## USING OF PEAT AS INSULATION MATERIAL. PROPERTIES AND TECHNOLOGIES

Presentation of Poster N°17

**TÕNIS TEPPAND** 

ESTONIAN UNIVERSITY OF LIFE SCIENCES
Institute of Forestry and Rural Engineering
Department of Rural Building

COST FP 1303, Tallinn, Estonia 4th – 5th of March 2015



#### **OVERTURE**



#### Does everybody know that guy?



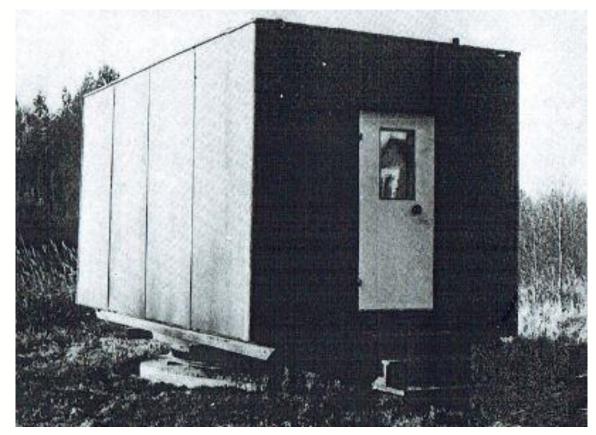
EIII Estonian University of Life Sciences

#### **RESULTS**



#### Maybe because of all that was

some times ago built...



... the house totally made of peat (including walls, ceiling and even the door).

Author Voodele Ternel (T&T, 1980)



#### **CONCLUTIONS**



### Today we know, that elements of peat:

- ... are very light but with good mechanical properties
- ... have similar thermal conductivity as mineral wools  $(l_{10} = 0.037 \text{ W/m} \cdot \text{K})$  (Konto, 2015).
- ... resists mould and microbes (are antiseptic)
- ... does not need any vapour barrier (no condensate)
- ... resists rodents next to the best
- ... can make to fire resistance with the same impregnating agents as timber
- ... can handled with woodworking machinery
- ... can directly puttied and coloured (if planed)
- ... can used as blocks, as plates or as sprinkling material

# THANK YOU FOR YOUR ATTENTION... ...and see You behind the Poster N°17

**TÕNIS TEPPAND** 

ESTONIAN UNIVERSITY OF LIFE SCIENCES
Institute of Forestry and Rural Engineering
Department of Rural Building

**Tartu 2014** 

