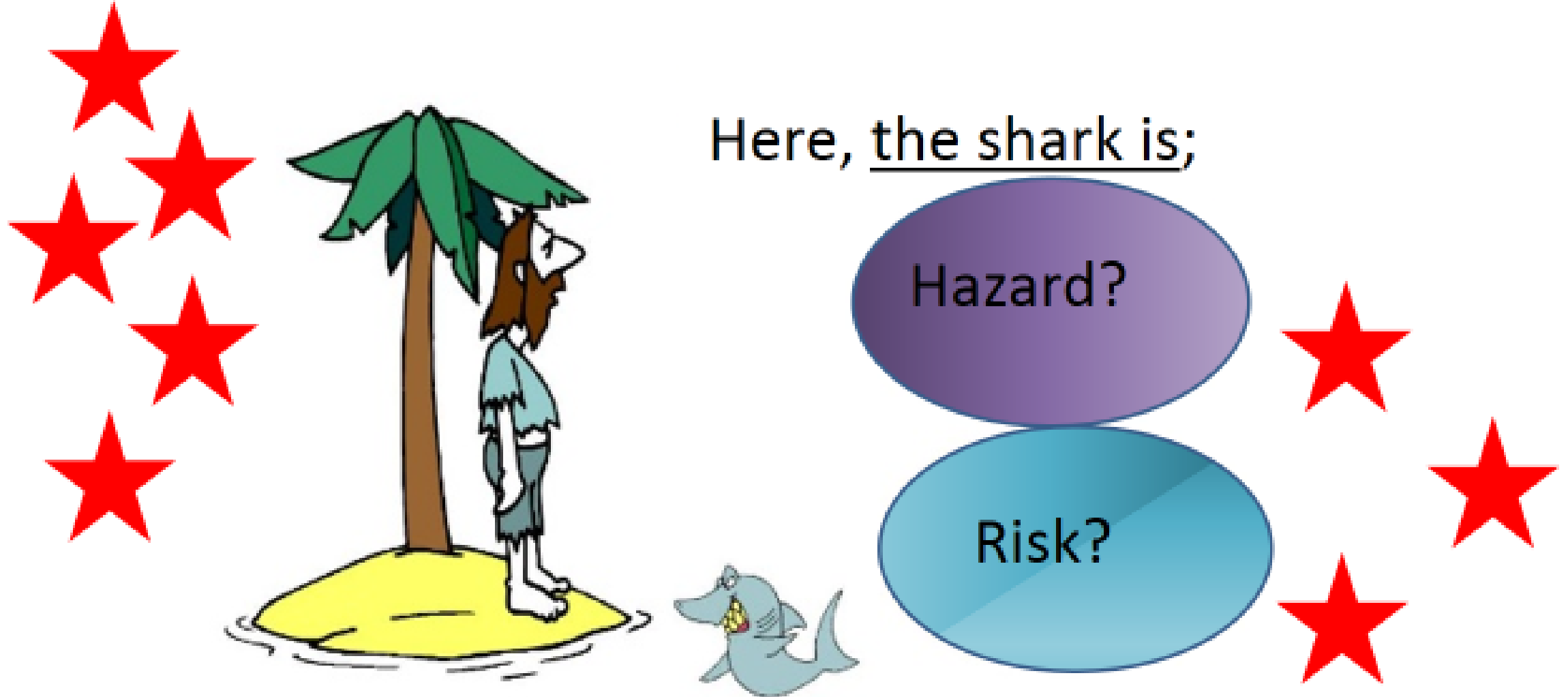


OCCUPATIONAL HEALTH & SAFETY



HAZARD and RISK Definitions



Basic Concepts & Definitions

Hazard:

- Source, situation or act with a potential for harm in terms of human injury or illness, or combination of these. (OHSAS 18001 Article 3.6.)

- **Potential which exists at the workplace or may arise from outside the workplace to cause harm or damage which could affect the worker or the workplace;** (OHS Law

#6331, Article 3 (1))



Basic Concepts & Definitions

Risk:

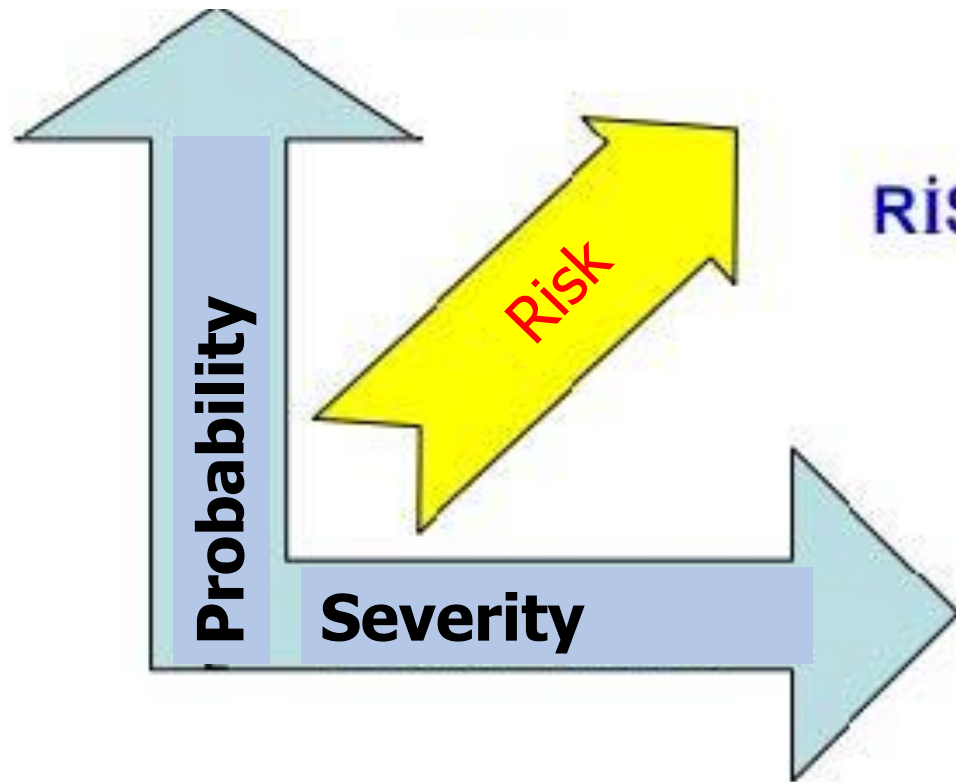
- Combination of the likelihood of an occurrence of a hazardous event or exposure(s) and the severity of injury or illness that can be caused by the event or exposure(s)

(OHSAS 18001 Article 3.21)

the combination of the **probability** of harm occurring and the **severity** of the harm once it occurs.



the combination of
the **probability** of harm occurring and the **severity** of the harm



$$\text{RISK} = P \times S$$

P: Probability

S: Severity

Basic Concepts & Definitions

- Hazard and risk relationship likes **potential energy vs kinetic energy relationship.**



- Hazard is accepted as potential energy,

- risk is accepted as kinetic energy.



According to these definitions,

the shark is;

Hazard?

Risk?



Taking Precaution

It refers to eliminate or reduce the risks related to occupational health and safety at all stages of the work carried out in the workplace.





Let's take a look of some examples about
Hazard and Risk



Hazard

Risk

Noise



Permanent hearing loss
for those working in loud noises



Blood-borne
Disease



contagious disease
(bulaşıcı hastalık)

Oxy-
combustible
gas system



accident of a person working with a non-protective oxy-gas system

Working at
height



Falling from height
Material **drop**

Table. Examples of some hazard & risk

*Hunting in the area which is full of sharks: Hazard
possibility of loss of life: Risk

* Long working hours : Hazard
life imbalance : Risk

* working without helmets in the mining areas: Hazard
Possibility of falling stones: Risk

working with chemicals : Hazard
Breathing-tasting- contact : Risk

(According to the records, the number of children who
drink bleach is very high)



*Hand tools: Hazard

Hand cut: Risk

* Working with flammable materials, like
petrol: Hazard

Fire: Risk

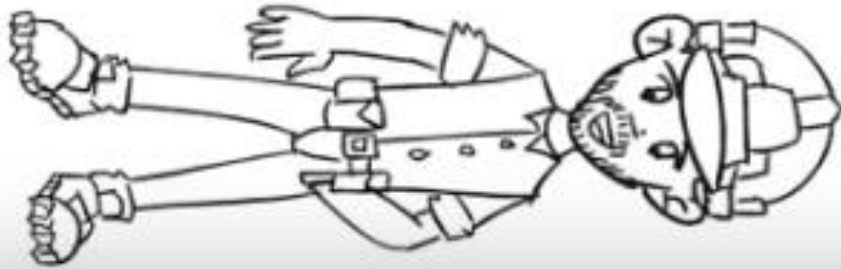




Hazard



Risk





HAZARD



RISK

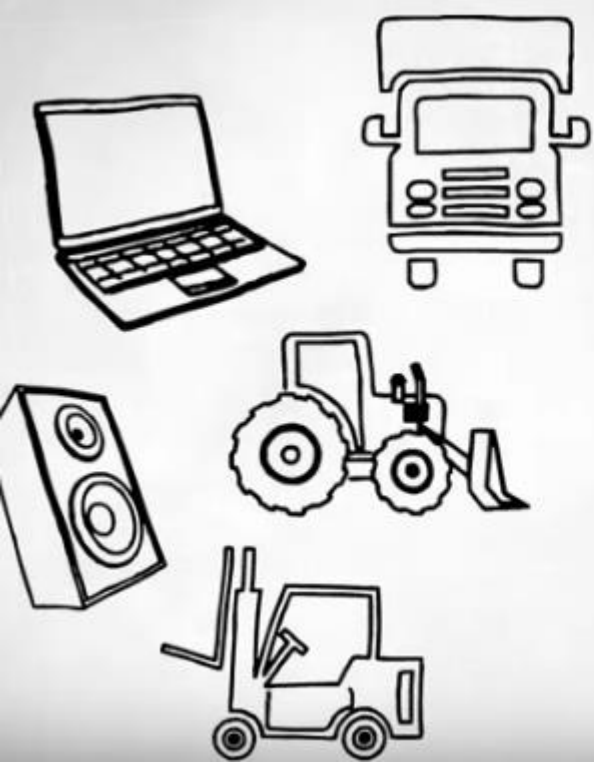


**A RIVER
IS A
HAZARD**



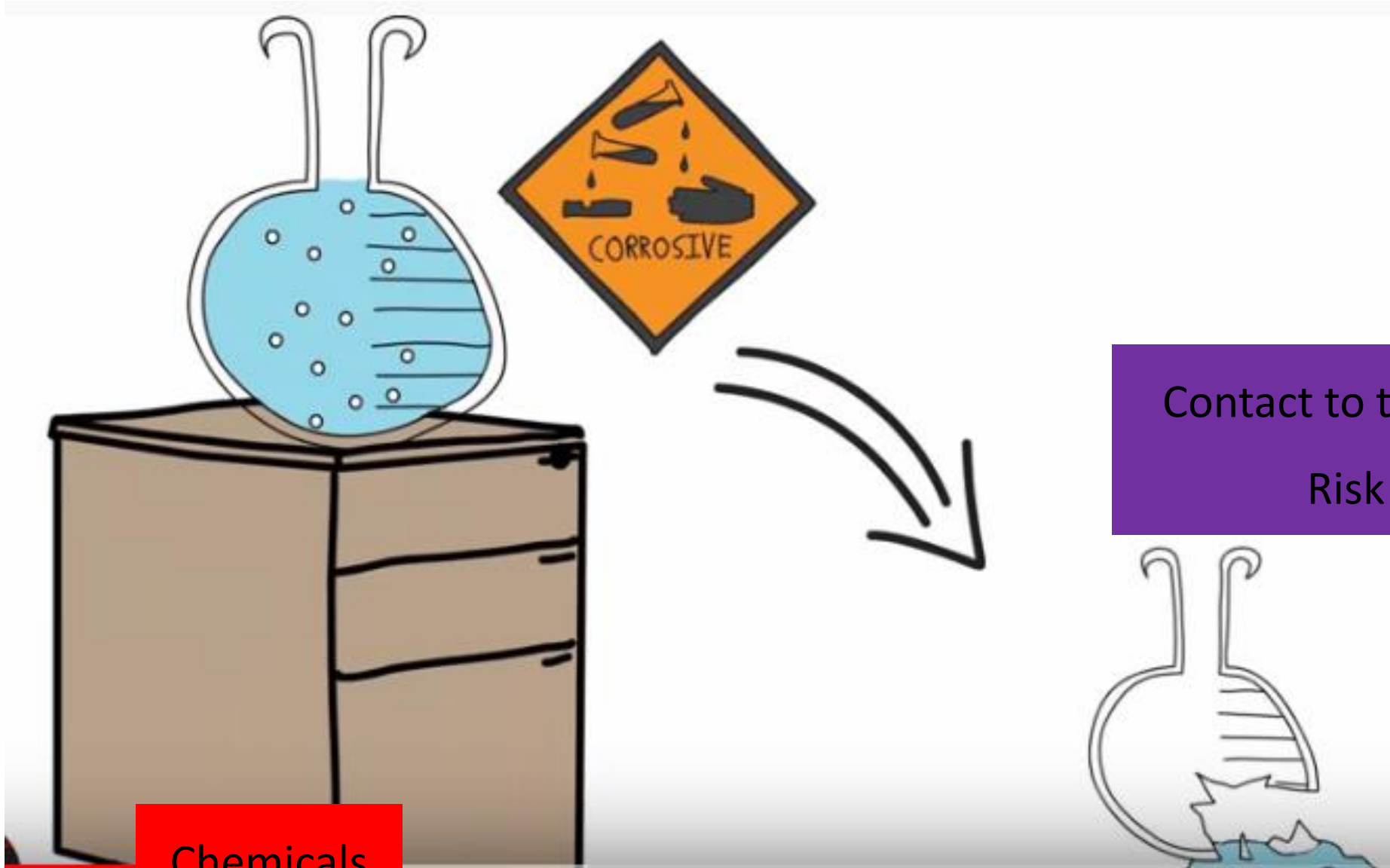
**FLOODING
IS A
RISK**





leaving things
UNGUARDED
is a
HAZARD

having them
STOLEN
is a
RISK



Chemicals
Hazard

Contact to the skin
Risk



Hazard

Risk





HAZARD

RISK





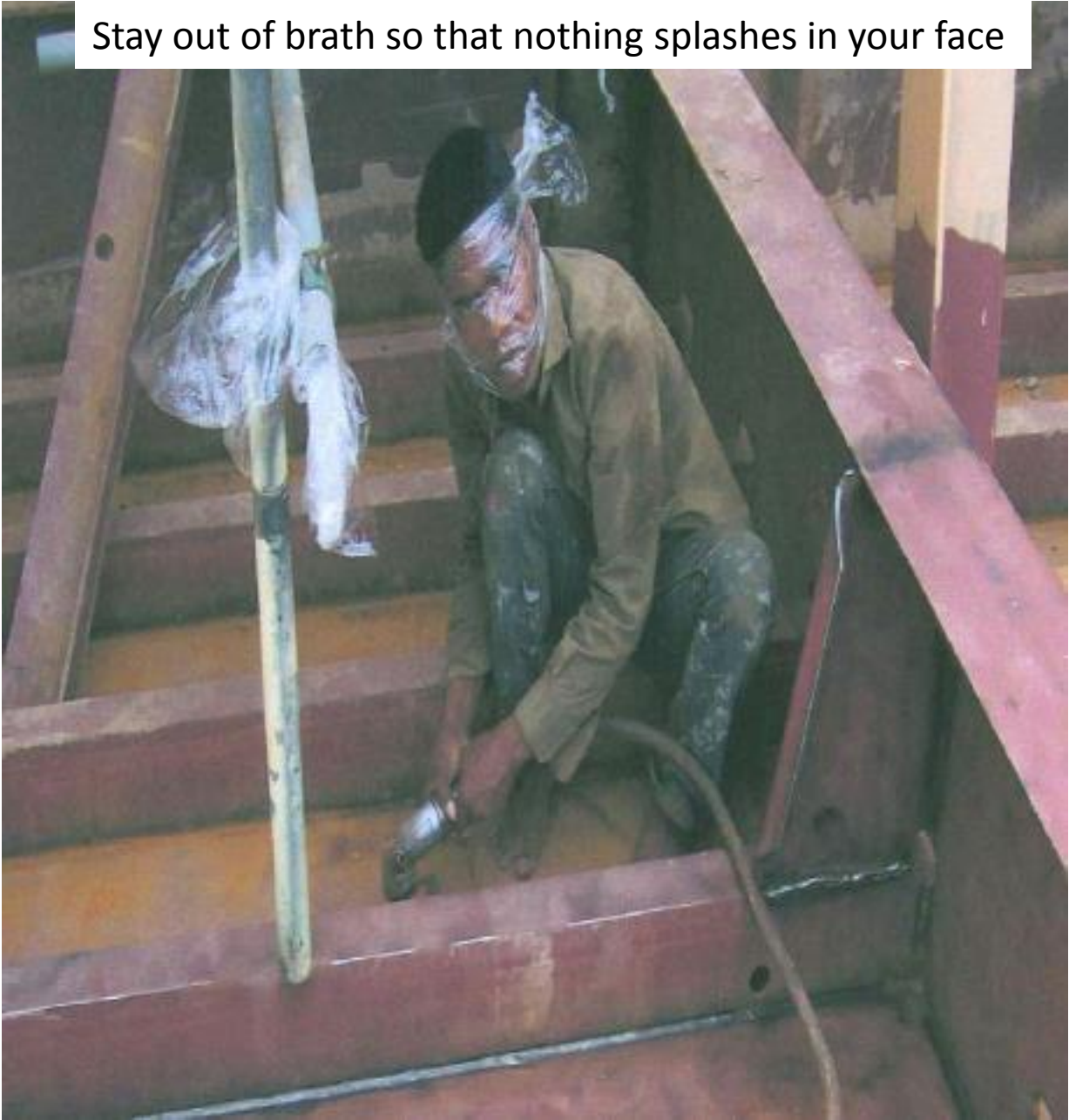
work machine as an umbrella



As an helmet?



Stay out of brath so that nothing splashes in your face





Basic Concepts & Definitions

Hazard sources are listed below:

- Individual factors
- Environmental factors
- Work related factors
- Factors related with material used
- Factors related with machine/equipment used

They all can cause hazards!

Basic Concepts & Definitions

Incident:



- A work related event in which an injury or ill health or fatality occurred or could have occurred

Accident:

- An incident which an injury or illness actually occurs

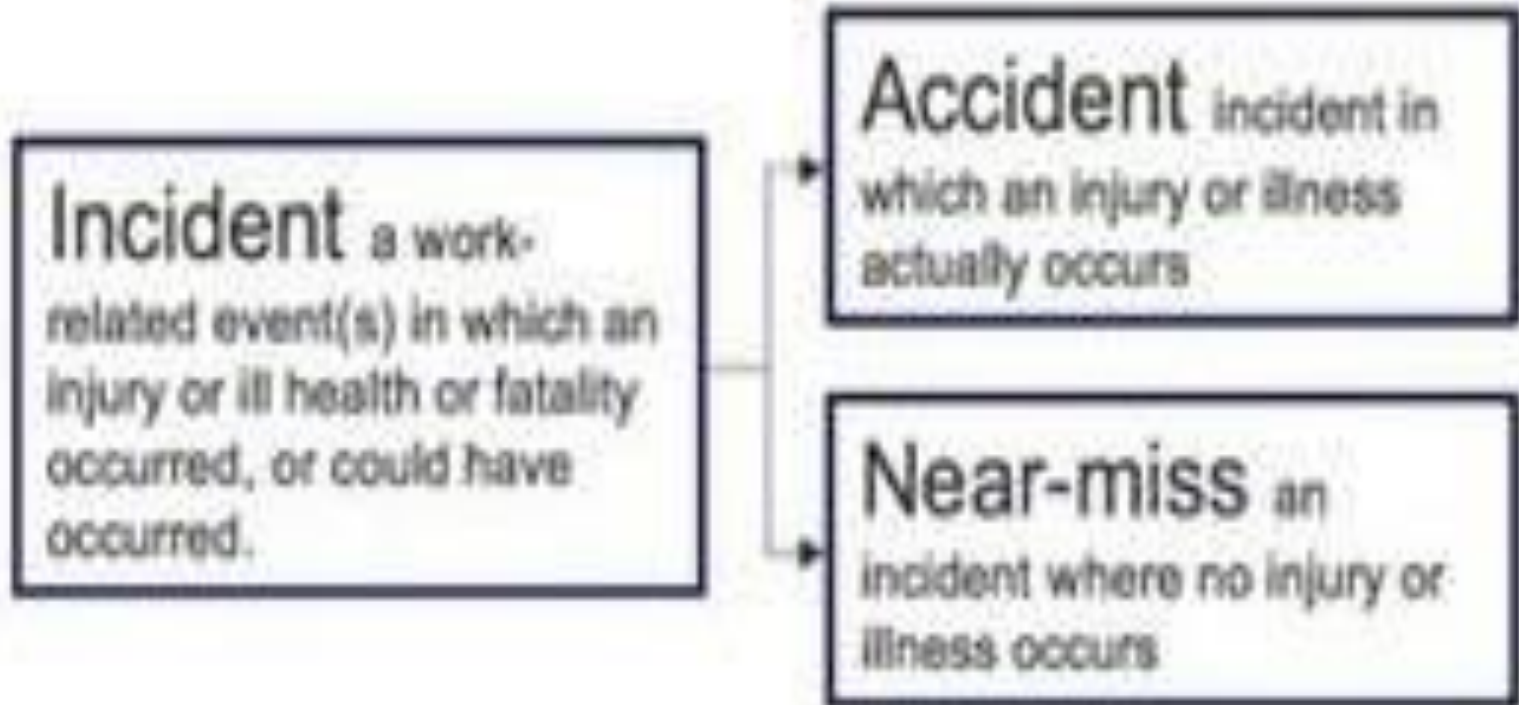
Near –Miss:



- An incident where no injury or illness occurs
(an event not causing harm, but **has the potential to cause injury or ill health**)

Basic Concepts & Definitions

Accident as a type of Incident (based on OHSAS)



Near miss



Luckily, the box didn't hurt him.





Status of Turkey (2016) –recorded!



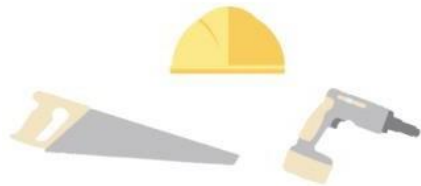
NUMBER OF WORKPLACE

App.1,900,000



NUMBER OF WORKERS

App.18,000,000



NUMBER OF WORK
ACCIDENTS

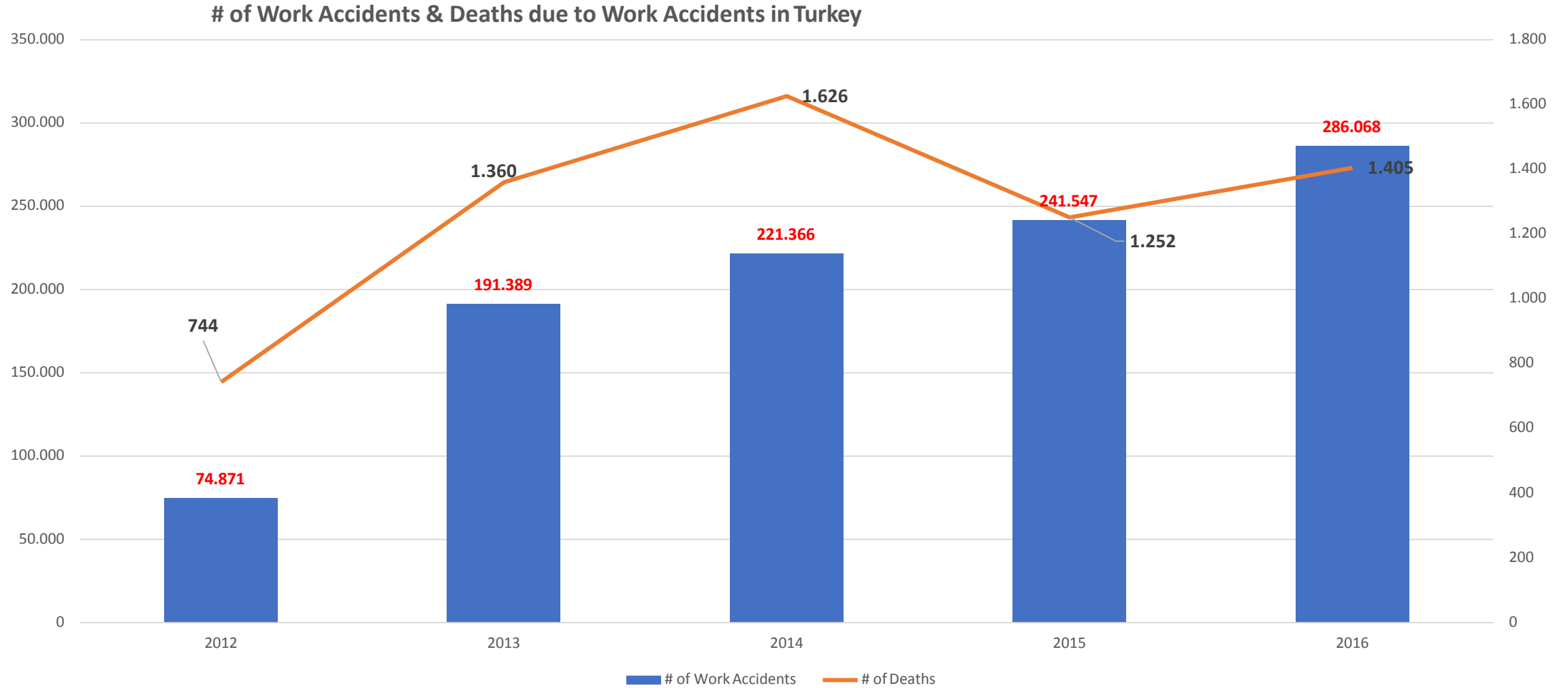
286,068



NUMBER OF WORKERS DIED IN
ACCIDENTS

1,405

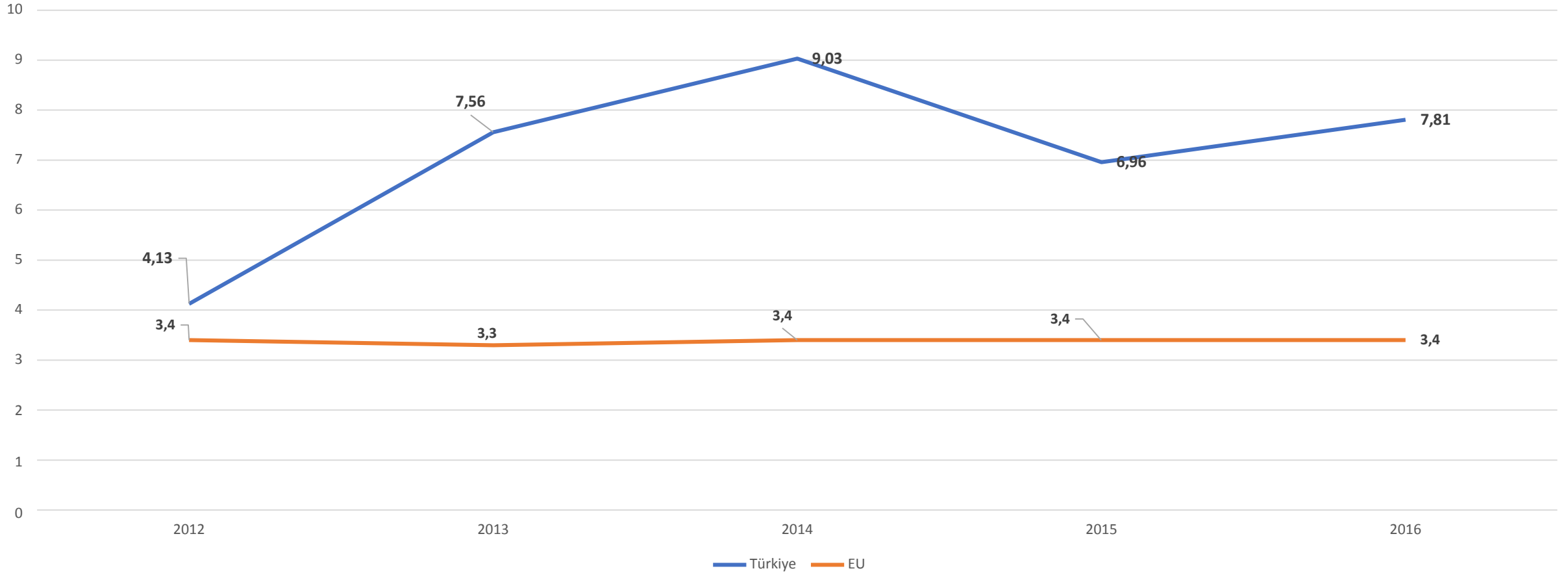
STATISTICAL DATA*



*: SGK Statistical Annual

STATISTICAL DATA*

Fatality Rate (Per 100,000 employees)



*: SGK Statistical Annuals/ www.osha.org
Türkiye ölüm hızı hesaplanırken 18.000.000 sigortalı baz alınmıştır

One hundred thousand



98% of work accidents can be prevented !
2% of work accidents are unpredictable,
so it can not be prevented



100 % of occupational diseases can be prevented
by true OHS System!