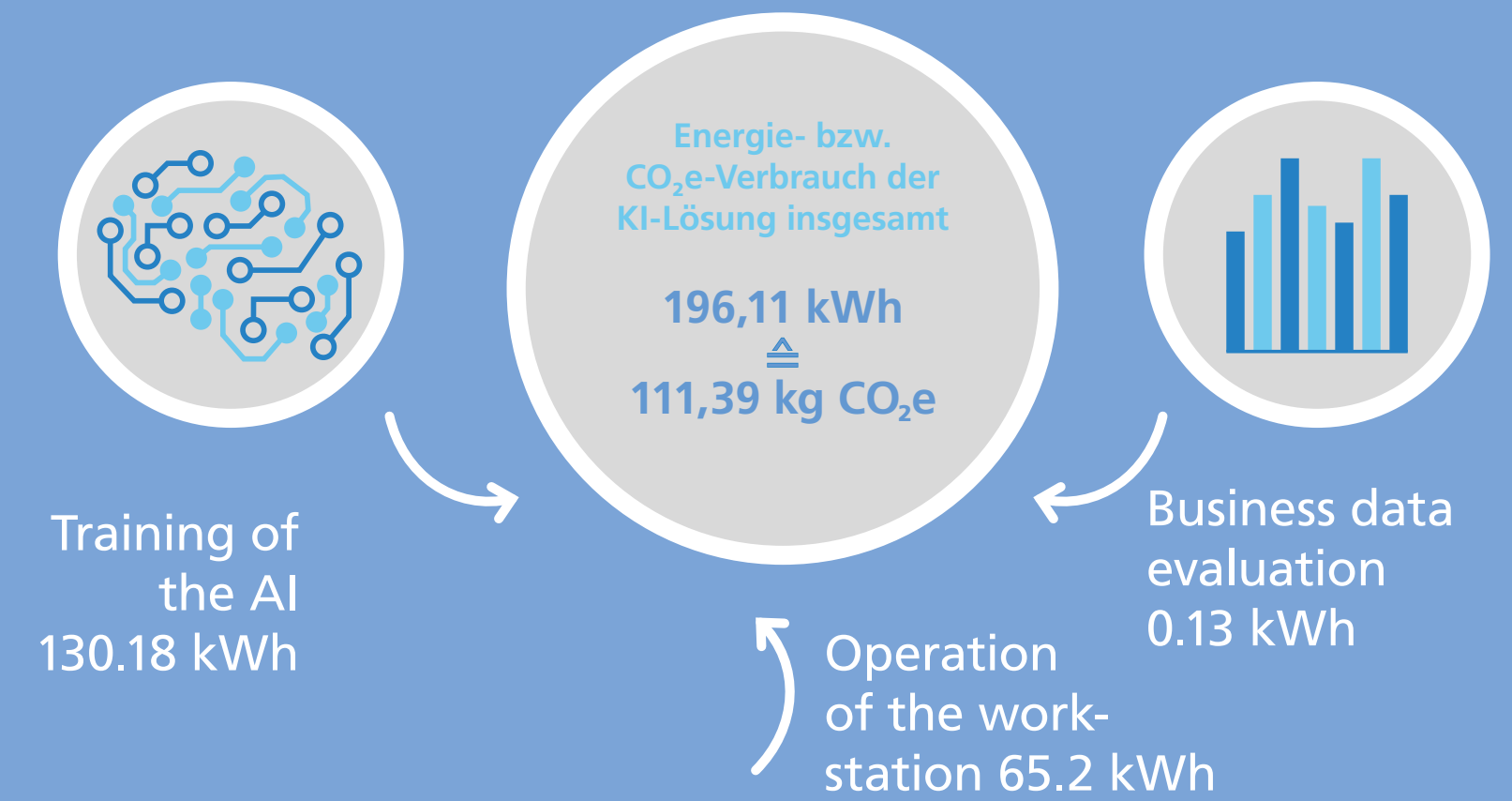Using the automatic identification technology developed in the »EIBA« project, only one percent of used starters are rejected by mistake, compared to around six percent when they are sorted manually. This means that five percent more parts can be remanufactured. Compared with new production, the emissions saved per remanufactured component amount to 8.8 kg $CO_2e$. In our example calculation with 63,000 sorted parts per year, we thus arrive at a total of 27,558 kg $CO_2e$. After subtracting the emissions generated during training and operation of the AI, this results in

✓ **net savings of 27.5 tons of $CO_2e$ per year through the use of the AI solution.**



Training of the AI
130.18 kWh

Energie- bzw. $CO_2e$-Verbrauch der KI-Lösung insgesamt
**196,11 kWh**
≙
**111,39 kg $CO_2e$**

Business data evaluation
0.13 kWh

Operation of the work-station 65.2 kWh



Traditional manual sorting process

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sorted →

63,000 starters / year sorted

← sorted

Automatic identifi-cation with the AI solution

Incorrectly sorted parts approx. 6 % (3,765)

Incorrectly sorted parts approx. 1 % (634)

**ANNOTATIONS**

**$CO_2e$**

CO2 equivalents: unit that makes the climate impact of different greenhouse gases comparable

**Energy mix**

The conversion of energy consumption into CO2 consumption was based on the average German grid mix: 0.568 kg CO2e / kWh electricity