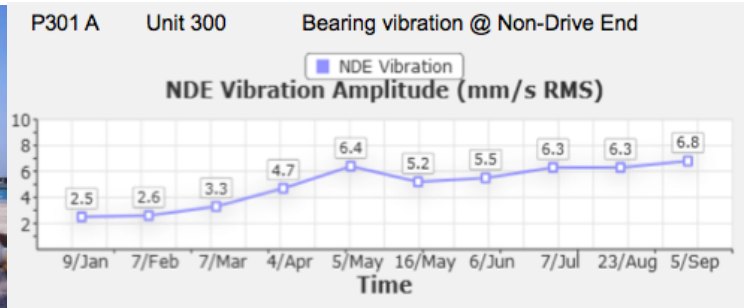




## Integrated Asset Management Solution



Unique Product developed for operating plants in the  
Oil & Gas/ Refinery/ Petrochemical/ Energy Sector



### Query 1

You may have a) Very basic, b) Moderate or c) One of the best equipment condition diagnostic platform/program.

**Does it help you in the following scenario?**

*The famous Murphy's Law says, "Whatever can go wrong will go wrong."*

Equipment breaks down when you least expect it to!

On one hand efforts are made to take the equipment out of service to facilitate its maintenance. On the other hand the maintenance team tries to know the condition of this equipment before its failure. The records show the last captured condition parameters were 8 months old. Recent data is not captured! The protocol was to capture the condition parameters for this equipment twice a month.

Why was the protocol not followed?

Why did this lapse happen?

Why was it not spotted and highlighted?

### Query 2

**Do you have a simple user-friendly yet robust system that enables you to capture all relevant equipment condition parameters, either manually or automatically?**

How do you ensure that the equipment parameters are captured as per the determined protocol?

Do you capture best in class equipment specific KPIs?

Do you take corrective actions based on the analysis of captured KPIs?

### Query 3

You may have an Enterprise Resource Planning Tool that can generate work orders.

**Does it help you in the following scenario?**

One equipment was stopped due to bad condition. Other equipment was allowed to breakdown.

Do you have equipment specific "Threshold Values (TLVs)" to guide you to select the "condition" trigger to enable you to plan an equipment stoppage?

---

Is IAMS an Innovation? Let us test this.

Innovation manifests when an idea is implemented to create an impact.

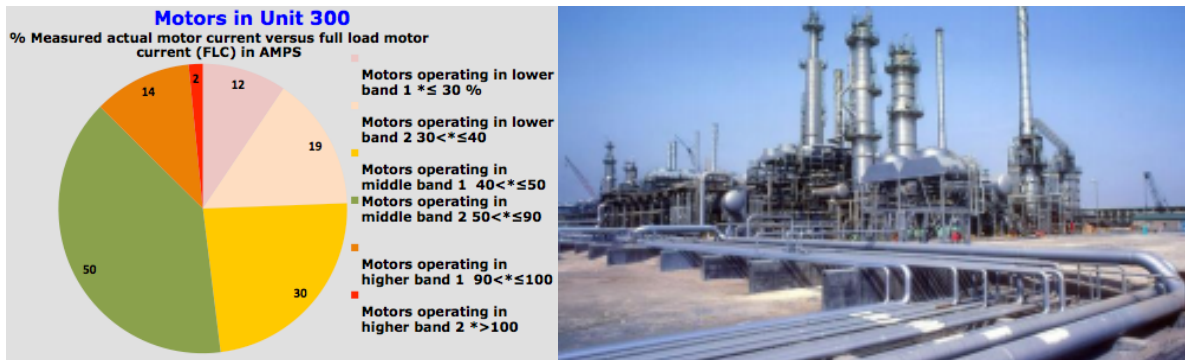
Four types of innovations can be considered.

#### **(Innovation type 1) Process:**

IAMS can be called as a "process" type of innovation as it provides a single user-friendly platform to capture all relevant data related to your assets.



## Integrated Asset Management Solution



### Query 4

Operations Department decides to stop particular equipment as it is not delivering and requires maintenance. The equipment is removed and is sent to maintenance workshop.

### Do Operations Department and the Maintenance Department work in a coordinated manner?

Do you have a protocol where Operations Department and the Maintenance Department share information timely and work together to understand equipment failure?

How do you ensure that root cause is evaluated for uncommon failures and that the problem is resolved by corrective actions?

### Query 5

Engineers from maintenance department capture the raw data for the KPIs.

This data is then given to reliability department who then publish the KPIs.

Equipment failure incident, Equipment failure RCA, Equipment history is captured by several individuals. There are several versions floating around in the whole plant.

### Do you have a system that can ensure one single authentic version of any data/document, KPI while multiple users are handling data?

Do you have a system where captured data directly gets converted into pre-determined KPI's and is highlighted on a dashboard?

Do you have a system where multiple users can simultaneously key in data and be responsible for respective data only?

We offer answers to customer specific queries as illustrated above

### (Innovation type 2) Product:

IAMS can be called as a "product" type of innovation as it generates specific KPI's relevant to your assets that can trigger tangible corrective actions to be taken by your staff.



## Integrated Asset Management Solution



<b>What is IAMS?</b>	Unique solution that enables the user to manage the assets in an optimal manner
<b>How does it do it?</b>	By providing structured asset overview through well-defined, equipment specific KPIs
<b>How does it work</b>	<ul style="list-style-type: none"> <li>a Multiple users enter data in an equipment specific template manually or automatically through the interfacing points provided to capture and transfer data to IAMS server</li> <li>b Data entry is user specific and easy as it is guided by equipment specific template.</li> <li>c Database is generated and KPI's are displayed on the dashboard and can also be seen on browser-based interface.</li> </ul>
<b>Key features</b>	<ul style="list-style-type: none"> <li>a Eliminates gaps and provides single updated version of data.</li> <li>b KPIs provide visibility and trigger suitable corrective actions.</li> <li>c Multiple users can interact simultaneously.</li> <li>d Each user enters data specific to his role.</li> <li>e Customized interaction with client's ERP tool (e.g. SAP).</li> <li>f Ensures that genuine data is fed to the template as data entry is guided by protocol</li> <li>g Brings in needed discipline for the data capturing users</li> <li>h Provides visibility of extent of work carried out by key users</li> </ul>
<b>Application of IAMS</b>	IAMS is created for the Oil & Gas & Energy sector
<b>Specific field</b>	IAMS is launched with focus on Pumps and their electric motor drivers
<b>Extension</b>	IAMS will be extended to other rotating equipment i.e. Compressors, Turbines etc., Static mechanical equipment and other electrical equipment and instruments as well
<b>IAMS core</b>	<ul style="list-style-type: none"> <li>a Patented Collaborative Tabular Database Technology from USA</li> <li>b Patented equipment specific tailor-made template and best in class KPIs</li> </ul>
<b>What IAMS does not do?</b>	<ul style="list-style-type: none"> <li>a Analysis of dynamic data (e.g. On-line Bently Nevada Machine Monitoring System: Bently Nevada System 1)</li> <li>b Analysis of vibration signatures captured by data-loggers (e.g. SKF, SPM)</li> <li>c Analysis of thermography</li> <li>d Analysis of motor current</li> </ul>

### (Innovation type 3) Customer experience:

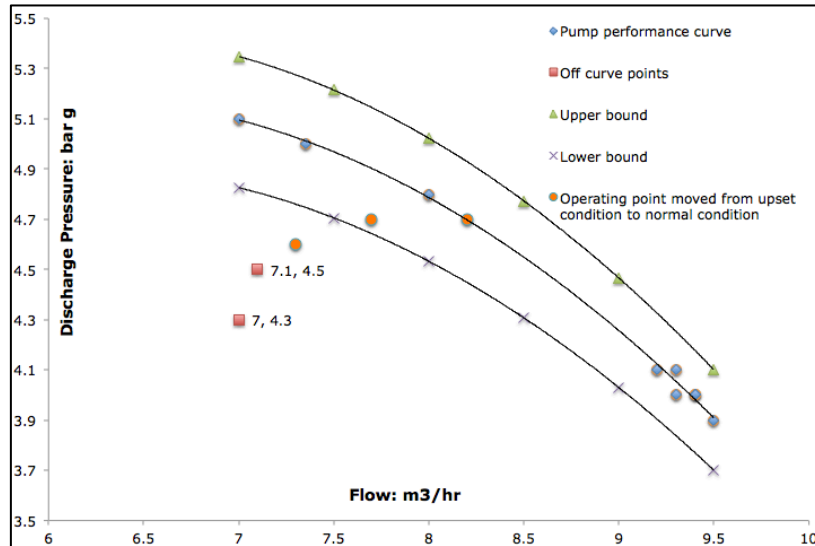
IAMS can be called as a "customer experience" type of innovation as the multiple users can focus only on their own specific actions and yet see the overall picture i.e. see all the KPI's. Information with a single version can be accessible to all. Departments can collaborate well with each and work towards a common goal.

Let us also look at the "impact" felt by the customer.

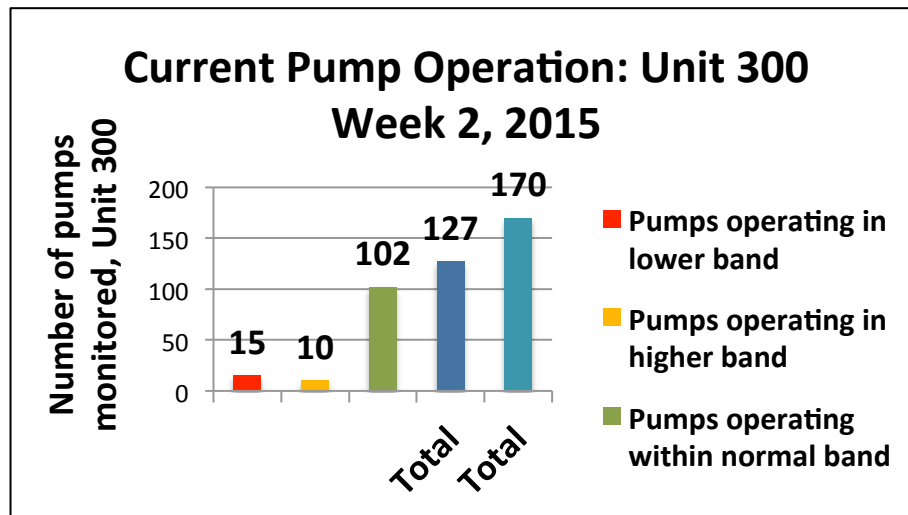
A typical operating plant can recover the investment done for IAMS in less than a year. Well-developed KPI's trigger timely actions that reduce the maintenance expenses. Also, as optimum availability/ reliability of the assets is ensured the company can produce "possible peak revenues" in a sustainable manner.



## Example of pump performance curve related KPI that triggers corrective action



## Statistics of pump performance related KPI for a specific plant



### (Innovation type 4) Business model:

IAMS can be called as a "business model" type of innovation as "uncertainties" are eliminated through prompt analysis of well-captured data. IAMS prompts the business to capture single authentic version of asset history, failure incident reports (FIRs) and failure assessment reports (FARs) in a systematic manner. IAMS also moves the company away from breakdown maintenance and closer to condition based maintenance/ functional maintenance.

For Inquiries contact: **ETEQ Solutions Pvt. Ltd.** (Engineering, Technology, **EQUIPMENT** Solutions)

Primary [+91 \(0\) 20 66533887](tel:+9102066533887)

Secondary [+91 \(0\) 9595618844](tel:+9109595618844); [9579154488](tel:+9109579154488)

Email [professionals@eteqsolutions.com](mailto:professionals@eteqsolutions.com)

Website [www.eteqsolutions.com](http://www.eteqsolutions.com)

Address 87, Forest Trails, Bhugaon, Pune 412115, India