Finnish Institute of Occupational Health

Risk management in Li-ion battery supply chain

FIOH: Pia Perttula, Jarmo Vorne, Arto Säämänen, Anneli Kangas, Tiina Santonen, Henriikka Kannisto, Eero Lantto, Timi Lannetta

GAIKER: Isabel Rodríguez Llopis, Leire Barruetabeña, Leire García, Sergio Valbuena

IN COOPERATION WITH

Gaiker
MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE

Työsuojelurahasto
Arbetarskyddsfonden
The Finnish Work Environment Fund

OSALAN
Laneko Segurtasun eta Osasunerako Euskal Erakundea
Instituto Vasco de Seguridad y Salud Laborales

The project (2020-2022)

The objective of the study is

- To determine the Li-ion battery's value chain
- To specify the risks and potential impact for health, safety and environment
- Produce guidance and good practices for improving occupational safety

Funding

Finnish Work Environment Fund, FIOH

OSALAN, GAIKER

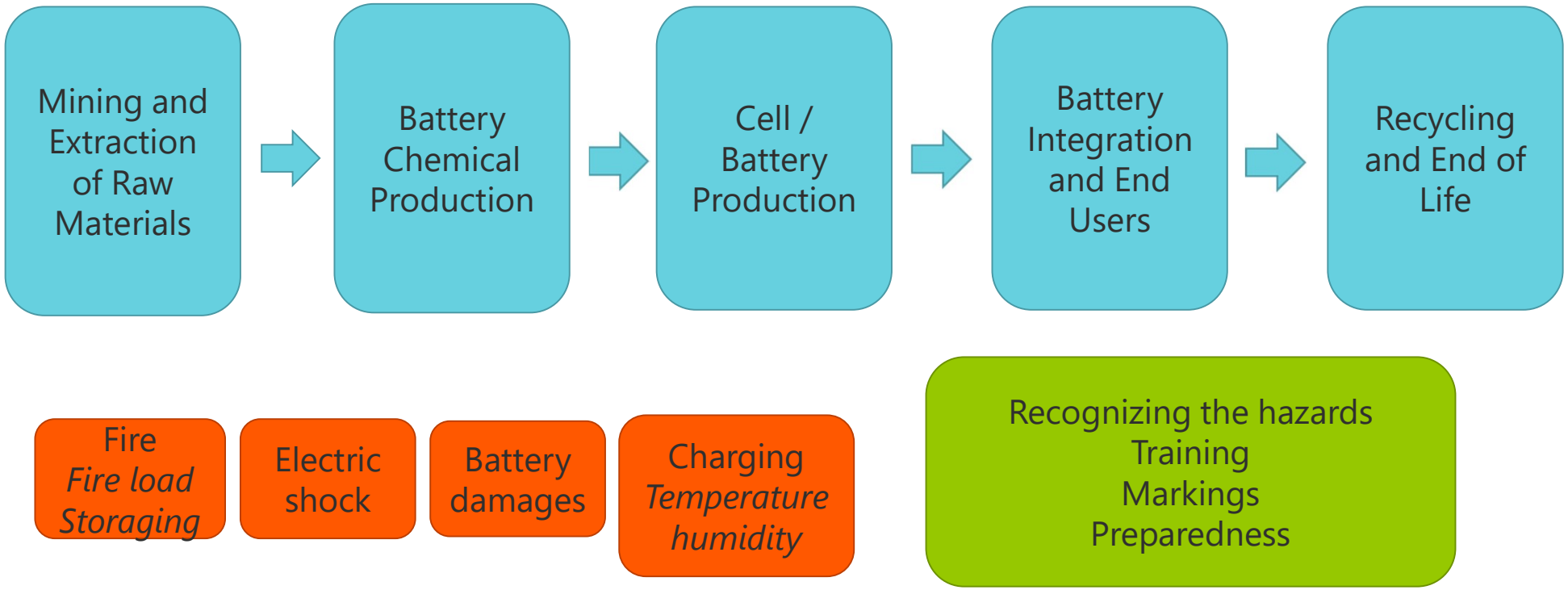
Co-operation

Finnish Institute of Occupational Health

GAIKER

Workplaces from Finland and Spain

Supply Chain of Li-ion batteries: examples of safety risks & risk management



Interviews

8 target companies

Semi-structured interviews

73 questions

33 interviewees

Interview themes:

- Safety management practices
- Risk assessment
- Safety management and leadership
- Safety guidance
- Commitment to safety
- Safety hazards and reporting
- Safety communication and training

Results

Interview question	Summary of responses
Have those working in **maintenance and servicing work** been made aware of the risks related to their work? What about possible **subcontractors**?	To obtain working permission, the contractors are required to undergo safety orientation and to follow safety instructions.
Are **employees** aware about what to do if the risk actually materializes (e.g. fire, chemical-related accident)?	- They are mainly aware - Guidance is available - Regular training - Practical experience

Results

Interview question	Summary of responses
What kind of safety information do you gather **from your supplier** and how do you use this data?	- Different ways of collecting: auditing or systematic collection - Assumption: partners share necessary safety information - Safety data sheets may lack the information about the composities
What safety information do **you** give your customers?	- Safety data sheets (including hazardous substances) - Main chemical components - Risks related using the product - Statutory test results

Results

Interview question	Summary of responses
Have you assessed the risks of the whole supply chain?	The whole chain is not assessed. Some parts of it may be, but mostly from an egolocical perspective.

Conclusions

- Company level safety management is well organized
- Supply chain level safety management and communication require more attention
- Understanding the risks related to Li-ion batteries and their chemicals and being prepared to these, requires continuous safety communication and risk management
  - in company level
  - between supply chain partners

More information

Pia Perttula
Chief Researcher, Occupational Safety
Tel. +358 30 474 2684
e-mail: pia.perttula@ttl.fi

Project website: https://projects.safera.eu/project/31

Finnish Institute of Occupational Health

Thank You!

@PerttulaPia


ttl.fi


@tyoterveys
@fioh


tyoterveyslaitos


tyoterveys


Tyoterveyslaitos