive Maintenance, <http://www.idcon.com/resource-library/articles/preventive-maintenance/528-optimize-preventive-maintenance.html>

<sup>9</sup> Source: <https://www.gartner.com/doc/3856379/market-trends-predictive-maintenance-drives>