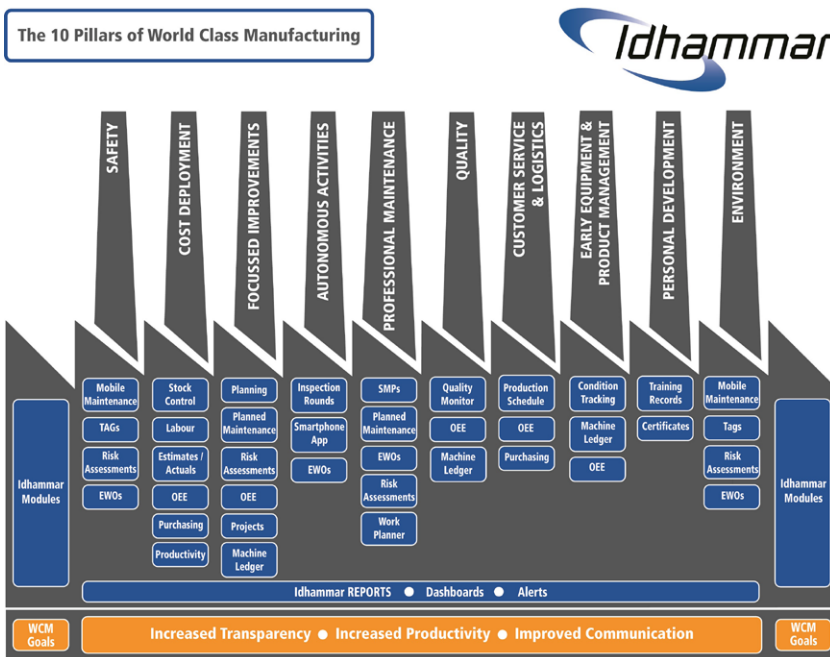


# Idhammar WCM – automating World Class Manufacturing methodologies

## Supporting zero tolerance to waste, defects & breakdowns

Idhammar WCM is designed specifically to support the **10 technical management pillars** associated with World Class Manufacturing methodologies. The solution automates processes, helping manufacturing and maintenance teams improve transparency, communication and productivity,



Each pillar needs a clear set of priorities to identify an Operation critical machine or model area. As an example under the Professional Maintenance pillar, a “7-step” approach is then applied to determine Root Cause and prevent reoccurrence, moving the organisation from a reactive to preventative and ultimately proactive approach.

Also available for download from [www.idhammarsystems.com/resource](http://www.idhammarsystems.com/resource):

**Idhammar OEE**  
Vital production support toolkit for Manufacturing Managers

**Idhammar MMS**  
Designed for Maintenance Engineers, by Maintenance Engineers

**Idhammar Cloud**  
Flexible delivery, system architecture & licensing options

**Core System:**

- Machine Ledger
- Emergency Work Order
- Autonomous Maintenance
- Automatic Routing
- Root Cause Analysis
- TAG Register
- Workload Planner

**Reporting:**

- WCM Reports
- Maintenance KPIs

**Integration:**

- SAP
- CMMS
- OEE
- plus many other systems



## Methodical Autonomous Maintenance with time-saving data capture

In the event of a line stop, operators are prompted to perform basic 'asset level' checks and record information via intuitive data-entry interfaces. When used in conjunction with the Idhammar OEE Software System, data from the 'line stop' signal automatically triggers and populates an **Emergency Work Order (EWO)** to ensure the accuracy of the data captured.

## Automatic Routing and improved visibility of workloads

With an **easily configurable routing table**, Idhammar WCM automatically identifies available Engineering resources and alerts them to breakdowns. When Emergency Work Orders are triggered, they are **automatically prioritised** in the Advanced Workload Planning module which provides a complete view of all maintenance tasks.



## Powerful Root Cause Analysis to drive Continuous Improvement

Following on from 5Ws 1H analysis, Idhammar WCM enables Lead Investigators to perform Root Cause Analysis to identify:

External factors

Insufficient skills

Weak components

Maintenance issues



The investigator can then allocate counter measures to the most appropriate of the **10 pillars** ensuring best practice accountability measures are in place to **drive continuous improvement**.

## Flexible deployment and systems integration

Idhammar WCM is a stand-alone application that can be linked to installed or other legacy maintenance or production software, including Idhammar's OEE and MMS Systems. The solution can be implemented securely **on site or in the Cloud** and the responsive design means it is optimised for use on smart devices in WiFi enabled environments.

## KEY BENEFITS OF IDHAMMAR WCM

1

Increases visibility of maintenance & manufacturing workloads

2

Drives continuous improvement through enhanced visibility & root cause analysis

3

Improves communication and productivity

To find out more about Idhammar's WCM software and complementary products:



# Core Idhammar WCM Functions



Machine Ledger



## Machine Ledger - drill down to detail of work at asset or component level

A useful tool for investigating rogue equipment, parts and service providers, or identifying the optimum time to retire assets. The Machine Ledger makes it easy to search all relational data stored against an asset or component, including:

Production line data

Repair costs

Standard maintenance procedures

Suppliers of replacement parts

Records of EWOs

Engineers qualified to maintain the asset

The Machine Ledger also **integrates with Stock & Purchase systems** (including master data from ERP systems) to forecast job costs and automatically re-order parts.

## Emergency Work Orders - configurable routing table to accelerate Engineering response times

When an Operator 'Calls the Engineer', an Emergency Work Order is auto-populated with any available data. The EWO is **automatically sent** to the first Engineer identified in the routing table as having the appropriate skills. To make action unavoidable, the Engineer must 'Accept' or 'Reject' the EWO depending on availability. If 'rejected', the alert is sent on to the next Engineer in the table. When a EWO is accepted by an Engineer, they then follow the systemised procedures to:

Fill in missing 5Ws 1H fields

Update 'Time Allocation' - diagnosis, waiting for parts etc

Classify the Breakdown & Fault

Provide handover notes to another Engineer if required

All EWOs require a signature, which can be signed electronically from drop down lists, with smart cards, or using a smart pen. When signed off, the automated workflow prompts the Operator to 'Restart the Line,' or 'Reject the Fix' (which guides teams back through the process until a resolution is agreed).

**Disclaimer:** Screen designs and system functionality are subject to change without notice.

To find out more about Idhammar's WCM software and complementary products:





Operators Home Page



## 5 Ws and 1 H - engage Operators to get lines restarted quickly

In the event of a 'line stop', operators are prompted to inspect the problem asset and perform a list of general and 'asset level checks'. A series of drop down fields guides them through the 5Ws and 1H procedure. **Vital breakdown information is captured quickly** and easily in the system, including:

**What - product run has been disrupted**

**Who - was impacted by the breakdown (which shift)**

**When - the breakdown occurred**

**Which - production runs it impacts**

**Where - in the asset structure the problem occurred**

**How - breakdown occurred**

At this stage in the process, Idhammar WCM allows 'I don't know' in answer to the questions. The Operator can close the analysis by clicking 'Resolved by Operator', or can 'Call the Engineer' and **upload photographs, diagrams**, and attachments along with additional information recorded in the free text box.

## Root Cause Analysis - identify counter measures with full accountability

Lead investigators can either record the Root Cause directly or perform a 5 Whys Analysis to determine the Root Cause. Root Causes will be identified in line with WCM methodology:

**Lack of observing operating conditions**

**Lack of basic conditions**

**Insufficient skills**

**Weak components**

**Lack of maintenance**

**Mean time between failure**

The investigator can suggest counter measures to be allocated to a resource within one of the 10 WCM pillars who will then be accountable for the issue until it is resolved.

As with the EWO process, approval of the RCA and counter measure actions requires a designated signatory which is easily captured and stored in the system for full traceability. The time-saving 'Print Summary' feature is useful for meetings and data can be quickly and easily exported to Excel in line with WCM reporting standards.

## TAG Register - quick and easy prioritisation of Work Orders

Whenever a Work Risk Request is generated, it can be categorised in line with the industry standard ranking methodology. To quickly and easily establish Engineering priorities, Idhammar WCM **auto-generates completion dates** based on the risk. Managers are alerted to Work Orders categorised as 'High Risk' and work is scheduled for completion within the hour. Review all TAGs on a range of selection criteria for a high level view of progress.



## Workload Planner - time saving revisions with bulk change features

Idhammar WCM provides an advanced planning tool to manage and prioritise jobs based on their **impact on downtime**, to **improve the visibility of maintenance workloads**:

Lack of observing operating conditions

Lack of basic conditions

Lack of maintenance

Insufficient Skills



## Maintenance KPI Reporting - improved visibility of the Engineering Team's performance

With easy to interpret graphical displays, Idhammar WCM provides **full visibility of the lifecycle of EWOs** and other Maintenance KPIs, providing insights into:

Waiting time - spare parts

Mean time to repair (MTTR)

Initial waiting time - technician

Diagnostics time

Repair and / or replace time

Mean time to replace (MTTr)



When analysed, the data gathered during the WCM processes helps build the organisation's **Maintenance profile with statistics of time spent on breakdowns**, time-based, condition-based and corrective maintenance. KPI Report Bundles can be defined and stored as 'favourites' or **automatically distributed**.

## KEY BENEFITS OF IDHAMMAR WCM CORE FUNCTIONS

1

Promotes connectivity and communication across all departments

2

Continuous improvement through enhanced visibility of work loads

3

Pillar allocation and efficiency

To find out more about Idhammar's WCM software and complementary products:







## Full traceability of assets and maintenance drill-down reporting

Asset history including relevant production line data, Standard Maintenance Procedures (SMP) details, and EWO information is available at the click of a button. At a trend level, Maintenance Time also be analysed to ensure the organisation is on the right path from **Breakdown Maintenance to Condition-Based Maintenance**. All reports within the system are in accordance with the WCM reporting style and provide **drill down to component level detail**.

## Compliance with Health & Safety and Environmental

Idhammar WCM supports statutory plus quality compliance standards, including **ISO 9000, ISO 9001, ISO 22000, ISO 13485, TS 16949, GAMP, BRC Audit and FDA 21 CFR Part 11**. Additionally, user-restricted access (RBAC) is a standard feature. If the system is hosted by Idhammar it will also comply with ISO 27001:2013 security management requirements. Idhammar WCM provides easy access to evidence of environmental, health & safety, and regulatory compliance with **full traceability of standards of work** to assist with internal and third party audits and inspections.



## Dedicated implementation, training and support

Idhammar WCM is a **worlds-first system** that pushes the boundaries of manufacturing efficiency software. Idhammar Systems helps customers **maximise ROI** through a combination of consultancy, training and ongoing support that spans from planning, through implementation, to every-day system use.



## Integration with CMMS, OEE Software

Idhammar WCM integrates with a range of operational improvement systems enabling manufacturing teams to gain **greater control of downtime** and get production back on track as quickly as possible to **protect profit margins**. Combined with Idhammar OEE, the solution ensures the fastest response to downtime, whilst integrating with Idhammar MMS or other high spec CMMS (e.g. IBM, Oracle), helps manufacturers achieve a **balanced schedule of preventative and corrective maintenance**. Idhammar's integrated WCM, OEE and CMMS solutions are proven to maximise equipment uptime, keep assets in peak operating condition, and improve productivity.

To find out more about Idhammar's WCM Software and complementary products:

