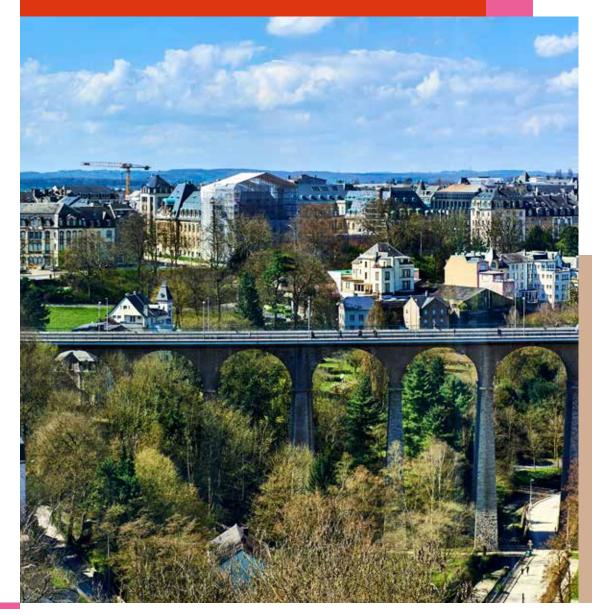
Observatory for Management Companies 2017 Barometer





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Table of contents

Your current challenges	1
Top 5 areas requiring specific attention in the coming months Has the board reviewed the implications of the following regulations?	1 1
Assisting Management Companies	1
Luxembourg Management Companies snapshots	2
PwC ManCo Index	3
Key figures on Luxembourg UCITS ManCos, Luxembourg licensed AIFMs and	
foreign ManCos managing Luxembourg Funds Origin of Top 50 UCITS ManCos Origin of Top 50 licensed AIFMs New entrants by nationality in 2016 Top 20 UCITS ManCos - as of 31 December 2016 Top AIFM ManCos - as of 31 December 2016 Top Third Party ManCos - as of 31 December 2016 Top 5 Foreign ManCos managing Luxembourg Funds - as of 31 December 2016	4 4 4 5 5 6 6
Evolution of Foreign ManCos (managing Luxembourg UCITS)	7
In number In AuM	7 7
Employment	8
Evolution of employment in UCITS ManCos	8
Top countries in terms of # of ManCos	8
Evolution of Luxembourg ManCos	9
Evolution of # of UCITS ManCos and AIFM ManCos Evolution of Balance Sheet and Net Profit of UCITS ManCos	9 9
Evolution of AuM (FCP/SICAV) managed by UCITS ManCos	9
Governance	10
Proportion of Board members with the following employment status	10
Key data on investment funds	11
Top 3 countries in terms of new registrations for distribution in 2016	11
Top 3 Asset Classes with new registrations for distribution in 2016	11 11
Evolution of AuM by legal status Evolution of number of funds in Luxembourg by legal status	11
Key statistics per ManCo - as of 31 December 2016 (TOP 50 ManCos)	12
Profile of the Management Companies	13
Main ManCos functions: What is delegated?	13
Typical Equity composition of a Top 50 ManCo	13
Licensed AIFMs: Asset Classes authorised to be managed	13
Your contacts	14

Your current challenges

Top 5 areas requiring specific attention in the coming months

Licensed AIFMs	UCITS-ManCos	Super-Mancos
Law & regulation changes	Governance & Compliance	Law & regulation changes
Governance & Compliance	Law & regulation changes	Governance & Compliance
Valuation & pricing	Distribution	Risk Management
Liquidity Management	Transparency & Investor needs	Transparency & Investor needs
Risk Management	Risk Management	Distribution/Market Development/ Investment performance/Valuation & pricing

Source: Luxembourg Fund Governance Survey (2016)

Has the board reviewed the implications of the following regulations?

	Super- ManCos	UCITS- ManCos	Licensed AIFMs
UCITS V	Yes	Yes	-
MiFID II	Yes	Yes	Yes
PRIIPs	Yes	No	No
CRS	Yes	Yes	Yes
SFTR	Yes	No	No
Solvency II	Yes	Yes	Yes

Assisting Management Companies

Our dedicated Management Company team is experienced in delivering effective solutions on Regulatory, Tax, Operational, People, Risk Management, Reporting and many other topics affecting the business of a Management Company and its investment vehicles.

Together with a very strong international network, our people support the growth of a significant proportion of Management Companies.

Our solutions, tailored to Management Companies, include the following services:

- External Audit
- **Internal Audit**
- Fund Compliance
- Global Fund Distribution
- Information Technology
- People and Organisation
- **Risk Management**
- Global Tax Compliance / Asset • Management Tax services
- Set up of a Management Company

- - Corporate Tax / Personal Tax / VAT /
 - Transfer Pricing / Accounting
 - **Regulatory and Compliance Advisory**
 - 3W Watch Services
 - Distributor Due Diligence / Anti Money Laundering
 - Third Party Assurance
 - Performance Fees
 - **Fund Office Services**
 - Reporting Services

For more information on how PwC Luxembourg is helping ManCos thrive in the markets of tomorrow, please contact us today or visit: www.pwc.lu/management-companies.

Luxembourg Management Companies snapshots

Number of ManCos (UCITS and/or licensed AIFMs)*

297

Number of

UCITS licenses*

201

Number of new entrants in 2016

20

Number of Super ManCos**



Number of MiFID extended licensed ManCos*

Number of licensed AIFMs*

220

43

Number of employees in UCITS ManCos*



AuM of UCITS ManCos (in billion Euros)*

2,949



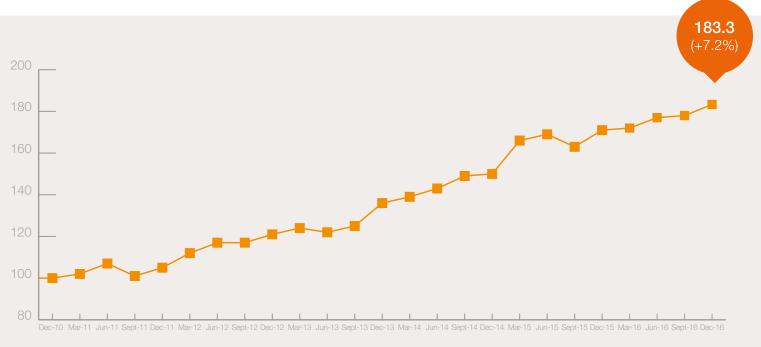
* As of 31 December 2016
** Management Companies with both UCITS and AIFM licenses
Sources: PwC analysis, CSSF Official List (2016), CSSF Newsletters (2016-2017)

PwC ManCo Index

The PwC ManCo Index measures ManCos' activities in Luxembourg by considering the growth in the number of UCITS ManCos, the number of their employees and the evolution of the AuM. In December 2016, the index marked 183.3 points, an increase of 7.2% from the previous year. This year marked the best results in the history of the index, which began in 2010. The main reasons for this were the 7.2% employment increase and 3.45% growth in AuM during the year.

When examining the UCITS ManCos' balance sheet and the respective net profit, it's clear that they are incurring higher costs without generating greater profits. The combination of these two indicators suggests an increase of staff to implement new investment strategies, but also a reinforcement of compliance, risk management and oversight functions, mostly due to stricter regulations. As a matter of fact, over the next few years, legal and regulatory issues will be a top concern for ManCos' board members, alongside governance and compliance issues. Most of the ManCos' boards have already reviewed the implications of the most impactful laws, such as UCITS V, MiFID II and Solvency II.

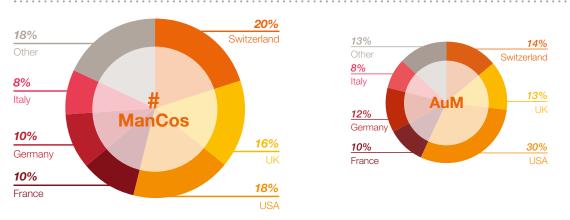
Luxembourg is a well-known UCITS funds hub, however since the introduction of the AIFM Directive, there has been an increasing interest in the alternative world. As can be seen by the 20 new AIFM licenses that were issued in 2016, versus the UCITS which were reduced by 3. This marks the first year that the former outpaced the UCITS framework (220 AIFM licenses in comparison to 201 UCITS licenses). The trend in the alternative world is to diversifying investment strategies, with a focus on infrastructure, debt and private equity.



Source: PwC analysis

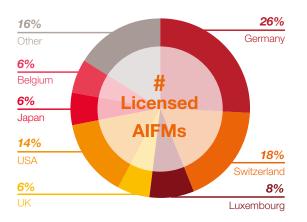
Key figures on Luxembourg UCITS ManCos, Luxembourg licensed AIFMs and foreign ManCos managing Luxembourg Funds

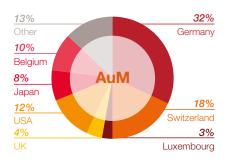
Origin of Top 50 UCITS ManCos



Sources: PwC analysis, Fundsquare (December 2016), CSSF Official List (2016), Company Latest Financial Statements

Origin of Top 50 licensed AIFMs





Sources: PwC analysis, Fundsquare (December 2016), CSSF Official List (2016), Company Latest Financial Statements

New entrants by nationality in 2016*



* Estimation based on PwC analysis

Sources: CSSF Monthly Newsletters (2016-2017), PwC analysis, CSSF Official List (2016)

Top 20 UCITS ManCos - as of 31 December 2016 (in million Euros)

RankingRankingRankingEvolutionManCo1=JPMorga (Europe)		Nationality of the Group		- 1	# of funds Dec 2016						Au	as
1 - "	S.à r.l.					Variation to Dec 2015		-			ä:%	٩
			271,440	6%	8	-2	172	-6	V	V	99%	
2 = Deutsch S.A.			156,456					-80				~
3 = BlackRo	ck (Luxembourg) S.A.		134,581	1%		0	109				100%	
4	r Investment Management ourg) S.A.		101,149									
	stment Management ourg) S.A.		99,040	1%			163	-14		~	99%	
6 Franklin T Services			98,198				108					~
7 VBS Fun bourg) S	d Management (Luxem- .A.		93,886	-12%	29		240	-23		~	95%	
8 = BNP Pari	bas Investment Partners ourg		88,813									
9 = Pictet As rope) S.A	set Management (Eu- A.		87,660	10%		0	109	36		~	84%	
10 🧳 Nordea I			78,886	30%								
11 y Pioneer	Asset Management S.A.		78,321	5%	15		169	18		~	99%	~
12 💊 Eurizon (74,810	20%							100%	~
13 AllianceE S.à r.I.	Bernstein (Luxembourg)		57,143	21%	23		105			~	95%	
14 🎤 Aberdee			53,575									~
15 Union Inv S.A.	vestment Luxembourg		51,552	0%	170	-10	186	-9	√ **	~ **	92%	
16 🥒 Amundi I			50,599									
17 💊 Invesco	Management S.A.		48,586	2%			75			V	85%	
18 🦕 Deka Inte			48,231								60%	
19 🥒 Robeco	Luxembourg S.A.		46,825	23%		0	74				100%	
20 NN Investor			45,492									~

Sources: Company information, CSSF Official List (2016), Fundsquare (2015 - 2016), Company Latest Financial Statements, PwC analysis * Part I, Part II and SIF funds ** Authorisation to perform discretionary portfolio management

Top AIFM ManCos - as of 31 December 2016 (in million Euros)

· · · · · · · ·													
Ranking	Ranking Evolution	ManCo	Nationality of the Group	*Sum of AuM Dec 2016	Variation to Dec 2015	# of funds Dec 2016	Variation to Dec 2015	# of sub- funds Dec 2016	Variation to Dec 2015	UCITS License	AIFM License	UCITS AuM Dec 2016	Use of ManCo Passporting
1		Universal-Investment-Luxem- bourg S.A.		21,599	39%	43	9	67	28	V	V	4,322	
2		Deka International S.A.		19,447									
3	5	CADELUX S.A.		17,298	8%		0	15		~		17,134	
4		Pictet Asset Management (Europe) S.A.		14,041									
5		KBC Asset Management S.A.		13,313	-4%			260		V		12,254	
6		Fundpartner Solutions (Europe) S.A.		11,496									
7		MUFG Lux Management Com- pany S.A.		11,399	5%	37		61		V		874	~
8		Flossbach von Storch Invest S.A.		11,292								6,837	
9	5	Global Funds Management S.A.		10,920	-11%	19	0	28				0	~
10		Deutsche Asset Management S.A.		10,533									~

Sources: Company information, CSSF Official List (2016), Fundsquare (2015 - 2016), Company Latest Financial Statements, PwC analysis * Part II and SIF funds

** Authorisation to perform discretionary portfolio management

Top Third Party ManCos - as of 31 December 2016 (in million Euros)

Ranking	Ranking Evolution	ManCo	Nationality	*Sum of AuM Dec 2016	Variation to Dec 2015	# of funds Dec 2016	Variation to Dec 2015	# of sub- funds Dec 2016	Variation to Dec 2015	UCITS License	AIFM License	% of UCITS in AuM Dec 2016	Use of ManCo Passporting
1	∠ voidiloii	UBS Third Party Management Company S.A.		29,736	74%	19	0	114	-3	V	V	87%	
2				25,922					30				
3		Northern Trust Luxembourg Management Company S.A.		25,454	15%			59			V	66%	
4		Lemanik Asset Management S.A.		24,705									V
5	\$	FundRock Management Company S.A.		21,926	-3%	30		141	-29		V	88%	V
6		FundPartner Solutions (Europe) S.A.		21,772									
7	\$	MDO Management Company S.A.		21,745	-2%	55		251			~	89%	V
8		IPConcept (Luxemburg) S.A.		14,140									
9		MultiConcept Fund Management S.A.		13,030	29%	30		110	16		~	64%	
10	=	Oppenheim Asset Management Services S.à r.I.		12,598	-6%	105	-8	171	-2	V	~	50%	

Sources: Company information, CSSF Official List (2016), Fundsquare (2015 - 2016), Company Latest Financial Statements, PwC analysis * Part I, Part II and SIF funds

** Authorisation to perform discretionary portfolio management

Note: These tables present the Top 20 ManCos, the Top 10 licensed AIFMs and the Top 10 Third Party ManCos domiciled in Luxembourg. ManCos are ranked by Assets under Management.

- AuM managed by Foreign ManCos and Self-Managed SICAVs; and
- are not considered in these rankings.
- Foreign AuM managed by Luxembourg ManCos

Top 5 Foreign ManCos managing Luxembourg Funds - as of 31 December 2016 (in million Euros)

Ranking	Ranking Evolution	ManCo	Nationality of the Group	Country of implemen- tation	*Sum of AuM Dec 2016	Variation to Dec 2015	# of funds Dec 2016	Variation to Dec 2015	# of sub- funds Dec 2016	Variation to Dec 2015	UCITS License	AIFM License	% of UCITS in AuM Dec 2016
1		Allianz Global Investors GmbH			96,514	10%	65	-5	195	14			99%
2		Morgan Stanley Investment Management (ACD) Limited			72,473								99%
3		Goldman Sachs Asset Management Global Services Limited			44,772	-5%		0	83				95%
4		Fideuram Asset Management (Ireland) dac			41,919								100%
5	=	Standard Life Investments (Mutual Funds) Ltd			25,286	-12%	2	1	38	7	V	~	100%

Sources: Company information, CSSF Official List (2016), Fundsquare (2015 - 2016), Company Latest Financial Statements, PwC analysis

* Luxembourg Part I, Part II and SIF funds

Note: This table presents the Top 5 Foreign ManCos ranked by Assets under Management. Only Luxembourg funds managed by these ManCos are considered.

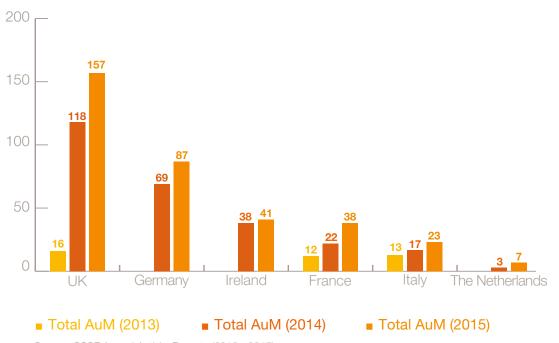
Evolution of Foreign ManCos (managing Luxembourg UCITS)

In number



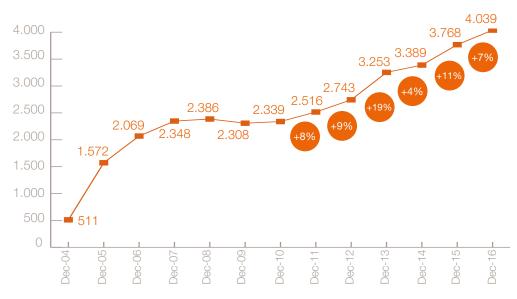
Source: CSSF Annual Activity Reports (2013 - 2015)





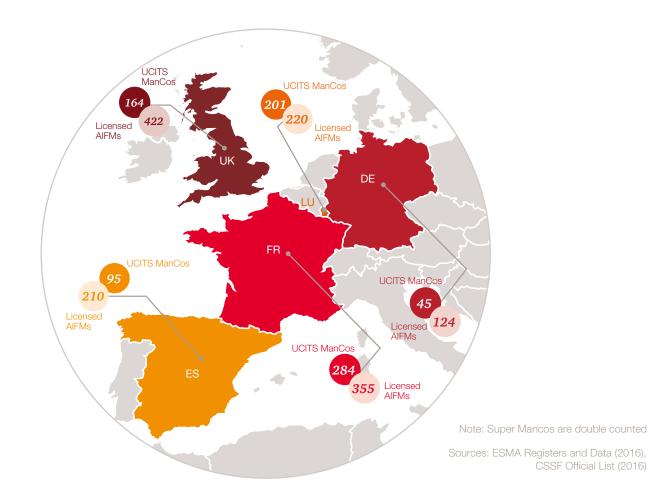
Employment

Evolution of employment in UCITS ManCos



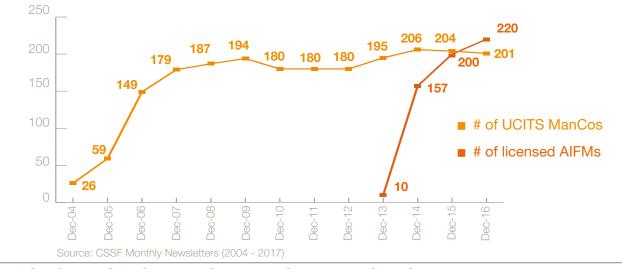
Sources: CSSF Annual Activity Reports (2004-2015), CSSF Newsletters (2016-2017), PwC analysis

Top countries in terms of # of ManCos

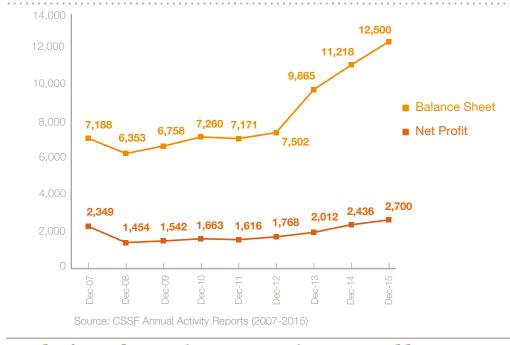


Evolution of Luxembourg ManCos

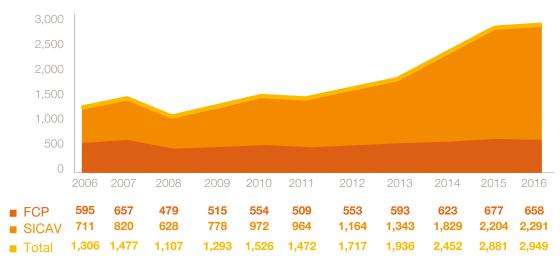
Evolution of # of UCITS ManCos and AIFM ManCos



Evolution of Balance Sheet and Net Profit of UCITS ManCos (in million Euros)



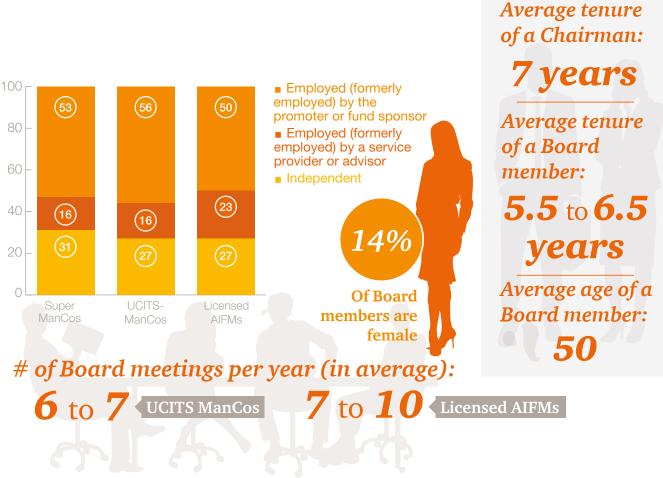
Evolution of AuM (FCP/SICAV) managed by UCITS ManCos (in billion Euros)



Sources: CSSF Annual Activity Reports (2006-2014), Fundsquare (December 2015-2016), PwC analysis

Governance

Proportion of Board members with the following employment status



Source: Luxembourg Fund Governance Survey (2016)

Key data on investment funds

Top 3 Asset Classes with new registrations for distribution in 2016



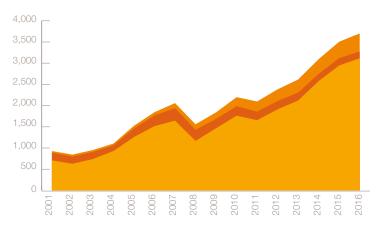
Sources: Lipper LIM and PwC analysis (December 2016), PwC's Global Fund Distribution Poster (2017)

Top 3 countries in terms of new registrations for distribution in 2016



Sources: Lipper LIM and PwC analysis (December 2016), PwC's Global Fund Distribution Poster (2017)

Evolution of AuM by legal status (in billion Euros)



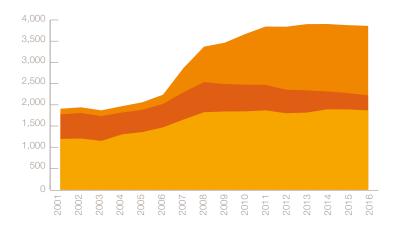
* Including funds under the former Law of 1991

Part I (Law 2010) "UCITS" Part II (Law 2010) SIF*

AuM, in million l	Euros	Dec	. 2016	Dec. 2010			
Part I (law 2010) "UCITS"	3,116,	104	84%	1,762,666	80%		
Part II (law 2010)	160,	578	4%	222,178	10%		
	424,3		12%	214,150			
Total	3,701,0)76	100%	2,198,994	100%		

Source: CSSF Statistics (2001 - 2016)

Evolution of number of funds in Luxembourg by legal status



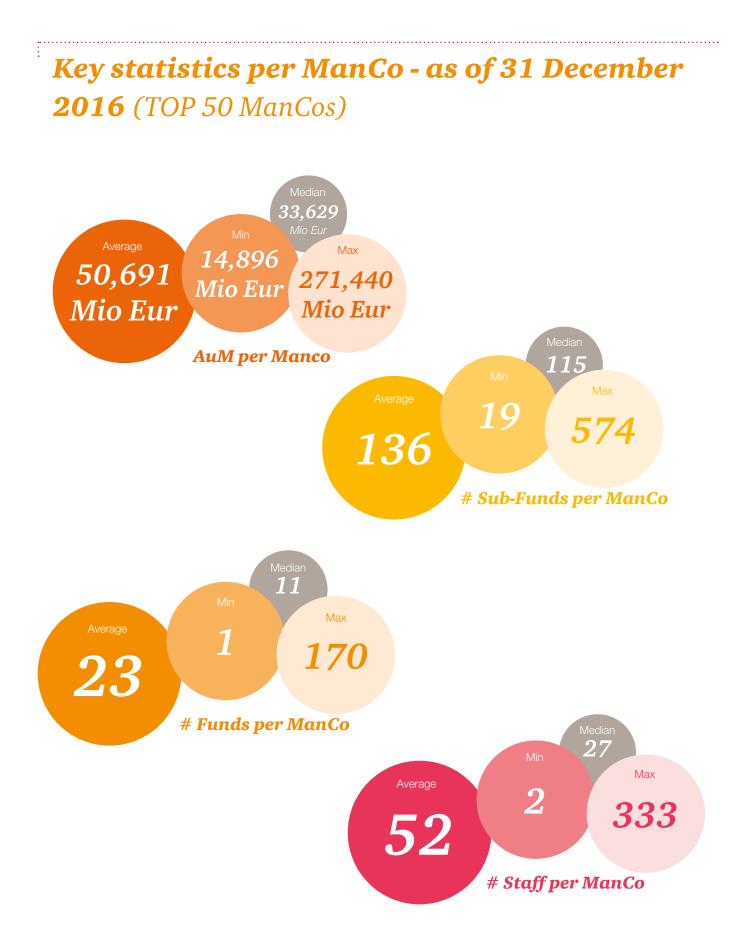
Part I (Law 2010) "UCITS"

- Part II (Law 2010)
- SIF*

Number of funds	Dec. 2	2016	Dec. 2	2010
Part I (law 2010) "UCITS"	1,869	49 %	1,846	50%
Part II (law 2010)	353	9%	629	17%
		42%	1,192	33%
Total	3,861	100%	3,667	100%

Source: CSSF Statistics (2001 - 2016)

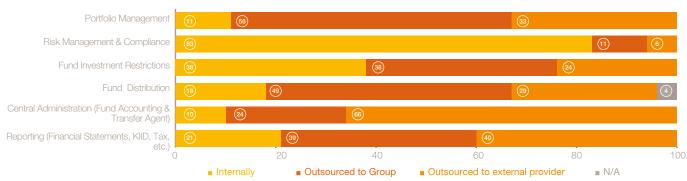
* Including funds under the former Law of 1991



Sources: PwC analysis, Company Latest Financial Statements, Fundsquare (2016), Company information

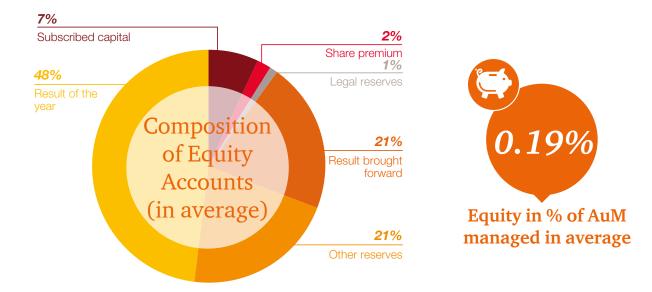
Profile of the Management Companies

Main ManCos functions: What is delegated?



Source: PwC 2017 ManCo survey

Typical Equity composition of a Top 50 ManCo



Source: Top 50 Company Latest Financial Statements

Licensed AIFMs: Asset Classes authorised to be managed



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