GHENT UNIVERSITY

FACULTY OF ENGINEERING AND ARCHITECTURE

economie

FOD Economie, K.M.O., Middenstand en Energie

A new biofuel from wood waste for sustainable transportation

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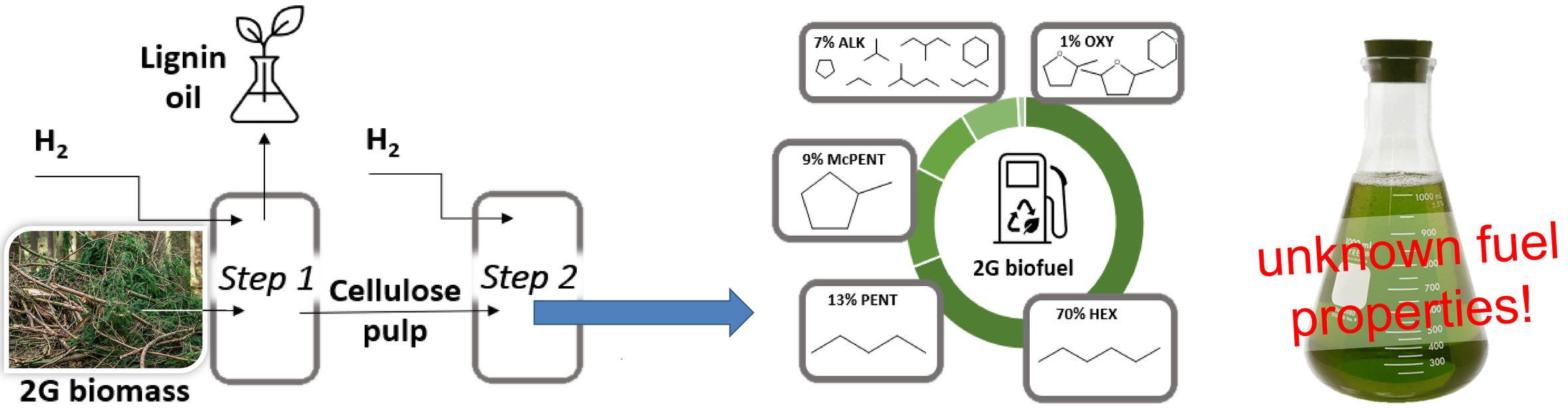
New biofuel production process from wood waste (KULeuven)

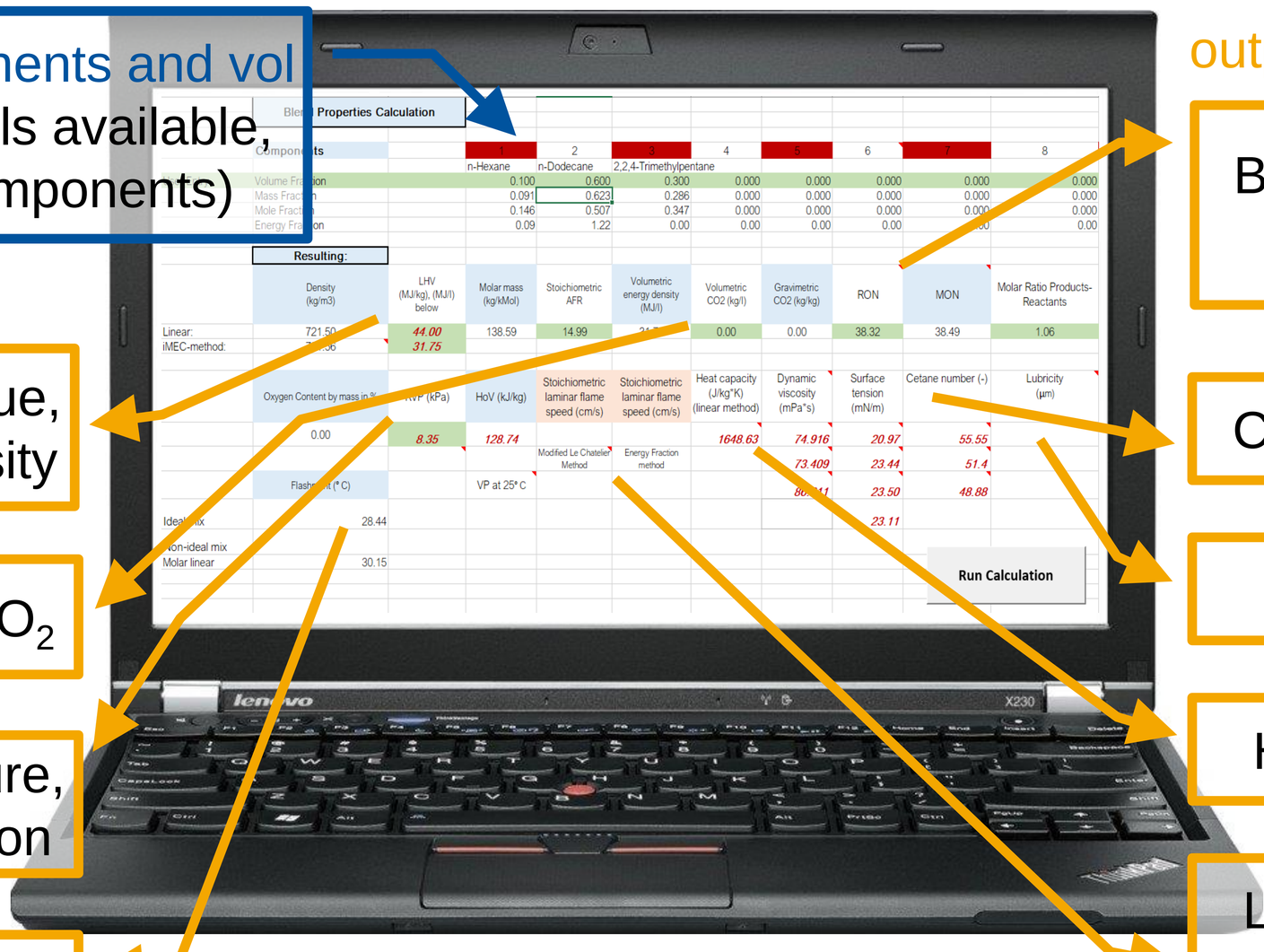


Problem & Goal Statement

- Combustion properties of individual fuel components known, but blend behavior unknown
- Blend behavior can be calculated with expensive computational resources
- A tool was developed to estimate fuel blend properties, based on literature and experimentally validated
- This enables fast-track (bio)fuel development, where completely new fuel blends properties are estimated and the promising ones are retained for laboratory verification or machine learning predictions

Fuel Property Calculator

Select fuel components and vol fraction (600+ fuels available, up to 20 fuel components)



output:

- Lower Heating Value, AFR, Energy Density
- Volume specific CO_2
- Reid Vapor Pressure, Heat of Vaporization
- Flash point

output:

- Blended RON & MON
- Cetane Number
- Lubricity
- Heat Capacity
- Laminar Flame Speed

Ultimate goal: developing sustainable fuel for current & legacy vehicles