# Enabling Intelligent Action





## From carbon to diamonds: Business cases of data value

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### Outline



Abundance of Data and its value

Enabling intelligent action in:

- Security
- Health
- Finance

Challenges of the new paradigm

3 Simple rules



### Who we are



Software house established in 1989

Enterprise software for banking, telecoms, hospitality

130+ people







### <u>Vision</u>

transform the costly and complex enterprise software industry – making it simple, accessible and exciting

### Innovation at EXUS



Continuous improvement

4 Islands of Excellence



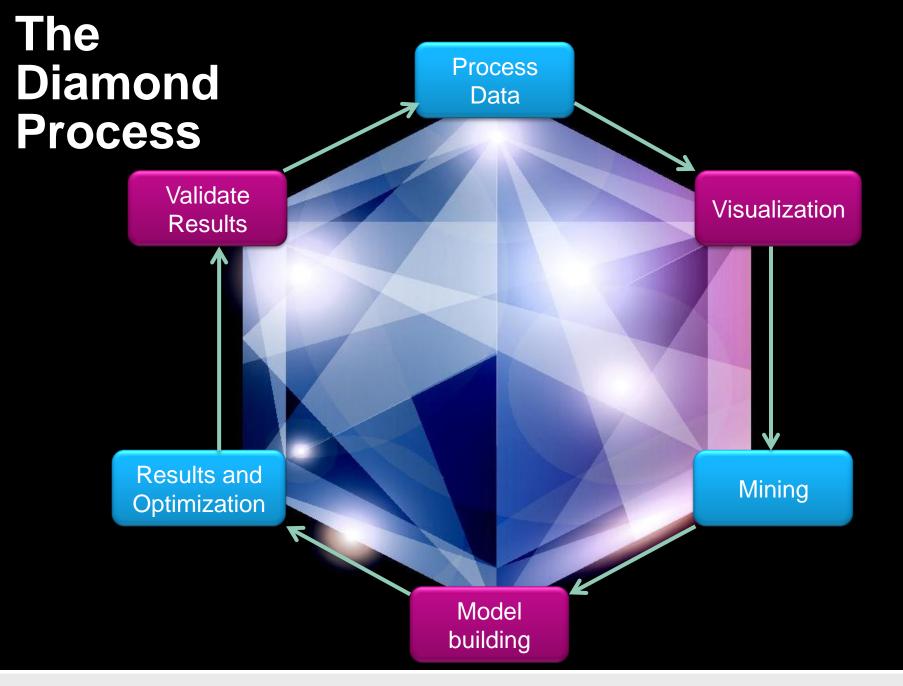
Provide new paths for product and business development













### Extracting value "hidden" in Data

- 1. Process and filter data
  - ensure data matches business goals
- 2. Visualization
  - use visual aids to identify relationships and build hypotheses
- 3. Mining identifying patterns
  - Leverage data predictively
  - Find clusters
  - Gain insight





### Extracting value "hidden" in Data

- 4. Creating models
  - different perspectives of data
  - decision trees, neural networks, etc.
- 5. Results optimization
  - establish functions to produce actionable results
  - select appropriate method (think variables, functions)
- 6. Validate results
  - Give time to assess results vs. business decisions



### Applications in Healthcare



Personalized Healthcare

Fact: Healthcare costs key cost-driver in an aging EU

### **Changes:**

- > Digitized medical records
- > Transparency and openness of data

### **Opportunity:**

- > Leverage data to build next-gen. health services
- > Achieve economies of scale
- > Limit variability in healthcare quality
- > New paths to innovation and growth





### Personalized Healthcare

Opportunities for Innovation

Health claims and costs

Datasets: Cost estimates,
resource utilization

Clinical Data

Datasets: electronic medical
records

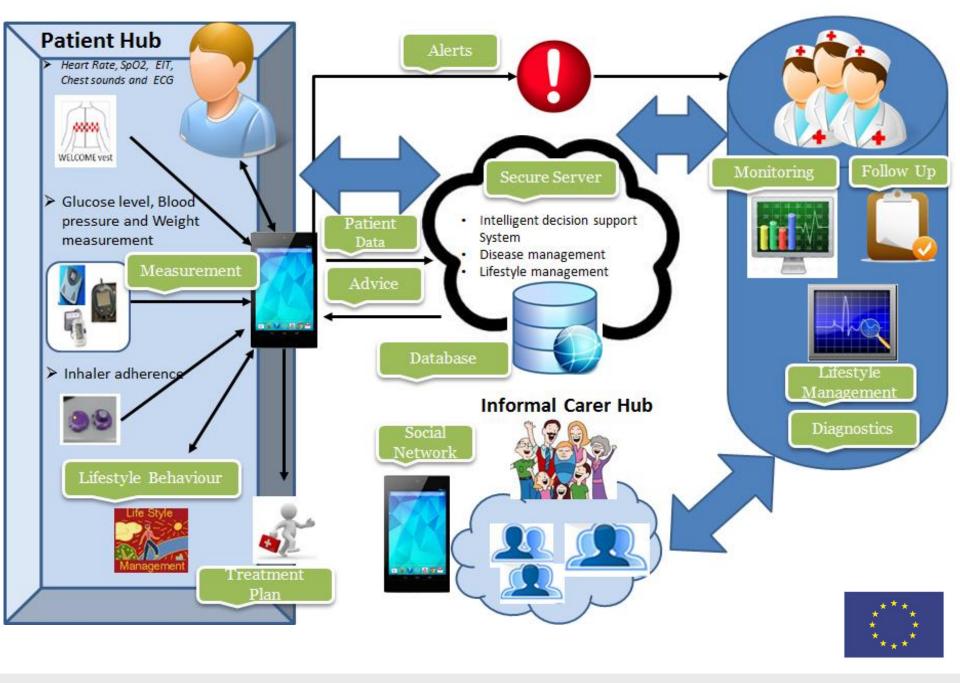
Medical/ Pharma R&D Data

Datasets: Clinical trials, libraries

Patient behavior

Datasets: patients preferences,
exercise data







### Applications in Security



### Secure Societies

### Goals:

- > Enhance the security of citizens
- > Safeguard Europe's Cis

### Facts:

- > Operations and procedures are data-centric
- > "Need to know" Who, What, When, Where
- > Public Protection and Disaster Relief operations become data-intensive
- > Diverse sources of information



# **VARIETY**

### From Carbon to Diamonds

### Secure Societies

### **VOLUME**

### **Legacy Infrastructure**

**Datasets:** monitoring systems, CCTV, Hyper-spectral, Wireless Sensors, Simulators

### **Adhoc Systems**

**Datasets:** Satellite imagery, positioning, UAVs, UGVs

Big Data

### Wearable/Portable

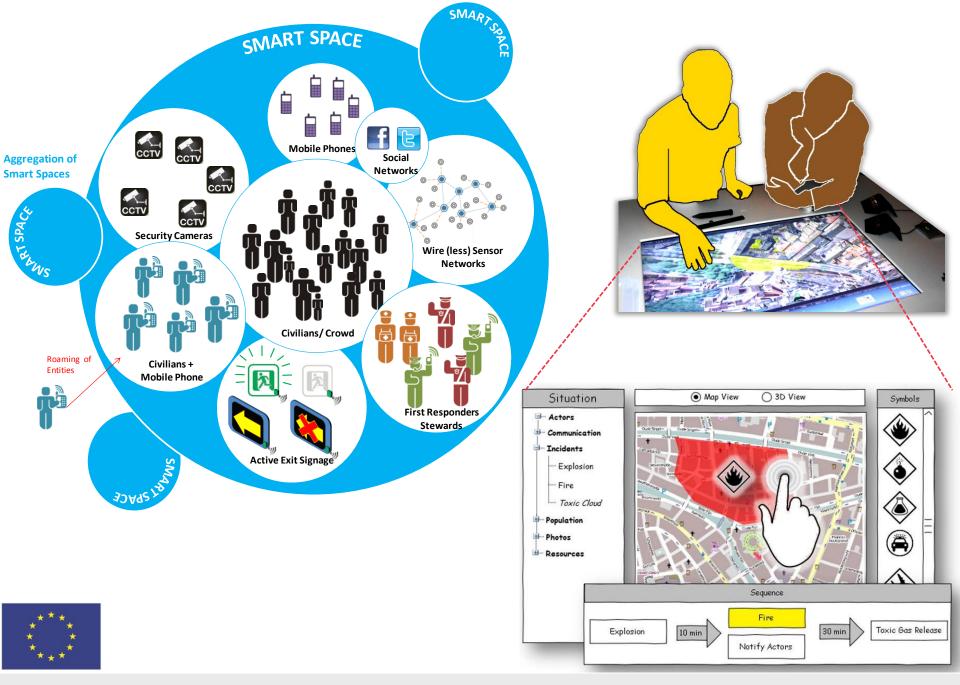
**Datasets:** First responder operation, police forces, medical crews

### **Crowd-sourced content**

Datasets: Free text, pictures, sounds, videos, location

### **VERACITY**





### Applications in the Financial Sector



Financial Services

Fact: Advances in mobile Internet and cloud services

### **Changes:**

> Financial institutions are rethinking the way they do business

### **Opportunity:**

- > Ability to perform scalable data analytics
- > Customer data monetization
- > New products and services



### Financial Services

Customer data monetization

Centricity
Risk Analysis
Retention

**Transactions & Operations** 

New products and Services

Trading and analytics

Organizational Intelligence

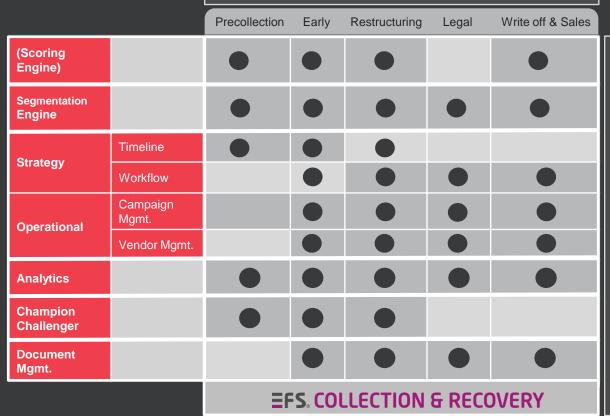
**Risk management and Regulations** 

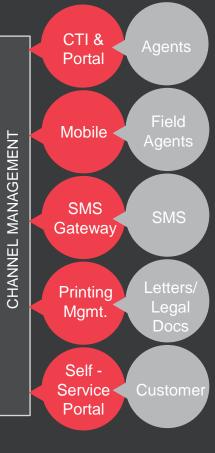
Enterprise risk
Capture unstructured data sources
Efficient regulatory response

# **Enterprise Banking**



Retail Portfolio Corporate Portfolio





**INTEGRATION LAYER** 

### Challenges of the new paradigm

Establish an "information culture":

- What data do we really need?
- Validity and trustworthiness of data
- Ethics, security and privacy
- > What are the competences needed?
- > Integration with organizational processes

### 3 Simple Rules

Abundance of data becomes an opportunity for your organization when you:

- Ensure data-sets' quality and blend
- > Get the right expertise i.e. Data Scientists
- > Enforce strict operations and governance



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