Productivity rises more than 20% in just 8 weeks for Multi-National

Pinnacle Strategies delivers lightning fast results for global engineer to order manufacturing firm Huisman

At their plant in Zhangzhou, China, heavy construction equipment manufacturer Huisman's management team were facing a major problem.

The company was in the process of building the world's largest vessel-mounted crane: a seven-story high giant capable of lifting 10,000 tons.

However, a series of delays meant there was some risk that the project would not be delivered on time.

It was a situation that was becoming all too familiar.

It seemed every project they undertook was plagued with a constant stream of holdups and last minute firefighting to deliver on time.

Often, the priorities on the shop floor were changed daily, with multiple departments competing for, what seemed to be, shortages of capacity.

In a sense, they didn't have a clear picture of a project's status until very late in the build process.

And at the same time, demand for the company's high-quality, multi-million dollar cranes was increasing.

Management knew that unless changes were made and productivity increased, Huisman wouldn't be able to take full advantage of the growing demand for its products.

Complex process creates inefficiencies

Huisman are an innovative, multi-national company that designs and manufactures heavy construction equipment for oil, gas, and leisure companies, with headquarters outside of Rotterdam in Holland, and manufacturing plants located strategically across the globe in Holland, China, Brazil, and the Czech Republic.

The company is known for building the best offshore heavy-lifting cranes in the world.

They're highly engineered, more reliable, and deliver superior performance compared to their competitors.

But building heavy-duty, maritime cranes is a complicated process.

And like most complicated processes, there were inefficiencies in many areas that could be eliminated to achieve better results.

The biggest problem was lack of coordination between the various processes.

An example of this are the problems they were having with the 'secondary steel'.

When building a crane, the 'primary steel' is the construction of the main structure, and the 'secondary steel' is all the components that get welded onto this, like walkways, stairs, and channel guides.

These items are often outsourced, and must be ordered in advance.

However, staff were focusing all of their attention on the primary steel, and when it was time to start the secondary steel, items they required either hadn't been ordered, or had been ordered too late, and this inevitably caused delays.

It was decided they would engage us initially for a 30-day trial project, to prove our RABIT (Rapid Analysis and Bottleneck Improvement Team) could improve productivity in their machine shop

Another frequent problem was receiving drawings from the company's headquarters in Holland.

A batch of drawings would arrive at the China plant, only to discover that some of them had been left behind, or did not have all the approvals needed to start work.

And adding yet another level of complexity for management was the multi-cultural workforce at its Zhangzhou plant.

The management team was made up of English-speaking Dutch, then there was a middle layer of Chinese nationals who were bilingual, and then another layer of Chinese nationals who only spoke Chinese.

All these factors were adding up, and putting the company at significant risk of not being able to deliver future projects on time and on budget.

Seeking change

The man charged with finding a solution to this problem was Huisman's Change Management Coordinator, Ashton Fourie, and he conducted many interviews and looked at many consulting firms over a 12-month period.

One of the firms considered was Pinnacle Strategies, and after a series of web meetings and emails, they chose us because of our successful track record when it came to working with complex multi-national and multiple-cultural projects like theirs.

It was decided they would engage us initially for a 30-day trial project, to prove our RABIT (Rapid Analysis and Bottleneck Improvement Team) could improve productivity in their machine shop, and if successful, then implement it in other aspects of their Zhangzhou operation.

A RABIT identifies bottlenecks in a company's processes, and then implementa strategiey that relievs them quickly.

They're normally a 90-day project across an entire plant, but for the trial this was reduced to 30 days, and given a narrower focus.

The trial begins

Our team began by evaluating the process.

We looked at the machine shop, because it was thought to be the most complex.

The shop was comprised of several very large mills and several lathes.

We zeroed in on one of the large mills as the constraint for the entire shop, and chose it based on the following factors:

- There were weeks of supply of finished parts in the warehouse from the lathes, but none from the large mills.
- The queue in front of the mills was massive; almost 6 weeks of work waiting to be processed.
- Operating the lathes was relatively easy; small parts on a pallet that could be handled by a single person.
- The large lathes required an enormous amount of coordination between departments: crane operators, riggers, quality assurance, and the assembly departments.

Once we settled on this resource as the constraint, we had to figure out how to measure performance.

There were no measurements in place.

There was little direct supervision of operator performance or understanding of what good performance looked like.

There was little direct supervision of operator performance or understanding of what good performance looked like.

We needed something that was objective, easy to get, and created the right behavior (more product produced).

We couldn't use pieces produced, because each one was different.

A long production run was five pieces.

So, we settled on spindle time, which measured how much time the spindle was turning.

Not perfect - because an operator could just turn the machine on and walk away - but there was no penalty for NOT turning it on, so it was good enough for a 30-day trial.

We then set to work forming a team of people around the resource.

Tis meant doing some basic training on Constraint Theory and Value Add versus Non-Value Add time.

We solicited ideas on what caused low spindle time from the team, and created a list of improvement ideas.

Then we ranked them according to ease of implementation and impact.

Since we were working on a short leash, we selected the ones we could do right away that didn't cost anything.

The ideas were focused on simple things we could do to reduce waiting time, such as:

- Staging materials early
- Gathering all tools and materials into one place
- Alerting the support teams about upcoming work

(so they could plan)

- Offline setup
- Closer, more detailed scheduling of the critical resource
- And coordinating with the feeding departments and support teams

Nothing magic, and nothing that required a lot of spending.

What these DID require, though, was someone to lead and follow through.

They named the assistant foreperson - a relatively inexperienced lady - to lead the process.

Management gave her the authority to act and lead the team.

Over the next few weeks, they held daily meetings to review performance and progress on the implementation.

Several improvements were implemented, increasing spindle time, and thus, doubling overall department productivity.

Machine utilization went from 20% to over 55%.

We began to analyze where the full RABIT would be implemented.

Initially, our team thought the second phase would be a productivity improvement project.

However, during the trial project, we discovered that a RABIT, while being able to improve machine center results, was not going to address the bigger, more systemic problem that was holding back productivity across the entire plant.

The reason Huisman was getting low productivity was not because of some inherent productivity problem or underutilized resource (although what we learned in the first 30 days was that there was a lot of opportunity to improve in this area).

The real reason they weren't getting as much throughput, and were having coordination and communication problems, was due to their project execution maturity level being close to zero.

There were real problems when it came to managing expectations in performance and communication.

Improving resource productivity would not help if they couldn't get the right parts to the right resources at the right time.

Our team realized that to make a real contribution to the business, we would have to change the focus of the work from improving productivity, to dealing with the root cause of their problems, so all work could go faster.

And on top of having to deal with the basic process issues, our team also had to work in both the English and Chinese languages, adapt our approach to the Chinese speakers, and then help bridge the gap between them and the Dutch English-speaking management team.

At Huisman, they had an ad-hoc level of maturity, which meant there were a lot of conflicting opinions about what needed to be done to move work forward, and without consensus, you can't have effective action.

ViewPoint Implementation

Following the success of the trial, Huisman gave the go ahead to implement ViewPoint across all projects at their Zhangzhou facility.

Based on insights gathered during the trial, the emphasis

of this next effort was on how to go faster.

To achieve this, we decided to implement ViewPoint to increase their execution maturity through the Basic Collaboration Level Project Execution Maturity Model.

This step-by-step approach immediately produced results for Huisman, with very little resistance to the new work processes.

ViewPoint visual project management is a different approach to managing and delivering your projects. It's a blend of the best practices:

- It's fast, like Agile
- It's visual, like Kanban and Lean
- It's robust, like Critical Chain

ViewPoint is designed to improve collaboration, action and speed, to deliver projects on time in less time.

It simplifies the project delivery process, so teams can see through the complexity of activities, risks, and relationships.

This enables them to clearly identify the critical issues and bottlenecks that slow progress. It encourages communication and collaboration so that when these issues are identified, they can be quickly resolved.

If you want your team to have a bias to action, ViewPoint is proven to deliver

For example, at ION Geoventures, the rate of task completion increased 360 percent and productivity rose by an average of 125 percent

ViewPoint is Low-risk with a Massive Reward

It's not a complicated approach to planning or execution, ViewPoint focuses on the principles of quick delivery to align your teams with customer outcomes and each other.

By simplifying the plan and presenting it visually, the team stays focused on the critical phases of the project. This helps everyone stay on the same page; preventing them from getting lost in the detail. Exceptions get attention and action. The work simply flows.

Implementing ViewPoint is Painless and Quick

It starts with your team and builds on where you are and what you know. Typically, even large project teams can see results in less than 90 days.

And not just small, incremental results, but results that matter to customers and shareholders.

Learn more about ViewPoint here:

The essence of the Product Execution Maturity Model is that problems with a project's execution are not caused by poor planning - they are caused by people not being able to see where they are, or where they are going.

Project managers spend a lot of time developing plans, but most spend almost zero time building a structure for execution.

The Product Execution Maturity Model measures the level of execution capability in place.

Basic Collaboration

To fix this, our first step was to introduce Collaborative Execution: the primary element in the Project Execution Maturity Model.

This involved holding collaboration meetings and creating visual representations of their project delivery work flow, using a Visual Portfolio Board (VPB) that managers and team members could refer to.

The board showed what needed to be done – and having that clear statement improved communication, especially among managers, the teams in Holland, and the company's suppliers.

When the VPB was first completed, there was an immediate reaction from the team – surprise.

As we found in the trial, objective measures of what was "good" performance were scarce.

The operations director had been complaining for months that purchasing was a problem, but he couldn't get action on solving it.

Showing all the products at the subcontractors, and all the orders in fabrication waiting on them, made it clear on what was to be done, and mobilized them into action.

From there, our team built a formal collaboration process around these visualizations.

This meant deciding things like who is responsible for what, and how to systematically focus resources on the most critical parts of a project.

Defining what 'good performance' looks like

Another important step was creating an effective way to measure performance - in other words, defining a set of markers that everybody agreed was what 'good performance' looked like.

As we found in the trial, objective measures of what was "good" performance were scarce.

They had the global measures of delivery performance and budget performance, but these were backward looking (and with an 18-month lead time, the reports were too late to understand the process and act on any deviations).

We settled on two main markers of good performance:

1. **Productivity:** This meant comparing planned hours for a work order, versus the actual hours it took, and determining if they spent more or fewer, to indicate whether productivity had improved or not.
2. **Lead Time:** We looked at the duration a work order was open. If it was open less time, that would indicate that things were moving faster. It was also a check against the productivity metric. If productivity was increasing, lead time should also be declining.

These were not the only measures, but they became the

scoreboard by which we judged the overall effectiveness of our improvement efforts.

We also had the behavioral measures we use in every ViewPoint implementation:

- Risk Resolution Velocity
- Blocked Items
- Time to Resolve Risks
- Pop-Up Issues

Removing bottlenecks

One of the biggest benefits to come out of the collaboration meetings was being able to identify where the bottlenecks were.

Most organizations associate productivity with being busy - in fact at Huisman they judged the performance of their individual people on how much overtime they were working.

But what was really happening was the people who had all the work were the teams at, and immediately before, the bottleneck.

People after the bottleneck had little to do.

As a result, production would put people on work that could be done.

That meant releasing work too early - work that was not needed now, and work that was not fully ready to complete.

Because of that, the plant was full of partially finished work orders, with one or two people working on them.

They were spreading their resources thinly over many jobs, and everything moved slowly.

What we discovered was that the bottleneck was in the supply chain.

The suppliers were slowing everything down.

This knowledge allowed them to provide better priorities

They were spreading their resources thinly over many jobs, and everything moved slowly.

to the supply chain, so they could get the right parts at the right time, and in the right quantities.

It helped to reduce situations that were all too common in the past, like large parts holding up the assembly line because they're waiting for a drawing, or waiting for a subcontractor, or waiting for secondary steel.

For example, if an order for $1 million worth of component parts was placed, you could specify that you needed a smaller slice of that order by a set date, and have it delivered without waiting for the entire order to be filled.

Another similar inefficiency discovered was that a supplier was not shipping parts when they were ready, but was instead waiting until they had a full truck load before dispatching.

This meant 300 people were standing around, and the entire project was being held up, so a supplier could save a meager amount on haulage.

Having this knowledge allowed Huisman to work with suppliers so they could be flexible with deliveries, and do whatever was required to keep production moving.

The Collaborative Execution process allowed them to systematically identify and break bottlenecks.

Eventually, they chose where the primary bottleneck was to be, then implemented a system to measure the amount of time that was being lost at that resource.

Impressive results, fast delivery

The ViewPoint methodology is a recipe for improved productivity and reduced lead times.

Once it's implemented, it's like flicking a switch, and this is exactly what happened in Zhangzhou.

In less than 4 weeks, productivity increased by more than 20% (and stayed at that improved level), and lead time was reduced by 18%.

Those improvements equate to more than 1 million euros in annual savings.

And that's just on the expense side of the equation.

This increased productivity also created an opportunity for Huisman to generate more revenue by completing more projects, without capital expenditure or increased operating expenses.

Building just one more crane per year has the potential to create, on average, an extra 5 million euros in revenue for the company.

And staff are now working together in a more cohesive way, and have a clearly defined sense of purpose.

These results were possible because the ViewPoint methodology focuses on how management works, and how work is managed.

And it's fast.

One of the team members said, "We would have never done that: built a board and worked on collaboration."

"We couldn't believe that such a simple change would lead to such dramatic improvements."

The ViewPoint process and the Project Execution Maturity Model are like a recipe for success.

Every time you use it, you get the same results.

The process is one of the reasons why our clients, like Huisman, get amazing results so quickly.

Change management is all about altering a very specific set of behaviors, because behaviors are what drive results.

The ViewPoint methodology focuses on developing the right behaviors – and it works every single time.