

Life sciences in Flanders

Converging technologies into businesses

April 19, 2012

Belgium



Belgium:
11 million inhabitants

Flanders
6 million inhabitants

High Quality Universities



World class research institutes

Strategic research centres with an economical focus

VIB (1996)

- Biotechnology
 - >1100 researchers
 - Universities Antwerpen, VUB, UGent, KU Leuven
- International liasons with pharma & biotech industry
- www.vib.be

IMEC (1984)

- Nanotechnology
 - > 1650 employees
 - HQ: Leuven
- International liasons with industry
- www.imec.be

NERF (2011)

- Focus: Neuroelectronics research
- Joint collaboration between VIB, imec, KU Leuven

Tailor-made infrastructure

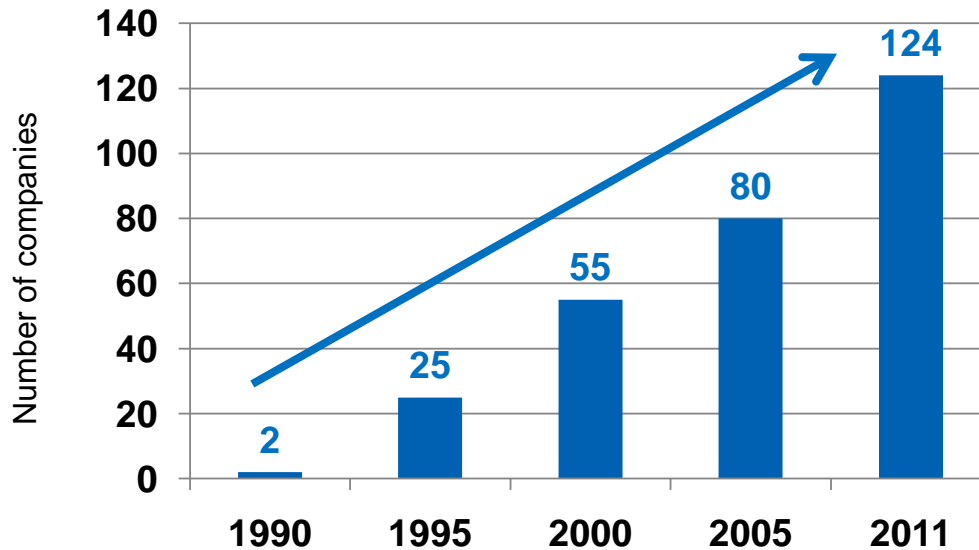
In total: 300.000 sq ft of dedicated infrastructure :

1. Bio-incubator (Gent): 86.000 sq ft
2. Bio-Accelerator (Gent): 107.000 sq ft
expansion (2013): 107.000 sq ft
3. Bio-Incubator (Leuven): 43.000 sq ft
expansion (2012): 60.000 sq ft
4. BioVille - Life Sciences incubator (Hasselt): 18.000 sq ft



Number of life science companies in Flanders

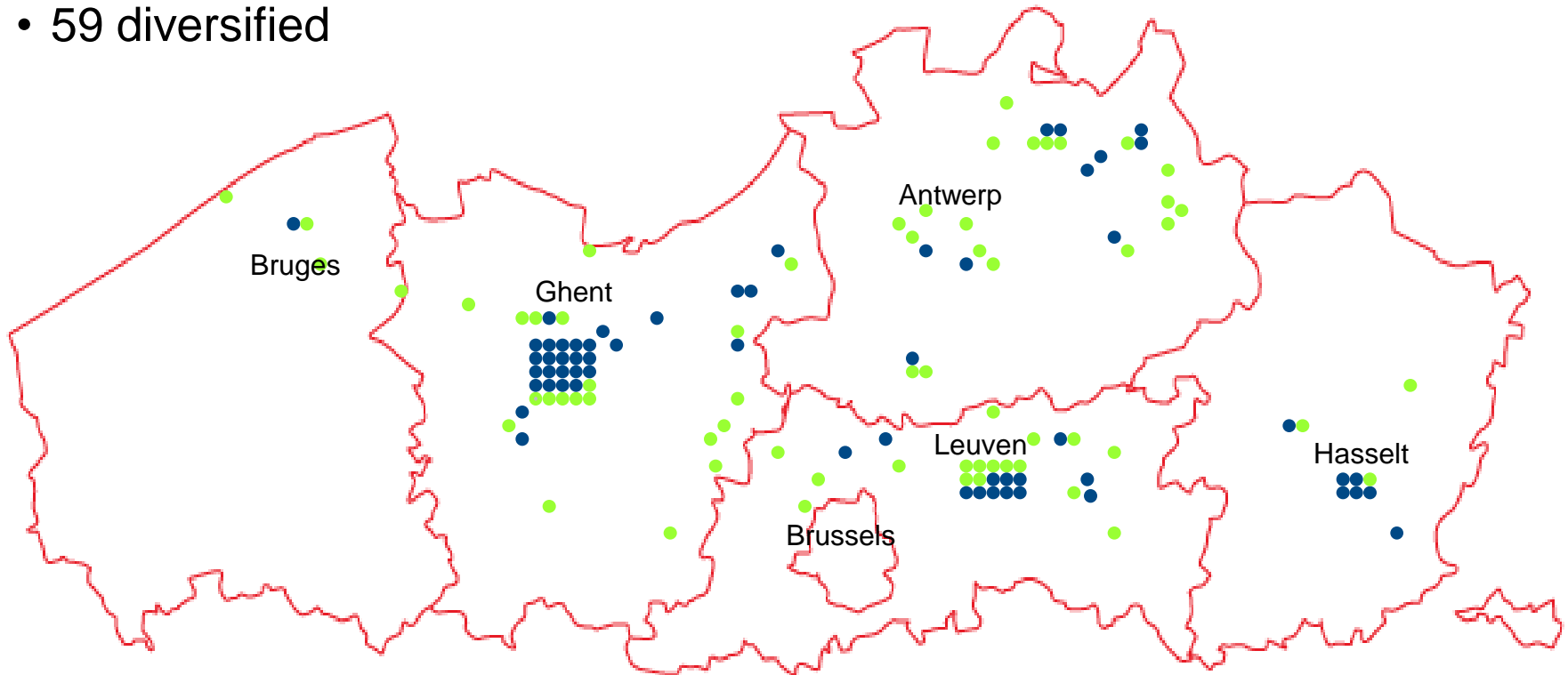
Flanders has developed a strong portfolio of life science companies since 1990.



Life science companies in Flanders

Flanders life sciences industry includes 124 companies

- 65 dedicated
- 59 diversified



- **Dedicated** life science companies: > 50% of activities related to biotech
- **Diversified** life science companies: < 50% of activities related to biotech

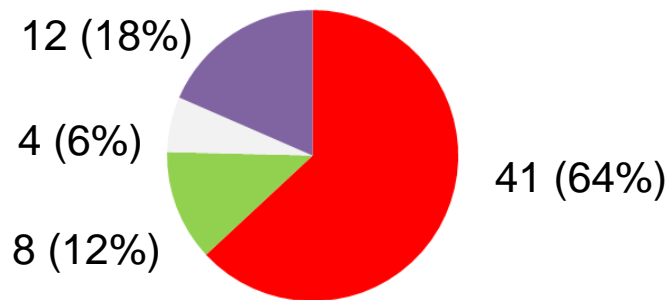
Flanders biotech companies focus on healthcare....

64% of Flemish biotech companies focus on **healthcare** and employ 49% of the overall personnel in biotech industry.

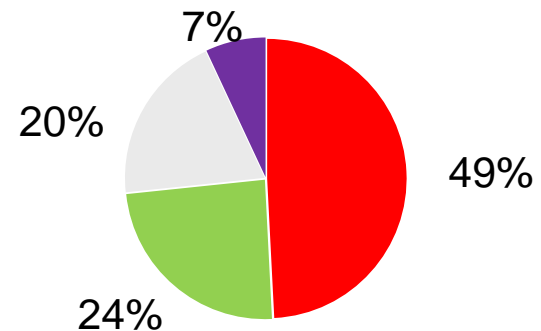
Flanders also has a strong track record in **agricultural and food biotech**. 12% of biotech companies account for 24% of the employees.

Whereas industrial biotechnology is represented by 4 companies, employment in this segment accounts for 20%.

Dedicated biotech companies: 65



Employees: 2.921



■ Healthcare ■ Agriculture & Food ■ Industrial ■ Other

... with a strong pipeline!

	Phase I&II	Phase III	Regulatory	Approved
Therapeutics & Diagnostics	44	8	1	14

Anti HIV drugs, Tibotec/J&J
Resolor, Shire-Movetis

Ocriplasmin,
Thrombogenics

Haematology disorder,
Ablynx

Cancer, RA
Galapagos

Prostate and lung
cancer, MdxHealth

Chondrocelect,
Tigenix

Flanders: home to international pharma companies



Belgium, excellent in clinical development

- Belgium is the world leader in clinical trials per capita.
- Belgium currently develops 5% of the top-100 drugs
 - Per capita: highest number of drugs in development (>UK, >USA)
- One of the world's fastest approval times (less than 2 weeks for Phase I).
- Medical research in Flanders relies on the support of Belgium's dense medical network
 - 167 well equipped hospitals (7 university hospitals)
 - 4 MDs per 1.000 inhabitants (> OECD average 2.9)



Corporate investments of big pharma in Flemish biotech

Flemish biotech companies are successful in partnering with big pharma:
total potential value of **6,21 billion Euro** signed 2004 - 2012

Pharma company	Worldwide ranking	Country	Potential Deal Value (m€)
Alcon (Novartis) 	2	CH	375
Merck 	3	US	21
GSK 	5	US	200
Eli Lilly 	8	US	120
Abbott 	9	US	1.350
Boehringer 	14	D	1.500
Servier 		F	550
Roche 		CH	1.500
Merck Serono 		D	385

Additional deals (deal value not disclosed):

Shire, Shering Plough, Janssen, Monsanto, BASF, Viacell, Morphosys, Eli Lilly, Sumitomo ...

IPOs of Flemish biotech companies since 2005

Flemish biotech companies successfully embarked on the Belgian and international stock market: **332 million Euro** via IPOs (since 2005)

Flemish public companies acquired a total of 595 m€ in follow on offering rounds since 2006.

Company	Year of IPO	Volume IPO (m€)
Galapagos	2005	20
Devgen	2005	30
ThromboGenics	2006	38
Ablynx	2007	86
Tigenix	2007	40
Movetis	2009	98

Venture Capital

Venture Capital companies investing in Flemish biotech reach from local seed funds up to international VC

- Seed funds at universities Ghent, Leuven, Hasselt and Brussels
- Private investors & VC funds
 - Local: Gimv, KBC, Vesalius, LRM, Biovest, Biotech Funds ...
 - International: Abingworth (UK), Sofinnova (US), Alta Partners (US), Credit Agricole (F), LSP (NL),.....

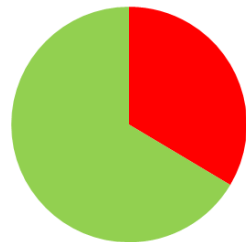
	Investments by large local VCs since 2004
GIMV	€ 88 m
KBC	€ 58 m

Strong support from government for biotech in Flanders

The Flemish government offers strong financial support for R&D in the life sciences:

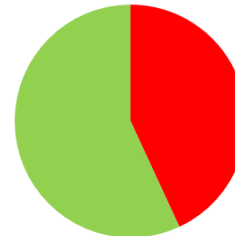
- IWT (Agency for Innovation by Science and Technology) supports Flemish companies and research centres with grants for R&D projects.
- In 2011 IWT invested 304 m Euro (638 projects) in R&D grants in total.
- 102 m Euro (275 projects) were dedicated to the life sciences.

Total investment: 304 m€



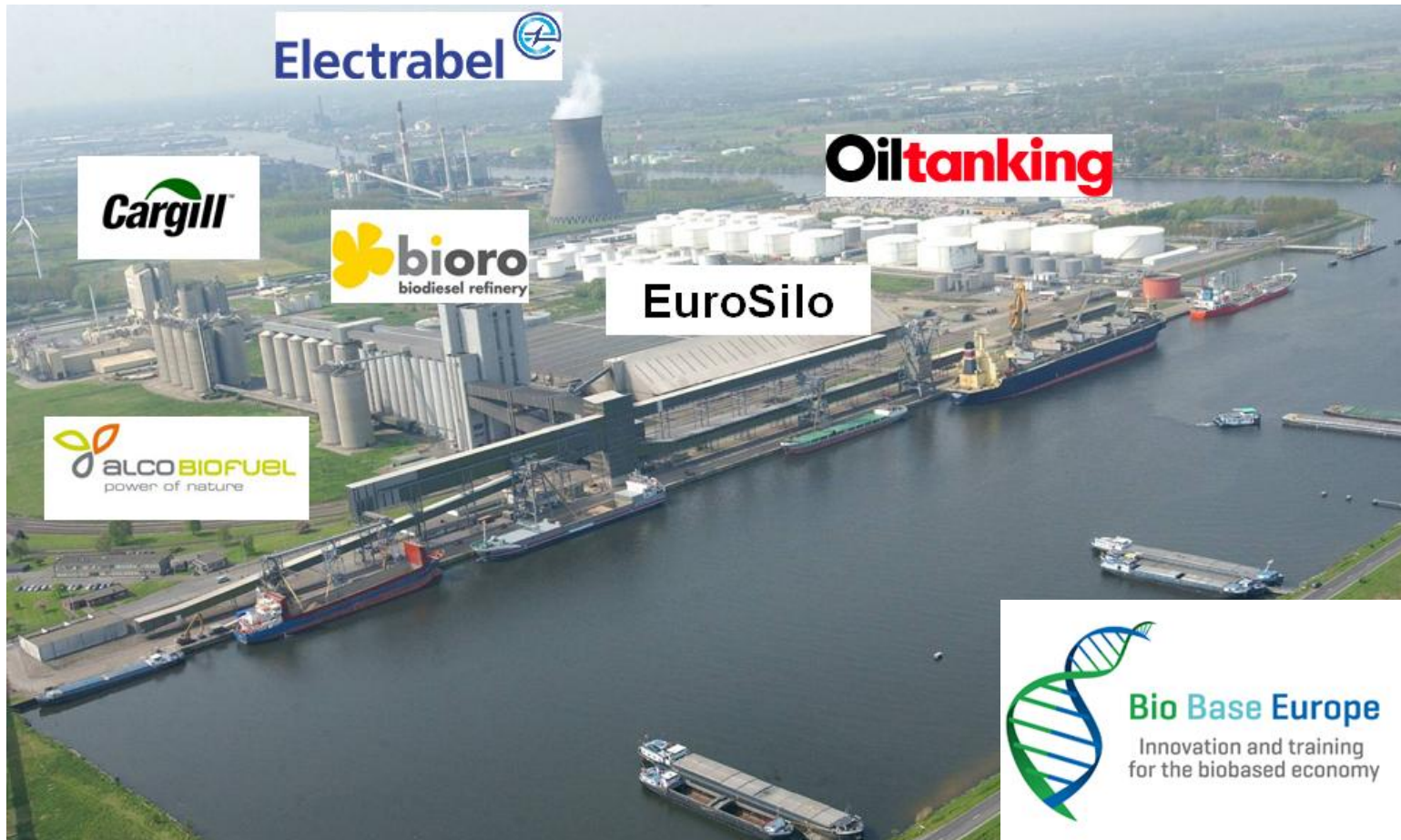
Life sciences:
34%

638 projects



Life sciences:
43%

BioBase Europe - integrated bioindustry cluster



> 500 million Euro investments from 2007 - 2012

BioBase Europe: pilot plant and training centre

- flexible and diversified pilot plant
- closing the critical gap between scientific feasibility and industrial application of new biotechnological processes.
- accessible for companies and research institutions
- Training centre for skilled personnel



Genzyme - Geel

- Genzyme's first biotherapeutics manufacturing facility in Europe.
 - continuous production line for enzymes
 - fed-batch production line for monoclonal antibodies
- Acquired by sanofi in 2011
- investment in Geel/Belgium
 - 350 million Euro to date
 - 250 million Euro for expansion of production
- 450 employees



Networking & Fostering Collaborations



Annual Life Science Convention

- Annual Life Sciences Convention
- > 1000 participants (2011)
- > 330 companies (2011)
- Excellent research programme
- Exhibitions for companies and universities
- Job Fair

Workshops & seminars

- Thematic workshops
 - Business, Science & innovation
- Peer-to-peer
 - CEO, HR, researchers ,...
- Partner matches (> 400 matches/year)
 - National and international

Top drivers for SMEs in Flanders

1. Research institutes/environment
2. Professional networks
3. Access to international markets
4. Access to technology/information
5. Government funding

Strategic partners



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