

Reengineering the Investment Value Chain for Solvency II

27 September 2012

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Impact of Solvency II on Asset Management

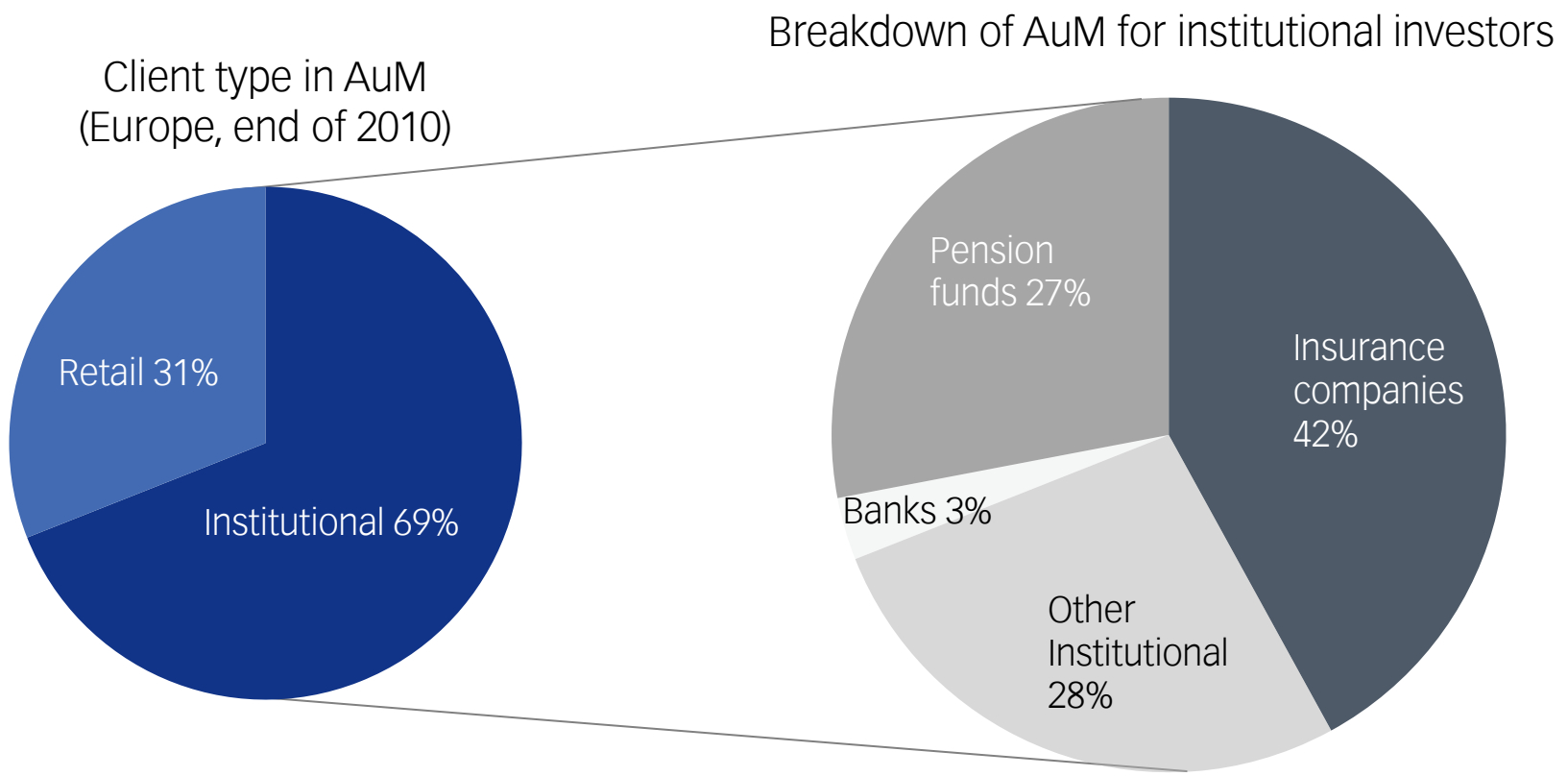
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Mastering the Challenges: IDS Platform Insights

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Conclusion

Investment funds play an important role in capital management for the insurance and pensions industry.



Source: EFAMA, Asset Management in Europe, Facts and Figures, 5th Annual Review (May 2012)

Solvency II likely to be postponed to 2015* – time to take a nap?

Insurance Industry



2011

2012 Postponement** good news for insurers who feel sound principles and clarity must prevail over readiness.
Insurers still mainly occupied with themselves / will not „teach“ asset managers their needs.

2013 Insurers will restructure their assets for optimal capital allocation under Solvency II.

2014

2015 Full application of Solvency II regime.
Choice of asset managers that best serve their needs.

Asset Management Industry

Spectrum ranges from ignorance to feeling that something needs to be done (mostly reporting).
First demands for data visible to assess impact of fund investment on insurer’s SCR.

Early adopters position themselves to gain strategic advantage with Solvency-II-ready products.

Product development.
Set-up of reporting capabilities.
Adjustments as regulation evolves.

Asset managers with suitable Solvency II platform will gain market shares.

Value chain in insurance asset management reengineered to suit clients’ needs.
Latecomers loose market shares.

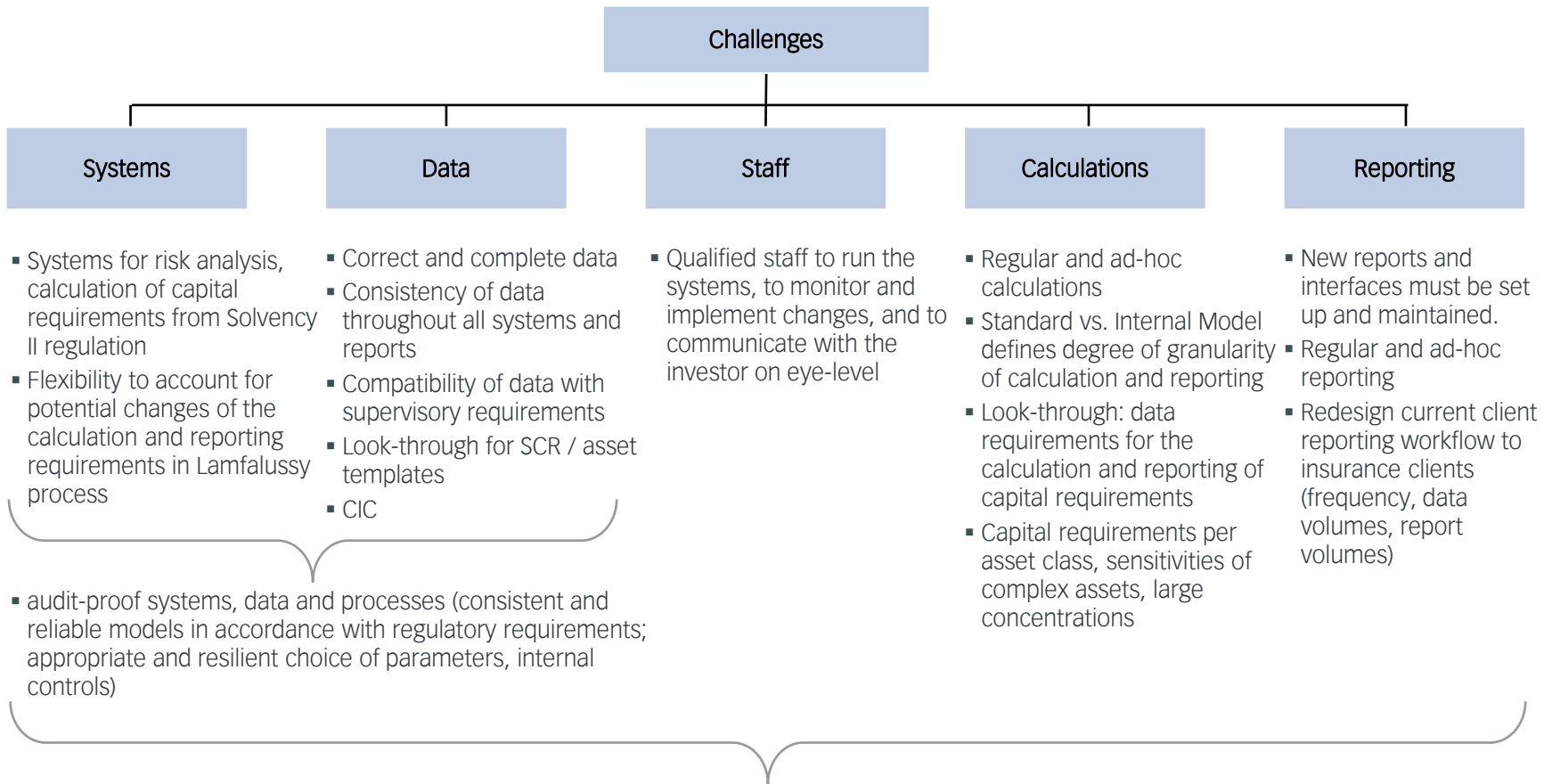
*EU may delay tough new capital rules for insurers, Reuters, September 19, 2012

**According to Martin Bradley, Ernst & Young, a delay is in no way guaranteed. There was no consensus on this point.

There are numerous points along the value chain where services could be offered.



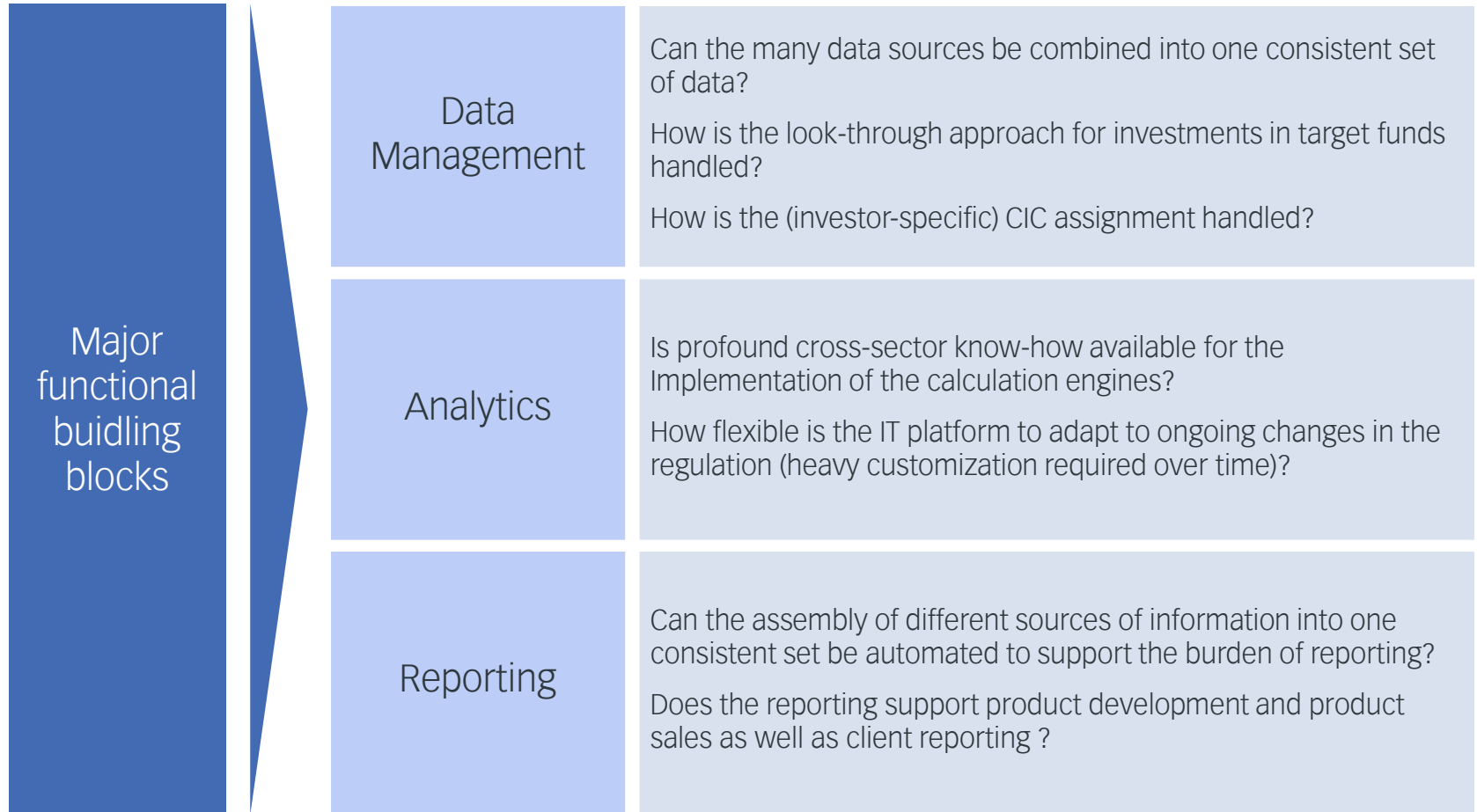
Significant challenges are presented by proper delivery of Solvency II services.



Additional complexity from individual national implementations and national industry standards as well as from general national characteristics like language, date and number formats, ...

Flexibility to address regulation besides and beyond Solvency II / Leveraging existing infrastructure for UCITS, AIFMD, ... compliance

The main challenges are in the provision of the major functional building blocks.



1 Impact of Solvency II on Asset Management

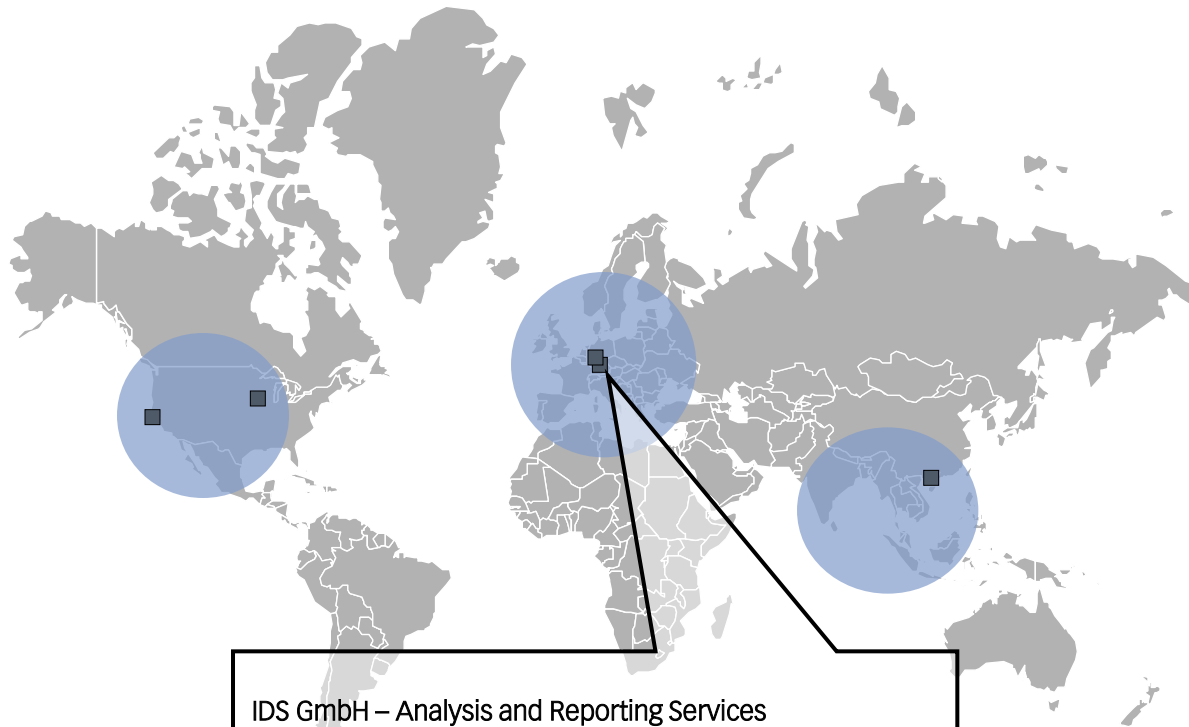
2

Mastering the Challenges: IDS Platform Insights

3

Conclusion

IDS is a managed service provider operating worldwide



IDS GmbH – Analysis and Reporting Services

- 100% subsidiary of Allianz SE
- Established in 2001
- Munich, Frankfurt/Main, Minneapolis, San Francisco and Hong Kong
- About 280 employees from more than 30 nations with sector-specific background

Regions

- 74% Europe
- 16% Asia
- 10% USA

Industry

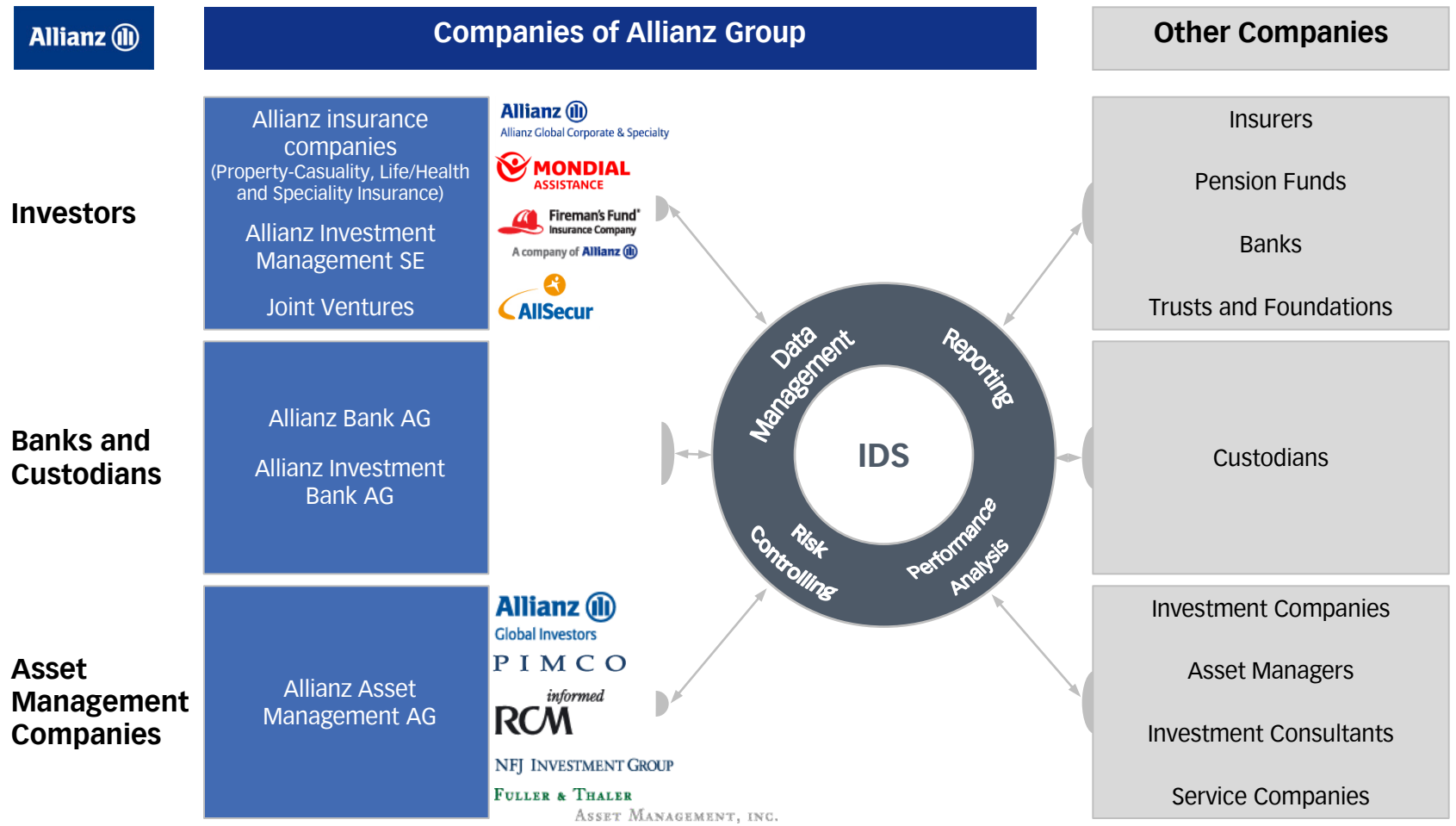
- 70% Asset Managers
- 12% Insurance Companies
- 9% Banks
- 9% Other Sectors

Segmentation

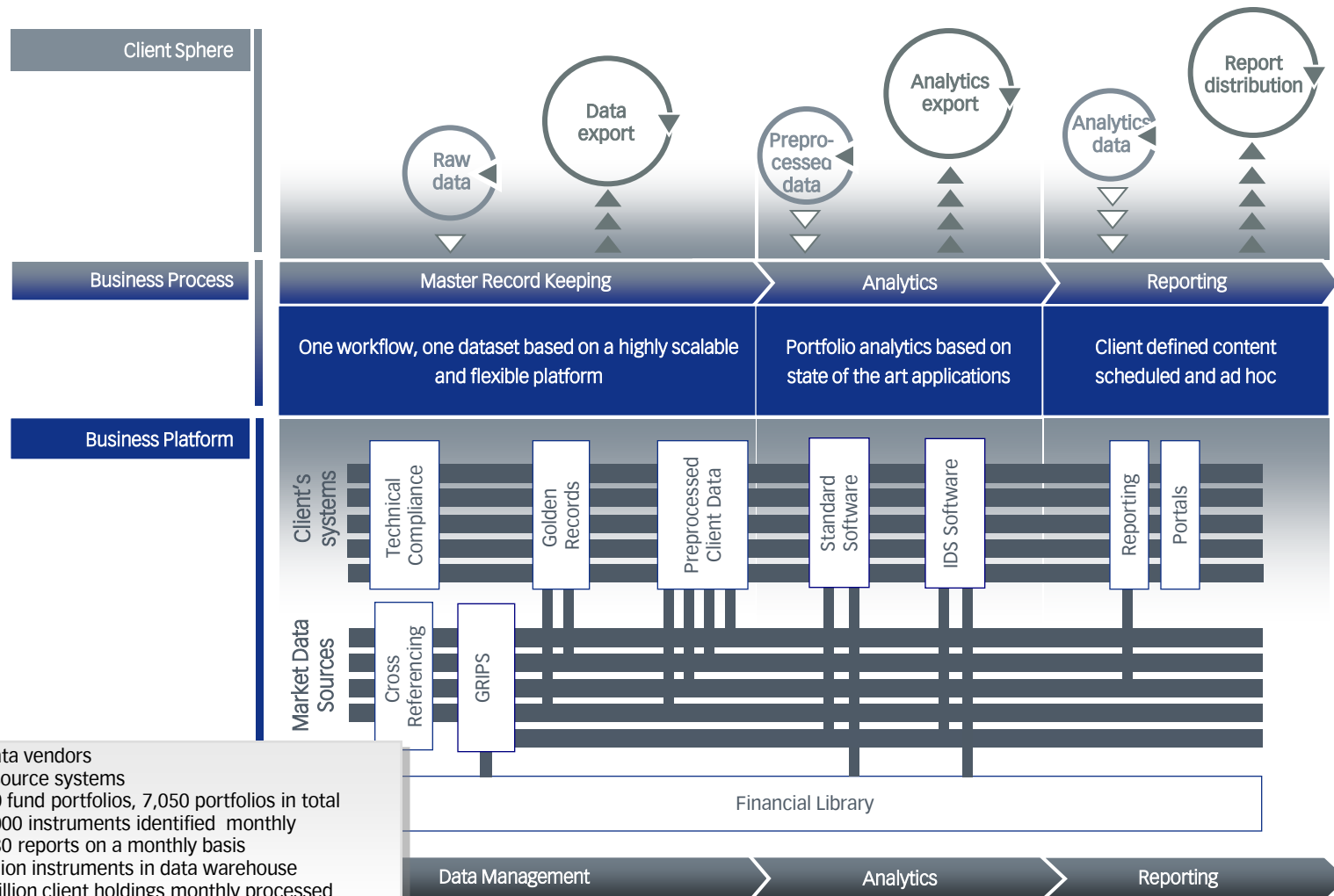
- 61% Allianz Group
- 39% Third Party

Statistics based on legal entities as at June 30, 2012

IDS operates as an independent and impartial intermediate of data, analyses and reports

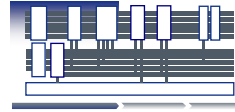


IDS offers a sustainable and scaleable production platform



50 data vendors
 324 source systems
 1,850 fund portfolios, 7,050 portfolios in total
 229,000 instruments identified monthly
 21,280 reports on a monthly basis
 3 million instruments in data warehouse
 50 million client holdings monthly processed
 approx. 1,000 bn EUR assets under reporting
 (as at June 30, 2012)

The IDS standardization procedure ensures a unified view on fund and direct investments



Data Management Team

- Automated and manual standardization of portfolios, investments and companies
- 8 team members
- 229,000 new instruments to be identified monthly...
- that yield over 50,000 newly standardized instruments
- 37,000 instruments manually identified monthly

Quality Checks

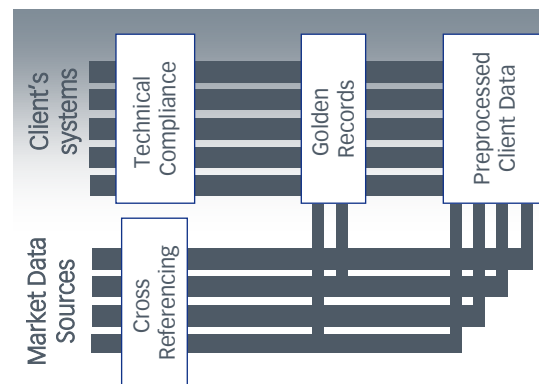
- Corrected deliveries
- Frontend checks
- Regular quality meetings

Data Pool

- 50 data vendors
- 324 source systems
- 3 million current and historic instruments in data warehouse
- Cross-referencing tables

Data Enrichment

- Classification of assets (approx. 340 IDS classes)
- Sectorization
- Seniority
- Assignment of companies (approx. 300,000) and hierarchies
- Identification of underlyings
- Reevaluation (optional)



IDS standardization example



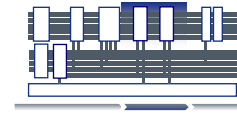
One single investment and its heterogenous representations in the backoffice systems:

backoffice ID	backoffice asset ID	backoffice asset name	asset class	asset class description	quoted on	identifier
1111	A0GN3W_00000_GBP_0	Großbritannien Treasury Stock 06/16	111	Schuldverschreibungen, Anleihen, Obligationen	ISIN	GB00B0V3WX43
2084	LCGBP02494	UNITED KINGDOM	BOND	?	ISIN	GB00B0V3WX43
2083	JCXUK0067	UK 4.0000% Gilt Sep 2016	BOND	?	ISIN	GB00B0V3WX43
2086	MLCEF296277	TREASURY	BOND	?	ISIN	GB00B0V3WX43
2319	GB00B0V3WX43	Großbritannien LS-Treasury Stock 2006(16)	WPF_040_2001_	Festverzinsliche Wertpapiere , festverzinsten Anleihen , Anleihen (Obligationen, Sc	ISIN	GB00B0V3WX43
2251	008816B25	UK GILT 4 9/07/16	TSY	Treasury	ISIN	GB00B0V3WX43
2253	008816B25	UK GILT 4 9/07/16	TSY	TREASURY	ISIN	GB00B0V3WX43
2239	771838_NOR	GILT 4% 07/09/16	BONDS (FIXED RATE)	?	ISIN	GB00B0V3WX43
2350	A0GN3W_00000_GBP_0	Großbritannien Treasury Stock 06/16	111	SCHULDVERSCHR, ANLEIHEN, OBLIGATIONEN	ISIN	GB00B0V3WX43
2318	GB00B0V3WX43	Großbritannien LS-Treasury Stock 2006(16)	WPF_040_2001_	Festverzinsliche Wertpapiere , festverzinsten Anleihen , Anleihen (Obligationen, Sc	ISIN	GB00B0V3WX43
2356	B0V3WXI13	UK TSY 4 2016 BONDS 09/16 4.	10	GOVERNMENT ISSUES	ISIN	GB00B0V3WX43
2365	B0V3WXI13	UK TSY 4 2016 BONDS 09/16 4.	10	GOVERNMENT ISSUES	ISIN	GB00B0V3WX43
2351	A0GN3W_00000_GBP_0	Großbritannien Treasury Stock 06/16	111	SCHULDVERSCHR, ANLEIHEN, OBLIGATIONEN	ISIN	GB00B0V3WX43
2512	771838	GILT 4% 07/09/16	BONDS (FIXED RATE)	?	ISIN	GB00B0V3WX43
2587	GB00B0V3WX43	UK TSY 4% 2016 UKT 4 09/07/16	111	Debentures, bonds, and German public sector mortg	ISIN	GB00B0V3WX43
2609	019038W	UK(GOVT OF) 4% STK 07/09/2016 GBP100	UKGILT	UK GILT	SEDOL	B0V3WX4
2607	019038W	UK(GOVT OF) 4% STK 07/09/2016 GBP100	UKGILT	UK GILT	SEDOL	B0V3WX4
2584	45103-0_GBP	UKT 4 09/07/16	GOV BOND	?	ISIN	GB00B0V3WX43
2599	019038W	UK(GOVT OF) 4% STK 07/09/2016 GBP100	UKGILT	UK GILT	SEDOL	B0V3WX4
2619	COEF2962779	United Kingdom Gilt 4.00% Due 2016-Sep-07	FI55	GOVERNMENT, TREASURY	SEDOL	B0V3WX4
2593	LPCGBP02494	UNITED KINGDOM	N/A	?	ISIN	GB00B0V3WX43
2690	LCGBP02494	UNITED KINGDOM	0	?	ISIN	GB00B0V3WX43



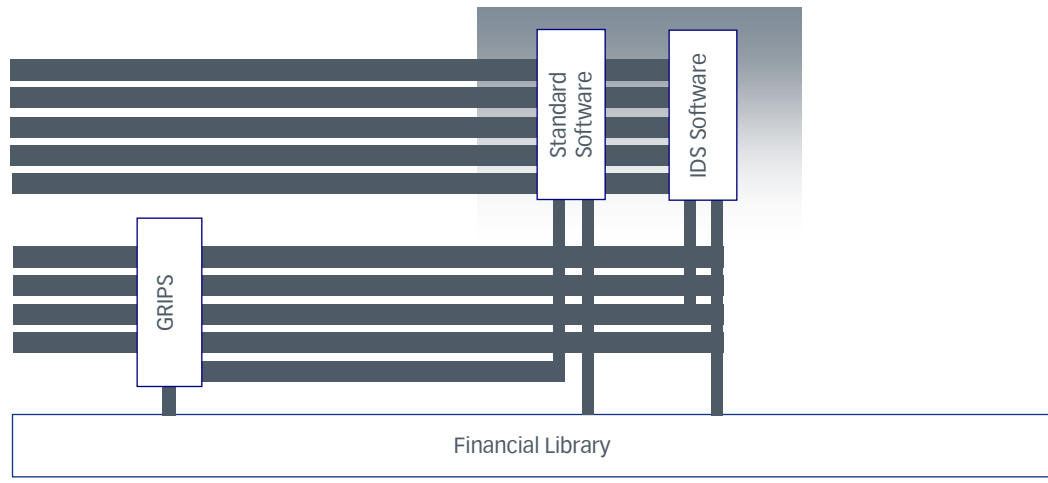
One single investment and its one single representation in the IDS platform:

IDS ID	IDS asset name	IDS asset class	IDS asset class description
502379	UK TSY 4% 2016 4.000% 07.09.2016	BB99	FIXED INCOME, BOND, -, -

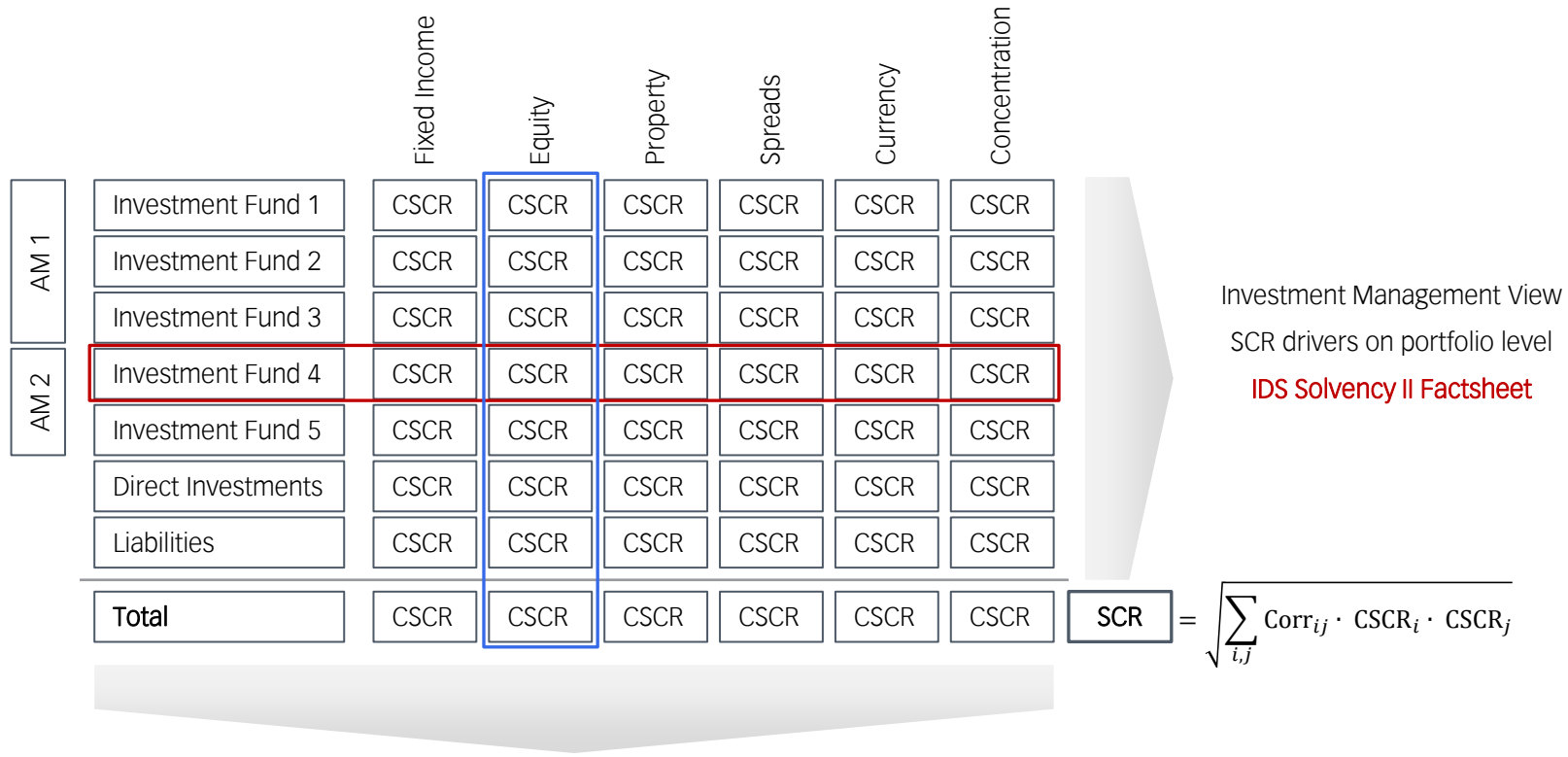
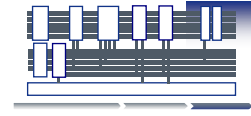


IDS has a tool set for calculations of regulatory metrics

- | GRIPS | IDS Key Figures | SAS Risk Dimensions | IDS Solvency II Engine |
|---|--|--|--|
| <ul style="list-style-type: none"> Calculated market data Swap Zero Curves <ul style="list-style-type: none"> Government Bonds Covered Bonds ABS/MBS Curves Inflation Curves Use of broad range of methods (Bootstrap, Nelson-Siegel, etc.) | <ul style="list-style-type: none"> Duration Yield Maturity Breakdown of derivatives Structured investments Market risk concentrations Counterparty exposure | <ul style="list-style-type: none"> Variety of scenario analyses and stress tests Interest rate risk Equity risk Currency risk Property risk | <ul style="list-style-type: none"> SCR calculation SCR contribution Asset information Look-through approach Fund data hub |



The resultant data enter investment management view and regulatory reporting view.



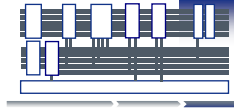
Regulatory Reporting View

SCR not additive → a set of contributions per portfolio is required

[IDS reporting templates for SCR-B3A](#)

- CSCR Contribution to SCR
- SCR Solvency Capital Requirement (Market Risk)

Investment management view supports product development, sales and portfolio management



InvestmentDataServices

Solvency II factsheet

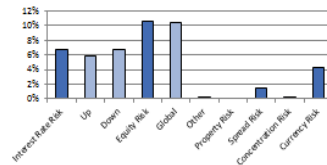
Fund ABC
as of August 2012

Key Information

Fund: Fund ABC
Benchmark: 70% JPM EMU INVESTMENT GRADE RETURN, 30% MSCI EUROPE T.R. (NET)
NAV: 388,162,743.451
SCR (abs): 56,244,782.401
SCR (in %): 14,43%

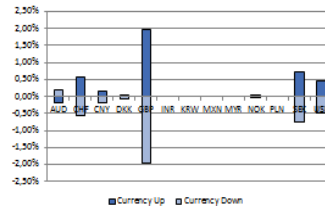
SCR Breakdown by Risk Category

Risk Category	Contribution
Interest Rate Risk	6,74%
Up	5,80%
Down	6,74%
Equity Risk	10,51%
Global	19,46%
Other	0,23%
Property Risk	0,00%
Spread Risk	1,44%
Concentration Risk	0,03%
Currency Risk	4,35%



Currency Risk (Breakdown)

	Currency Up	Currency Down
AUD	-0,16%	0,18%
CHF	0,56%	-0,56%
CNY	0,17%	-0,17%
DKK	0,06%	-0,06%
GBP	1,96%	-1,36%
INR	0,00%	0,00%
KRW	0,00%	0,00%
MXN	0,00%	0,00%
MYR	0,00%	0,00%
NOK	0,02%	-0,02%
PLN	0,00%	0,00%
SEK	0,74%	-0,74%
USD	0,47%	-0,47%

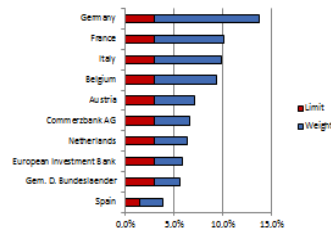


Concentration Risk (Tabelle und Chart)

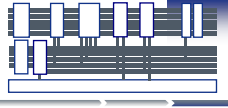
Issuer	Weight	Rating
Fed Rep of Germany	10,8%	AAA
French Republic	7,1%	AAA
Republic of Italy	6,3%	A-
Kingd. Of Belgium	6,4%	AA
Rep. Of Austria	4,2%	AAA
Commerzbank AG	3,6%	A
Kingd. of the Netherlands	3,5%	AAA
European Investment Bank	2,3%	AAA
Gem. Deutsche Bundesanleider	2,6%	AAA
Spain	2,4%	BBB+

Concentration threshold
A-AAA: 3,0%
BBB or lower: 1,5%

No Capital requirement for EEA Government



- Portfolio Key Information
- Assess impact of investment fund on insurer's SCR
- Breakdown of CSCR per risk factors
- Breakdown of CSCR currency risk
- Concentration risk (single issuer base)



Regulatory reporting view provides information to satisfy investors' regulatory reporting requirements

Currency	Initial NAV before shock per currency	NAV after the "down" shock per currency	NAV after the "up" shock per currency
AUD	-76.890,16	-57.667,62	-96.112,70
CAD	814,94	611,21	1.018,68
CHF			
CNY			
DKK			
GBP			
JPY			
NOK			
SEK			
USD			

Issuer	Market Value per issuer (in EUR)	Rating category according to QIS 5 *	Credit Quality Step according to QIS 5 **)
Issuer 1	2.538.097,13	AA-AAA	1A
Issuer 2	9.595.001,50	AA-AAA	1B
Issuer 3	2.938.610,21	A	2

*) AA	**) 1)	Single Capital Requirements	Initial NAV before shock	NAV after shock	Net Solvency Capital requirement
		Capital requirement for interest rate risk for the "down" shock	28.931.283,01	34.149.329,21	-5.218.046,20
		Capital requirement for interest rate risk for the "up" shock	28.931.283,01	26.148.325,03	2.782.957,98

ID Code	ID code type	Fund number	Underlying asset category	Geographical zone of issue	Currency - Local or foreign	Total amount	Remark
DE0009999999	ISIN	9999	1	EEA	L	12.649.685,15	Government bonds
DE0009999999	ISIN	9999	1	EEA	F	519.470,91	
DE0009999999	ISIN	9999	1	OECD	L	102.914,45	
DE0009999999	ISIN	9999	2	EEA	L	2.184.573,70	Corporate bonds
DE0009999999	ISIN	9999	2	EEA	F	338.835,46	
DE0009999999	ISIN	9999	2	OECD	L	1.203.241,74	
DE0009999999	ISIN	9999	3	EEA	L	58.863.159,48	Equity
DE0009999999	ISIN	9999	6	EEA	L	10.521.820,90	Collateralised
DE0009999999	ISIN	9999	6	EEA	F	239.771,97	
DE0009999999	ISIN	9999	6	OECD	L	1.246.386,16	
DE0009999999	ISIN	9999	7	EEA	L	81.479,82	Cash and equivalents
DE0009999999	ISIN	9999	7	EEA	F	48.178,96	
DE0009999999	ISIN	9999	7		L	27.150,63	
DE0009999999	ISIN	9999	7		F	5.931,09	
DE0009999999	ISIN	9999	A	EEA	L	322.900,00	Futures
DE0009999999	ISIN	9999	A	OECD	F	6.774,65	
DE0009999999	ISIN	9999	B	EEA	L	-7.083,20	Calls
DE0009999999	ISIN	9999	B	EEA	F	22.511,04	
DE0009999999	ISIN	9999	B	OECD	F	18.665,63	
DE0009999999	ISIN	9999	C	EEA	L	14.962,17	Puts
DE0009999999	ISIN	9999	C	OECD	F	-15.074,38	
DE0009999999	ISIN	9999	D	EEA	L	-27.559,58	Swaps
DE0009999999	ISIN	9999	E	EEA	L	185.730,60	Forwards
DE0009999999	ISIN	9999	E	EEA	F	-208.422,89	
DE0009999999	ISIN	9999	F	EEA	L	15.294,00	Credit derivatives
DE0009999999	ISIN	9999	F	EEA	F	-185.109,71	
DE0009999999	ISIN	9999	F	OECD	L	-748,00	
DE0009999999	ISIN	9999	F	OECD	F	1.877,55	
DE0009999999	ISIN	9999	3	EEA	L	18.657.825,00	Fund Multi-Strategy
DE0009999999	ISIN	9999	L		L	-121.658,20	Liabilities

- raw data delivery of CSCR
- one table set per portfolio
- insurer sums single values per portfolio
- fine granularity:
 - Single CSCR per risk factor
 - Currency breakdown per single currency
 - Concentration risk per single issuer
- QRT Assets-D4

1 Impact of Solvency II on Asset Management

2 Mastering the Challenges: IDS Platform Insights

3 Conclusion

Conclusion

1

Responding to the challenges of **Solvency II is of crucial importance** for insurance asset management.

2

Access to leading regulatory and technical **expertise** and a flexible dedicated production platform for fund reporting are **key success factors**.

3

By choosing IDS, a wholly owned Allianz SE subsidiary, an asset manager could **maximize project success**.

Your contact:



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