ABENGOA

IV Annual Analyst and Investor Day

October 22nd – 23rd, 2008

ABENGOA BIOENERGY

Index

- ✓ Abengoa Bioenergy H1 Results
- ✓ The Evolution of Abengoa Bioenergy
- ✓ Market Outlook
  - ❑ EU Market and overview
  - ❑ USA Market and overview
  - ❑ Brazil Market and overview
  - ❑ New Technology overview
- ✓ Conclusions

Abengoa Bioenergy H1 Results

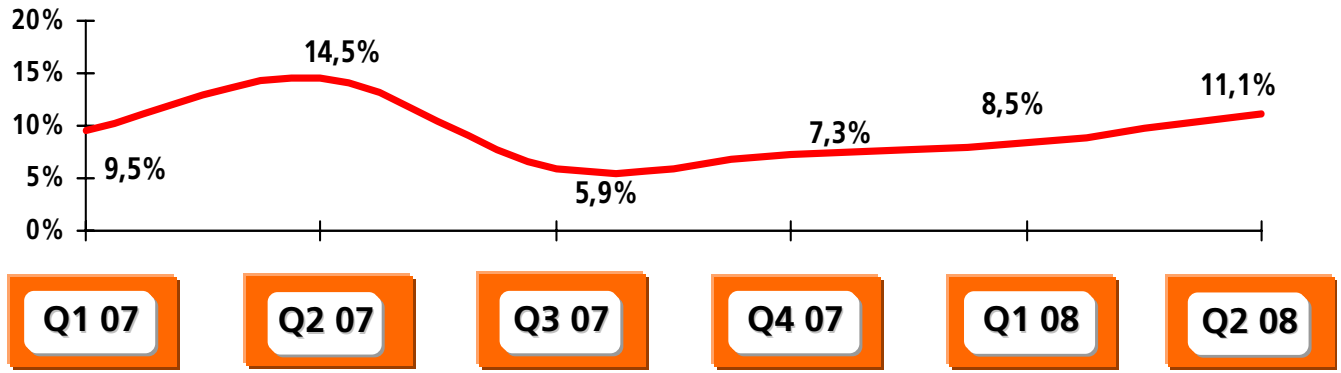
Main Magnitudes (M€)

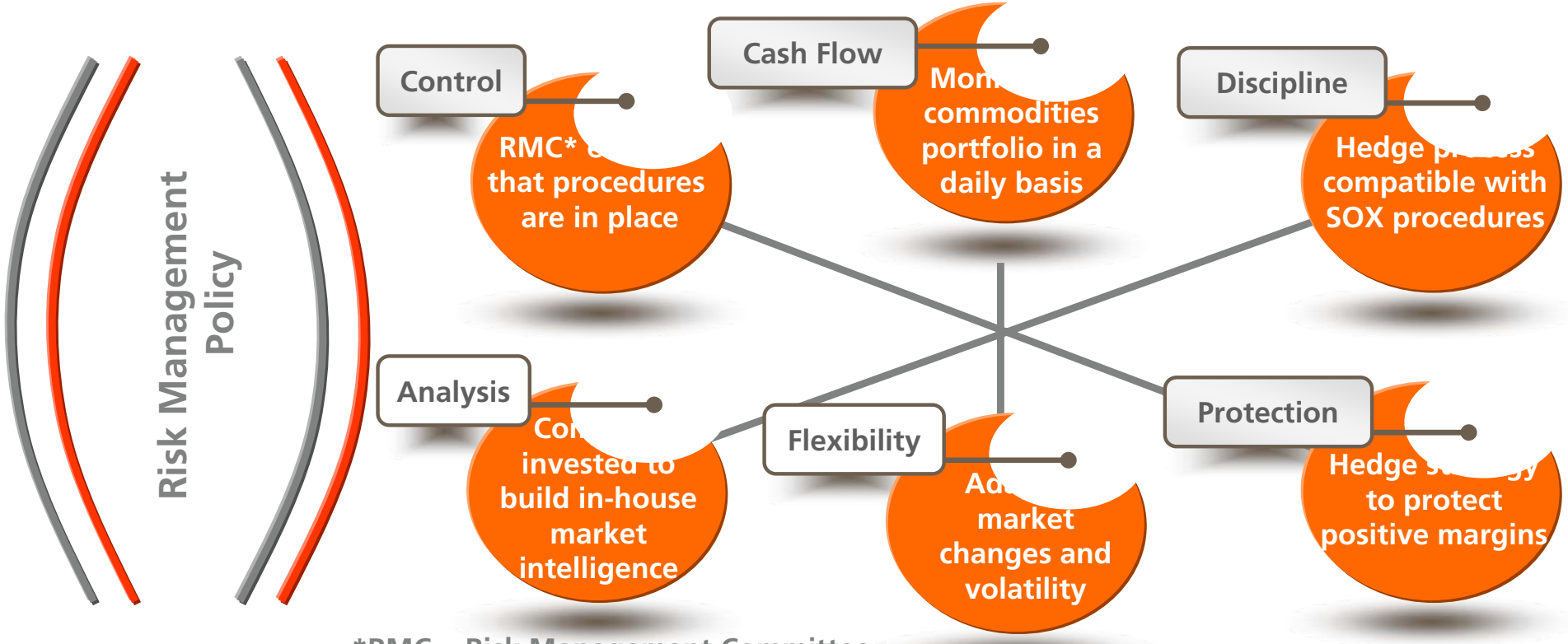
	H1 08	H1 07	Dif.
Incomes	384,7	264,3	+ 46%
Ebitda	37,1	31,3	+ 18%
% Ebitda over sales	9,6%	11,8%	- 2,1%

Margins evolution 07 – 08 H1

Successful management of our assets and execution of our Risk Management Policy

(% Ebitda over sales)





*RMC = Risk Management Committee

The Evolution of Abengoa Bioenergy

The Evolution of Abengoa Bioenergy

1995 - 2001

- Abengoa identifies the need for a renewable alternative for transport sector energy needs
- Construction of the two largest facilities in Europe
- Acquisition of High Plains Corporation in the U.S.

2002 - 2006

- Joint venture with Cepsa (Total) for ETBE facility and 200 kt/year biodiesel plant
- Start-up Salamanca Plant. 200 Ml/year (53 Mgal / year)
- Expansion of plants (York, Colwich, Portales and Galicia)
- More than 265 Ml (70 Mgal) of ethanol exports to Europe
- R&D award by the U.S. DOE (2,2 MUSD + 35,5 MUSD)
- R&D award by the European Commission (4.5 M€)

2007 - 2008

- Adquisition Dedini Agro
- 76 MUSD award from DOE for a ethanol commercial facility from lignocellulosic biomass
- Funding obtained for: Lacq, Indiana, Illinois
- Start-up plant of Lacq
- Start-up Ravenna Plant 330 Ml/year (88 Mgal / year)
- 31,2 M€ award from Spanish Ministry of Industry to design and develop new ethanol production technologies
- Start construction of : Netherland, Indiana, Illinois and San Roque
- Prince Philip Award for Business Excellence in the category of Renewable Energies and Energy Efficiency
- York pilot plant reception and first ethanol production from biomass






Cartagena, Sp
150 Ml/year
Since 1999

Coruña, Sp
195 Ml/year
Since 2001

Salamanca, Sp
200 Ml/year
Since 2006

Lacq, FR
250 Ml/year
Since 2007

Rotterdam, NE
480 Ml/year
Construction

San Roque,Sp
250 Ml/year
Construction



York, NE
210 Ml/year
Since 2001

Colwich, KS
95 Ml/year
Since 2001

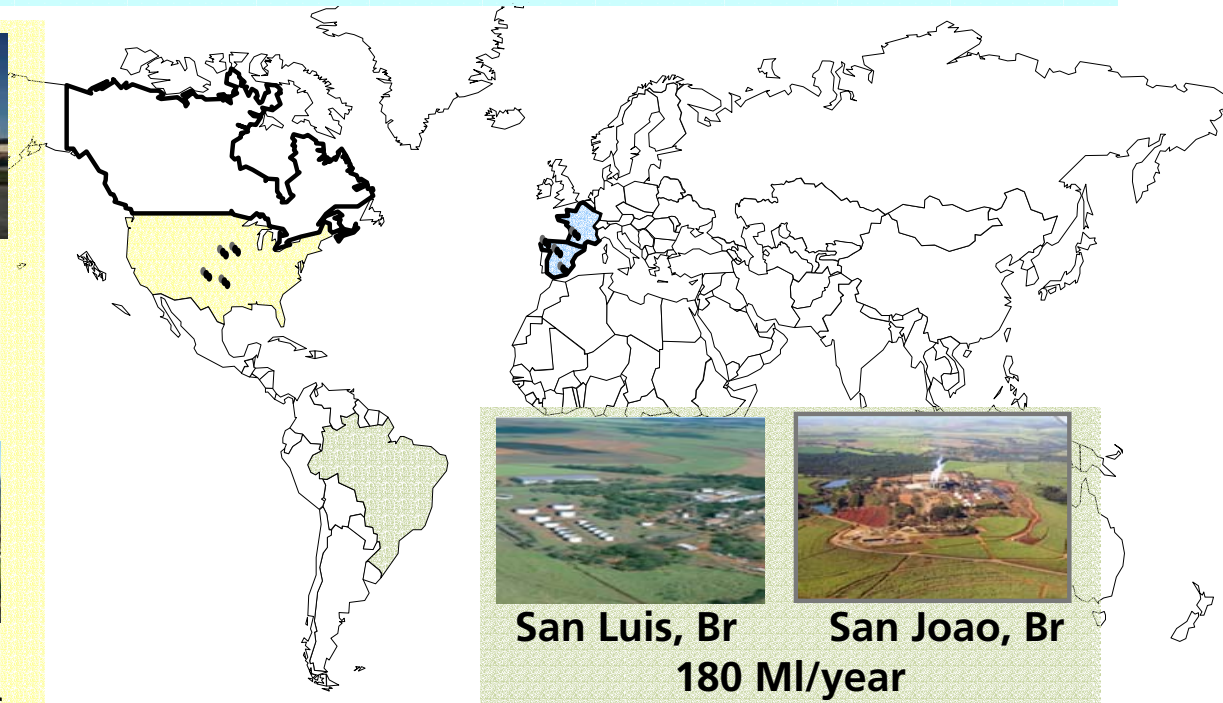
Portales, NM
125 Ml/year
Since 2001



Ravenna, NE
330 Ml/year
Since 2007

Evansville, IN
330 Ml/year
Construction

Tricity, IL
330 Ml/year
Construction



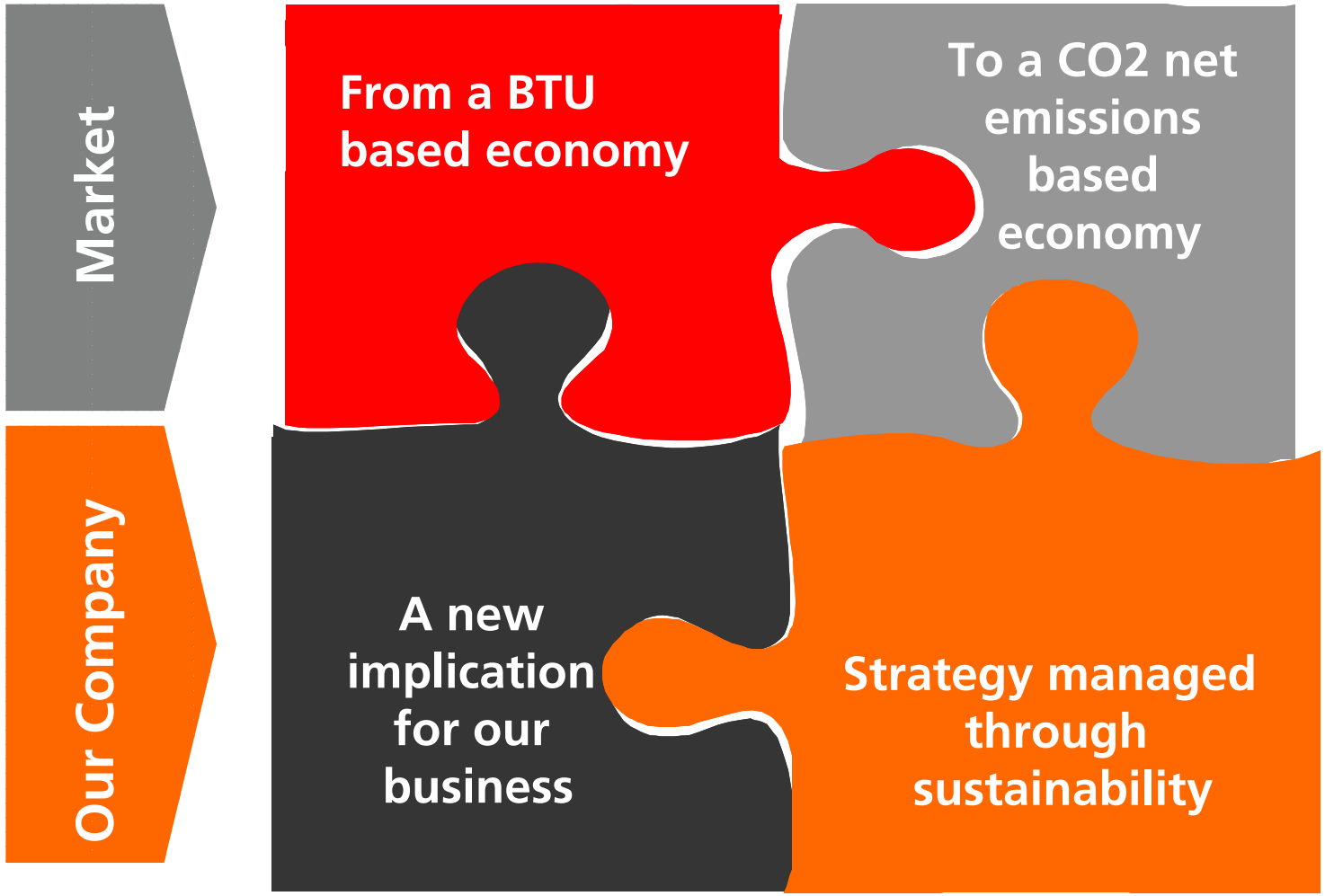
San Luis, Br **San Joao, Br**
180 Ml/year
500 Kt/year - Sugar
Since 2007

Relevant Internal Expansion

From nowadays to future ethanol capacity (Ml/year)

	2007	2008 / 2009	2009 / 2010	
Rotterdam			480	
Indiana			330	
Illinois			330	
Lacq		250		
San Roque		250		
Acumulated Capacity	1.385	1.885	3.025	Ml/year

Our Company Transition



Sustainability areas	Objectives	2020
• Environmental	▪ GHG reduction	▪ 60%
• Economical	▪ ROE	▪ 15%
• Social	▪ Social and cultural development of our employees and our communities	▪ 0,7% over sales

Opportunities for Abengoa Bioenergy

The bioethanol will be value based on sustainability criteria

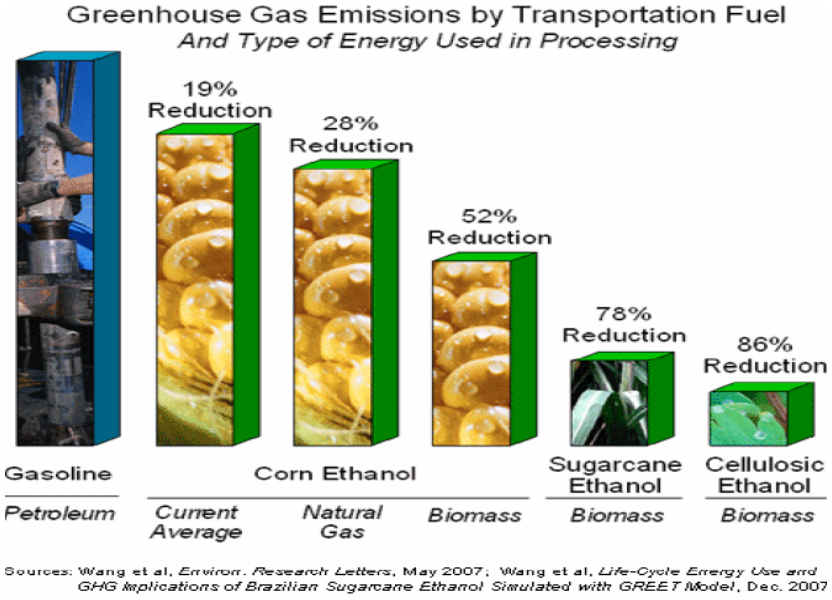
Challenges

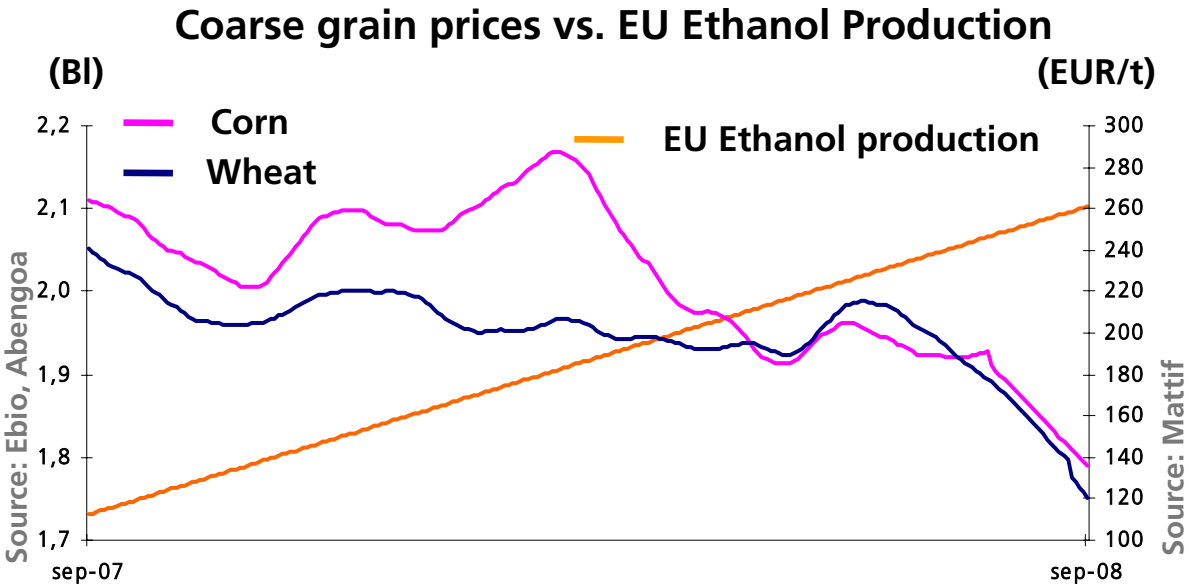
Cash	Technology	Flexibility	Supply Chain Involvement	People and Environment
• Enough cash from 1st generation to fund our growth and R&D program	▪World-wide recognized leaders in 2nd generation ▪Pilot plants in operation + starting commercial ▪R&D investment: Ebitda s/v: 3,7% (06) vs 4,7% (07)	▪Global Ethanol Company ▪Vertical Integration ▪Multifeedstock ▪Multi-technology	▪A distinctive set of suppliers	▪ Professional and personal development ▪ Social development

Opportunities

Shall Biofuels be blamed also for the financial crisis ? …

Biofuels are not responsible neither for Food prices nor Global Warming

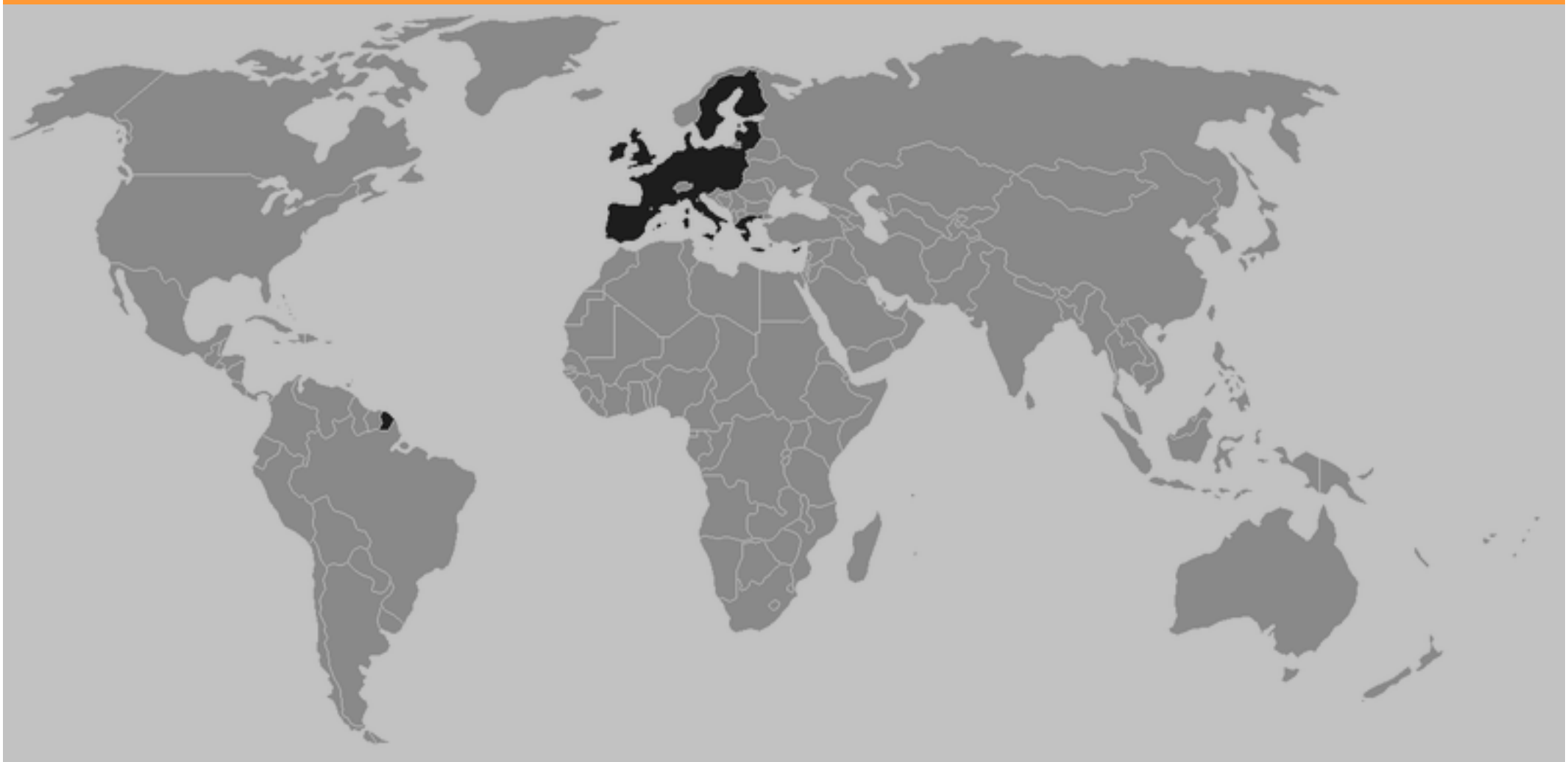




Biofuels contribute significantly to reduce GHG

Cereal prices were down 50% while ethanol production increased by 20%

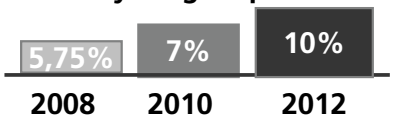
EU Market Outlook



EU Legislation still under development

France

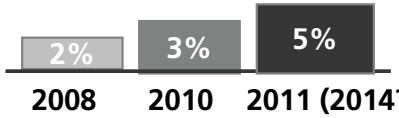
Mandatory Targets plus Ecotax.:



Partial tax break (2007 – 2013).
Segregation well defined

UK

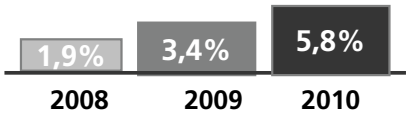
Mandatory Targets plus Ecotax.:



Partial tax break (2008 – 2010).
Segregation not clearly defined
Denatured ethanol allowed

Spain

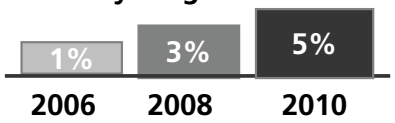
370€/m3 detax (yearly revised). New OM: 2008 1,9% e.c. indicative, 3,4% by 2009 & 5,83% by 2010 mandated. Segregated 5,75%



35% - 50% GHG savings
10% ec – 7% 1G, 3% 2G

Italy

Mandatory Targets:



Mandatory target of 1% ec by 2006, plus an addittional 1% each year up to 2010

Sweden

Total tax break 500 €/m3
Jan. 04 – Dec. 2010.
e5 massive introduction

Netherlands

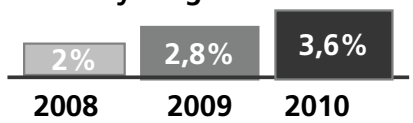
Total tax break 500 €/m3
Jan. 04 – Dec. 2010.
e5 massive introduction
Denatured ethanol allowed

Poland

Total tax break (yearly revised) 410 €/m3 until 2010. Draft law pending on final approval by EU

Germany

Mandatory Targets:

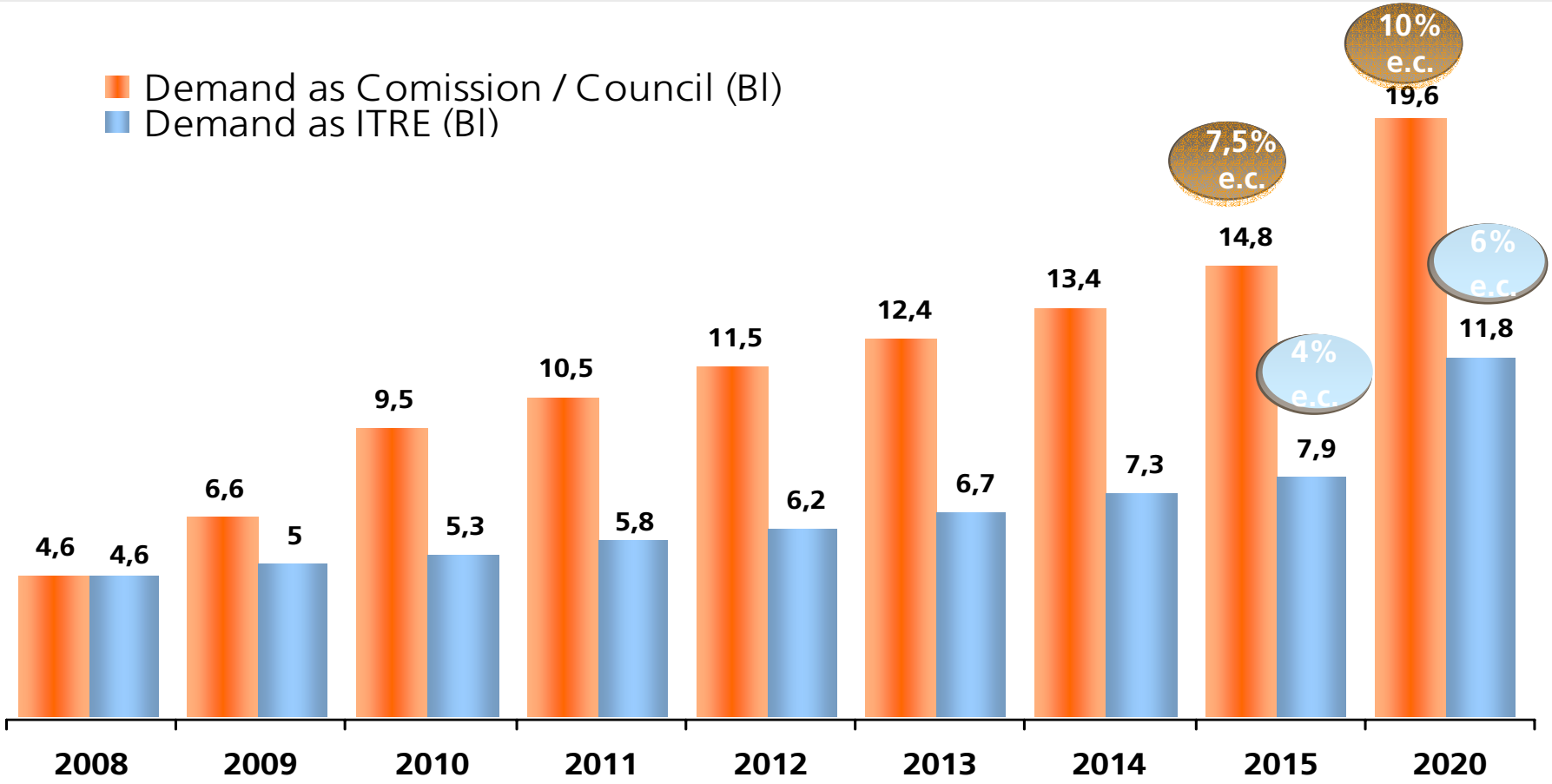


1,2% ec mandatory by 2007 increasing 0,8% yearly until 2010. Segregation. No tax break.

EU Directive of Renewable Energy

	Commission	Parliament (Industry and Energy Committee)
Scope and targets		
	Indicative 5,75% from total fuel consume for transport in 2010 (Includes maritime and rail transport,…)	5% from total fuel consume just for road transport in 2015, from them: • 1% for 2G (hydrogen, electricity, ligno-cellulosic biomass,…) • 4% for 1G biofuels
	Obligatory 10% share of renewable energy in the energy consumption of petrol and diesel in transport as a whole in 2020 (includes maritime and rail transport..)	10% from total fuel consume just for road transport in 2020, from them: • 4% for 2G (hydrogen, electricity, ligno-cellulosic biomass,…) • 6% for 1G biofuels
GHG savings		
	GHG savings in biofuels compared to fossil fuels should reach at least 35%, increasing to 50% in 2017	GHG savings in biofuels compared to fossil fuels should reach at least 45%, increasing to 60% in 2015

The Market
demand scenario 1G

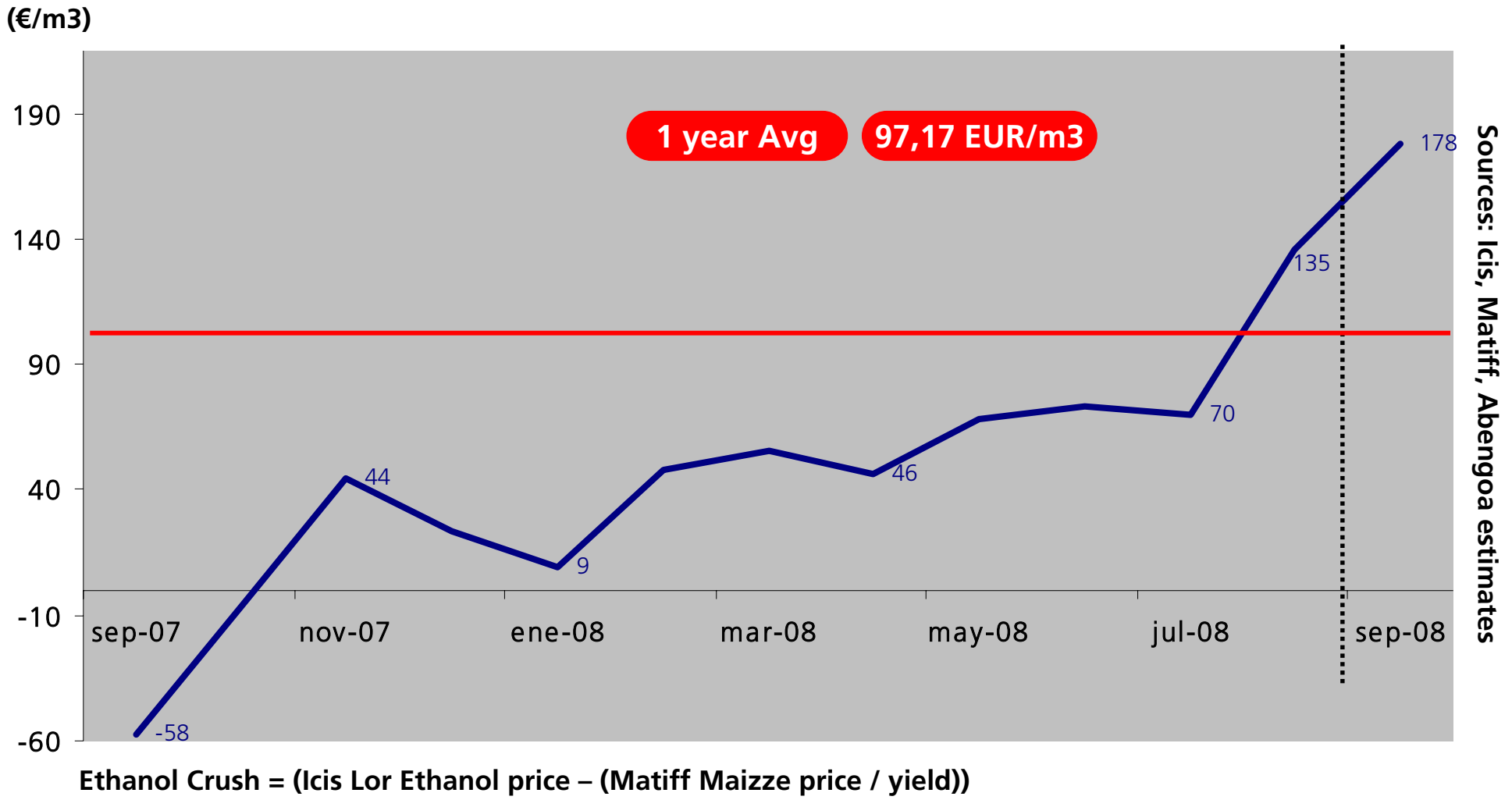


Sources: Icis, Matiff, Abengoa estimates

- Demand increases a 19,9% in the Comission/ Council scenario
- Demand increases a 12,6% in the ITRE last proposal

CAGR (08-20) = 19,9%
CAGR (08-20) = 12,6%

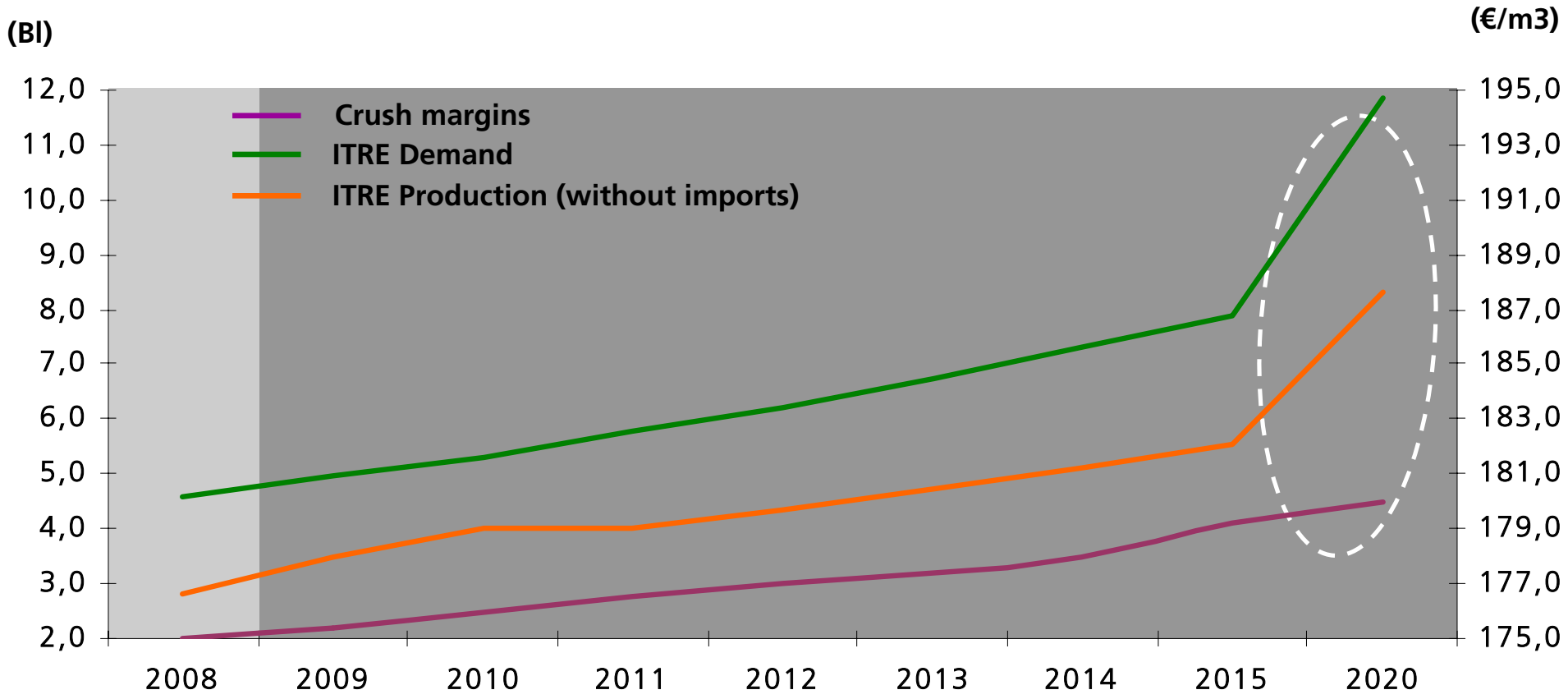
EU Market crush spread



Ethanol Crush = (Icis Lor Ethanol price – (Matiff Maizze price / yield))

EU market crush spread heading to high margins

EU S&D (ITRE scenario)



Sources: ITRE, Abengoa estimates

We envision a demand market in which we need significant quantities to be imported as well as new plants

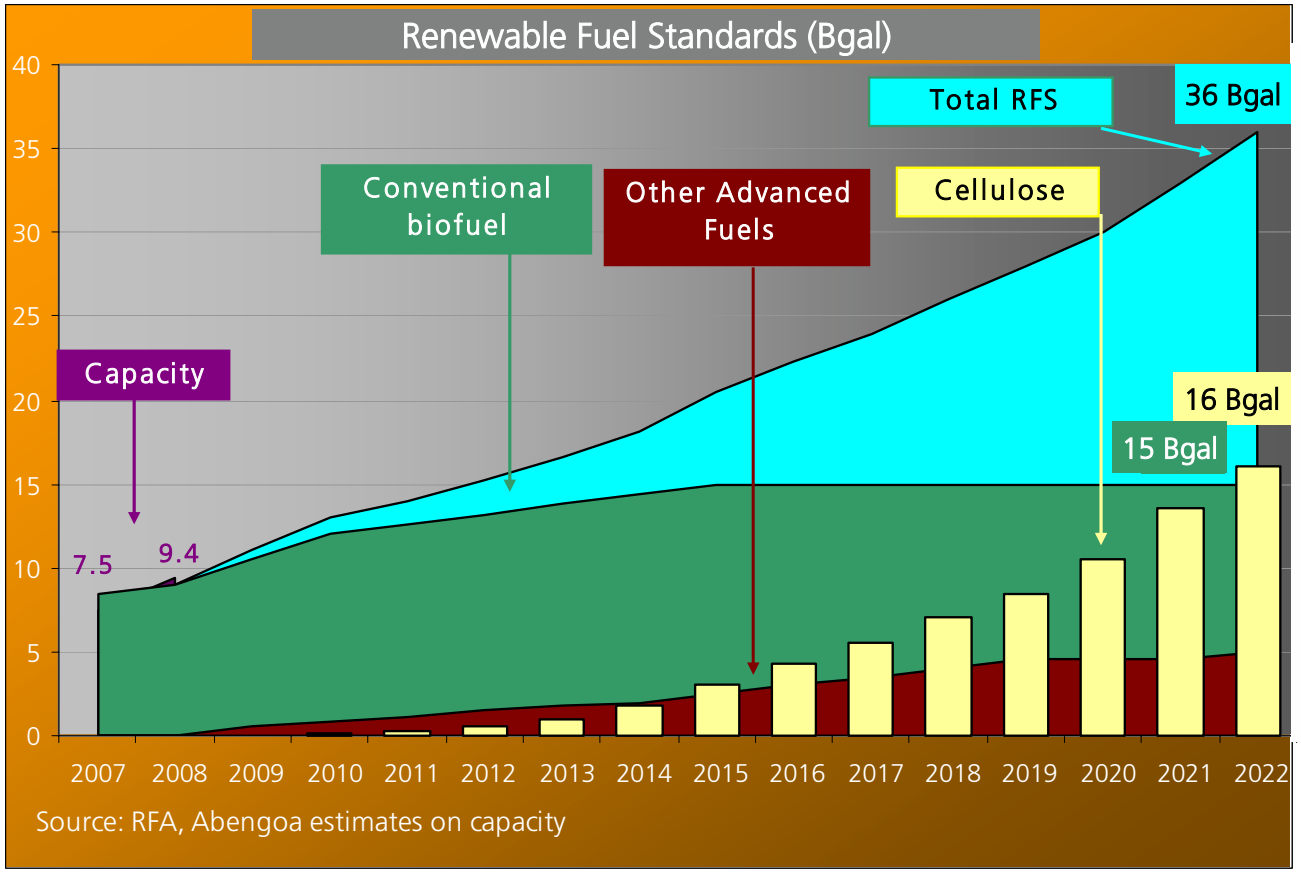
EU Market
main conclusions

1. 2020 demand increases x2 in the worst case and a x5 in the last Commission proposal
2. The current legislation is aligned with our strategy on biomass to ethanol
3. Higher margins due to the pressure on increasing demand
4. Current sustainability criteria under development on D.E.R. compatible with our strategy approach defined back in 2002

AB positioned to capture extra margin as the first mover

U.S. Market Outlook

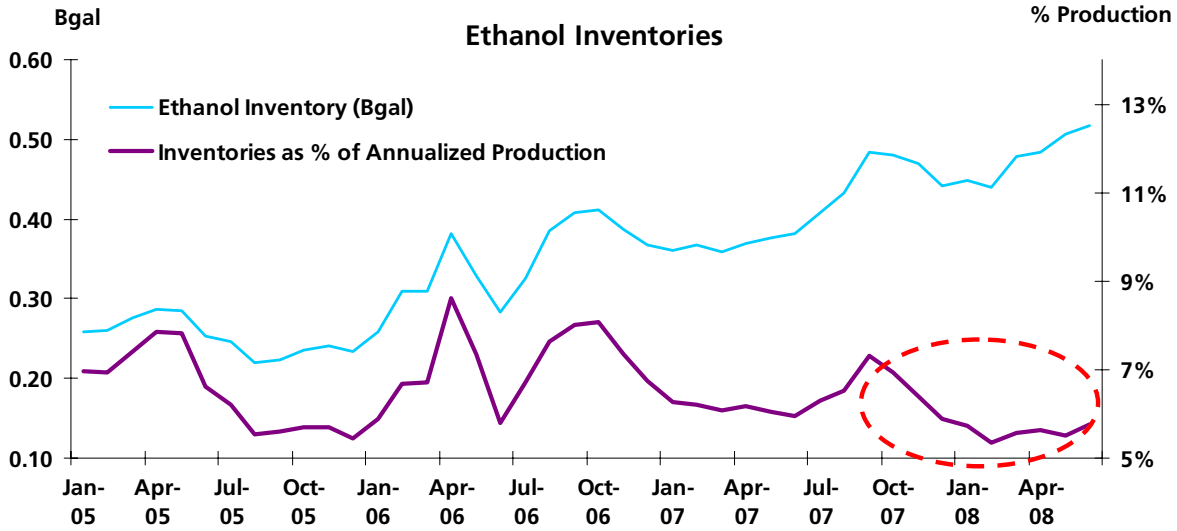
US favourable framework to continue to support ethanol



Year	Ethanol Market Share
2015	12%
2022	25%

BioFuel Type	▼GHG%
Conventional	20%
Advanced	50%
Cellulosic	60%

Mandate ensures demand would be sufficient to offset ethanol capacity expansion in years to come, increasing ethanol prices

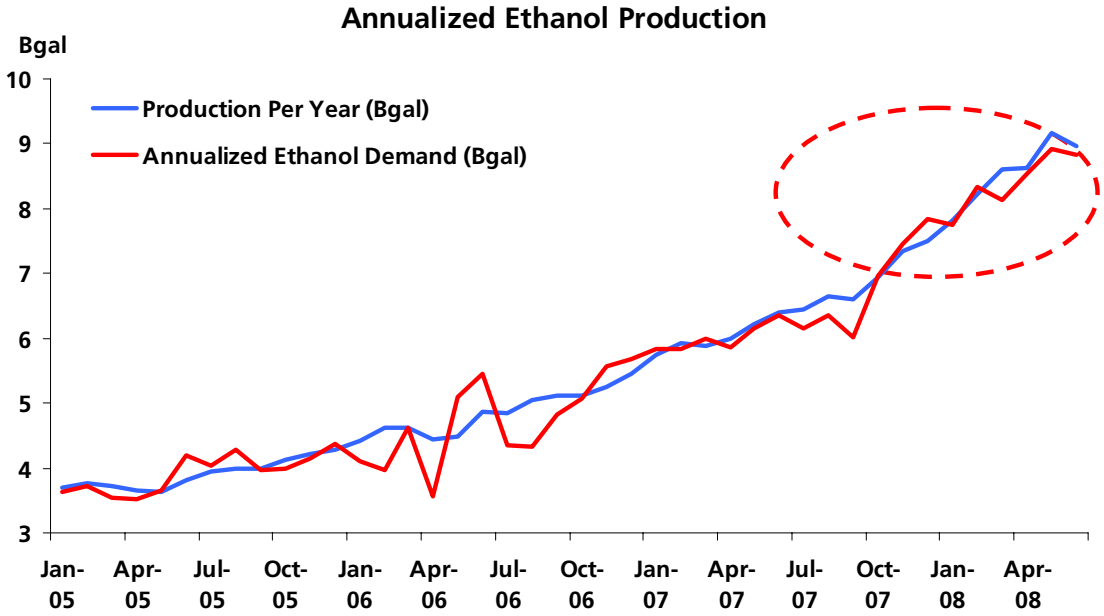


Source: US DOE

Ethanol inventories as a % have been decreasing…

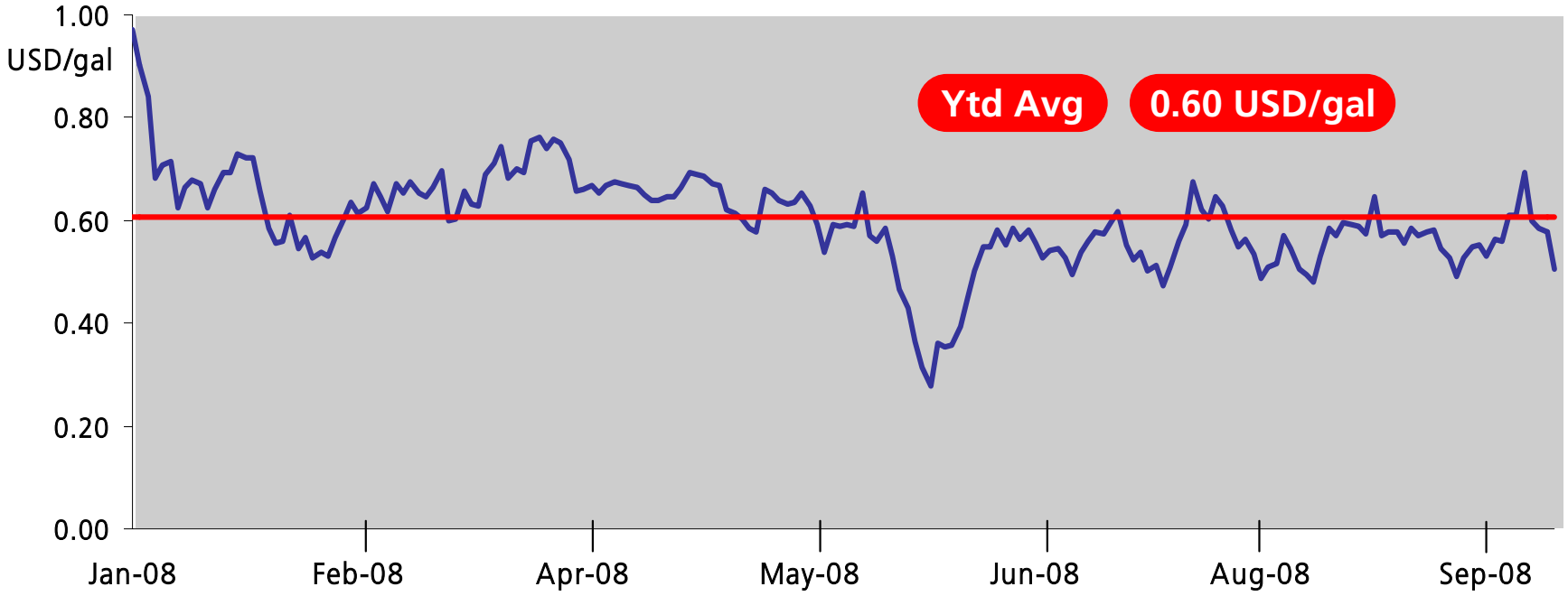
…while demand has been on the rise since 2005

2005-2008 Demand CAGR	29%
2005-2008 Supply CAGR	29%



Source: US DOE

US Market Crush Spread

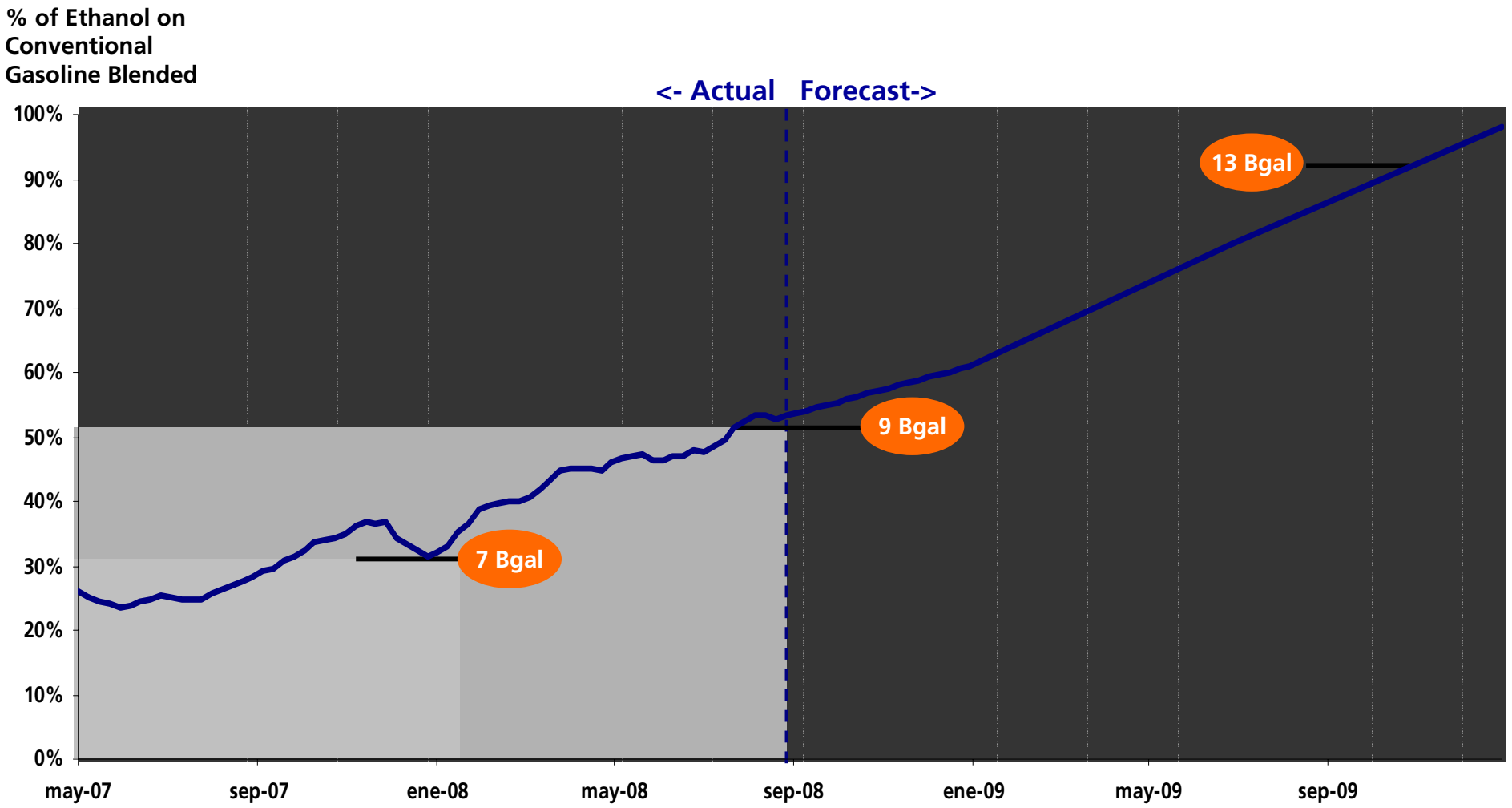


Ethanol Crush = (CBOT Ethanol price) - (CBOT corn price/2.7) *70% - (NYMEX Nat Gas * .031767 mmBTU/gal)

Source: CBOT, NYMEX, Abengoa calculations

US market crush spread has been very steady over the past year

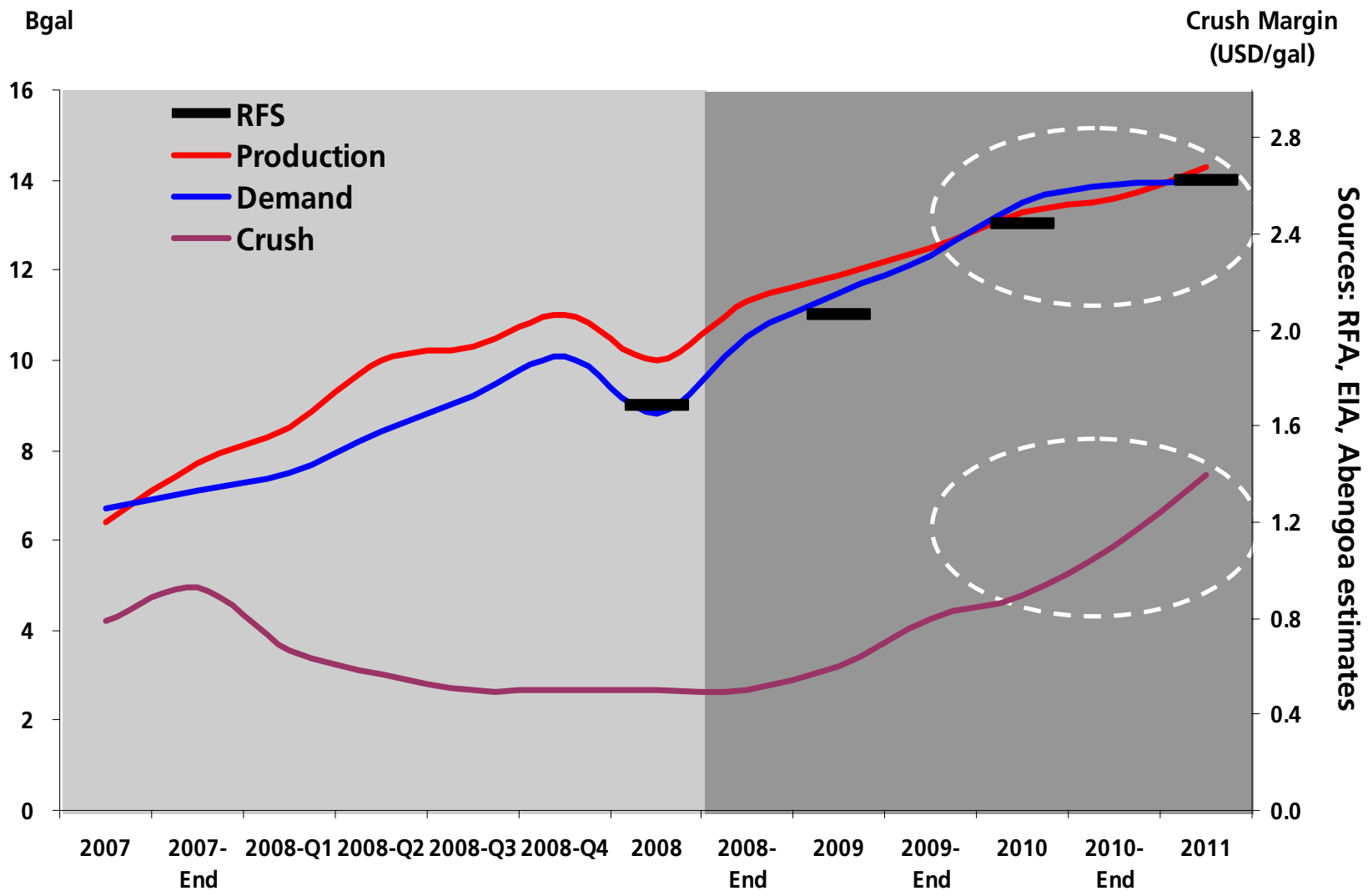
Demand for Ethanol



Sources: EIA for historical, Abengoa forecasts based on recent trend line

Exceptional growth of conventional gasoline demand

S&D: The Worst is Over



Crush Spread is expected to improve in 2009 as ethanol demand would balance supply

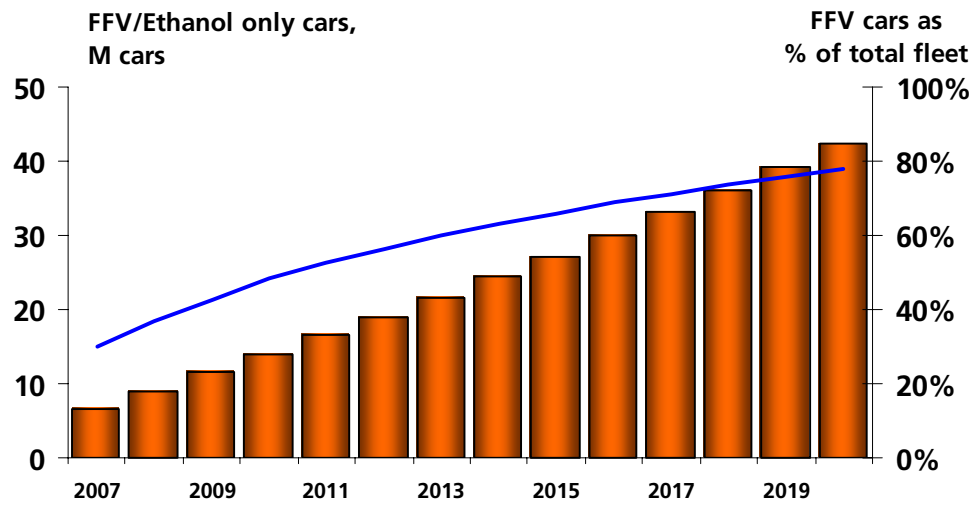
US Market Summary

- The worst in the ethanol market is behind us
- Huge incentive to maintain demand for conventional gasoline blends
- By the end of 2009 ethanol supply and demand would balance, which will pressure crush spread to increase
- Low expectations of large Brazilian exports in US
- Risk Management and working capital policies as a critical factor to succeed in this market

Brazil Market Outlook

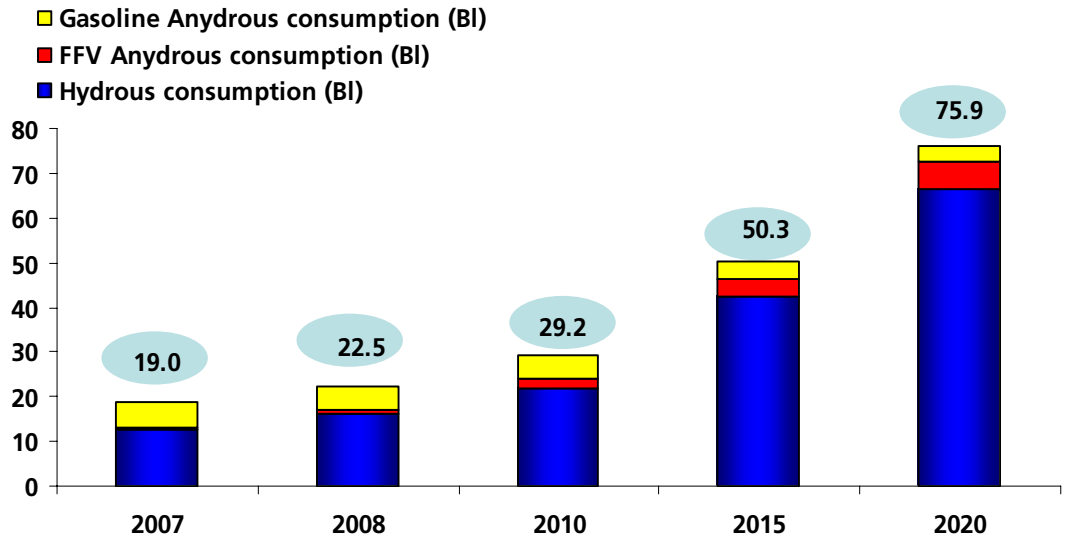
Ethanol domestic demand: Main driver for sector growth

Estimated FFV growth



Sources: ANFAVEA, Bear Stearns, Abengoa Estimates

Ethanol Demand by Types of Consumption



Source: UNICA, Conab, Abengoa estimates

Assumptions:	
3% annual new car growth through 2020	g ethanol 65% of time (25% gasohol)
85% FFV as % of new cars	nth/ a car ethanol consumption
2% retirement rate	nth/ a car gasohol consumption
9yr-average for car retirement	line cars using 100% gasohol
	ol in gasohol

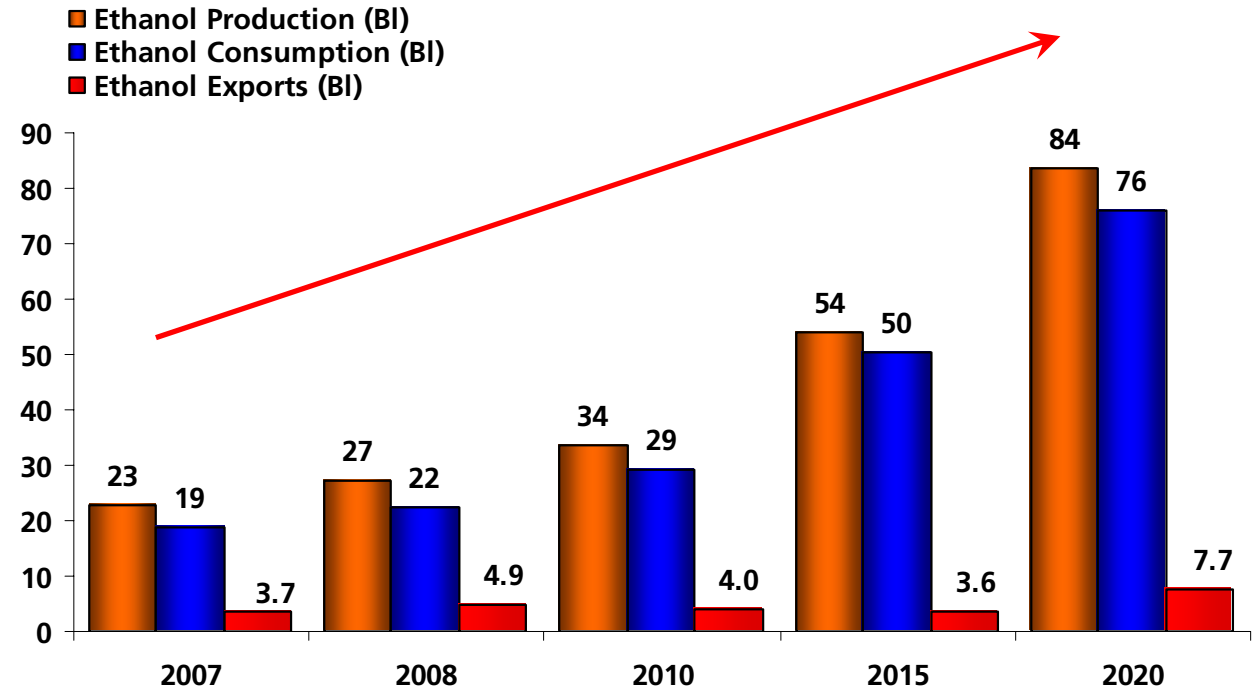
14% CAGR of FFV cars from 2007-2020 will make ethanol demand jump 2.6x by 2015, 4x by 2020!

S&D in balance

2007-2020 Ethanol Supply CAGR 10%

2007-2020 Ethanol Demand CAGR 10%

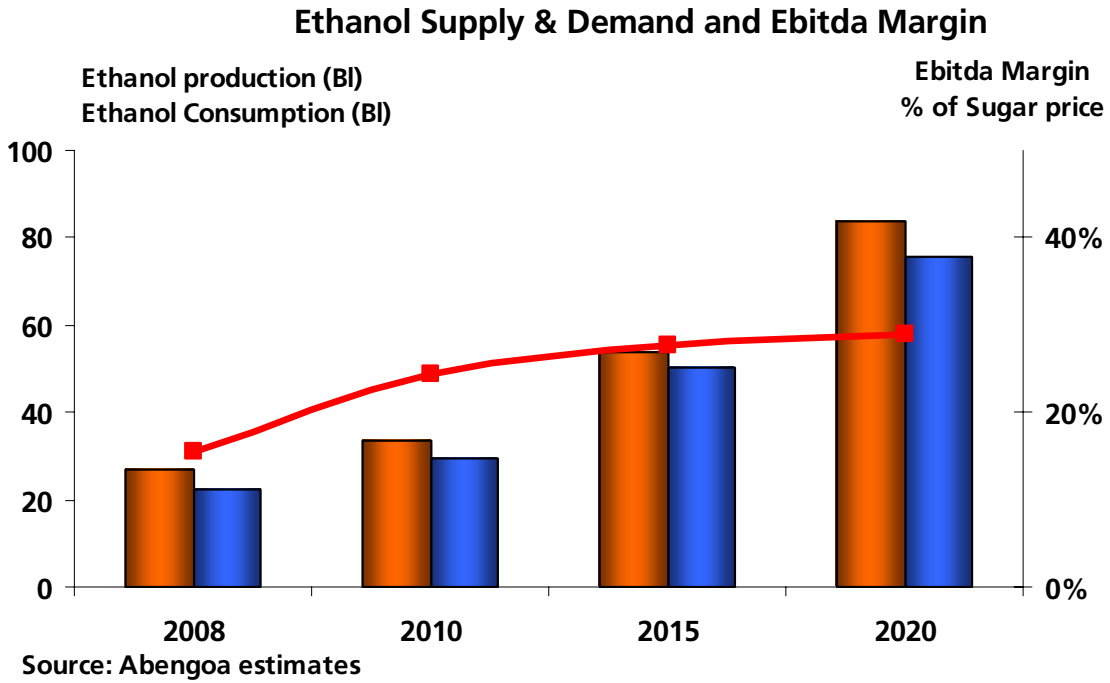
Brazilian Ethanol Supply and Demand



Source: Abengoa estimates, Unica, Conab, Morgan Stanley

Internal demand would limit ability to export Brazilian ethanol putting upward pressure on ethanol prices

Balanced market, limited exports to push up Ebitda margin

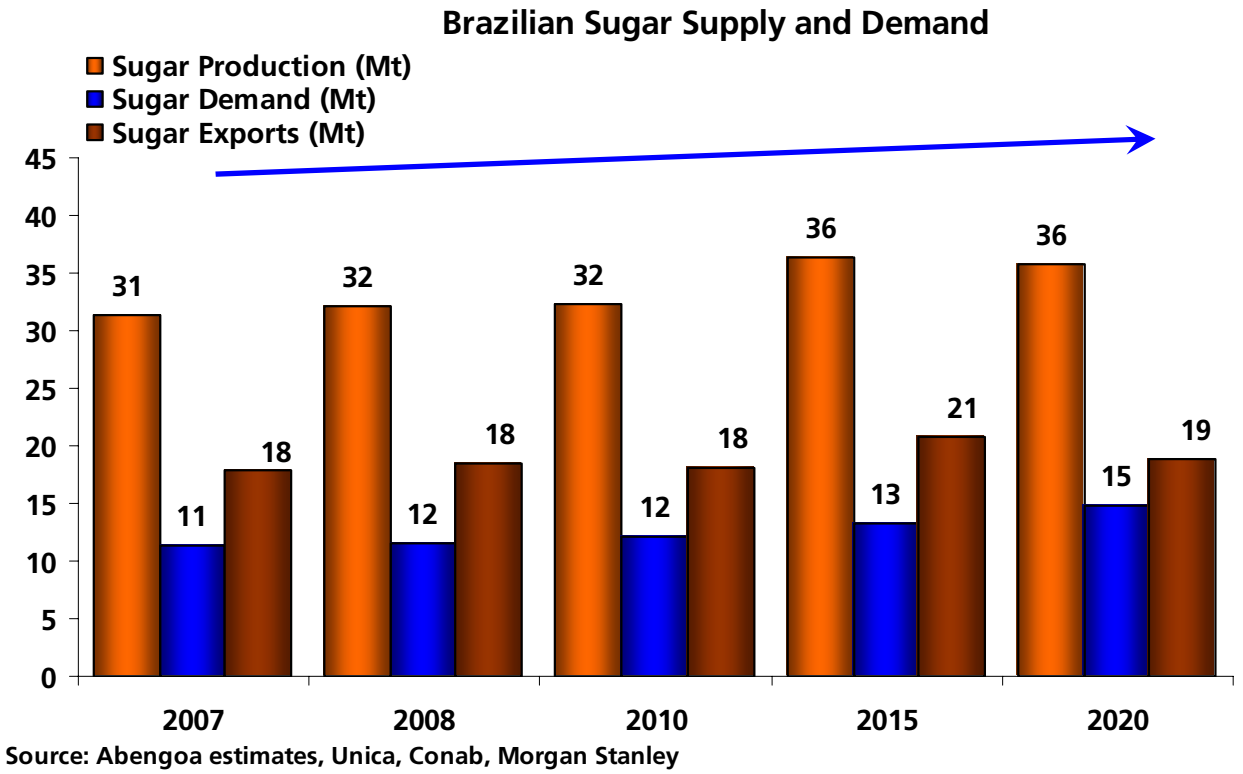


Source: Abengoa estimates

Balanced ethanol supply and demand would keep upward pressure on Ebitda margin

Brazilian Sugar market: Overshadowed by ethanol growth

2007-2020 Sugar Supply CAGR	1 %
2007-2020 Sugar Demand CAGR	2%

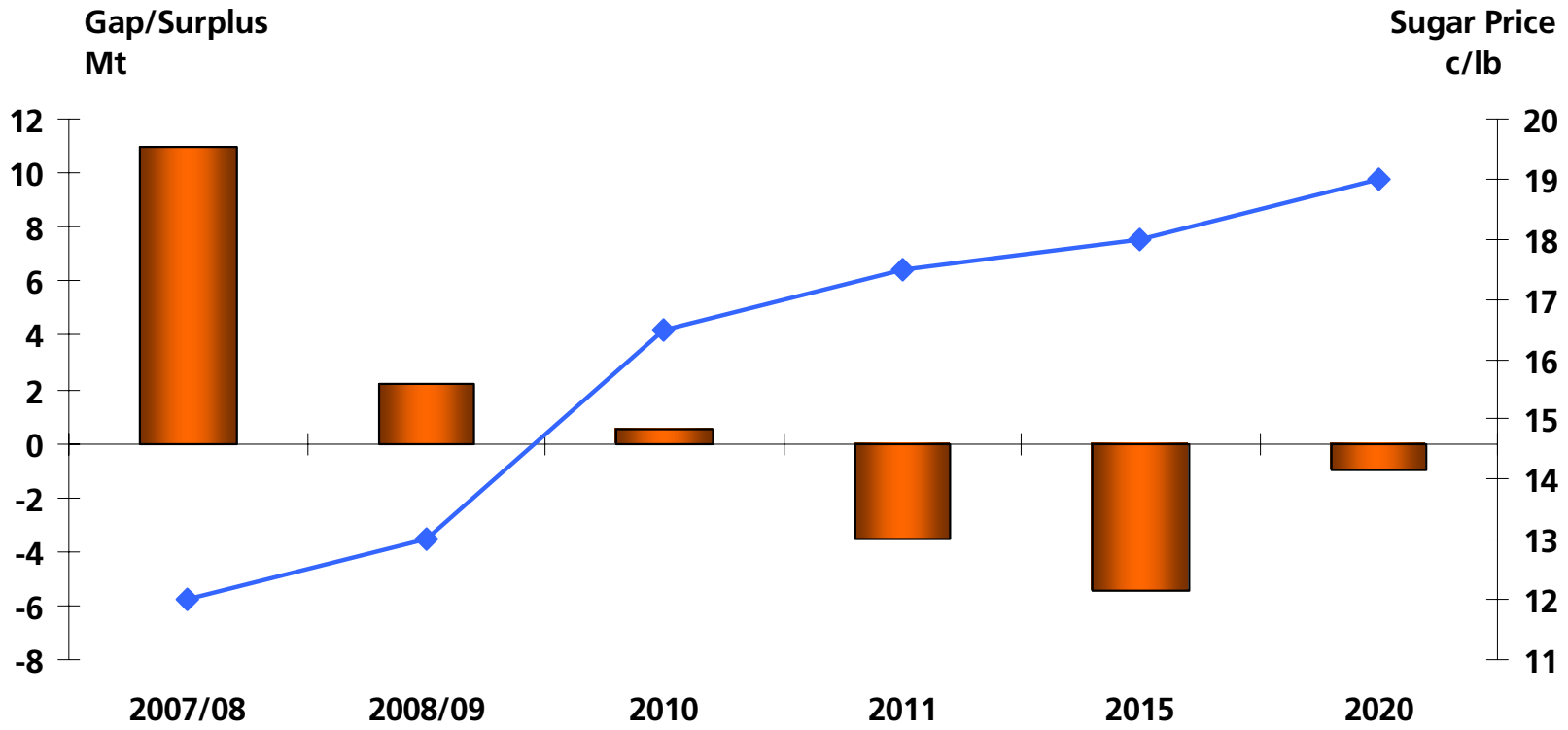


Source: Abengoa estimates, Unica, Conab, Morgan Stanley

Sugar sector growth would remain limited, as focus will remain on ethanol

World Sugar Outlook 2009 - forward

Sugar balance shifting to deficit



Source: ISO, USDA, Abengoa estimates

Higher ethanol prices result in higher ethanol production in Brazil which leads to lower sugar production, sugar deficit and higher sugar prices

Brazilian Market Conclusions

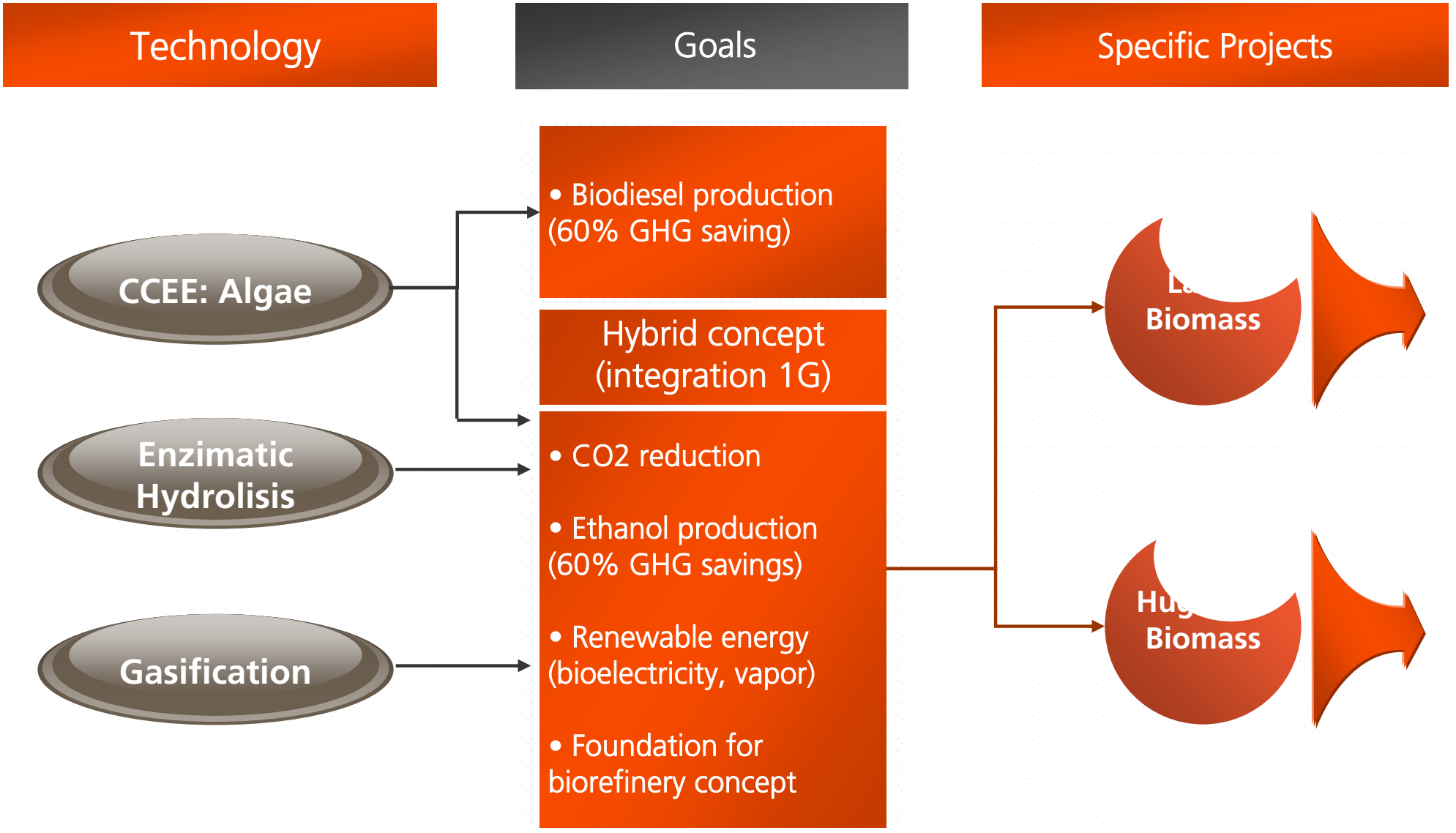
- Ethanol sector will expand massively through 2020 with increasing share allocated to ethanol and less to sugar
- Most of ethanol supply would be consumed locally due to high growth of FFV…
- …Leaving limited room for export potential and keeping ethanol prices high
- As a result, the crush margin would improve notably
- Brazilian cogeneration has great potential, promising to deliver up to 25% of new electricity growth until 2015

New Technologies Outlook

Evolution through innovation

Market evolution	ETBE & E5 Co-existence in the EU Ethanol mandate (RFS) and MTBE Phase-out in US	Ethanol Mandate in EU (E5)	Massive introduction of higher ethanol blends: E10, E20, E85 E-Diesel	Commercial ethanol production from hybrid lignocellulosic Biomass and cereal hybrid	Commercial ethanol production from lignocellulosic Biomass. New Products from Biomass
Technology	• Cereal based production • Pilot- demostration phase for HE • Pilot- investment phase in GC	• Hybryd lignocellulosic biomass and cereal hybrid plants • Heat& electricity by gasification biomass • Demostration phase for G&C	• Hybryd plants with optimum technology • Commercial G&C combined with cereal and enzimatic hydrolysis • 100% ethanol production From lignocellulosic biomass Energy crop development	• Biological (HE) & thermochemical (GC) process combined • Obtain biofuel and other products	
	Short Term		Medium Term	Long term	

R&D projects deployment



Commercial Hybrid Biomass Plant Hugoton (KS, US)

- Capacity : 100 Mgal/year (13 Mgal/year biomass, 87 Mgal/year starch)
- Raw material : Corn starch and stover
- Technology : Enzymatic Hydrolysis (glucose & xylose)
- Objective : Production at a gasoline competitive cost
- Start-up Operations : 2011 estimated

Biomass Demonstration Plant in BCL (Salamanca, Spain)

- Capacity : 1.3 Mgal/year
- Raw material : Wheat and Barley Straw
- Technology : Enzymatic Hydrolysis (glucose)
- Objective : Demonstrate biomass-to-ethanol process technology at commercial scale
- Start-up Operations : 2008

Biomass Pilot Plant in York (NE, US)

- Capacity : 0.02 Mgal/year
- Raw material : Corn stover
- Technology : Enzymatic Hydrolysis (glucose & xylose)
- Objective : Competitive process with grain ethanol
- Start-up Oper. : 2007

Contract DOE / Hugoton KS

- ✓ **The first commercial hybrid facility in USA, biomass and cereal**
  - **•700tn/day of biomass (ag residue and grasses) and 31MBu/y cereal**
  - **• 400 t/day biomass a 75 gal/t = 13 Mgal/year cellulosic EtOH**
  - **• 300 t/day biomass for gasification, net gas replacement**
  - **• Cereal conversion to 87 Mgal/year cereal EtOH**
  - **• Biomass and cereal supplied by the same local producers**

✓ **Process and detailed engineering on track by Q3 2009.**

✓ **Current progress on major permits anticipates the completion of air permit by Q2 2009 and the Environmentals by Q3 2009.**

✓ **Startup is anticipated to commence in 2012**

✓ **Loan guarantee from the USDA can guarantee up to 250 MUSD of project debt.**

✓ **The USDA also created a 1,01 USD per gallon tax credit for cellulosic biofuel in the 2008 farm bill**

Project ABHF

Targets

- ✓ The first hybrid facility in Europe.
- ✓ To reach a life cicle > 60%

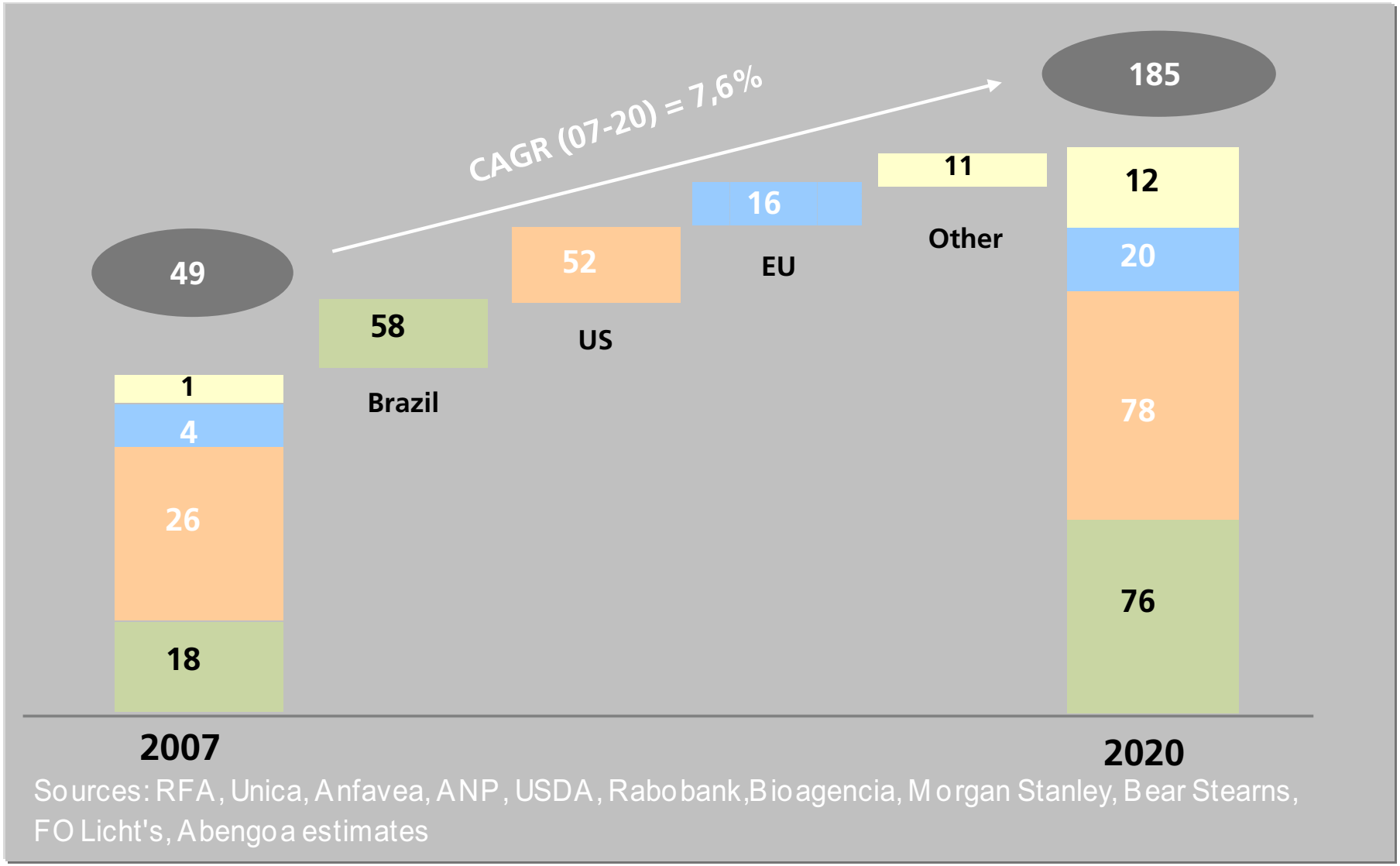
Status

- ✓ Successful presentation to the French Engineering Academy
- ✓ Ministerial request of a detailed proposal
- ✓ Stablishing strategic partnerships

Conclusions

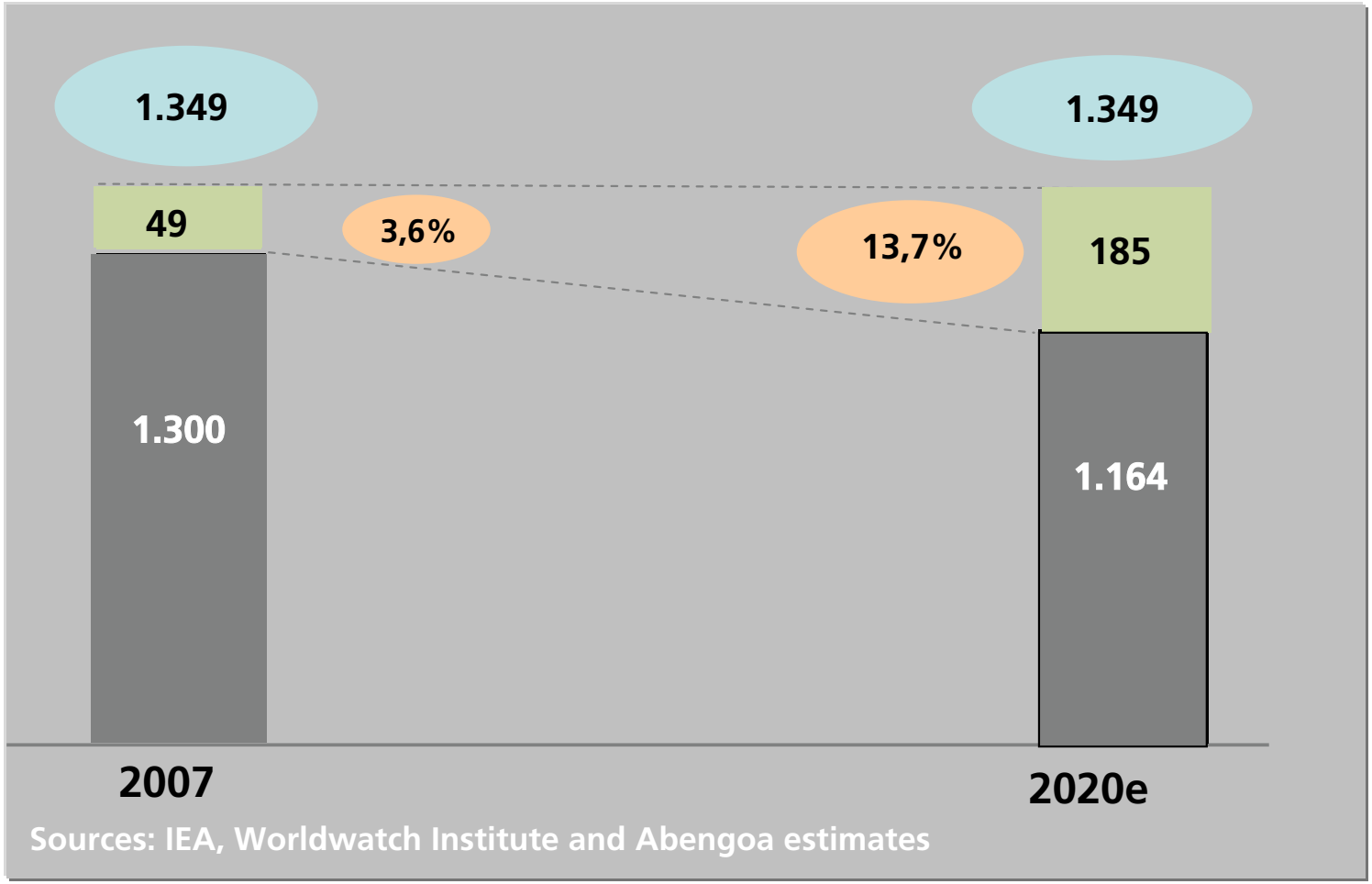
Global ethanol demand is sky-rocketing

Ethanol Demand (2007-2020) in Bl



Ethanol more and more Significant in Global Gasoline Demand

Gasoline + Ethanol Demand (2007-2020) in Bl

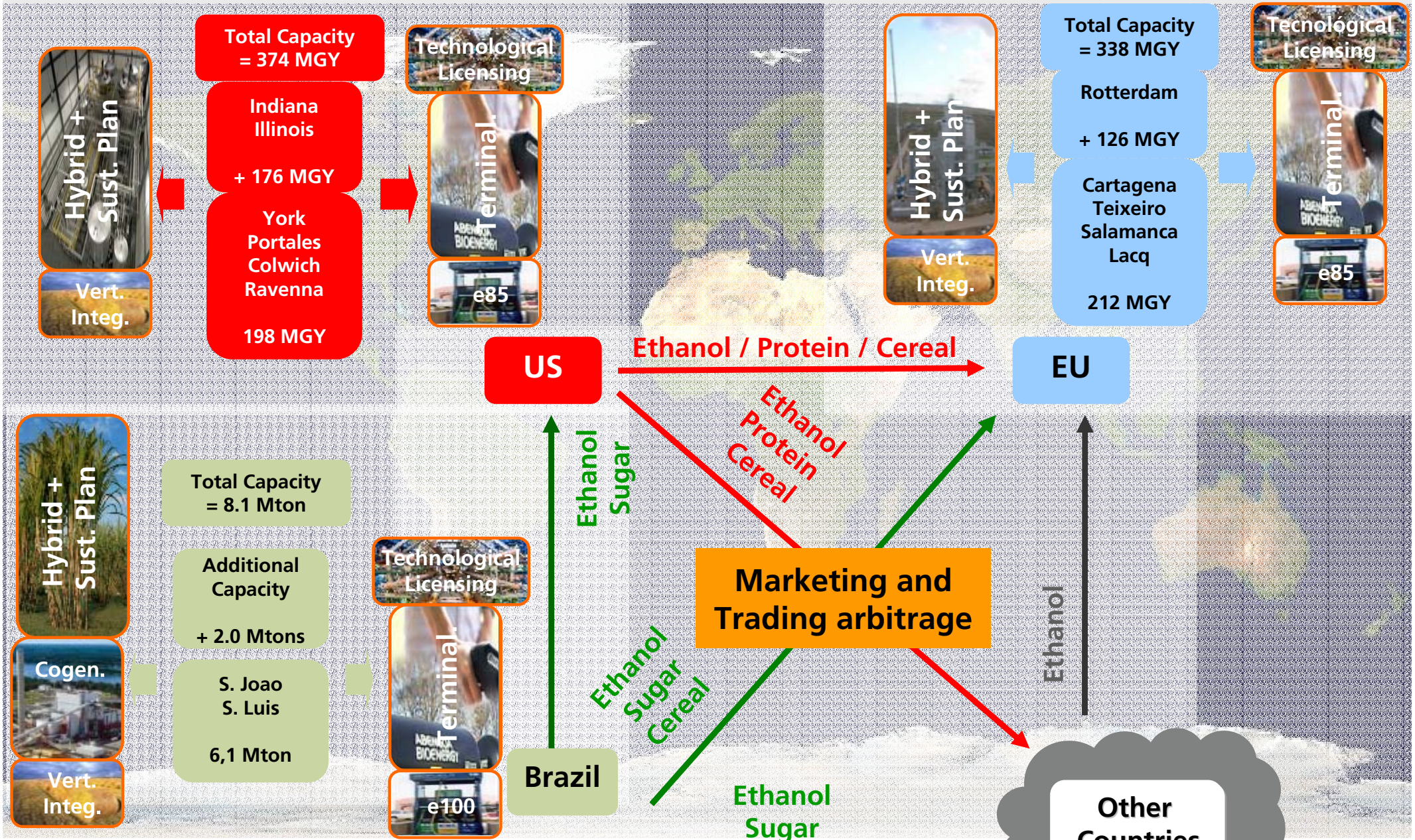


Ethanol will displace a significant fossil fuel demand by 2020

2008-2010 Framework

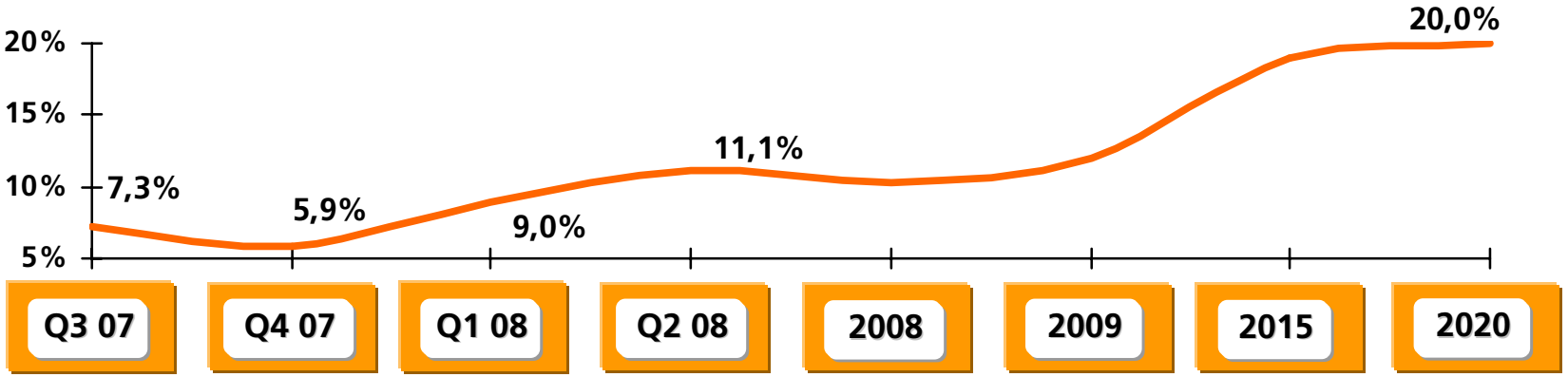
	US	UE	Brazil
Key Actions	• Hybrid 1st. Concept (Vertical Integration)	• Hybrid 1st. Concept (Vertical Integration)	• ABBr integration and optimization • Vertically Integrated Greenfields
	• Sustainability Plan deployment	• Sustainability Plan deployment	• Sustainability Plan deployment
	• Hedging Policy • WC Policies • Marketing and Trading	• Hedging Policy • WC Policies • Marketing and Trading	• Hedging Policy • WC Policies • Marketing and Trading
Objectives	Growth and evaluation other opportunities	Growth and capture initial high margins	Integration and Growth
Commodities	Higher margins	Infant industry. High margins	Higher margins
Market Overview	S&D balanced	New Energy Directive	Ethanol shortage

Dinamic Visual Strategic Version



Strategic Plan Margins

% Ebitda over sales



Key issues in each market