



Sentifi

AI, Machine Learning and Crowd Intelligence Applied to Financial Markets

Wie können digitale Technologien die Investorenkommunikation revolutionieren?

Vienna, 26 April 2018



Agenda

- 01 AI, Machine Learning and Crowd Intelligence
- 02 The Iceberg of Financial Information
- 03 How to use alternative Data for the Communication with Investors and Financial Markets



AI, Machine Learning and Crowd Intelligence



Definitions for the Age of Analytics

Artificial Intelligence (AI)

AI is the science and engineering of making intelligent machines, especially intelligent computer programs.

Today's Connectionist AI approach is data intensive.

Example for AI from our daily life: Virtual Personal Assistants (i.e. Alexa)

Machine Learning (ML)

ML is a subdomain of AI. ML is the science of getting computers to act without being explicitly programmed.

Examples for ML from our daily life: Recommendation Engines (Netflix), Self-driving Cars, etc.

Crowd Intelligence (CI)

CI is the collective (shared or group) intelligence of a massive amount of autonomous individuals. It seamlessly integrates human and machine intelligence at a large scale, i.e. via the internet.

Example for CI from our daily life: Wikipedia

AI, Machine Learning and Crowd Intelligence

How to train Algorithms for your Purpose?



AI, Machine Learning and Crowd Intelligence

How to make Algorithms work for your Purpose

Training the machines

- Supervised Learning
- Unsupervised Learning
- Reinforcement Learning

Recognition of patterns

AI, Machine Learning and Crowd Intelligence

—
Pattern Recognition



AI, Machine Learning and Crowd Intelligence

Pattern Recognition



AI, Machine Learning and Crowd Intelligence

How to make Algorithms work for your Purpose

Training the machines

- Supervised Learning
- Unsupervised Learning
- Reinforcement Learning

Recognition of patterns

Rule-like behaviour

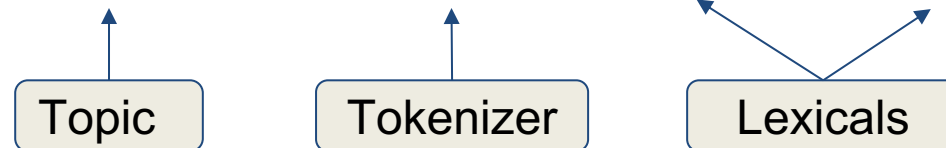
Machines do not forget things they learned

AI, Machine Learning and Crowd Intelligence

Pattern recognition and detection applied to financial markets

Event: Credit Rating

Grammar: $\${ListedCompanies}$ $\{T\}[6]$ $\#{Credit}$ AND $\#{Rating}$



Does *Microsoft* Deserve a *Triple A* *Credit Rating*? →



Microsoft's new Xbox game gets a 10/10 *rating*. →



SENTIFI LISTENING TO THE FINANCIAL CROWD

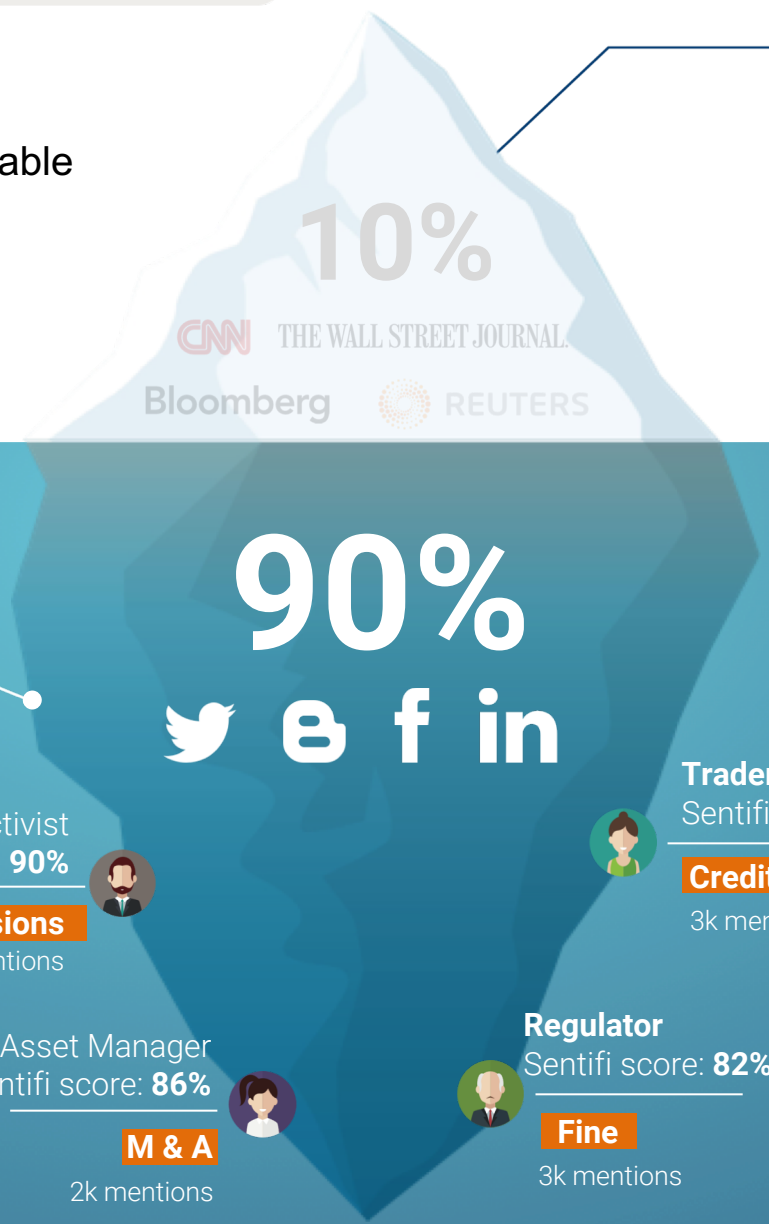
Basing investment decisions on only 10% of available information leads to missed opportunities

Sentifi Analytics complete the picture, based on millions of alternative data

TRADITIONAL FINANCIAL INFORMATION MARKET

NEWS ANALYSES

Bloomberg, Reuters, WSJ and other media



CROWD INTELLIGENCE

- Relevant actionable Analytics based on Millions of influencer data
- Sentifi Crowd today: 15 Mio Influencers

Activist
Sentifi score: **90%**

Diesel Emissions
1k mentions

Asset Manager
Sentifi score: **86%**

M & A
2k mentions

Trader
Sentifi score: **88%**

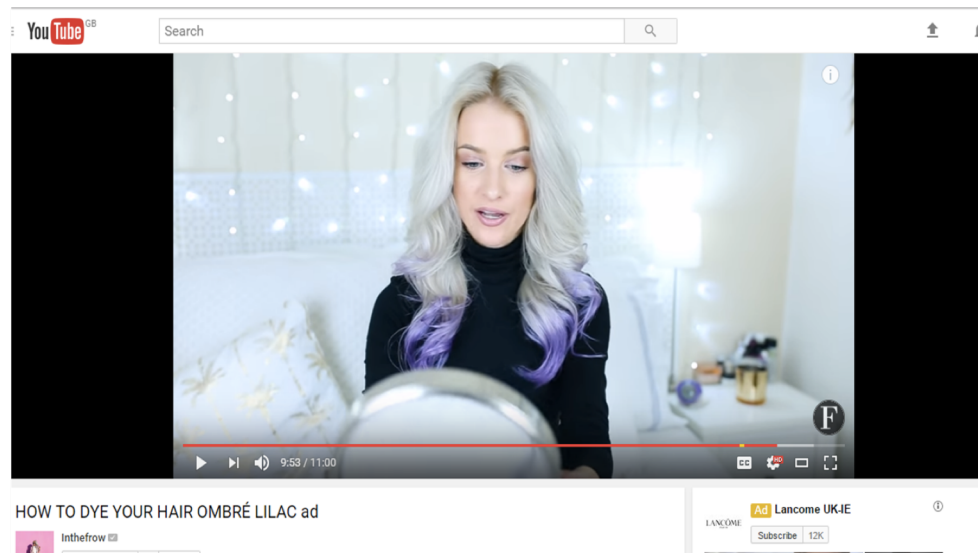
Credit risk
3k mentions

Regulator
Sentifi score: **82%**

Fine
3k mentions

AI, Machine Learning and Crowd Intelligence

Identifying Financial Influencers



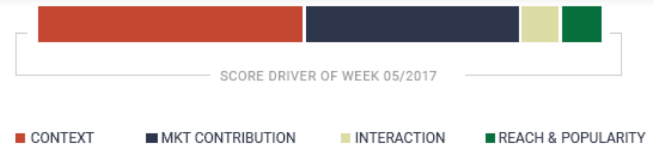
VS



How do we apply AI to find profiles:

Profile Scoring
High relevance to
finance sector detected

Profile Score Drivers
Context, Mkt Contribution
Interaction, Search & Popularity



90


Profile Classification
News Media profile
detected

Profile Qualification
High quality profile
(score)

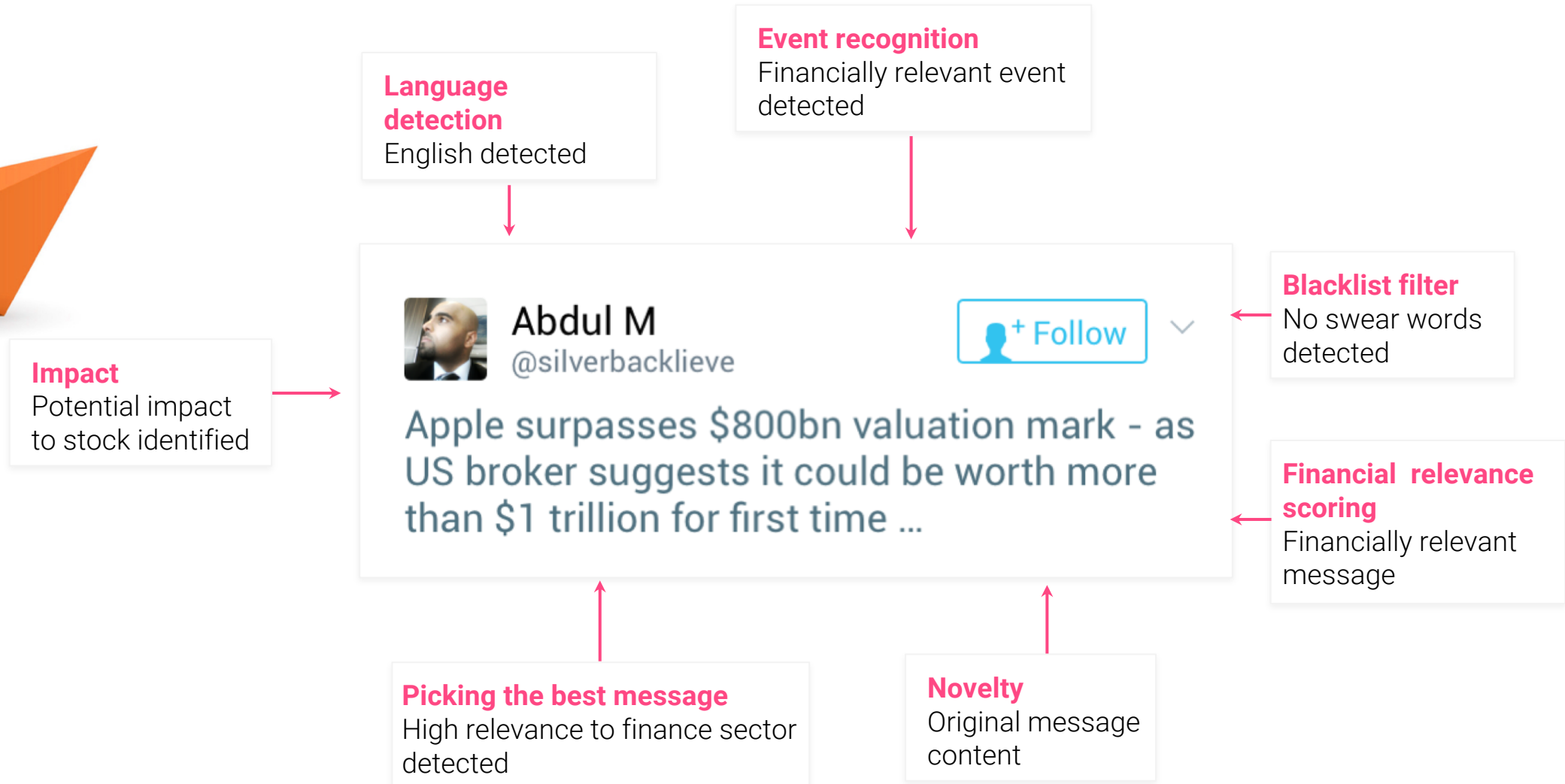


Bot detection
Bot not detected

Financial Times 
@FT
News stories, features and updates from the FT. For headlines follow @financialtimes. Our customer service team is @FTcare.
London
ft.com
Joined January 2009

 Tweet to Financial Times

How do we use AI to find topics and events:



How to use alternative Data for Communication with Investors and Financial Markets

Pillars of Applied AI

Profiles

Topics

Events

Profile

(**ABC NEWS**, NEW YORK) – The Food and Drug Administration is warning the public that more than 400,000 pacemakers in the U.S. are in danger of being hacked.

Topic


The agency issued an alert stating that the company producing these pacemakers – **Abbott**, formerly known as St. Jude Medical – is taking “corrective” action.

Event

The voluntary **recall** affects 465,000 radio frequency-enabled implantable pacemakers. It covers several models, including Allure, Accent, Anthem, Accent MRI, Accent ST and Assurity.

AI for the Monitoring of Trends and Risks



GLOBAL BANKS


Attention Monitor
Themes
The Crowd

1. Impact Investing ➤
2. Sustainable Investment ➤
3. Green Finance ➤
4. Clean Energy ➤
5. Climate change ➤
6. Green Investment Oppor... ➤
7. ESG ➤
8. Microfinance ➤
9. Energy Transition ➤
10. Philanthropic Investment ➤

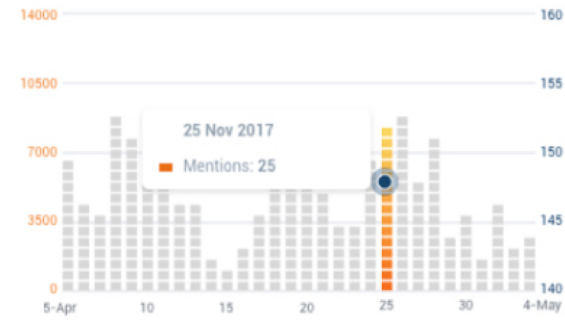
Greater than average attention
 Less than average attention

Updated: 10.01.2018, 13:45. Messages in the last 30 days

Market Attention on Clean Energy

Show: Companies | Voices
30d ▼


1. Morgan Stanley
2. UBS
3. Citigroup
4. Barclays Investmen...
5. Credit Suisse



Most Interesting Tweets, News & Blogs

Language: EN & DE ▼


Influencer score 89/100



Reliance Industries
14:30 - 08 Jan 2018

RT @SolarEnergyNews: IKEA Diversifies Clean Energy Option With Fuel Cell at Paola Alto Store #cleanevery #fuelcell Read here: <http://t.co/...>


Influencer score 76/100



Global Newswire
14:00 - 08 Jan 2018

AI detects and categorizes events that are potential drivers or risks for listed companies and their stock prices. The events and insights can help to discover trends early and to stay ahead of the market.



GLOBAL BANKS 

Attention Monitor | Themes | The Crowd

1. Credit Suisse | 2. UBS | 3. Morgan Stanley | 4. Deutsche Banks | 5. Citigroup | 6. Barclays Investment | 7. Goldman Sachs

Greater than average attention | Less than average attention

Updated: 23.01.2018. 13:45. Messages in the last 30 days

Credit Suisse

Global voices in news and social media

Show voices from: All categories


Volume | even

Select a category

- All (5,001)
- Fund/ Portfolio Strategist (1400)
- Fund/ Portfolio Manager (900)
- Trader (600)
- Brokers (200)
- Investment Bankers (50)
- Management (30)
- Activist (26)
- Risk Manager (20)
- Compliance Manager (13)
- Journalist (13)
- Investor Relations Manager (13)
- Politician (13)
- Government Officials (13)
- Management Consultant (13)
- Legal Services Professional (13)
- Financial advisors (13)
- Retail Investor (13)
- Financial Research Analyst (13)
- Financial Professional - Other (13)
- Employee (13)
- Customer 0

All Market Attention

5,001 Mentions in last 30 days



Most interesting News & Blogs

Language: EN & DE

Influencer score 77/100

Yusuf Hameed, MD @yusufhameed
16:46 - 08 Jan 2018
SICPT looks weak, maybe overdone, swapped some \$MZOR which preannounced but no upside. Looking at Credit Suisse re...
twitter.com/I/web/status/9...

Influencer score 70/100

Nimesh Shah @nimeshcnbc
15:54 - 08 Jan 2018
Credit Suisse 3 high conviction ideas - Tata Steel, M&M & L&T. Expect improvement in L&T's order flow, & value creation from asset sales. For M&M, sustained growth in tractors & reduced losses in sub and Tata Steel
twitter.com/I/web/status/9...

Influencer score 56/100

Peter Xing @peterxing
07:00 - 08 Jan 2018
-UBS, Barclays, Credit Suisse and Thomson Reuters explore Ethereum-based MiFID II

Key Executives Language: EN & DE

Tidjane Thiam
Chairman

Tidjane Thiam
CEO

in the last: 30d

in-Marc Vittori @jmvittori
28 - 23 Jan 2018
nce is the place where things are opening." Tidjane Thiam, @CreditSuisse, EF18 <https://t.co/O9vRzWzF>

BC International @CNBCI
03 - 23 Jan 2018
with is here and that's the big story." - dit Suisse CEO, Tidjane Thiam, on today's nomic picture #we18 <https://t.co/q...>

BC International @CNBCI
40 - 23 Jan 2018
om North Korea, to Syria, etc., those risks there, and one has to be mindful of m." - Tidjane Thiam, CEO of Credit sse, on geopolitical risk <http://cnb.cx/KrBH> #we18

BC International @CNBCIPR
40 - 23 Jan 2018
e's the transcript of our #FirstOrCNBC rview with @CreditSuisse CEO Tidjane Thiam from #we18: <http://cnb.cx/2F52X22> #Davos

Gillian Kemmerer @gilliankemmerer
16:45 - 23 Jan 2018
Hoping you can get do #interview with Tidjane Thiam @CreditSuisse; always appreciate his frank vi... <https://t.co/e4mowiyfw>

Snow bound Davos warns to business friendly climate
<http://guardian.ng/>

(From L) Nasdaq CEO and President Adena Friedman, Blackstone Chairman and CEO Stephen Schwarzman, Fox Business Network Anchor Maria Bartiromo, Bank of America Chairman and CEO Brian Moynihan, Credit Suisse
09:56 - 23 Jan 2018

From Credit Suisse Language: EN & DE

Credit Suisse @Credit Suisse Jan 4
Story 4 in our #countdown: The most obvious use for #blockchain technology is the one that already exists – payment systems. But there is much more to blockchain than this. <http://bit.ly/>

Attention Monitor:

Track the attention from the crowd around your company and your industry peers.

Identify influencers of your company and competitors and find out who is talking about which topics around those companies.



GLOBAL BANKS

Attention Monitor | Themes | The Crowd

1. Impact Investing
2. Sustainable Investment
3. Green Finance
4. Clean Energy
5. Climate change
6. Green Investment Oppor...
7. ESG
8. Microfinance
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10. Philanthropic Investment

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4. Barclays Investmen...
5. Credit Suisse

25 Nov 2017
Mentions: 25

Most Interesting Tweets, News & Blogs

Language: EN & DE

Influencer score 89/100

Reliance Industries
14:30 - 08 Jan 2018
RT @SolarEnergyNews: IKEA Diversifies Clean Energy Option With Fuel Cell at Paola Aito Store #cleanenergy #fuelcell Read here: <http://t.co/...>

Influencer score 76/100

Global Newswire
14:00 - 08 Jan 2018
The African Development Bank achieved a 100% investment in renewable energy 2017, a major landmark in its commitment to clean energy and efficiency. Power generation.....

Influencer score 55/100

Morgan Stanley @MorganStanely
11:13 - 08 Jan 2018
Morgan Stanley and Citi Say They Will Run on 100 Percent Clean Energy <https://t.co/oFXQiov161>

Influencer score 55/100

Ikea Group @IkeaGroup
09:45 - 08 Jan 2018
Mumbai: India's Reliance Industries LTD will become a major provider of clean energy in the country, Chairman Mukesh Ambani, said, as the South Asian nation transitions to renewable .

Influencer score 55/100

Hyundai Group @HyundaiGroup
09:13 - 08 Jan 2018
#Clean #Eneergy Hyundai unveils its next generation fuel-cell vehicle - engadget: <https://t.co/0gkd>

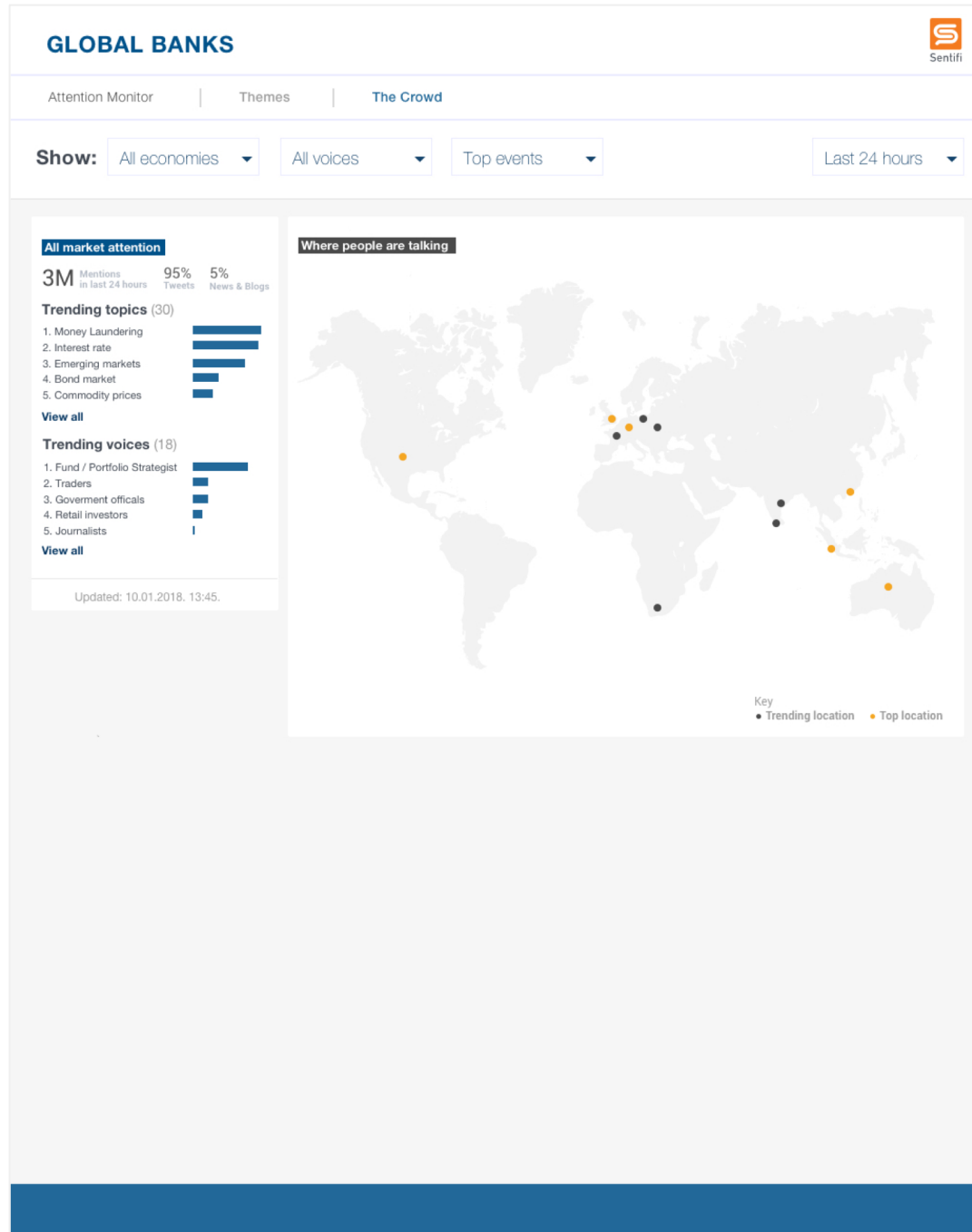
Influencer score 56/100

Mike Kolar CPA @MrRefund
09:13 - 05 Jan 2018

Themes Monitor:

Track and discover topics (dividends, ESG, Industry 4.0) that are discussed in connection with your company and peers within the financial crowd.

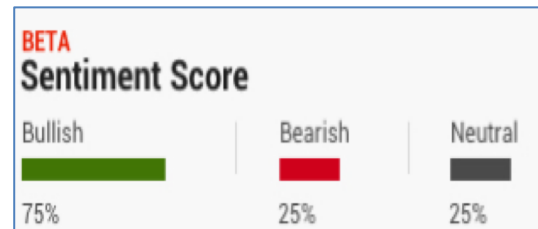
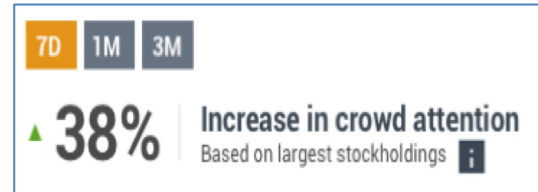
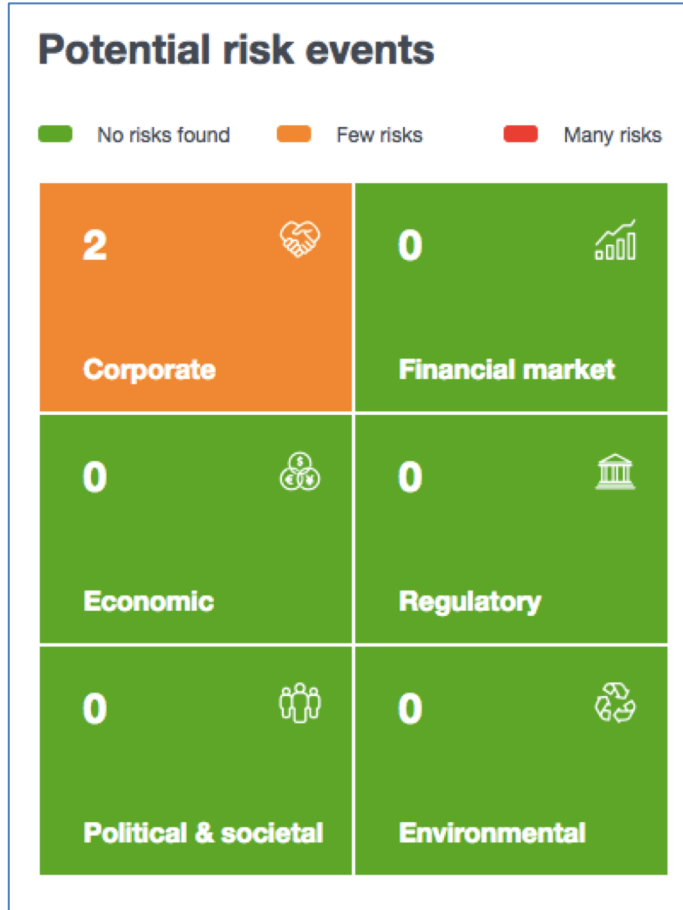
Identify topics early, monitor message perception / sentiment and act accordingly.



Crowd Monitor:

Find out in which **geographies** the influencers talk about your company and your peers.

Find out about **macro topics** within selected geographies.



Risk Monitor:

Find out about potential risk events and use early discovery & monitoring for your risk assessment.

Crowd Sentiment:

Crowd sentiment analytics

- Asset Allocation sentiment
- Topic Related sentiment
- Financials sentiment
- ESG performance sentiment



Thank you.