

# New forest management and forest fuel from young stands

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# We need to decrease CO<sub>2</sub> emissions

## Goal for reduction of fossil fuel in Sweden

- 
- 40-50 % in transports
  - 100% in heating of buildings
  - 20-40% in the industry
  
  - Lower consumption
  - Higher efficiency
  - Increased use of renewable energy sources

(Oljekommission 2006).



# Swedish forestry to increase the annual harvest of forest fuels



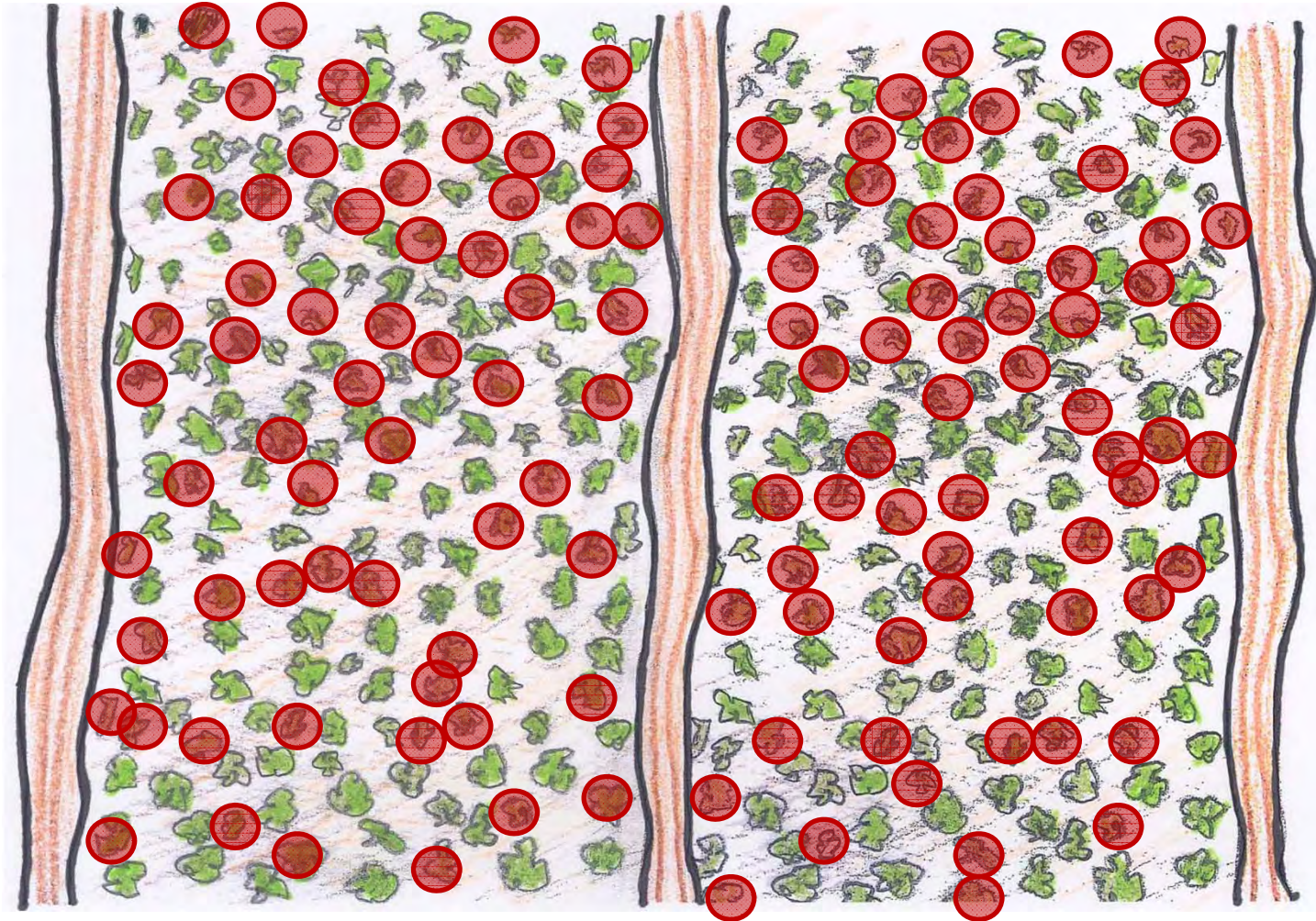
today ~ 15 TWh

tomorrow ~ 55TWh



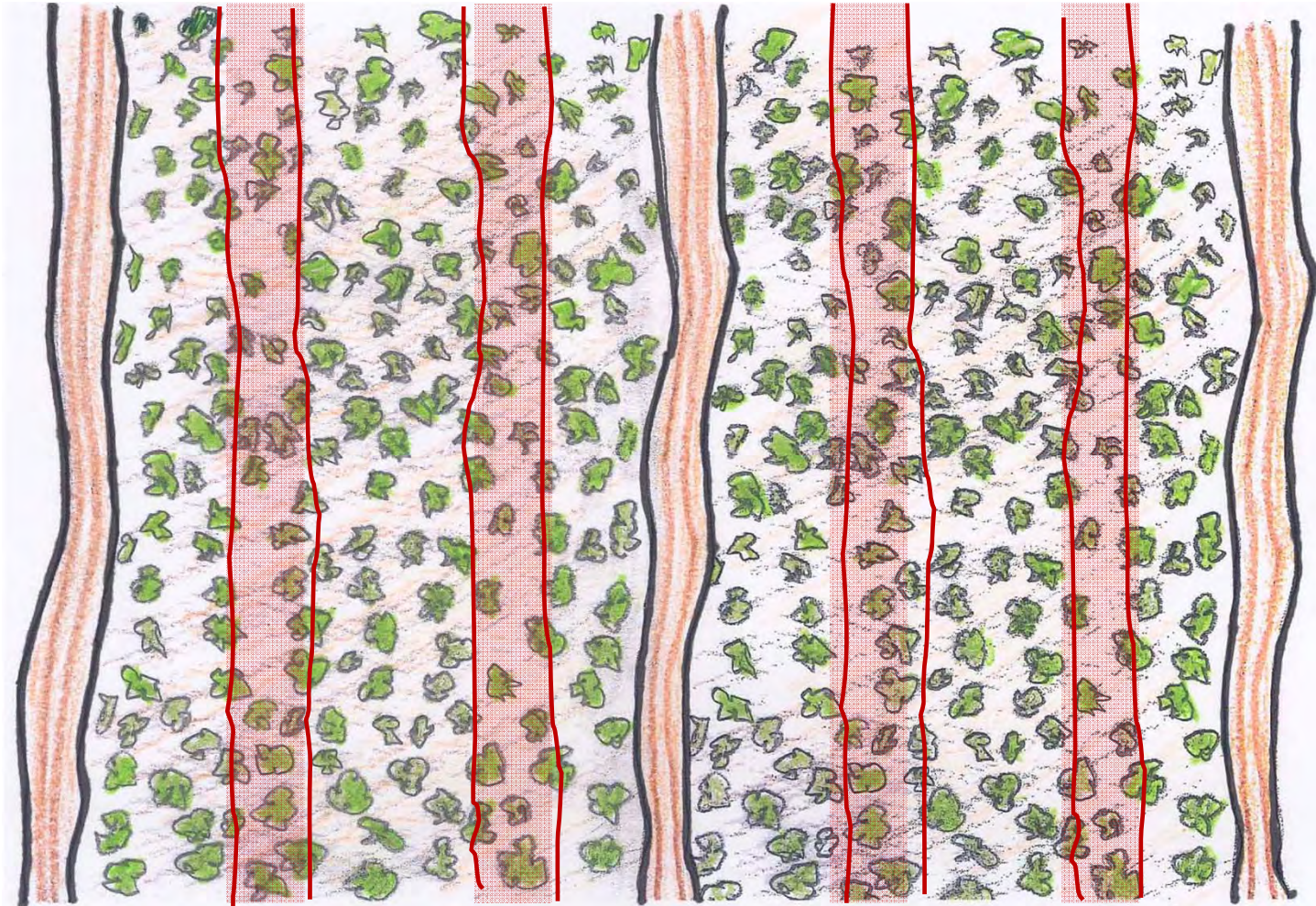
Great potential potential

# Thinning from striproads with multi stem handling





# Thinning i corridors

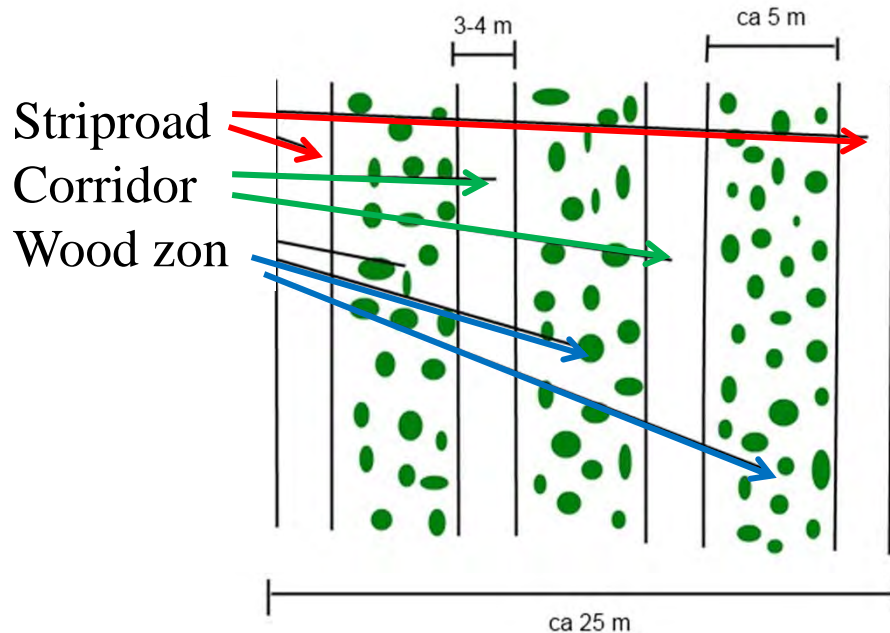




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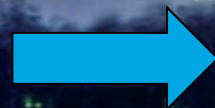


# Alternative forest management systems in rectangular patterns



# Forest products

- ~ 50 millions m<sup>3</sup> timber → saw industry
- ~ 30 millions m<sup>3</sup> pulp wood → pulp and paper industry
- ~ 15 TWh primary forest fuels → heat, electricity and fuel production



12 % of the export income





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# Conclusions

- Rectangular patterns allow biofuel harvest in young stands without losing round wood production
- Forest managed regarding site conditions
- The technique has to be improved
- Possible to increase biofuels from young stands from 3 Twh today to 15-20 Twh