

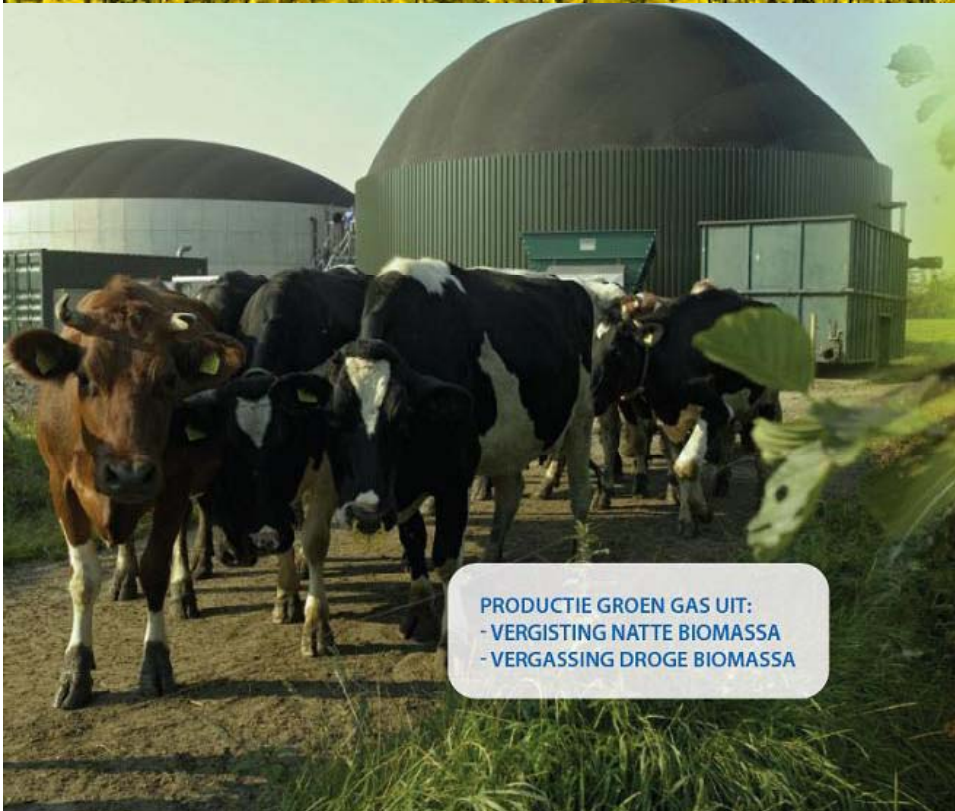


Agentschap NL
Ministerie van Economische Zaken

Onderzoek voor duurzame energie

Nationale
Duurzame
Energie
Conferentie

Ir. Kees W.
Kwant
Coordinator
bioenergie



PRODUCTIE GROEN GAS UIT:
- VERGISTING NATTE BIOMASSA
- VERGASSING DROGE BIOMASSA

>> Als het gaat om energie en klimaat



Inhoud

1. Realisatie en Duurzame Energie Verplichting
2. Gevolgen voor Bioenergie
3. Onderzoek en Ontwikkeling
4. Duurzame biomassa import
5. En hoe verder?



1. Biobased Economy Netherlands

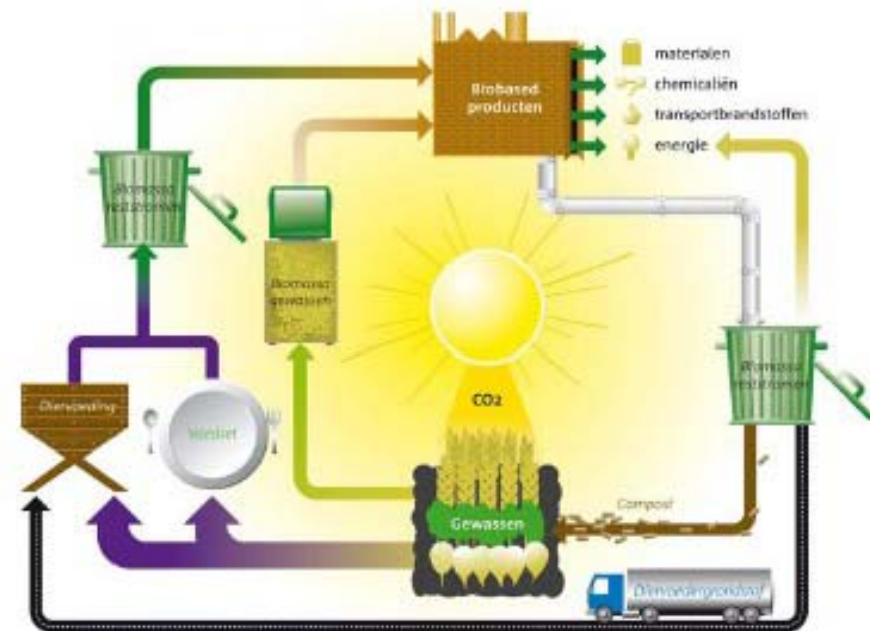
Since 2007 approved policy for Biobased Economy

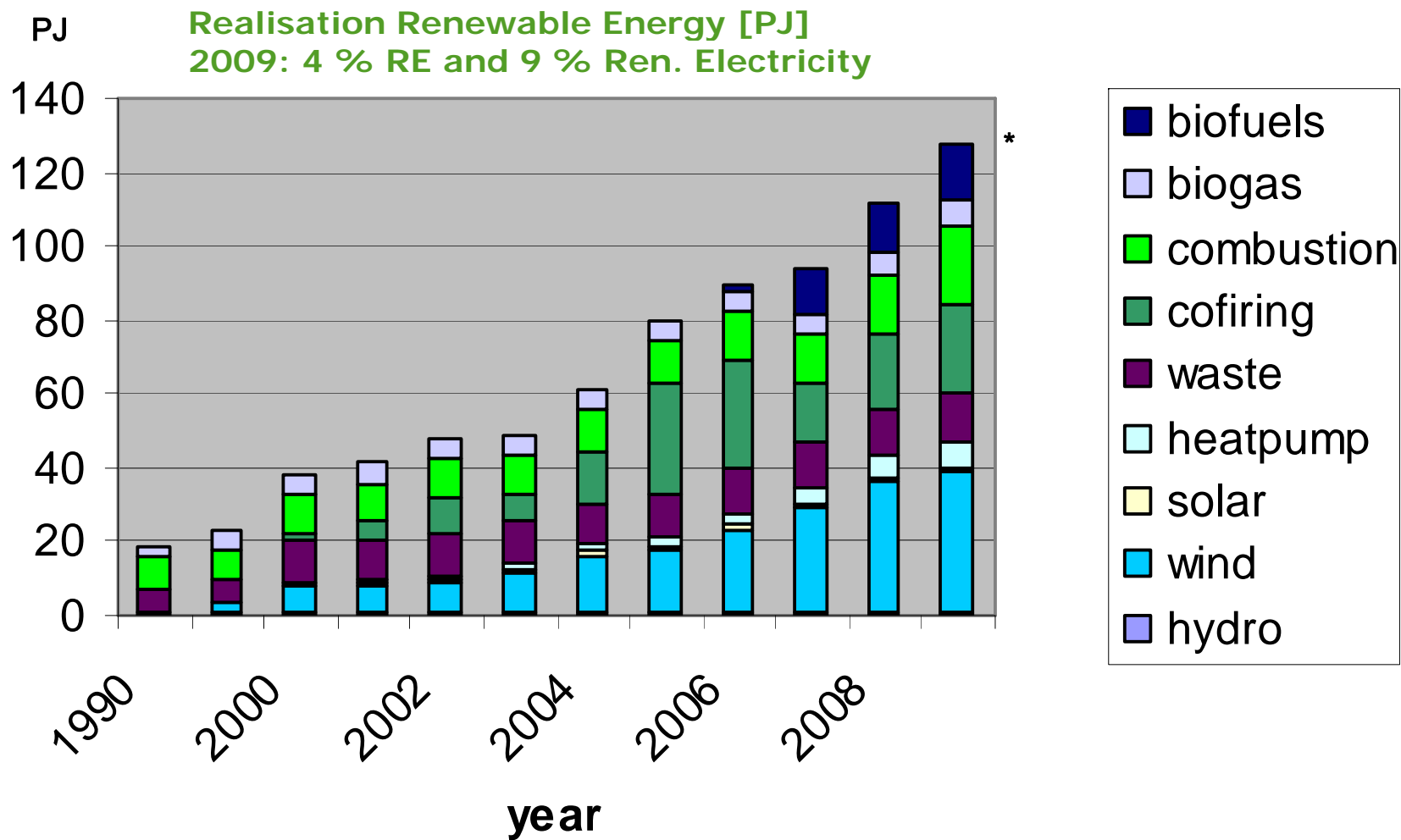
Match Economic Strength:
logistics, chemical industry,
food, research

Contribute to GHG savings
Cooperate internationally
+ Renewable Energy Directive

Approach:

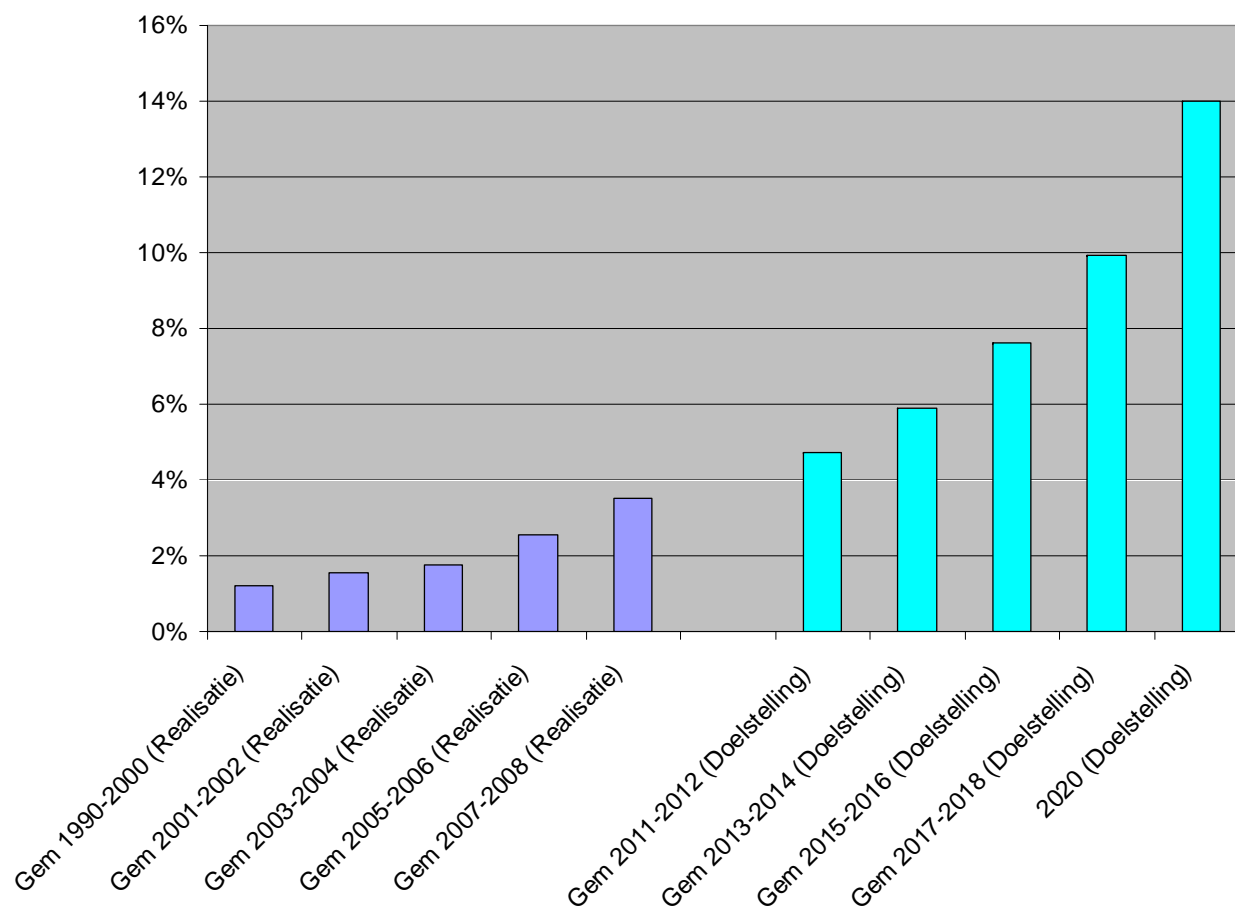
- Biorefinery (efficient use)
- Sustainable Import (worldwide)
- R&D







Nederlands Aandeel Hernieuwbare Energie (Bruto Finaal Energieverbruik)





Renewable Energy

Status 2010:

9% Renewable Electricity achieved

4% Biofuels

4% Renewable Energy



REAP 2020:

Energy obligation: 16%

Proposed:

Renewable Electricity: 30% (2/3)

Renewable Transport: 10% (1/6)

(of which > 80% biofuels)

More than half from Biomass,

(co-firing in coal fired power plants
and biofuels and some heat)

and 40% from wind mills

(2600 MW -> 11000 MW)

Renewable Heat: rest (1/6)

How?



REAP: Nederland 14% in 2020?

Finale Energy demand 2020 [PJ]:

	BAU	Savings
• Electricity	565	509
• Transport	577	420
• <u>Heat</u>	<u>1104</u>	
Total	2305	2075

14% of Total: 322 290 PJ

Status RE 2009:

Electricity	9 %
Totaal	3.3%

Supply of 322 PJ:

Statement of Government:

- 35% renewable Electricity; 208 PJ
- 10% of transport sector: 58
- Rest for Heat : 55
- Total **322 PJ**

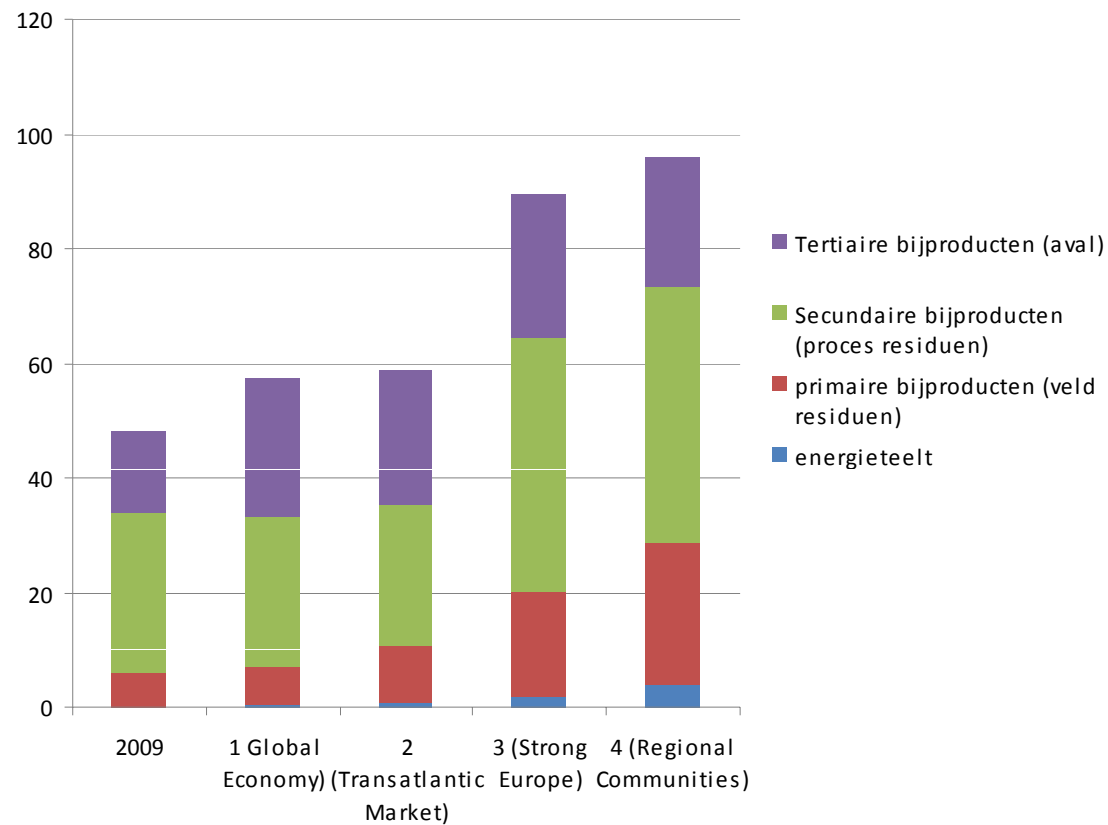
Windenergy;

- 6000 MW on land: 13 TWh
- 6000 MW on sea: 18 TWh
- Total: 31 TWh = 112 PJ
- Solar PV 2
- Rest for Biomass CHP: 94 PJ

Total Biomass: 94 + 80%(53+60) = 180 PJ
(10 Mtons wood)

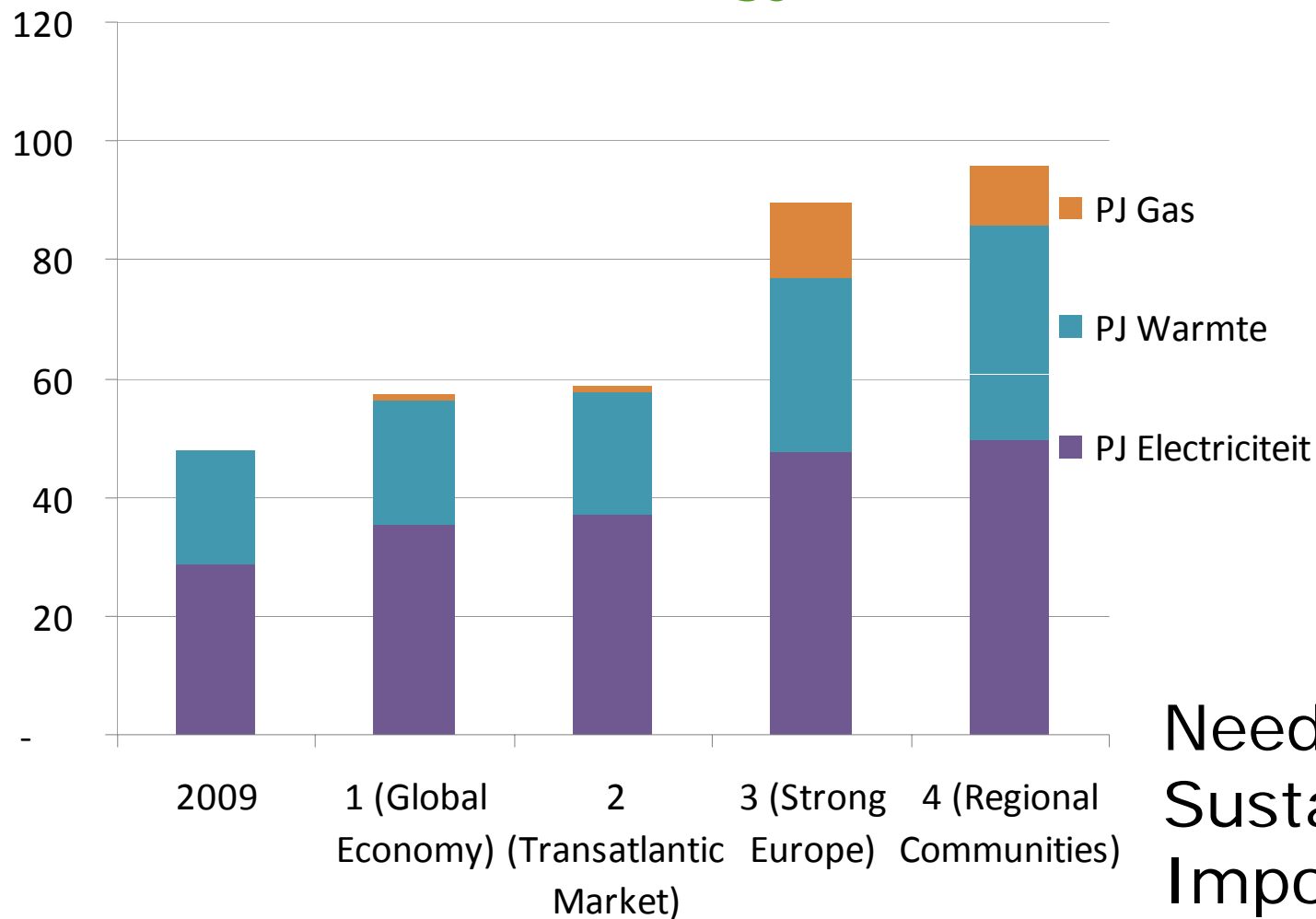


Finale energie (PJ) per type biomassa





REAP Biomass: Finale energy (PJ)



Need for Sustainable Import



3. R&D Realised so far:

New Interdepartmental Programme Biobased Economy proposed,
with Min. Agr. Leading

Innovation agenda being executed (350 M€)

EOS: Energy Research Subsidy program under evaluation by Min. of
Economic Affairs -> Biobased remains focal Area.

New internal NL Agency Biomass Network (15 programs)

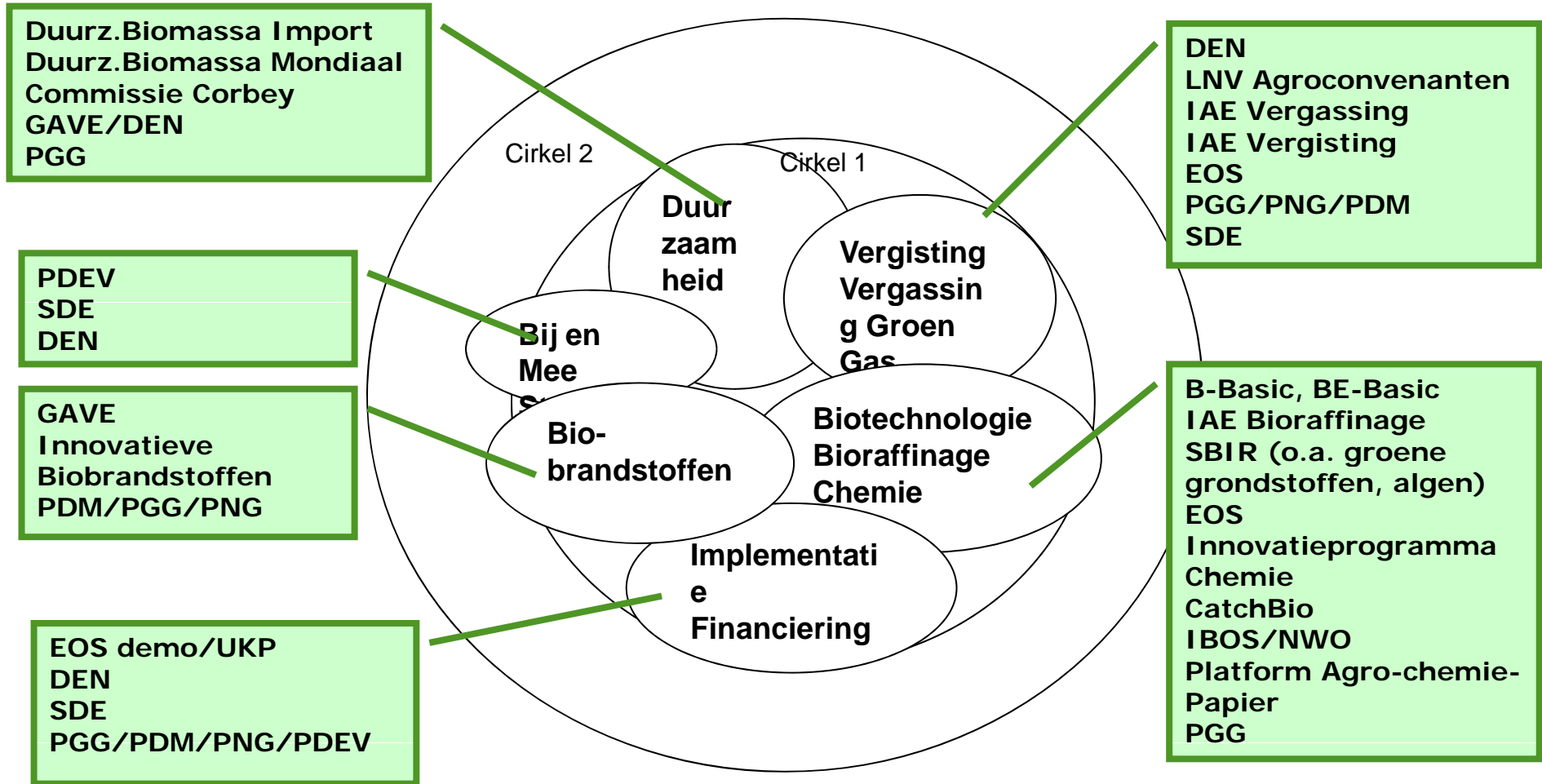


R&D Netherlands calls

Biomass Programs		precheck	Closing 2010	budget
EOS LT			2 March	~ ~ 3M
IA Biorefinery		9 dec 09	15 March	10 M€
IA Gasification		31 March	30 September	12 M€
IA Digestion/ Biogas		28 April	2 September	8 M€ (4 demo, 3 pilots)
IA Import		continuous	6 August	4 M€ (of 20 M€)
Total				~ ~ 55 M€



Netwerk Biobased AgNL





Biomassa Internationaal

EZ/VROM/LNV:

- IEA Bioenergy (kennis)
- GBEP (afspraken)

Markt:

- Biomassa Voorzienings zekerheid (import biomassa)
 - 25 M€ voor wereldwijd projecten
- Export kennis en producten
 - Met EVD: G2G, 2G@there
 - Innovatie internationaal

DOF: rood
 DBM: blauw
 EnDev: paars
 CarbCr: groen
 EWGInd: geel



[Internationale projecten over Energie & Klimaat](#) weergeven op een grotere kaart

E&K Projecten: <http://www.senternovem.nl/daeyouwensfonds/projecten/index.asp>

Dia 13

k1

kwant; 25-8-2010



4. Duurzame Biomassa Productie en Import

Biomassa Import:

Een impuls geven aan de verduurzaming van de biomassa importketens voor energie- en chemietoepassingen in Nederland



Biomassa Mondiaal:

Ondersteunen van ontwikkelingslanden bij het verduurzamen van de productie van biomassa voor energiedoeleinden. Met het oog op het verkrijgen van toegang tot de lokale of internationale energiemarkt.



Certified Sustainable Biomass

	Sustainable Biomass Mondial	Sustainable Biomass Import
Goal	Support Developing Countries in sustainable biomass production for energy to obtain access to worldmarket.	Support the increase of sustainable biomass for energy in major producing countries to the Netherlands
Subsidy Budget	12.5 M€	7.5 M
Supporting program	2.75 M€	1.5 M€
1st tender	25 may 09; 4.7 M€	15 oct 09; 3,3 M€
2nd tender	12 Jan 10; 7.7 M€	5 Augustus 10; 4.2 M€
Focus countries	Indonesia, Vietnam, Colombia, Nicaragua, Mali, Tanzania, Mozambique en Zuid-Afrika	Canada, Brasil, Ukraine, Baltic States, Rusland,



3. Results: Budgets for projects

Daey Ouwens Fund

Tender 1 (biomass projects)	€ 1.850.000
Tender 2 (biomass projects)	€ 4.400.000
<hr/> Total	<hr/> € 6.250.000

Global Sustainable Biomass fund

Tender 1	€ 4.700.000
Tender 2	€ 7.700.000
<hr/> Total	<hr/> € 12.400.000

Sustainable Biomass Import - T1	€ 3.200.000
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<hr/> Total	<hr/> € 3.200.000
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<hr/> Total	<hr/> € 21.850.000
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Palm kernel shells, an agro-residue produced in Southeast Asia (mainly Malaysia and Indonesia), which is currently exported to several European countries. Courtesy of J. Douglas, Solidaridad



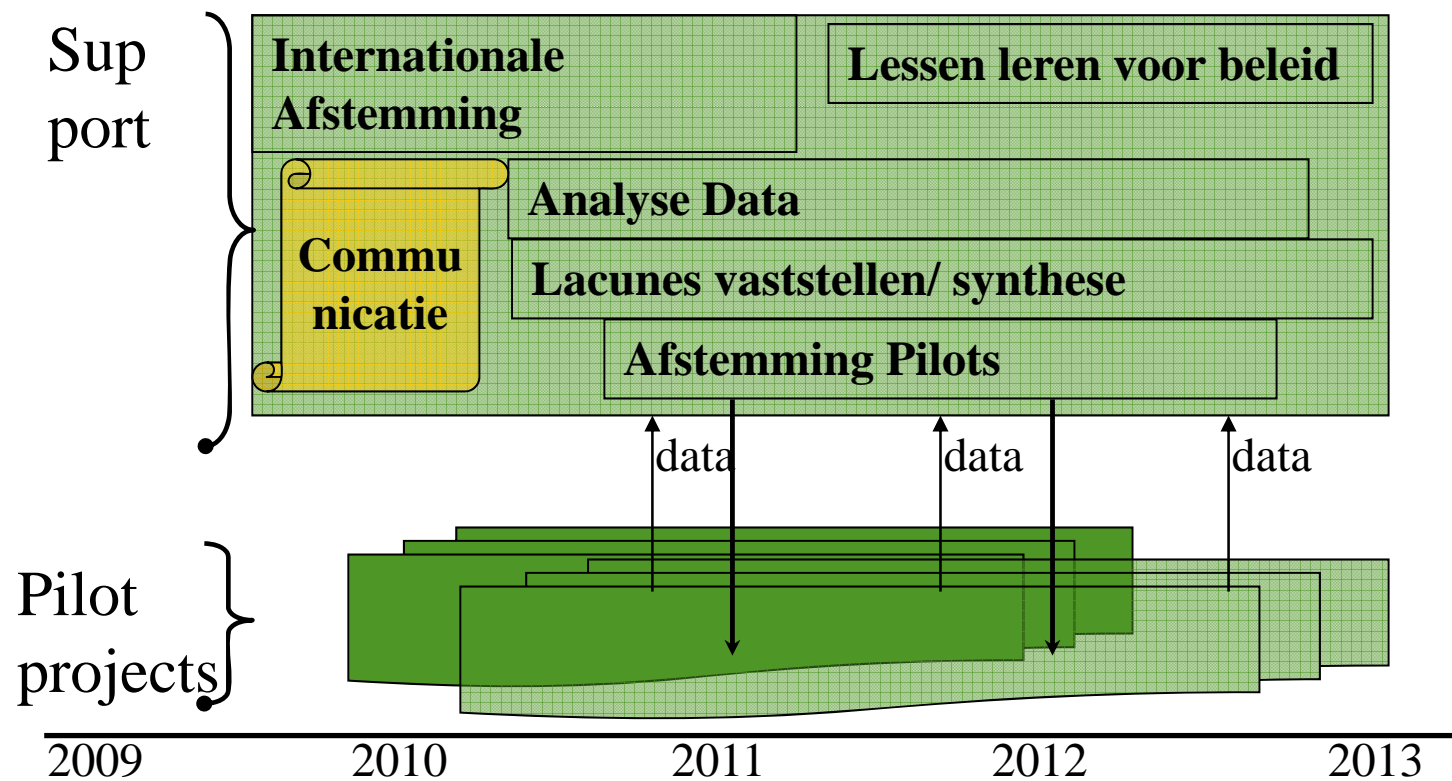


Projects contracted

Crop	Number		projects by continent	
Algae	2		Africa	21
Agricultural Residues	3	Asia	11	
Jatropha	14	Europe	3	
Palm Oil	7	North America	1	
Nuts	4	South America	10	
Oilseed	2			
Sugar (Cane, Sorgum & Palm)	5			
Wood Pellets	4			



Kennismanagement in NPDB



Pilots en ondersteunend programma



En Verder

Nieuwe Omgeving: Vrijheid en Verantwoordelijkheid

Doelstelling 2020: 20% -> 14% is ook van nu 4% -> 14%

Anno 2010 projecten gefinancierd voor 2 a 3 jaar a 50 M€/jr

Geen Extra Nieuwe Subsidies?

Leren van bestaande projecten, Marktkansen creëren

Business in binnen en buitenland opbouwen