

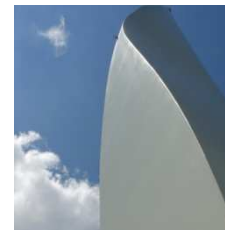
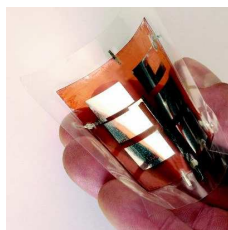


MARKET OPPORTUNITITES FOR FLANDERS INDUSTRY

VIWTA March 2009

Dr. Jan Declercq

Geert Palmers



OPPORTUNITY: TRANSFORMING THE ENERGY SYSTEM

Energy efficiency improvement rate

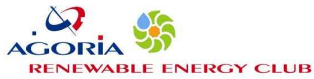
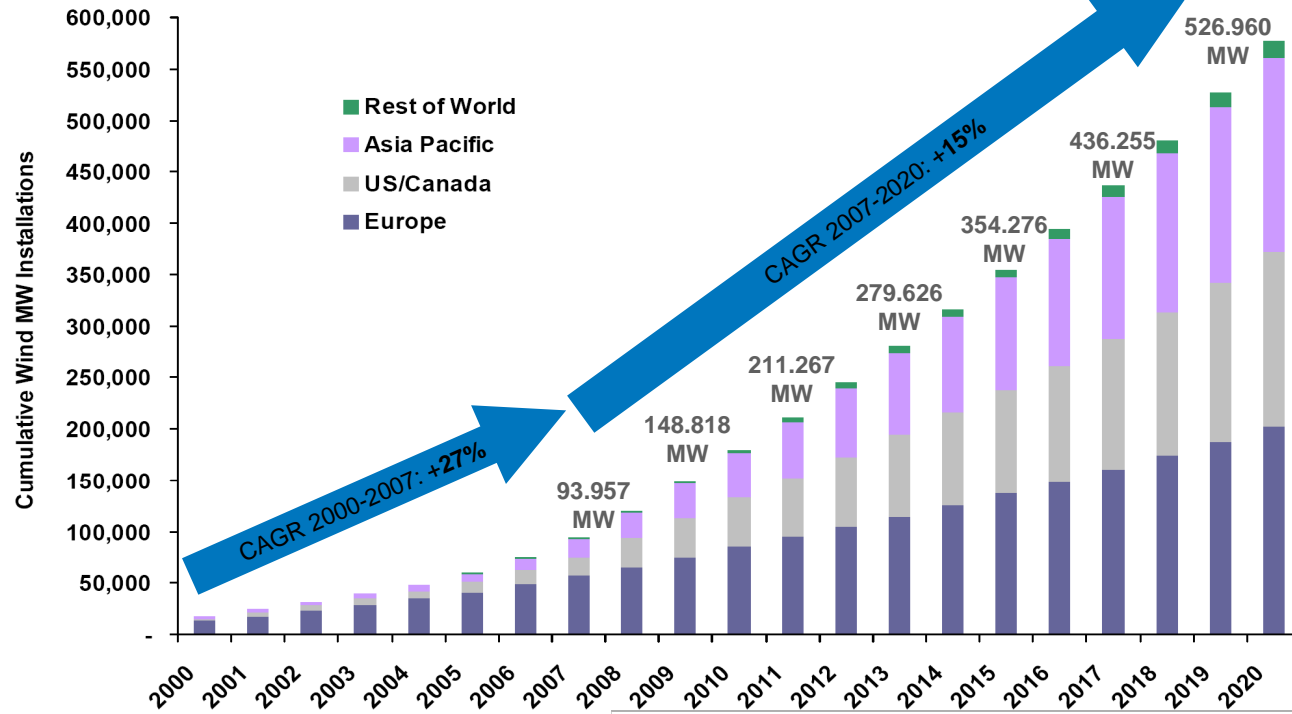
- **MODEST (1%):**
⇒ required share of zero-emission sources of 70 – 90%
- **AMBITIOUS (3%):**
⇒ required share of zero emission sources of 20 – 70%

Results in required growth rates of 12 – 15% per year
(modest energy efficiency improvements) average over several
decades !

TO SEIZE THE OPPORTUNITY

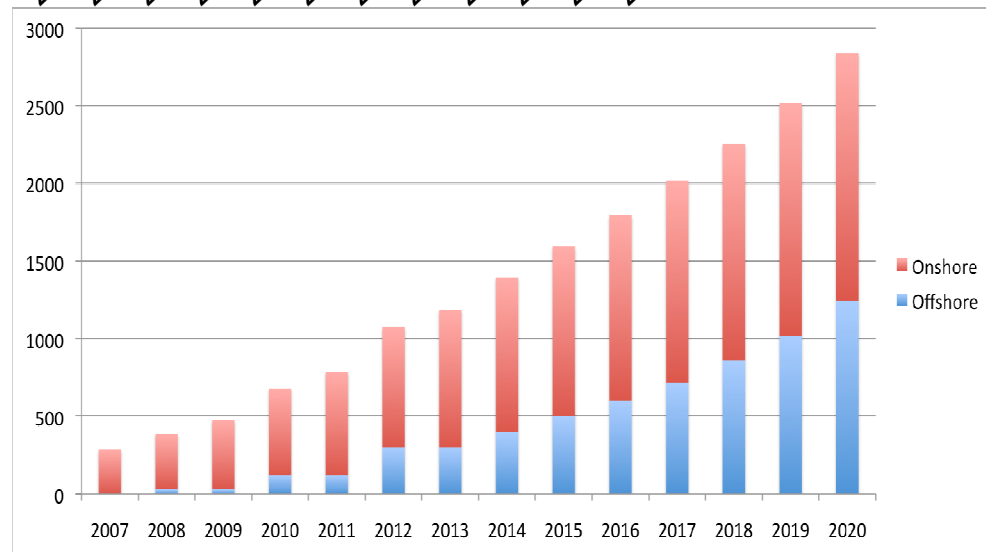
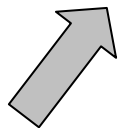
- Presence of belgian industry is significant and strategic:
 - Wind - leading components manufacturers & design expertise: Hansen Transmissions, Pauwels Trafo, Numeca, Samtech, KU Leuven,...
 - PV - leading presence if whole photovoltaic value chain: IMEC, Photovoltech, ICOS, UMICORE, ...
- Opportunity to boost presence is crucial by:
 - Strong reinforcement of RD&D tissue required
 - Structural cooperation between industry and RD&D
- Flanders has a pioneering role. We need to keep it
 - to benefit for efficient local implementationa
 - to follow world wide market growth

Wereldwijd geïnstalleerd (gecummuleerd) MW per Regio



Wereld

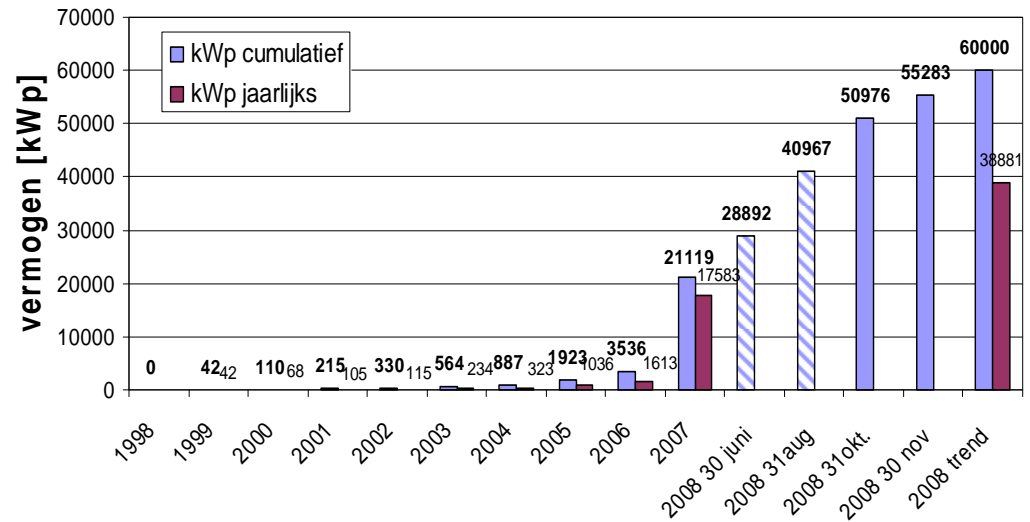
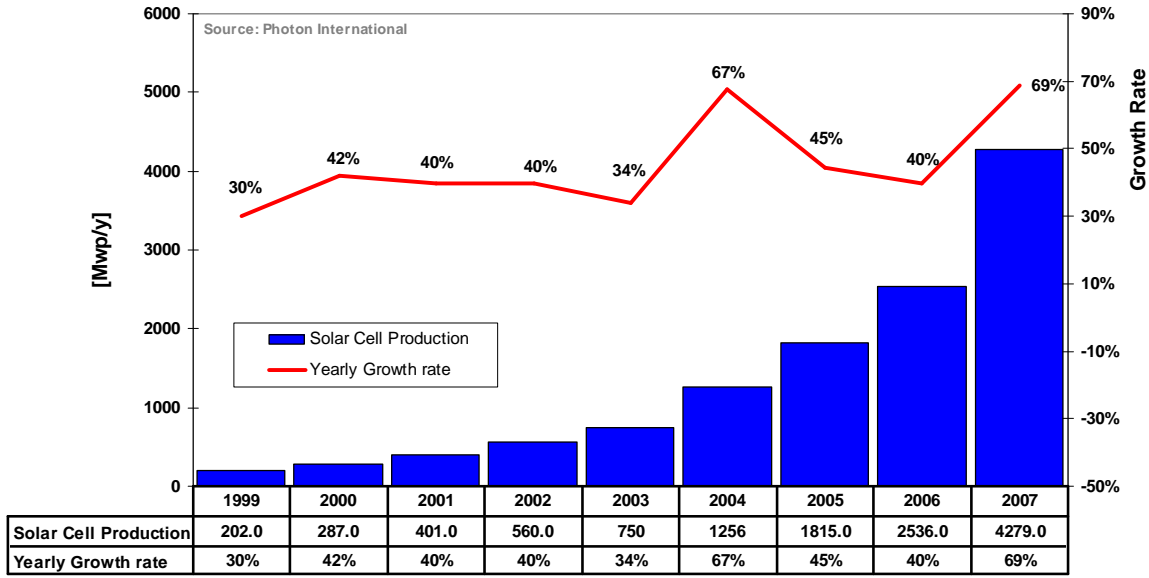
België





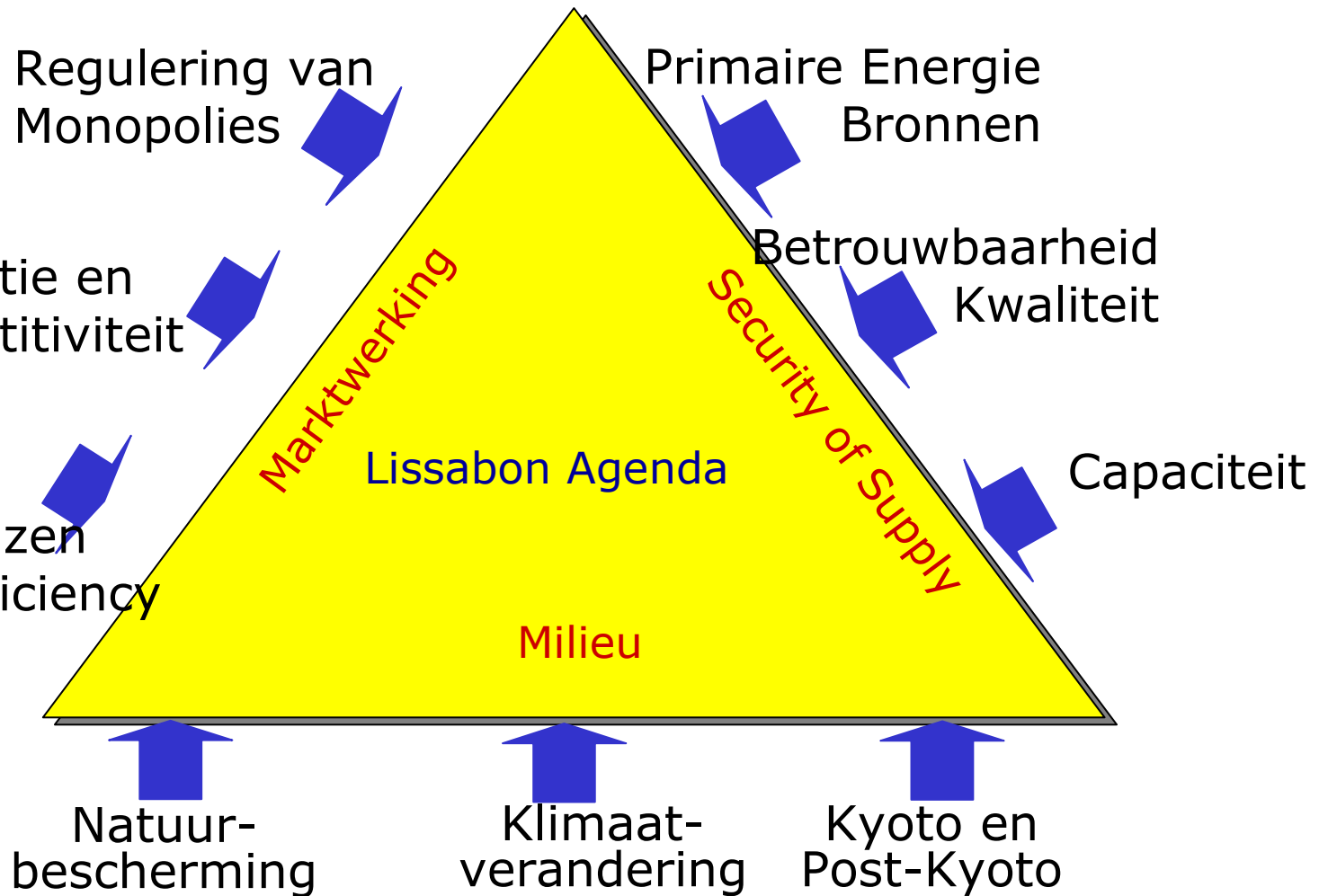
Wereld
België

World PV Growth (1999-2007)



Hernieuwbare energie : energie, CO2 reductie, milieu
Smart grids : transport en distributie medium
Beiden vereisen innovatie, ondernemerschap, efficiëntie

Innovatie-samenwerkingsverband
Vlaamse Industrie Hernieuwbare Energietechnologie



EMPLOYMENT PROSPECTS OUTLOOK 2020 IN FLANDERS

Innovatie-samenwerkingsverband
Vlaamse Industrie Hernieuwbare Energietechnologie



Employment in Flanders in FTE	2007 Manufacturing		2020 Manufacturing
Wind	1.350	+13% per year	7.000
Solar	400	+25% per year	7.000
Bio Energy	600	+20% per year	6.500
Other	150	+14% per year	800
Total direct	2.500		21.300
Total indirect	2.100		17.900
Total	4.600		39.200

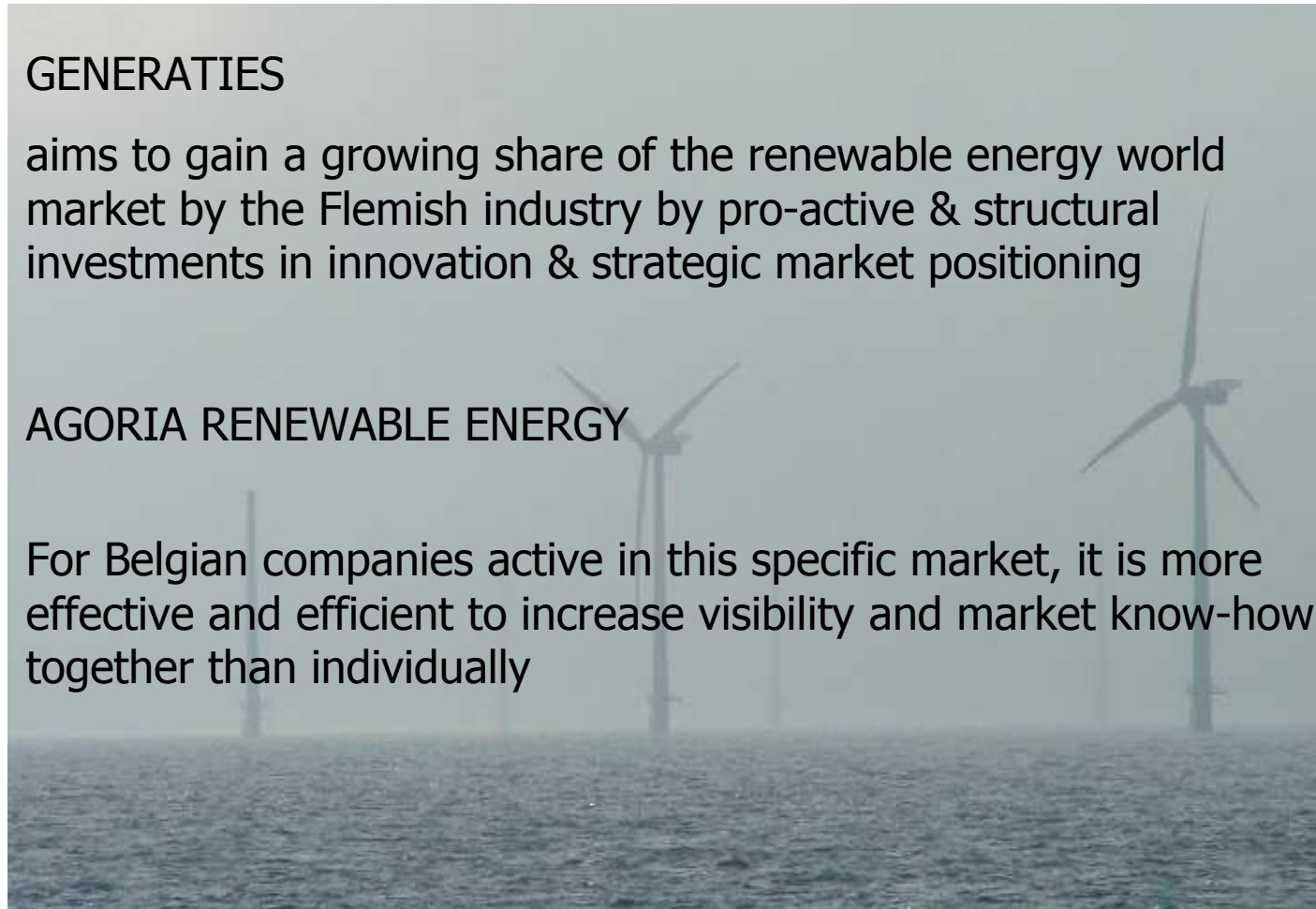
MISSION

GENERATIES

aims to gain a growing share of the renewable energy world market by the Flemish industry by pro-active & structural investments in innovation & strategic market positioning

AGORIA RENEWABLE ENERGY

For Belgian companies active in this specific market, it is more effective and efficient to increase visibility and market know-how together than individually



ACTIVITIES & SERVICES

- 'Market & technology intelligence' for cluster of companies
 - Technology watch for members
- RD&D support:
 - Development of private partnerships
 - Preparation of RD&D proposals to EC, IWT,...
- International promotion in co-operation with AGORIA RENEWABLE ENERGY CLUB
- Strategic initiatives: defining international relevant investments of common interest for industry per sector – 4 initiatives with total public investment of 25 MEUR in RD&D infrastructure with involvement of over 50 private companies – also in cooperation with VOKA

STRATEGIC INITIATIVES

- Breakthrough project for intelligent grids
- Research Infrastructure for PV
- Offshore windresearchinfrastructure
- Pilot installation for industrial biotechnology and biorefinery (PIB)



ORGANIZATION OF GENERATIES

- Membership of innovation oriented industry
- 'Knowledge pool' of RD&D institutes
- Steering group of GENERATIES with academic and industrial representation
- Initiative and co-ordination : 3E
- GENERATIES acts as 'INNOVATION ENGINE' of AGORIA Renewable Energy Club and common membership
- Financing by IWT VIS programme and membership fees
 - First phase 2005 - 2006 : 220 kEUR
 - Second phase 2007 - 2010 : 550 kEUR

Members AREC and Generaties

Generaties includes research centers and universities

Innovatie-samenwerkingsverband
Vlaamse Industrie Hernieuwbare Energietechnologie





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