

Oiconomy Pricing - Real price of a pack heater

Company	ADMC Group
Location	Amsterdam, The Netherlands
Product	1 pack heater (heater to warm packs for heat therapy)
Currency	Euro
Oiconomy Assessment	Oiconomy Sustainability Assessment Tool v1.08
Timeframe	Data from 2020
Included impact categories	Pollution & Climate, Depletion of scarce resources, Land use, Biodiversity & land degradation, Waste, Labour, Economic responsibility, Corruption & Conflict
Case description	ADMC started as an initiative of the Dutch Ministry of Economic Affairs. A consortium of entrepreneurs and healthcare organisations were invited to create a novel healthcare concept. ADCM produces medical equipment in the rehabilitation and physiotherapy field, with focus on products for children with special needs.



Scope of assessment

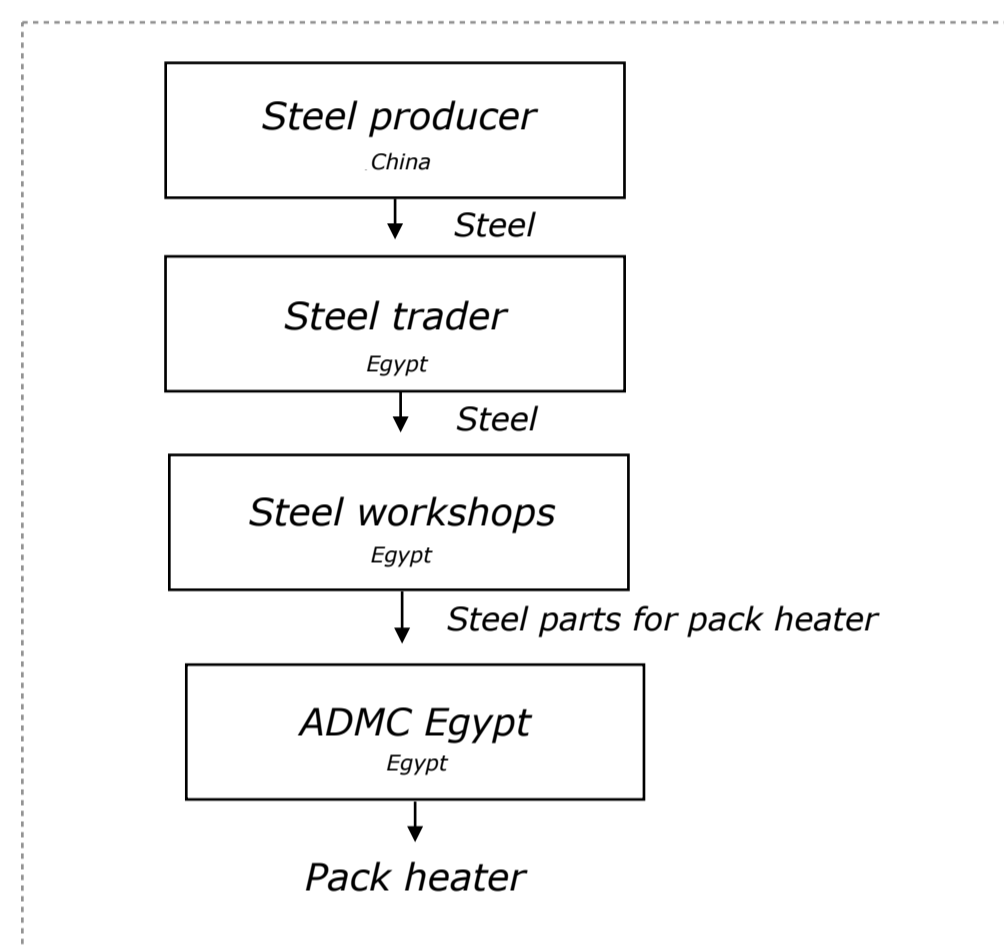


Figure 1: Scope of assessment: supply chain actors and outputs

The supply-chain of the pack heater was traced back by including 80% of the purchased value. This identified the most relevant supply-chain: **the steel components** (outer-body of the pack heater, inner body, the net, the cover and the handle) (Figure 1).

The **steel components** are produced in China and bought by steel traders in Egypt. Steel traders are unregistered and informal middlemen that resell the steel to workshops. Within the steel workshops the steel is cut, welded, shaped and bended for the pack heater. ADCM Group buys the steel components and treats these parts with chemicals, applies coating and installs the electrical components.

Total results

Hidden costs show what impact the product has on planet, people and prosperity, that are currently not reflected in the prices charged for the goods along the value chain. The impact can be negative or positive. The negative costs are based on costs of prevention, meaning the costs necessary to eliminate the negative impact. The total hidden cost of a pack heater are **€130,12** (Figure 2). The sales price of a pack heater is **€ 1600**, meaning the hidden costs are adding **8,13%** onto the sales price. Figure 3 displays the negative hidden costs per supply-chain partner.

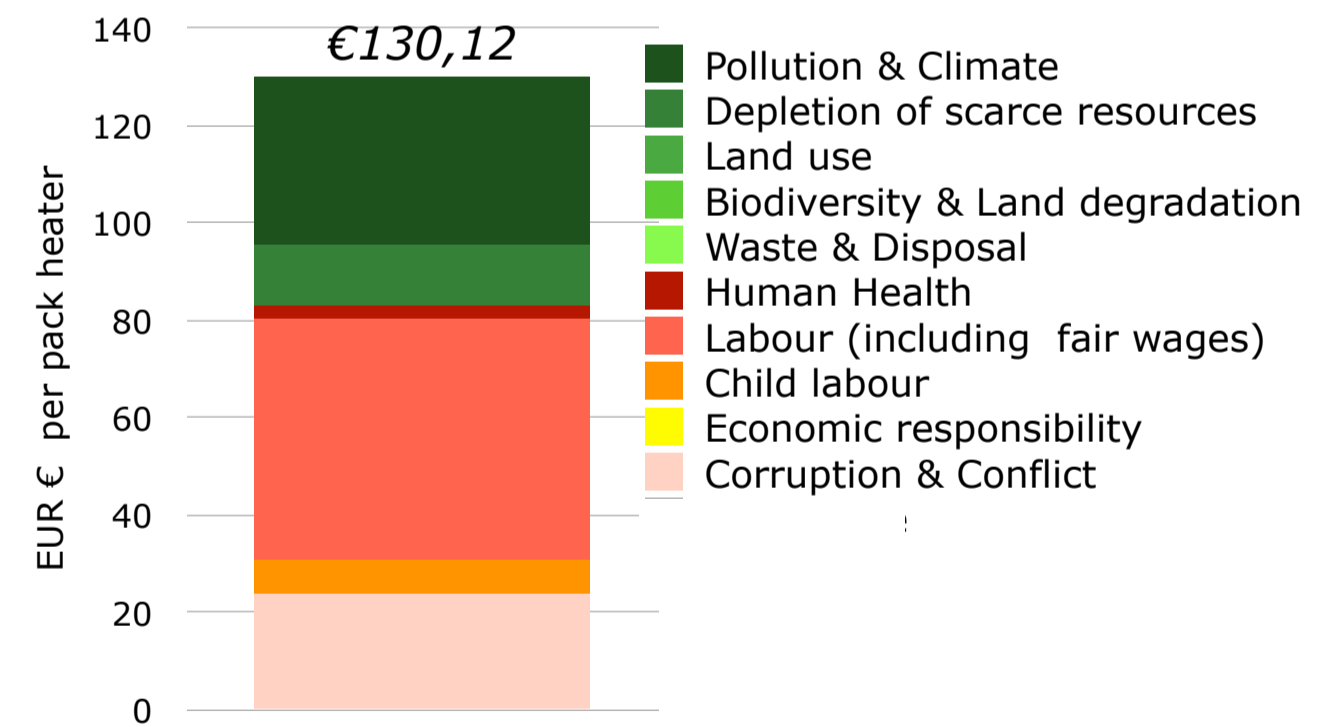


Figure 2: Negative hidden costs of 1 pack heater

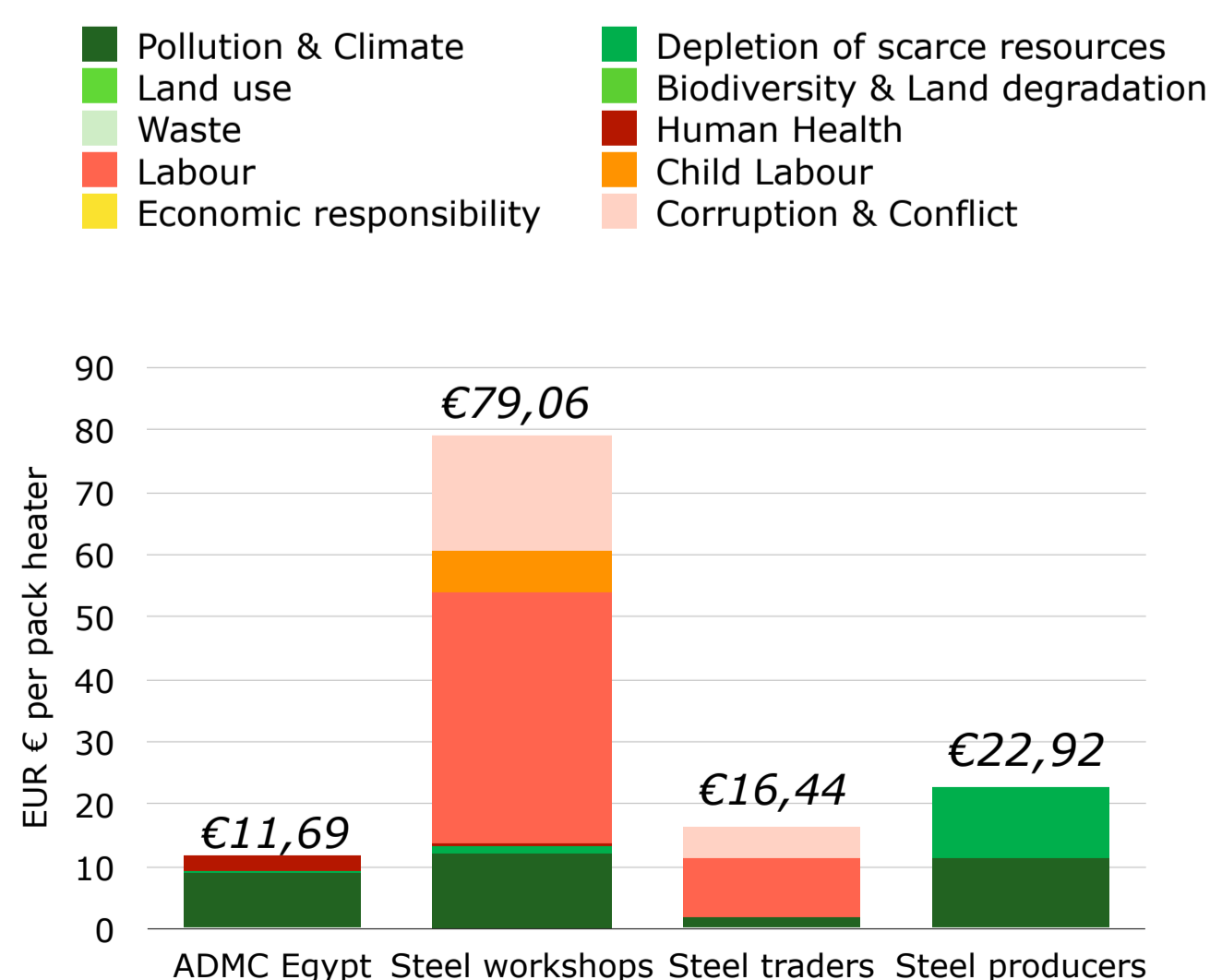


Figure 3: Negative hidden cost per supply-chain partner

The main negative hidden costs come from the category **Labour**. **Labour** measures fair wages, fair inequality and other labour conditions. The main costs come from the steel workshops as employees receive a remuneration that is far below the fair minimum wage. Employees in the workshops earn € 55-65 per month, while the fair minimum wage is € 129 per month. Increasing the price of the product so employees receive a fair minimum wage leads to negative costs of € 24,88 per pack heater.

Besides fair remuneration, the employees do not receive sufficient contribution to health insurance nor is their occupational health & safety sufficiently managed (€ 3,69). Besides the steel workshops, steel traders were allocated default costs on Labour, as no company-specific data was gathered (€ 9,46).

The second biggest impact category is **Pollution & Climate**. The electricity consumed by the steel workshops (€ 12,12), ADMC (€ 9,00), and CO₂ emissions during steel production (€ 11,42), contribute mostly to this. The negative costs on **Depletion of scarce resources** are background costs for the primary production of steel in China (€ 11,42).

Other hidden costs that were found include costs to prevent **Corruption & Conflict**. According to the Corruption Perception Index, Egypt is sensitive to corruption. ADMC has governance mechanisms in place to prevent corruption within their organisation. The steel workshops and steel traders do not have any governance mechanisms in place to prevent corruption, which results in negative costs of € 23,46.

In the steel workshops child labour was found to occur. Raising the wages of children to a fair minimum wage of an adult results in negative costs of € 6,88. ADMC is aiming to tackle the root causes of child labour by, among other activities, providing alternative livelihoods.

Positive costs

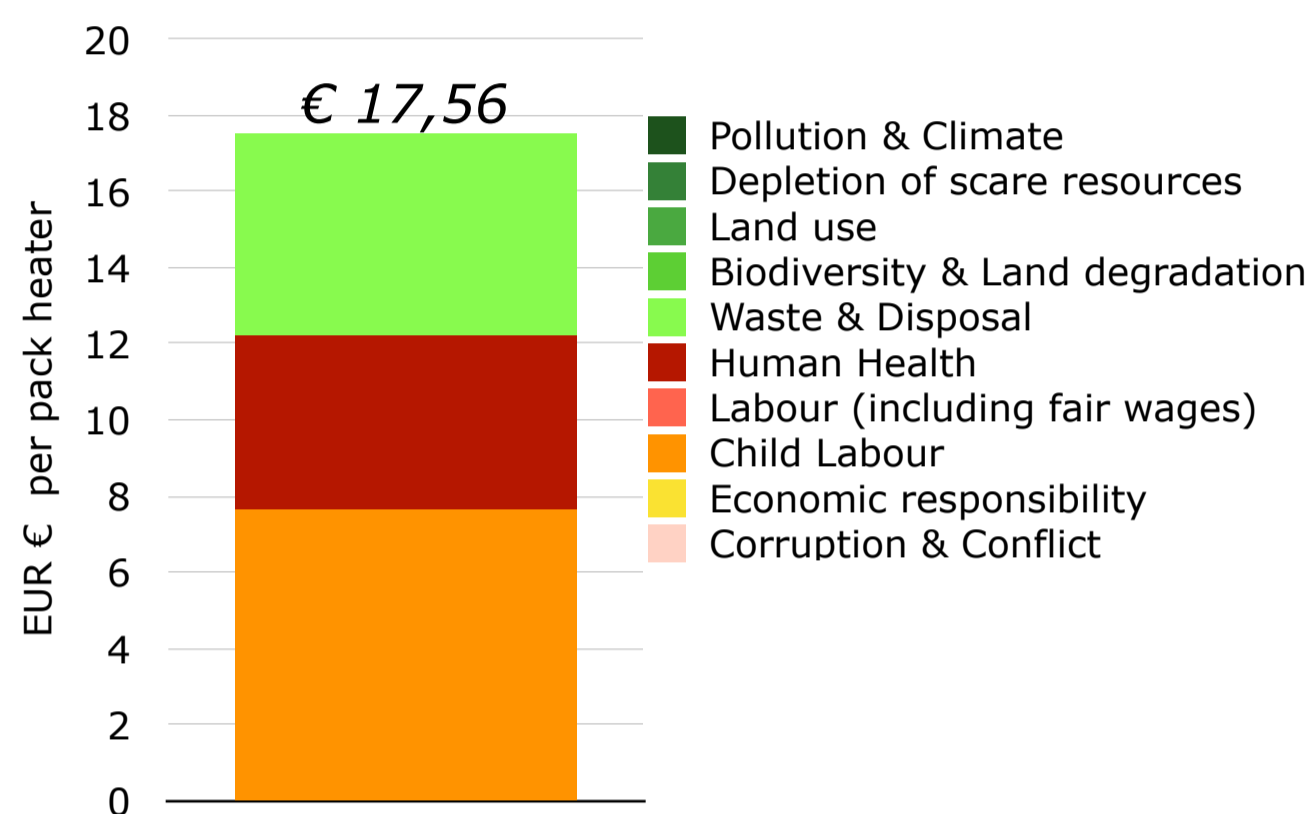


Figure 5: Positive costs of 1 pack heater

Besides negative hidden costs, positive costs were calculated (Figure 5). Bonus ESCU's are based on actual company spending, benefitting others than the ones involved in the transaction. Positive costs of € 17,56 were found, all of this was spent by ADMC. ADMC invested to train their employees, reimburse medical expenses and contribute to a project to prevent child labour, by among other things providing microcredits and by organising capacity raising activities.

Data specificity

Hidden costs are calculated as the sum of the quantity of an issue (performance data), and the costs to prevent the issue (prevention costs).

Performance data are measuring the sustainability performance of companies (e.g. kWh used). The data specificity of performance data of this analysis is displayed in Figure 6. ADMC Group was able to complete the assessment using mainly company-specific data. Data on the steel workshops was retrieved through a questionnaire, conducted by a local NGO. Regarding the steel trader and steel producer data was mostly obtained using generic databases.

Prevention costs are data on the costs of sustainability mitigation measures (e.g. investing in solar panels). The data specificity of prevention data are displayed in Figure 7. None of the value-chain partners were able to provide much company-specific prevention costs, as it takes time to make investment proposals to mitigate impact. This should be a focus when the assessment is repeated.

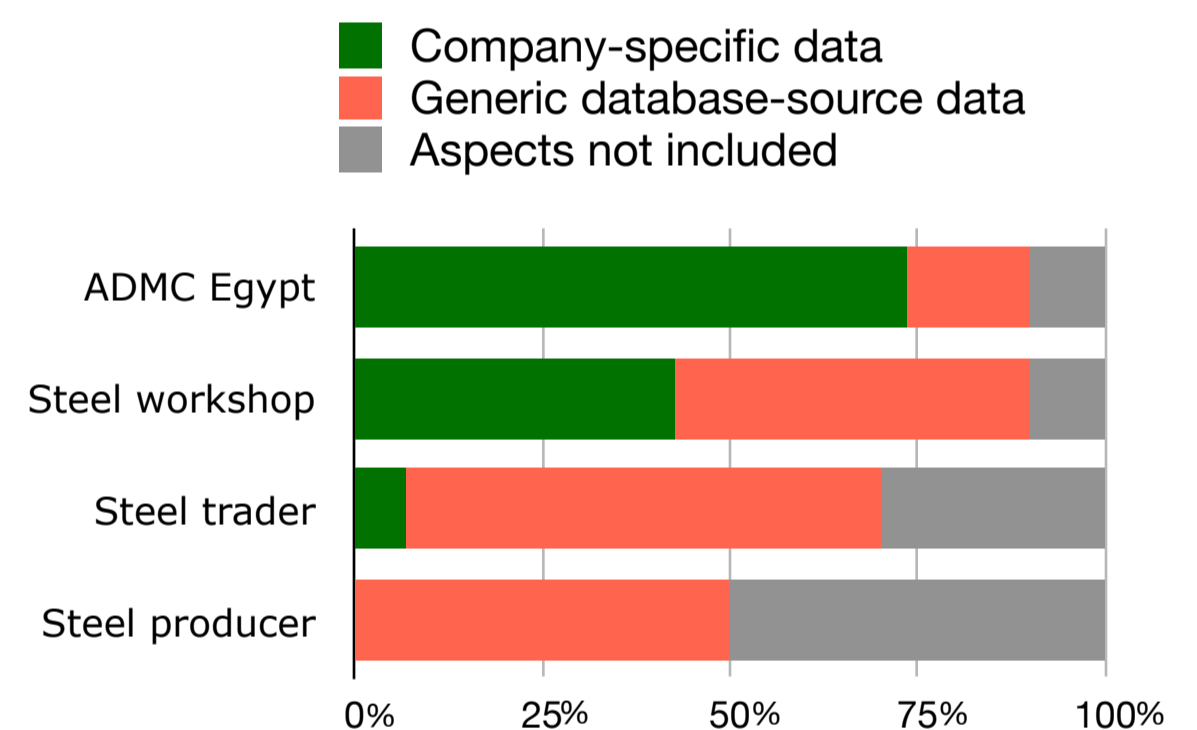


Figure 6: Data specificity: performance data

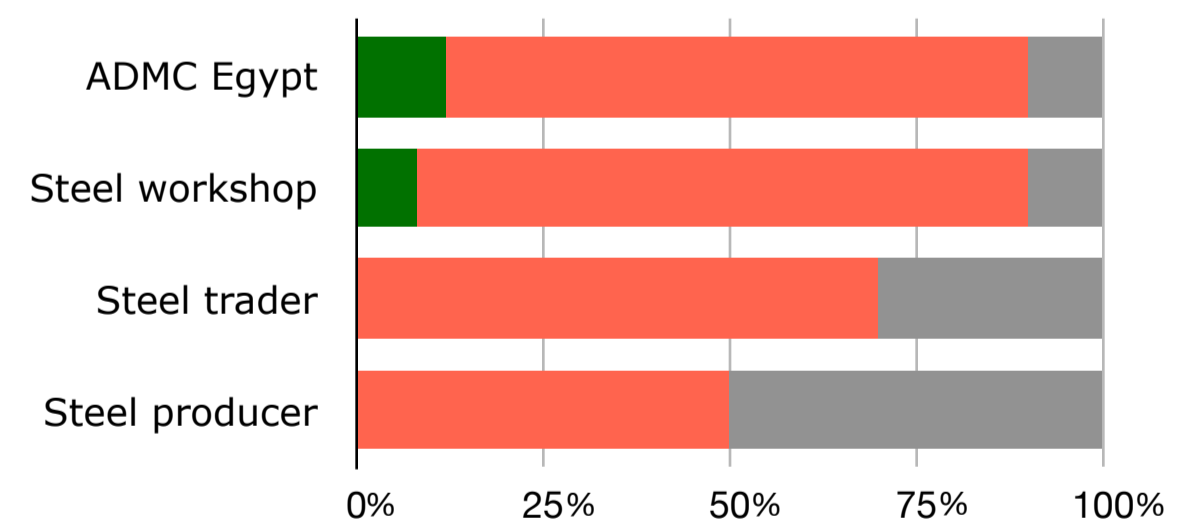


Figure 7: Data specificity: prevention data

Company reflection

"Oiconomy was a great tool to look into our hidden costs and analyse our CSR measures in the company and in our first-tier suppliers. Through using the tool, we could look into practical steps whereby we can share knowledge and help our suppliers to comply with international trade standards, through knowledge transfer".

"We appreciate duplicating the tool through many other companies, so that they can by their role make use of the results from the Oiconomy".

Utrecht University thanks ADMC for their transparency and cooperation. More information is available online on the [explanation of oiconomy pricing method and its principles](#), [the oiconomy pricing tool](#), and [examples of companies applying the method](#). For contact please reach out to oiconomy@uu.nl

Authors: Sara Benjamin, Pim R. Croes, Walter J.V. Vermeulen, Larissa van der Feen
Date of publication: 31-05-2022
DOI: 10.5281/zenodo.6597561