



Standardization for Solid bio-fuels and Solid Recovered Fuels

France H. Lafargue
Standardization Project Manager

STANDARDS, A TOOL FOR MARKET EXPANSION

- **The use of bio-fuels and SFR helps to reduce the dependence of fossil fuel imports in the Member States.**

Standardization is a major key for unlocking the fuel market and helping to reach the environmental and climatic goals of the EC

- **The quality of traded “new” fuels may vary between the different producers in the Member States, causing barriers to trade**

Standards, describing the properties and compositions of fuels, sampling and testing methods, will provide quality assurance, which is a major driver to expand the market



- **1998:** a Task Force on bio-fuels is created by Sweden
 - **1999:** a Task Force on SFR is created by Finland
 - ➔ to examine the ways to set up standardization work for both streams
 - **2000, 2002:** EC Mandates to the European Standardization committee, CEN, to establish Technical Committees within its umbrella
-
- **2001:** creation of CEN/TC 335, *Solid Bio-fuels*
 - **2002:** creation of CEN/TC 343, *Solid Recovered Fuels*

THE FORMAL STANDARDIZATION BODIES

■ At the European level, two Technical committees were created within CEN:

- ➔ In 2001, CEN/TC 335, *Solid Bio-fuels*
- ➔ In 2002, CEN/TC 343, *Solid Recovered fuels*

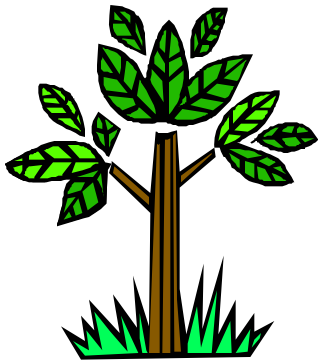
■ At the French national level, two Standardization Technical committees were created within AFNOR:

- ➔ In 2001, X34B, *Biocombustibles solides*
- ➔ In 2002, X34C, *Combustibles solides de récupération*

FIELD OF APPLICATION FOR BIOFUELS STANDARDIZATION

Solid bio-fuels for standardization work include :

- Agricultural products (such as energy crops, and residues, such as straw and olive stones from agro-food industry)
- Forestry products such as short rotation forestry and residues such as branches left in the forest, products and by-products from forest-based industries and operations such as bark, wood pellets, wood chips
- Vegetable waste from agriculture and forestry
- Vegetable waste from the food processing industry
- Wood waste, with the exception of wood waste which may contain halogenated organic compounds or heavy metals as a result of treatment with wood preservatives or coating
- Cork waste
- Fibrous vegetable waste from virgin pulp production and from production of paper from pulp, if it is co-incinerated at the place of production and heat generated is recovered.
- Peat is not included.



FIELD OF APPLICATION FOR SRF STANDARDIZATION

SRF are produced from non hazardous waste to be utilized for energy recovery in waste incineration or co-incineration plants

SRF include:

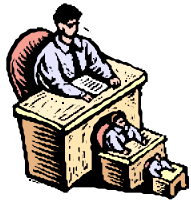
- Specific waste, municipal solid waste
- Industrial waste
- Commercial waste
- Sewage
- Sludge



WORKING STRUCTURE AND ISSUES

CEN/TC 335, *Solid bio-fuels* and CEN TC 343, *Solid Recovered Fuels*

- In both TCs, work is carried out by 5 Working groups:



- ➔ *WG 1: Terminology, definitions and descriptions (DE, IT)*
- ➔ *WG 2: Fuel Specifications, classes, + quality assurance for TC 335 (FI, SE)*
- ➔ *WG3: Sampling and sample reduction (NL, NL)*
- ➔ *WG4: Physical/mechanical tests (SE, DE)*
- ➔ *WG5: Chemical tests (NL, NL)*

- TC 335 has developed 27 CEN Technical Specifications (reference documents for provisional application)) and TC 343, 29
- A dozen of TSs, for each Technical committee, has already entered the process of being converted into European standards
- In 2008, Standardization work on Bio-fuels will expand worldwide with the creation of TC 238 under the umbrella of the International Standard Organization, ISO



The sets of European standards for bio-fuels and SFR will facilitate:

- a good understanding between sellers and buyers and a good communication with equipment manufacturers
- purchase, trans-border movements, use and supervision
- the reporting on the use of fuels from renewable energy sources and environmental issues

→ It will help the EU to reach its targets for the deployment of bio-energy

- **PRODUCT TO MARKET:** solid biomass to produce heat
- **MARKET TYPE:** local and proximity market with small or domestic production units

COUNTRIES IN THE TOP LIST

Nordic countries

Germany

Austria

The Baltic Sea area (producing 3 MT)



For the EU, wood and other organic material sources are complementary, but the price issue to develop the technology is very sensitive

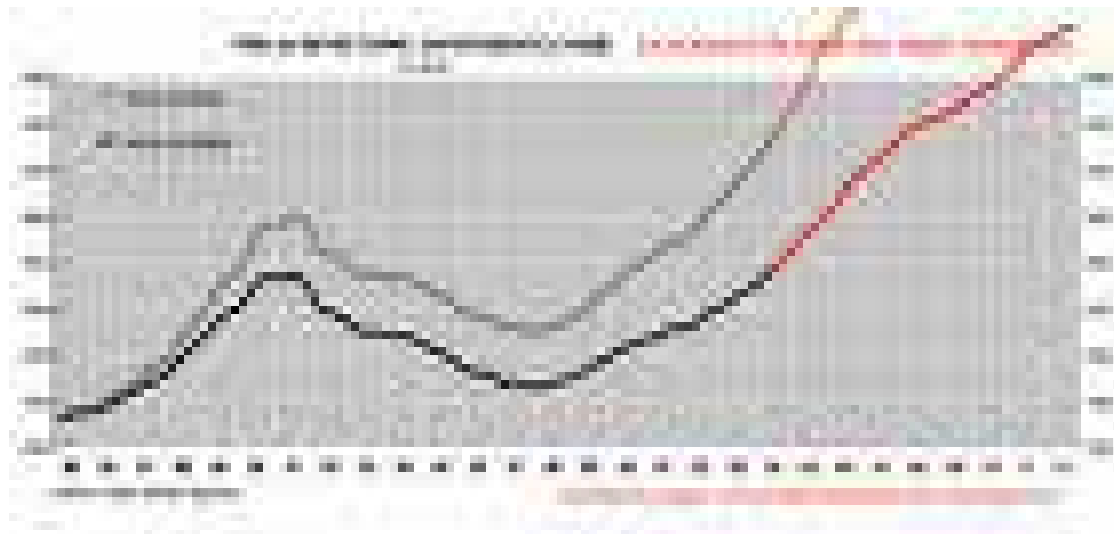


Consideration should be given to the need:

- To provide regular supply to ensure long term demands**
- To improve distances and transport**

PRODUCTION AND CONSUMMATION IN FRANCE

- Estimated French production: 150 000 t/ year
- Estimated French consumption: 100 000 t/year
- Estimated production capacity: 400 000 t/year
- Number of identified producers and trading 61



Thank you for attention !

