
HSE360 Congress

Proactively prevent incidents with AI and Data Insights

Paul Tours
Principal Solutions Consultant

 Wolters Kluwer



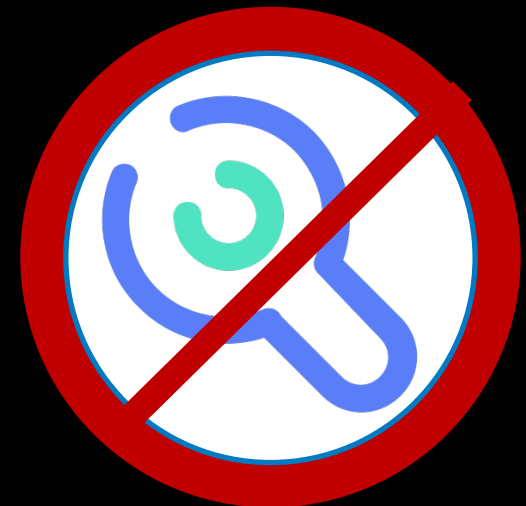
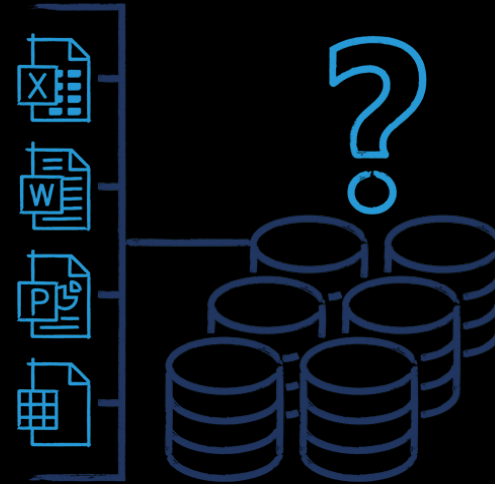
Join at menti.com | use code 3507 3106

What are the most common and serious types of incidents in the workplace today?



Barriers to Incident Reduction.

Why do Incidents still happen?



Better
knowledge
of
Incident
causes

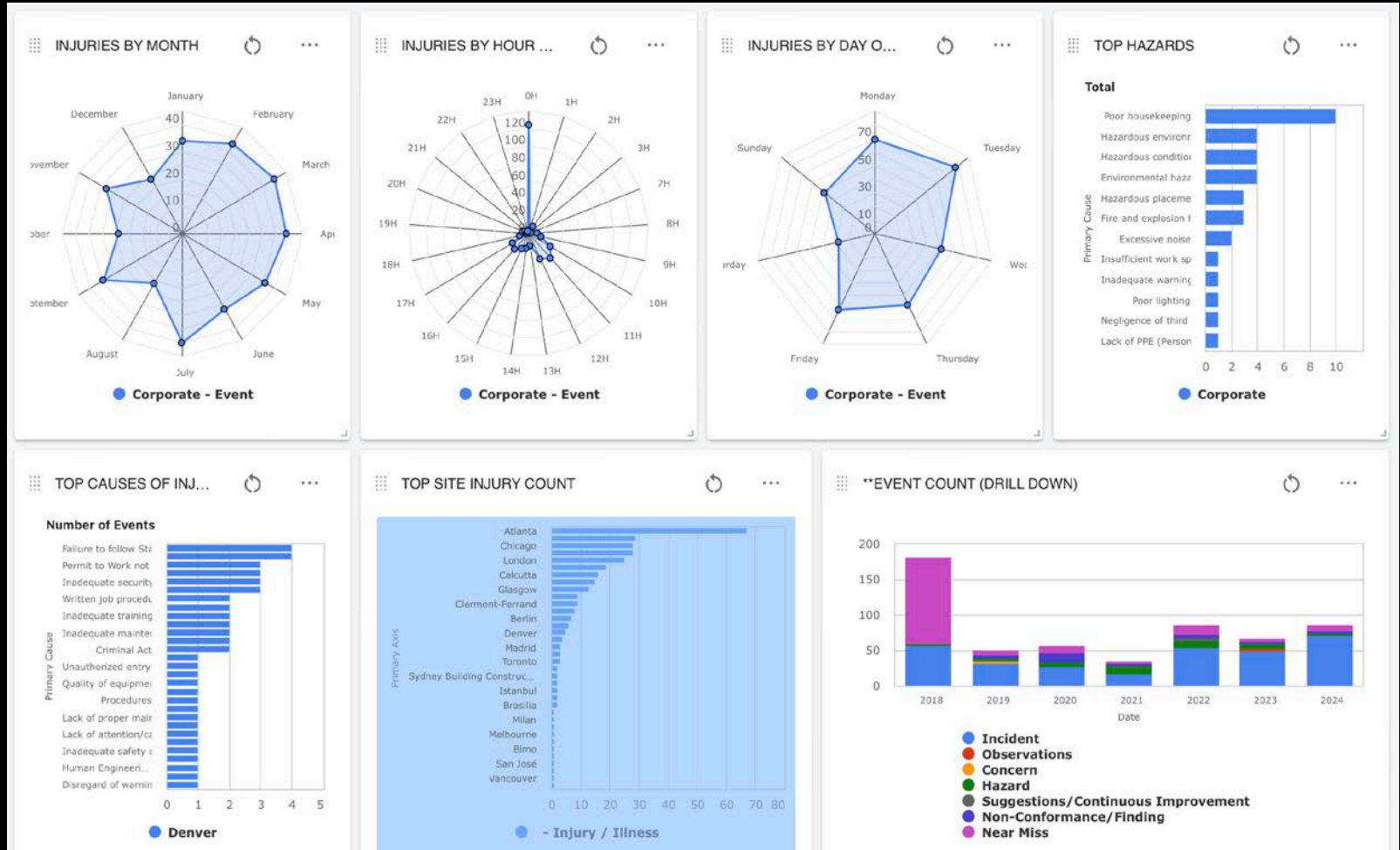
Seeing the data tells us

Business Intelligence for Data
review

- Identify common causes
- Accident Hotspots
- Peak times for incidents
- Correlations between incidents and other factors

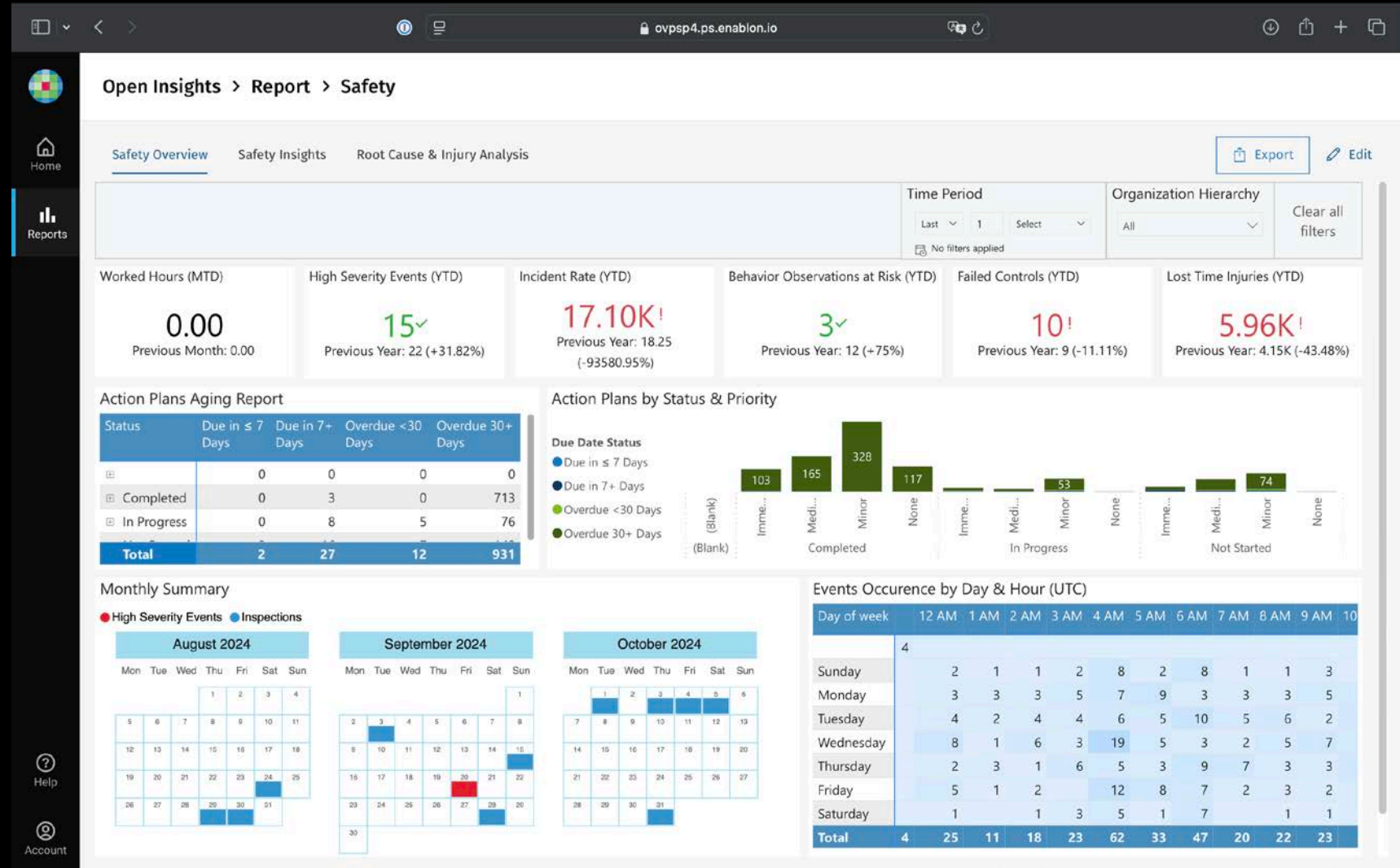
Dashboards & Reports

Visualising the data



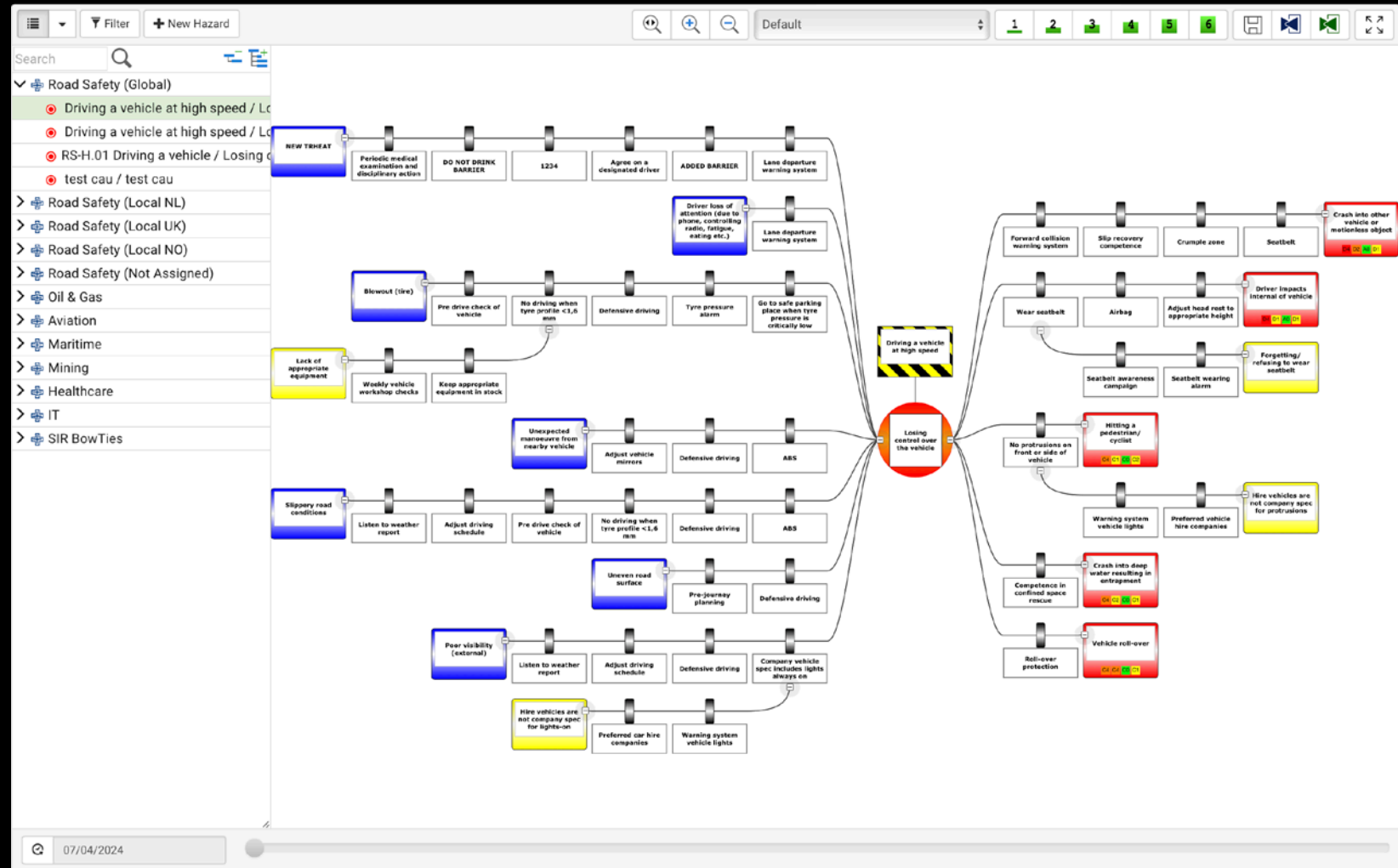
BI: Providing Open Insights

Patterns and Correlations



Using your insights

Driving better Risk Analysis



Proactive Incident Reduction

AI

The next step in proactively reducing incidents

- Risk Prediction
- Predictive Maintenance
- Real time Alerts

SUCCESS STORIES

A Logistics company used BI dashboards to identify high risk items for incidents reduction of 15% over 6 months

Cumulative Risk View (Barrier Management)

Location	STRUCTURAL INTEGRITY	PROCESS CONTAINM...	IGNITION CONTROL	DETECTION SYSTEMS	PROTECTION SYSTEMS	SHUTDOWN SYSTEMS	EMERGENCY RESPONSE	LIFESAVING SYSTEMS	CRITICAL PROCESSES	HUMAN BARRIERS	BOWTIES
 Site Floating Production, Storage and Offloading Unit... 2 escalated, 0 stale											
AFT Engine 0 escalated, 0 stale											—
AFT Machinery 0 escalated, 0 stale											—
Below Living Quarters Deck 0 escalated, 0 stale											—

Cumulative Risk View (Barrier Management)

STRUCTURAL INTEGRITY

PROCES CONTAINM...

IGNITION CONTROL

DETECTION SYSTEMS

PROTECTION SYSTEMS

SHUTDOWN SYSTEMS

EMERGENCY RESPONSE

LIFESAVING SYSTEMS

HUMAN BARRIERS

BRASKEM

BOWTIES

PS-OTHER

PS001

PS002

PS003

PS004

PS005

PS006

PS007

PS008

PS009

PS010

PS011

PS012

Calculated Status
→ Overridden Status

Firewater Pumps

Manual Override:
[0-OFB#00380](#)

Period:
Sep 28, 2022 7:00 AM -
Sep 30, 2022 7:00 PM

Reason:
Standby fire water pump in area during tank filling

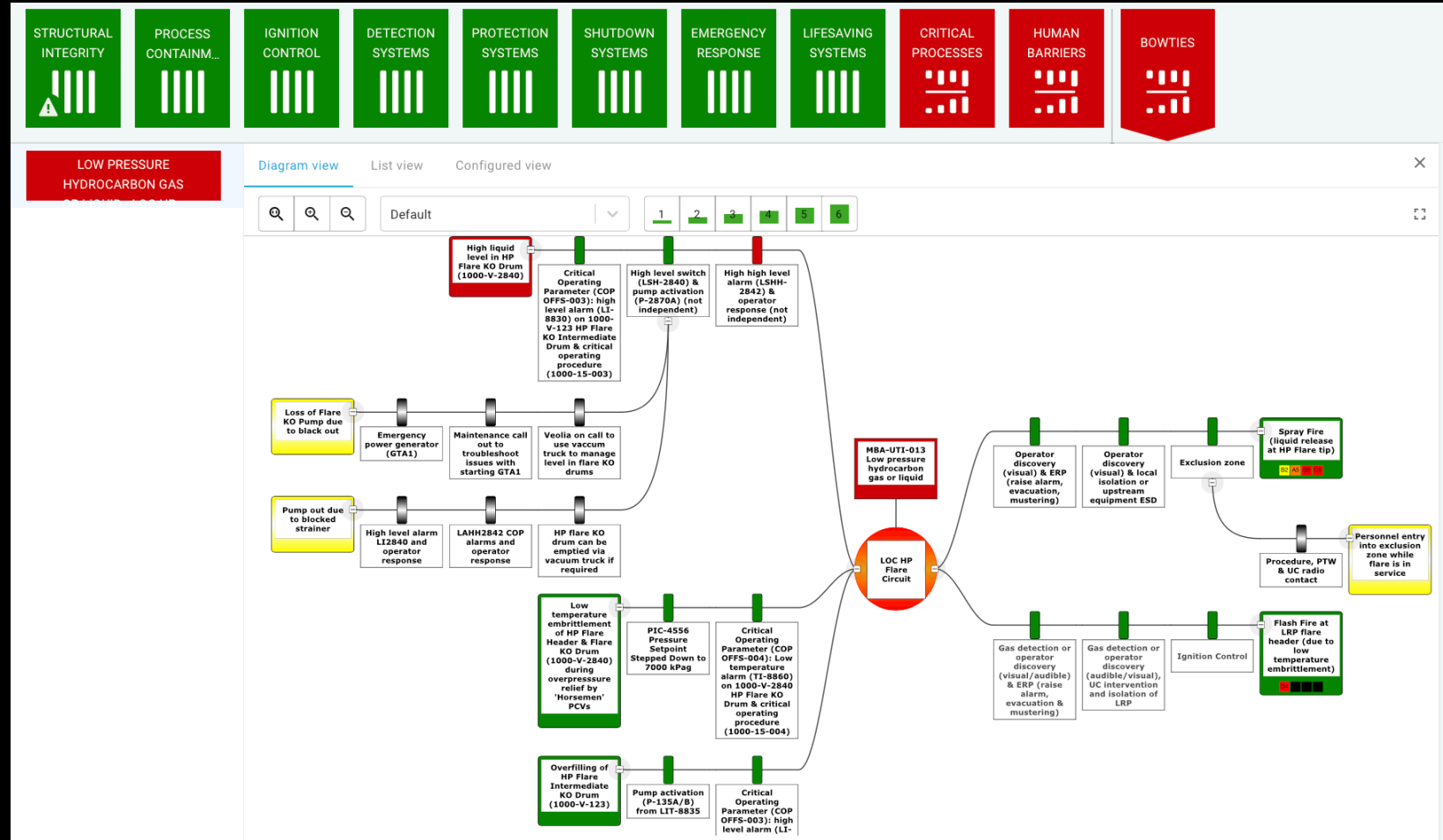
Protection Systems

	Threshold	Weight factor	Summary		
	2	1	16	1	0
> PS-OTHER - Other	2	1	2	0	0
> PS001 - Deluge System	2	1	2	0	0
> PS002 - Fire and Explosion Protection	2	1	2	0	0
▼ PS003 - Firewater Pumps	2	1	1	0	← 1

Name	Impact	Reference	Last received	Start date	End date
● Critical PM Overdue (days)	<div style="display: flex; justify-content: space-between; width: 100px;"> 15 30 </div> <div style="width: 100px; height: 15px; background: linear-gradient(to right, #008000, #FF8C00, #D9534F); position: relative;"> 60 </div>	CPMOPPS003	Sep 22, 2022 4:06 PM	-	-
● Critical CM Overdue (number)	<div style="display: flex; justify-content: space-between; width: 100px;"> 1 2 </div> <div style="width: 100px; height: 15px; background: linear-gradient(to right, #008000, #FF8C00, #D9534F); position: relative;"> 0 </div>	CCMOPPS003	Sep 22, 2022 4:06 PM	-	-

	Threshold	Weight factor	Summary		
> PS004 - Firewater Ring Main	2	1	2	0	0
> PS005 - Passive Fire Protection System	2	1	2	0	0

Dynamic Risk Management



A Dynamic Duo for Safety

BI & AI

- BI is the solid foundation for your historical data. Surfacing the common patterns and issues
- AI takes this information and builds by extrapolation and identifying emerging new trends

BI & AI

Benefits

- Safer Workplaces
- Improves employee wellbeing
- Reduce costs
- Increasing efficiency

SUCCESS STORIES

Examples

- A large Automotive Manufacturing company reduced machinery failures by 20% using predictive maintenance

Just the Facts.....



Paul Tours, 49 Years old

Principle Solutions Engineer

@Wolters Kluwer – EHS & ESG (6 Years)

British born

- Past 30 years worked, studied and lived in Germany

Previous Roles

- Senior Consultant and Product Manager
- Database Marketing
- Software developer

- Thank you



Paul Tours

Enabling Sales Teams with Process, Technology
and Training



50

\$B unplanned
downtime
annually

60

% reduction in
downtime
through AI

30

% improvement
improvement in
incident
response times