WELCOME TO SUNPINE IN PITEÀ IN SWEDEN

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Sustainable forestry

1917

The Swedish Forest Industry

Natural CO₂ consumption

THROUGH PHOTOSYNTHESIS OUR SUSTAINABLE FORESTRY PROVIDE CLEAN AIR AND AN ENVIRONMENTALLY FRIENDLY SOLUTION TO THE TREATMENT OF CO2 EMISSIONS



Sustainable Forestry

2 TREES ARE PLANTED FOR EACH TREE BEING CUT. THIS ENSURES THE CONTINUED NATURAL REGENERATION OF OUR FORESTS



PRESENTING SUNPINE – Brussels 28 November 2017

Our Perpetuum Mobile

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THE SWEDISH OIL RESERVE

SunPine 2006





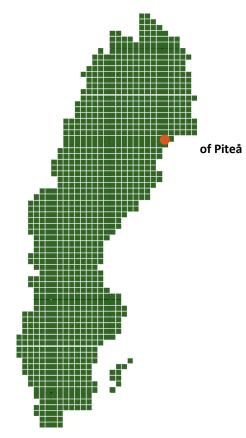
SunPine 2010 – Inauguration in May





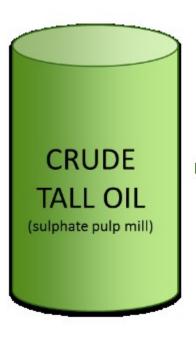
SunPine summer 2010 – Haraholmen in Piteå





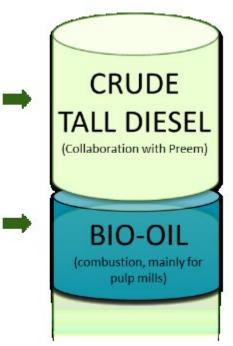


Crude Tall Oil became Crude Tall Diesel and Bio Oil



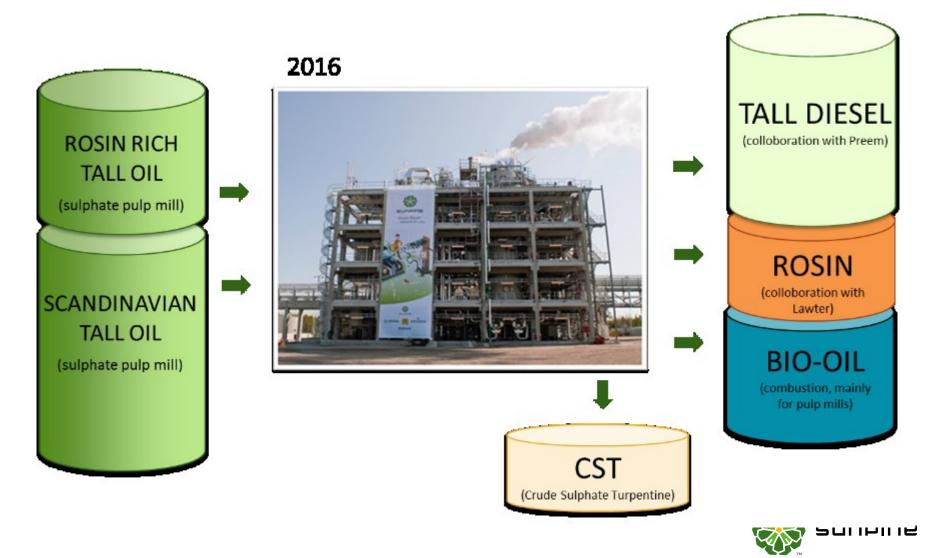


- Reached targeted capacity
- Achieved profitability





Biorefinery - Two raw materials and four products





100,000 m³ of Tall Diesel reduces CO₂ emissions with 250,000 mt. Renewable Diesel every year!

SUNPINE – A UNIQUE FACILITY

FIRST IN THE WORLD TO PRODUCE DIESEL FROM THE FOREST

Utilising a residual product from the Pulp industry

The foundation is a sustainable forestry

PRODUCING TALL DIESEL AND ROSIN

Additional products TOP and CST A unique mix of products & raw material The investment & the energy consumption



Sunpine AB – facts and summary



> 1 billion SEK



CREATED MORE THAN 100 JOBS

Direct and indirectly



The owners of SunPine AB

₩ SVEASKOG



SWEDEN'S LARGEST FOREST OWNER AND A LEADING SUPPLIER OF SAWLOGS, PULPWOOD AND BIOFUEL.



25%

SWEDEN'S LARGEST FUEL COMPANY, WITH OVER 600 FUEL STATIONS FOR PRIVATE AND COMMERCIAL TRAFFIC. PREEM HAS TWO REFINERIES IN SWEDEN: PREEMRAFF LYSEKIL AND PREEMRAFF GÖTEBORG.



25% SWEDEN'S LARGEST FOREST-OWNER

ASSOCIATION AND A LEADING GLOBAL PRODUCER OF PAPER PULP.



15%

A DEVELOPMENT COMPANY IN THE BIOREFINERY TECHNOLOGY FIELD AND THE FOUNDER OF SUNPINE.



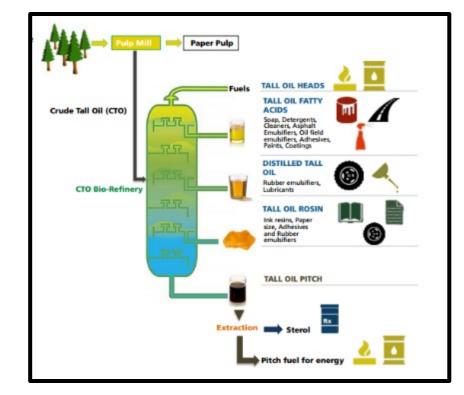
10%

LAWTER IS A DUTCH COMPANY OWNED BY HARIMA CHEMICALS (JAPAN). A STRONG POSITION IN TERMS OF CHEMICAL PRODUCTS EXTRACTED FROM TALL OIL.



The Cascading Principle – Misconceptions

- Arguments regarding Cascading Chemical companies
- Good to start to understand Principle behind cascading is OK
- Cascading developed in Scandinavia Forest industry has developed during 100 years



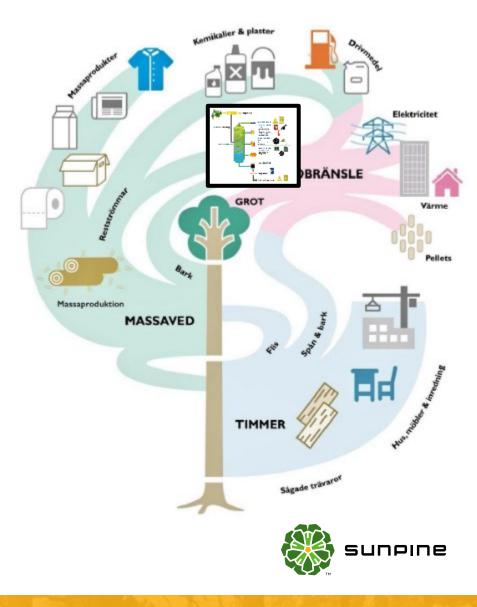


The Cascading Principle – Misconceptions

- Cascading developed for 100 years Sustainable forestry in Scandinavia
- Important with a holistic view Need to look into full forest industry
- Cemical industry is a small part Small parts will have sub optimisation

- **Cascading Principle Misconceptions** Will be suboptimisation and misunderstanding OK principle, needs sustainable implementation
- Welcome to Sweden

Display the value chain in Sustainable Forestry



Important Political Decisions

- Need to focus on tough regulations Focus on the targets
- Need to demand Total Climate effect
 Not specific products
 Not specific raw materials
- OK to produce advanced biofuels from the Forest Using any raw material or product from the forest Not controlling how to use material from the forest
- Focus on the targets and total Climate Effect Not trying to stipulate "how" to produce "what" Create the demands in the long term regulations
- Long term rules to promote Investments It cannot be possible to change the rules (RED II) Need to be trustworthy to attract investments







Thank you for your attention

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