Finding Opportunity in Chaos

Chris Howard – GMU Software Technical Leader - Big Data

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Drivers

The Big Data Conundrum
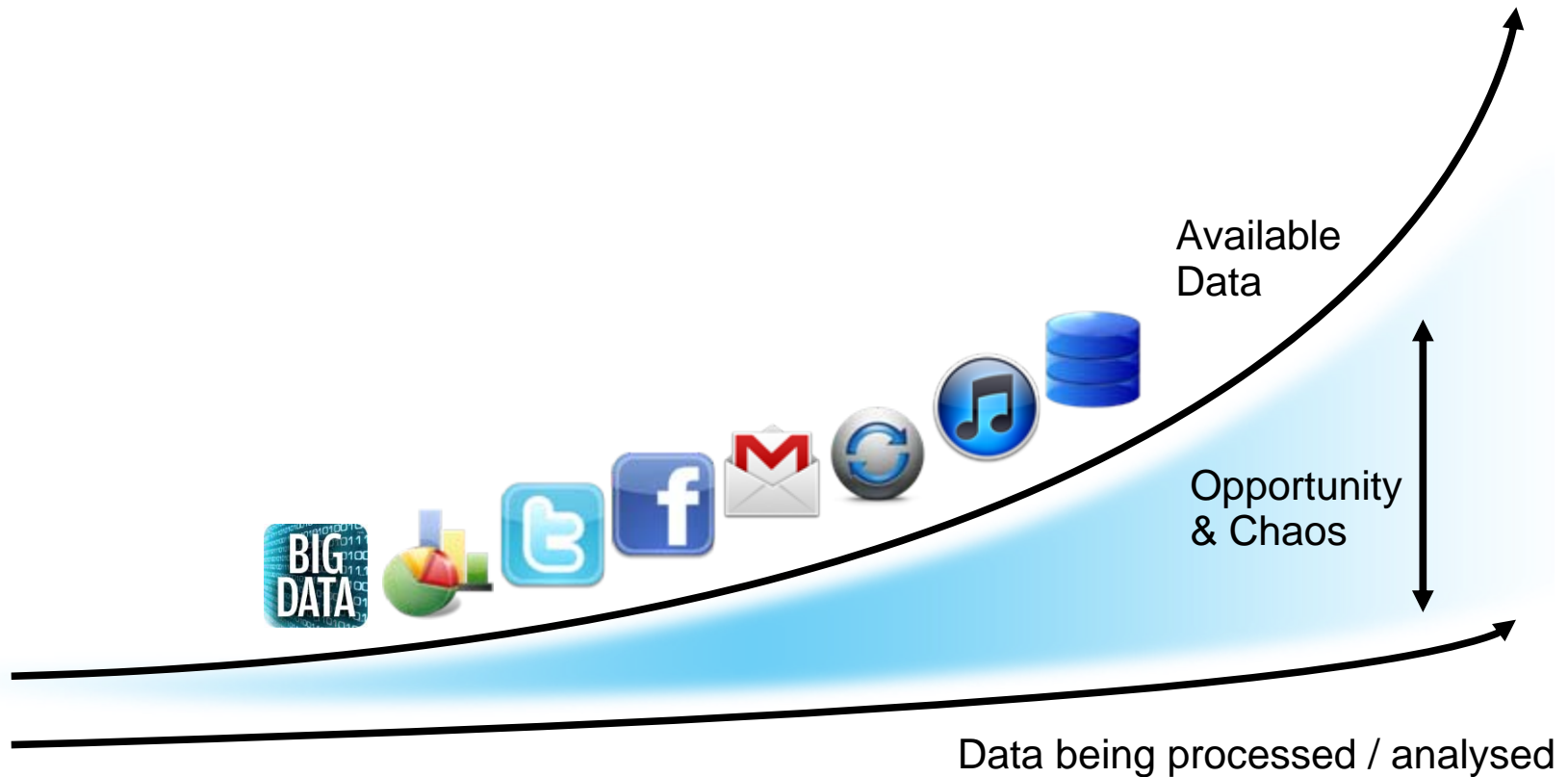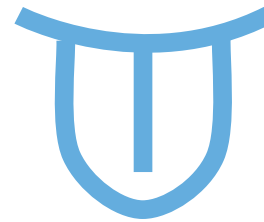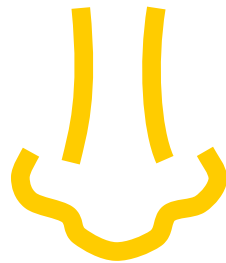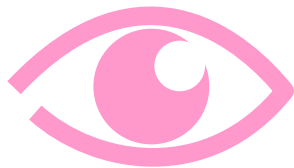
Available Data

Opportunity & Chaos

Data being processed / analysed

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80% of organized data is unstructured
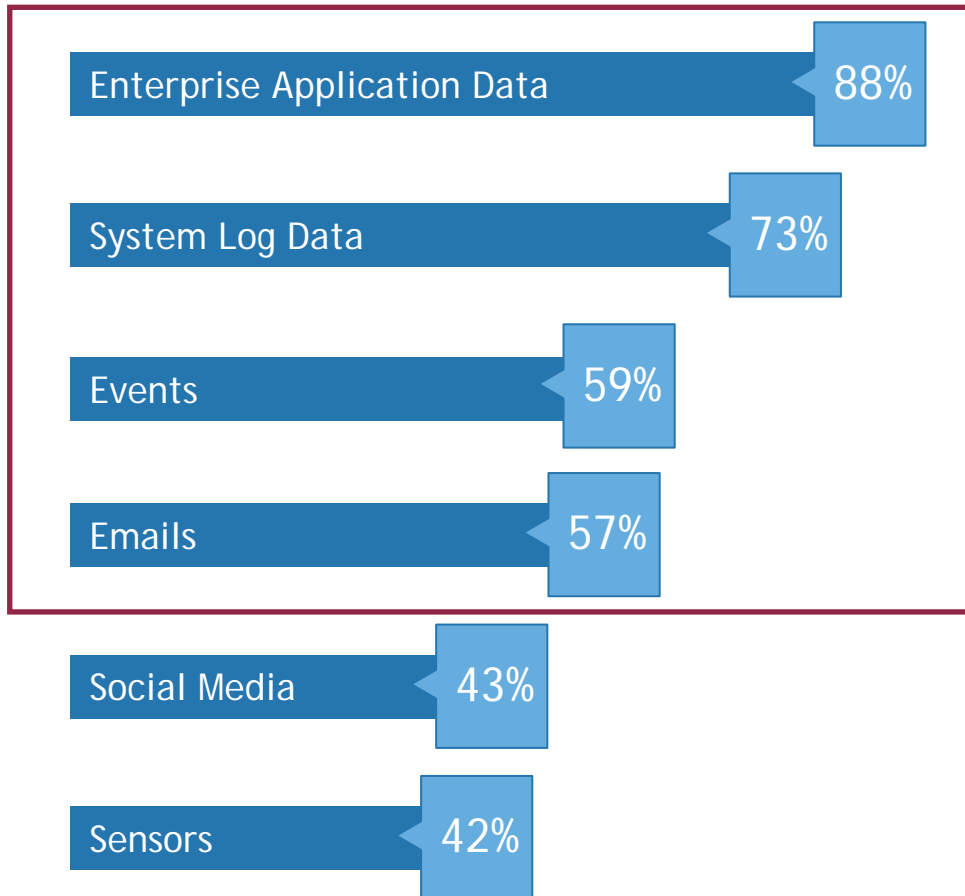
Misconceptions About Big Data

- "Big data is primarily about large datasets"

- "We will have to replace all older systems in the new world of big data"

- "Big data is only Hadoop or open source"

- "Data warehouses are a thing of the past"

- "We do not have the need or budget or skills, so we do not need to worry"

- "Big data requires I must get lots of data scientists coding"

- "Big data is all about unstructured data like video, images and social media"

- "Older transactional data does not matter anymore"

Big Data Now – Focus on Internal Sources
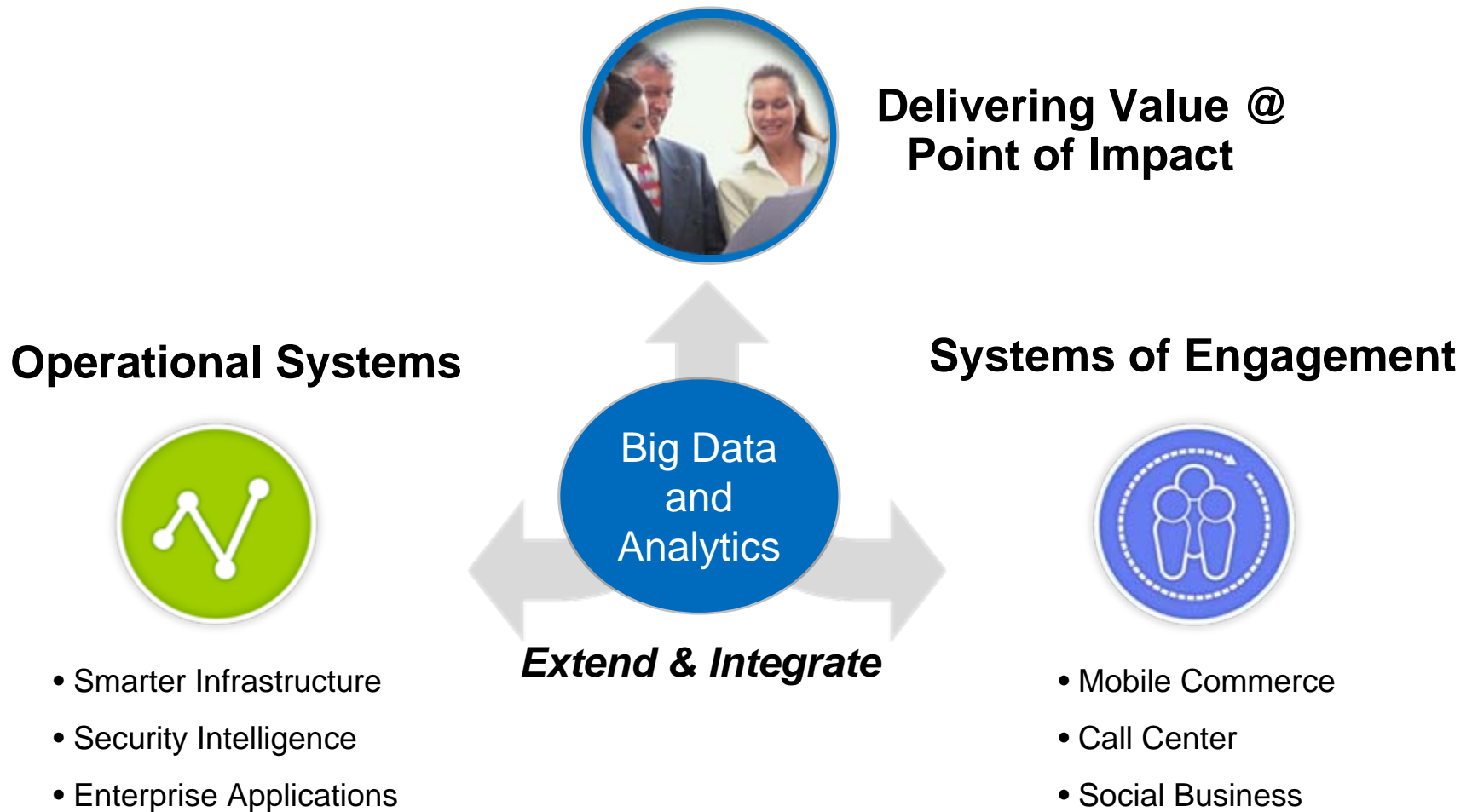

Source	Percentage
Enterprise Application Data	88%
System Log Data	73%
Events	59%
Emails	57%
Social Media	43%
Sensors	42%

IBV Study on Big Data 2012 – Sources of Big Data

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Industry Leaders are Leveraging Big Data to Identify Opportunity in their Data Chaos

Delivering Value @ Point of Impact

Operational Systems

Systems of Engagement

Big Data and Analytics

Extend & Integrate

- Smarter Infrastructure
- Security Intelligence
- Enterprise Applications

- Mobile Commerce
- Call Center
- Social Business

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Customer Centric Outcomes

Influence, Intervene &
Drive Desired Outcomes

Insights
Predict & Act
Sense & Respond

Interactions
Face to Face, Direct Voice, Self Service

Analyze &
Derive
- Behaviour
- Segmentation

Information
Pervasive & Quick Access to Trusted Data

Capture &
Notice in Real-time

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Operational Analysis

Every Industry Can Leverage Big Data

IBM

Banking
- Optimize Offers and Cross Sell
- Contact Center Efficiency and Problem Resolution
- Payment Fraud Detection & Investigation
- Counterparty Credit Risk Management

Insurance
- Claims Fraud
- Next Best Action
- Catastrophe Modeling

Telco
- Pro-active Call Center
- Network Analytics
- Location Based Services
- IT/Network Infrastructure Transformation
- Smarter Campaigns

Energy & Utilities
- Smart Meter Analytics
- Distribution Load Forecasting/Scheduling
- Condition Based Maintenance
- Create & Target Customer Offerings

Media & Entertainment
- Business process transformation
- Audience & Marketing Optimization
- Multi-Channel Enablement
- Digital commerce optimization

Retail
- Actionable Customer Insight
- Merchandise Optimization Playbook
- Dynamic Pricing

Travel & Transport
- Customer Analytics & Loyalty Marketing
- Capacity & Pricing Optimization
- Predictive Maintenance Analytics

Consumer Products
- Optimized Promotions Effectiveness
- Micro-Market Campaign Management
- Real Time Demand Forecast

Government
- Threat Prediction and Prevention
- Detect and Prevent Improper Payments
- Single View

Healthcare
- Measure & Act on Population Health
- Engage Consumers in their Healthcare
- Increase visibility into drug safety and effectiveness

Automotive
- Data Warehouse Optimization
- Predictive Asset Optimization (PAO)
- Actionable Customer Intelligence

Chemical & Petroleum
- EDW Smart Consolidation & Augmentation
- Operational Surveillance, Analysis & Optimization
- Engineering & Operational Data Exploration & Mining

Aerospace & Defense
- Uniform Information Access Platform
- Data Warehouse Optimization
- Predictive Asset Optimization (PAO)

Electronics / Industrial Products
- Channel Driven Customer Analytics (CDCA)
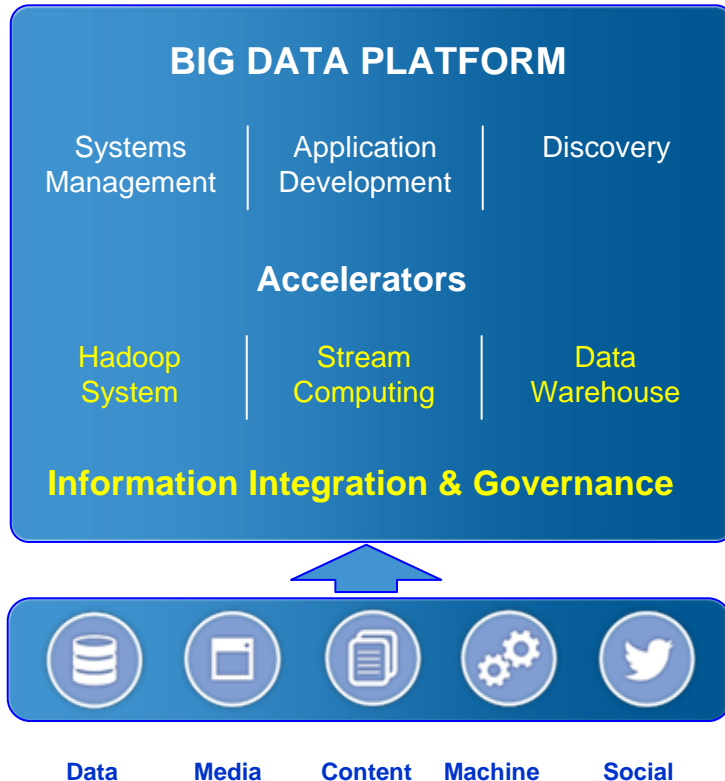- Predictive Asset Monitoring & Optimization (PAMO)

Life Sciences
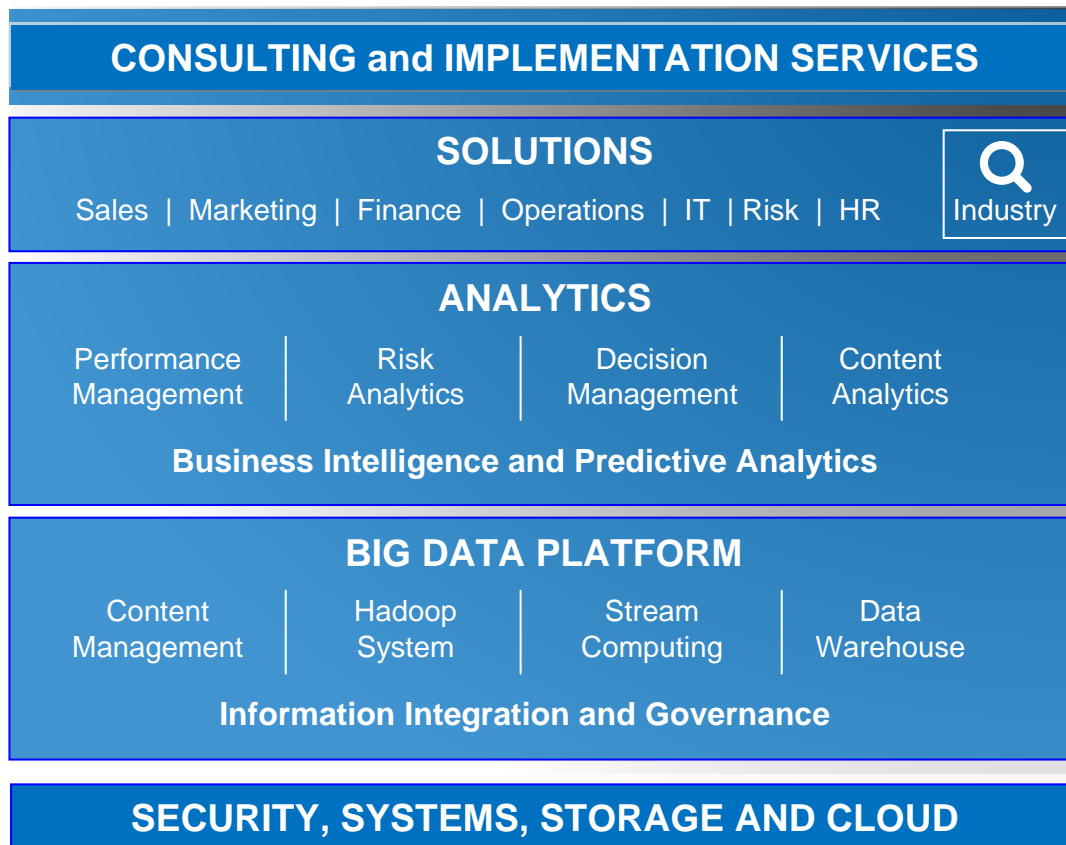- Increase visibility into drug safety and effectiveness

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IBM's Big Data Platform

BIG DATA PLATFORM

Systems Management	Application Development	Discovery

Accelerators

Hadoop System	Stream Computing	Data Warehouse

Information Integration & Governance

Data   **Media**   **Content**   **Machine**   **Social**

- Blends traditional technologies with big data innovations to deliver the industry's only big data platform with:
  - Enterprise-class Hadoop
  - Unique stream computing solution
  - Integrated with 200+ embedded analytics
  - Exploration and discovery
  - Accelerators with deep expertise
  - Broadest information integration and governance portfolio
  - Deep integration with business analytics and enterprise content management
  - Available in multiple form factors

- Why a Platform?
  - Most big data use cases require a combination of technologies

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Big Data Platform is an essential component of the broader IBM Big Data and Analytics Strategy

IBM

CONSULTING and IMPLEMENTATION SERVICES

SOLUTIONS

Sales | Marketing | Finance | Operations | IT | Risk | HR

Industry

ANALYTICS

| Performance Management | Risk Analytics | Decision Management | Content Analytics |

Business Intelligence and Predictive Analytics

BIG DATA PLATFORM

| Content Management | Hadoop System | Stream Computing | Data Warehouse |

Information Integration and Governance

SECURITY, SYSTEMS, STORAGE AND CLOUD

Enabling organizations to

- Assemble and combine relevant mix of information

- Discover and explore with smart visualizations

- Analyze, predict and automate for more accurate answers

- Take action and automate processes

- Optimize analytical performance and IT costs

- Manage, govern and secure information

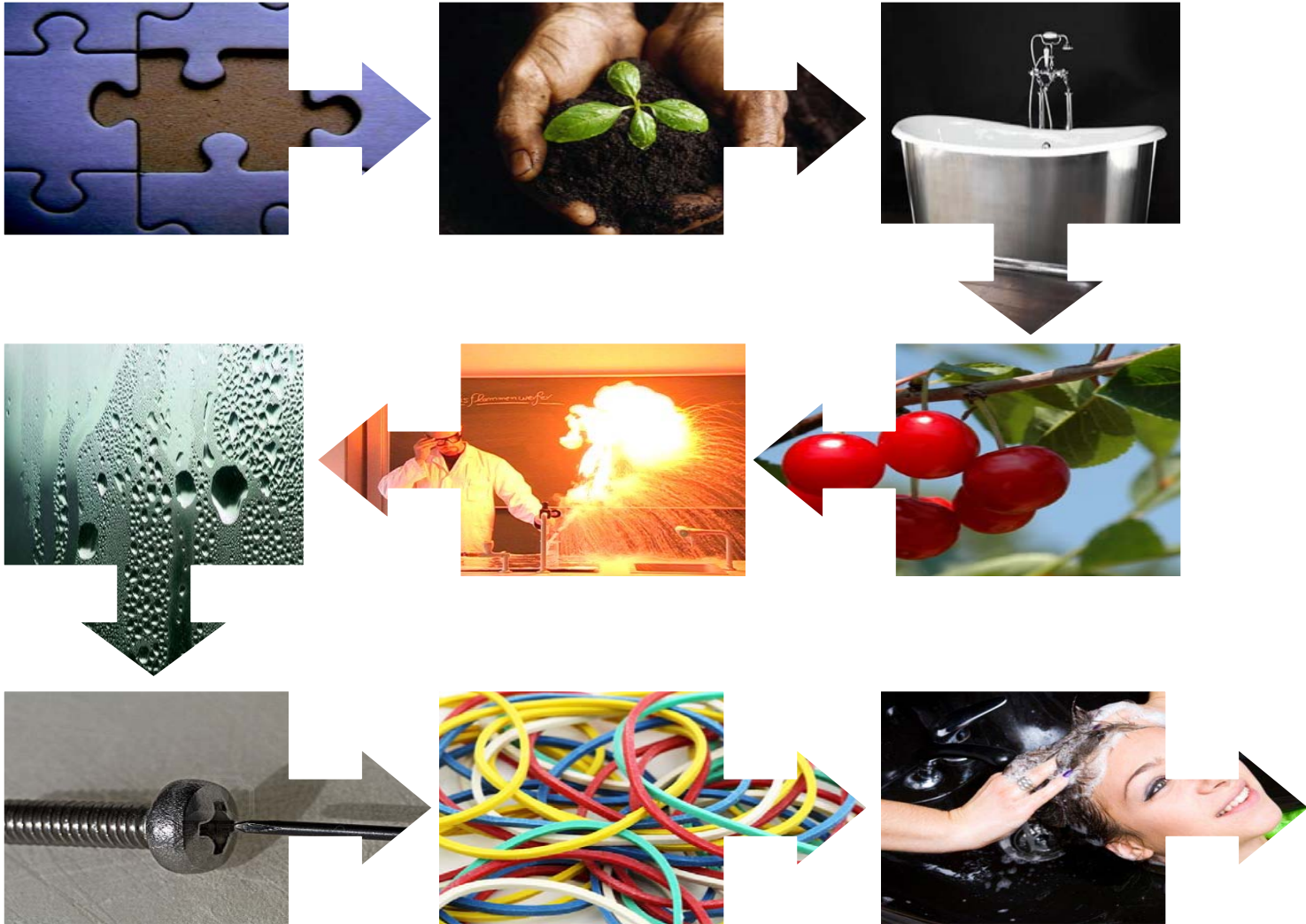- Reduced infrastructure complexity and cost

To Summarise

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Thank You

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