



# Occupational health and safety practices in a small metal mechanic company in Piura, Peru

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- Background
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- Results
- Conclusions



# BACKGROUND



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# Peruvian regulation

Initial regulations	Recent changes since 2014
<b>Law N°. 29783: Law of Health and Safety at Work (August 20, 2011)</b>	<b>Law N° 30222 (July 11, 2014)</b>  <b>Art. 13° Object and composition of the Regional Councils of Safety and Health at Work.</b> This change includes the National Confederation of Organizations of the SMEs, to participate in the Regional Councils of OSH (1 representative member).
	Art. 26° It is possible to outsource, via location of services, the management of the SST.
	Art. 28° Simplified registers are established for SMEs and for entities or companies that do not carry out high-risk activities.
	Art. 49° It changed the periodicity of medical examinations in companies that are not considered high risk (every 2 years)
	Art. 168-A It reduced prison sentence for employers who infringe OSH regulations (1-4 years). Criminal liability is excluded when death or serious injury is a result of the employee's failure to comply.
	For 3 years the fines are reduced up to a maximum of 35%. Take into account that the reduction to 35% will not be for occupational safety and health infractions, provided they have caused death or permanent disability to the worker, among others

# Peruvian regulation

Initial regulations	Recent changes since 2014
<b>Supreme Decree No. 005-2012: Regulations of the Law on Safety and Health at Work (July 25, 2012)</b>	<b>Supreme Decree No. 006-2014</b> (August 9, 2014) In case of micro, small and medium-sized enterprises (SMEs) and entities or companies that do not carry out high-risk activities, the Ministry of Labor and Promotion of Employment establishes a simplified system documents and records as provided for in the Ministerial Resolution No. 085-2013-TR and standards amendments.
	Art. 101° This amends the validity of occupational entrance medical evaluation (1 is valid during 2 years if worker keeps in the same activity) and the mandatory retirement medical evaluation.



# Peruvian regulation

Initial regulations	Recent changes since 2014
<p><b>Ministerial Resolution 312-2011: Medical Testing Protocols Occupational and Diagnosis Guide of Mandatory Medical Examinations by Activity. (April 25, 2011)</b></p>	<p><b>Ministerial Resolution 571-2014 (July 25, 2014)</b></p> <p>This amends the requirement of having an occupational physician, so that companies that are not considered at high risk level, will have one if they have more than 500 employees. In case of having 500 or fewer workers, the development of the health surveillance activity will be carried out by the occupational physician, without the requirement of a minimum of face-to-face hours, which will be verified with the presentation and fulfillment of the following documents:</p> <ul style="list-style-type: none"><li>• Annual Occupational Health Plan.</li><li>• Worker Health Surveillance Program</li></ul>



# Ministerial Resolution No. 085-2013-TR

## Annex n°3

### **Simplified system of records of the Occupational Safety and Health Management System for Small Business**

- Record of occupational accidents, occupational diseases, dangerous incidents and other incidents
- Registration of Occupational Medical Examinations
- Occupational safety and health system follow-up record
- Evaluation record of the Health and Safety Management System at Work
- Registration of health and safety statistics

# Supreme Decree 015-2017-TR, which amends the Regulations of the General Law of General Labor Inspection

- This regulation affected both Micro and Small enterprises that are registered in the National Registry of Micro and Small Enterprises. The penalty fee registered by these companies may not be higher than 1% of the net income received in the fiscal year prior to the generation of the inspection order, within the same sanctioning process.
- During the last three years - from July 2014 to July 2017 – penalty fees for labor infractions were temporarily reduced to 35% of what is established in the sanctions table.





# Small Enterprises in Peru

Regulations	Art. 5 of Supreme Decree No. 007-2008-TR (Law «MYPE»)	Art. 11º of Law Nº 30056 (Law «MYPYME»)
Type of enterprise	Valid until July 2, 2013	Valid from July 3, 2013
Micro-enterprise	1 to 10 employees  Up to 150 ITU (\$ 169 580.25) annual sales	Up to 150 ITU (\$ 169 580.25) annual sales
Small enterprise	1 to 100 employees  Up to 1700 UIT (\$ 1 921 909. 50) annual sales	More than 150 UIT up to 1700 UIT (\$ 1 921 909. 50) annual sales
Medium scale enterprise		More than 1700 UIT up to 2300 UIT (\$ 2 775 921.75) annual sales



Participatory programs for occupational risk reduction, adapted to the particular reality of each enterprise are becoming more important in small workplaces in developing countries as Peru. The current legislation on occupational health and safety in Peru is more focused on occupational exposure in big companies.

There are several small enterprises whose workers have significant high-risk occupational exposure. These companies provide services to mining, construction and oil companies which increase the probability to suffer accidents and diseases. Most of them are looking for suppliers aligned with their occupational health and safety system.



# METHODS



# OSH Management System Implementation

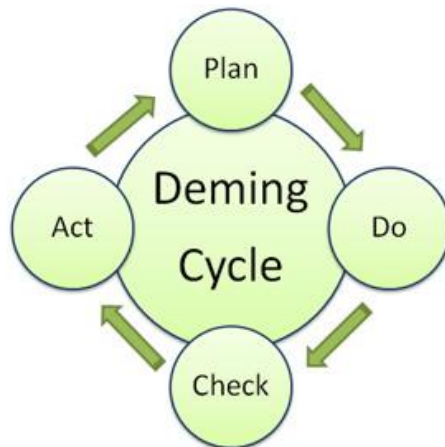
Review of revision of applicable legal requirements, both general and specific for the metal mechanical sector (within the industrial sector)



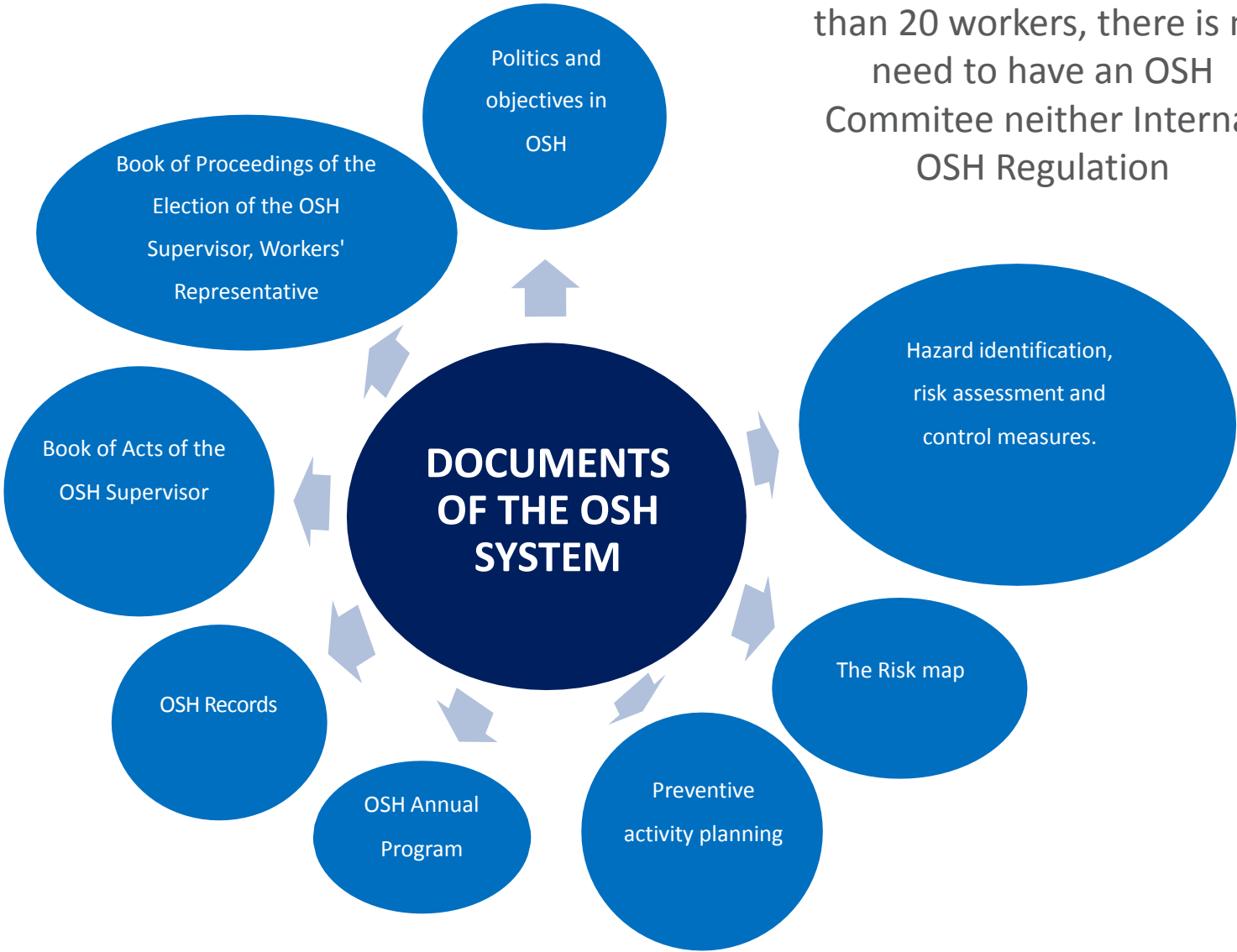
Situational diagnosis of the company : OSH Baseline Check List from Ministerial Resolution 050-2013-tr



OSH management System based on Demming Cycle



In SME in Peru, if there are less than 20 workers, there is no need to have an OSH Committee neither Internal OSH Regulation



- This research was a case report study.
- The unit of study was the economic indicators of expenses and income of a small metal mechanic company, related to OH &S activities as training programs, involving workers in safety inspections, performing medical examinations for workers, performing internal audits to the system, among others.
- Besides, it was analyzed the impact of the system on the frequency of accidents and illnesses in workers, on absenteeism, on labor inspections, on competitions organized by big companies seeking suppliers, etc. The instrument used was Data collection sheet.



# 2014

- A small Metal mechanic company needed to implementate OSH System and hired an Advisor team.
- Small enterprise: 15 workers (2 administratives, 13 technical workers)
- Providing services to big companies from Agro-industria, metallurgic and civil construction sector, some of them have high OSH standards and some not so high.
- Workers informed the advisors about some accidents they had in previous years, some of them with no disability and some with temporary and partial disability.
- From the begining, advisors sugest to make all workers participate during all the process.
- **Advisor Team worked in the Implementation of OSH System and Training program for workers, making participatory activities with the employees and employer.**







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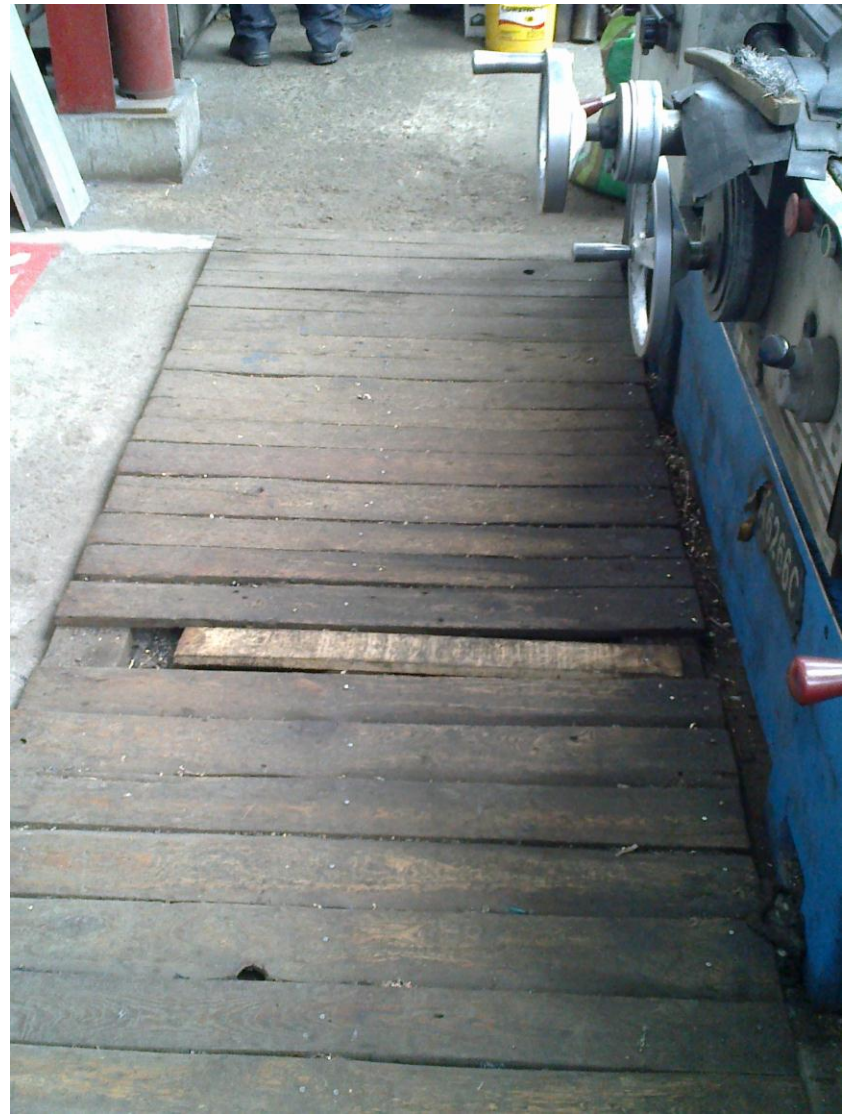




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**Inadequate removal of chips and other waste**







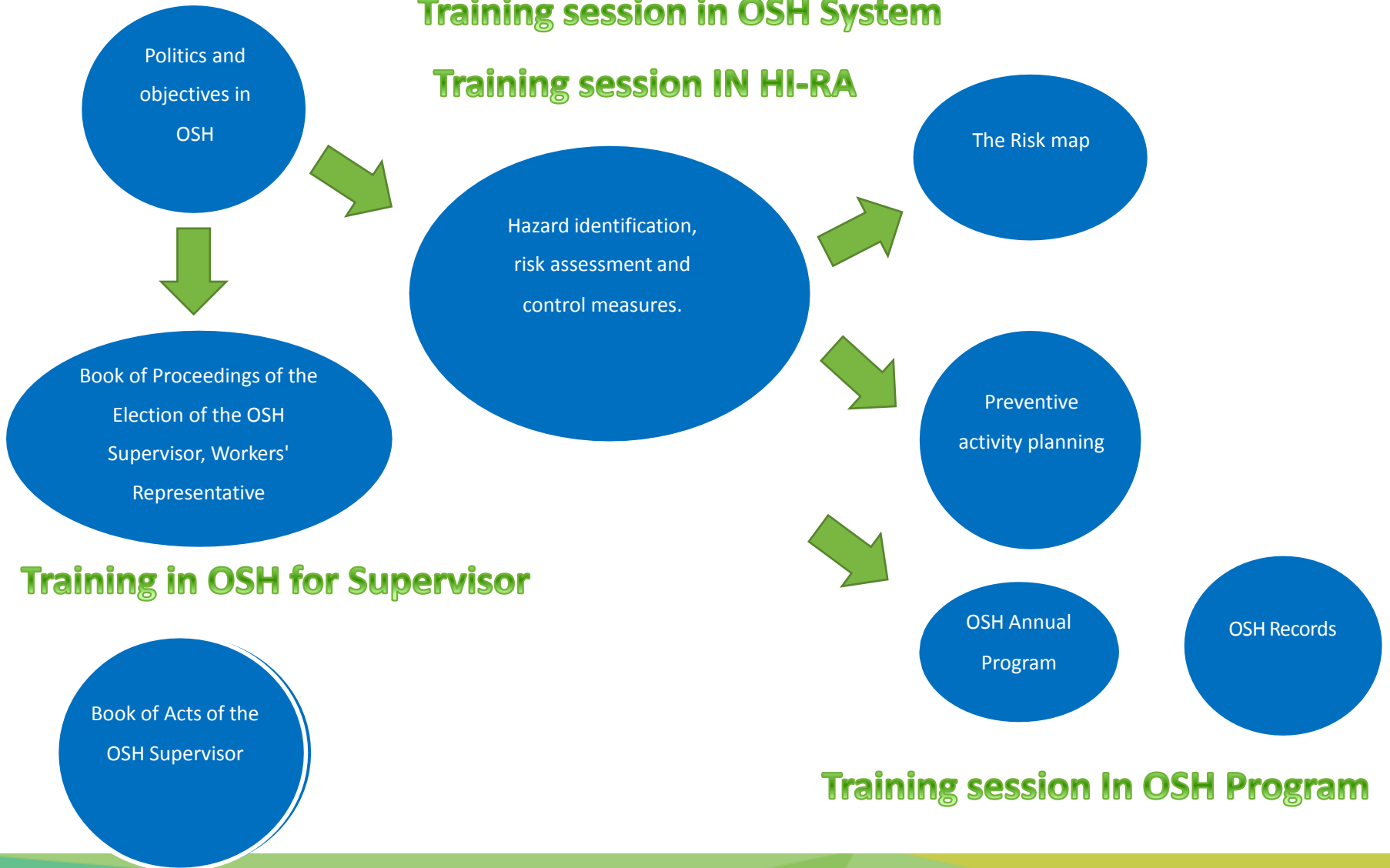
## Mechanical and Locative risks



## Review of revision of applicable legal requirements

### Training session in OSH System

### Training session IN HI-RA



### Training in OSH for Supervisor

### Training session In OSH Program



# 2015

- OSH System already implemented. It took 10 months.
- Small enterprise: 16 workers (2 administratives, 14 technical workers)
- Workers had registered 14 accidents with temporary and partial disability they had during 2014. All of them occurred inside their clients work environment.
- Due to that, 2 most important clients ask the enterprise to homologate their OSH System.
- The enterprise hired the advisor team to prepare the documentation and to participate in the process for the homologation.
- **Advisor Team worked in Homologation of OSH System. The enterprise hired them for advising and supporting in OSH during the rest of the year, making participatory activities with the employees and employer.**



Politics and objectives in OSH

OSH Records

Hazard identification, risk assessment and control measures.

The Risk map

Book of Acts of the OSH Supervisor

Book of Proceedings of the Election of the OSH Supervisor, Workers' Representative

Medical Examinations for workers

scheduled and unplanned safety inspections

acquisition of better elements of personal protection

Machine maintenance  
Removal of unused machines

Management of solid and hazardous waste

Accidents Report and their casualty investigation

Safe Working Procedures

Training programs in OSH and Conversations with workers about OSH occurrences



# 2016

- OSH System in their 3rd year.
- Small enterprise: 18 workers (3 administratives, 15 technical workers)
- Workers had registered 12 accidents with temporary and partial disability they had during 2015. 3 of them occurred inside their own work environment and 7 inside their client work environment.
- The enterprise hired the advisor team to work during all the year with more frequently OSH activities each month and to get prepared for any inspection from Labour Inspectors from government.
- Their current clients ask the enterprise to renew their OSH System homologation.
- **Advisor Team worked in Homologation of OSH System as part of their annual plan. The enterprise had advising and supporting in OSH during all the year, making participatory activities with the employees and employer.**
- **Other big companies who never hired the enterprise before until the enterprise get higher OSH standards, start to ask for their services.**
- **Some Post graduated courses from regional Universities ask for visiting the enterprise to asses their OSH System, getting very satisfactory results.**





Participatory OSH Sessions with workers, February 2016





Visit group from the Master program in Safety and Health at Work from the University of Piura to assess OSH System, March 2016



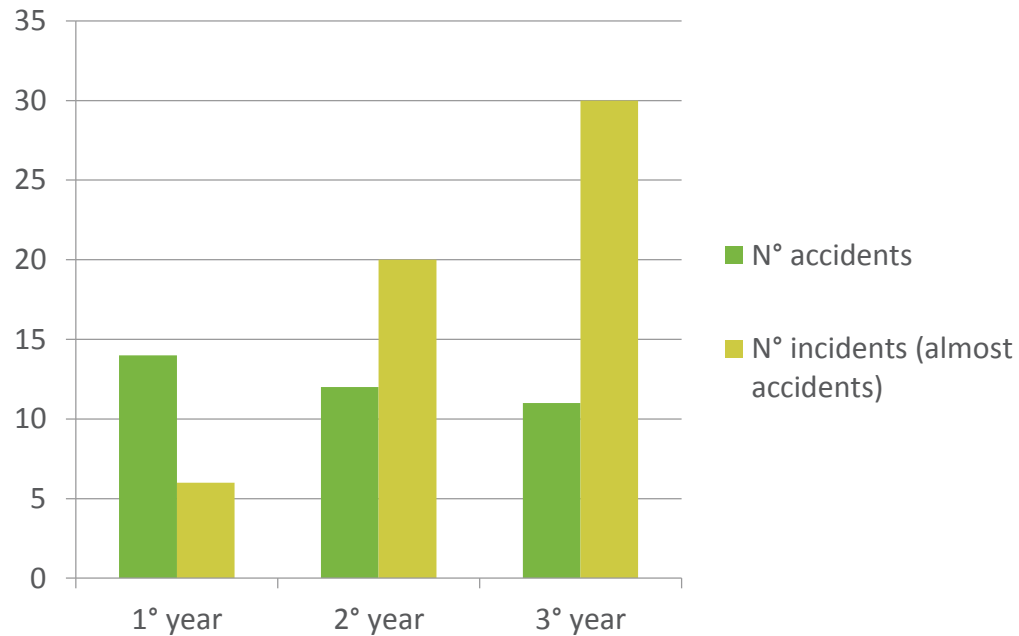
# RESULTS



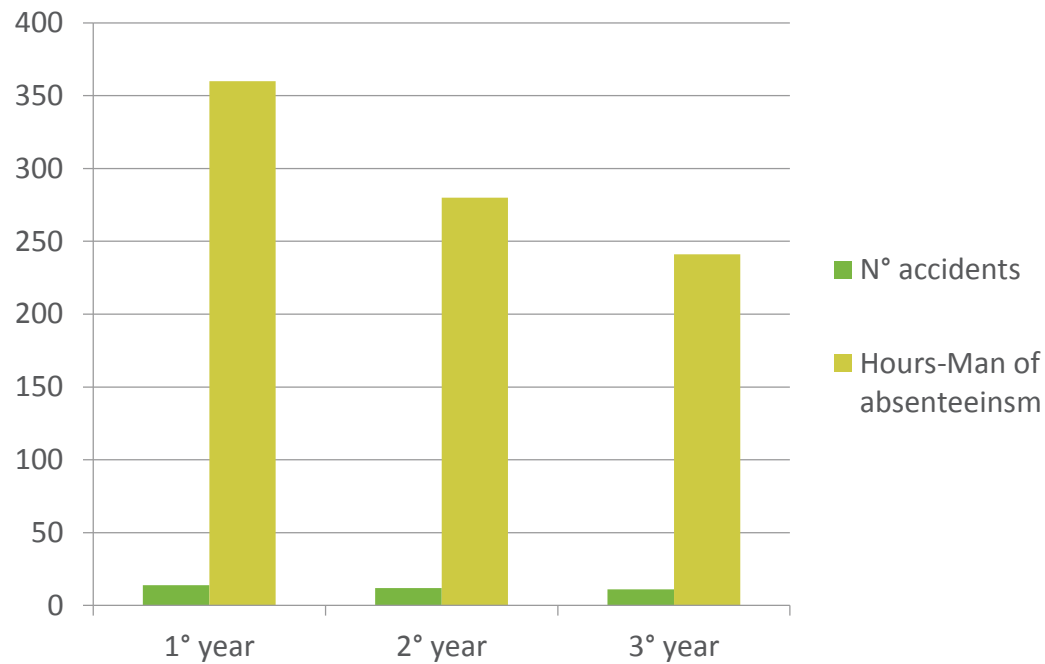
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# Frequency of laboral accidents



# Absenteeism related to laboral accidents



# Investment in OSH during 3 years

	Income (\$)	Investment in OSH (\$)					
Year	Annual sales	Advisor team	Elements of personal protection	Machine Manteince	Management of solid and hazardous waste	Training program in OSH	Medical Examinations for workers
1° year	184 848	9600	2400	8200	6000	15000	3600
2° year	175 757	15000	2960	9680	4800	12000	3840
3° year	188 650	24000	3600	9800	8500	8000	4320
	<b>549255</b>	<b>48600</b>	<b>8960</b>	<b>27680</b>	<b>19300</b>	<b>35000</b>	<b>11760</b>

**549 255**

**151 300**



# CONCLUSION



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- It was a good investment to implement and improve the OH & S system in this small metal mechanic company.
- It is necessary to implement studies for assessing the effect of OH & S system in other small enterprises in developing countries.

