



Digital transformation of a Can Plant

Asia CanTech 2019

About Lighthouse Systems

Headquarters in UK



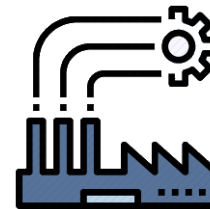
Established in 1990



Software Company



Manufacturing Industries



The Lighthouse Network





Time to reflect

How do we live our lives?

Digital Transformation of our Personal Lives...

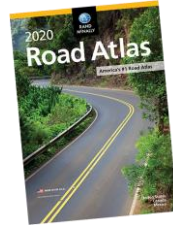
Our lives have been transformed by digital technology...

Word Processor



Email

Maps



Satellite Navigation

Pedometer



Smart Watches

Vinyl Albums



Streaming

Notepads



Tablets

Digital Transformation of our Personal Lives...

We've embraced the digital world...

- Instantaneous communications with people regardless of distance...
 - iMessage
 - WhatsApp
 - WeChat
- Calendar collaboration with friends, work colleagues, suppliers and customers...
 - Immediate access to work colleagues availability
 - Insert Calendar appointments with business associates
- Share Information like never before
 - Attach documents in emails
 - Share links to relevant material
- Immediate access to the Worlds Online Library...
 - Research any subject immediately
 - Validate information



Digital Transformation of our Personal Lives...

Our lives are more joined up and connected than ever before...

- We book theatre / cinema / airline tickets, restaurants and hotels on-line
 - We get live visibility of seating and choose our seats
 - We pre-order our meals
 - We get reviews of events and restaurants
- We see what our friends and family have been up to...
 - We can see where they are and when they may be expected to arrive somewhere
 - We see photographs of their activities
 - We get connected with people that we've not seen for a long time
- We research, we shop, we sell...
- We do all of this from our fingertips without moving from our seat...
 - Then, we get reminded that we need to increase our Step Count!



Digital Transformation of our Personal Lives...

We've become dependent on this digital data & the immediacy of the information...

- How did you feel when you last misplaced your mobile phone or lost signal?
 - Unable to get the information you needed...
 - Unable to communicate with others...
- When the digital technology fails...
 - We get frustrated
 - Demonstrates our dependency on the information
- Yesterdays data is no longer adequate!
 - We expect LIVE information
 - We expect ACCURATE information
 - We expect IMMEDIATE actions
- Upcoming generation EXPECTS to have this data
 - How to entice them in to industry?





When it comes to our work life
Things are unfortunately different...

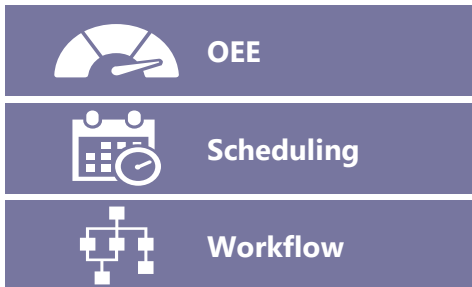
How does this contrast to our working lives inside a factory...

Business Management

\$ ERP/Finance

Manufacturing Operations

Production



OEE

Scheduling

Workflow

- Count of Pieces
- Count of Spoilage
- Count of Downtime
- Downtime Duration
- Reasons for Downtime
- Labour Cost

Quality



Quality
SPC
CAPA

Alarms
Process Parameters

- Measurement Data
- Out of Spec
- Visual Data
- Critical Defects
- Are Checks being done?
- Certificates

Stock / inventory

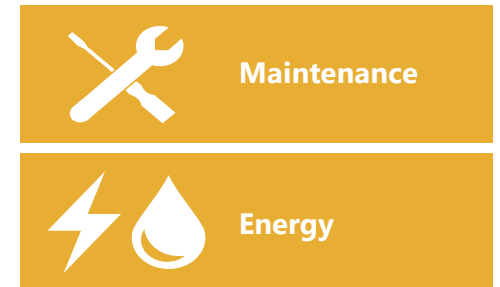


Traceability
Genealogy

Inventory /
Logistics
Warehouse
Management

- Material Consumption
- Pallet Creation
- Pallet Labelling
- Inventory FIFO
- HFI
- Traceability

Maintenance



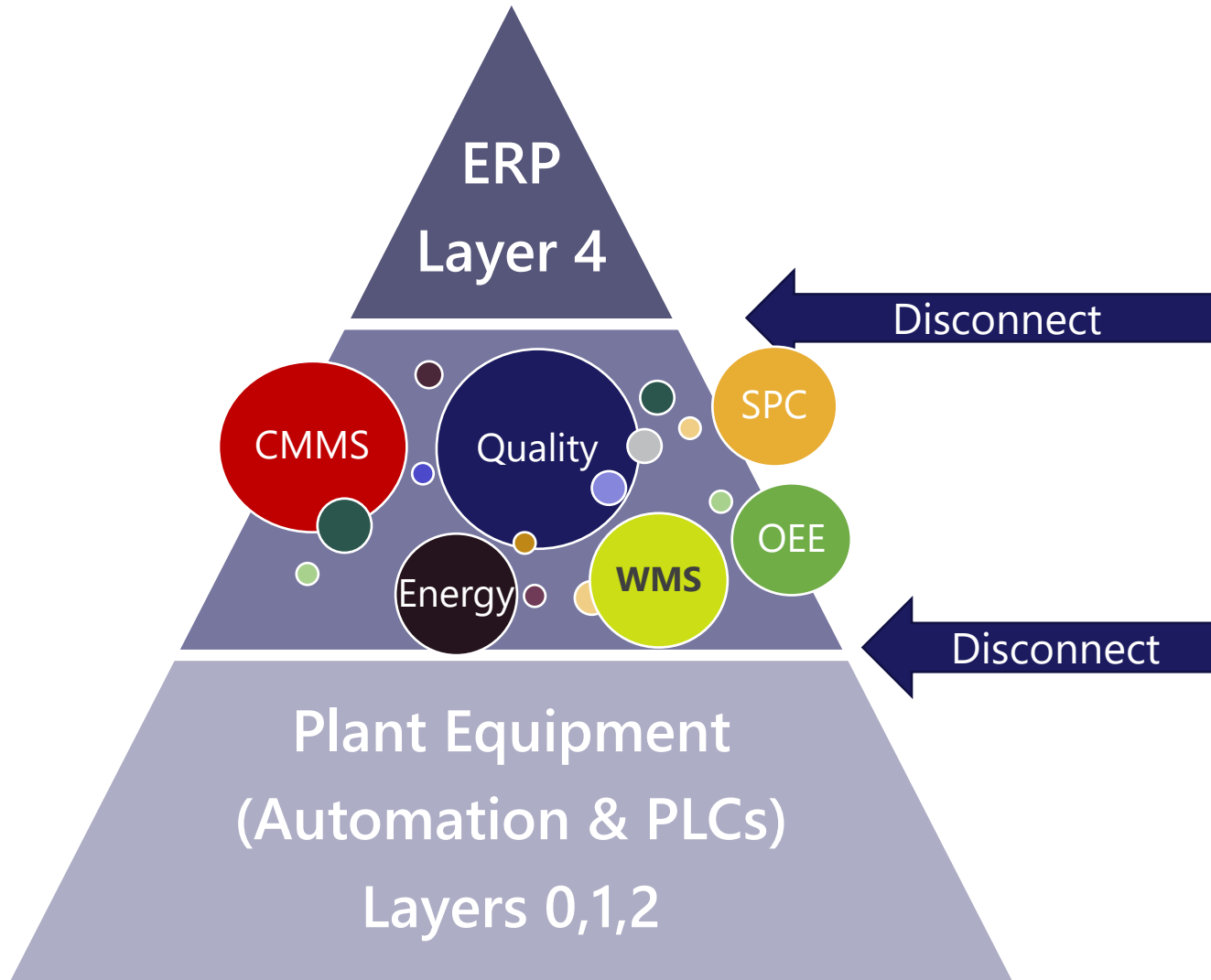
Maintenance

Energy

- Preventative Maintenance
- Spare Parts
- Machine Breakdowns
- Tool Tracking
- Punch / Rings Lifecycle
- Energy Consumption

How are we managing all this data?

Most organisations look like this...



Level 3:

- Departmental
 - Paper / Spreadsheets
 - Home grown applications
 - Access databases
 - 3rd party Applications
- Fragmented Data

Data is hard to collect and alone, is not enough



32%

struggle to gather data for their KPIs

* Industry Week 2019



70%

of shop floor data is unused*

* Gartner 2016

Data is fragmented and its hard to access.
The data in not contextualised!
The data cant be analysed to improve the processes

Despite our appetite for live & accurate data in our personal lives...

We often struggle in our manufacturing lives...

- Very few organisations have live data...
 - We cant see where the problems are now...
 - We rarely know if we are on schedule...
 - We're typically firefighting issues that previously happened...
- High speed machines and processes with lots of downtime...
 - Do we really know the root cause?
 - Do we know how often?
 - Do we really know the durations?
- Highly sophisticated and highly accurate measurement systems
 - Some manually operated
 - Some with complete automation
 - But all working in isolation



25%



Despite our appetite for live & accurate data in our personal lives...

We often struggle in our manufacturing lives...

- Complex Maintenance Procedures
 - Are they performed when they should be performed?
 - Are they performed when they aren't really required (unnecessary downtime)?
 - Are the Spare Parts available when we need them?
- Complex Tooling
 - Punches, Rings etc
 - Are they managed efficiently?
 - Are your tooling requirements understood over coming months?
- Quality Certificates
 - Time consuming to assemble Certificates of Analysis
 - Difficult to determine least capable and most capable processes



Despite our appetite for live & accurate data in our personal lives...

We often struggle in our manufacturing lives...

- Nothing is joined up
 - Silo's of data
 - Paper based systems
 - Excel Spreadsheets
- Management Reporting
 - Production Output Per Shift
 - Excel Spreadsheets
 - Manual back-office transactions in to ERP systems
 - Manual and double processing of data
 - Inaccurate data
 - Far from real-time



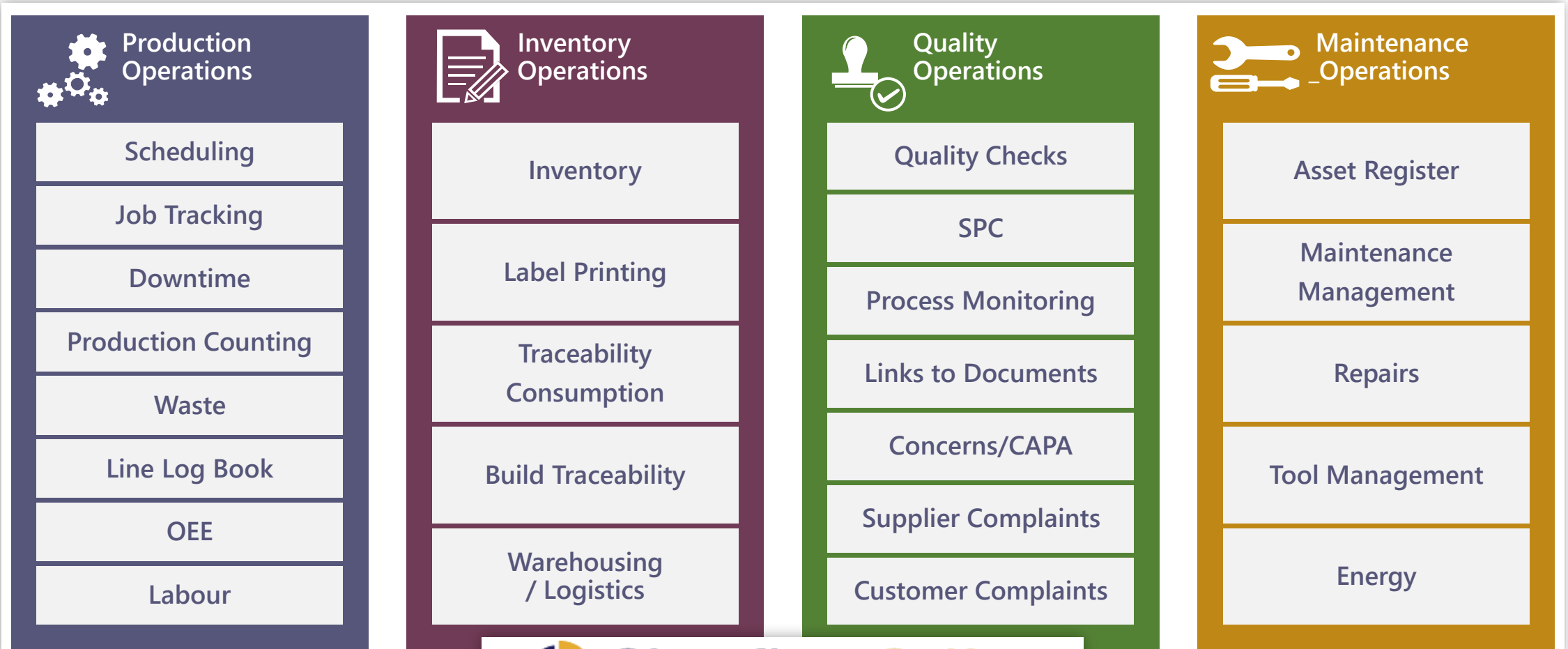
- **How is the acceptable in our Working Lives but not in our Personal Lives?**

How can Lighthouse help...?

We Specialise in the Digitisation of Manufacturing Facilities...

To Make It Possible...

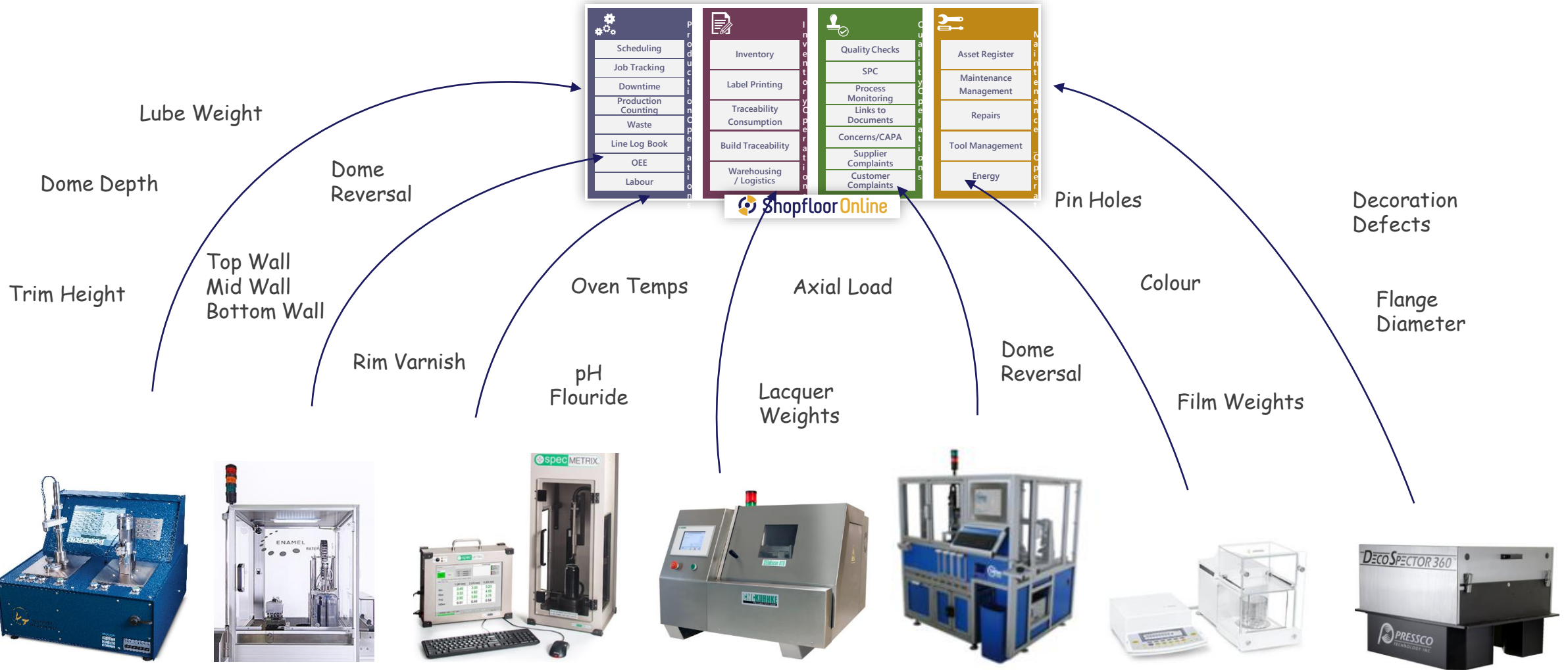
One single inter-connected repository to host all your operational data...



 **ShopfloorOnline**

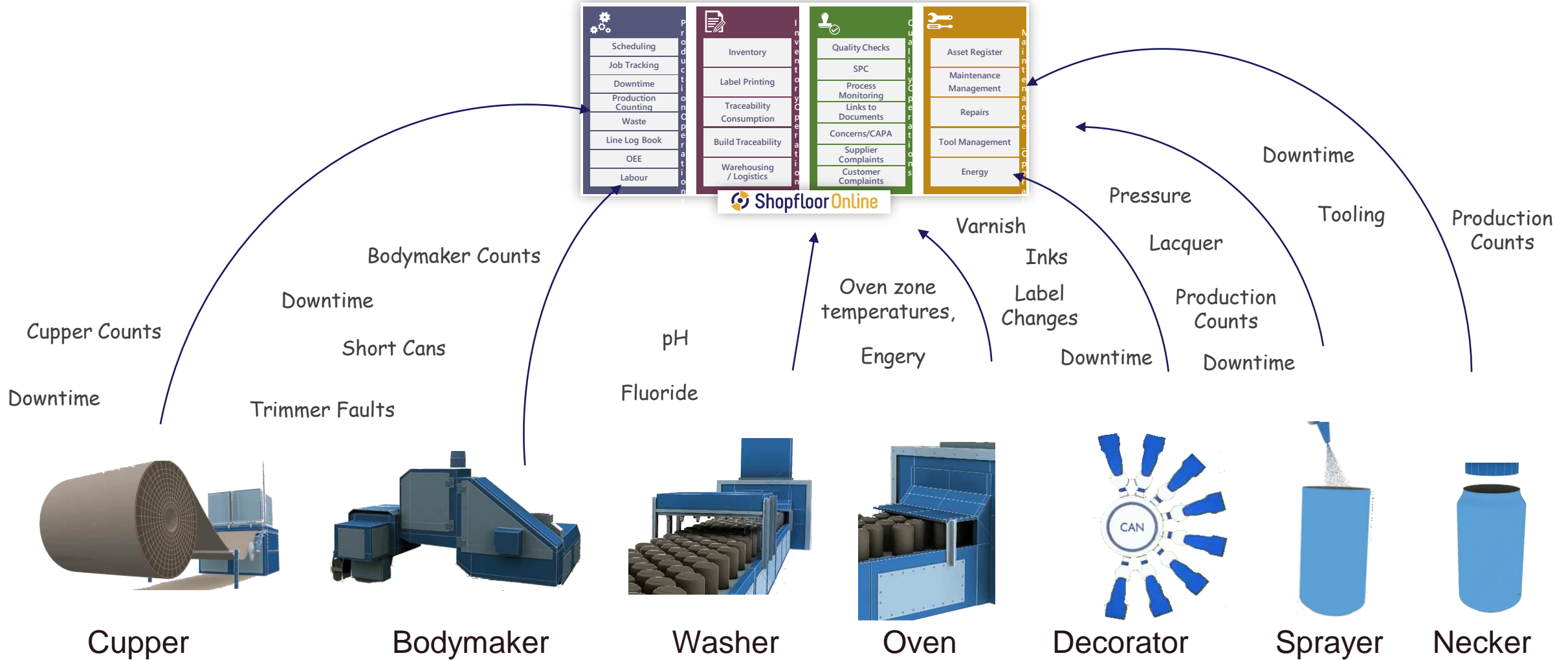
The Digital Transformation...

Digitising your Quality Data...



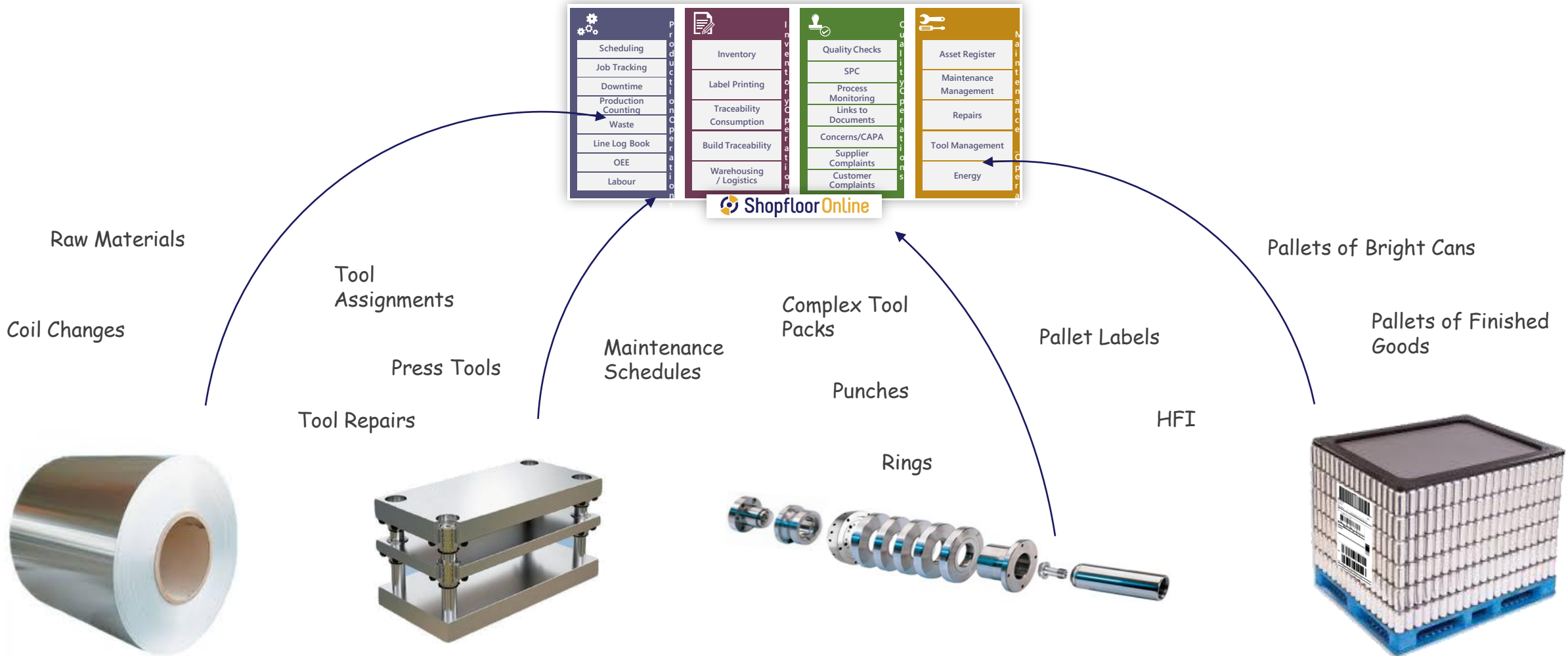
The Digital Transformation...

Digitising your Production Data...

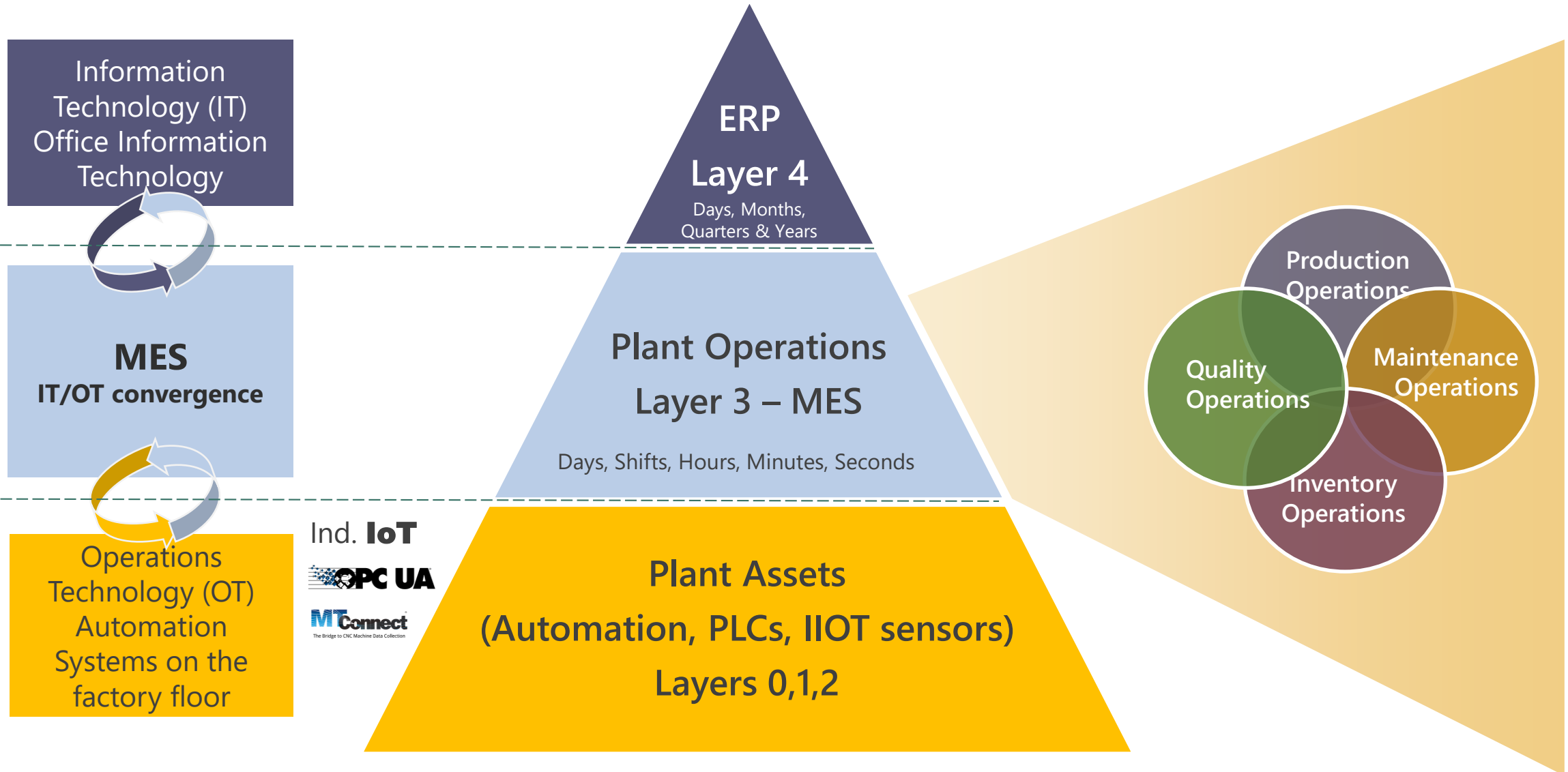


The Digital Transformation...

Digitising your Inventory & Maintenance Data



To Make It Possible... Seamless Integration Shopfloor to Topfloor



This is the journey to Industry 4.0

The Benefits are Substantial...

- Eliminate non-value added activities
 - Automate the capture of Production Data
 - Automate the capture of Quality Data
 - Automate the generation of Certificates of Analysis
- Seamlessly integrate Operational Data with Business Systems
 - No more back-office data entry in to ERP or Finance systems
- Remove paper systems and Excel from your Operations
- Don't spent time processing data to see what happened Yesterday.
- **Don't be satisfied with the ways things are now ~ they can be, and should be better!**

To make it possible : Plan your journey

If a company can't be significantly more digital by 2020 it will no longer be competitive*

*Gartner 2018

« **Think BIG**
Start small.....
Scale FAST »

The Digital Transformation – Line Monitoring Dashboards



The Digital Transformation – Easy Access From Anywhere



Hosted in the Cloud...

Or...

Hosted on your own Servers...



Thank You!



www.LighthouseSystems.com