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Opportunities, challenges and enablers for European market access of emerging diagnostics companies

EPEMED Webinar

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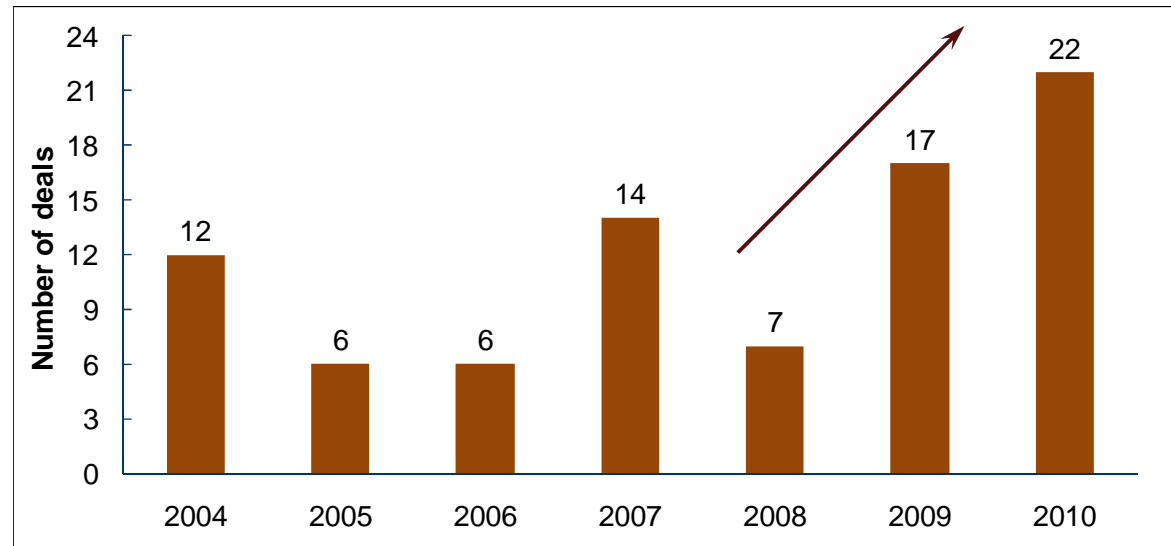
Global deal activity trends in IVD sector

1

In 2010, IVD collaborations with Pharma more than tripled compared with 2008

- The number of deals increased significantly to 22 announced deals in 2010, compared with 17 in 2009 and 7 in 2008.
- In 2008, it was all talk. Now, Pharma has started to “walk the talk”:
 - A larger number of pharma companies are taking more seriously the need for biomarker and diagnostic programs to accompany drug development efforts.

Companion Diagnostics Partnerships Pharma in 2004-2010



The acceleration of IVD partnerships with Pharma has been driven by ... (1 of 2)

Pharma companies

- Pharma companies have started to seek improvements in drug response profiles through better patient targeting and have achieved some success. Drug response rates of up to 80% have been reported for targeted sub-populations for cancers that generally have a response rate of 20% only
- Pharma has accepted (1) the inevitable decline of the “mass market” model, (2) the emergence of smaller target markets, and (3) the need for diagnostic tools to dominate such well-defined smaller market segments
- Seeking external partnerships has been the main route used by Pharma to access CDx solutions. In-house development has not been pursued unless the pharma company had an existing diagnostics business affiliate. Even in such cases, sourcing has not been exclusively internal

Diagnostic companies

- The technological feasibility of companion diagnostic programs is increasing – advances in science and technology are increasing the scope for effective companion programs:
 - Companies are continuing to develop relevant expertise in molecular and tissue diagnostics, which will enable the development of better tools to guide treatment decisions.

The acceleration of IVD partnerships with Pharma has been driven by ... (2 of 2)

Payers

- The availability of tests to identify patients that would not gain a clinical benefit from certain drug treatments has raised the bar for obtaining reimbursement for drugs:
 - Increasingly, payers see companion diagnostics as useful tools to allocate healthcare funds more effectively and control costs
 - Payers prefer drugs that come with a companion test, particularly when these drugs are expensive and may lead to severe side-effects
 - This preference will increase with pressure on healthcare budgets

Regulators

- Regulatory agencies have insisted on the need for validated diagnostics prior to considering marketing authorisation for a number of drugs:
 - Examples include: Vectibix by Amgen, Erbitux by MerckSerono and Omapro by ChemGenex
- The long awaited drug-diagnostic development guidelines are expected to be released for consultation during 2011 ... when they do, they can only enhance this Pharma's paradigm shift towards greater use of companion diagnostics

A new study on diagnostics and personalised medicine is due to be published in 2011

The PwC life sciences team is conducting a series of studies in the diagnostics sector with an emphasis on personalised medicine and the growing role of diagnostics in Pharma.

The first edition in this series:

Diagnostics 2009

Moving towards personalised medicine

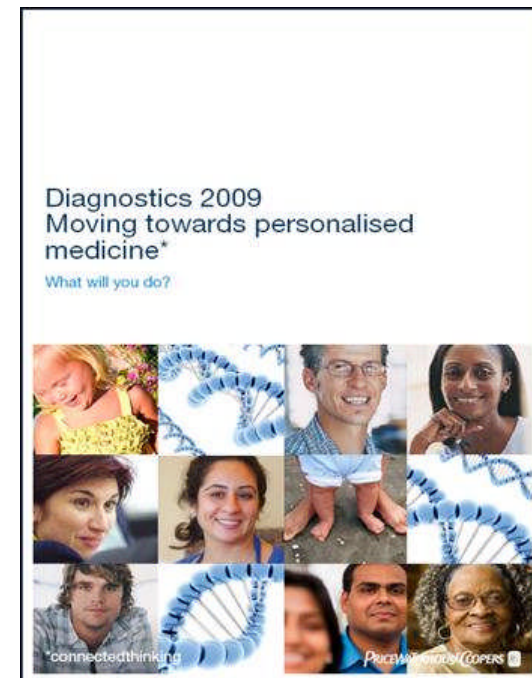
The next edition is due to be released in 2011:

Diagnostics 2011

The emergence of early detection and acceleration of companion diagnostics

The ***Diagnostics 2011*** study will cover:

- M&A activity in the IVD sector
- Companion diagnostics partnerships with Pharma
- Early detection: a new opportunity for Pharma?
- Ten significant events for personalised medicine
- Case studies



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The European diagnostics market opportunity

2

How does an American think about starting a diagnostics business in Europe?

Good news

- Lesser regulatory barriers
- Sophisticated users
- Early adopters present
- 35% of WW opportunity
- EU is more homogeneous of late

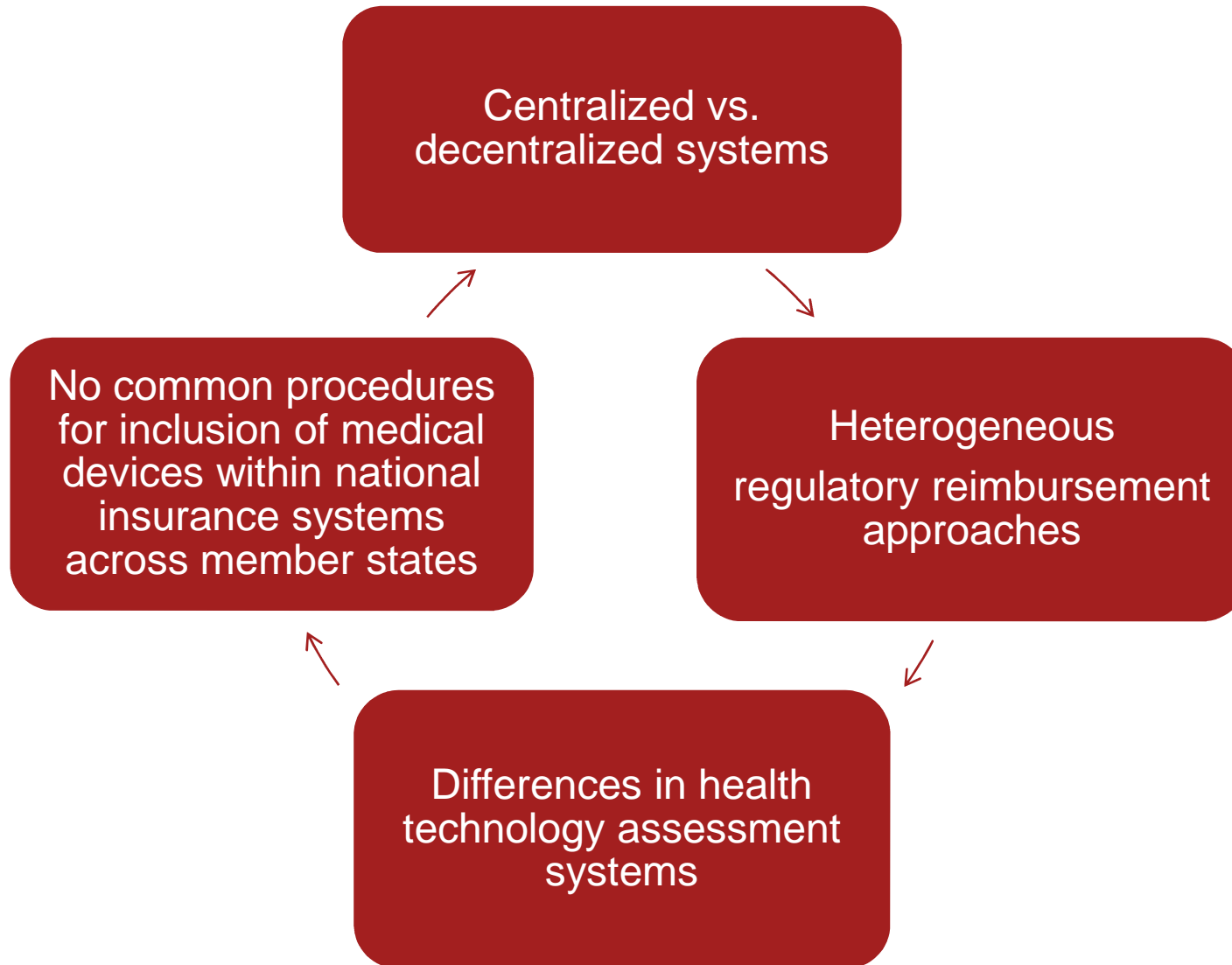
Bad news

- Tough reimbursement mechanism
- Traditional dealer structure reduced ... no single channel
- Technical collaborators must be developed
- Multiple smaller markets
- Language, translation
- Individual country barriers
 - France : 35 hour week?
 - UK: non-Euro?
 - Italy: DSO issues?
 - Germany

What are the barriers?

- Market fragmentation
- Cannot decide what country to focus on
- Afraid of pricing and reimbursement complexity
- Overwhelmed by cost of establishing sales distribution, commercial support and expertise
- Too complicated and expensive to focus on at an early stage
- Could be taken advantage of by large companies

The European challenge



The implication: Today, European market entry is not a priority for many US companies

Small innovative companies in the US have been slow at entering the European market

- Avoid EU and international to focus on the US; investment needed for success is considered too large
- EU revenues generally planned for out-years (5-10); considered opportunistic at best
- Occasional discussions with large companies about distribution agreements

The opportunity: Build an EU biotech centre ...

Objective

- Overcome the barriers and realise more value from existing IP

Key for successful start

- Critical mass (goal: 50 start-ups)
- World class capability (benchmarks: San Diego, San Francisco, Boston, New York, Research Triangle Park)
- Reduced timeline to regulatory success and status (initial focus: companies with a product close to commercial launch)
- Strong technical and commercial capabilities in diagnostics sector
- Acceleration of network development
- Attractive financial model

The PwC business accelerator

3

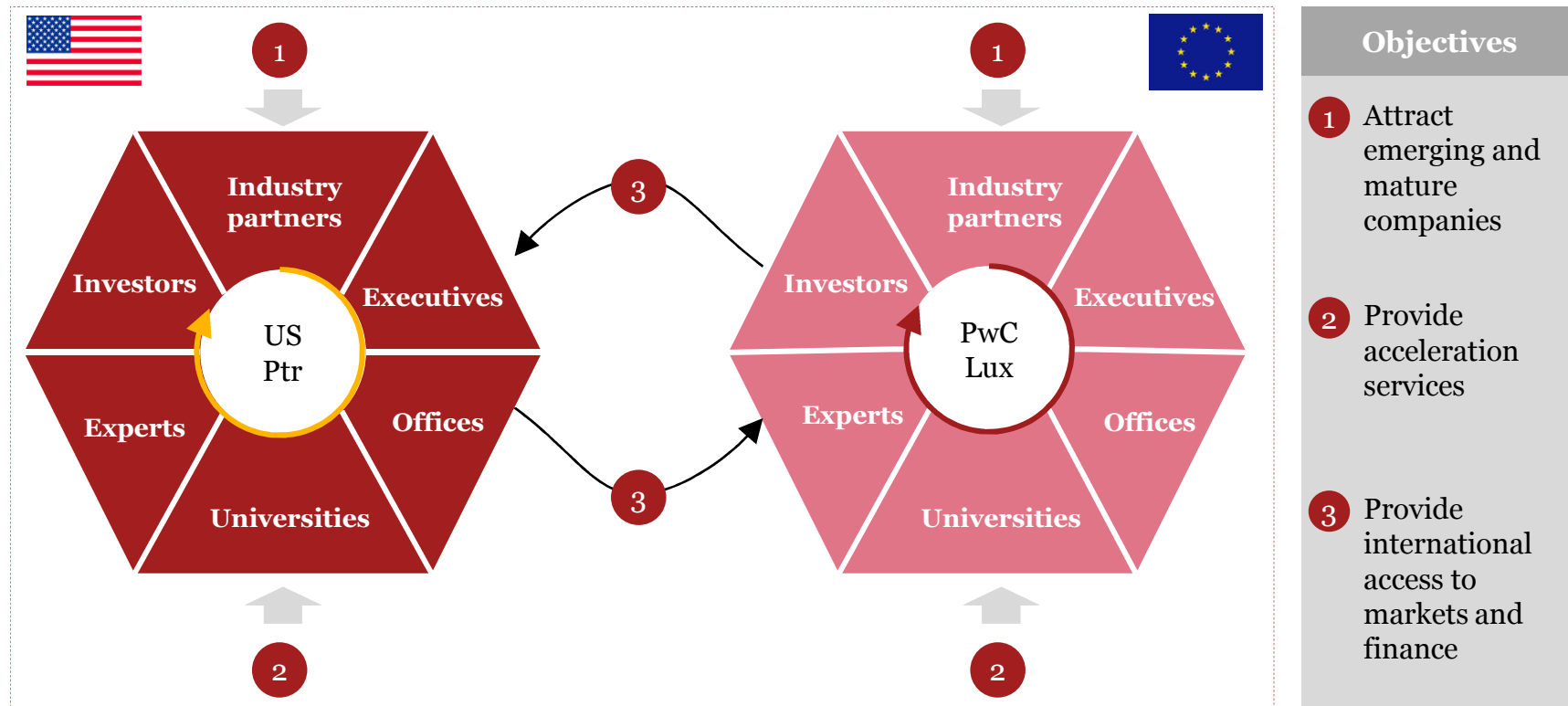
PwC is developing a business Accelerator for Europe in Luxembourg

Vision

- Design the most attractive and efficient business accelerator in Europe in partnership with a leading accelerator from the Silicon Valley
- Design value added services to assist emerging and mature growth companies in their development
- Build a community of Investors, Experts and Executives able to accelerate the growth of participating companies

The planned partnership between PwC and a US accelerator will create an inter-continental bridge

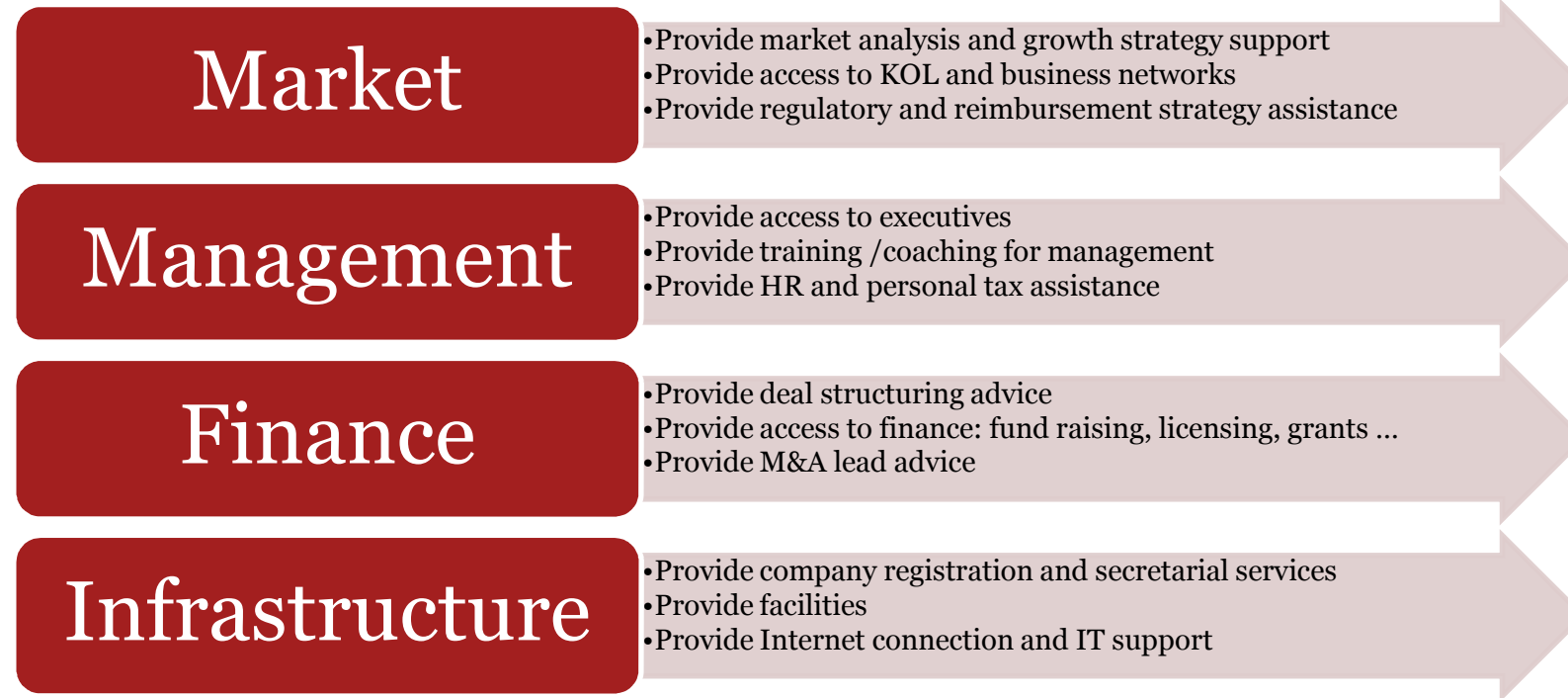
The initial focus will be to link the US and Europe to deliver high value added services to start-ups with strong growth potential



The model will then be extended to connect with strategic locations in Asia

Value proposition of Accelerator

Powered by PwC ...



... in partnership with well known institutions and investors

The outlook for the Accelerator

Current position

- Feasibility discussions are on-going between PwC and potential partners
- The ICT sector focus (incl. Bio-IT) is most advanced. **We invite your feedback to develop a strong case for a diagnostics and life sciences focus as well**
- Benefits for participants:
 - Strong image builder
 - Access to business, regulatory, reimbursement and finance networks
 - Soft landing platform for Non-EU companies
 - Making the network the organisation

Next steps

- Refine and validate value proposition with investors, companies and partners
- Define service offering and recruitment
- Define facility plan
- Define go to market

Luxembourg as a gateway to Europe

4

Luxembourg as a gateway to access the European market

An essential player in Europe

- Founding member of the European Union (and other major international organisations: OECD, Council of Europe...)
- Jean-Claude Juncker, Luxembourg Prime Minister, is the longest serving prime minister in the EU and is President of Eurogroup of eurozone finance ministers
- Part of the euro area
- An economically and politically stable country

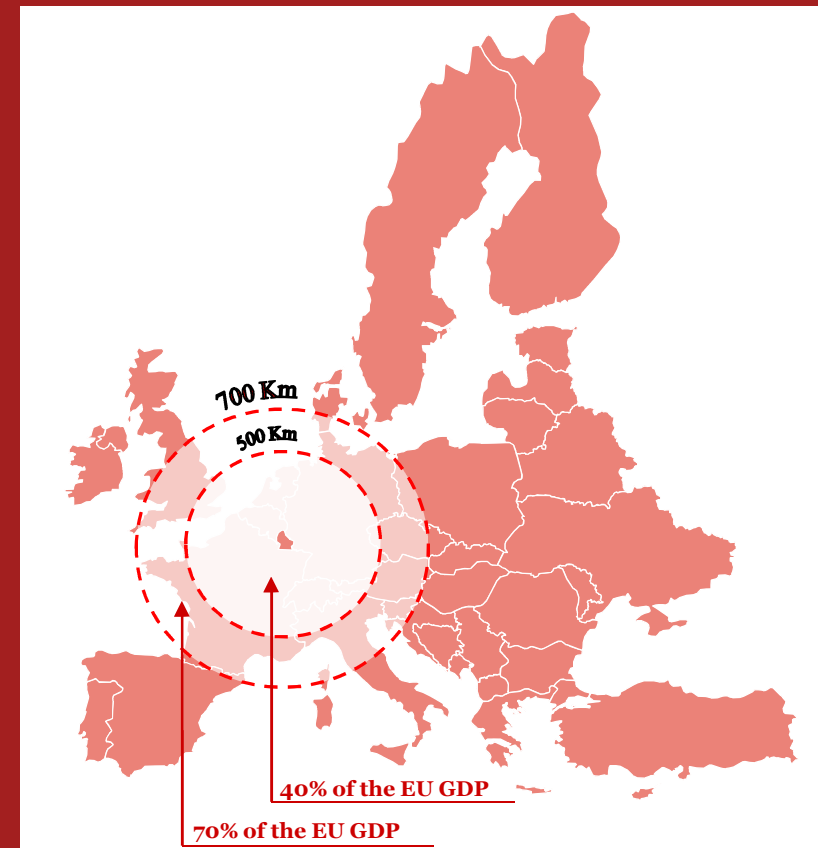
A strategic location:

- With more than €1.9 trillion asset under management, Luxembourg is Europe's 1st investment fund centre and 2nd worldwide after the US
- Preferred location for many international companies to access the European market
- One of the prime features of Luxembourg's success is its geographical setting: direct access to the most important European cities
- It has borders with France, Germany and Belgium: High level of cross – border trade and employment

Source: CIA estimates
PwC

European market

A 500 million + customer base



Personalised medicine is of strategic importance to the Luxembourg Government ...

... as illustrated by a strategic partnership for biomedical research announced on 5 June 2008 involving a €140m investment over 5 years and research initiatives through 3 research structures ...

The Integrated Biobank of Luxembourg (IBBL)

The IBBL is a collaborative effort of the three Public Research Centres and the University of Luxembourg in partnership with the Translational Genomics Research Institute (TGen), Phoenix, the Institute for Systems Biology, Seattle, and the Fred Hutchinson Cancer Research Center, Seattle. Over the next years, the IBBL aims to become a cornerstone for the development of personalised medicine in Europe.

The lung cancer project

This project is a collaboration with the consortium “Partnership for Personalized Medicine (PPM)” in Phoenix, Arizona and under the direction of Prof. Lee Hartwell, Nobel Prize winner 2001. This project tackles the challenge of detecting lung cancer in time to make it a curable disease.

The Luxembourg Centre for Systems Biomedicine (LCSB)

The LCSB is a collaboration with the Institute for Systems Biology (ISB) and focuses on 2 research projects:

- Sequencing the genome of a representative sample of the Luxembourg population
- Determining blood protein biomarkers specific to certain organs to support the future development of rapid diagnostic tests

Results from these projects will be transferred to a new organisation which will develop new approaches in predictive and personalised medicine.



Leland Hartwell (PPM, Nobel Prize 2001), Leroy Hood (ISB) and Jeffrey Trent (TGen) are three leading US scientists acting as partners of the Luxembourg Biomedical Project

The Greater Region provides a platform of resources for research-intensive businesses

- 15 universities and 14,000 medical students, high profile biomedical research institutes and international research consortia
- Research and Technological platforms
- 300 SMEs in distribution, medical devices and pharma
- Infrastructure support in IP management, seed funding, logistics and industry collaborations
- International clinical trial network
- Biotechnology development is one of Luxembourg Government's key priorities

The Greater Region



The Greater Region combines Luxembourg and parts of France, Belgium and Germany

Significant hospital resources in the Greater Region can be accessed from Luxembourg

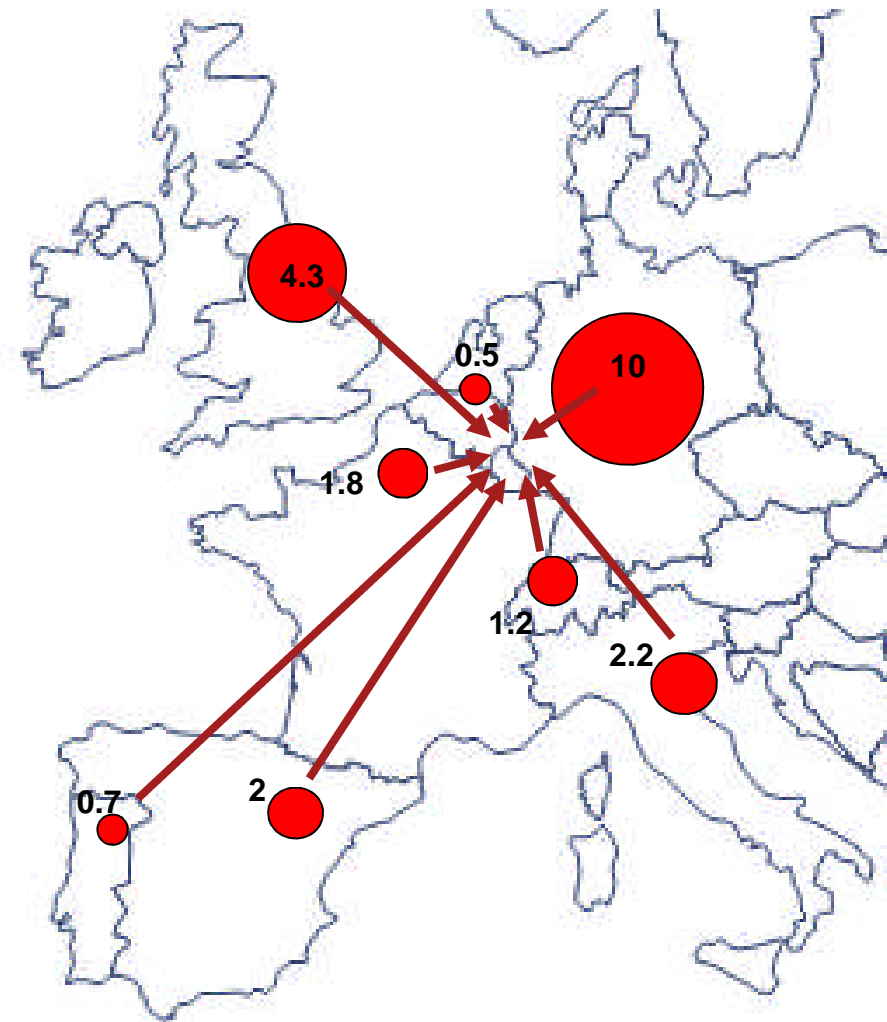
Selected Hospital Resources of the Greater Region around Luxembourg			
Country	Hospital	Nr of beds	Employees
Luxembourg	CHEM	410	1,800*
	CHL	781	2,000
	Hôpital de Kirchberg	405	1,400*
France	CHU Strasbourg (<i>not in GR but very close</i>)	2,540	11,046
	CHU Nancy	1,903	8,572
	CHR Metz-Thionville	1,724	4,260**
Belgium	CHU Liège	925	4,467
	CHR Namur	428	1,200
	UCL Mont-Godinne	440	1,576
	UZ Leuven	1,800*	8,150*
Germany	Barmherzige Brüder Trier e.V.	2,000	8,000
	Klinikum Mutterhaus der Borromäerinnen gGmbH Trier	667	648
	Klinikum Saarbrücken	600	738
	Caritasklinik St. Theresia Saarbrücken	325	442
Total		14,948	54,299

* Data obtained by telephone ** data for 2002

Sources: <http://www.hvea.lu/>; <http://www.chl.lu/chl/front>; <http://www.chk.lu/>; <http://www.chru-strasbourg.fr/Hus/>; <http://www.chu-nancy.fr/>; [Hopital.fr](http://www.hopital.fr/); <http://www.chuliege.be/>; <http://www.chrnamur.be/>; <http://www.uclmontgodinne.be/>; http://www.bk-trier.de/bk_trier/index.php; http://www.reseau-chu.org/_new/chiffres/15_CHU_Metz.pdf; <http://www.deutsches-krankenhaus-verzeichnis.de/runtime/cms.run/doc/Deutsch/19/DKTIG.html>

Luxembourg targets the pool of students in other countries to recruit the required research talent

- Luxembourg has been successful at recruiting international talent when needed
- More than $\frac{3}{4}$ of new jobs in Luxembourg are filled by Europeans
- **Why Europeans are coming to Luxembourg:**
 - International firms
 - More interesting jobs
 - Better wages
 - Quality of life
 - No authorisation required
- 23 000 students in advanced research programs (PhD equivalent) in Health and Life Sciences provide a rich pool for recruitment into Luxembourg



10 key advantages of Luxembourg

1. A highly strategic position
2. A neutral place
3. Attractive R&D and Intellectual Property Framework
4. A financially healthy country
5. A skilled multilingual workforce
6. Top ICT and Logistics networks
7. International expertise in financial services
8. A rewarding tax environment
9. Flexible and welcoming authorities
10. A very welcoming and safe country with attractive life style

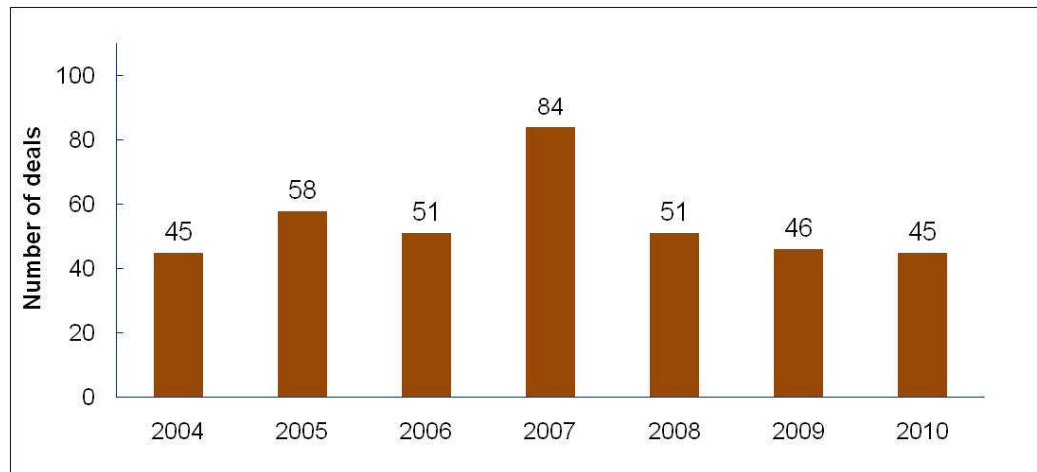
Luxembourg provides companies with the unique capacity to design the best business regulatory framework and offers state-of-the-art infrastructures

Appendix I

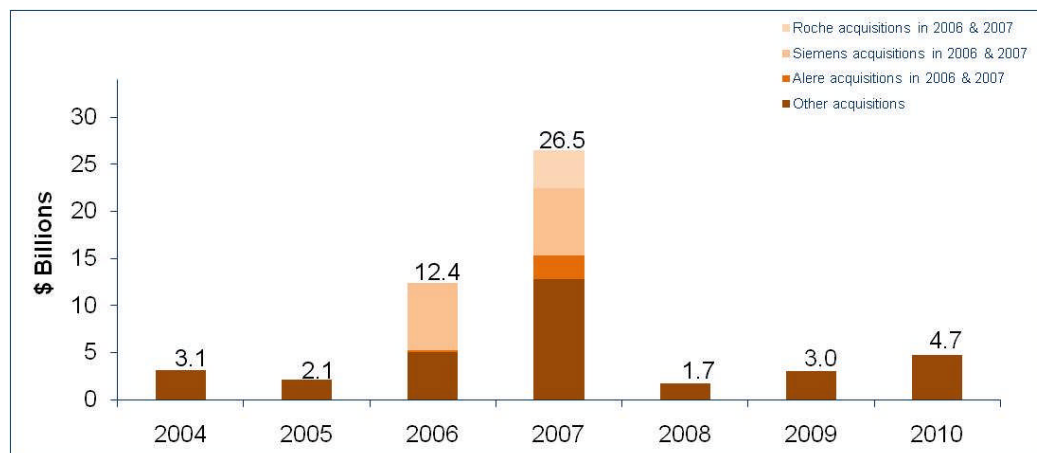
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M&A in IVD sector: Deal value rose 57% to \$4.7bn in 2010, following a small number of higher-value deals

Number of M&A Deals in IVD Sector in 2004-2010



Value of M&A Deals in IVD Sector in 2004-2010



2004-2010

- Numbers:** The number of deals remained flat except for 2007 when Inverness (now renamed Alere) and a few other companies made a very large number of acquisitions.
- Value:** The value of deals in 2006-2007 was boosted by the significant strategic changes at the top of the IVD industry, including (1) the entry of Siemens into the IVD sector (acquired (a) Dade Behring, (b) Bayer's IVD business and (c) DPC) and (2) the ramp up of Inverness (now Alere) into the ranks of the top 10 players following 17 acquisitions over 2 years.

2010

- In 2010, the number of deals dropped slightly compared with 2009 but a few larger deals raised the overall value of announced deals.

Top 10 M&A deals in 2010: The rise in deal values corresponds to an increase in industry-shaping events

Top 10 M&A Deals in IVD Sector in 2010

Value (\$m)	Target	Bidder	
1,094	Sebia	Cinven	1
925	Genzyme Genetics	Labcorp	2
587	Clariant	GE Healthcare	3
265	Genzyme Diagnostics	Sekisui Chemical	2
255	Epocal	Alere (Inverness)	4
217	Standard Diagnostics	Alere (Inverness)	4
215	Home Diagnostics	Nipro	3
130	Diagnostic Hybrids	Quidel	5
112	Innogenetics	Fujirebio	2
105	Helixis	Illumina	5

5 themes:

- 1 Return of the LBO
- 2 Domino effect of business portfolio restructuring
- 3 Industry convergence
- 4 Consolidation of POC testing
- 5 Addition of complementary products

- **Examples of industry-shaping events in 2010:**
 - **LBO** – The return of leveraged capital providers willing to fund larger transactions in the IVD sector
 - \$1.1bn buyout of Sebia (electrophoresis based diagnostics) by Cinven. Montagu was the lead investor in Sebia following a 2006 buyout.
 - **Genzyme's IVD exit** – The decision by Genzyme Corp to exit the IVD sector to refocus business following the takeover approach by sanofi-aventis
 - \$925m acquisition of Genzyme Genetics by LabCorp and the \$265m purchase of Genzyme Diagnostics by Sekisui Chemical
 - **GE** – The strategic decision by GE Healthcare to develop its IVD presence (following bid for Abbott IVD in 2007; later terminated) to complement its in vivo business
 - \$587m acquisition of cancer diagnostics company Clariant

M&A in 2011: The value of M&A deals is expected to overshoot the 2010 level by a large margin

- Selected large deals announced at the start of 2011 (enterprise values):
 - **\$330m offer for Genoptix by Novartis (Jan 2011):**
 - Clinical lab specialising in diagnosing cancers of the bone marrow, blood and lymph nodes
 - **\$6.8bn offer for Beckman Coulter by Danaher (Feb 2011)**
 - **\$344m offer for Celera by Quest Diagnostics (Mar 2011):**
 - Products: MDx for detection, characterization, monitoring, and patient stratification
 - Services: Berkeley HeartLab cardiovascular testing business
- **What about personalised medicine?**
 - A strong theme in the Genoptix and Celera deals.
 - An emerging theme at Beckman Coulter: they have started working on companion diagnostics, as shown by the partnership with Transgene

CDx partnerships with Pharma in 2011: The start of 2011 was lively with at least 4 deals announced in Jan-Feb

- **Beckman Coulter – Transgene:** Develop a diagnostic to better target lung cancer drug candidate TG4010, which is entering Phase IIb/III trials
- **Zinfandel – Takeda:** Takeda to work with Zinfandel to validate its TOMM40 assay as a test to evaluate an individual's risk of developing Alzheimer's disease (AD) over the following five years. Assay to be used to identify patients for clinical trials of pioglitazone (also used in Actos for diabetes), to evaluate ability to delay progression or potentially prevent onset of AD.
- **MDxHealth – Pfizer – Newcastle University – Cancer Research Technology Limited (CRT):** Collaborate on the identification and development of a biomarker predicting response to drug candidate for PARP inhibition, PF-01367338. Could lead to development of a CDx to guide treatment decisions in ovarian and breast cancers.
- **BioMerieux – Ipsen:** Alliance focused on hormone-dependent cancers. Identify programs for drug-diagnostic co-development, initially for the prevention and treatment of prostate and breast cancers and neuro-endocrine and pituitary tumors.

Source: PwC analysis using data from Windhover and other publicly available sources

Key messages

- **M&A in the IVD sector is flat in numbers but up in value**
 - A few industry shaping deals have driven 2010 deal values up 57%
 - 2011 is expected to overshoot 2010 values following the offer for Beckman
 - Some deals have a strong personalised medicine theme e.g. Celera - Quest
- **CDx partnerships with pharma are accelerating**
 - Payers increasingly want companion tests to help control higher costs
 - Pharma has accepted the shift to larger shares of smaller markets
 - Major IVD players are more actively involved than in the past
 - GSK has shown it wants to be a leading adopter

Appendix II

6

Why Europe is essential for international companies

Strategic market

- 500 million plus consumers
- 27 member states composing a vast single market
- 16 member states using the euro as currency
- Goods free circulation within the European Market

Source of knowledge

- 2nd worldwide after the US for the number of high-value patents
- A highly skilled workforce with 1.4 million researchers

A global business location

- 1st GDP: the European Union 2009 est. GDP (official exchanges rates) of \$ 16.18 trillion is the highest in the world before the US (\$ 14.43 trillion) and Japan (\$ 5.11 trillion)
- 1st exporter worldwide with \$ 1.95 trillion
- World's highest stock of domestic credit with 22.65 trillion (December, 31, 2009)

Source: CIA estimates, Science and Engineering Indicators 2010
PwC

European market

A 500 million + customer base



Luxembourg's opportunities for your business



Why Luxembourg is the gateway to access the European market

An essential player in Europe

- Founding member of the European Union (and other major international organisations: OECD, Council of Europe...)
- Jean-Claude Juncker, Luxembourg Prime Minister, is the longest serving prime minister in the EU and is President of Eurogroup of eurozone finance ministers
- Part of the euro area
- An economically and politically stable country

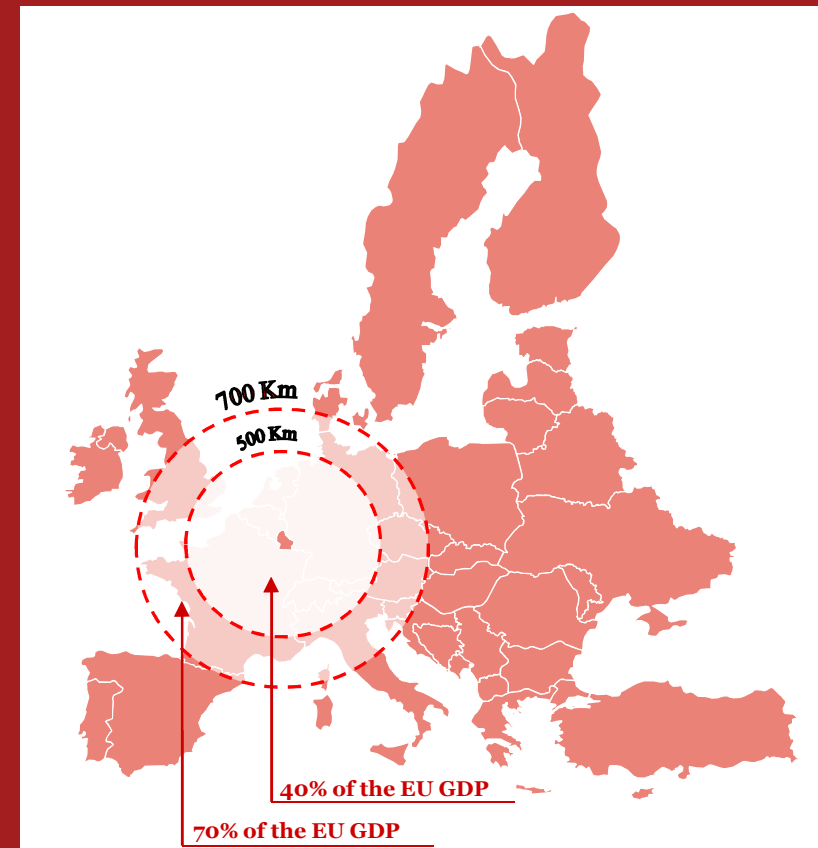
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- With more than €1.9 trillion asset under management, Luxembourg is Europe's 1st investment fund centre and 2nd worldwide after the US
- Preferred location for many international companies to access the European market
- One of the prime features of Luxembourg's success is its geographical setting: direct access to the most important European cities
- It has borders with France, Germany and Belgium: High level of cross – border trade and employment

Source: CIA estimates
PwC

European market

A 500 million + customer base



Why Luxembourg is the gateway to access the European market

Very low political risk

- Stable political environment (constitutional monarchy)
- Readiness for dialogue and quick decision making process
- Very business oriented government

Very low economic risk

- Liberal environment – market driven
- Favourable regulatory and fiscal environment
- Low debt ratio
- Public deficit under review

Business and regulatory friendly environment for specific industries /activities

- ICT, E-commerce and E-financial services
- Research and development
- Life sciences
- Green Technologies
- Logistics

Why Luxembourg is the gateway to access the European market

Key international players having strategic operations in Luxembourg

Leading companies – not exhaustive



Worldwide headquarters



Large scale fund administration & custody



European headquarters



Headquarters customer base in Europe



Corporate bank for European activities



European business centre



Worldwide headquarters (Europe's leading provider of satellite services)



vodafone

Global Procurement Center in Luxembourg



New global headquarters of its Powertrain division



Centre of excellence in funds administration & custody



Production site and Research Centre (2nd in the World after the US one)



Investment banking and Private banking

Luxembourg: a gateway to the European market

Criteria	Luxembourg	Source
Central location	Borders with 3 main European markets	
European Market	500 million consumers	
Currency	Euro (no F.X. risks)	
Future development	Very stable (No debt and high political consensus)	
Competitiveness	11 th in the world (2010)	IMD
Economic development	1 st for GDP per capita in Europe (2009) 3 rd for GDP per capita in the world (2009)	INSEE CIA World Factbook
Global innovation-based competitiveness	3 rd out of 36 countries (2009)	ITIF
International Property Rights Index	11 th out of 125 countries (2010)	Property Rights Alliance
Enabling Trade Index	9 th out of 125 countries (2010)	World Economic Forum
Index of Economic Freedom	13 th out of 179 countries (2011)	Heritage Foundation
Ease of doing business	45 th out of 183 countries (2011) 1 st in enforcing contracts	World Bank/IFC

Luxembourg: a gateway to the European market

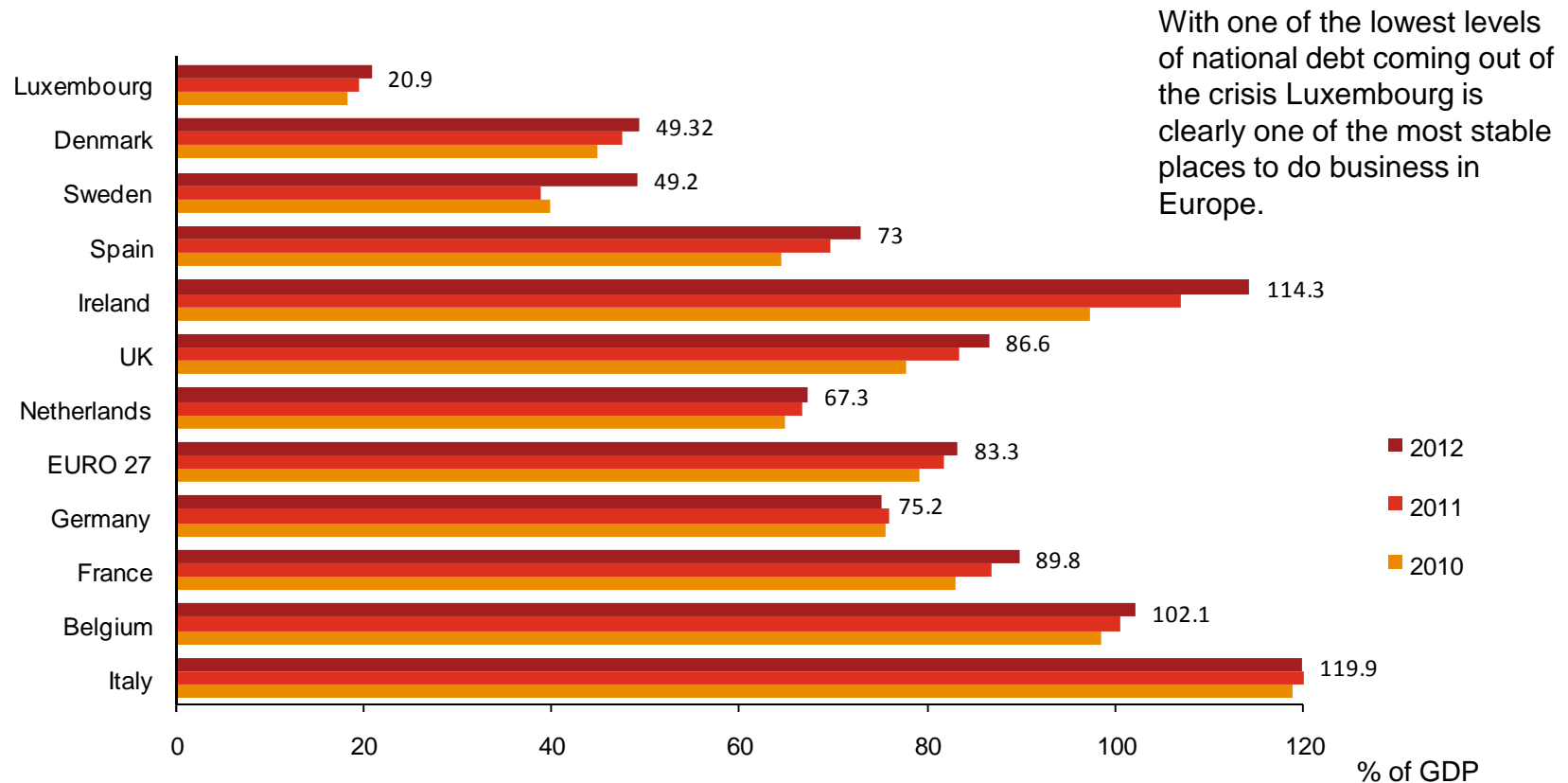
Criteria	Luxembourg	Source
Economic perspectives	1 st among 40 cities (2009)	Capital Magazine
Labour productivity	1 st among 39 countries (2009)	The Conference Board
Financial sector	1 st in Europe for funds (based on net assets) 2 nd worldwide for funds (based on net assets) (2010)	EFAMA
ICT Development Index	2 nd out of 80 countries (2008)	International Telecommunication Union
Logistics Performance Index	5 th out of 155 countries (2010)	Worldbank
Business and risk	2 nd least risky place to do business among 186 countries (2010)	Euromoney
Cost of living (most expensive city)	Luxembourg: 55 th out of 214 cities (2010) Geneva: 5 th Zurich: 8 th London - Paris: 17 th Amsterdam: 35 th	Mercer
Quality of living	5 th best country out of 100 (2010)	Newsweek
European Lifelong Learning Index - ELLI	5 th among EU27 (2010)	Bertelsmann Stiftung

10 key advantages of Luxembourg

1. A highly strategic position
2. A neutral place
3. Attractive R&D and Intellectual Property Framework
4. A financially healthy country
5. A skilled multilingual workforce
6. Top ICT and Logistics networks
7. International expertise in financial services
8. A rewarding tax environment
9. Flexible and welcoming authorities
10. A very welcoming and safe country with attractive life style

Luxembourg provides companies with the unique capacity to design the best business regulatory framework and offers state-of-the-art infrastructures

Low general government debt



Source: European Economic Forecast, European Commission, Autumn 2010

PwC

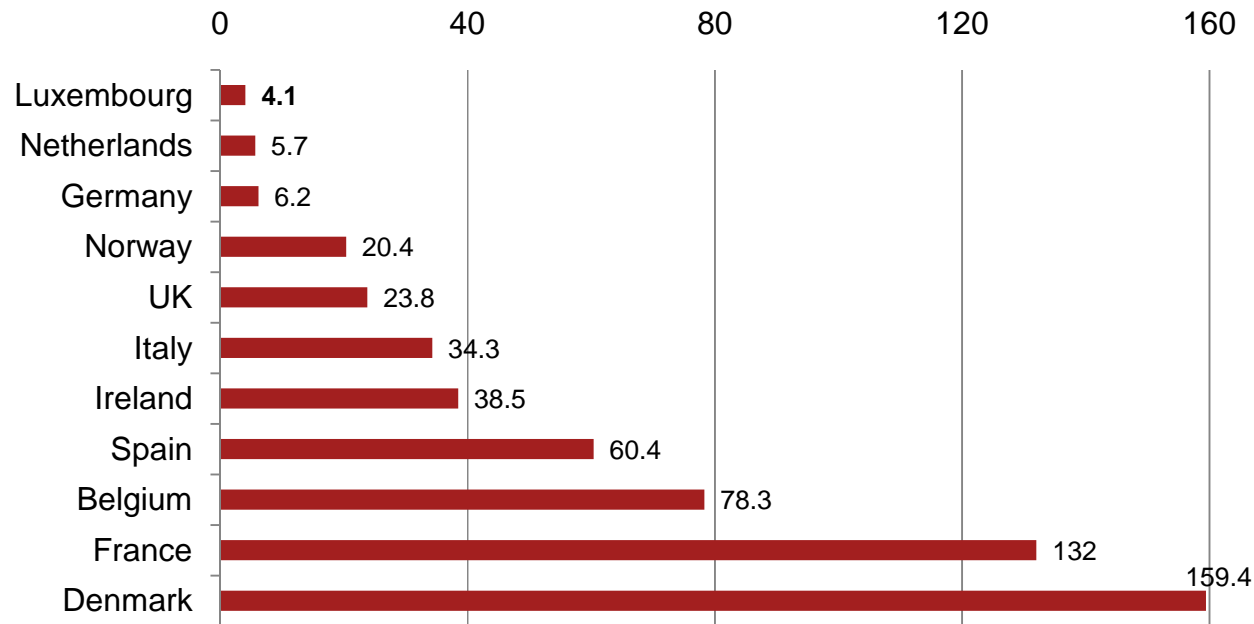
One of the lowest contributions rates in Europe

Monthly salary	Germany	Belgium	France	Luxembourg
Cost for company	3580	3909	4241	3469
Employers' contributions	(580)	(909)	(1241)	(469)
Gross salary	3000	3000	3000	3000
Employees' contributions	(607)	(390)	(649)	(328)
Taxes on income	(539)	(417)	(224)	(164)
Net salary	1854	2193	2127	2508

Note: The comparison is based on a married person with two children and whose spouse has the same income

Luxembourg: the country with the lowest number of strikes in Europe

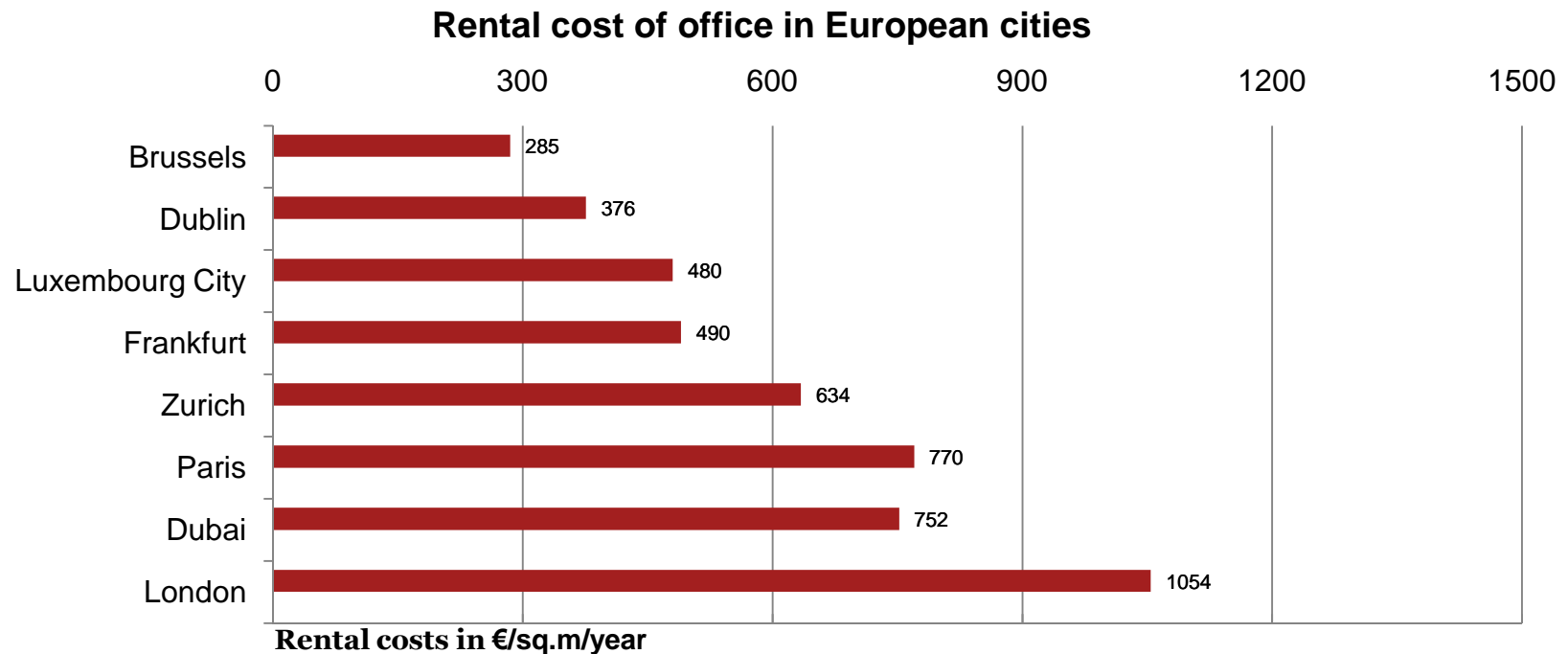
Working days lost per 1,000 employees, annual average 2005-2009



Source: The European Industrial Relations Observatory (EIRO), 2010

PwC

A competitive office rental market



With a stable vacancy rate and a regular development pipeline, Luxembourg's office rental market offers affordable rates, top-tier building infrastructures and a central location in the heart of the business decision-center.

Source: "Market View EMEA Rents and Yields", CB Richard Ellis, 2010

Luxembourg value proposition for headquarters

Specific advantages

- Easy access to the reactive and industry minded regulator
- Central location in Europe allowing an eased access to distribution networks
- Availability of an experienced and multilingual resources pool

Tax advantages

- Opportunity – centralisation of the high value group functions and assets at the level of a Luxembourg company in order to concentrate the related profits
- Flexible tax structuring models allowing effective tax rate very competitive with other traditional locations

Holding and financing

- At initial stage headquarters functions can start with holding and financing activities

Headquarters in Luxembourg

Leading companies – not exhaustive

 ArcelorMittal	Worldwide headquarters
 skype™	Worldwide headquarters
 FERRERO	Headquarters
 FANUC	European headquarters
 amazon®	European headquarters
 楽天	European headquarters

Luxembourg value proposition for Research Centres

Specific advantages

- R&D represents one of the government's priorities
- Presence of different innovation related clusters (managed by Luxinnovation): Biohealth, EcoDev, SurfMat, InfoCom, Aerospace.

Tax advantages

- One of the most attractive R&D & IP regimes in Europe
- Availability of state subsidies (capital subsidies, interest subsidies, promotion aids, tax relief, state guarantees, real estate incentives)

Public Research centres & Universities

- R&D activities located in Luxembourg can leverage the outstanding local public research centres and University
- "La Cité des Sciences" will become in 2012 the flagship of R&D in Luxembourg, hosting all the major public R&D institutes of Luxembourg, as well as private and start-up companies, a new technical school, university campus, the National Archives and cultural centres.

Research centres in Luxembourg

Leading private centres – not exhaustive



Leading public centres – not exhaustive



Luxembourg value proposition for ICT / e-commerce players

Infrastructures and connectivity

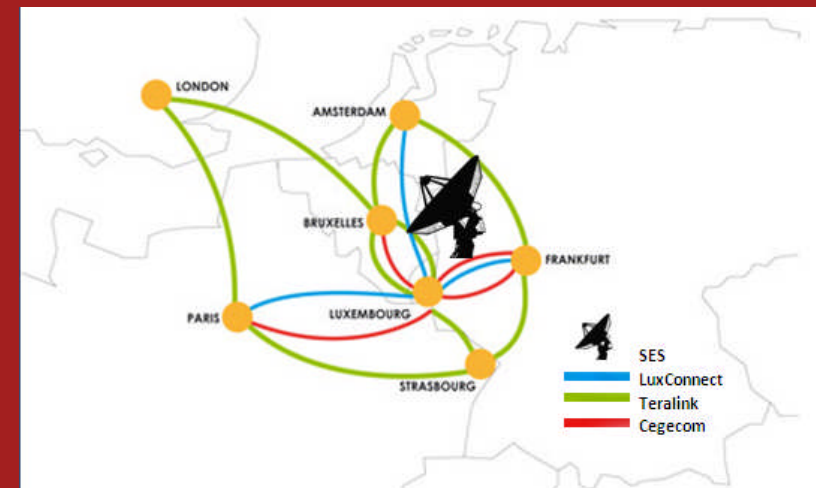
- Cutting-edge fibre optics networks connected to the European Backbone (T1) and all major European hubs;
- Redundant cables connections to ensure high quality liaisons;
- Satellite connections (SES).

Data Centres

- 15 + data centre park
- Half of the data centres are Tier 4, the highest level of security for DCs
- Green technologies leading initiatives:
 - 100 % green energy powered DC
 - “free chilling”: when the outside temperature gets below 6°C, the outside air is used to cool the data centres
 - Re-route of the heat generated in offices

Luxembourg's connectivity

State-of-the-art



Worldwide headquarters



Worldwide headquarters

Luxembourg value proposition for ICT / e-commerce players

E-commerce tax advantages

- Lowest standard VAT rate in Europe (15%) as well as reduced rates available for specific products and services (12%, 6%, 3%) – e.g. 3% for broadcasting services
- Under current rules, electronically supplies services in B2C transactions are subject to the VAT rates where supplier located > located in Lux. = 15%
- Current rules remain applicable until 1 January 2015, allowing a net decrease of margin / customer price if supplier located in Luxembourg


Other specific advantages


- InfoCom cluster (Information and Communication Technologies)
- Availability of an experienced and multilingual resources pool
- Supportive business climate for this strategic industry
- Central location in Europe
- Easy access to Banking licence
- Proactive government to develop new ICT opportunities

E-commerce players in Luxembourg


Leading companies – not exhaustive

 European headquarters

 European headquarters

 Headquarters customer base in Europe

 European headquarters

 European headquarters (with a new banking license)

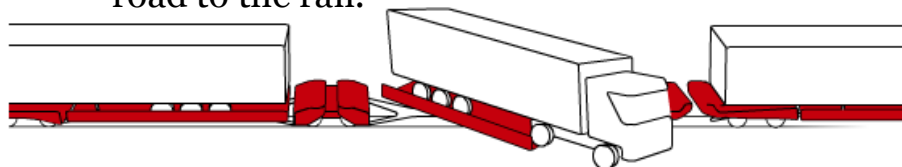
Luxembourg value proposition for logistics

Specific advantages

- At the heart of the blue banana
- Cluster for Logistics
- Air freight: 5th freight airport in Europe
- Railroads: world's highest railway density
- Waterways: multimodal infrastructures with the port of Mertert
- Roads: Highly developed network making most European capitals easy to reach (> 24h drive)

Modern infrastructures

- A unique railway service enabling intermodal (road and rail) transport of semi trailers without unloading. It links Bettembourg to South France (<1000 km), enabling quick, safe and economical transportation of standard semi-trailers from the road to the rail.



Logistics players in Luxembourg

Leading companies – not exhaustive



Worldwide Headquarters



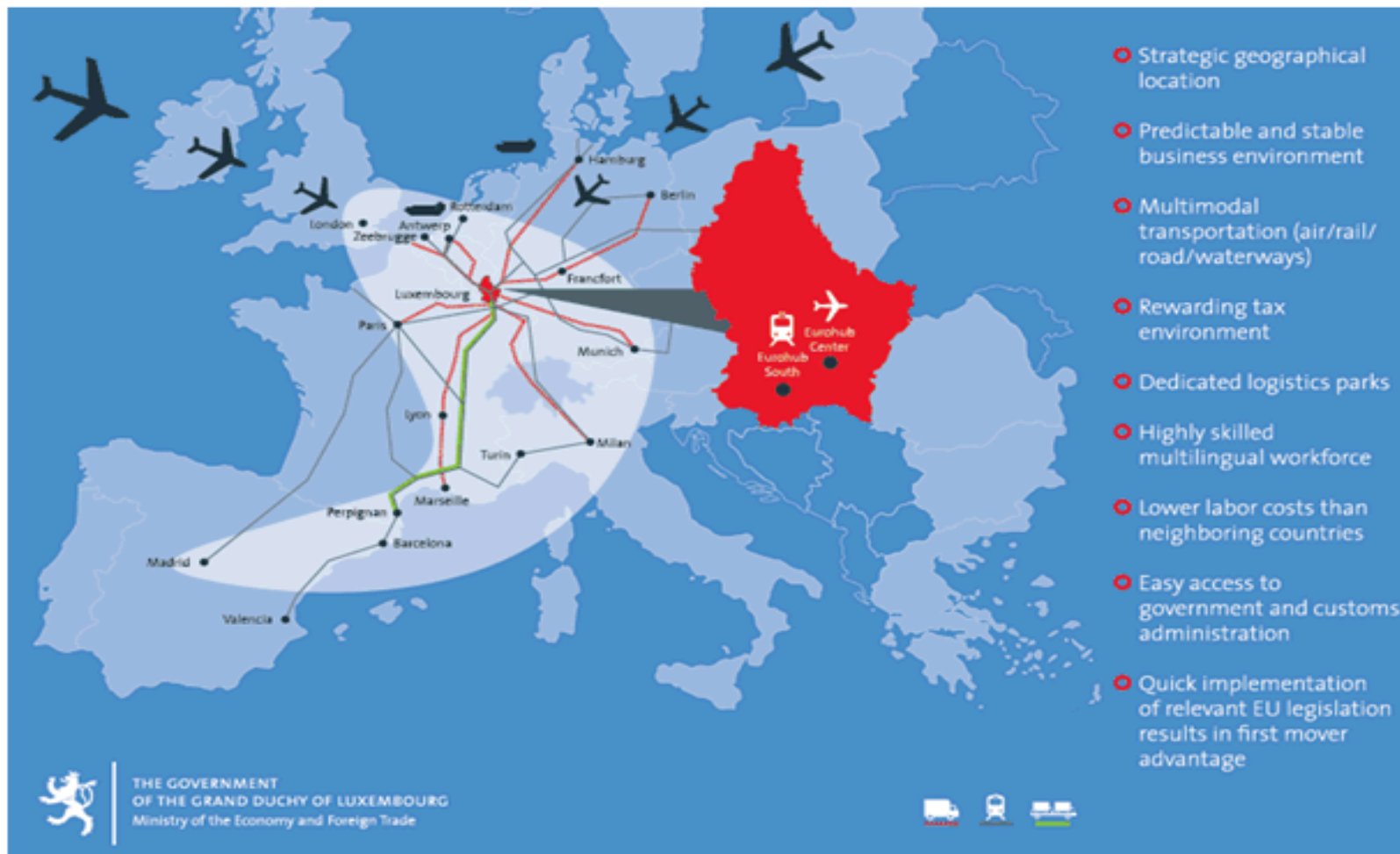
Worldwide Headquarters



European
Distribution Centre



Luxembourg value proposition for logistics



Source: Luxembourg for Business - Putting Europe at Your Fingerprint

Testimonies

- *“Luxembourg presents a number of strategic advantages: specific business environment, efficient communication infrastructures, educated and multilingual labour force (...) it was important for our activity to locate in EU.”* **Chuck Stoops, Managing Director, eBay Europe**
- *“It’s a combination of having a small responsive very pro business government and a sophisticated financial services regulator that make, in our mind, Luxembourg the best place for located a financial service company dealing with new economy.”* **Brent Bellm, Vice-President and CEO, Paypal**
- *“Luxembourg offers the perfect location for us: great business environment, central location, many pan European languages skills are available (...) Luxembourg offers everything we are looking for.”* **Alan Lyall, Vice-President for European activities, amazon.com**
- **Diego Piacentini, Amazon Senior Vice-President**, emphasized the many assets offered by the Grand Duchy for “a company like ours”: location, social climate, and multilingualism
- *“The start-up of operations at our subsidiary in Luxembourg occurs against the background of our internationalization strategy and represents, after taking a 50% stake in CETREL, another step toward becoming a European financial centre infrastructure partner,”* **Urs Rügsegger, CEO, SIX Group**

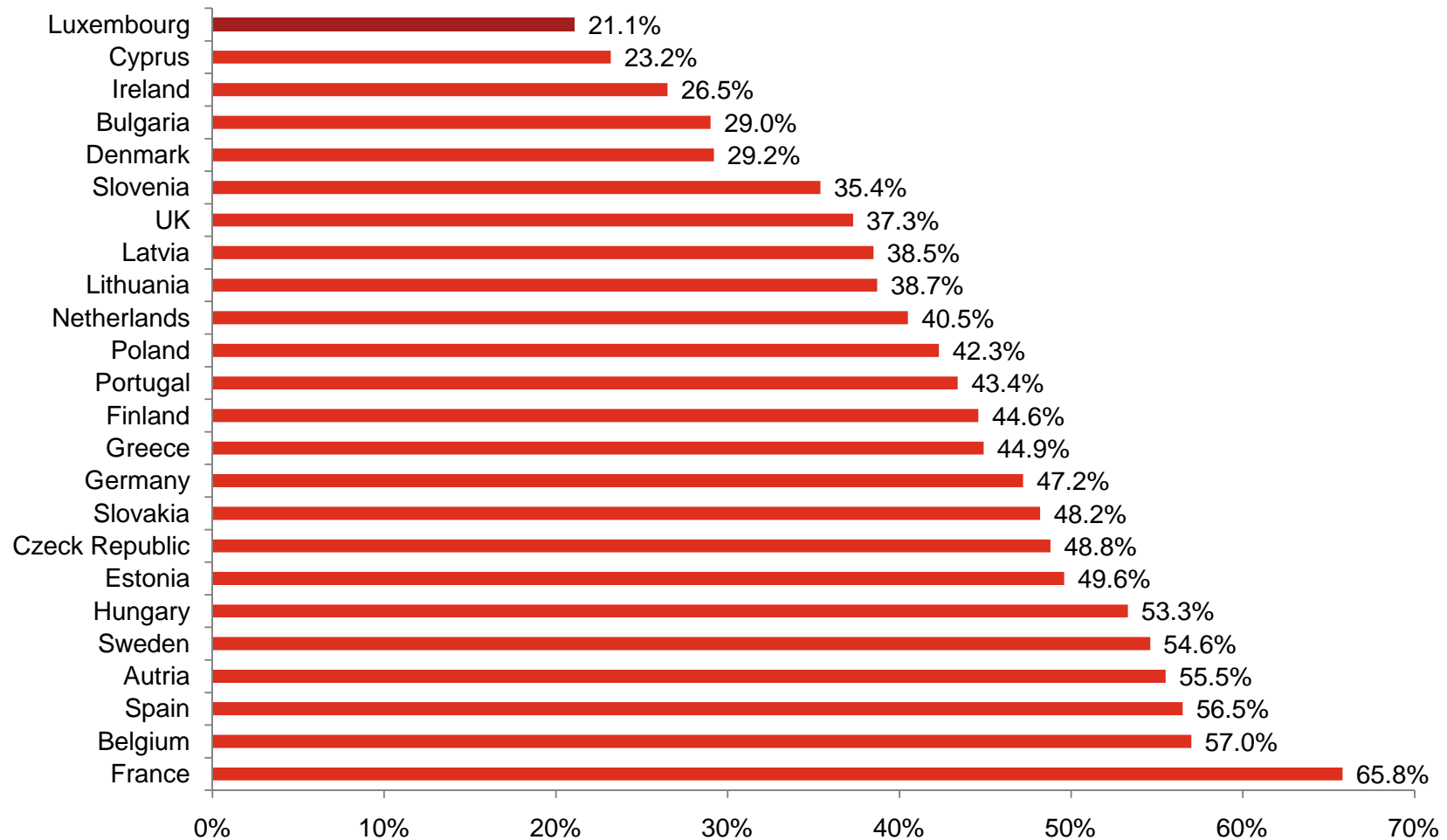
Summary of Luxembourg tax regime / Taxes and rates

- Well-developed participation exemption regime for:
 - Dividend income
 - Withholding tax
 - Capital gain
 - Net Wealth Tax

- Well-developed platform for financing and worldwide acquisition
 - IP regime: effective tax rate of 5.7%
 - Investment tax credit up to 14%

Corporate Tax	Income Tax	28.8%
	Net wealth Tax	0.5%
	Value added Tax	15%
	Withholding Tax	0%-15%
Individual Tax	Individual Income Tax	0% - 38.95%

A competitive Total Tax Rate

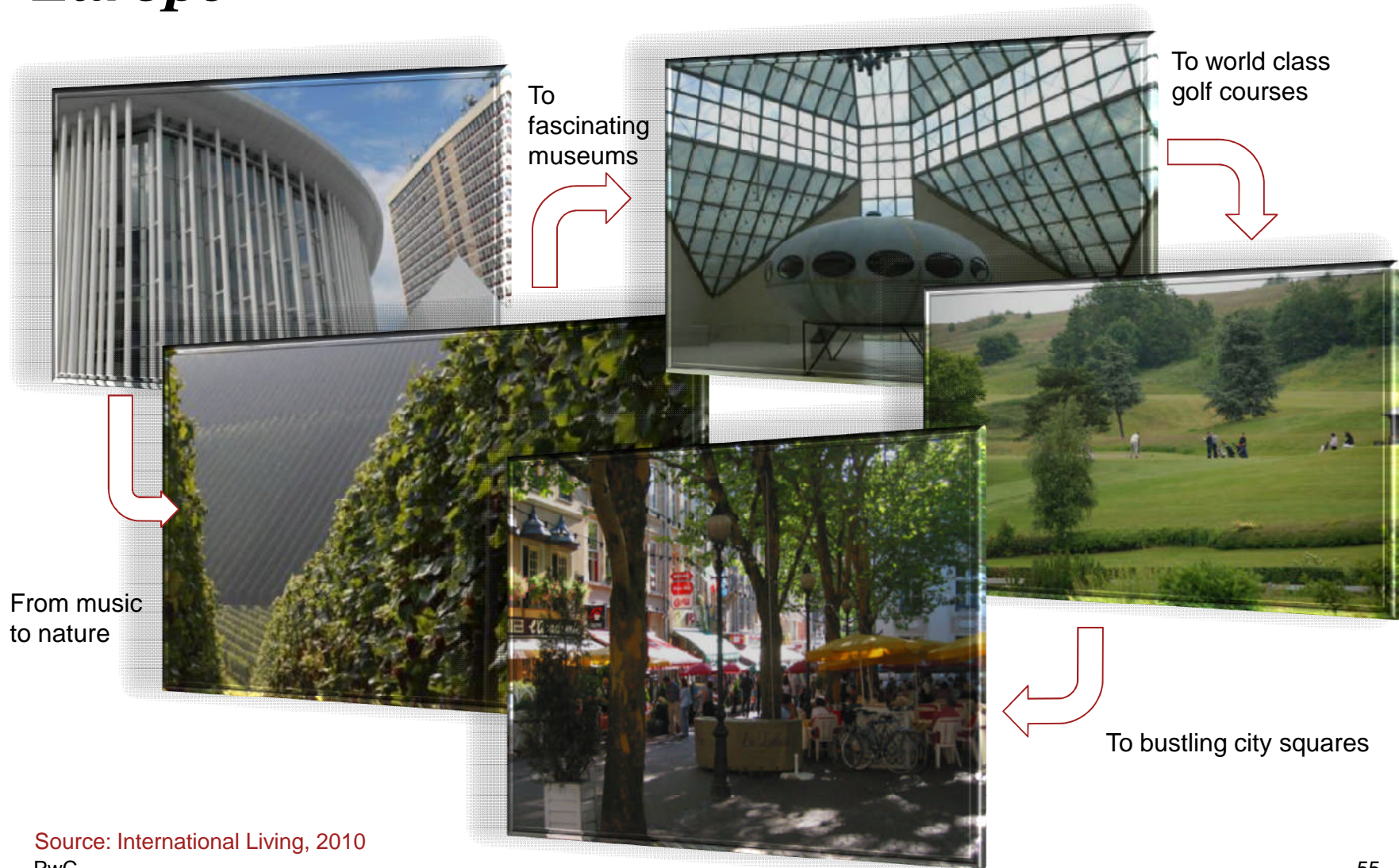


Source: Total Tax Rate / TTR: cost of all taxes borne including labour taxes, social security, property taxes, indirect taxes, environmental taxes...

Luxembourg: one of the best quality of life locations in the world



A great multicultural place in the middle of Europe



Source: International Living, 2010
PwC

Luxembourg's connections to the rest of Europe



TGV offers great routes from Luxembourg:

- Strasbourg: 1h30 - Lille: 2h30
- Paris: 2h05



About 1 hour away by plane from:

- Amsterdam
- Frankfurt
- London
- Milan
- Munich
- Paris
- Zurich
- ...

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