#### RenovaBio

#### **Miguel Novato**

**Biofuels Department Ministry of Mines and Energy** miguel.oliveira@mme.gov.br

MINISTÉRIO DE MINAS E ENERGIA



# Ethanol Savings and CO2 Avoided (1970-2018)



2.15 billion

BOE

#### Land Use in Brazil

Native vegetation: 551 Mha (65%)

## Agriculture Production: 71 Mha (8%)

Sugarcane (for ethanol) Oilseed crops for Biodiesel (B11) = 0.6% (2018) = 0.9% (2018)

Non-Agriculture Areas: 38 Mha (5%)

Pasture Areas: 190 Mha (22%)

Source: IBGE (2016) MAPA (2018)

#### **E27 use and Vehicle Fleet**





#### **Gasoline benefits from E27**





#### **Complimentary solutions for necessary changes**

CHANGES

**FUEL** 

#### **PLATFORM**



Less Fossils More Bio

more efficient platforms Electric Cars on Ehtanol

#### **BECCS – Bioenergy with Carbon Capture and Storage**



#### RenovaBio: What is it?

- It is the Brazilian National Biofuels Policy with a strategic role for the bioenergy
- Sustainable environment for **investments** up to US\$ 300 billions until 2030
- Creates the "Carbon Capture Machine" per unit of energy increasing efficiency in the production of biofuels
- Creates an integrative agenda with the automotive industry (ethanol electrification) and the petroleum industry (smooth transition)
- Creates competition in the fuel market benefiting the consumers, which will pay less for fuels
- **Reduces** the growing national **deficit** with fuel imports

#### RenovaBio

- Consumer benefits from biofuels usage
- Biofuels reduce fuel prices
- Blends with biofuels reduce emissions (particulates, CO<sub>2</sub>, GHG)
- Give value to the environmental service provided by biofuels
- Oil industry benefits from biofuels by making it more sustainable
- Industrial production of food increases;

### Thank you

## बहुत बहुत धन्यवाद

#### большое спасибо

## 非常感谢你

### Muito Obrigado