

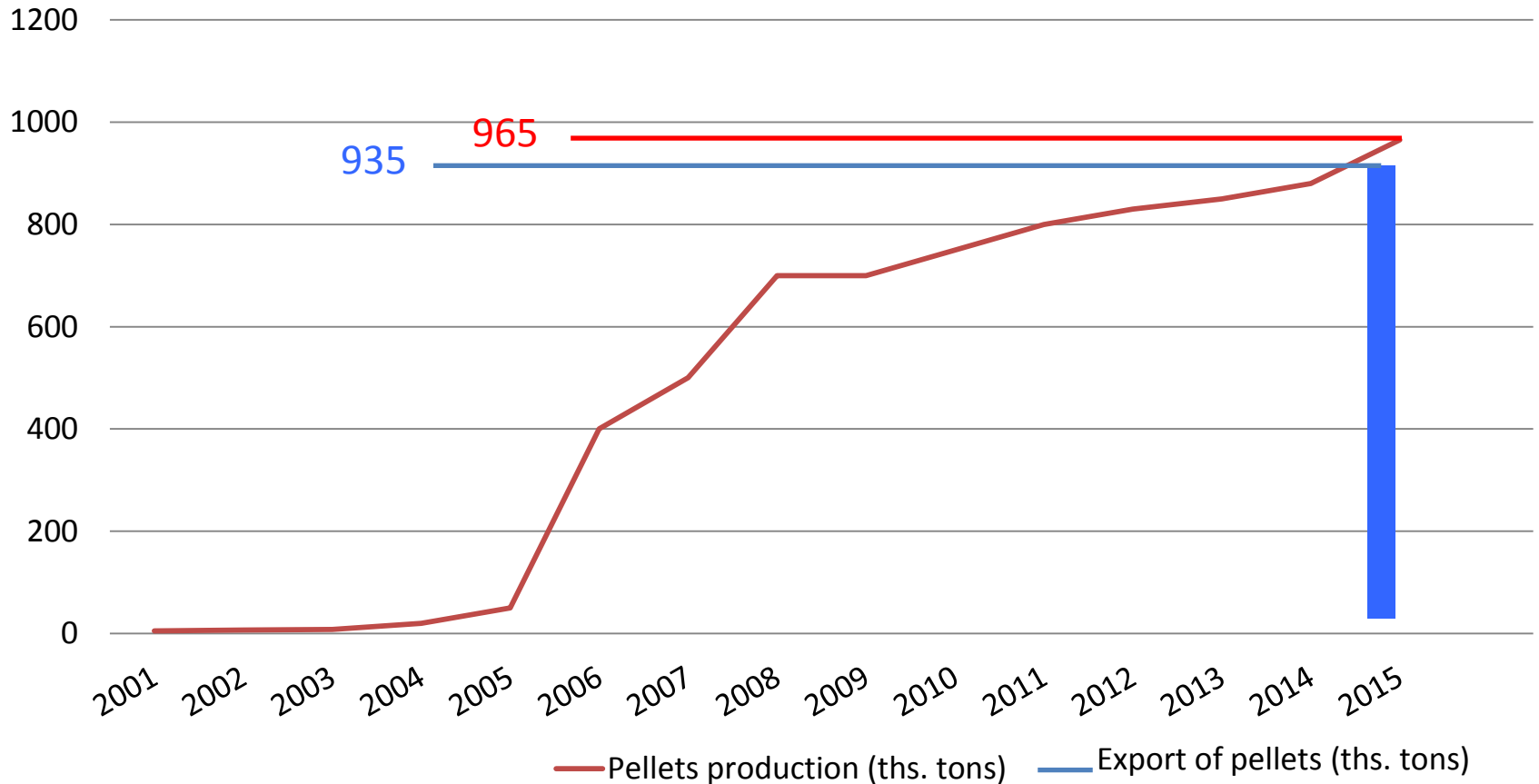


# Experience of the Russian Federation in wood energy development

Workshop on Bioenergy from the  
Forest Sector  
6 - 8 December 2016

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# Pellets production in Russia

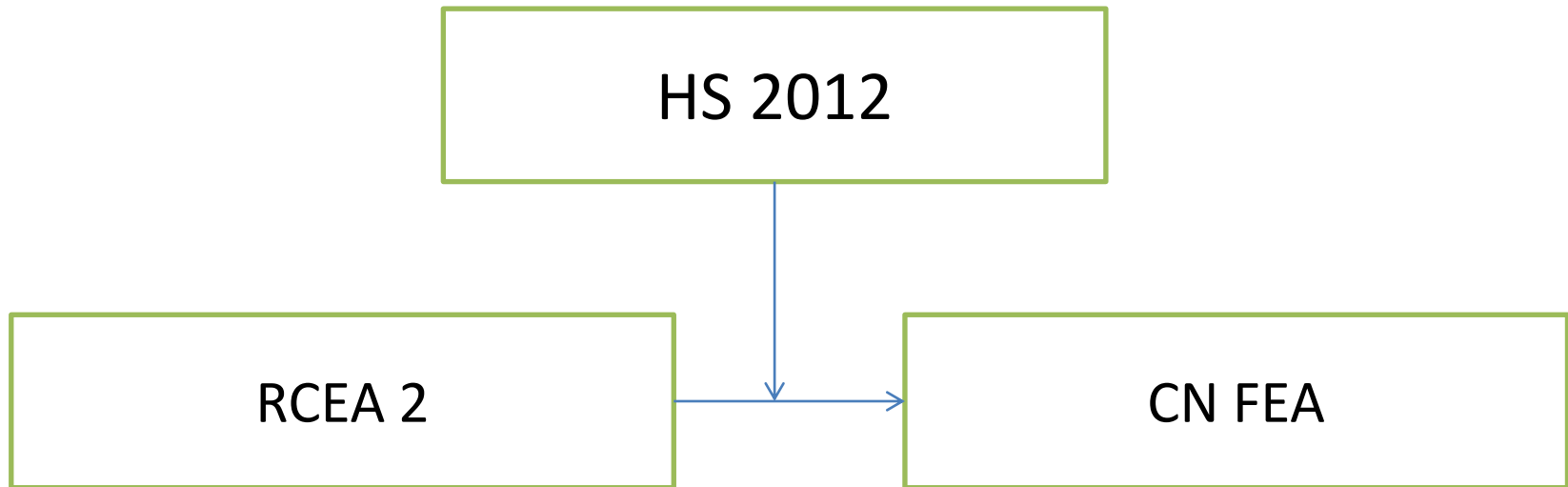


# Unified interdepartment information and statistical system (EMISS)

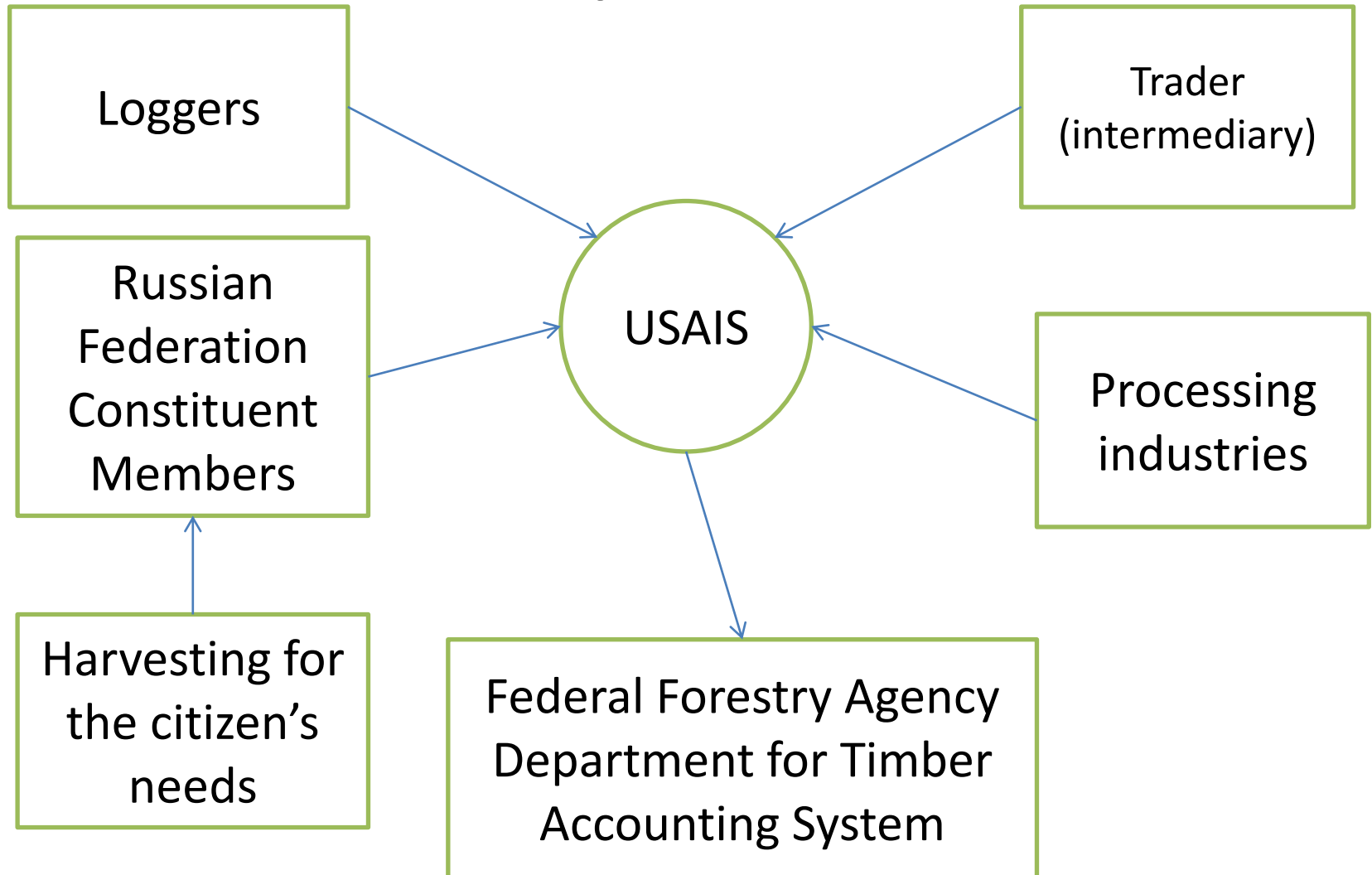
The data, which is statistics from 2010	Units
Granules fuel (pellets)	Tons
Wood, undressed	Thousands of cubic meters of dense
Other undressed wood (Including poles and pegs)	Thousands of cubic meters of dense
Fuel wood	Thousands of cubic meters of dense
Wood pulp obtained by mechanical means; hemicellulose wood; cellulose from fibrous materials other than wood	Tons
Ethyl alcohol sulfite	Thousand decalitres
Ethyl alcohol Hydrolysis Technology	Thousand decalitres
Charcoal	Tons
Process for the production of wood chips and wood pulp cellulose	Thousands of cubic meters of dense
Chips technology for other industries	Thousands of cubic meters of dense
Wood fuel chips	Thousands of cubic meters of dense

- Russian Classification of Economic Activities (RCEA 2)
- Commodity nomenclature of foreign economic activity (CN FEA)

# Russian Classification of Economic Activities (RCEA2)

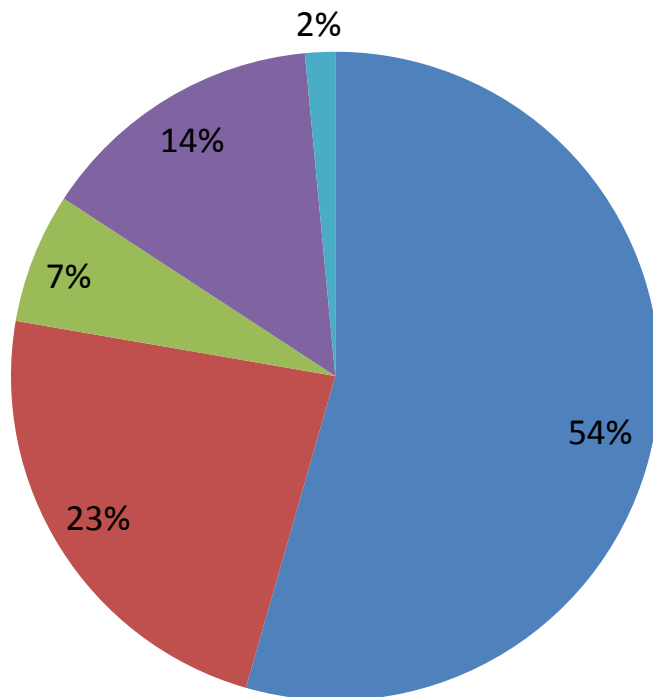


# Unified State Automated Information System

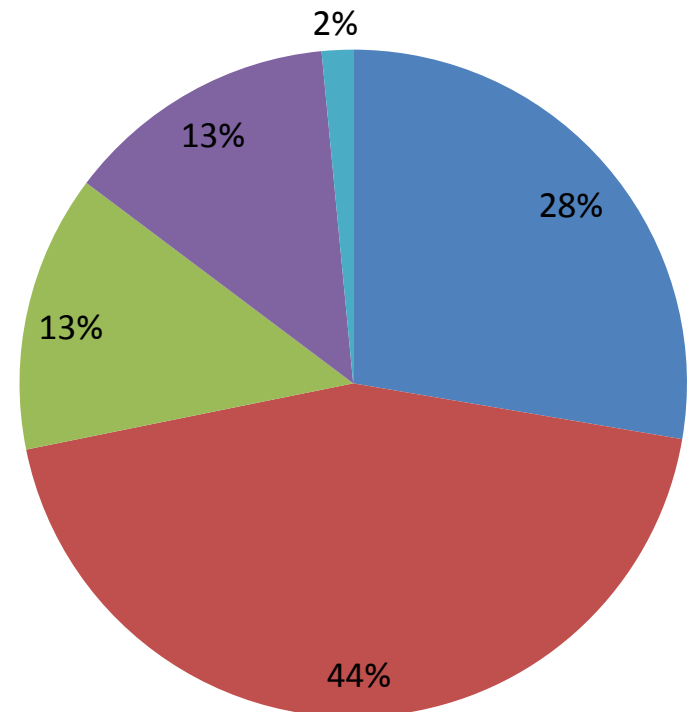


# The ratio of resources use for the heat and electricity production at the leading enterprises of Russian pulp and paper industry

Electric power (~6,7 mln MWt/h)



Heating power (~30,1 mln Gcal)



■ Natural gas ■ Black liquor ■ Bark & Wood waste ■ Coal ■ Other

# Types of wood biofuel in Russia

Trading form of biofuels	Typical particle size	General production processes
Full Tree	> 500 mm	Untreated wood, including branches and root system
Chips	5-100 mm	Cutting with sharp tools
Crushed fuel	Variable	Crushing with blunt tools
Round timber, logs / wood	100-1000 mm	Cutting with sharp tools
Bark	Variable	The remains after debarking the bark may be crushed or not
Sawdust	1-5 mm	Cutting with sharp tools
Shavings	1-30 mm	Planing sharps
Briquettes	$\varnothing \geq 25$ mm	Mechanical compression
Pellets	$\varnothing < 25$ mm	Mechanical compression

In accordance with GOST 33103.1-2014 (EN 14961-1: 2010)

# Main data providers

- Ministry of Industry and Trade
- Ministry of Energy
- Ministry of Natural Resources and Environment
- The Federal State Statistics Service
- The Federal Customs Service
- The Federal Forestry Agency
- The Russian Energy Agency



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# Thank you!

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