

DELIVERABLES REPORT



Multipurpose hemp for industrial bioproducts and biomass

(Ref n. 311849)

6.7 Report on the new fast method to characterise fibres for insulation product

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Insulation of building constructions with the blowing in insulation procedure

Integration of diagnostic and quality-protecting procedures

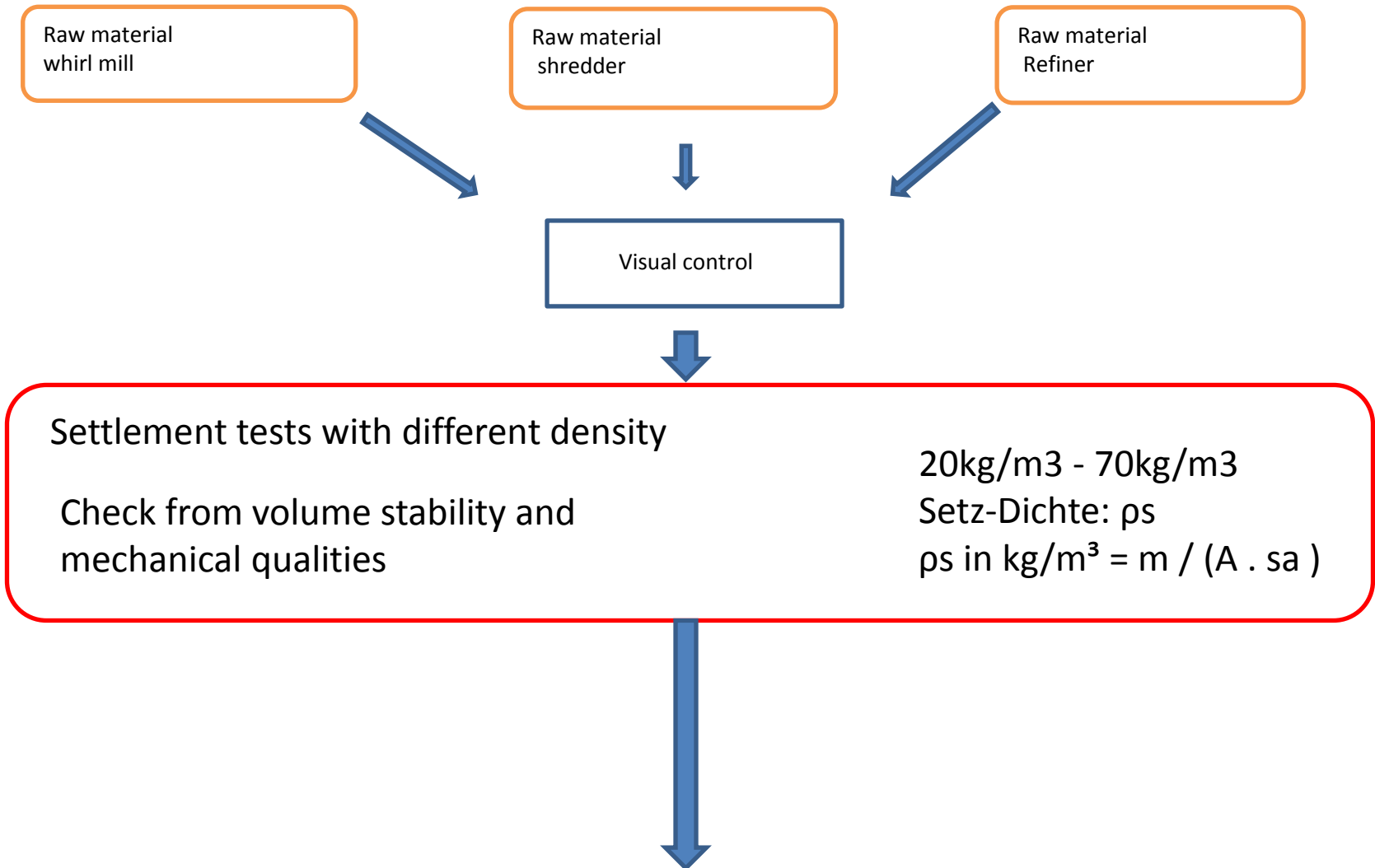


blowing in insulation

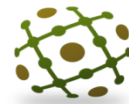
Testing typical characteristics

- best thermal conductivity
- no settlement
- good fire and mould protection
- easy and harmless workmanship

working plan



working plan



MultiHemp

1.1 punch metal box

500mm x 500mm x 400mm

1.2 fall construction

in agreement with ISO/ CD 18393

1.3 shake table

speeding up 15m/s^2

2.1. moisture measurement - Darrverfahren

2.2 fire restinace DIN EN 4102-1

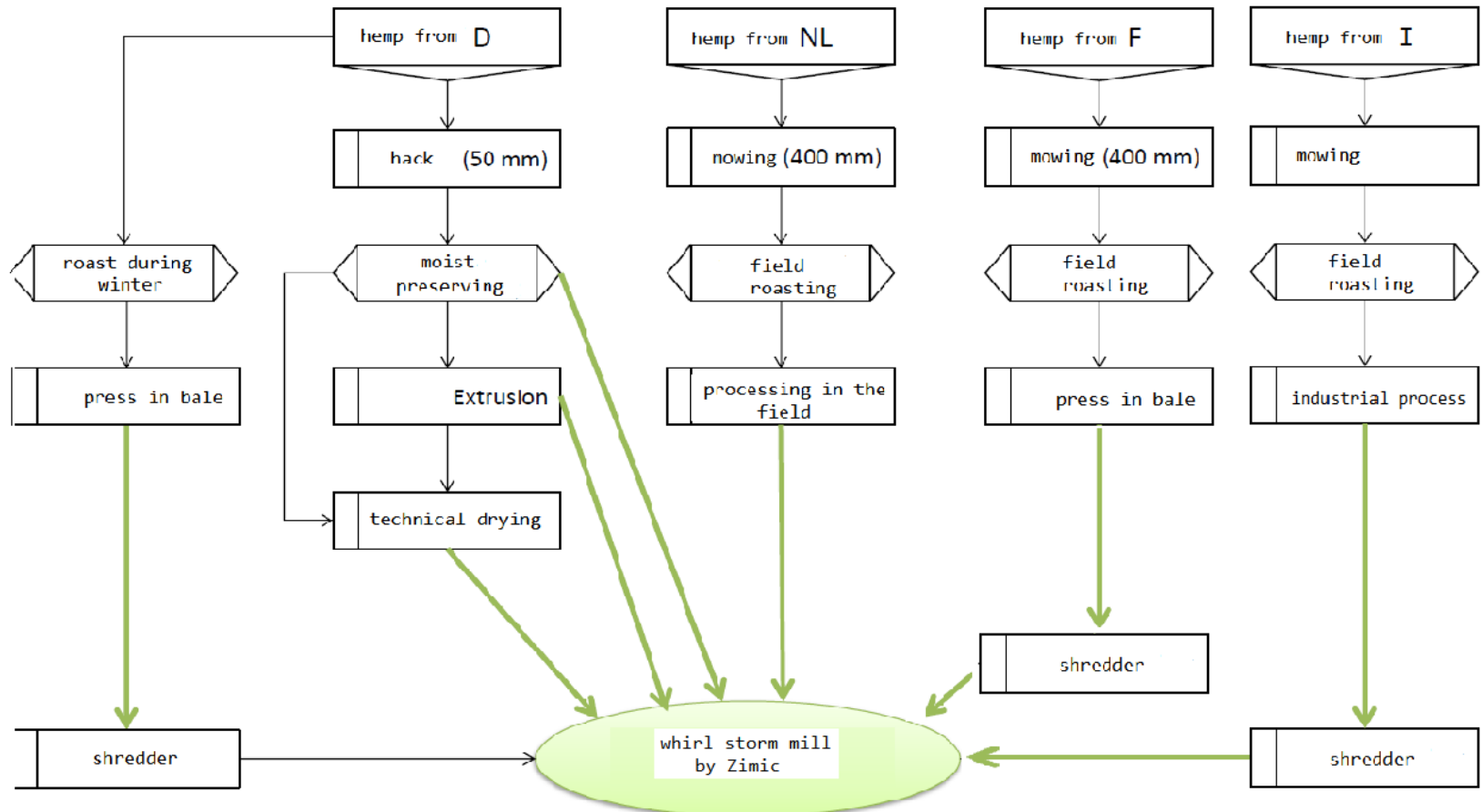
2.3 moisture reaction

2.4. mould test

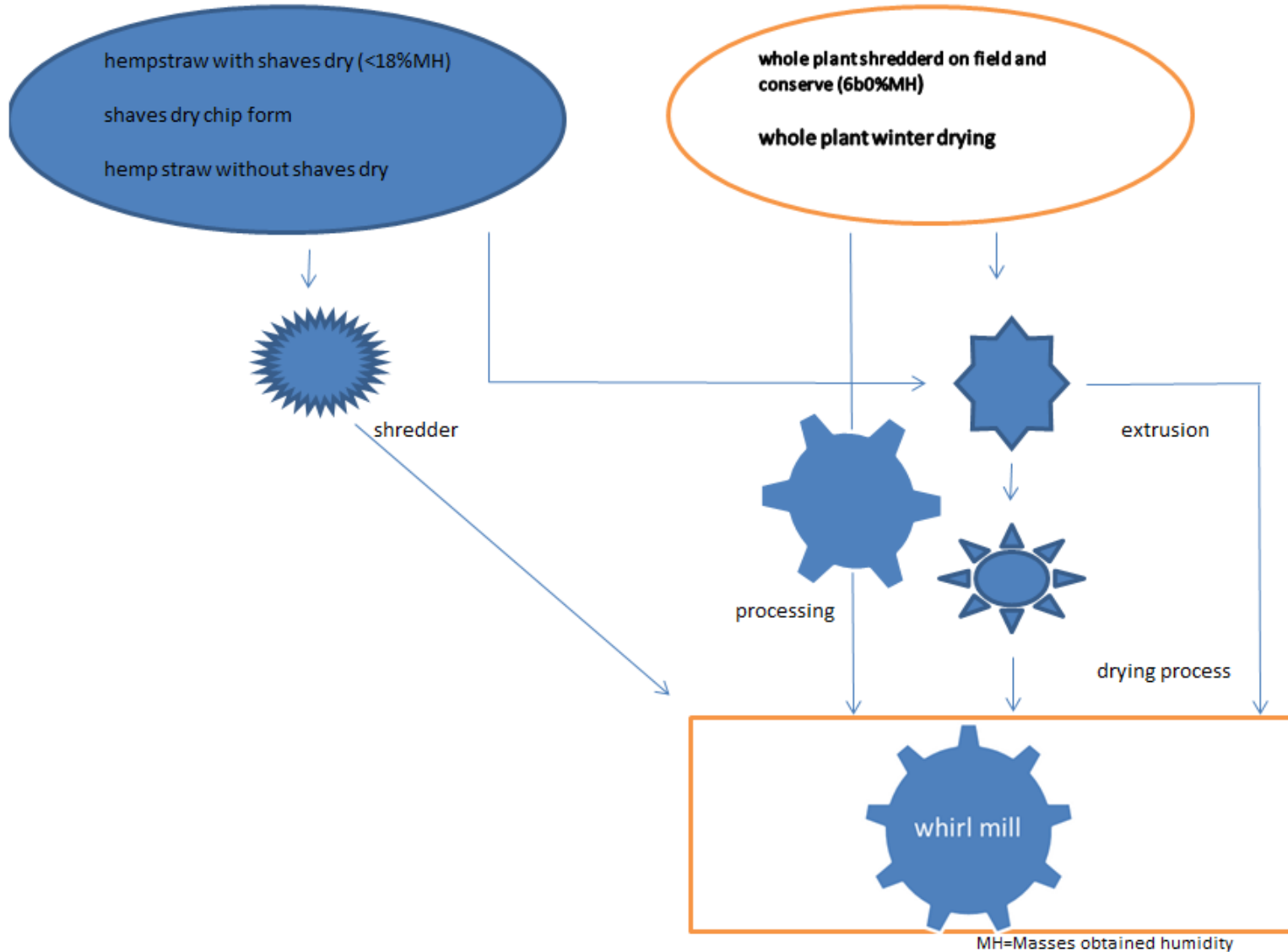
EN ISO 12 571

Installation of the test results in real wall components

Expiry pattern treatment of the raw materials



Hemp raw material working by Zimic

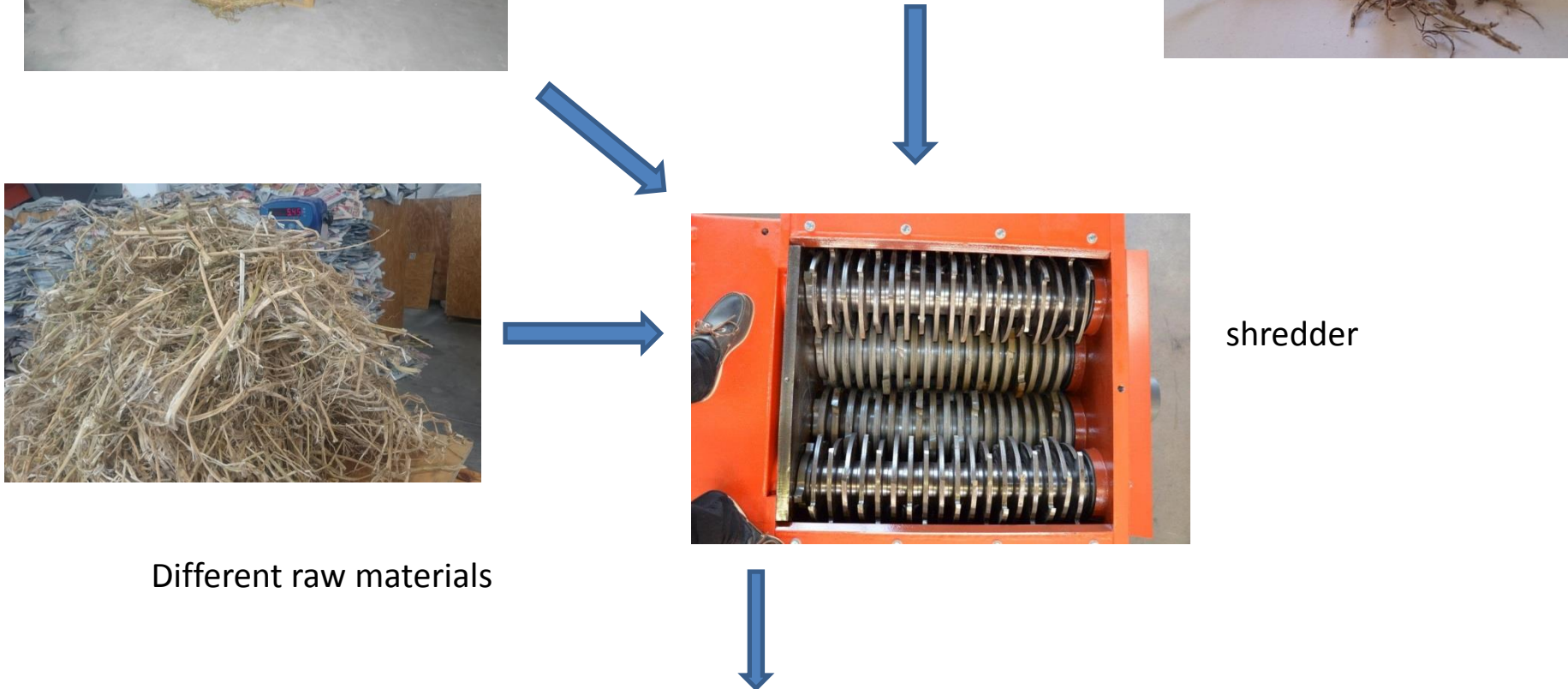


production procedures



shredder

Different raw materials

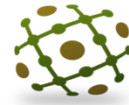


Mill processing



Switch control





MultiHemp

samples



different results after mill process

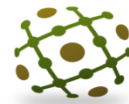


different results after mill process



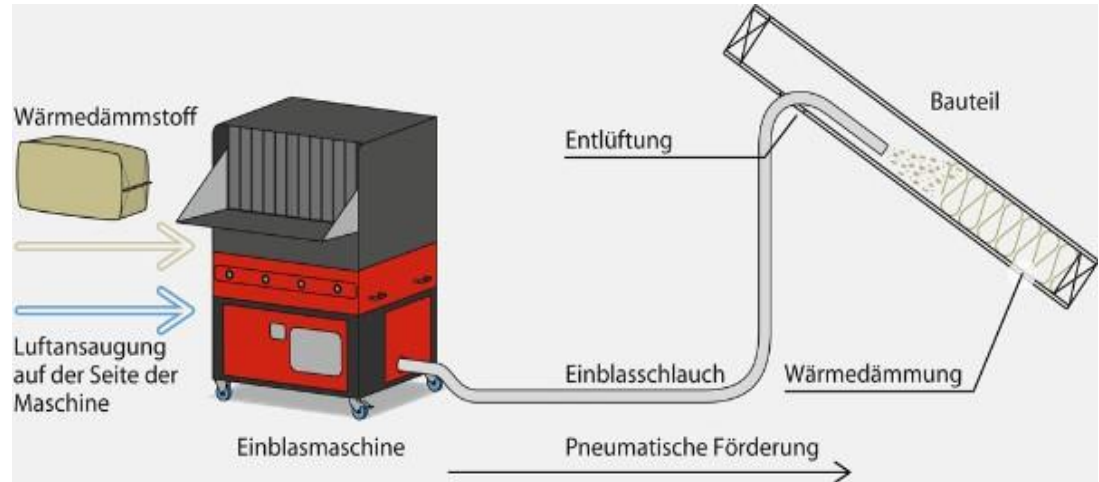
different results after mill process





MultiHemp

Inblow process in test box



18 different raw material samples



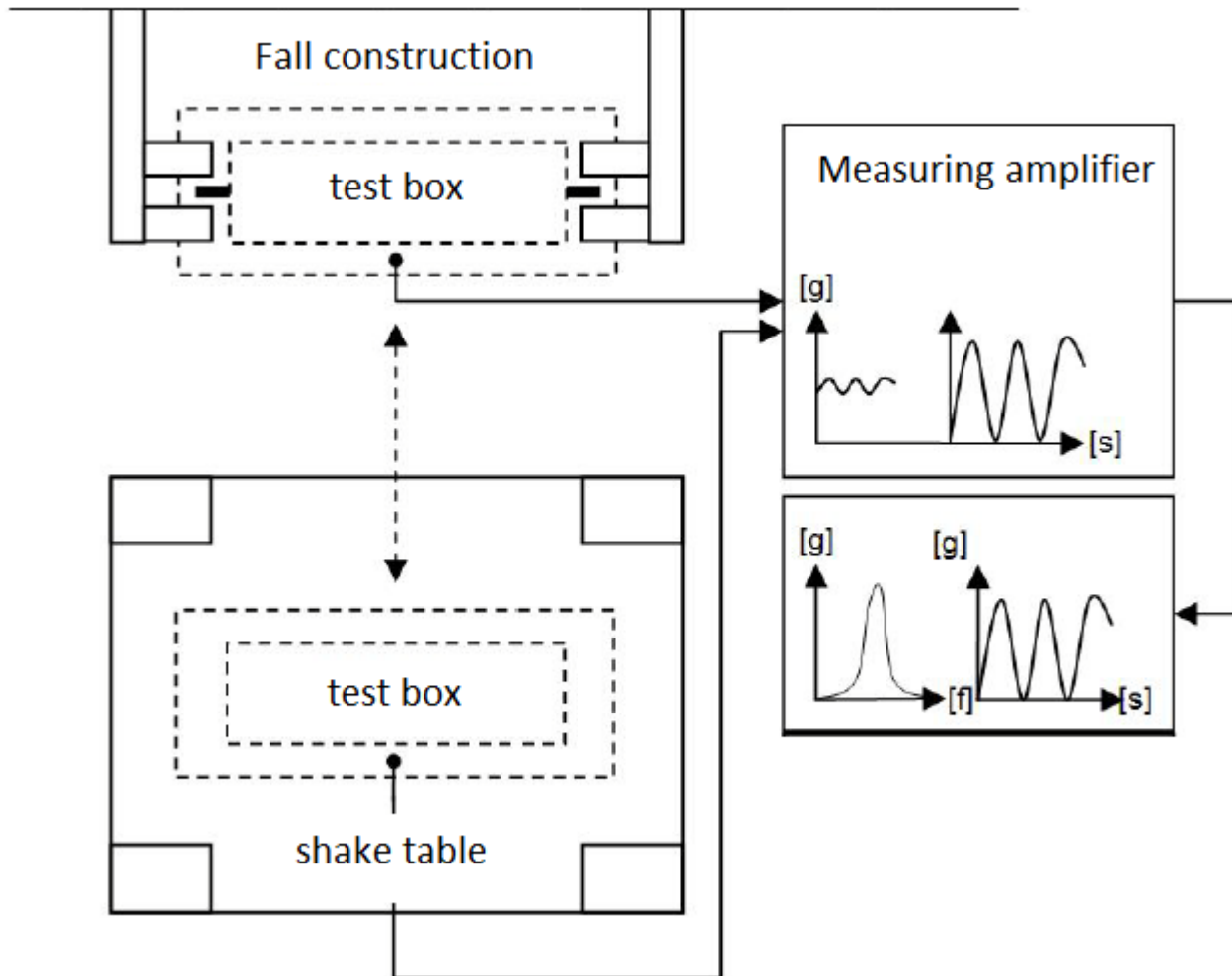
116 different samples after milling
(1689,70 kg hemp material)



14 samples after first fall
construction test Iso/ CD 18393



Fall construction Measurement for settlement test





Moisture control



settlement test

Settlement test

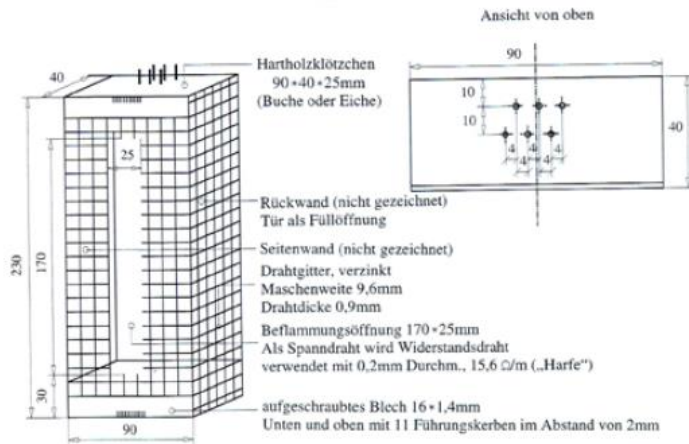


Settlement test



Next steps and milestones

fire protection



Basket test fire protection



Sorption thermal curve

Lambda measurement

Mould development