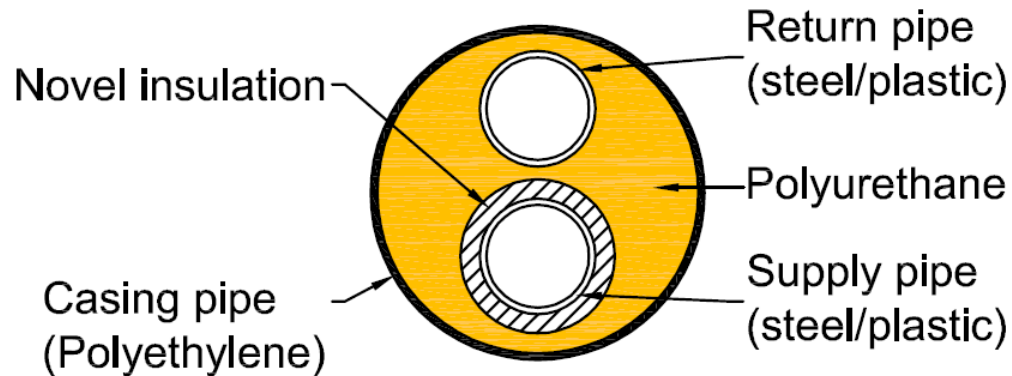
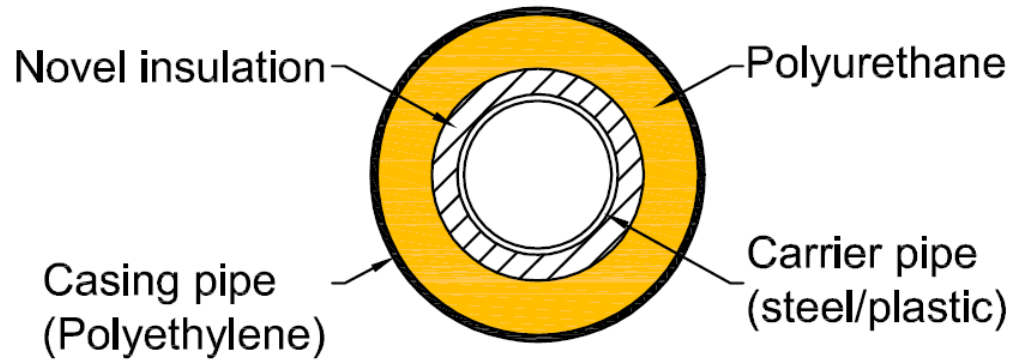
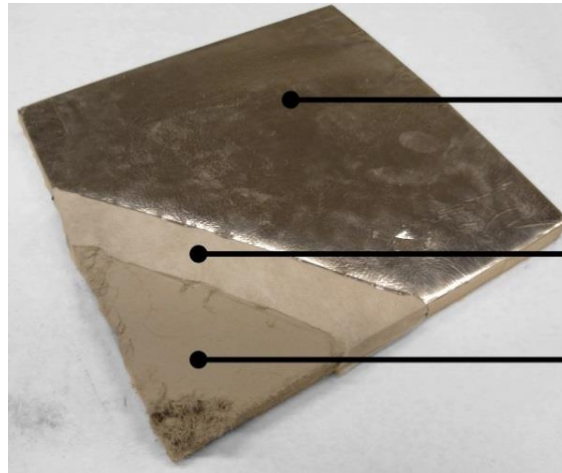
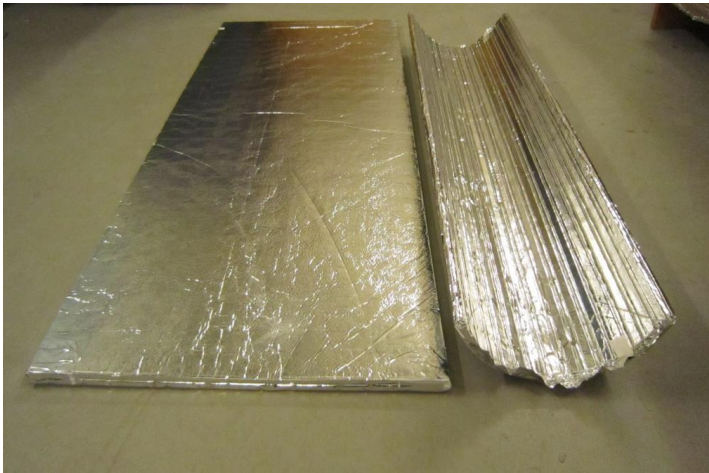


Hybridisolerade fjärrvärmerör



Vakuumisoleringspaneler (VIP)

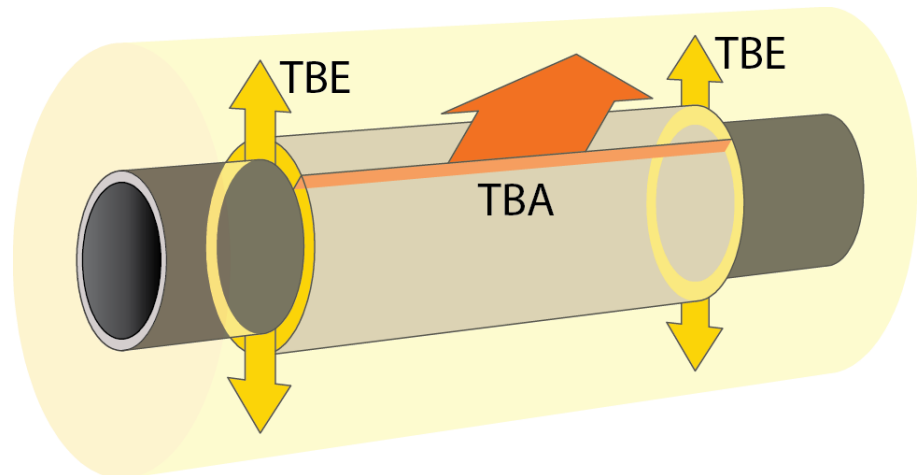


Metalized multi-layered polymer laminate

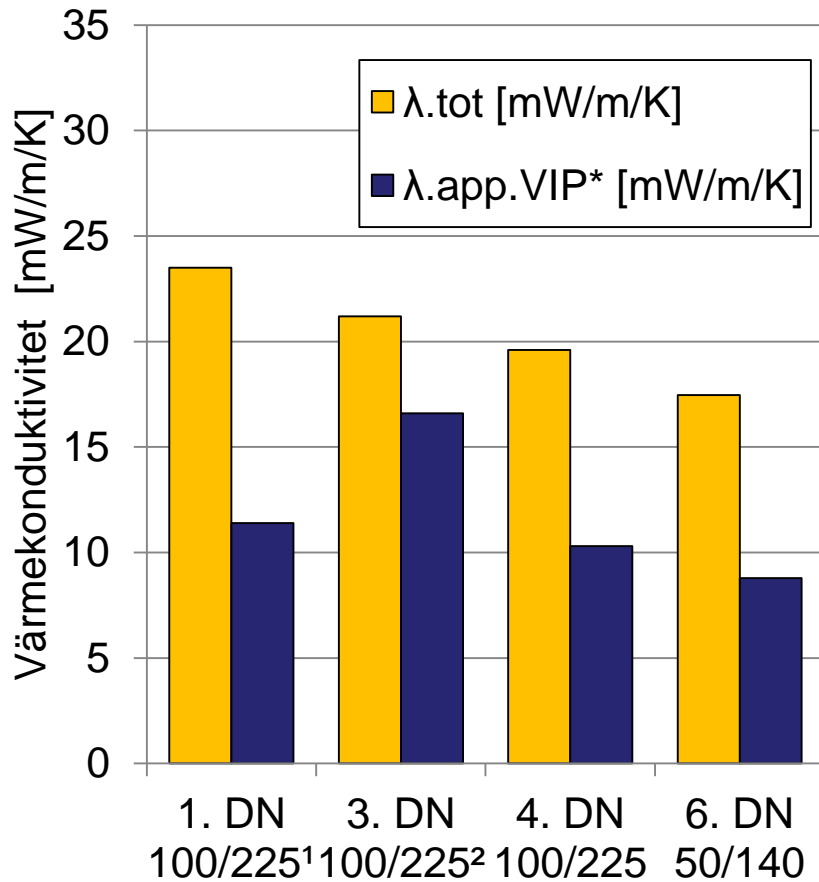
Core protection

Core material (fumed silica)

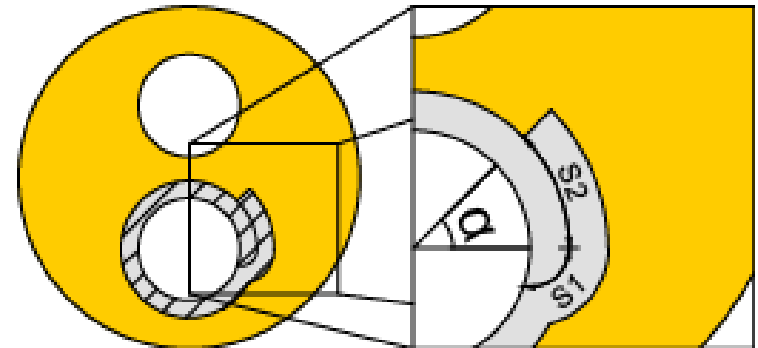
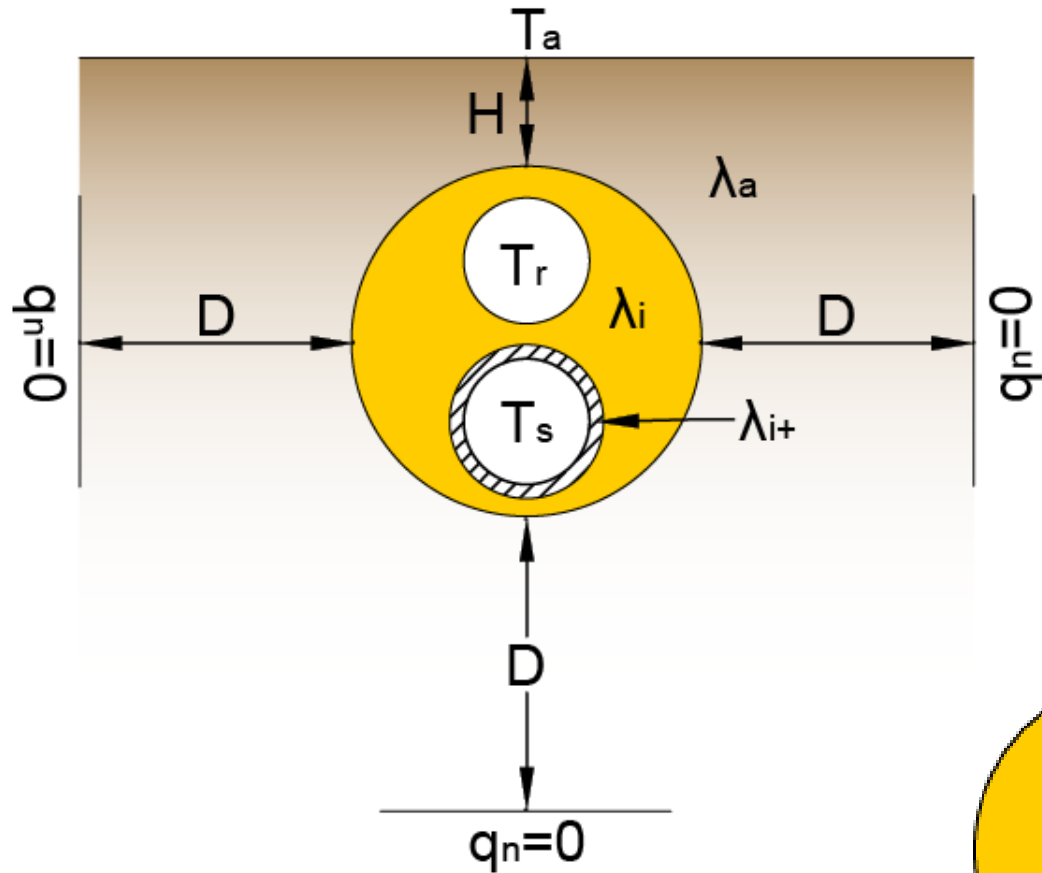
$$\lambda \approx 4.5 \frac{\text{W}}{\text{m} \cdot \text{K}} \cdot T \cdot F$$



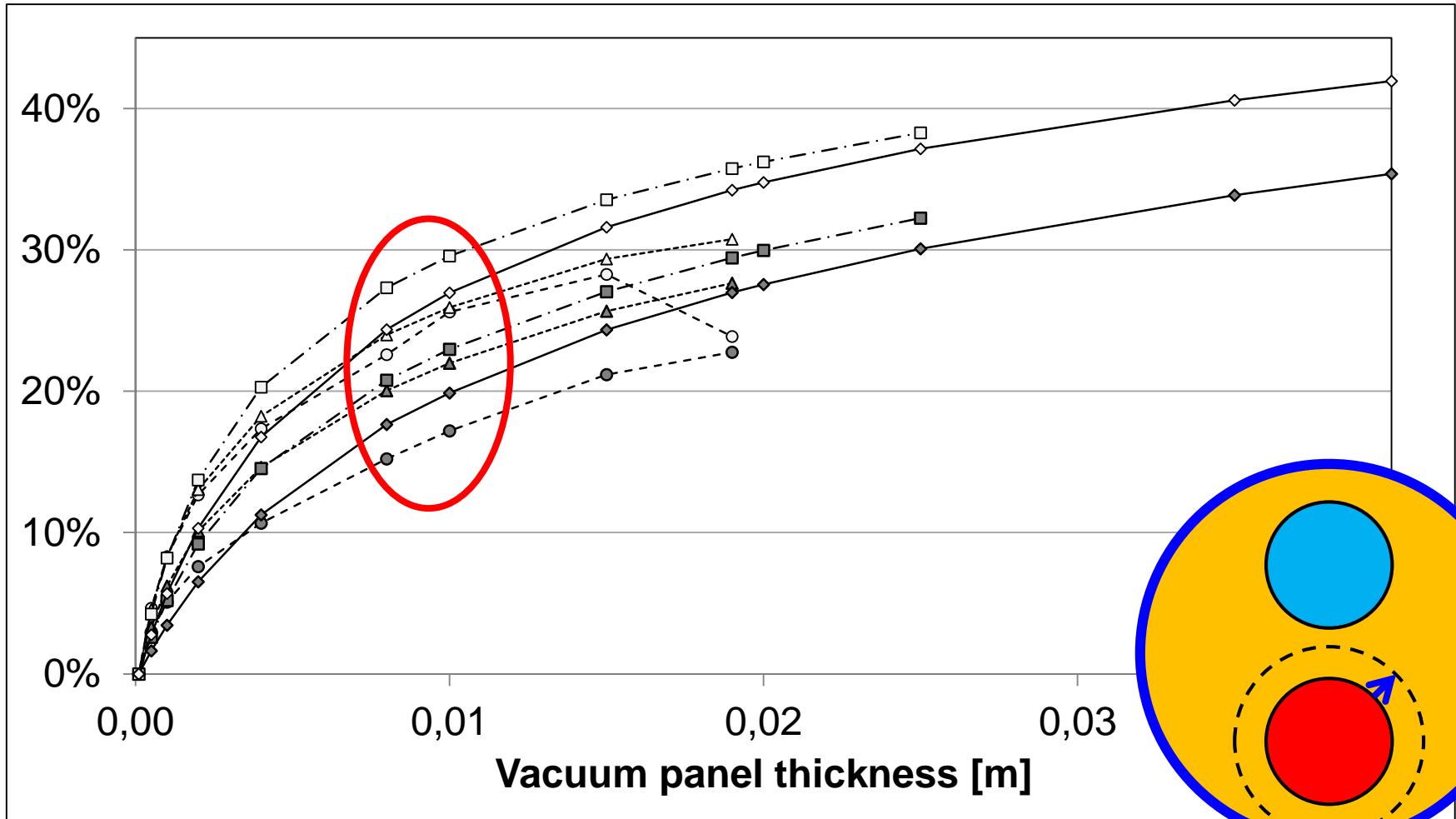
Laboratoriemätningar



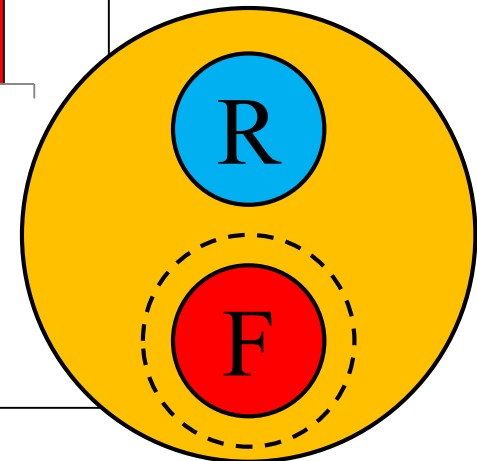
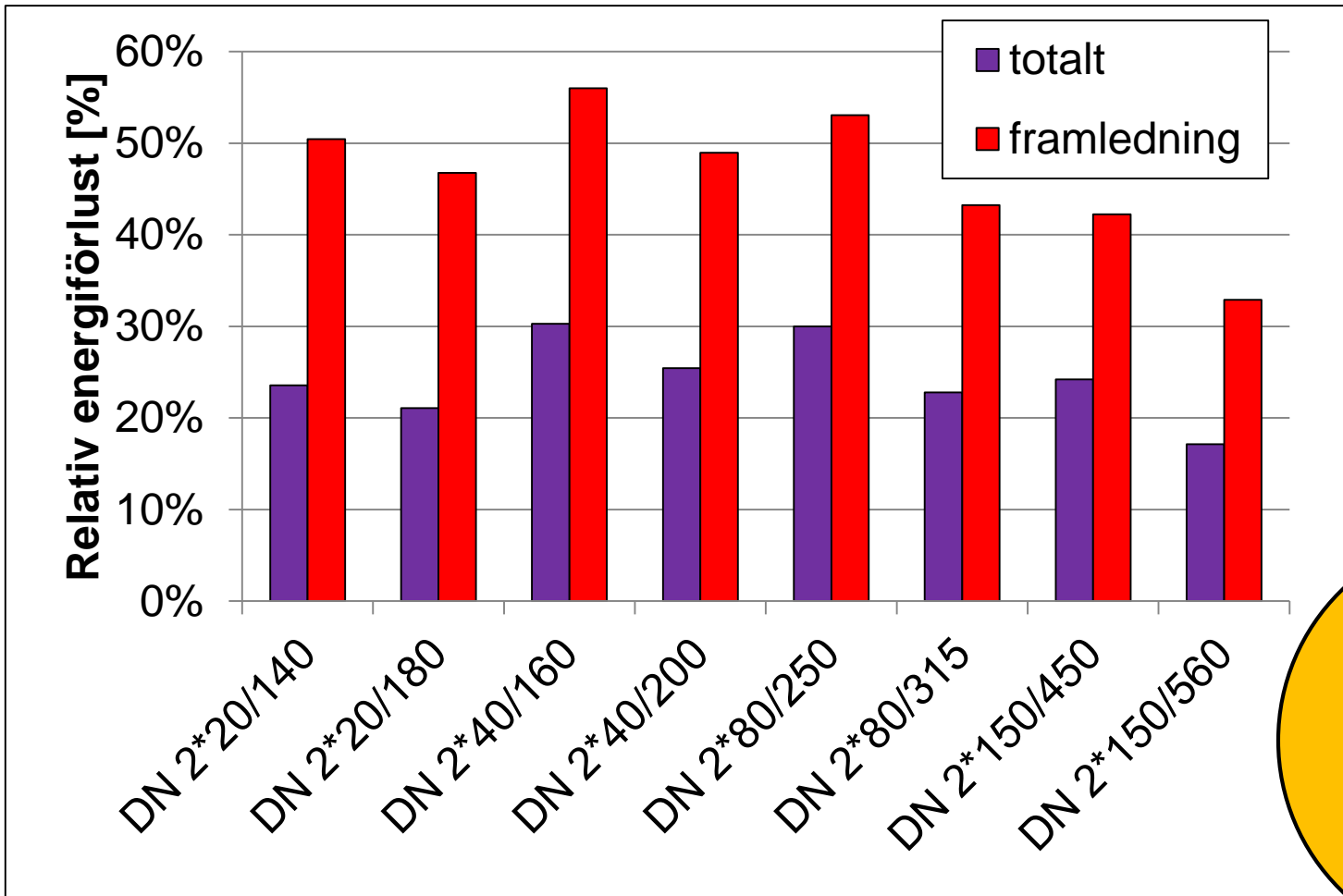
Simuleringar



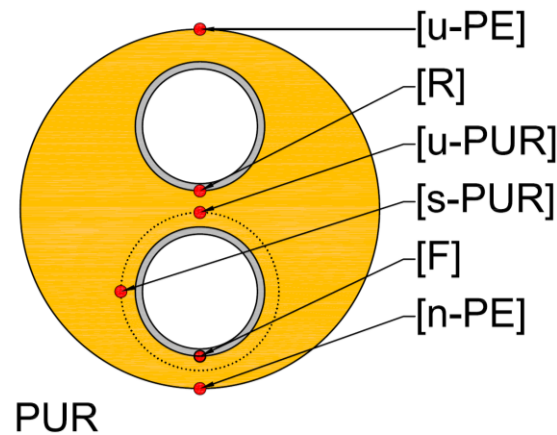
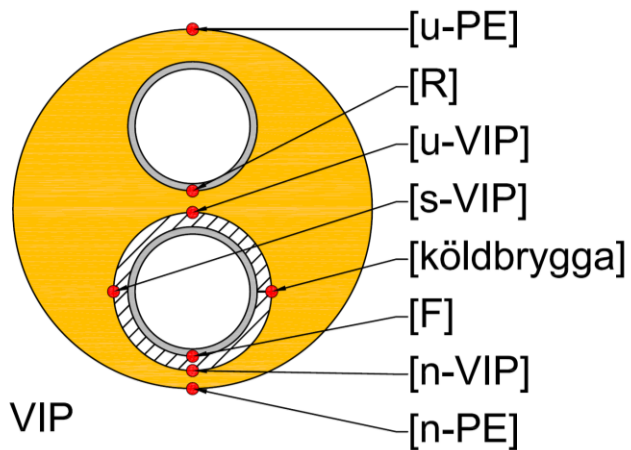
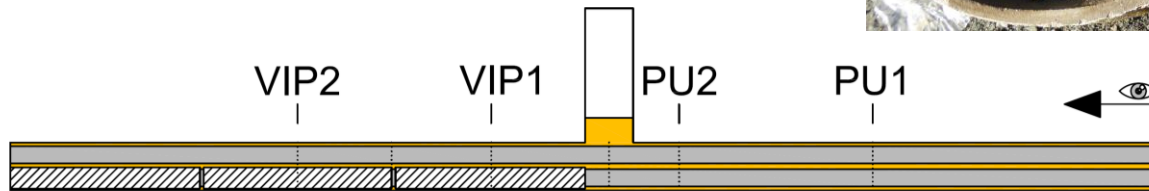
Simuleringsresultat



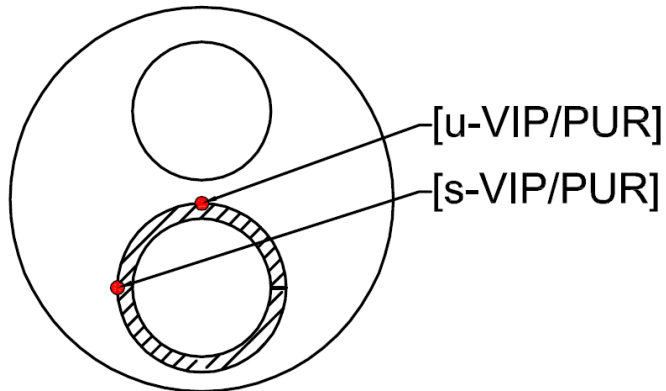
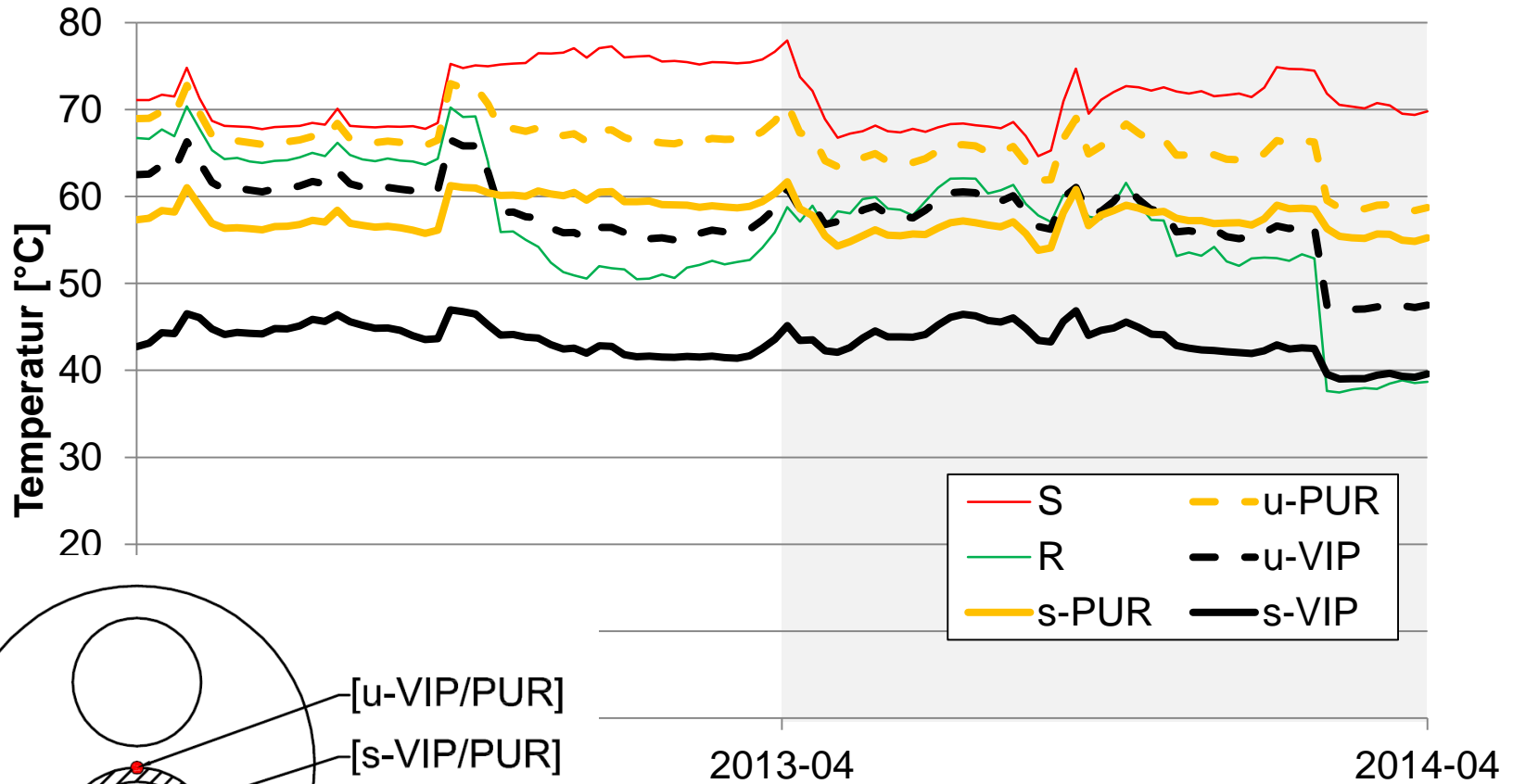
Simuleringsresultat



Fältmätningar



Resultat fältmätningar



Sammanfattning

- Energiförluster minskar 15%-30%
- Framledningsförluster minskar över 50%
- Klarar två år i lågtemperatursystem utan kollaps
- Köldbryggans position har stor inverkan på resultatet
- Första komersiella rören är redan sålda