Unlock your potential

Achieve optimal performance and output!



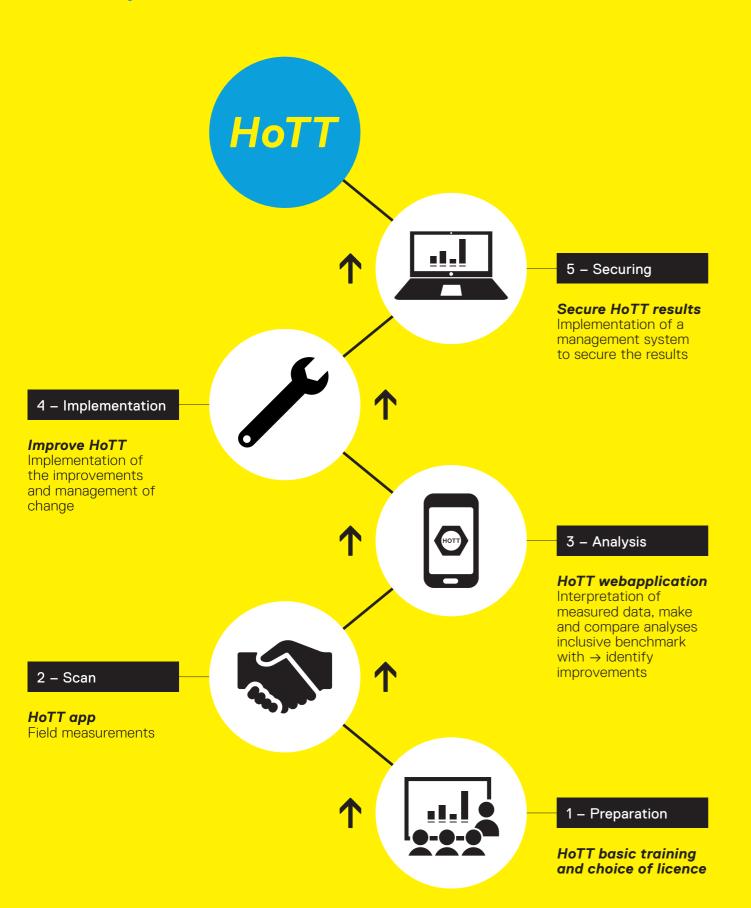


Achieve optimal performance and output. Tighten your control over maintenance and production, lost time and costs. Effectively, efficiently and profitably increase of your employees and the contractor performance. These are the themes that matter in our industry, where companies are constantly looking for the best possible operations output, the best asset performance and an optimal balance between costs and benefits.

Aiming to make your life easier, PDM, working with World Class Maintenance (WCM), has developed the Hands-on Tool Time (HoTT) Toolkit. A comprehensive Toolkit that draws on our expertise in the process and manufacturing industry.

This practical toolkit gives insight into your potential for improvement and ensures your technicians are optimally deployed.

The HoTT trajectory is clearly divided into five phases



What gets measured gets done:

The HoTT Toolkit is a user-friendly application that measures time spent, identifies inefficiency, maps and visualises the use of manpower. The Toolkit generates standardised benchmark data that enables you to compare your company with others. Using the extensive data, organisations can launch immediate improvement projects, take effective technical measures and implement behavioural-change projects.

Hands-on Tool Time comprises:

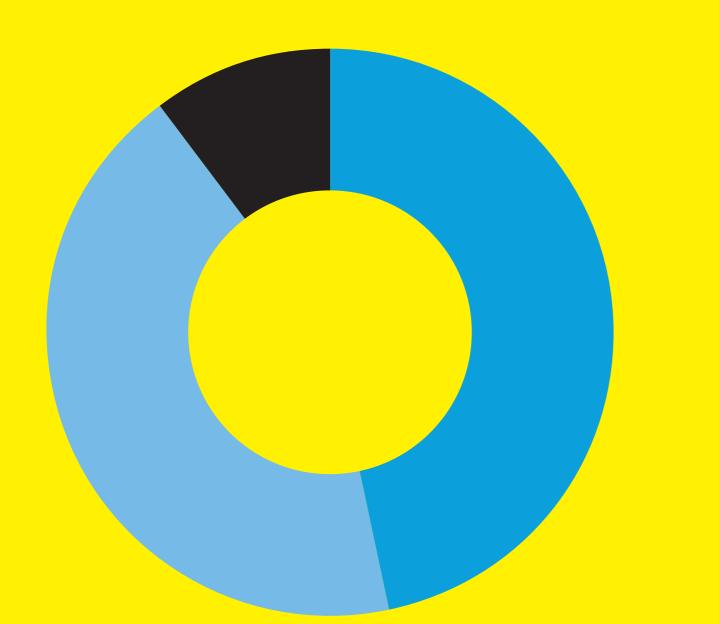
- · Practical HoTT measuring application with a focus on solid preparation, an insightful process scan, deep analysis, and assurance on implementation and improvements.
- An effective, customised training package focused on behavioural change.
- An optional improvement process in which we share our ideas on excelling.

Results

- Happy technical staff who deliver more effective work.
- Lower maintenance costs.
- Increased machine asset availability and uptime.

HoTT Toolkit output

- Directly Productive 46.7%
- Indirectly Productive 43.1%
- Not Productive 10.2%



What the HoTT app does:

- Performs efficient HoTT measurements.
- Generates uniform and standardised data.
- Helps you achieve improvements faster and more easily.
- Helps you compare your company against others inside and outside your industry.

2 ways to run HoTT:

Companies interested in using the HoTT Toolkit have two options: a one-time scan and measurement, or taking out a HoTT license that covers multiple options and regular repeat measurements. To ensure data is accurate and relevant, we certify HoTT Toolkit users in a one-day training course. This course is also offered in-company.

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HoTT case PDM

Challenge

Reduce the Turnaround Management related costs significant

One of our Belgium customers had the challenge to reduce the Turnaround Management related costs significant. Each year during summer a Site Turnaround is executed for Projects and Turnaround related Maintenance works. In this period more than 1,000 contractor personnel are on site.

One of the most important pillars to reduce Turnaround costs is the execution of the works as efficient as possible, based on execution of more scope of work in the planned period. This enables production to perform extra non-planned volume.

Solution

Thorough investigation of obstacles

In 2016 PDM started with the first improvement on HoTT, simply by measure the execution of regular maintenance works during the yearly Turnaround.

Every HoTT assignment starts with measuring the data. We need to know what happens during a day, why do waiting times occur and what the reason is for more work? These measurements are carried out with the HoTT application. During the first period we measured a tool time of 25.8%, which does not fit with the benchmark of 46.5%. These means that a technician only spends 25.8% of his working daytime with executing the works. The remaining time is spend on organisation of the works (e.g. discussions with team leaders or foremen, waiting for permits, gathering & understanding of the technical documentation) or the technician is not at work at all.

HoTT case PDM

After thorough investigation it appears that this HoTT result was caused by various obstacles by contractors working in the field, which also led to many unclear breaks occurred. Some obstacles:

- Waiting for correct work permits or work permits not in place.
- Technical information not in place.
- Material and tools not in place.
- Works to be executed where not accessible.

The business case resulted in a potential of \in 3 million. Company management was convinced of this case and invested in an improvement project with PDM. During a period of 12 months following program was executed:

- · Alignment workshops with all stakeholders for defining an integrated Turnaround approach, by using PDM's Turnaround Flow Methodology.
- Defining of specific company Turnaround Management control tools (status reporting, kpi's, this week - next week).
- Defining of standard way of working in work preparation.
- Using of one integrated planning of all the work executed by all contracting parties.
- Training and coaching of all participants in PDM's methodology, such as defining work packs for the integrated planning.

HoTT case PDM

Results

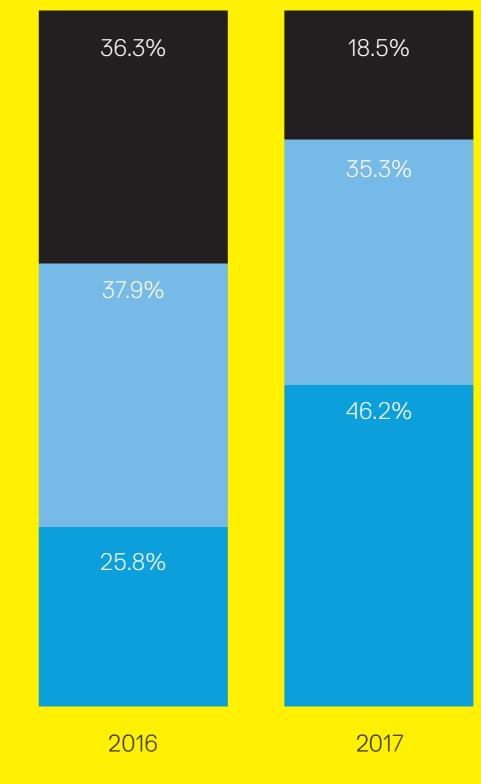
Significant decrease of indirect- and not productive activities

- During the last 3 years we noted an improvement of 75% (from 25.8% to 46.2% in 2017), caused by a significant decrease of indirect- and not productive activities.
- All participants are trained in working with the new methodology in Turnarounds.
- € 0.1 million less contractor costs due to working more efficiently.
- · And finally the total duration of the Turnaround period was shortened with 4 days, with a cost saving or production improvement of \in 3 million.

HoTT Shuttdown



- Indirectly Productive
- Not Productive



10.4%

43.1%

46.5%



Interested?

Pick a license, each of them has a different number of measurements that can be executed. WCM-members receive a discount.

License	$\star \star \star$
Use database and webpage	Access to all anonymised data
Price	€ 7,500
WCM members	€ 5,500
Measurements	144
License	**
Use database and webpage	Access to private & anonymised own-market data
Price	€ 5,500
WCM members	€ 3,500
Measurements	72
License	*
Use database and webpage	Eigen data, geen benchmarking
Price	€ 3,000
WCM members	€ 1,500
Measurements	24
License	1 measurement
Use database and webpage	Eigen data, geen benchmarking
Price	€ 250
WCM members	€ 250
Measurements	1
License	Training & Certification (p.p.)
Use database and webpage	Recht om licentie te kopen en database te gebruiken
Price	€ 1,250
WCM members	€ 1,100
Measurements	1

Find out more?

Download the HoTT book at www.pdm-group.com. Or call us, we are there for you!

Industrial Excellence

PDM is an expertise agency for the industry. We optimise production environments and develop technology for complex mechanical engineering. Whatever we do, we always want to do it better. For you. Because Industrial Excellence is what drives us.

Increase your lead and accelerate innovation

We want you and your organisation to excel. So we support you in increasing your lead and accelerate your innovative strength. Our input leads to better processes, better products and better people. As well as analysis and expertise, we also have smart experts with the skills, methods and tools to help you succeed.

Creating an impact through customisation

A standard concept can never be the right answer for every challenge. 'One size does not fit all', is our belief. You know your markets inside out. You know your challenges. You know what you need. And us? We're ready to help you overcome them. And as we always deliver a custom solution, we tailor our approach and the way we work to your situation. Because that's the only way to create an impact.

www.pdm-group.com

Industrial Excellence. Count on 50 years' experience.