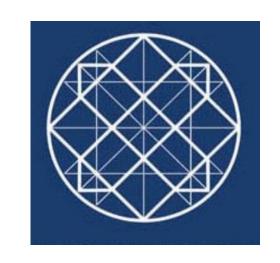
NPO Kinematika, LLC



MoTSoM Technology for Enzymatic Hydrolysis

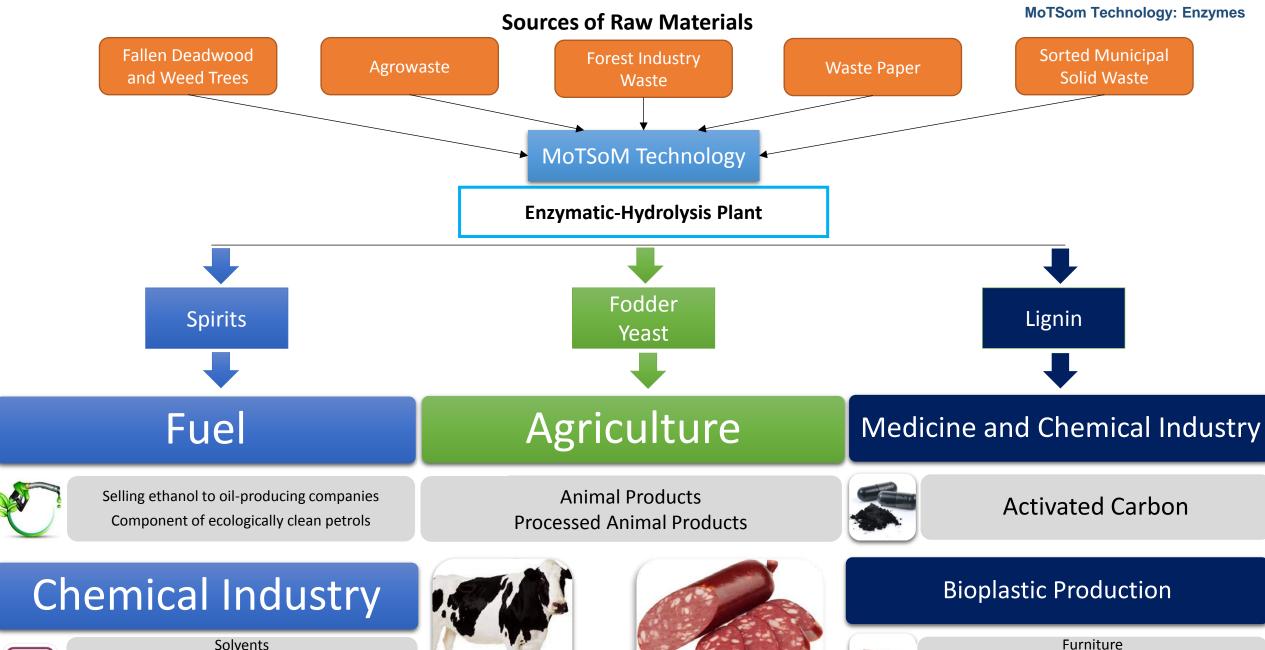
Enzymatic Hydrolysis

Goals:

- Industrial development of small towns and settlements
- Stabilisation of demographic situation
- Production of raw materials for industrial chemistry with good prospects for small-scale chemistry and final product production from relevant raw materials
- Creation of a high-protein fodder base for animal breeding and processing
- Ensuring the employment of population (of quite highly-skilled specialists)
- Improving the stability of energy and food security of a region

Strengths:

- Zero environmental load and significant increase in share in the "green economy"
- Products are high-margin and have a stable demand in the market
- Development of associated sectors of the economy: efficient animal breeding, production of polymer materials and polymer based products
- Involvement in economic turnover of sizeable raw material base that contains cellulose-lignin raw materials





Dyes Acetic Acid









Household Utensils Consumer Electronics

Economic Evaluation

Market price: Market price: 1 tonne of dry sawdust 20 kg/t of enzymes \$0-14/t \$54 15% bioorganic 30% lignin 25% yeast protein **30%** spirits fertilisers Market price: Market price: Market price (bioplastic): \$1 520/t \$912 - \$963/t \$3 378/t Gains: \$271 Gains: \$338 Gains: \$811 (substitute for ABS plastic)

Costs: \$406/t

Profit: \$1 419/t

Enzymatic Hydrolysis

Principal Technological Differences:

Indicators	Conventional Technology (Hydrolysis Plant)	MoTSoM Technology (Enzymatic Plant)
1. Products produced:		
- spirits	+	+
- fodder yeast	+	+
- lignin	Requires additional technological	No need
	conversion of raw material	
2. Level of toxicity of production (ecological load)	High	Low
3. Required level of security	High	Low
4. Capital costs	High	Low
5. Technological cycles	7	4
6. Sources of raw materials	Unlimited	Unlimited
7. Cost of final product	High	Low
8. Speed of process	Low	High
9. Conversion rate	80%	100%

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Thank you for attention!