MALAYSIA MADANI

COSH 2024
24th CONFERENCE AND EXHIBITION ON OCCUPATIONAL SAFETY AND HEALTH

SCICOSH
6th SCIENTIFIC CONFERENCE ON OCCUPATIONAL SAFETY AND HEALTH

19-20 FEBRUARY 2024 | KUALA LUMPUR CONVENTION CENTRE

MINISTRY OF HUMAN RESOURCES

NIOSH

Driving EHS Excellence Through Digital Innovation

Aslan Bin Che Mi

Head of EHS, B.Braun Medical Industries

cosh.niosh.com.my

THE FUTURE OF WORK

CASE STUDY 1

COSH 2024
24th CONFERENCE AND EXHIBITION ON OCCUPATIONAL SAFETY AND HEALTH
SCICOSH
6th SCIENTIFIC CONFERENCE ON OCCUPATIONAL SAFETY AND HEALTH

“We protect and improve the health of people around the world.”

1839

B. Braun stands for more than 180 years of **innovative solutions**.

1972

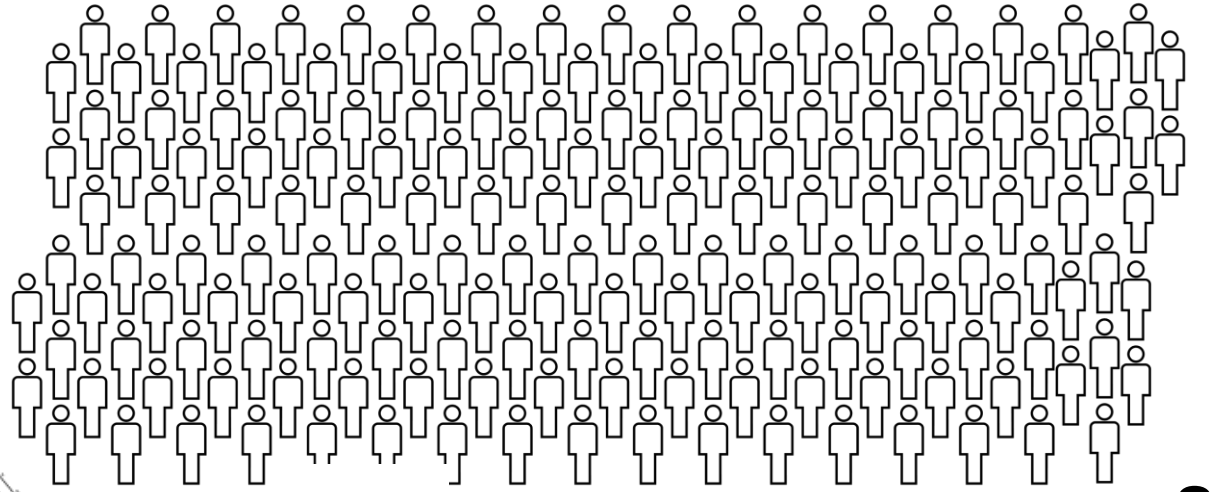
First manufacturing site for the company in Asia Pacific. **200 employees**

2022

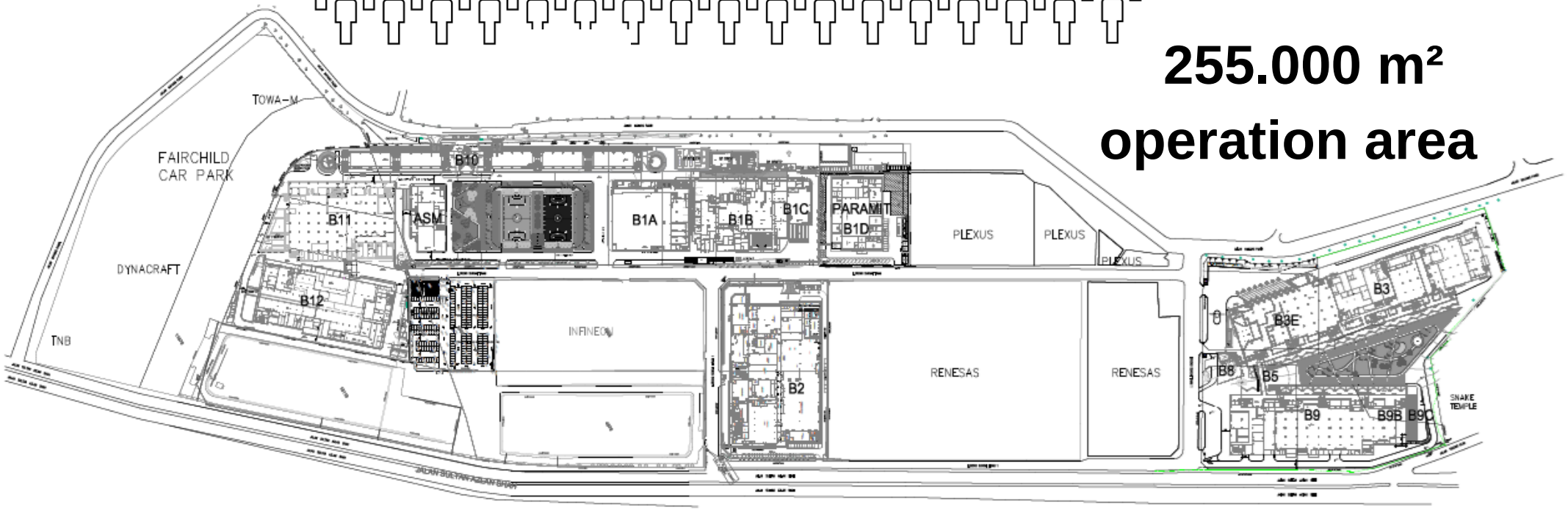
Celebrating 50 Years in Malaysia, **largest manufacturing site for B. Braun.**

2024 TODAY

Over 7600 employees



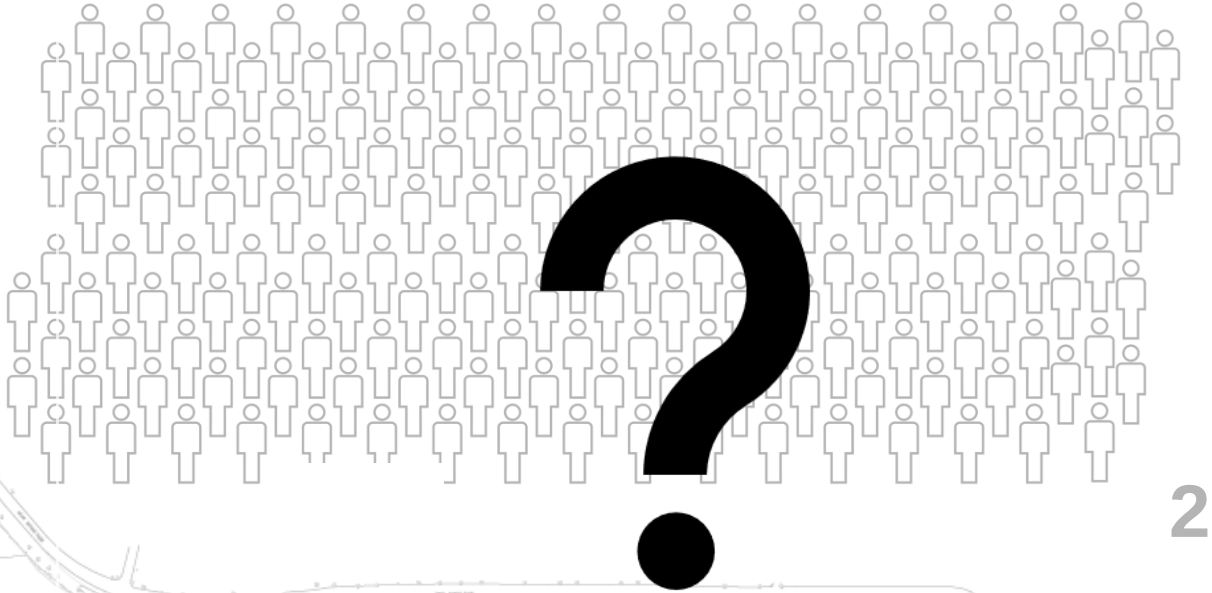
255.000 m² operation area



COSH 2024
24th CONFERENCE AND EXHIBITION ON OCCUPATIONAL SAFETY AND HEALTH

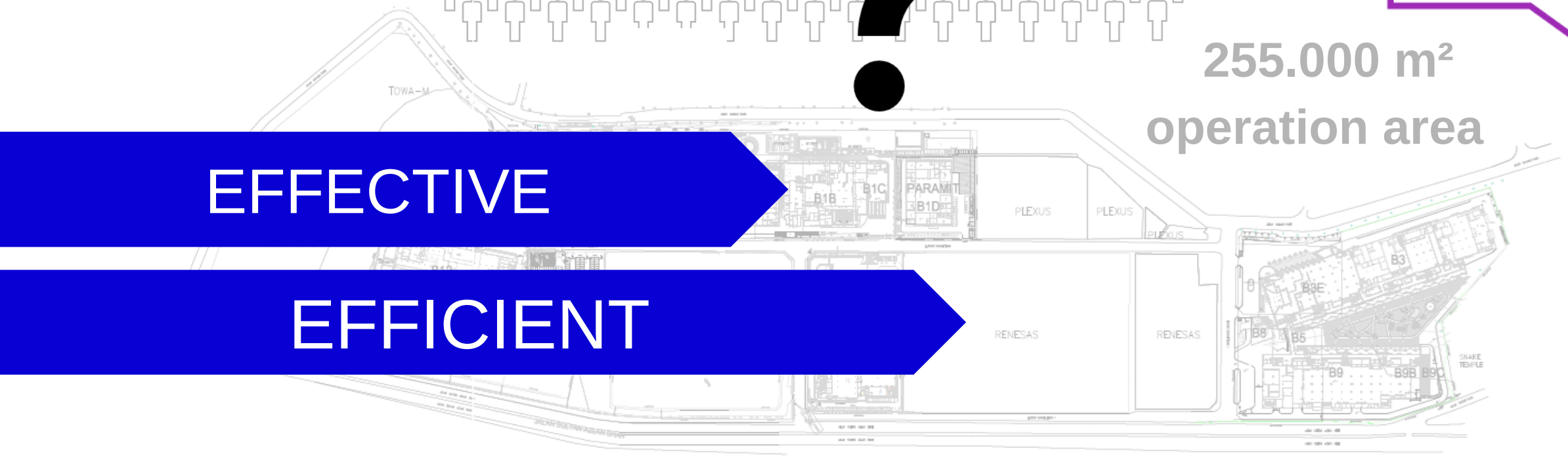
SCICOSH
6th SCIENTIFIC CONFERENCE ON OCCUPATIONAL SAFETY AND HEALTH

Over 7600
employees



FEED
BACK

255.000 m²
operation area



EFFECTIVE

EFFICIENT

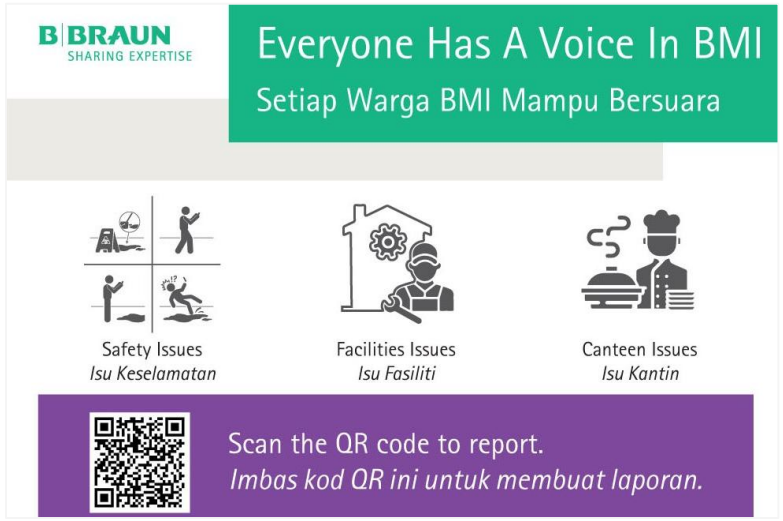
The Solution

COSH 2024
24th CONFERENCE AND EXHIBITION ON OCCUPATIONAL SAFETY AND HEALTH

SCICOSH
6th SCIENTIFIC CONFERENCE ON OCCUPATIONAL SAFETY AND HEALTH

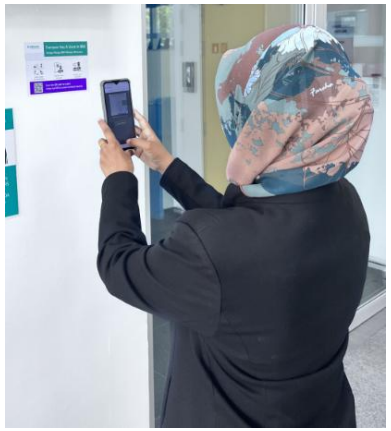
e-Voice Out System

- Digitalization
- Sustainability
- Easy to Implement



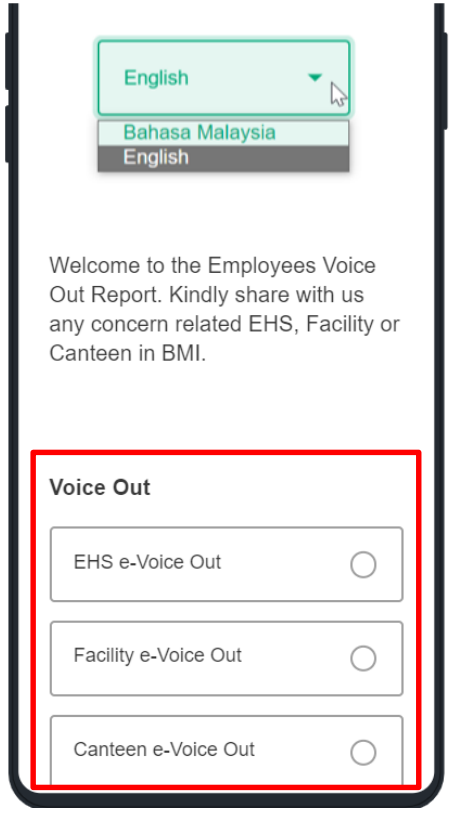
1. Input

1 Scan the QR Code to access the feedback form



Scan the QR code to report.
Imbas kod QR ini untuk membuat laporan.

2 Select your language. Next select which category of feedback you wish to input.



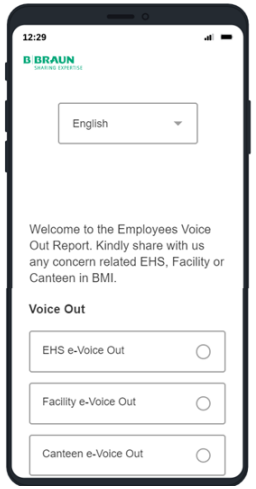
3 Fill in the required details and attach a few pictures of the issue.

- Name
- Employee ID
- Location
- Voice Out Information
- 1-3 Pictures

2. Translation of data

1

Input received



2

Data storage in Excel File on SharePoint

3

Power Automate Flow creates a new Microsoft Planner Task with all the information included:

- Title
- Start & Due Date
- Details of voice out
- Attachments
- Assigned person

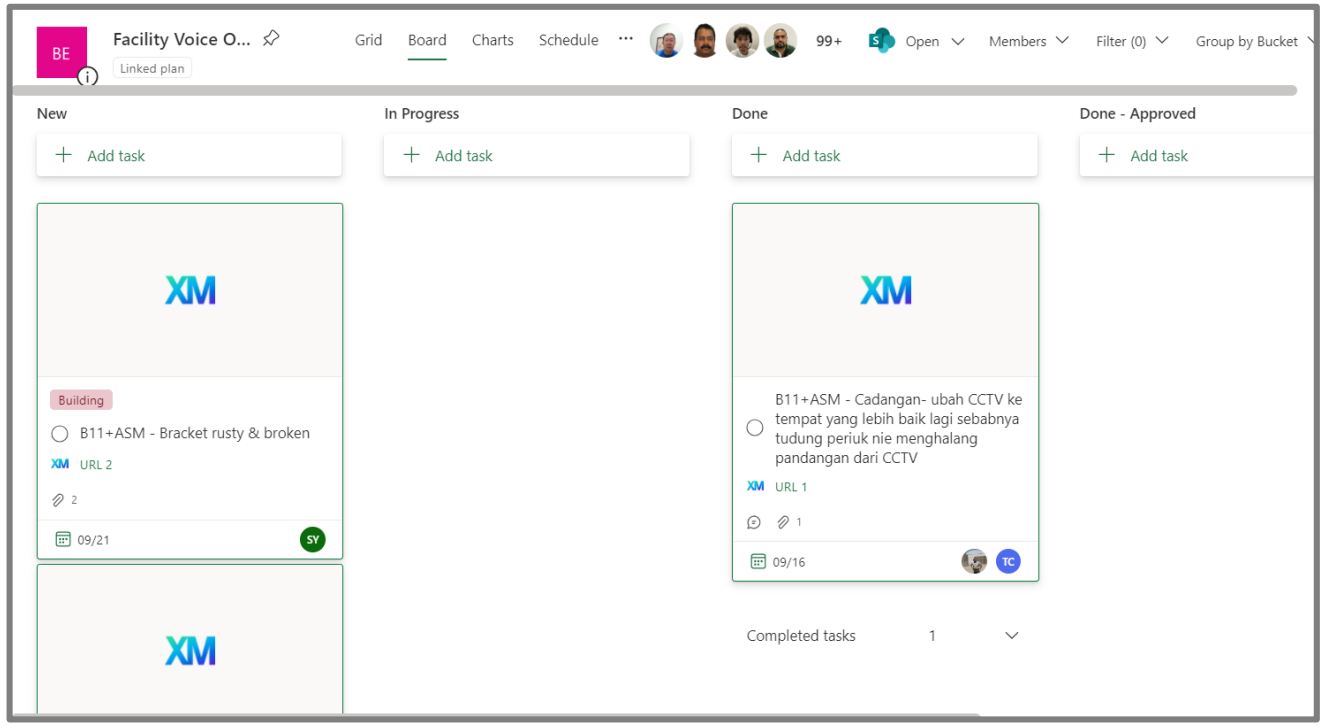
4

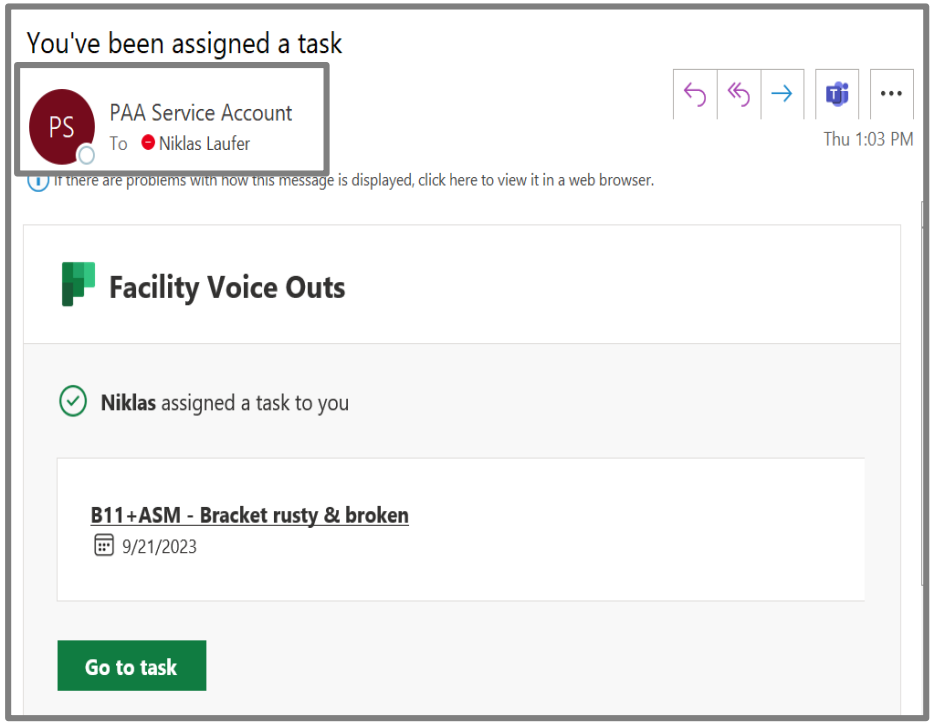
Planner includes all tasks coming from new e-Voice outs

Planner

3. Processing

MS Planner → E-mail notification → Closing





Sample of Completed Planner Task

EHS Voice Outs

Bahan chamical atas lanatai

Last changed moments ago by you

B9

Bucket: New

Progress: Not started

Priority: Medium

Start date: 09/12/2023

Due date: 09/26/2023

Repeat: Does not repeat

Notes — Show on card

Information: Bahan chamical atas lanatai

Building: B9

Location: B9 chamical store

Employee Name: Siti Mashara Binti Abdullah

Employee Number: 3532075

Attachments

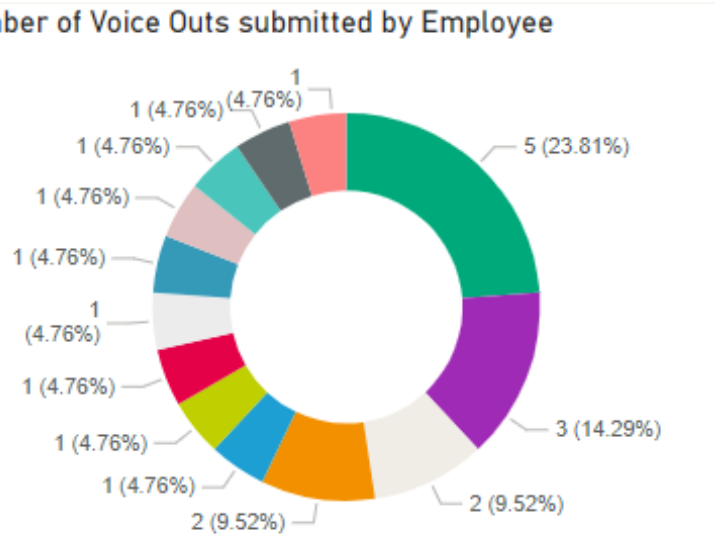
URL 1 https://bbraun.eu.qualtrics.com — Show on card

URL 2 https://bbraun.eu.qualtrics.com — Show on card

Add attachment

Positive Reinforcement: Report & Reward

e-Voice Out Winners



CASE STUDY 2

COSH
2024
24th CONFERENCE AND EXHIBITION ON OCCUPATIONAL SAFETY AND HEALTH
SCICOSH
6th SCIENTIFIC CONFERENCE ON OCCUPATIONAL SAFETY AND HEALTH

Ergonomic Risk Assessment:

What Does a Common Process Analysis Look Like?

“Manual handling activities involve the transporting or supporting a load by hand or bodily force.”

Significant effort required to conduct multiple manual activities

- Process documentation
- Long observation period in GEMBA
- Insufficient sample size / data sets
- Time / Method study
- Create analysis
- No anonymity
- Reporting / charts
- Ergonomics observation

The Solution

Motion Miners Technology in a Nutshell

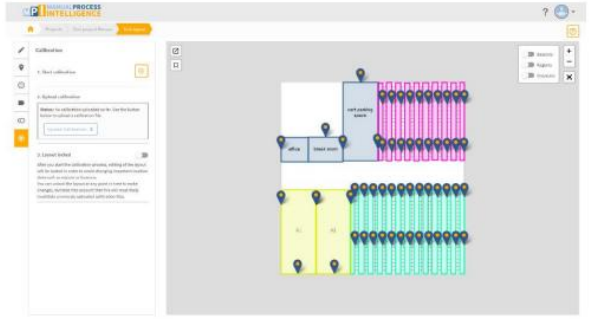
Mobile Sensors
Record activities & ergonomics

Beacons
Make locations recognizable

Smartphones
Recognizes location & controls the measurement

Docking Station
Synchronizes & charges the equipment

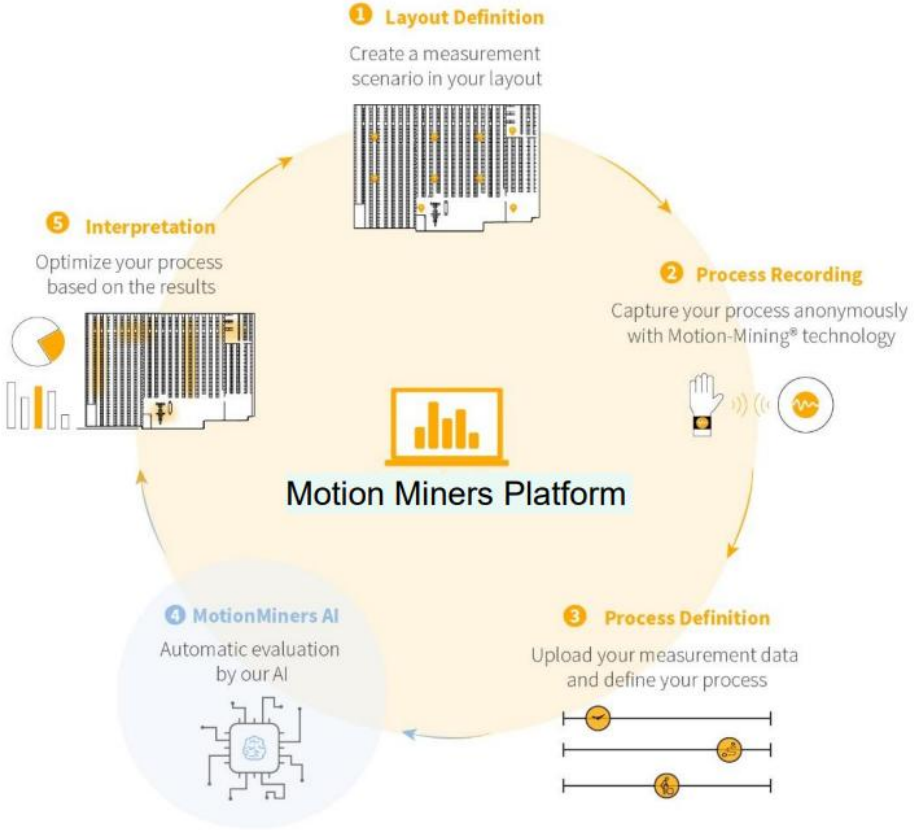
Software
Artificial Intelligence: Analytics, Queries & Charts

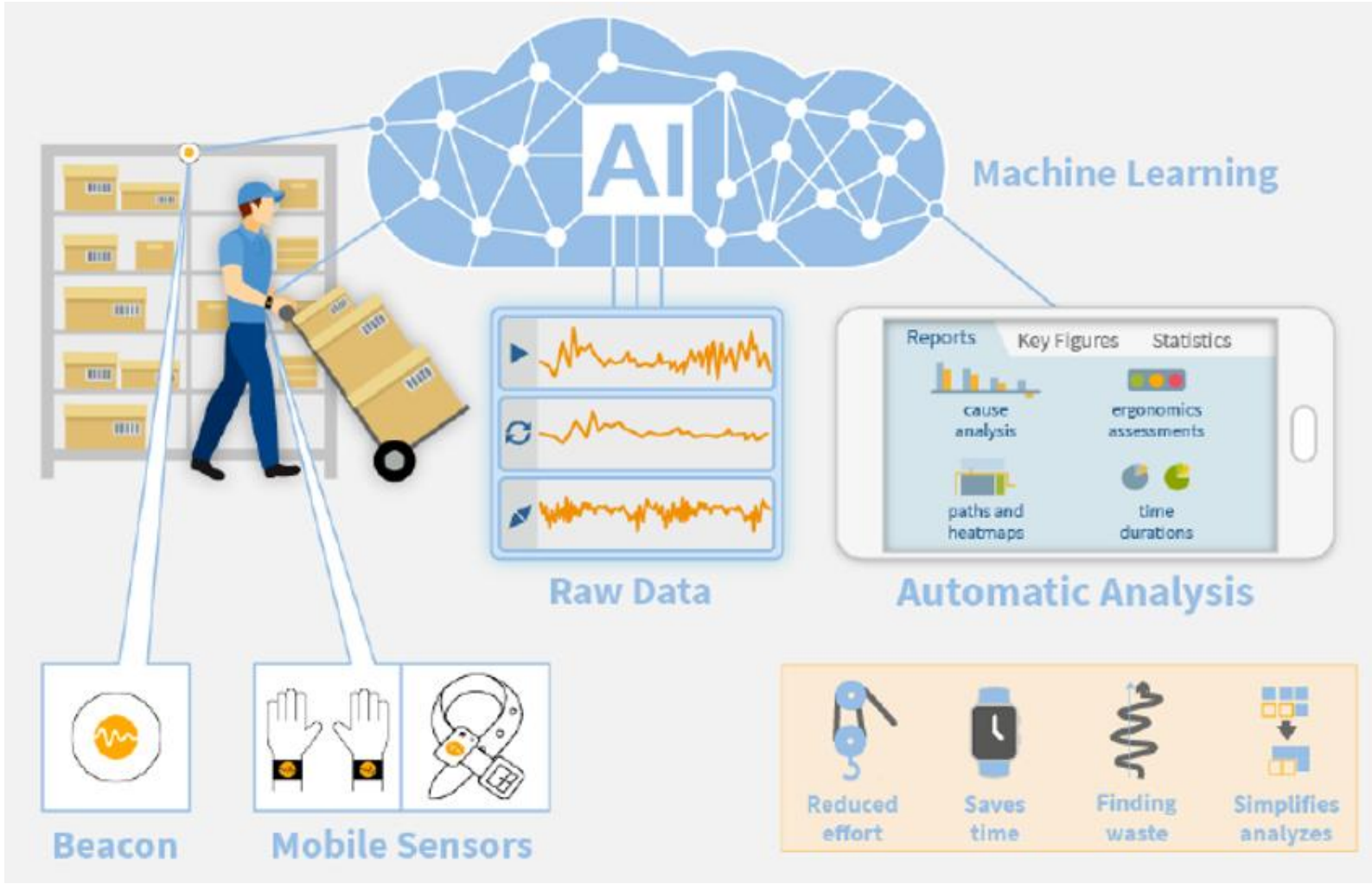


Benefits of Motion Miners

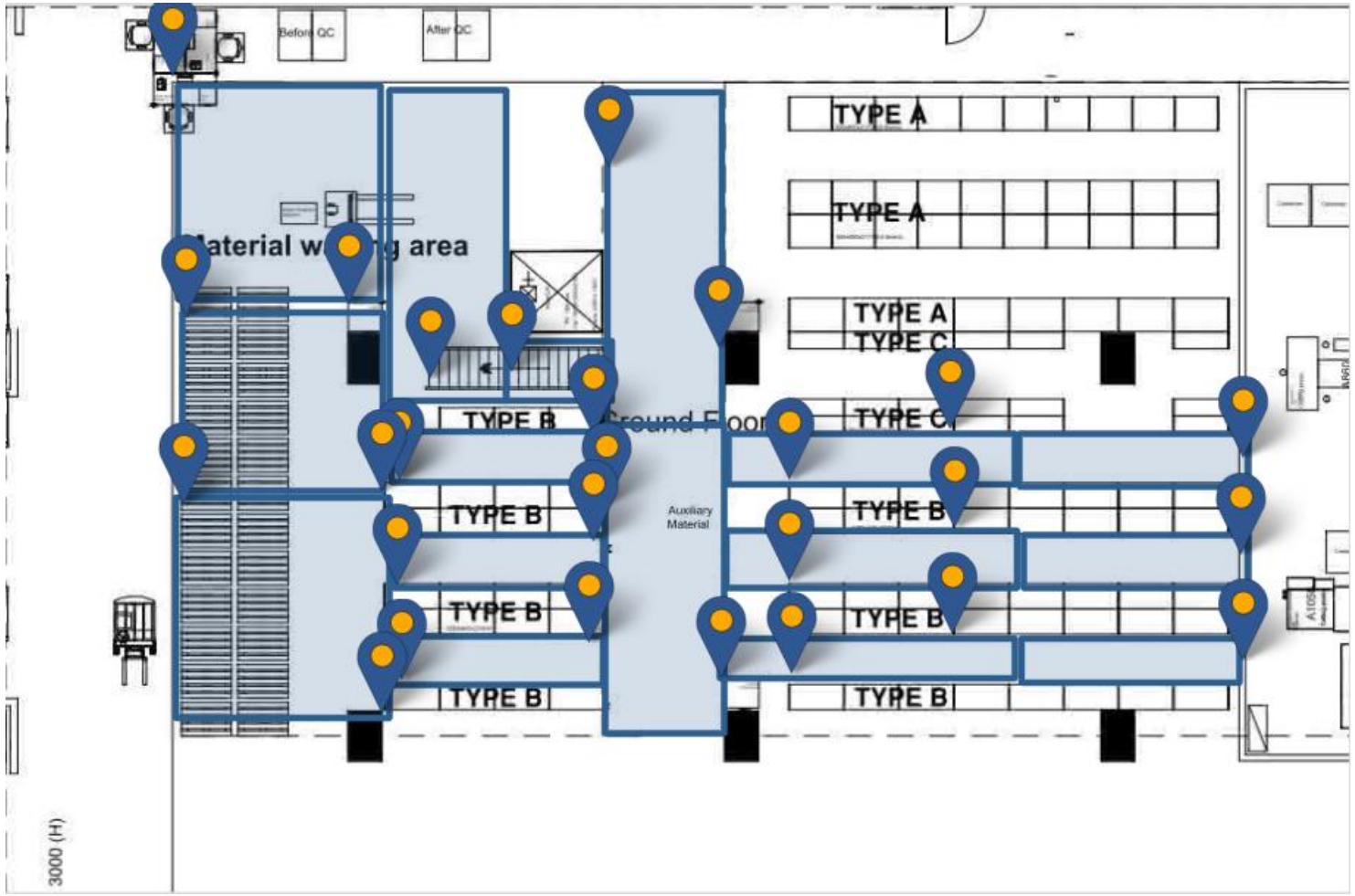
- No integration into the operational IT necessary
- Complete anonymization of employee data
- Holistic analysis of efficiency and ergonomics
- Time savings through automatic measuring and analysis

Approach for Motion Miners Study





Approach: Studied Processes – Inbound & Outbound



Retrieving

Retrieve articles from shelf areas of different aisles to the production floor.

Storing

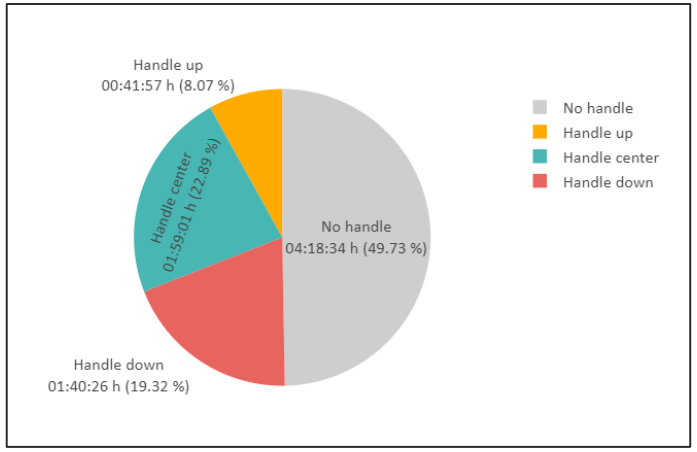
Storing articles on the shelves in the different aisles.

Pick-up

Moving blue inbound boxes from the pallet or shelves onto the power pallet truck (PPT) to be distributed to the production floor.

Analytics

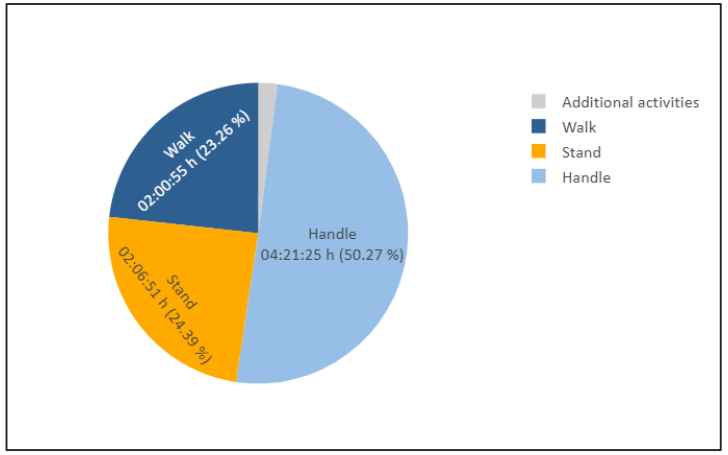
General Analysis of Overall Activity at All Regions



Generally, most activity involves handle center, follows closely by handle down and handle up.

** No handle – algorithm detects activity such as standing / walking within the registered region or any additional activities that are not detected by the algorithm.*

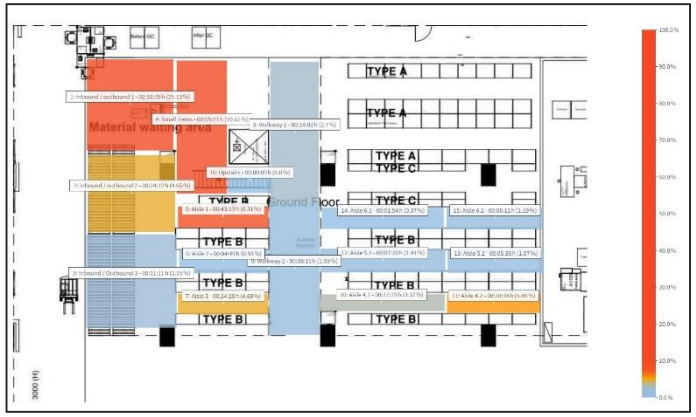
General Analysis of Overall Activity at All Regions



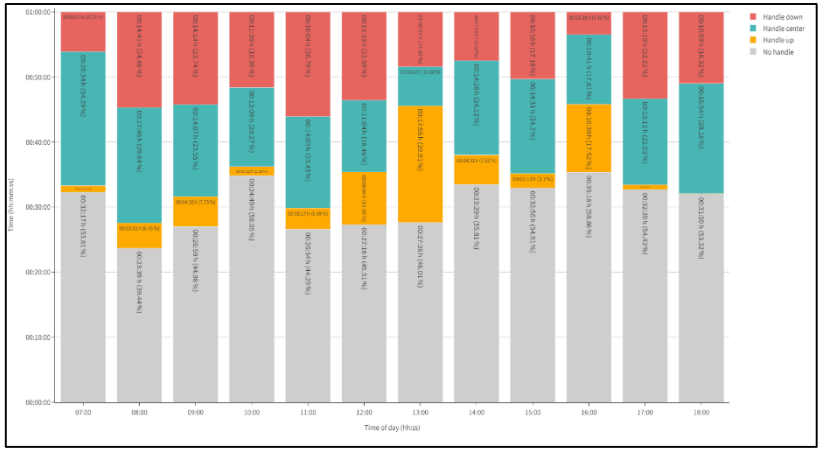
The workers handle Material/Items 50% of the time.

**Additional activities – algorithm cannot detect the activity within the region that is not handle, stand or walk.*

Areas with Most Handling Activity



General Activity of Employees per shift.



Graph shows that employees spent from 5% to 26.79% of their shift handling down (bending) generally.

The peak hour of the activity is between 8am to 11am which is at the start of the shift.

Handling up peaked at 12.30pm to 1.30pm.

At **inbound/outbound 1**, handle down and handle center are about the same percentage. (Bending activity is a lot).

At **Aisle 1**, there was a lot of handle up (26.8%) involved compared to handle center and handle down.

Improvement Projects

Weight Zoning

Almost unusable

Light goods

Heavy fast-moving goods

Heavy slow-moving goods

- Introduction of ABC-Zoning
  - Based on frequency and articles‘ weights as equal factors
- Assist pickers with storing articles in an ideal height, i.e. using color coding
  - Instead of storing everything in a single aisle, a heavy box should ideally be located in a better height in another aisle
- In progress to implement auto tagging of storage bin by materials with quantity defined per bin upon GR.

Lifting Equipment

TROLLEY TABLE LIFTS

Capacity 400kg
Lifting height 1200mm
Heavy-duty robust construction
2 Fixed and 2 steerable wheels
Integrated foot pump

WINCH STACKER WITH ADJUSTABLE FORKS

•Fully adjustable forks (WS25 and WS50 models)
•Maximum Lifting Height: 1560mm
•Castors fitted with parking brakes
•Industrial quality and easy to use

PALLET POWER LIFT STACKER

Capacity: 800kg
Fork Length: 600mm
Fork Width: 570mm
Adjustable Fork Width: 215-500mm

Employee-Friendly Solution

COSH 2024
24th CONFERENCE AND EXHIBITION ON OCCUPATIONAL SAFETY AND HEALTH

SCICOSH
6TH SCIENTIFIC CONFERENCE ON OCCUPATIONAL SAFETY AND HEALTH

THANK YOU