How can an IT platform unlock value from your assets?

Olivier BERNARD – CTO - OXAND

Session 3 – October 13th
• We deliver **Value from assets** by
  – Improving Asset Management Systems (**Consulting**)  
  – Connecting data with advanced analytics (**SIMEO™**)  
  – Coaching and training people (**Academy**)  

• International company, 130 consultants specialized in Transportation and Energy
Asset Management History

The Golden Age
- Scientists/technicians are the masters
- Asset Condition vs. Time

The Bronze Age
- Financial players are the guardians
- Availability, Environment, Safety, Compliance, Cost savings, Reliability

The Value Age
- Team aligned on stakeholder objectives
- Value vs. Cost vs. Risk
A « simple » example

<table>
<thead>
<tr>
<th>Risks</th>
<th>Inputs</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>N°</td>
<td>Proba (before)</td>
<td>Severity (before)</td>
</tr>
<tr>
<td>R1</td>
<td>0.1</td>
<td>100</td>
</tr>
<tr>
<td>R2</td>
<td>0.05</td>
<td>50</td>
</tr>
<tr>
<td>R3</td>
<td>0.2</td>
<td>40</td>
</tr>
<tr>
<td>R4</td>
<td>0.4</td>
<td>20</td>
</tr>
<tr>
<td>R5</td>
<td>0.5</td>
<td>80</td>
</tr>
<tr>
<td>R6</td>
<td>0.35</td>
<td>75</td>
</tr>
<tr>
<td>R7</td>
<td>0.55</td>
<td>100</td>
</tr>
<tr>
<td>R8</td>
<td>0.15</td>
<td>50</td>
</tr>
<tr>
<td>R9</td>
<td>0.2</td>
<td>25</td>
</tr>
<tr>
<td>R10</td>
<td>0.4</td>
<td>40</td>
</tr>
</tbody>
</table>

Where do you invest your money?
You pay for all actions (Cost = 156 k$)

The masters said: «Risks have to be minimized!!»
Invest on actions 4, 5, 6, 7, 8 and 10 (cost 76 k)

What about this one?

The guardians said: «No more than 80 k this year»
Invest on actions 5, 6, 7 (cost 16 k)

All together, we maximize the value for the stakeholders!
In the asset world ...

- Technical systems are usually characterized by more than 10 risks
- Risks evolve with time (ageing)
- There are dependancies between risks and actions
- Actions can affect more than 1 risk
- Mean value of risk is not enough to capture properly uncertainty
What is needed to unlock value?

- To talk « Risk »: the team language to link technical knowledge with corporate goals
- To see into the future (risk + ageing)
- To generate scenarios « quickly »
- To quantify value and risks at the P&L level
- To engage decision-makers with analytics
- To bring the proof of value creation (PMS)
An hydropower example (NPV ≈ 300 MCHF)
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Action plan from the operator

Optimized

Value = 30 MCHF

Less cash needed at short term

Do nothing (fix it when it brakes)
Why an IT platform is needed?

• You need to be connected to your asset data and information:
  – to talk a good « Risk » language
  – to simulate ageing

• You need advanced algorithms to deal with complexity:
  – to generate scenarios « quickly »,
  – to quantify value and risks at the P&L level

• You need powerfull decision support tool & process:
  – to engage decision-makers with analytics
  – to bring the proof of value creation
To be successful in the Value Age

BIG DATA

Goals, stakes, targets

Connected Systems

ETL's

Ageing data

Actions, costs

Connected Assets (IoA)

Field data

Value

6 step process

Analytics

Risks

Proof

Ageing

Scenarios

ASSET PERFORMANCE PLATFORM

Users

GUI’s (https)

BIG DATA

FIELD DATA
Thank you for your attention