

BNDES & Cellulosic Ethanol (E2G)

Ethanol Summit

São Paulo, June, 2017



Recent History of E2G – The USA case

As of July 2008, there were 55 cellulosic biorefineries either completed, under construction or in the planning stage in a total of 31 states across the country. Altogether they create an expected capacity of 629 million gallons per year (MGY) and a potential expansion to 995 MGY. Most of the demonstration and commercial scale facilities are scheduled to start operation on 2009 or 2010.

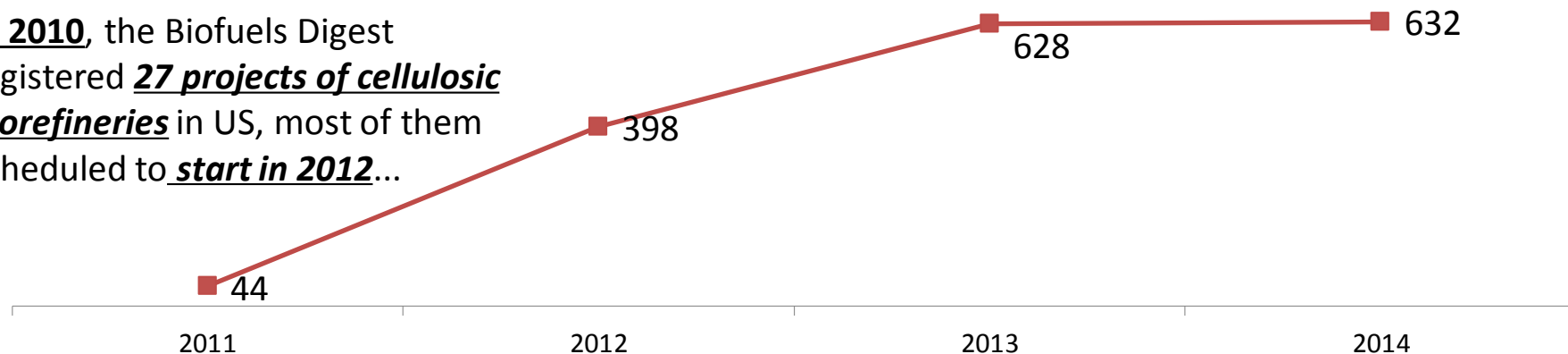
Table 4.1
Lignocellulosic Biorefineries by Scale and Stage of Development

	Commercial Scale ^a	Demonstration Scale ^b	Pilot Scale ^c
Completed	-	2	3
Under Construction	1	3	5
Planning Status	21	14	6
Total	22	19	14

Source: USDOE

Perspectives for USA E2G production in 2010 (MGY)

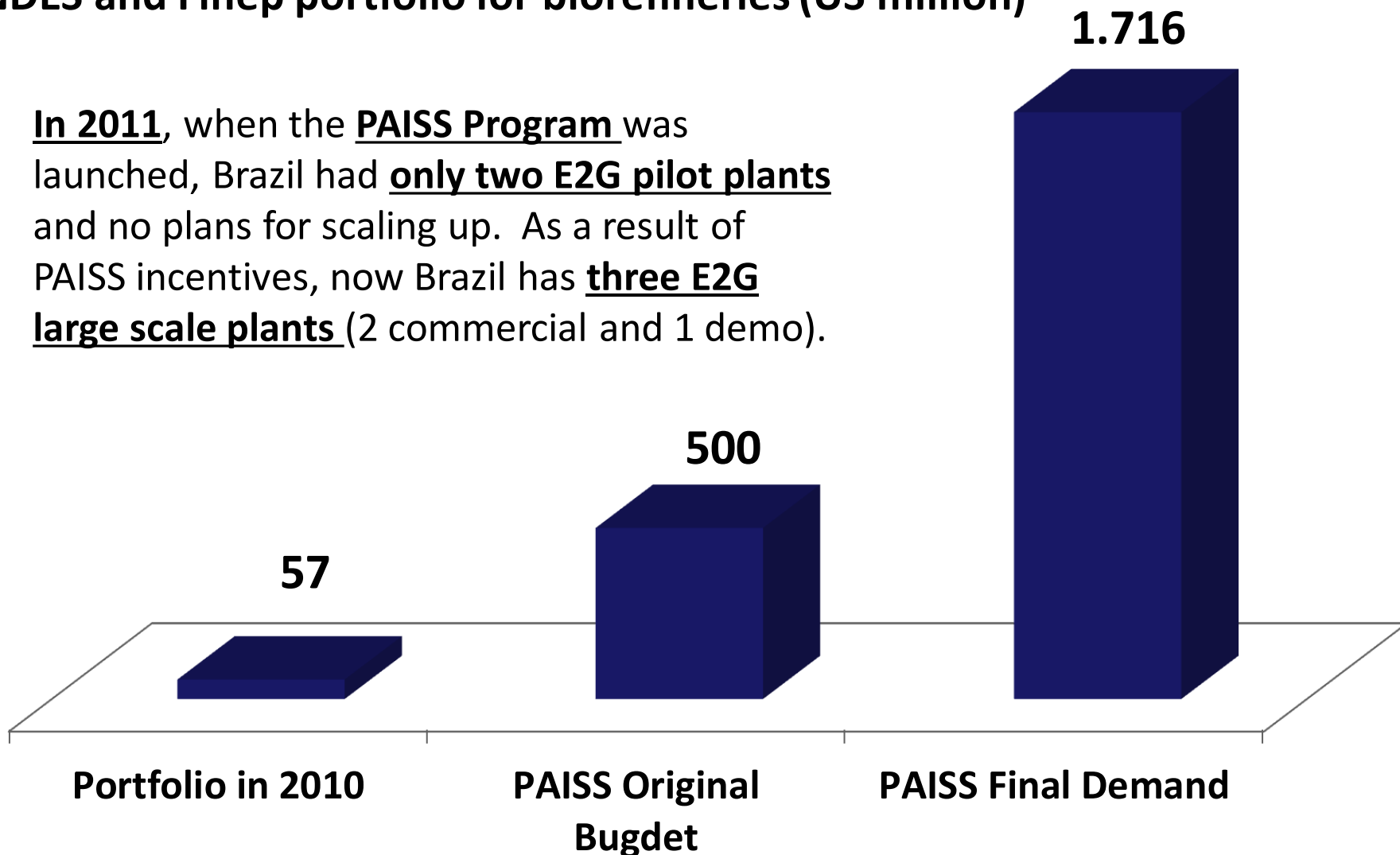
In 2010, the Biofuels Digest registered **27 projects of cellulosic biorefineries** in US, most of them scheduled to **start in 2012**...



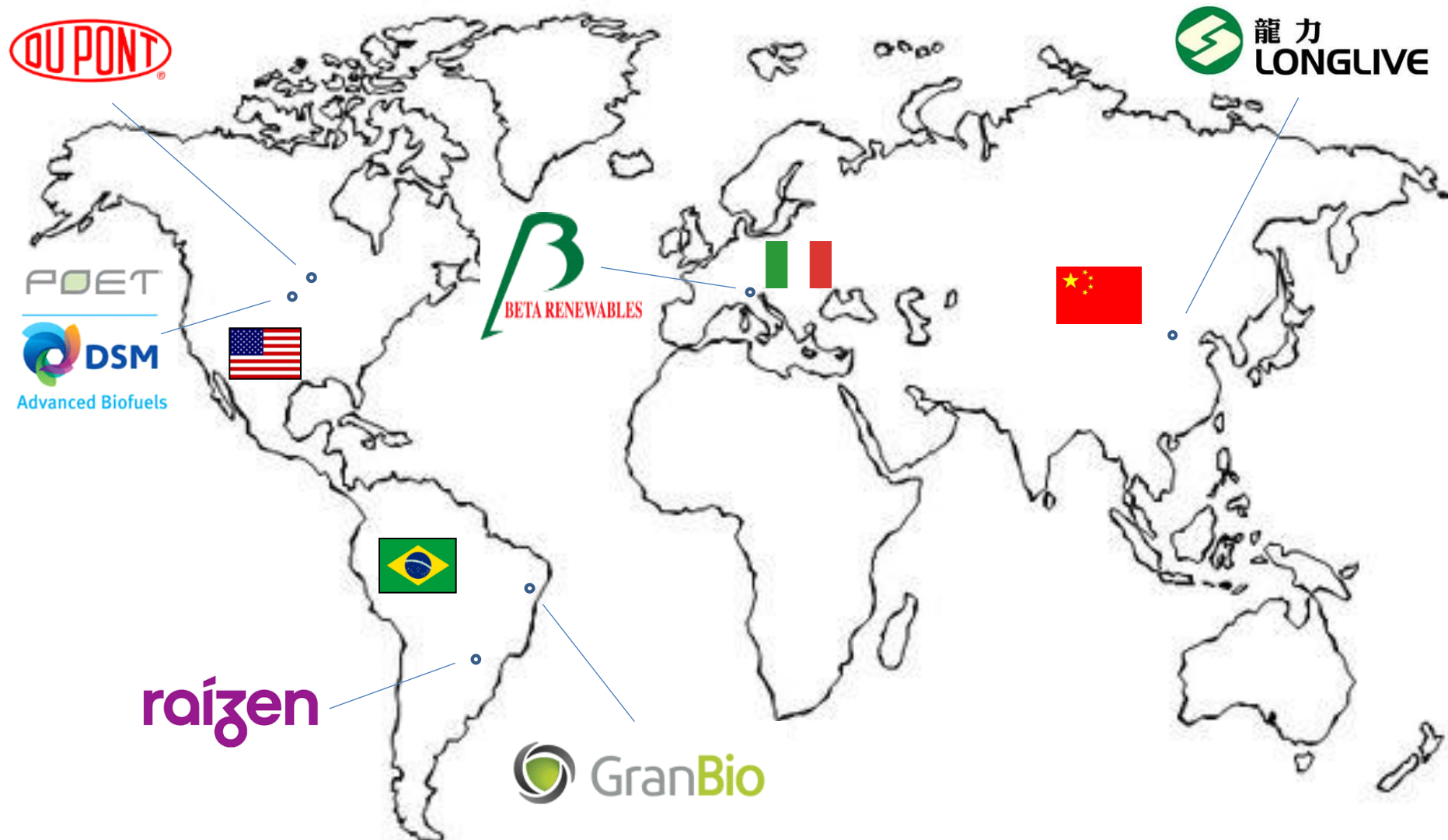
Source: Biofuels Digest

BNDES and Finep portfolio for biorefineries (US million)

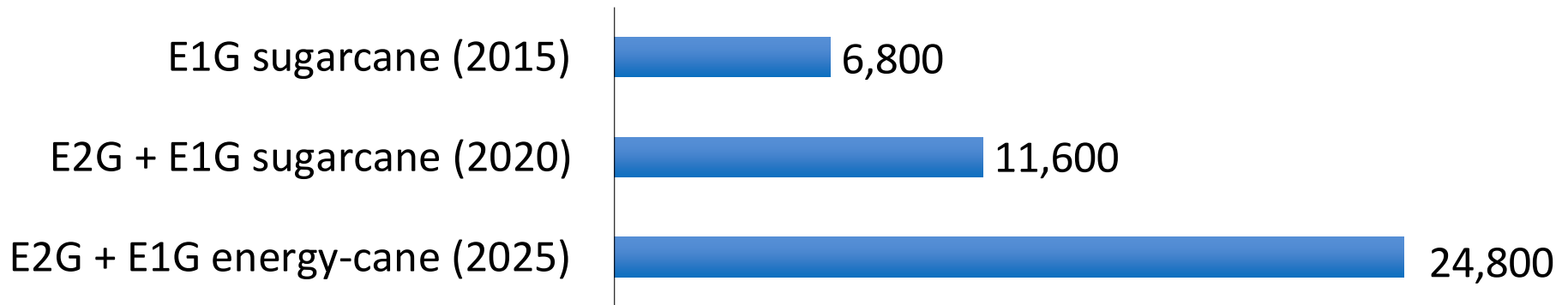
In 2011, when the PAISS Program was launched, Brazil had only two E2G pilot plants and no plans for scaling up. As a result of PAISS incentives, now Brazil has three E2G large scale plants (2 commercial and 1 demo).



Current E2G commercial plants

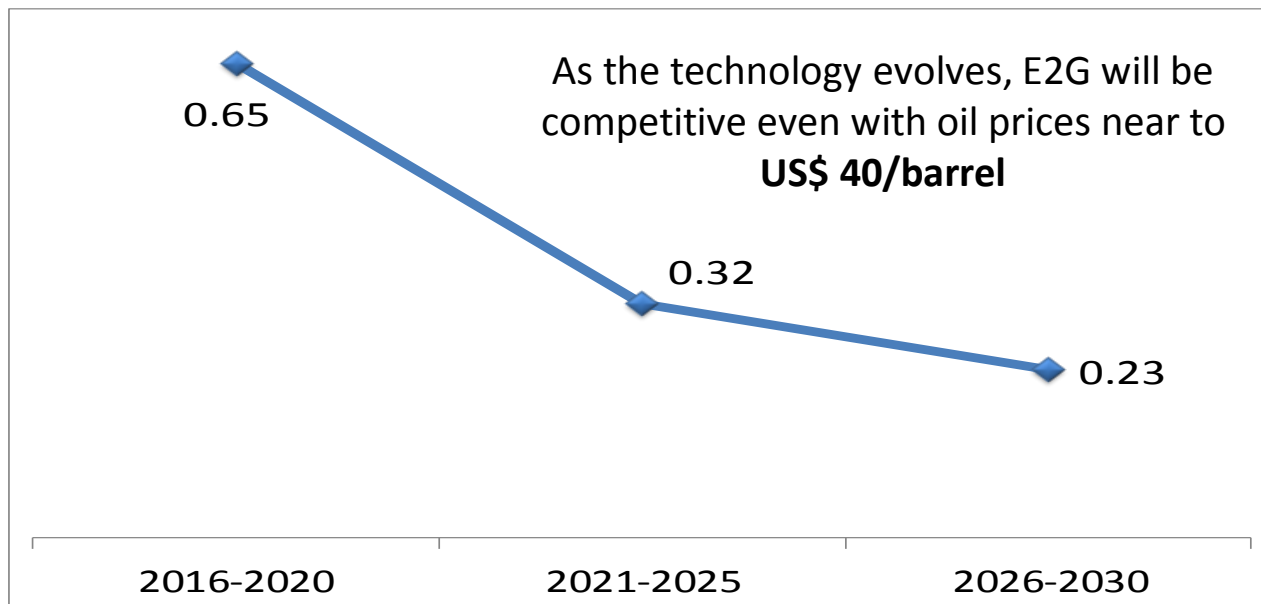


Productivity (liters/ha)



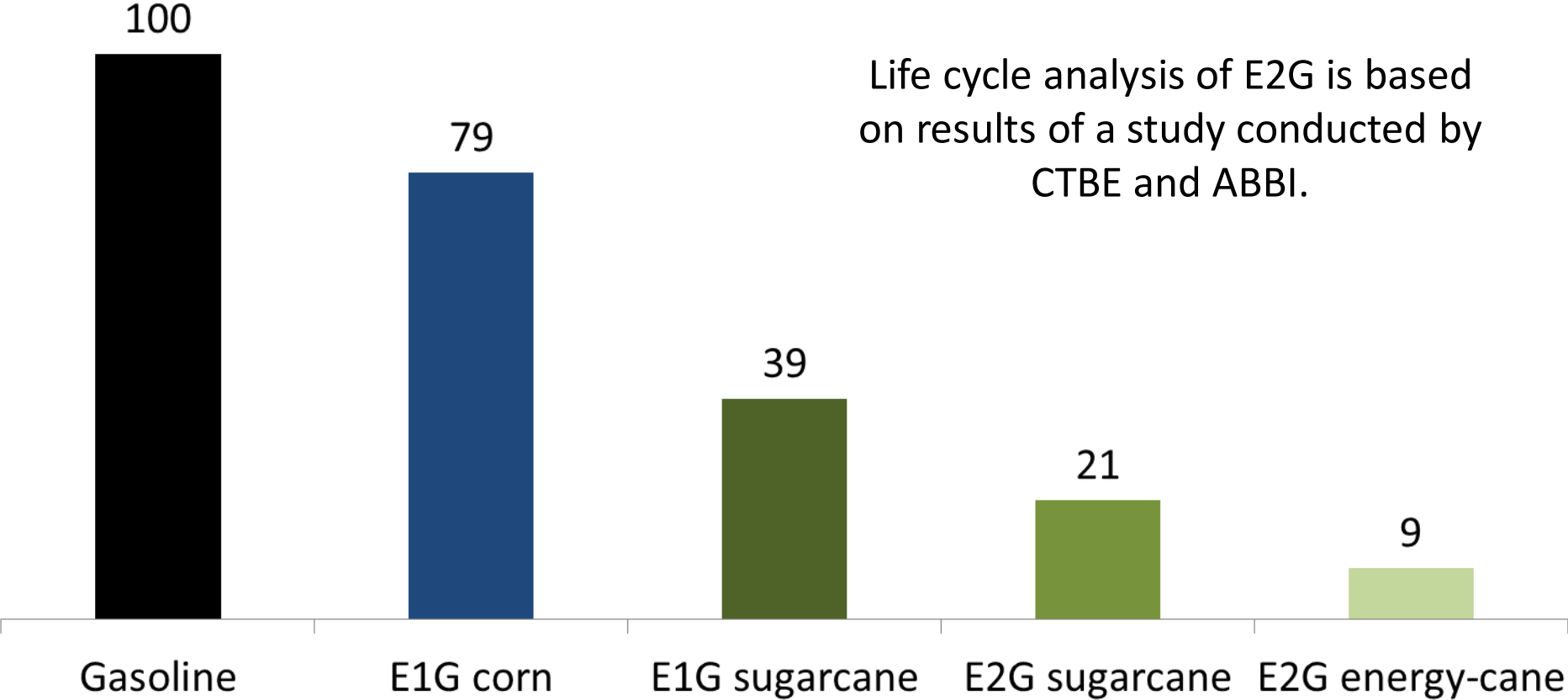
Source: BNDES and CTBE

E2G minimum selling price (US\$/liter)



Source: BNDES and CTBE

Potential reduction of CO2 emitted from gasoline (base 100)



Source: US EPA for gasoline and E1G.

Thanks for your attention!

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