

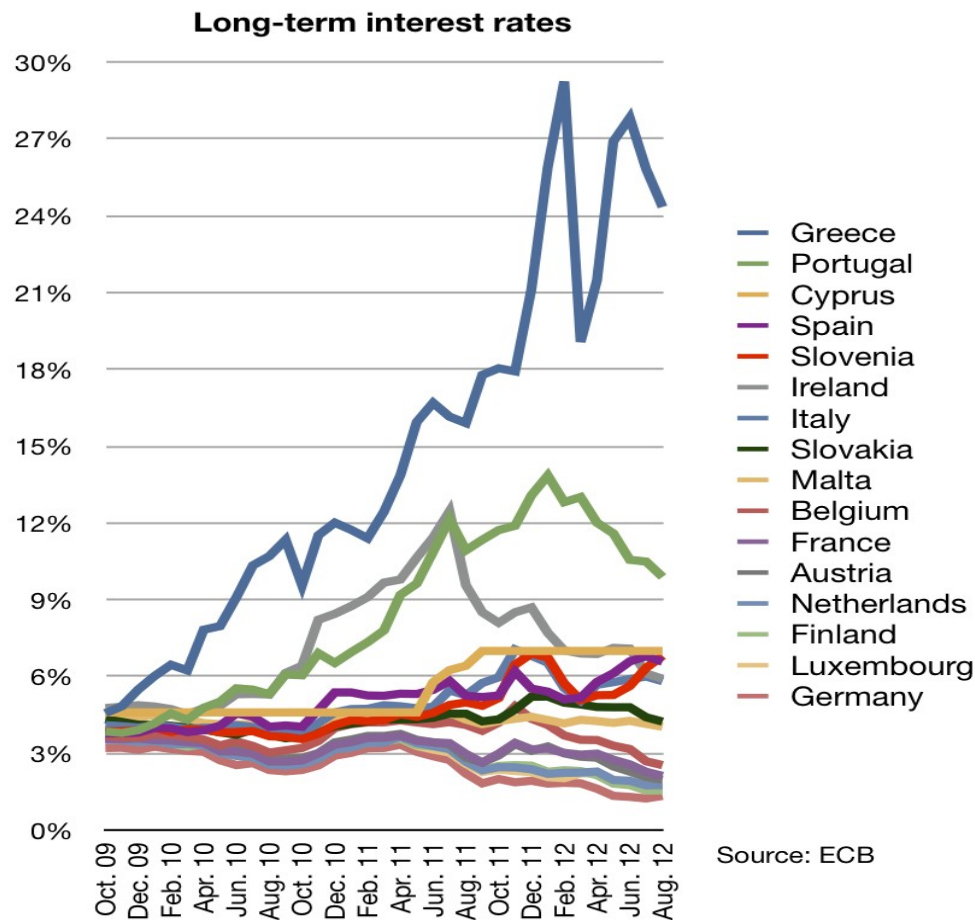
When the Financial Crisis hit in October 2008



"I THOUGHT WE WERE JUST BUYING A HOUSE!"

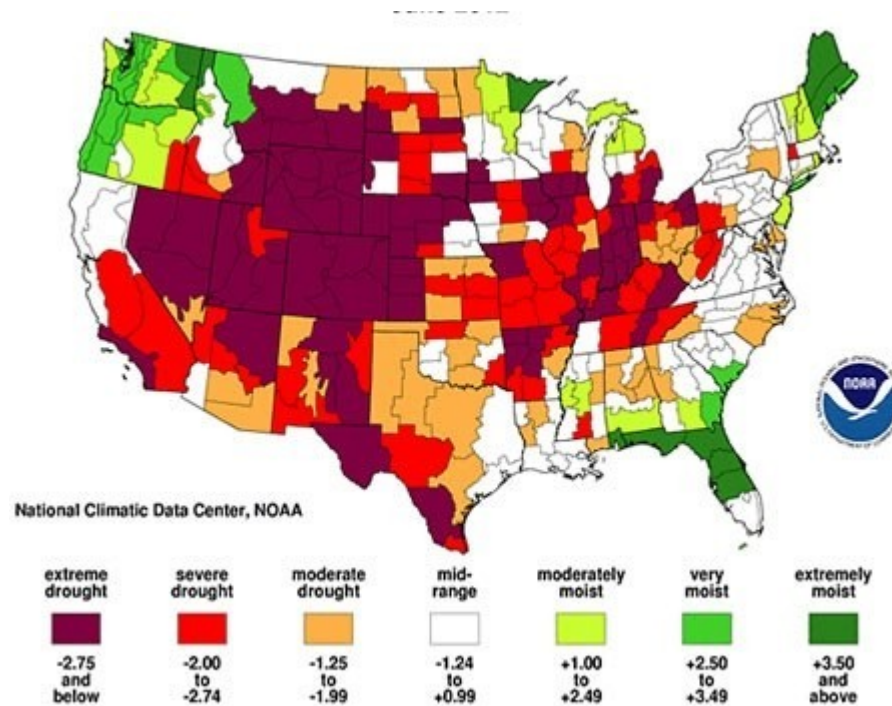
...why were its causes and effects a surprise?

When Greece couldn't make its debt payments in 2009



...Why didn't we foresee the impact on interest rates?

When 57% of American Farmland is ruined by Drought...



...How will that effect the global economy?

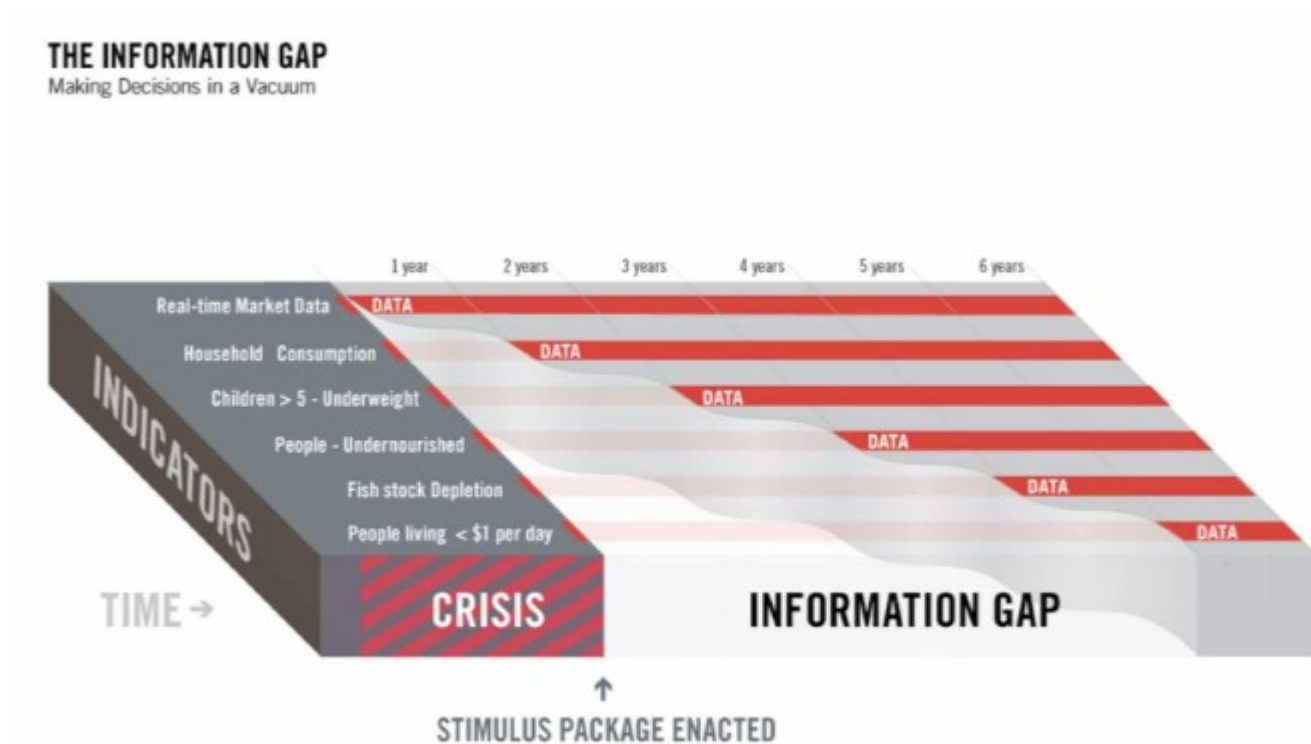
Making Predictions is Difficult...



...When we aren't paying attention to what's happening



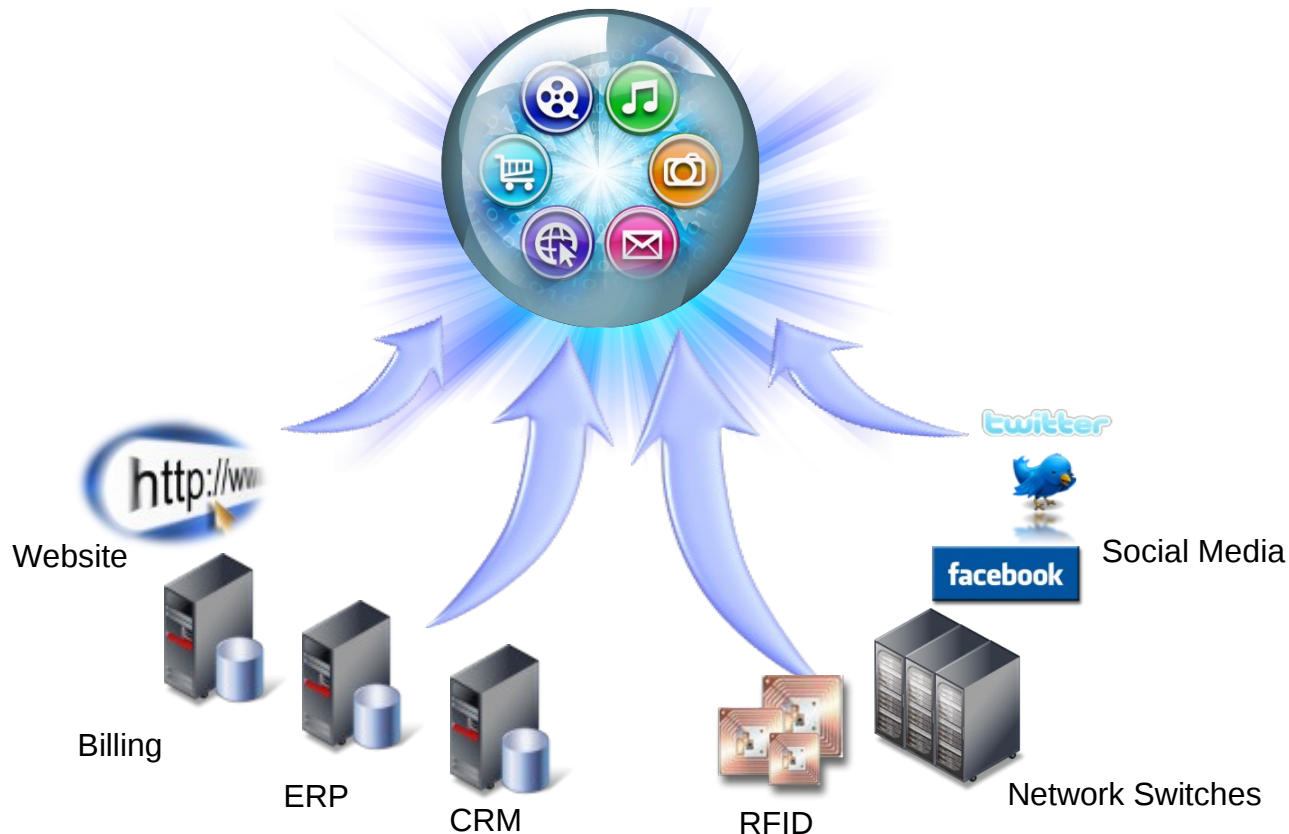
Even when we are paying attention



...there is a lag between event and information

Big data makes it possible to analyze ALL available data and eliminate latency and lags in understanding crises

Cost effectively manage and analyze all available data, in its native form – unstructured, structured, streaming



Example: A Massive Earthquake in Australia...



Perth

Gold Mine



Will have a ripple effect across South East Asia

In the old days, markets priced the effects...



Tri Hendri @trihendri

22h

EarthQuake Info: M 5.2, Swan Island, **Australia**: Thursday, May 03, 2012 18:08:06 UTC Thursday, May 03, 2012 12:08:...

on.doi.gov/KgMhQ9

[View location](#)



GoldMarketNews @GoldMarketNews

30 Apr

#gold #price Early sell shakes **gold** market - Sky News **Australia**
Early sell shakes **gold** market Sky News **Australia** Early sell s **#Asia**
#news

Expand



Hard Assets Investor @HAINvestor

28 Apr

Commodities Week In Review: NatGas Surges 12%, Soybeans
Spike To 4-Yr High, **Gold** Nears Key Resistance \$SLV \$USO
\$CORN hardassetsinvestor.com/weekly-commodi...

Expand

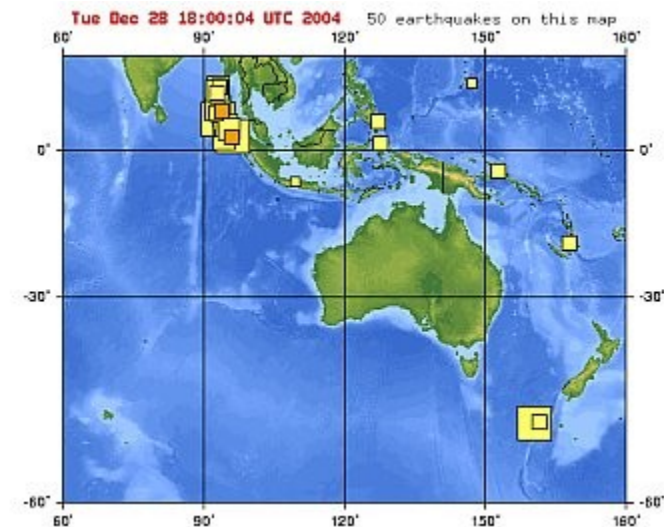


Shailesh Kumar @arohan

2 May

Banks Halt Lending to Dry-Bulk **Shipping** Companies, **Genco** Says -
Bloomberg ow.ly/aEaAa

Expand



But Today, you use Big Data to monitor the impact

Combining Satellite Images

We can know:

- where every ship is in port and en route
- What they carry, and their destination
- Speed and Course
- Maintenance Record and Personnel
- Buyers and Sellers
- Logistical Supply Chain
- Industrial Dependencies
- Markets and Makers



...with logistics data

Using Local Reporting of damage

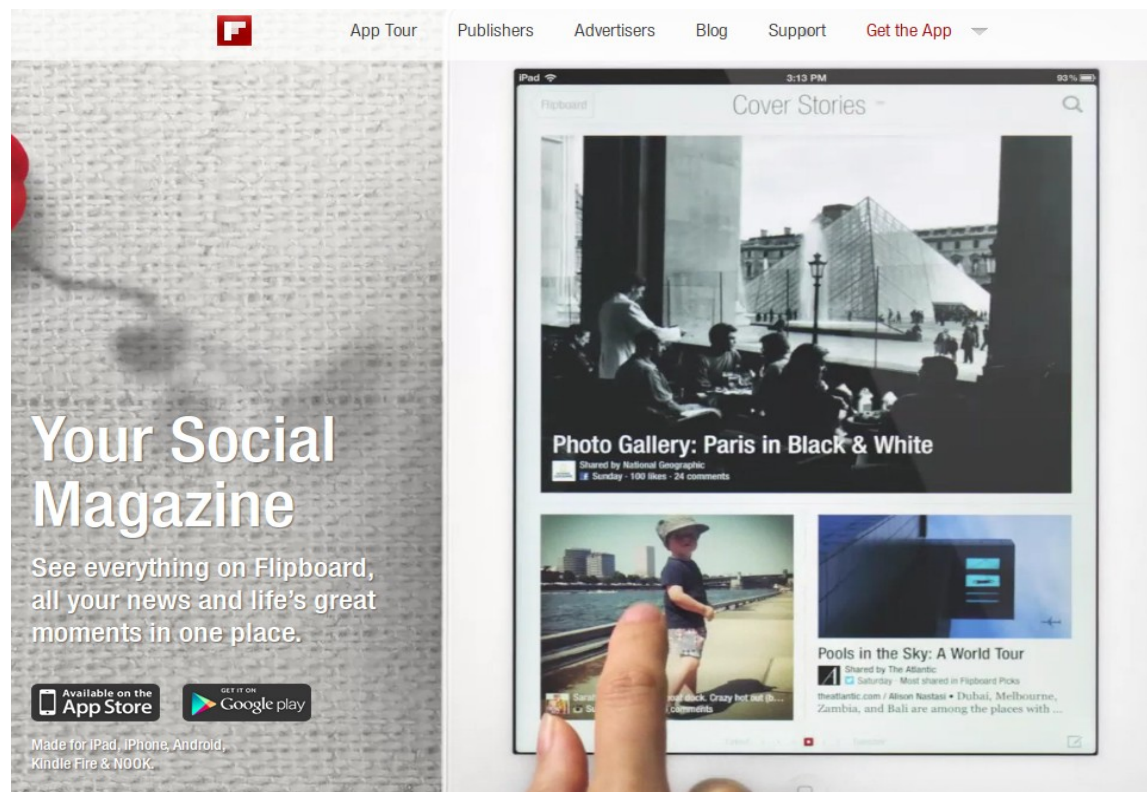
Smartphone Images
Uploaded with geotags
Image recognition of
Damaged facilities
Compared to port data on
Goods volume per day



...and historical data we can assess economic impact

Meanwhile Employees scour media reports

Each report is a lead that a search engine uses to find more of the same. Employees comment on the reports adding experience and interpretation. In real time, you build rich understanding of what's happening.



...and post articles that are indexed and researched

They attend meetings and conferences

Their metadata allows you to
 Perform federated search
 On the meeting or conference
 They attended and index the larger
 Contextual information to magnify
 Their experience and provide
 Richer context.

OPTIMUM INVESTMENTS | Logged in as Frank Gelato | Help

Followed High Net Wealth Clients

- Isabella Jones
- Thomas Jackson
- Theresa Mayer
- Michael Kleinfelder

Tracked Products

- 529 Plan
- 401K
- Money Market IRA
- Fixed Income & Bonds

Financial Blogs

- CNBC: Warren Buffett: 'Disruptive' Debt Limit Debates Are 'Waste of...'
- CNBC: CNBC Transcript: Warren Buffett on Russian Roulette, Tax...
- BLOOMBERG: Munger Treats 'Hard-Core Addicts' as Wesco Stock Exits...

Investment News

- Texas Gains New Billion Dollar Bank Business Wire - 35 minutes ago
- Ally Financial Reports Preliminary Second Quarter 2011 Financial Results PR Newswire - 54 minutes ago
- Pinnacle West Reports Second-Quarter Results TheStreet.com - 55 minutes ago

Action Needed

Sentiment	Customer	Type	Format	Time	Product
Negative	Isabella Jones	Support	Tweet	05.29.12 10:30 am EST	Mutual funds
Neutral	Thomas Jackson	Support	Support ticket - email	05.29.12 10:25 am EST	401K
Positive	Isabella Jones	Sales	Tweet	05.29.12 10:05 am EST	529
Negative	Theresa Mayer	Satisfaction	Blog	05.29.12 09:30 am EST	401K

Activity Feed

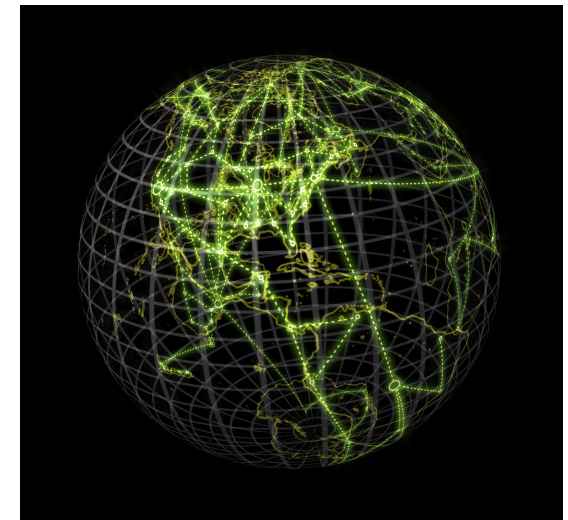
- Isabella Jones - @lzyJones: Wow is the stock market really this bad, my monthly mutual fund statement looks terrible! Time to call my financial advisor. (Twitter - Minutes ago)
- Theresa Mayer - t.mayer@gmail.com: Great advice on retirement planning! Thinking about increasing my 401K contribution but are there other retirement plans I should be looking at given I hope to retire in 10-15 yrs? (Blog - Minutes ago)
- Thomas Jackson: How can I change my 401K contribution using your online system? (Remedy - Minutes ago)

Sentiment

Sentiment By Age:

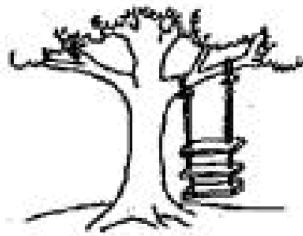
...and send photos, ideas, and updates

This vision combines data from human and computer

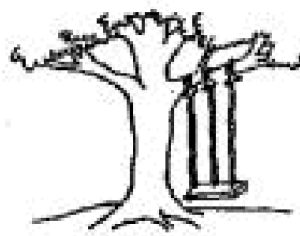


...Sensors with Big Data Actuators

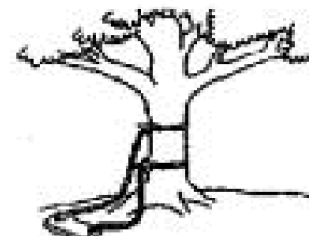
Every day we are confronted with crises big and small



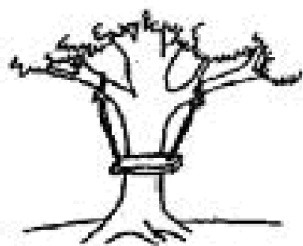
**As proposed
by the project
sponsor.**



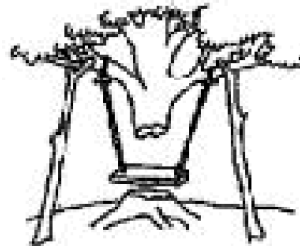
**As specified
in the project
request.**



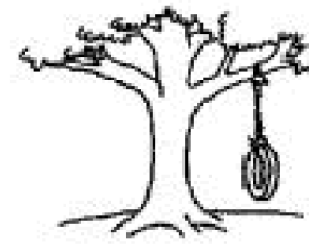
**As designed
by the senior
architect.**



**As produced
by the
engineers.**



**As installed at
the user's
site.**



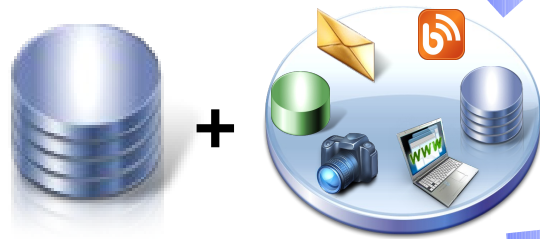
**What the
customer
really wanted.**

...that we want to master with information

Big Data is the way to master our information

1. Business and IT Identify

information sources available.



2. IT Delivers Platform

that enables creative exploration of all available data and content.



4. New insights drive
integration with
traditional technology.



3. **Business explores data
and relationships** creating
and testing hypotheses.

...and turn challenges into opportunities



KTH Swedish Royal Institute of Technology Reducing Traffic Congestion

Capabilities Utilized:

Stream Computing

- Deployed real-time Smarter Traffic system to predict and improve traffic flow.
- Analyzes streaming real-time data gathered from cameras at entry/exit to city, GPS data from taxis and trucks, and weather information.
- Predicts best time and method to travel such as when to leave to catch a flight at the airport

Significant benefits:

- Enables ability to analyze and predict traffic faster and more accurately than ever before
- Provides new insight into mechanisms that affect a complex traffic system
- Smarter, more efficient, and more environmentally friendly traffic





Vestas optimizes capital investments

Capabilities:

Hadoop System

Data Warehousing

- Model the weather to optimize placement of turbines, maximizing power generation and longevity.
- **3 weeks to 3hrs.**
Reduce time required to identify placement of turbine from weeks to hours.
- **2.5 PB of structured and semi-structured data.**
Growing to 16PB 2015

Vestas

Session #3 Agenda

1. Annika Bränström, Director General Bolagsverket - Swedish Companies Registration Office, Sweden
E-Government Practices and Future Direction in Sweden
2. Latif Ladid, President IPv6 Forum; Senior Researcher University of Luxemburg, Luxemburg
Governments Enabled with IPv6
3. Samia Melhem, Lead ICT Policy Specialist, Chair eDevelopment Group World Bank
Open Data and Big Data at the World Bank
4. Eikazu NIWANO, Producer Research and Development Planning Department, NTT Corporation, Japan
E-government Vision
5. Pascal poitevin, Head of Department, Secretary Committee Strategy of Information Systems, Institut de l'Elevage, france
Livestock and Big data
6. Alan R. Shark, Executive Director, Public Technology Institute – PTI, USA
The “Big” Factor in Data, Civic Media: New Patterns of Governance
7. Anja Wyden Guelpa Chancellor of State of geneva, switzerland
Transformation Model: When a New Front End forces Back Office Changes