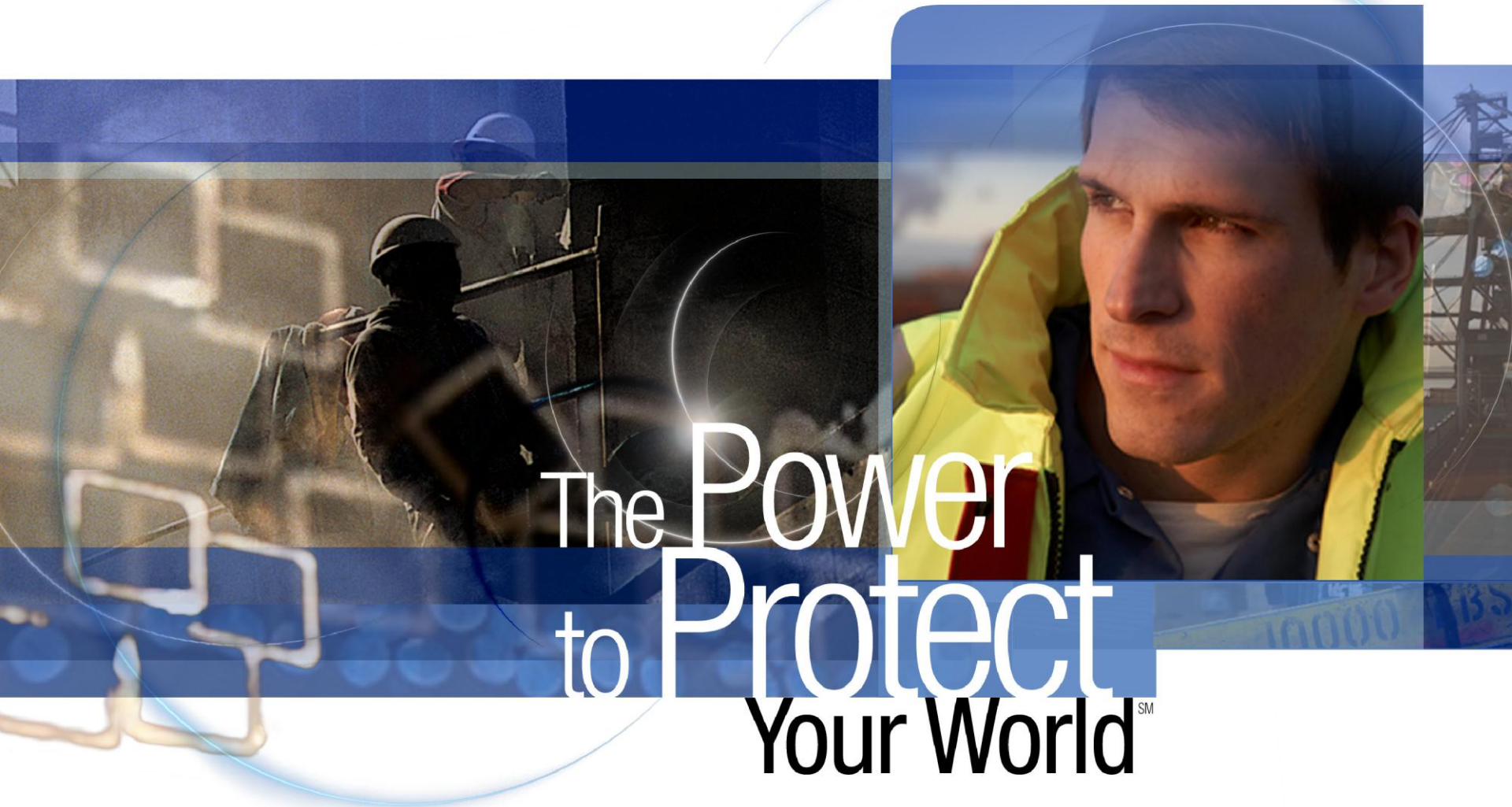


Global trends in PPE utilization



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PPE Symposium

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Hacettepe University – Ankara



Fact Sheet

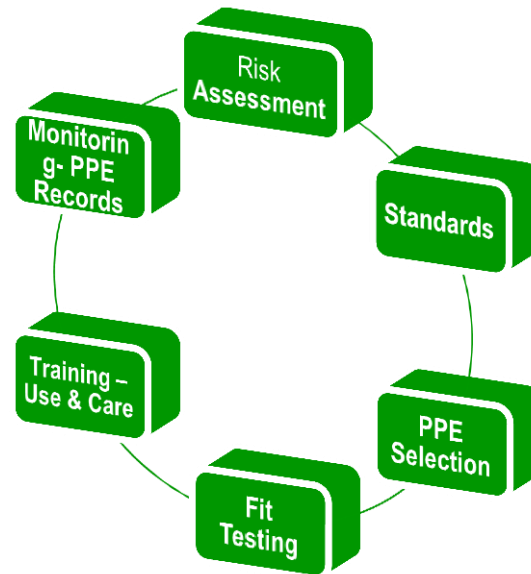
- 2.7 billion workforce
- 2 MM deaths attributable to occupational diseases and injuries
- 4% of the GDP is lost to occupational disease and injuries - U\$ 2T
- 80% of the global burden is borne by developing economies
- PPE selection and usage is a collaborative process – User, Employer and Government Framework
- For Every \$1 invested in safety – \$4-6 returns to the bottom line



PPE

Definition :

Personal Protective Equipment – ‘All equipment and clothing which is intended to be worn or held by a person at work which protects them against one or more **RISKS** to their **HEALTH AND SAFETY**’.



Health and Safety Around the Globe



The developed world records workplace incidents, accidents and fatalities. Companies act upon this information and establish interventions to reduce metric. Part of business operating culture



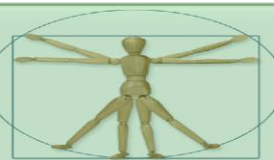
Safety is considered a grudge purchase and a pure overhead in many developing market companies. The developed world understands the productivity and liability aspects Hazardous work processes are farmed off to the developing world



Governments play a significant role in legislating use of PPE, driving awareness and policing the assessment, provision, and utilization of PPE. Governments around the world recognize the negative impact of worker illnesses, diseases and deaths to the economy



Simply providing employees with PPE is not adequate, as like driving any behaviour change, people need to know the dangers, be comfortable in knowing how to use and care for their PPE, as well as know what is appropriate in a given application. This onus rests on the employer, however suppliers are playing a bigger role here.



As generation Y and Millennials enter the workplace, they are aware more aware of style and ergonomics and are demanding that their employers provide PPE to suit.

PPE – Improving the quality of life in harsh environments

Iron-ore, smelting, downstream



FACE and HEAD PROTECTION
HEAT RESISTANT PPE
HEAT RESISTANT SHOES & GLOVES
COOLING SAFETY VESTS/CLOTHES

Underground coal mining



METHANE & OTHER GASES
COAL DUST
MOISTURE
HIGH TEMPERATURE
-30 UP TO +50 PRODUCTS

Developing vs Developed World & PPE utilization

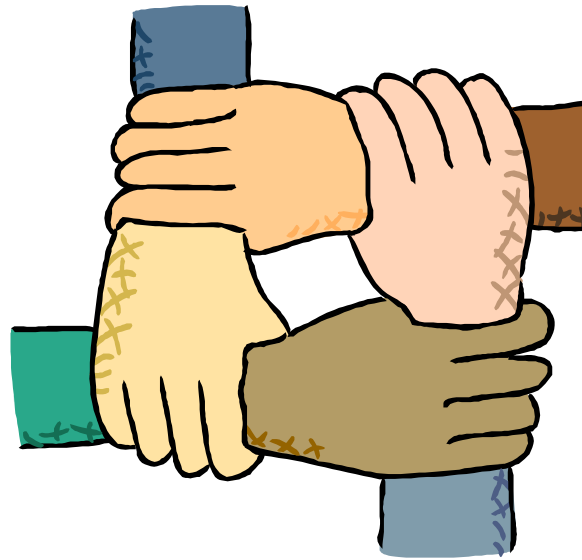
Condition	Developed	Developing
Government intervention (Regulation and policing)	High	Low
Trained safety professionals	High	Low
Organized labour interest groups	High	Low
Migrant / seasonal workers / contractors	Low	High
Literacy levels of workers	High	Low
Large population density	Low	High
Large corporations (Public companies)	High	Low
SME proliferation	Low	High
Productivity and Safety duality	High	Low
Dumping – low cost PPE producers	Low	High
General life safety awareness and practice	High	Low
Incident reporting	High	Low
Leadership's accountability for safety record	High	Low

PPE compliance

Legislation & Standards

Employee Awareness

Trusted Manufacturers



Committed & Responsible Employer

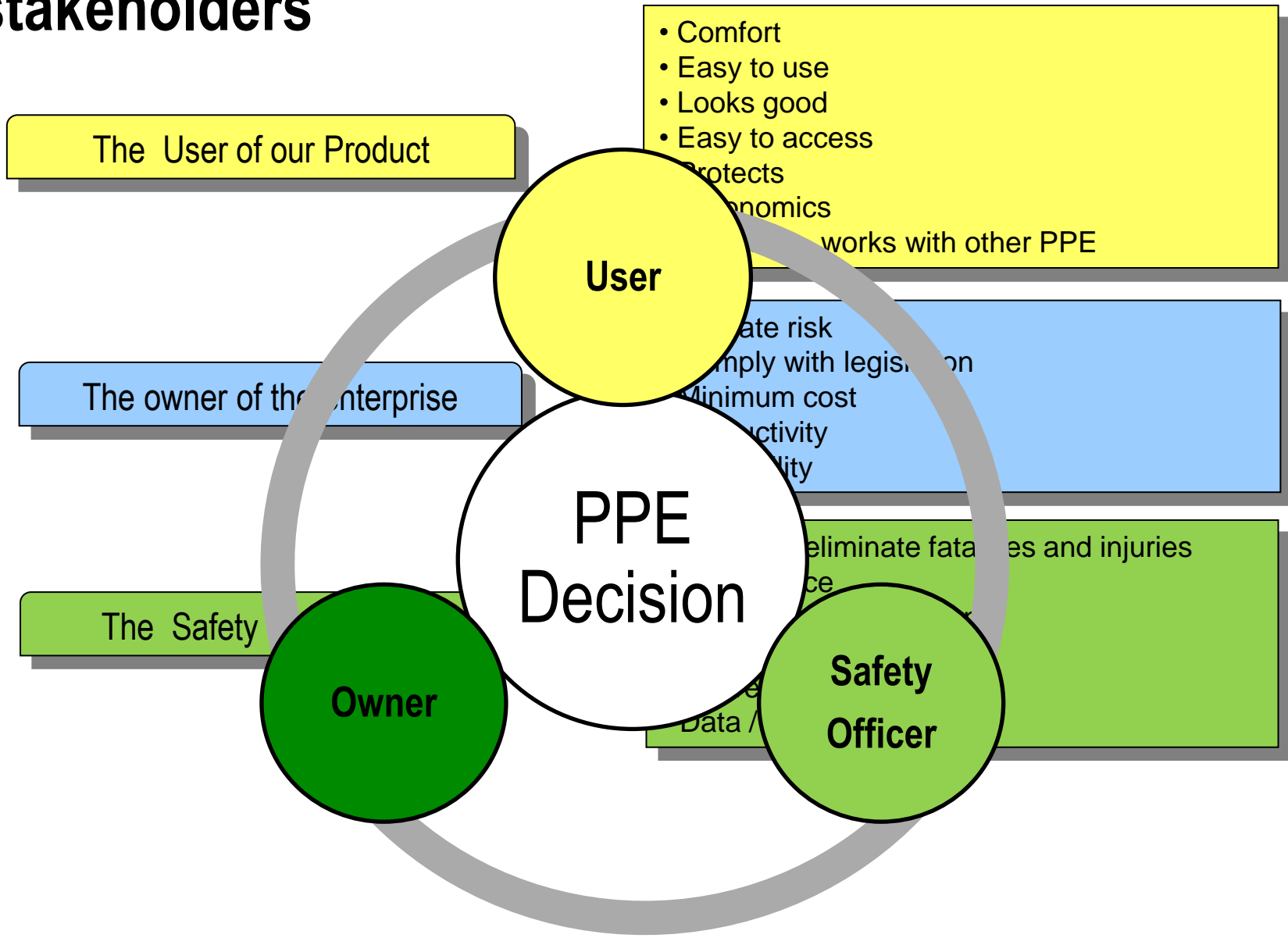


Market Segments – Safety Compliance

Market Segment	Risks	Overall compliance
Mining / Quarrying	High	Good
Heavy Industry	High	Fair
Pharmaceutical	Medium	Good
Food & Beverage	Medium / Small	Good
Oil & Gas	High	Good
Chemical	High	Good
Energy	High	Good
Construction	High	Poor
Farming	Medium	Poor
Healthcare	High / Medium	Good
Transportation	High / Medium	Good
Military	High	Good / Fair

Shape of the economy, trade unions, size and image of corporation, permanent, contractors / seasonal workers.... All contribute to safety compliance and PPE utilization

PPE stakeholders



The Files



Case 1 – Section of Coal Miner's Lung – Silicosis

South African gold miner, after 12 years of exposure, died at age 36. Infrequent use of respiratory protection. Mine is being sued – class action claim.



Case 2 – Wire fragment lodged in Machine Operator's eye

European wire extrusion plant. Worker supplied with poor optical accuracy safety glasses. Removed safety glasses to inspect machine jam on extrusion die.



Case 3 – Fertilizer Manufacturing Plant – US

High concentration of sulphuric acid splashes onto workers face during a maintenance operation. Tool box falls into acid tank and splash causes 2nd and 3rd degree burns to face



Case 4 – Worker in the UK working at heights

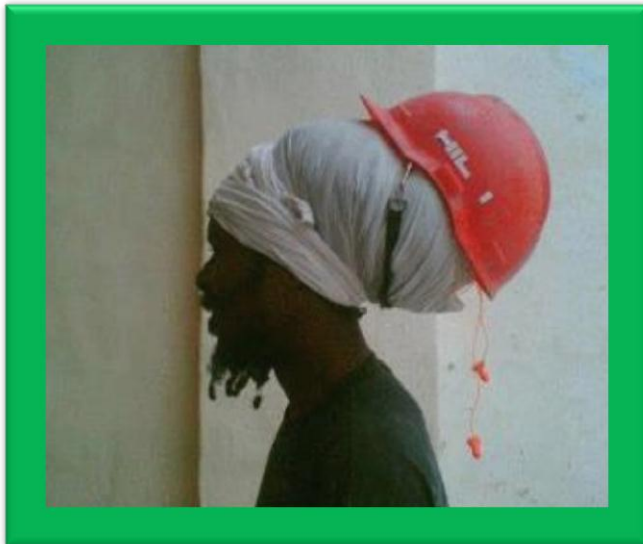
Worker at a power plant in Scotland, suffered severe head trauma and had sections of his skull smashed as he fell 26 m from a height over radiator fans. Worker was not wearing head or fall protection. Worker survived after several operations to remove damaged parts of his brain. .

Occupational Incident Case files

Reasons for occupational accident	Comments	Corrective Action
Did not use the PPE provided	Uncomfortable, in the way, quick job	Disciplinary , termination
Incorrect use	No training, did not know, forgot	On going training & evaluation
Not provided with PPE	PPE or the appropriate PPE not provided	Legislation
Poor fit	Unsuitable for the individual	Fit testing
Could not access PPE easily	PPE located away from work	Dispensing units . Vending
Did not know PPE was required	Hazards not known	Training and risk assessment



No Substitutes for Appropriate PPE



Embracing “Smart” Safety:

“Smart” Management Asset Management & Compliance Assurance



“Smart” Assessment Exposure Assessment & Monitoring



“Smart” Integration Data & Intelligence Management













Wireless “Smart” PPE will deliver less risk and more value to our customers

Integrated safety systems and data management will:

- Increase productivity & real-time safety practices
 - Measure, Track and Ensure Compliance
- Reduce customers' overall safety process costs

Turkey – Safety Compliant Journey

Characteristic	Safety Compliance
Dual Economy – FDI Multinational Companies	
Growing educated middle class	
Government legislation	
Safety Management as a profession	
Safe Society	
Organized labour	
Suppliers driving education and awareness	
Attractive export markets driving safety compliance	
New generation workforce – informed, healthier, quality of life	
Economic growth	



THANK YOU