

Whitepaper

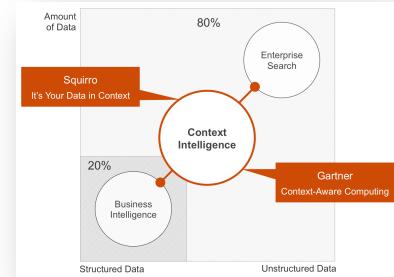
Use of Unstructured Data in Financial Services



Executive Summary

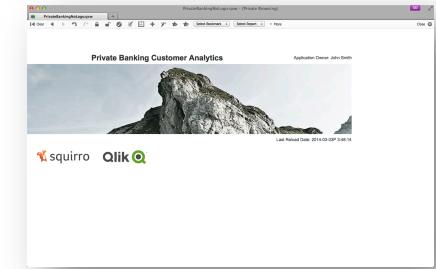
20% structured – 80% unstructured Data

- Financial institutions hold vast arrays of unstructured data
- This data is largely under-analyzed and rarely put to use



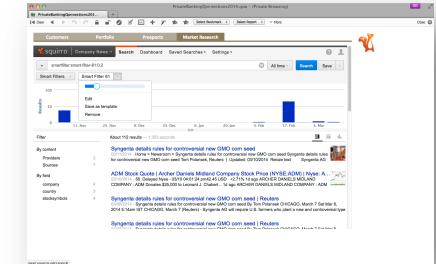
Combining data silos

- Nearly no financial institution combines unstructured with structured data
- 75% of all companies say this would provide value



Unearth Gold in Data

- Nearly half of the financial institutions say they plan activities in the next 24 months
- Focus on revenue generation activities (market trends, competitive positioning, product enhancements)



Survey Goals & Basics

Survey Goals

Estimates point to a split between structured and unstructured data in an enterprise to be roughly 20% / 80%. The goal of this survey is to establish how leading global financial institutions deal with unstructured data today and intend to analyse this type of data in a near future.

Definition

- *Structured Data* resides in fixed fields within a record or a file. Relational databases and spreadsheets are examples of structured data.
- *Unstructured Data* refers to information that is not organized in a pre-defined manner or does not have a pre-defined data model. Unstructured data is typically text heavy.

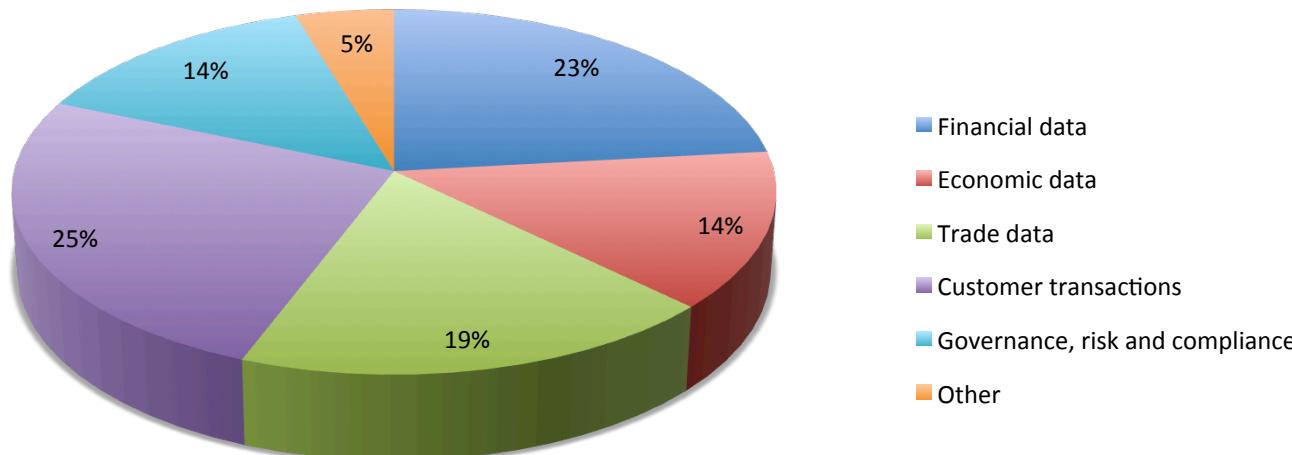
Time period & method

- Survey carried out between February and March 2014
- 18 multiple choice questions, 3 free text questions, complete answers appraised

Target audience, response level

- Targeted at senior level executives in leading global financial institutions (Barclays, Credit Suisse, Lloyds, RBS, etc.)
- Total respondents: 98

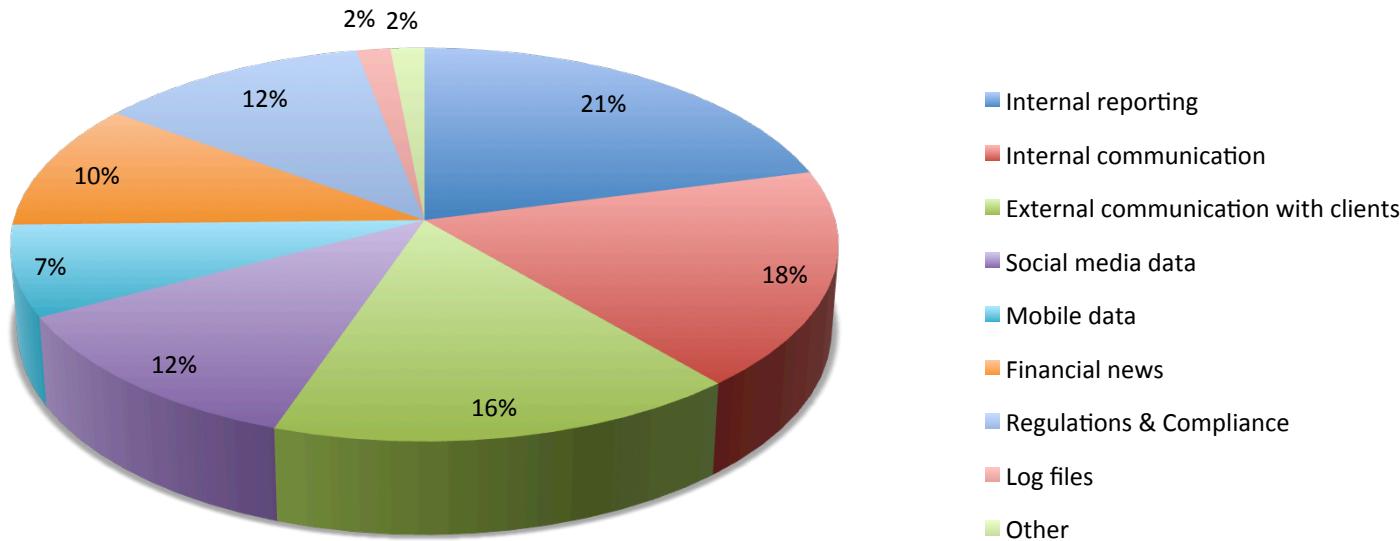
What type of structured Data do you use?



To little surprise financial institutions have vast repositories of structured data. The bulk is around financial, economic and trade data. A growing segment of data constitute regulatory and compliance data generated and collected across the firms.

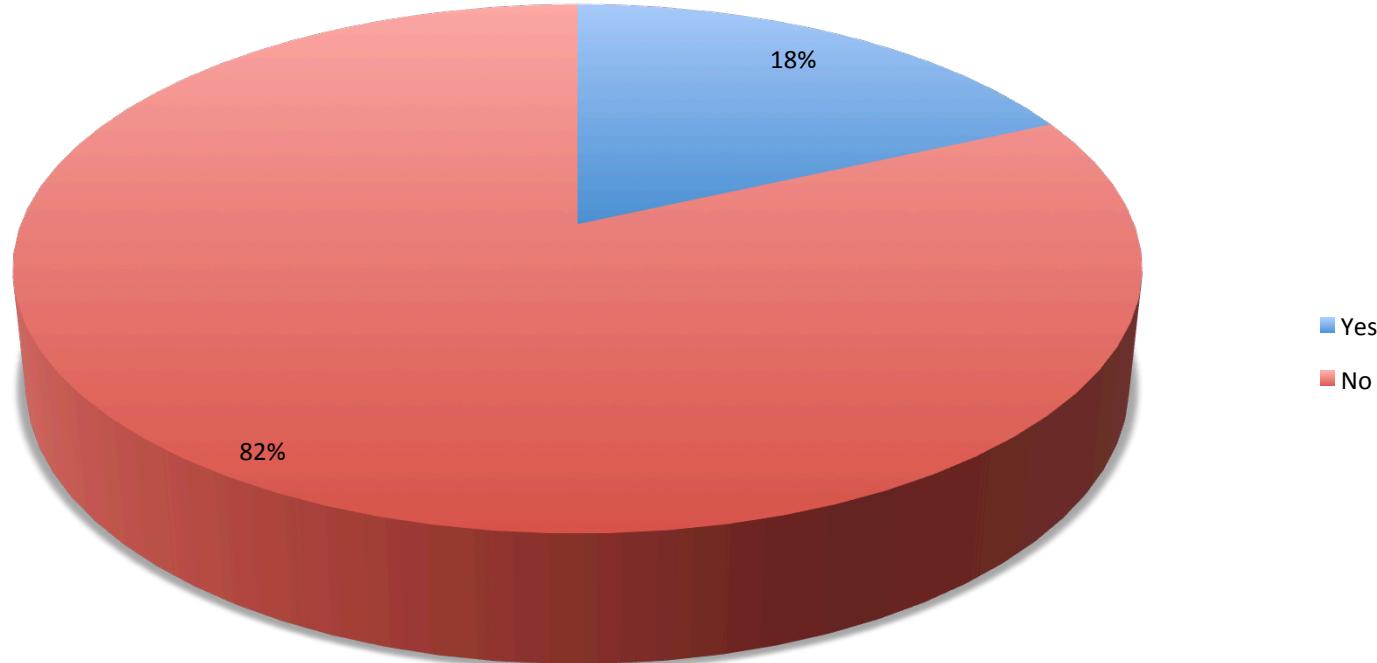
Note: Other = Legal, Customer Experience Data

What type of unstructured Data do you use?



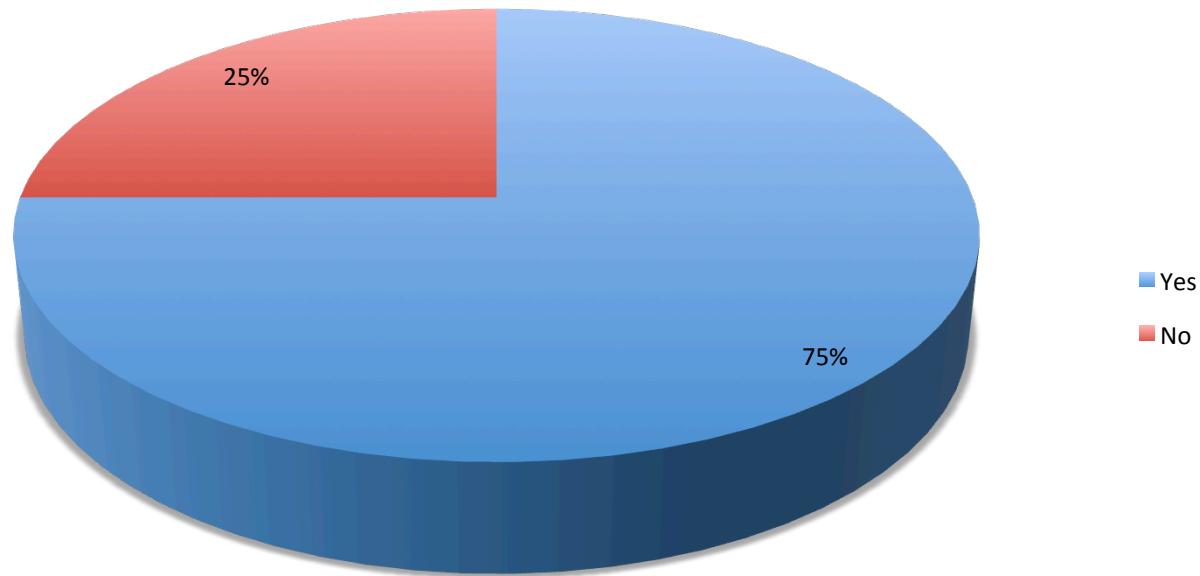
Internal reporting, internal communication (e.g. email), and communication with clients constitute the vast bulk of unstructured data in the surveyed financial institutions. A surprisingly high level of social media data is being used within banks.

Do you combine structured and unstructured Data?



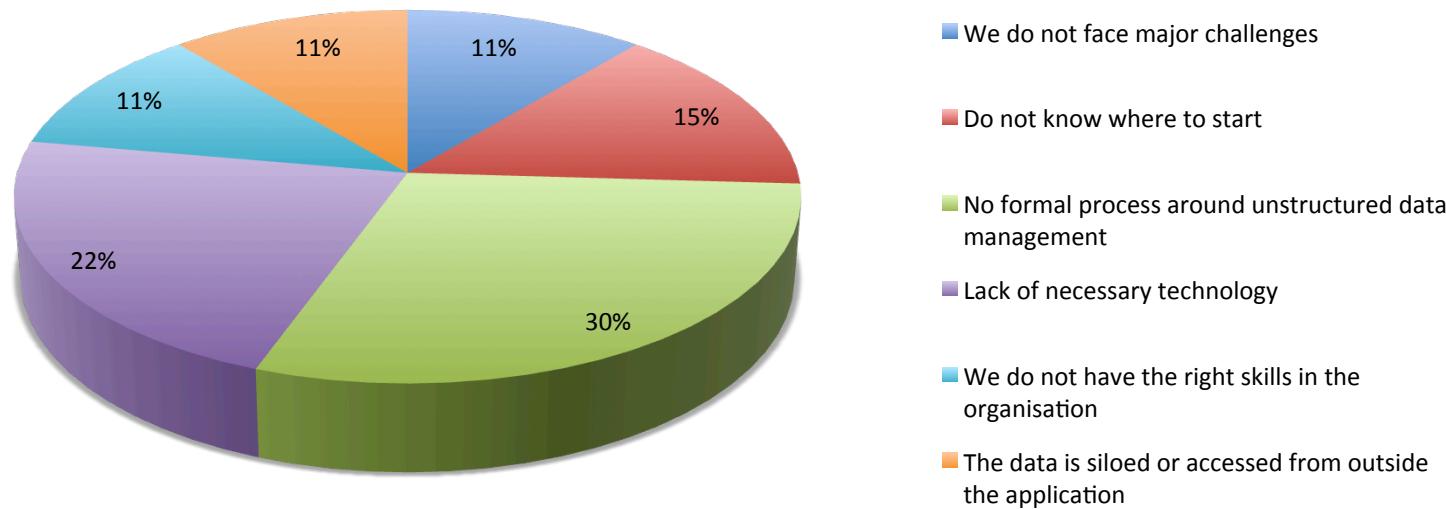
The combination of structured with unstructured data is rarely carried out. Respondents answering with yes, point to a combination of data in the area of finance and data trading (e.g. news combined trading data) and a growing trend to join customer transaction data with customer communication.

Would it be useful to combine the Data?



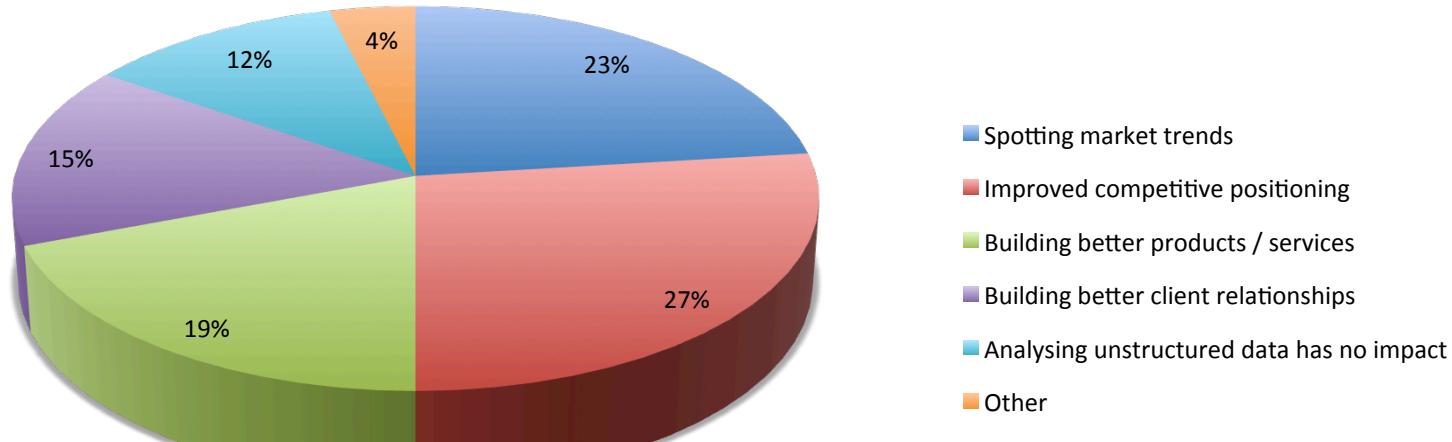
While most respondents' firms do not yet combine structured with unstructured data, a solid 75% say they think a combination is of value. Asked about what type of combinations they envisage, 69% point internal data joins (e.g. trading data and chat data), with 31% saying external data joins (e.g. news with trading data) would be of value.

What Challenges does your Organization face in this space?



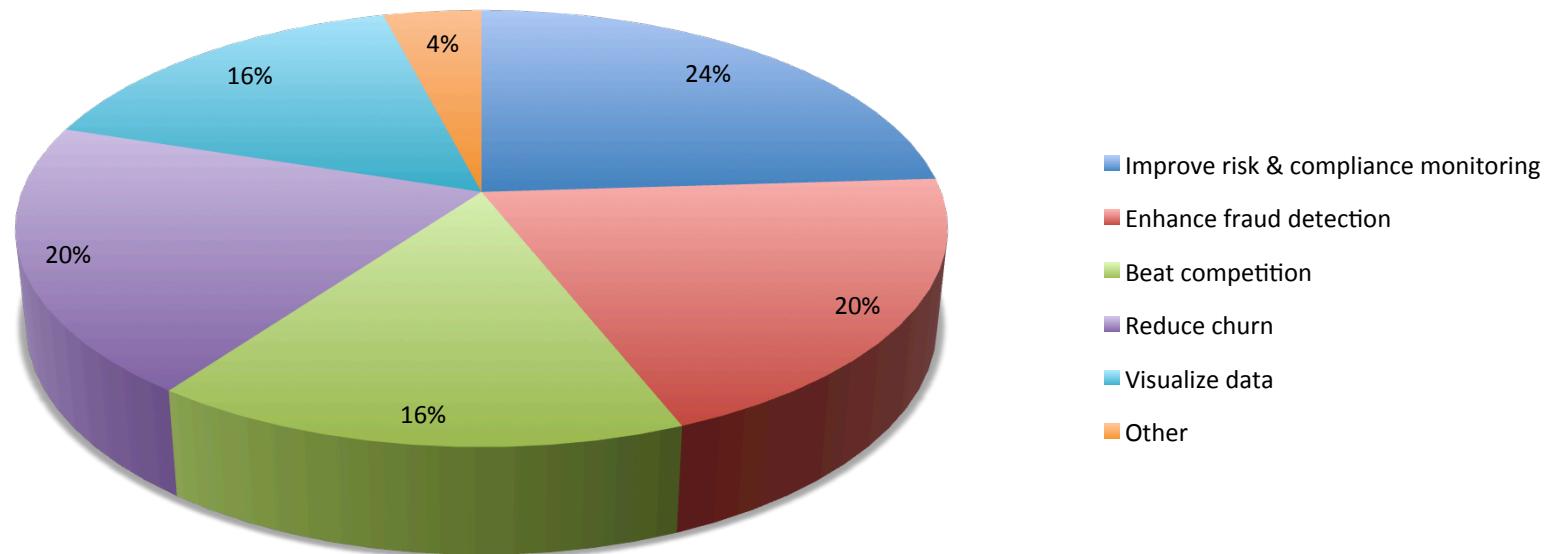
Unstructured data discovery and analytics is a novel field. Accordingly, the institutions surveyed, lack to varying degrees, processes around unstructured data management and analysis as well as the appropriate domain specific technology.

Desired impact of unstructured Data analytics?



Unstructured data analytics is a means to an end: Spotting market trends, improved competitive positioning, better products and services contribute – if well executed – positively to the top line.

What value do you want to extract?



A second level of analysis is aimed at the bottom line with a cost reducing impact across the surveyed institutions. Regulatory and compliance is the fastest growing segment driven by an ever more dense legal framework.

Use Case Market Intelligence

Analyze startup companies based on the Crunchbase dataset – www.crunchbase.com



squirro Dashboard Funding **Squirro** Dashboard developed in partnership with **BIPB** <http://www.bipb.com> #drivenbydata

+ smartfilter:smart-filter-41:0.1 X All time Search Save

Smart Filters Smart Filter 41 X

Results

0 Jul '07 Jan '08 Jul '08 Jan '09 Jul '09 Jan '10 Jul '10 Jan '11 Jul '11 Jan '12 Jul '12 Jan '13 Jul '13 Jan '14

Filter About 357 results — 0.229 seconds

By field

Category	10
City	10
Competitors	10
Country	10
Dead-pooled	2
Founded	10
Investment from	10
People	10
Region	6
Tags	10

Geipay.me
17 days ago - Geipay.me, Inc. ("Geipay.me") provides an "all in one" mobile money product, alternative payment network and real-time multi-currency exchange built to reach the masses (see beta www.geopayonline.com). We deliver a product ideally suited for small businesses, online merchants, and individuals underserved by traditional payment

PayBox Payment Solutions
22 days ago - PayBox is an e-Wallet for groups, it is the place for groups to collect money easily and pay together. PayBox's users can create a "Payment Group", invite "Payment Participants" and collect money into a central "Group Fund", with the loaded funds the group can achieve a real social payment experience. Tags: payments

POPS Worldwide
a month ago - POPS Worldwide Inc. operates as an entertainment media company and engages in aggregating, licensing, and delivering music, video, and media content. It offers music-related content such as ring tones and ring back tones to mobile users through WVAS platforms over mobile networks and internet. It also provides other mobile entertainment

Knox Payments
a month ago - Knox Payments is a new service that allows merchants to conduct ACH payments. These are transactions wherein customers can pay directly to merchants using their bank accounts. What differentiates the service from its competitors is its primary focus on speed. In addition, Knox Payments does not offer user accounts and simply functions

Charge Payment
a month ago - Charge Payment, LLC offers credit and debit card transaction processing services. The company was founded in 2012 and is based in Nashville, Tennessee. People: Thomas H. Bryant

Dimple Dough
a month ago - Dimple Dough is the world's most advanced cloud-based prepaid, gift, and credit and debit card management and innovation platform. The DimpleDough platform enables

squirro Dashboard Funding **Squirro** Dashboard developed in partnership with **BIPB** <http://www.bipb.com> #drivenbydata

+ smartfilter:smart-filter-41:0.1 X All time Search Save

Smart Filters Smart Filter 41

Results

0 Jul '07 Jan '08 Jul '08 Jan '09 Jul '09 Jan '10 Jul '10 Jan '11 Jul '11 Jan '12 Jul '12 Jan '13 Jul '13 Jan '14

Filter About 357 results — 0.229 seconds

By field

Category	10
City	10
Competitors	10
Country	10
Dead-pooled	2
Founded	10
Investment from	10
People	10
Region	6
Tags	10

Document

Geopay.me
17 days ago - Geopay.me, Inc. ("Geopay.me") provides an "all in one" mobile money product, alternative payment network

PayBox Payment Solutions
22 days ago - PayBox is an e-Wallet for groups, it is the place for groups to collect money easily and pay together. PayBox's

POPS Worldwide
a month ago - POPS Worldwide Inc. operates as an entertainment media company and engages in aggregating,

Knox Payments
a month ago - Knox Payments is a new service that allows merchants to conduct ACH payments. These are transactions

Charge Payment
a month ago - Charge Payment, LLC offers credit and debit card transaction processing services. The company was

Dimple Dough
a month ago - Dimple Dough is the world's most advanced

People
John Karantonis, Adonis Valamontes

Tags
mobile-payments, sms-payments, ewallet, ecommerce, merchant-services

Payoneer's Global Payments | ubssquirromin.qvw | Google

qlikview.demo.squirro.net/QvAJAXZfc/opendoc.htm?document=05-crunchbase%2Fubssquirromin.qvw&host=QVS%40qlikview54

Mobile Payments | Select Report | More | Close

squirro Dashboard Funding Squirro

Dashboard developed in partnership with **BIPB** <http://www.bipb.com> #drivenbydata

0 Jul '07 Jan '08 Jul '08 Jan '09 Jul '09 Jan '10 Jul '10 Jan '11 Jul '11 Jan '12 Jul '12 Jan '13 Jul '13 Jan '14

Filter 0 results — 0.301 seconds

By field

Category	10
City	10
Competitors	10
Country	10
Dead-pooled	2
Founded	10
Investment from	10
People	10
Region	6
Tags	10

Results

Geopay.me
17 days ago - Geopay.me, Inc. ("Geopay.me") provides an "all in one" mobile money product, alternative payment network and real-time multi-currency

PayBox Payment Solutions
22 days ago - PayBox is an e-Wallet for groups, it is the place for groups to collect money easily and pay together. PayBox's users can create a "Payment

POPS Worldwide
a month ago - POPS Worldwide Inc. operates as an entertainment media company and engages in aggregating, licensing, and delivering music, video,

Knox Payments
a month ago - Knox Payments is a new service that allows merchants to conduct ACH payments. These are transactions wherein customers can pay

Charge Payment
a month ago - Charge Payment, LLC offers credit and debit card transaction processing services. The company was founded in 2012 and is based in

Dimple Dough
a month ago - Dimple Dough is the world's most advanced cloud-based prepaid, gift, and credit and debit card management and innovation platform. The

CredoCard Ltd
a month ago - CredoCard develops co-branded cards and prepaid card programs for clients in over 200 countries worldwide including, Asia, Latin America,

Pyx Payments Corporation Ltd.
2 months ago - Pyx Pav is an innovative payment solutions provider for

Tags

Tag	Percentage
mobile	14.0 %
mobile-payments	16.3 %
payments	18.6 %
online-payments	5.4 %
e-commerce	9.3 %
prepaid	11.6 %
payment-gateway	5.4 %
merchant-account	5.4 %
e-commerce	5.4 %
payment	8.5 %

Country

Country	Percentage
United States	70.1 %
Canada	3.3 %
United Kingdom	10.6 %
India	4.4 %
Australia	2.2 %
Singapore	1.1 %
South Africa	2.2 %
Germany	3.3 %
Spain	1.5 %
Brazil	1.5 %

Payoneer's Global Payment | ubssquirromin.qvw | Google

qlikview.demo.squirro.net/QvAJAXZfc/opendoc.htm?document=05-crunchbase%2Fubssquirromin.qvw&host=QVS%40qlikview54

Mobile Payments | Select Report | More | Close

squirro Dashboard Funding Squirro

Dashboard developed in partnership with **BIPB** [#drivenbydata](http://www.bipb.com)

Squirro Search Search

Category

Category	Count
mobile	20
ecommerce	16
finance	16
enterprise	8
software	6
web	4
biotech	2
other	2

Geography

Geography	Count
North America	60
Europe	26
Asia	17
Oceania	3
South America	0
Africa	0
-	0

Investment from

Investment from	Count
Andreessen Hor... QED Investors	6
Accel Partners	4
Charles River V... Intel Capital	3
CyberAgent	3
Fontinalis Partn... Founders Fund	2
FundersClub	2
General Catalys... Greycroft Partn...	2
Greylock Partners	2
International Fi... Maveron	2
Opus Capital	2

Squirro Search

Companies 88 **Total Funding** \$1,481.41M **# Investors** 264

Investor breakdown

Investor	total funding	rank	# companies	rank
Greylock Partners	\$102.00M	1	2	6
Charles River Ventures	\$101.90M	2	3	3
Intel Capital	\$100.35M	3	3	3
Sigma Partners	\$96.69M	4	1	20
Opus Capital	\$95.34M	5	2	6
Madrone Capital Partners	\$93.00M	6	1	20
New Venture Partners	\$77.73M	7	1	20
Accel Partners	\$56.50M	8	3	3
Union Square Ventures	\$52.61M	9	2	6

Funding by Region

Smartfilter noise level

SmartFilters

- Encryption
- Genetic Engineering
- Genomics
- Internet of Things
- Mobile Payments
- Personal Cloud
- Stem Cell Research
- Wearable Technologies

Squirro Dropzone

squirro Dashboard **Funding** Squirro

Dashboard developed in partnership with **BIPB** <http://www.bipb.com> #drivenbydata

Total funding

Funding by Company

title	total funding	rank
Progreso Financ...	\$123.00M	1
GainSpan	\$113.19M	2
mPowa	\$76.00M	3
PaxVax	\$61.61M	4
Zebit	\$55.00M	5
Mozido	\$48.69M	6
WorldRemit	\$47.66M	7
Live Gamer	\$43.10M	8
Payoneer	\$39.00M	9
Paydiant	\$34.60M	10
Arsenal Medical	\$34.29M	11
Leapset	\$32.15M	12
Coinbase	\$31.71M	13
Nextnav	\$29.18M	14
Winters Bros. W...	\$28.50M	15
Abiquo	\$25.56M	16
Research Triangl...	\$25.00M	17
Wave Accounting	\$24.35M	18
Dwolla	\$22.81M	19
RTT Payments	€22.40M	20

Smartfilter noise level

SmartFilters

- Encryption
- Genetic Engineering
- Genomics
- Internet of Things
- Mobile Payments
- Personal Cloud
- Stem Cell Research
- Wearable Technologies

Geography

Investment from

Squirro

Geopay.me

Crunchbase | 17 days ago |

Geopay.me, Inc. ("Geopay.me") provides an "all in one" mobile money product, alternative payment network and real-time multi-currency exchange built to reach the masses (see beta www.geopayonline.com). We deliver a product ideally suited for small businesses, online

PayBox Payment Solutions

Crunchbase | 22 days ago |

PayBox is an e-Wallet for groups, it is the place for groups to collect money easily and pay together. PayBox's users can create a "Payment Group", invite "Payment Participants" and collect money into a central "Group Fund", with the loaded funds the group can achieve a real social payment

POPS World

Crunchbase | a m

POPS Worldwi media compa licensing, and i content. It off tones and ring WVAS platform

Top Line Impact: Market Intelligence

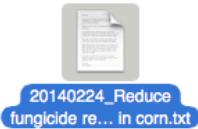
Dear Lex,

I just found this article online which talks about a way of reducing fungicide resistance in corn. Can you quickly tell me if this new approach has an impact on my portfolio?

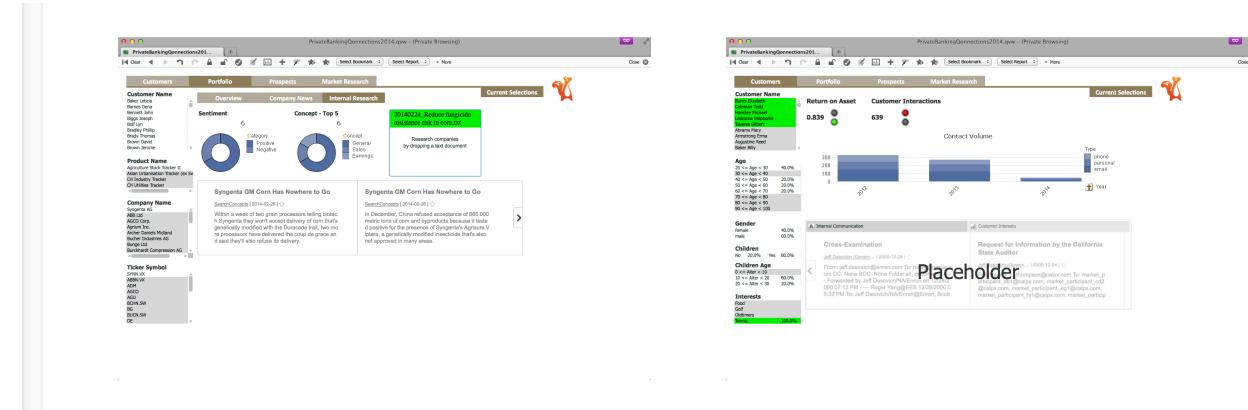
<http://cornandsoybeandigest.com/crop-chemicals/reduce-fungicide-resistance-risk-corn>

Best Regards

- Marcia Baker



- Internal Research
- Filter with reference documents
- Use powerful concept search to analyze internal data streams



- Portfolio Analysis
- Determine customer portfolio impact
- Proactive Customer Information
- Find impacted customers
- Know last customer interactions and how to address the customers emotions

Squirro

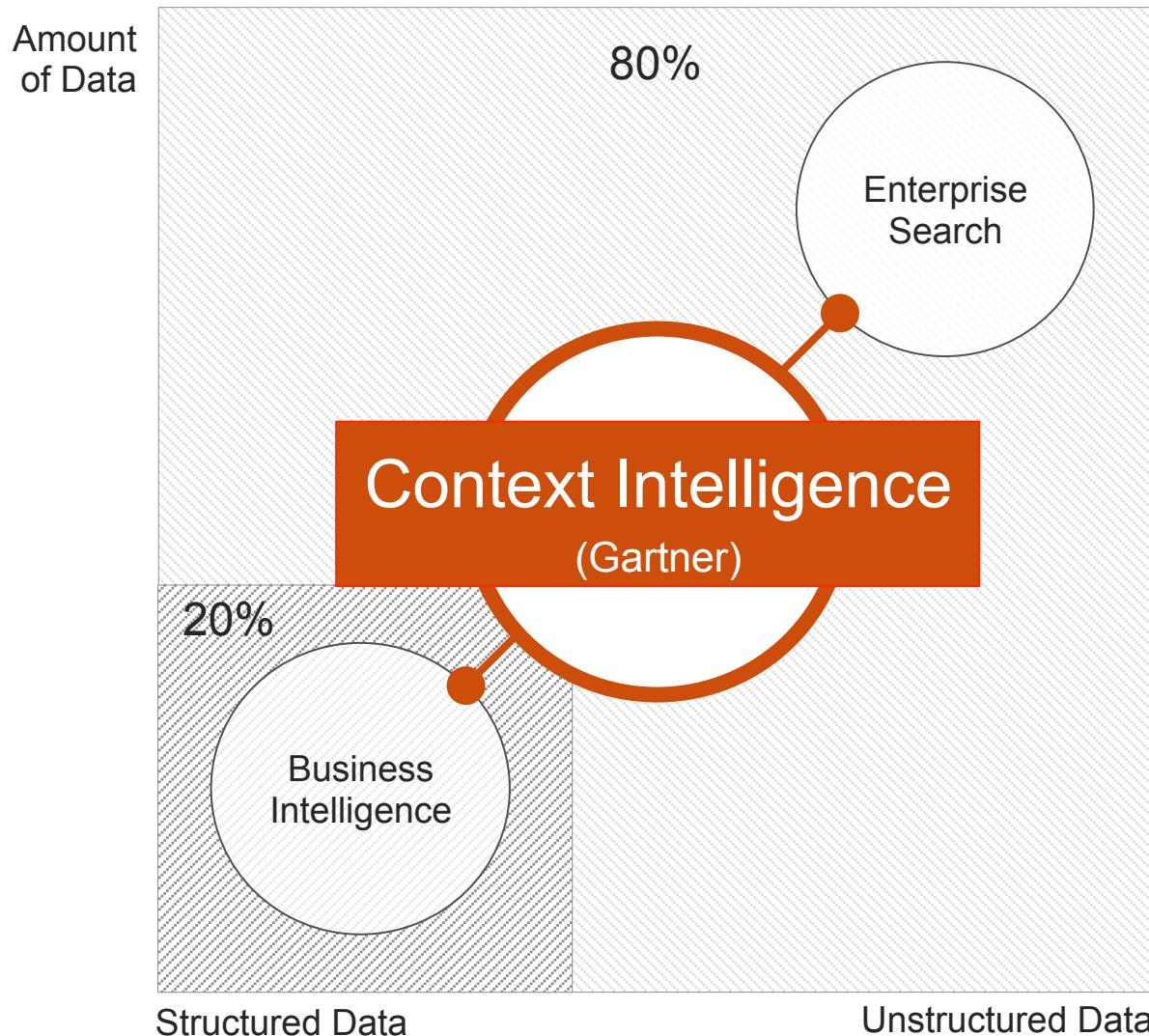
Context Intelligence for the Financial Industry





The unaddressed Pain in Big Data: Digital landfills of unused unstructured Data

Enable Data Discovery across Data Silos



Squirro tells you the Story behind your Data

Sales Intelligence

A screenshot of a Salesforce interface showing a lead detail for 'Cesare Allevina'. The lead information includes name, title, phone, mobile, email, and website. The interface also shows a 'Recent Items' sidebar and a 'Custom Links' section.

Business Intelligence

A screenshot of a QlikView interface titled 'Financial Stock Analysis'. It displays a chart showing 'Average Market Capitalization' over time, with data from 2010 to 2013. The chart shows a significant peak around 2011. The interface includes a search bar, a dashboard view, and a 'Smart Filters' section.

Market Intelligence

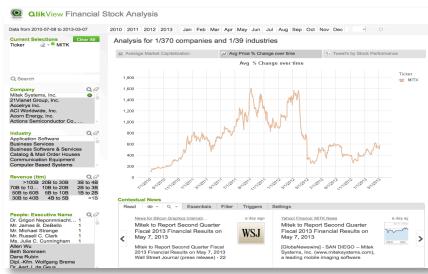
A screenshot of the Squirro platform showing a search results page for the query 'language:en'. The results are presented as a timeline from January 12 to March 11, 2014. Each result is a news snippet with a title, date, and a link. The results are categorized into 'Document' and 'SmartConcepts' sections. The interface includes a search bar, a dashboard view, and a 'Smart Filters' section.

... more

Top and Bottom Line Impact (ROI \approx 25-30% p.a.)

Revenue relevant

Finance Watch



Market Watch

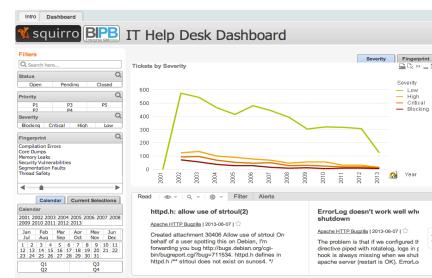


Cost cutting

HR Watch



Service Watch



Context Intelligence impacts any data driven business – unearth meaning in data

Squirro, part of the Fintech Innovation Lab London





About Squirro

Squirro is the leader in Context Intelligence, combining structured and unstructured data to provide the 'Why' behind data. Context helps you to see the bigger picture.

You choose the data you want to combine in real-time to achieve unparalleled insights into your customers, business, and markets.

It's based on Squirro's smart filter technology that intelligently connects unrelated data points with a lasting positive impact on revenues, risks, and costs.

Squirro: Your Data in Context.

Contact Us

Tel CH: +41 44 586 98 98
Tel US: +1 650 353 93 68
Email: info@squirro.com

Web: www.squirro.com
Twitter: twitter.com/squirro
Facebook: facebook.com/squirro

Nektoon AG
Badenerstrasse 120,
CH-8004 Zurich