



# **GAS TO LIQUIDS INTRODUCTIE VAN GTL IN DE NEDERLANDSE TRANSPORTSECTOR**

**Guy de Kort**

Vice President Gas to Liquids

Tankstation Vakbeurs,  
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## DISCLAIMER

Reserves: Our use of the term “reserves” in this presentation means SEC proved oil and gas reserves. Resources: Our use of the term “resources” in this presentation includes quantities of oil and gas not yet classified as SEC proved oil and gas reserves. Resources are consistent with the Society of Petroleum Engineers 2P and 2C definitions. Organic: Our use of the term Organic includes SEC proved oil and gas reserves excluding changes resulting from acquisitions, divestments and year-average pricing impact. Resources plays: our use of the term ‘resources plays’ refers to tight, shale and coal bed methane oil and gas acreage.

The companies in which Royal Dutch Shell plc directly and indirectly owns investments are separate entities. In this presentation “Shell”, “Shell group” and “Royal Dutch Shell” are sometimes used for convenience where references are made to Royal Dutch Shell plc and its subsidiaries in general. Likewise, the words “we”, “us” and “our” are also used to refer to subsidiaries in general or to those who work for them. These expressions are also used where no useful purpose is served by identifying the particular company or companies. “Subsidiaries”, “Shell subsidiaries” and “Shell companies” as used in this presentation refer to companies in which Royal Dutch Shell either directly or indirectly has control, by having either a majority of the voting rights or the right to exercise a controlling influence. The companies in which Shell has significant influence but not control are referred to as “associated companies” or “associates” and companies in which Shell has joint control are referred to as “jointly controlled entities”. In this presentation, associates and jointly controlled entities are also referred to as “equity-accounted investments”.

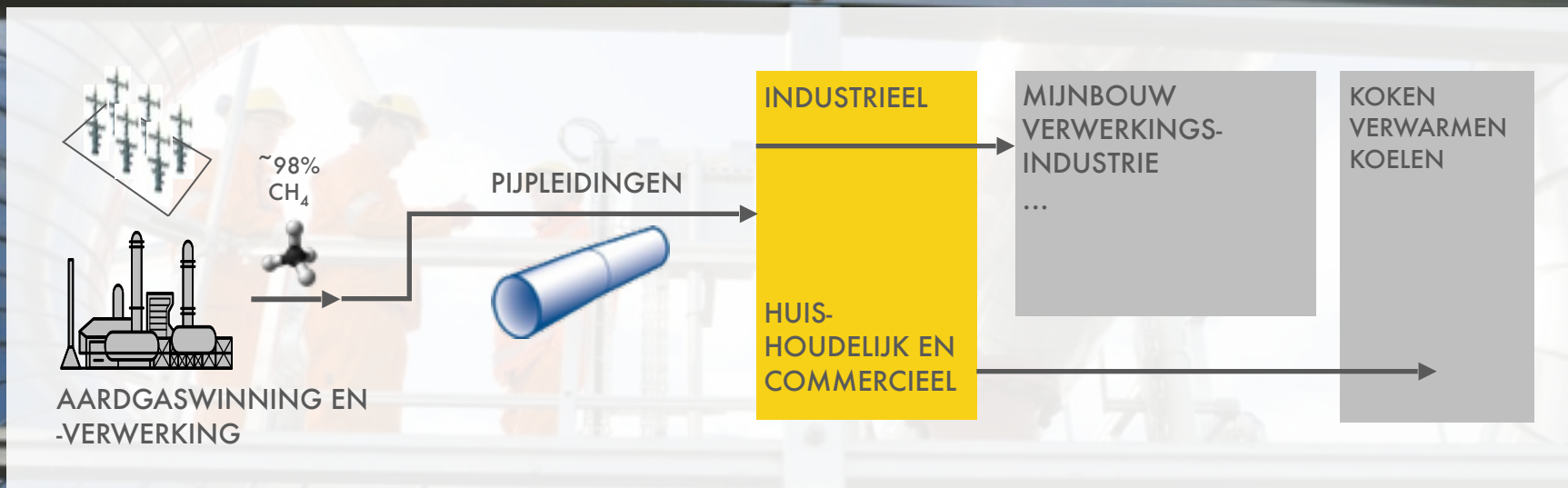
The term “Shell interest” is used for convenience to indicate the direct and/or indirect ownership interest held by Shell in a venture, partnership or company, after exclusion of all third-party interest.

This presentation contains forward-looking statements concerning the financial condition, results of operations and businesses of Royal Dutch Shell. All statements other than statements of historical fact are, or may be deemed to be, forward-looking statements. Forward-looking statements are statements of future expectations that are based on management’s current expectations and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in these statements. Forward-looking statements include, among other things, statements concerning the potential exposure of Royal Dutch Shell to market risks and statements expressing management’s expectations, beliefs, estimates, forecasts, projections and assumptions. These forward-looking

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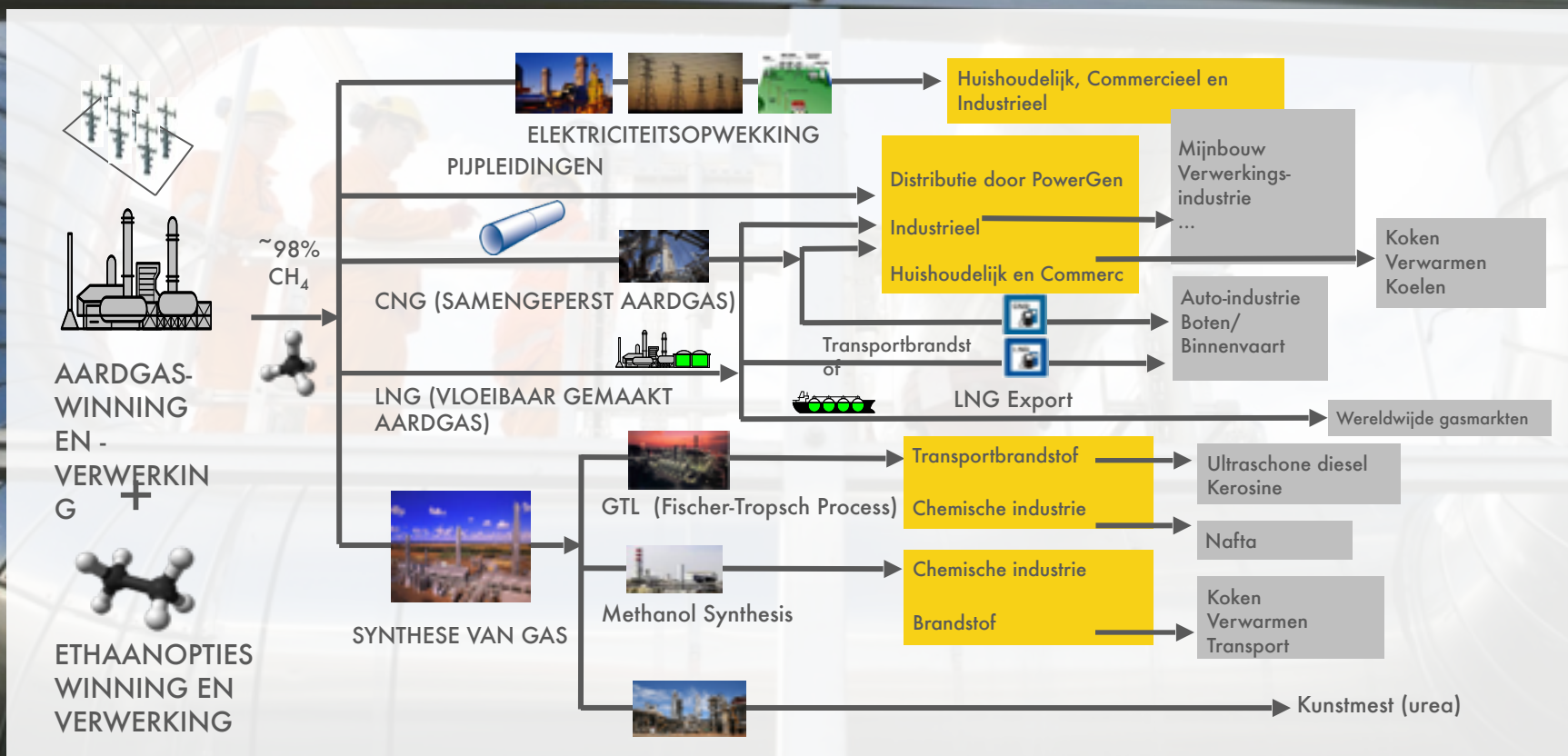
# ONTWIKKELING VAN HET ENERGIESYSTEEM

CA. 1960



# ONTWIKKELING VAN HET ENERGIESYSTEEM

CA. 2010



# DE TOEKOMST VAN ENERGIE IN 2050

## DE WERELD IN 2050

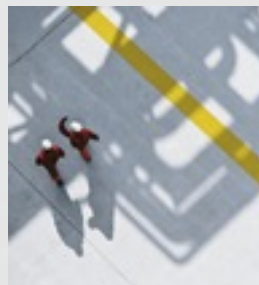
### STIJGENDE ENERGIEVRAAG, DRUK OP AANBOD, KLIMAATVERANDERING



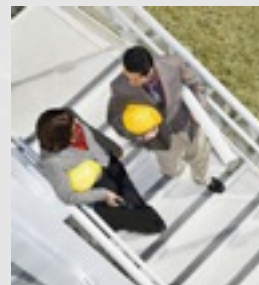
9 miljard mensen; tot aan 75% woont in steden  
2 miljard meer dan nu



2 miljard voertuigen  
800 miljoen op dit moment



3-4 keer zo rijk als nu aangezien de bevolking in ontwikkelingslanden verschuift van armoede naar middenklasse



Meer dan 2 keer het energieverbruik  
er wordt 55% meer energie geleverd dan nu.  
Tegelijkertijd moeten CO<sub>2</sub> en GHG - emissies gereduceerd worden



2 keer zo efficiënt de helft van de energie wordt gebruikt voor de productie van elke euro aan welvaart



3 keer zo veel energie uit hernieuwbare energiebronnen

# SHELL GTL FUEL EIGENSCHAPPEN EN VOORDELEN

## VOORDELEN

- Reductie in de uitstoot van emissies waaronder fijnstof, Nox en roet
- Drop-in fuel; eenvoudig toe te passen:
  - Past in bestaande dieselmotoren\*
  - Past zonder investering in de bestaande tankinfrastructuur
- Kan helpen het motorgeluid te verminderen
- Minder zichtbare rook
- Het hele jaar door een goede performance (zoals cold-start)

## EIGENSCHAPPEN

- Goed biologisch afbreekbaar
- Vrijwel vrij van zwavel en aromaten
- Kleurloos en bijna geurloos
- Niet toxisch\*\*



# DE GESCHIEDENIS



**1973**

LABORATORIUM  
AMSTERDAM  
grams/d



**1983**

PILOT PLANT  
AMSTERDAM  
3 bbl/d



**1993**

SHELL MDS,  
BINTULU MALAYSIA  
Huidige capaciteit  
14,700 bbl/d



**HEDEN**

PEARL GTL QATAR  
140,000 bbl/d

# VOOR WELKE SECTOREN IS SHELL GTL FUEL GESCHIKT

Shell  
GTL Fuel

Shell  
GTL Fuel

Shell  
GTL Fuel

Shell  
GTL Fuel

Shell  
GTL Fuel



RONDVAARTBOTEN



AFVAL INZAMELING



OV BUSTRANSPORT



RAIL



LAST MILE DELIVERY



AGGREGATEN



# WERELDWIJD BEWEZEN

## SUCCESSVOLLE TESTS MET 100% SHELL GTL FUEL



