



thinkstep

Product Environmental Platform (PEP) for Lifts

Life Cycle Analysis and Environmental Performance Declarations for Lifts: the way forward

ELA Conference 2016 - Rome, April 18 2016

Martin Blumberg, Vice President
Sustainable Building & Construction

thinkstep AG

- I. PEP for the Lifts and Lift Components Industry – Why Bother**
- II. pep4lifts.com – How it works
- III. The Way Forward

Drivers

Increasing interest in energy efficiency, health & safety and environmental impact of buildings

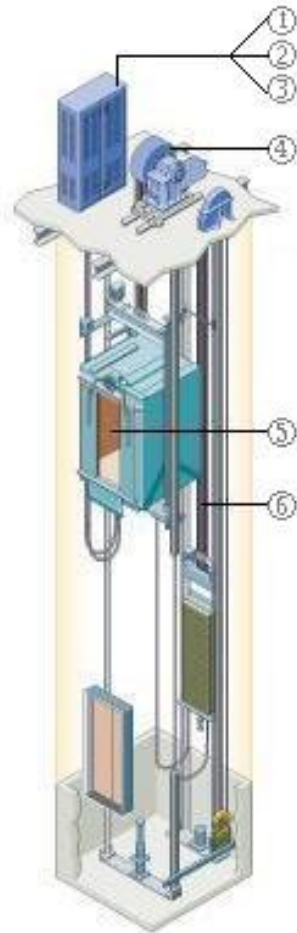
- **Regulation** (Energy Performance of Buildings Directive (EPBD) ; EU Ecodesign Directive, EU Lifts Directive)
- **Green Building Rating Schemes** (DGNB, LEED, BREEAM)
- **EPD** (Environmental product declarations for building products)

The Need

Empower the lift industry (lift manufacturers, component suppliers) to satisfy increasing market demand for life cycle based energy and environmental product information

- **Scalable, web based LCI dB for the lift industry**
- **Easy LCA-assessment of complete lift models and/or single lift components in compliance with the PCR for Lifts (published in October 2015)**
- **Cost effective approach towards EPDs**
- **Easy identification of potential substance risks of used materials**

Provide non-competitive services to the Lift and Lift Component industry that lowers individual company investments into life cycle based product environmental initiatives (as requested by the PCR for Lifts Working Group in 2014)



An elevator consists of several components and component groups such as

car

- car lighting
- brakes
- interior
- control units
- ...

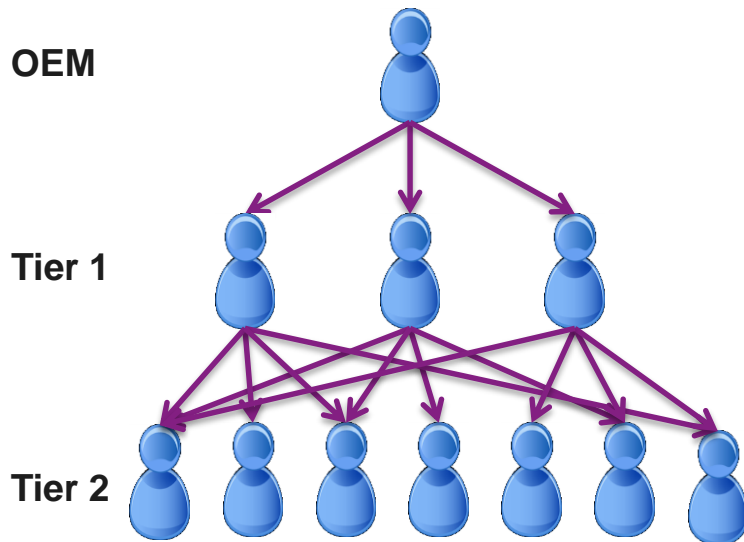
shaft

- displays
- control panels
- Ventilaton
- ...

drive unit

- oil reservoir,
- hydraulik cylinder
- hydraulic pump
- ...

Providing life cycle based product information requiries transparency about energy and environmental data along the entire supply chain – from materials used to the final lift



If an OEM wants to conduct an LCA for a specific lift model and/or plans to publish an EPD he needs information on..

- The material composition
- The mass
- And LCIA results for the supplier's components

If an OEM wants to screen for relevant compliance issues he needs...

- At least the material composition
- The mass

These information are usually unknown to the OEM and need to be collected from his Tier 1 supplier. The latter must probably engage with Tier 2.

I. PEP for the Lifts and Lift Components Industry – Why Bother

II. pep4lifts.com – How it works

III. The Way Forward

www.pep4lifts.com

Manufacturers of complete lifts (exc.)



OTIS



OSMA[®]
AUFZÜGE



VESTNER
AUFZÜGE
ELEVATING PEOPLE



and more...

Lift components suppliers (exc.)

LiftEquip[®]
ELEVATOR COMPONENTS

Hydroware

SICK
Sensor Intelligence.



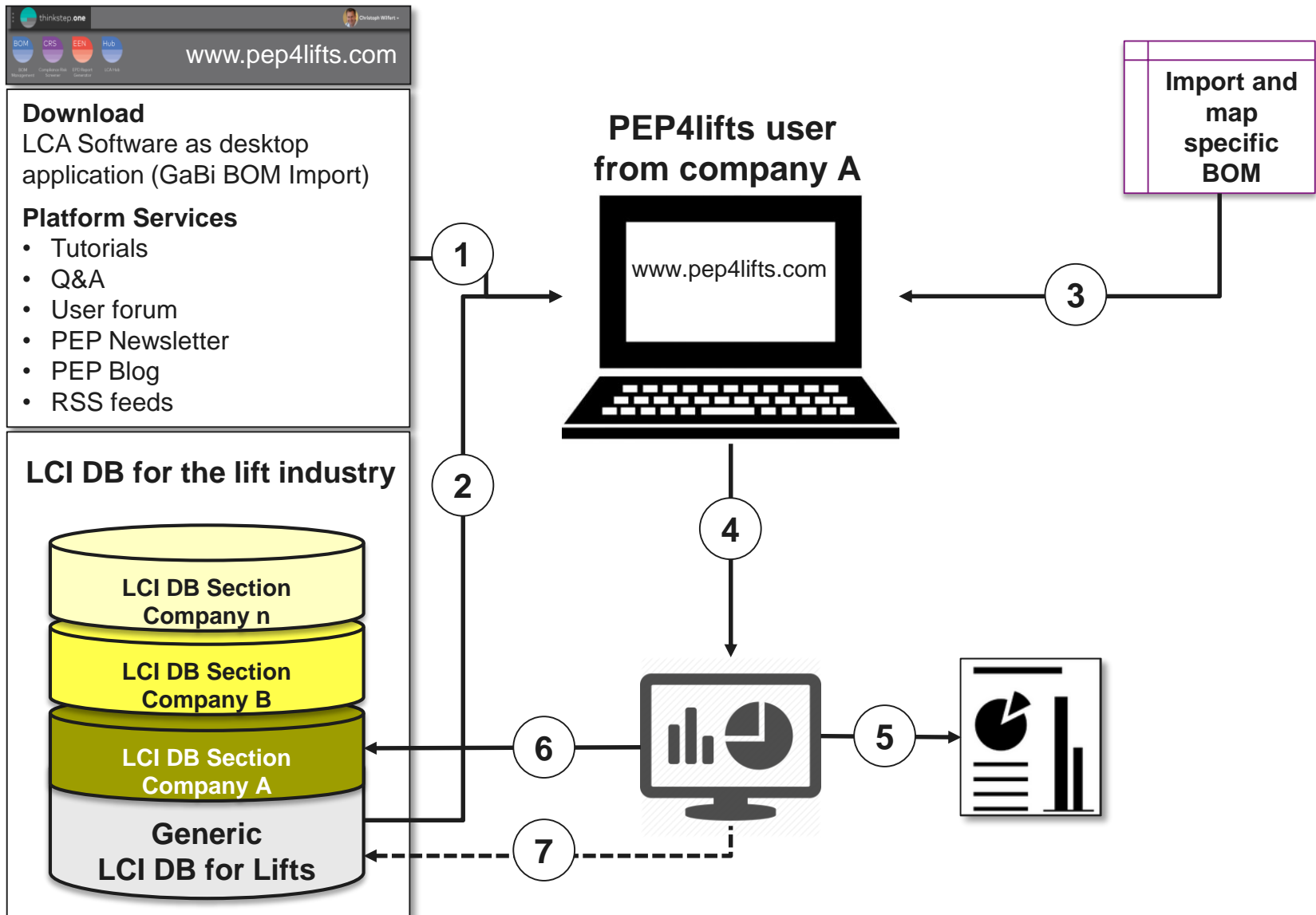
SLC
Sautter Lift Components



and more...

www.pep4lifts.com

1. **Internet based access to a Database** for manufacturers of lifts and lift components, containing up-to-date life cycle inventory data for raw materials, intermediates and manufacturing processes enabling cradle to grave life cycle analysis for any kind of lift products and lift components.
2. **Easy calculation of LCAs** for complete lift models and/or individual lift components (based on specific Bill of Materials (BOM)) in compliance with relevant norms and standards (e.g. ISO 14040/44, PCR for Lifts) in a secure/confidential environment.
3. **Automatic generation of product specific LCA-reports** as the basis for the development of Environmental Product Declarations (EPD) in compliance with ISO 14025, EN 15804.
4. **Material Compliance** Application (optional)



I. PEP for the Lifts and Lift Components Industry – Why Bother

II. pep4lifts.com – How it works

III. The Way Forward

June 2016 – September 2016

October 2016

Phase 1: PEP Set Up & Pilot

Phase 2: PEP Roll Out

- Set up secure **pep4lifts server**
- Set up and upload **LCI Database** based on the requirements of the PCR for Lifts (incl. raw materials, energy supply used in the manufacturing of lifts, basic manufacturing processes, End Of Life processes)
- Provide an easy to use **LCA-Software** to manufacturers of Lifts and Lift components (Pilot Users)
- Pilot User **Kick Off Training and First Level Support** incl. assistance in regards to the Database and Software use.
- Specify requirements for **sharing LCA results** throughout the Supply Chain
- Specify requirements against a **material compliance** application as part of pep4lifts.com
- Set up **www.pep4lifts.com** as web based home for all designated PEP services

June 2016 – September 2016

October 2016

Phase 1: PEP Set Up & Pilot

Phase 2: PEP Roll Out

Based on Pilot User Experience

- Implement required **Software extensions**
- Implementation of **administrative PEP platform processes** (e.g. Legal, commercial/licensing, liability, quality assurance)
- Implement **Material Compliance** Application (optional)
- Implement www.pep4lifts.com **platform services** (e.g. Tutorials, Q&A, User forum, PEP Newsletter, PEP Blog, RSS feeds)
- Promote pep4lifts to **gain visibility and reach** within the entire lift value chain

June 2016 – September 2016

October 2016

Phase 1: PEP Set Up & Pilot

Phase 2: PEP Roll Out

Become first mover

- **Finetune** PEP platform requirements
- **Conduct** initial tests (based on simple BOM import)
- **Share** results with customers
- **Prepare** reports

Phase 1
Free of Charge for Pilot Users
Max. 10 Pilot User
APPLY NOW FOR PHASE 1

Be part of the pep4lift community

- **Provide** LCA data to your supply chain partners (remain/become preferred)
- **Use** data to improve product
- **Participate** in building new

Phase 2
Unlimited LCA, EPD, ...
at low cost
based on annual subscription fees



ELA PCR Follow-up Task Force

Paula Casares,
Jean-Pierre Jacobs

paula.casares@thyssenkrupp.com
jp.jacobs@ela-aisbl.org



Martin Blumberg

Vice President Sustainable Building & Construction
thinkstep AG

Phone: +49 (0)711 341817-799
Mobile: +49 (0)162 138 31 30

martin.blumberg@thinkstep.com