

# Intelligent Nose

AI for honeytype detecting



ARCHI  
GYMNASIUM  
SOEST



We wanted to lower the prices of determination of honey types by using an innovative artifical nose.

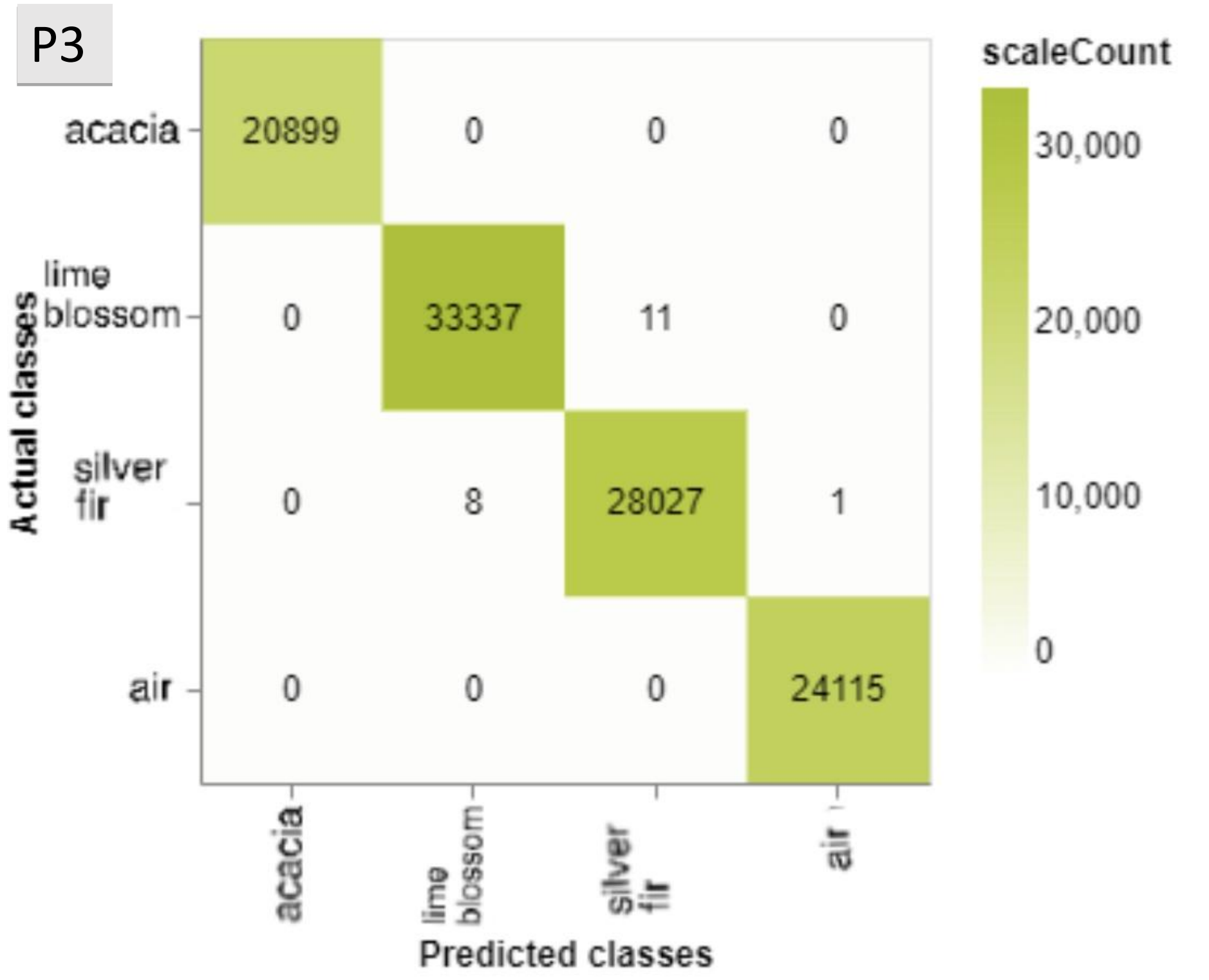
The students are using the sensor unit BME688, which detects volatile organic compounds in the air, similar to the human nose. Different to the biological original, the intelligent nose is objective and scientific, which leads to high accuracy.

The AI was trained with about one million measurements of honey specimens. The accuracy amounts to 99.8%, differentiating between 4 classes. (P3)

Our project means considerable progress, compared to the traditional lab-analysis in terms of time, money and sustainability (shipping). The model being successfully trained with further honey, it will probably be able to replace today's cost-ineffective methods.



The school's own beehive



In conclusion we can sort honey with **99.8 %** accuracy with the BME 688 and an AI model.