

The OSIsoft logo, featuring the word "OSI" in a bold, white, sans-serif font, followed by "soft" in a lighter, white, sans-serif font, and a registered trademark symbol (®) to the upper right.

OSIsoft®

USERS CONFERENCE 2016

April 4-8, 2016 | San Francisco

TRANSFORM
YOUR WORLD

Operational and Logistics Intelligence: The Future is NOW!



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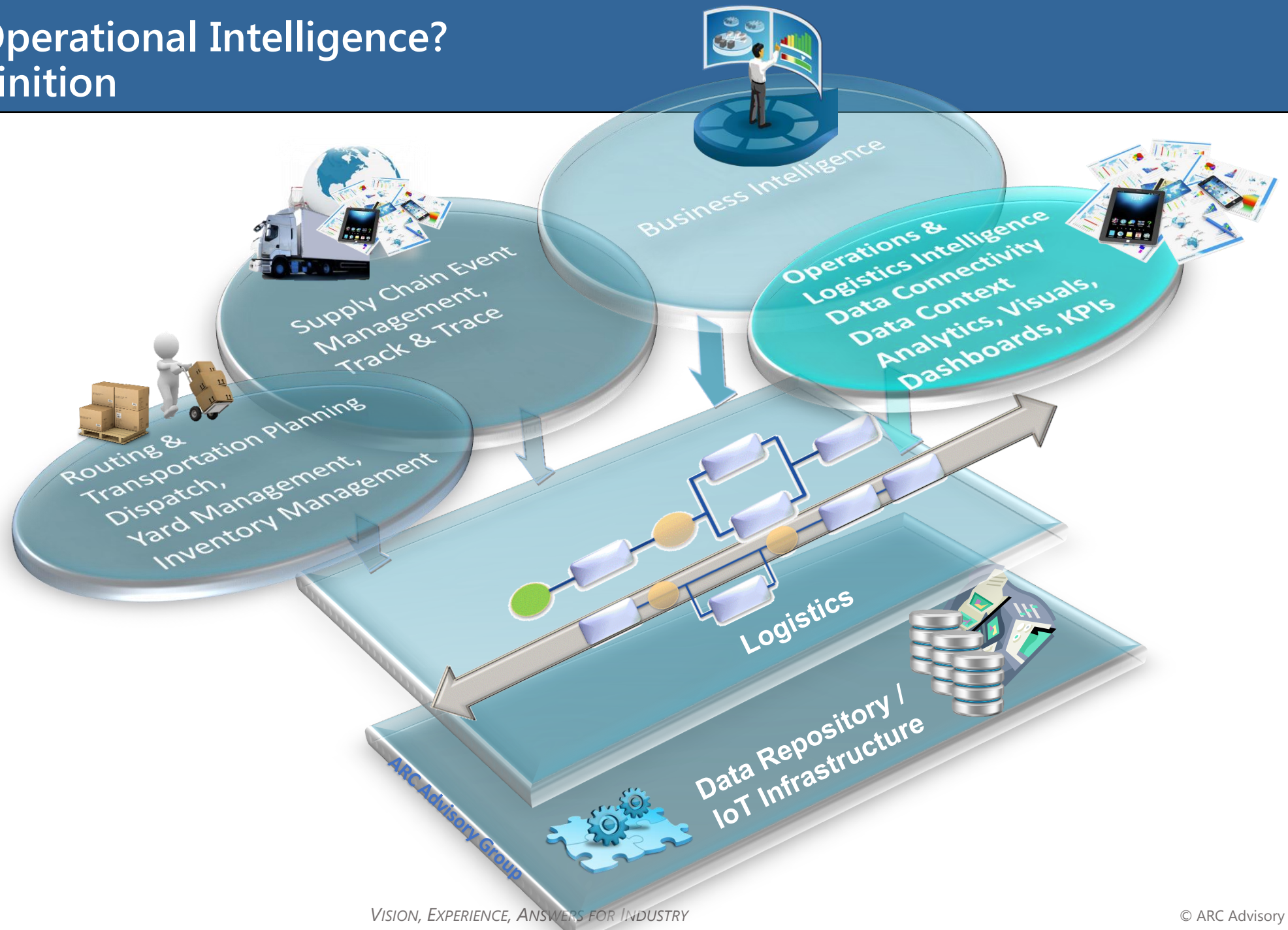
Agenda

- Operations & Logistics Intelligence
- Definition
- Drivers and Benefits
- Survey Results
- What's Important



What is Operational Intelligence?

ARCs Definition



Operations Intelligence includes....



Data
integration &
aggregation



Data context
/ modeling



Data quality
management



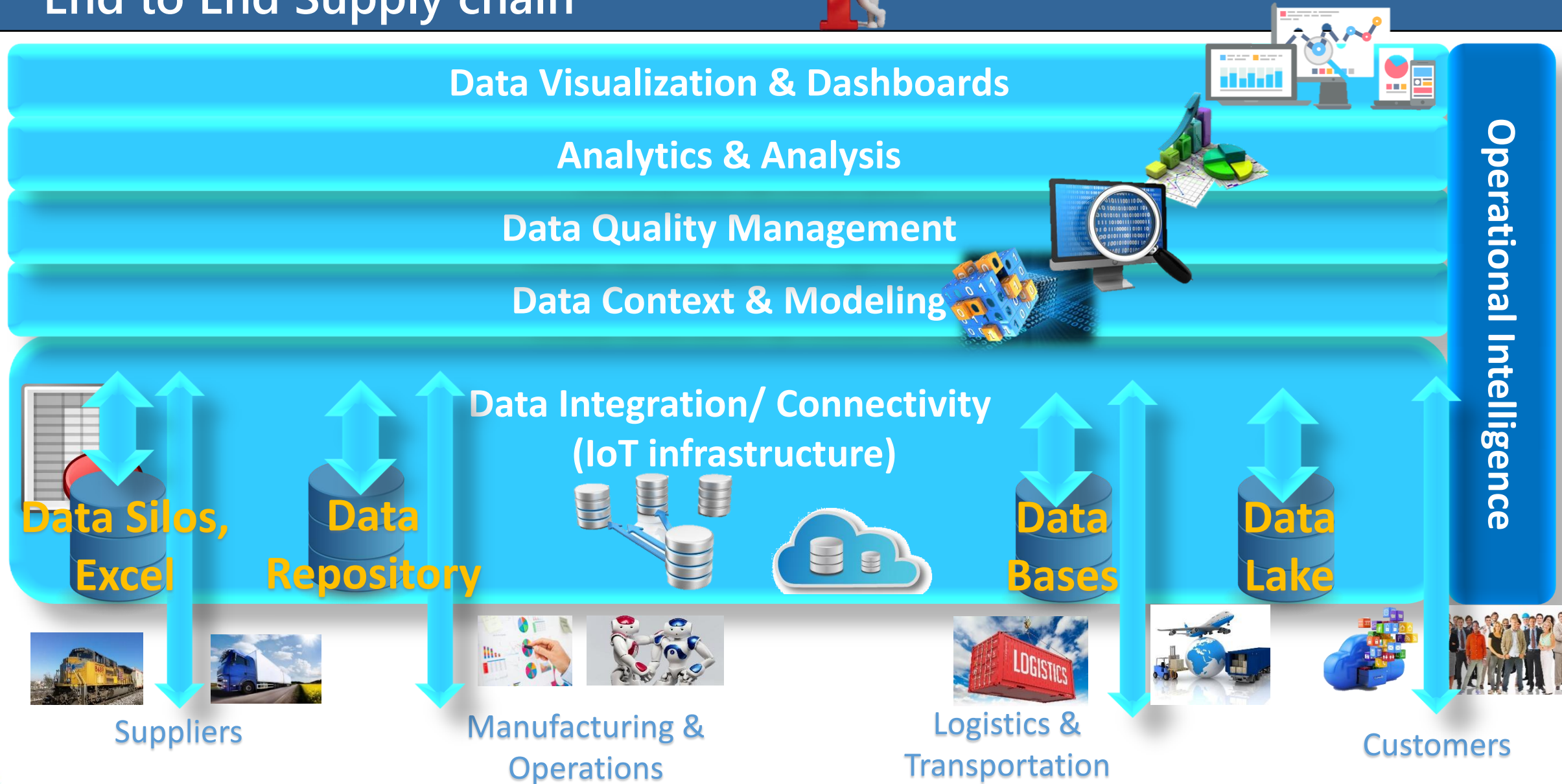
Analytics &
Analysis



Visualization/
Dashboards/
Reports

Operational Intelligence

Operational Intelligence End to End Supply chain

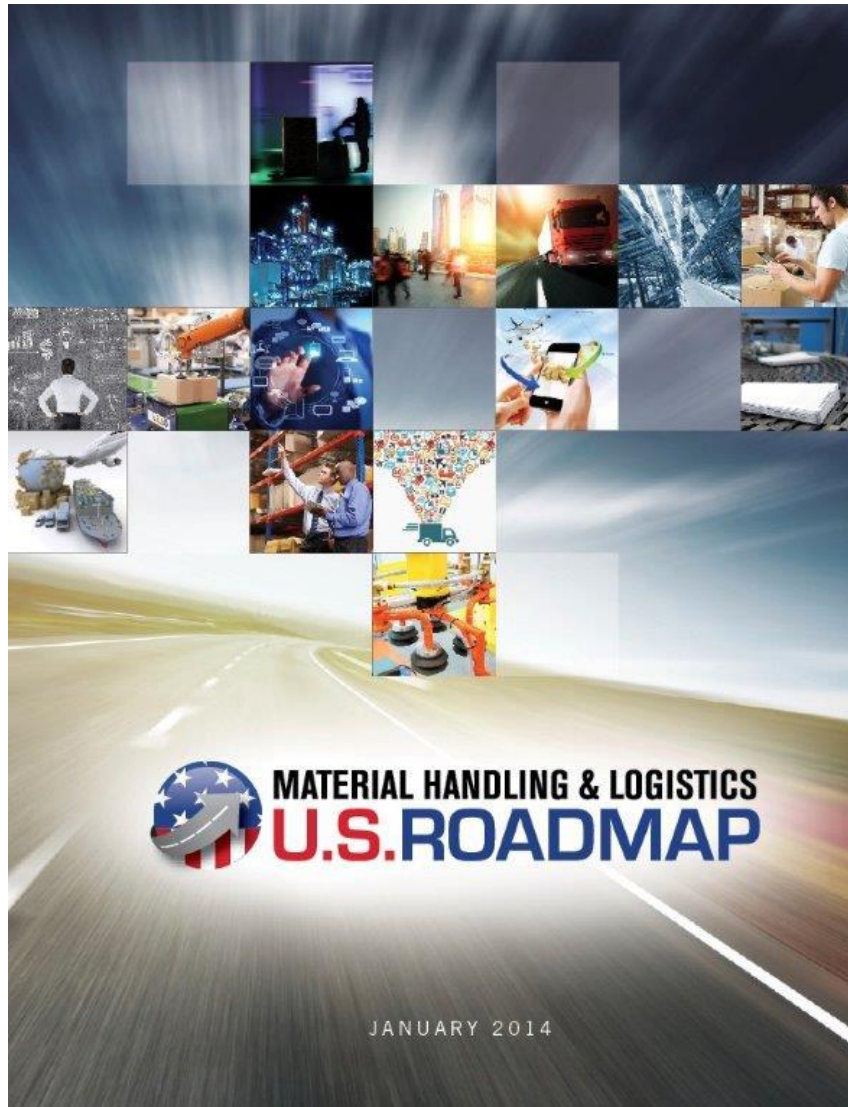


Enterprise Data

Top Challenge = Integration of MANY Data Sources



Material Handling & Logistics U.S. Roadmap by MHI



“Projects out to 2025 how the industry will need to adapt its technology, practices, and workforce to keep pace with the demands of change...”

The Megatrends

- The Growth of E-Commerce
- Relentless Competition
- Mass Personalization
- Urbanization
- Sustainability
- The Changing Workforce
- Mobile and Wearable Computing
- Robotics and Automation
- Sensors and the Internet of Things
- **Big Data** and Predictive Analytics



The Megatrends



Sensors & Industrial
IoT



Relentless
Competition



Robots & Robotics



Urbanization



Sustainability



Changing Workforce

ARC Trends

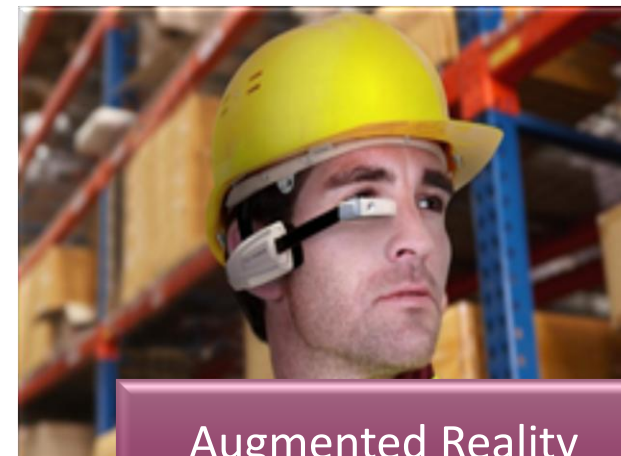
Mobile and Wearable Computing



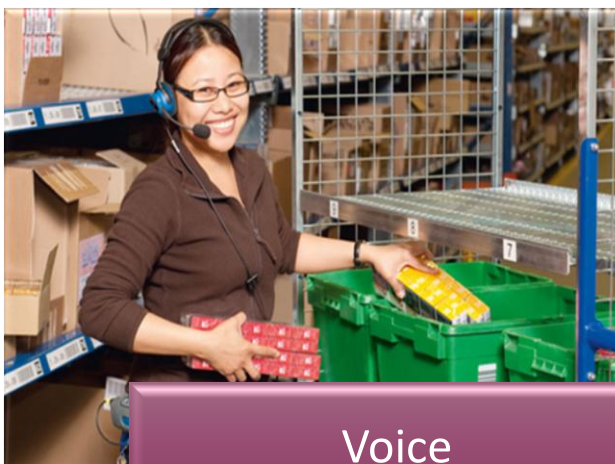
RF Scanning



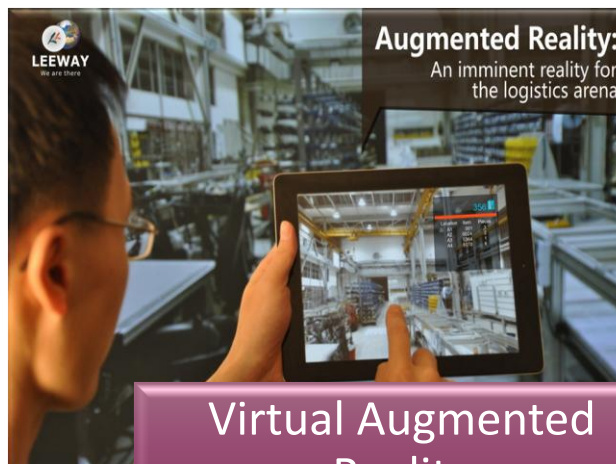
Virtual Reality



Augmented Reality



Voice



Virtual Augmented Reality



Virtual Reality

"Must be Mobile"

VISION, EXPERIENCE, ANSWERS FOR INDUSTRY

ARC Trends

Operations Intelligence



Big Data



Analytics & Visibility



Open & Secure



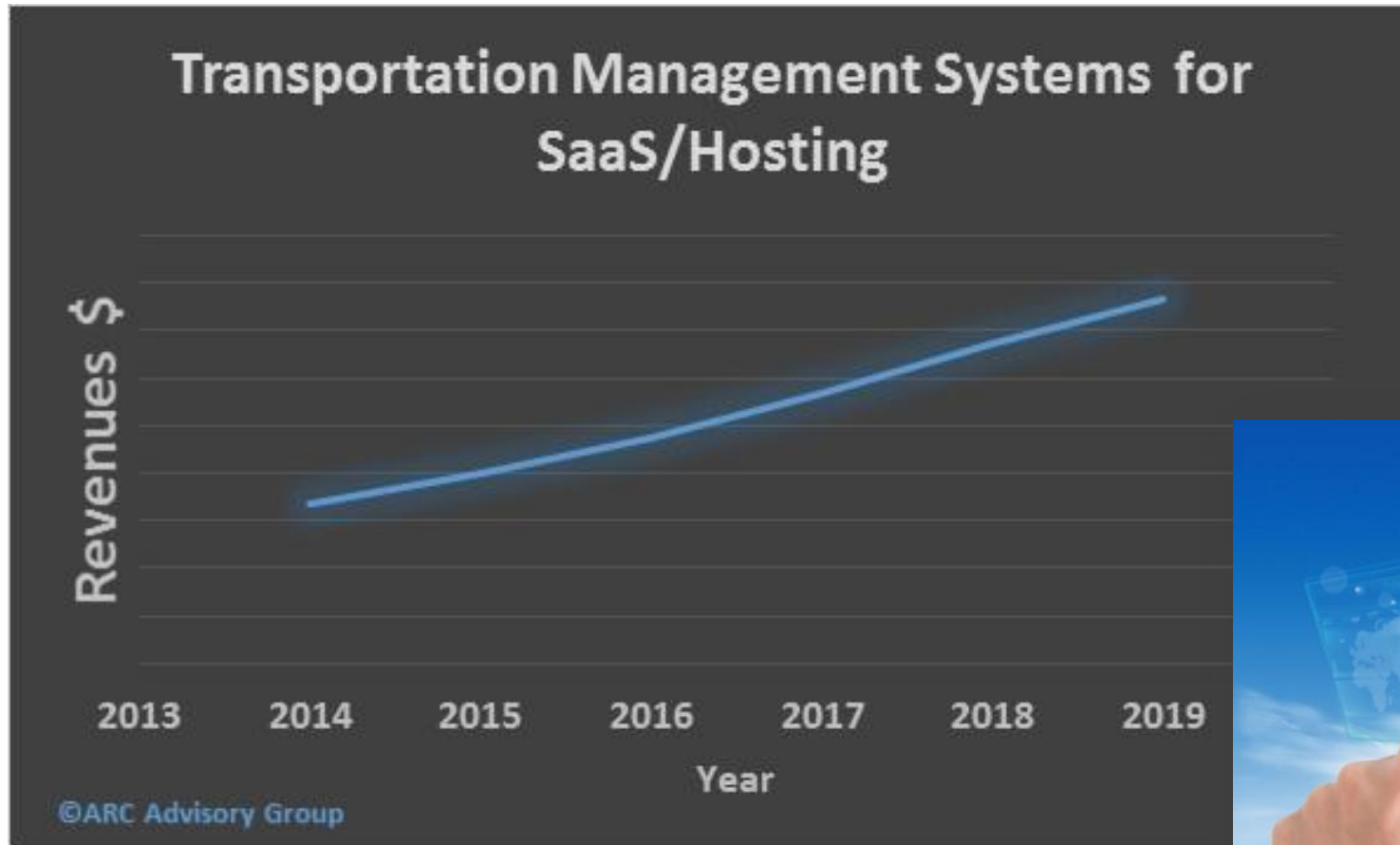
Cloud Computing

Megatrend: The Internet of Things (IoT)

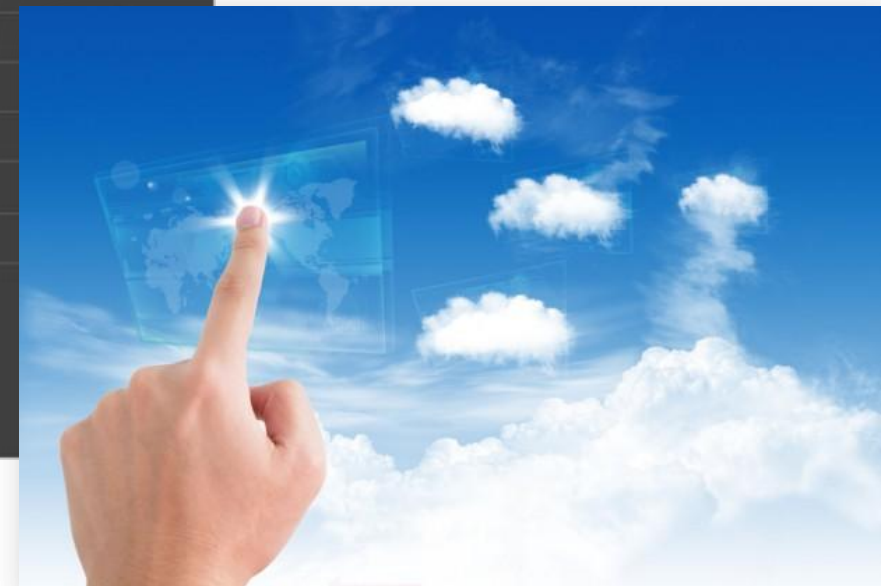
Connecting intelligent physical entities (sensors, devices, machines, assets, and products) to each other, to internet services, and to applications.



Transportation Management Systems SaaS / Cloud Growth

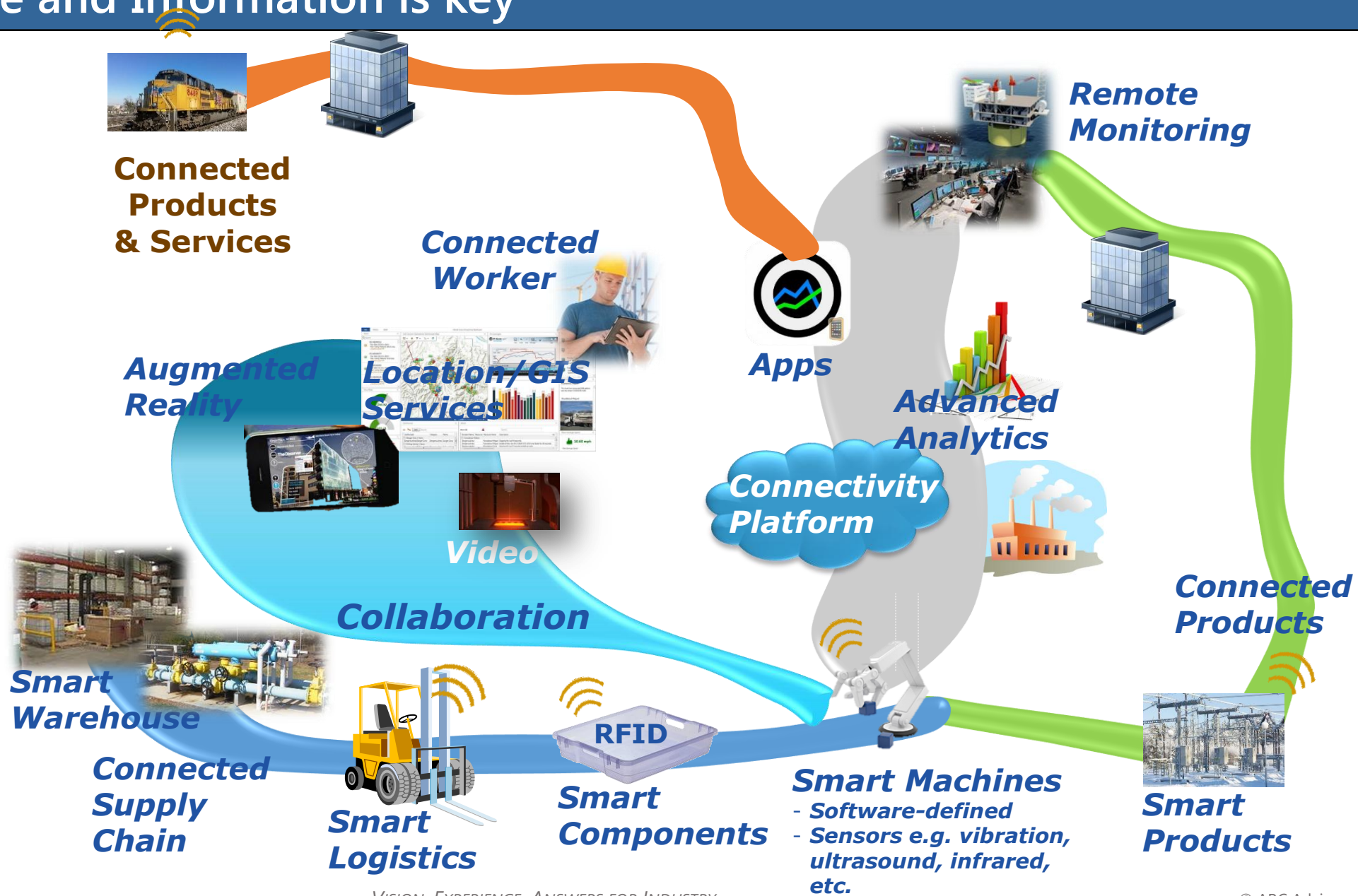


* 2016+ is based on ARC forecast



Key Trend: Connected Enterprise - IIoT, IoT, IoE are Game Changers

Intelligence and Information is key



How will IoT be fulfilled?



New Technologies

- Smart Devices & Industrial IoT – more connected
- Smartphones, phablets, tablets, sensors, devices, robots, etc.
- New Platforms, Cloud Computing



Analytics & Intelligence

- Predictive & Prescriptive Analytics, OEE, SPC
- Real - time Actionable Intelligence
- Easy to Use Tools, New Dashboards, 3D +, etc.



New Secure Platforms

- Connected
- Open
- More powerful engines

IoT & Data Fuels Big Intelligence

The growth in data is fueled by data from IoT, transportation data, manufacturers, websites, technology, social media, video, 3D graphics, excel, people, and data generated from an exploding number of connected devices.

On-line
Off-line
Structured...
Unstructured...
Video

All Data
Real-Time
Cloud
Social Media

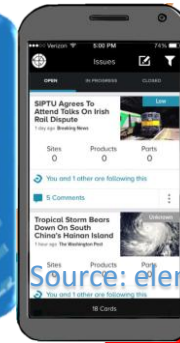


Social Media, Big Data & Analytic Insights More Important

Collaboration,
Social Media,
Operational
Intelligence with
Analytics



Social
Media



Source: elementum



Operational
Intelligence



Competitive Advantage



Value in the Data

Benefits from using Operations Intelligence

Between 5 to 15%+



Improved
Productivity

Between 5 to 10%



Quality
Improvements

Between 5 to 15%+



Energy

Between 5 to 15%



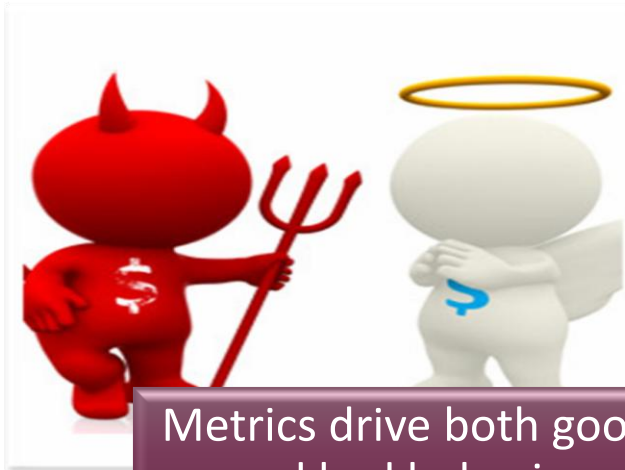
Asset Management

*** Benefits based on client inputs, ARC Survey, results will vary**

VISION, EXPERIENCE, ANSWERS FOR INDUSTRY

METRICS: Words of Warning....

Choose KPIs Carefully and Often



Metrics drive both good and bad behavior



Good metrics help optimize the process



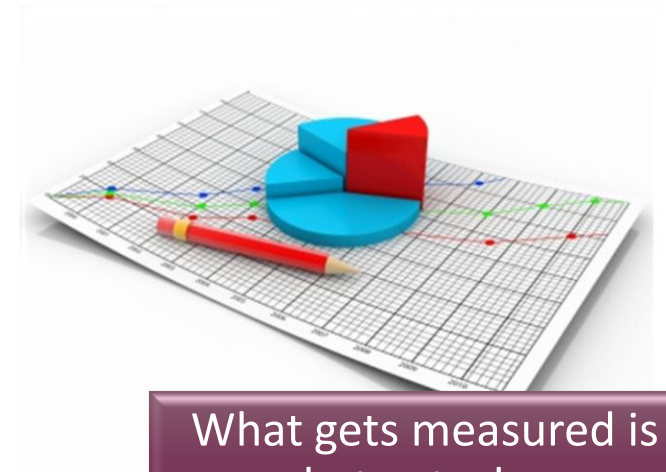
Must align with business value / culture



Metrics should be updated



Real purpose of metrics is to make better decisions



What gets measured is what gets done

Survey Results

Operations Intelligence End User Trends and Best Practices

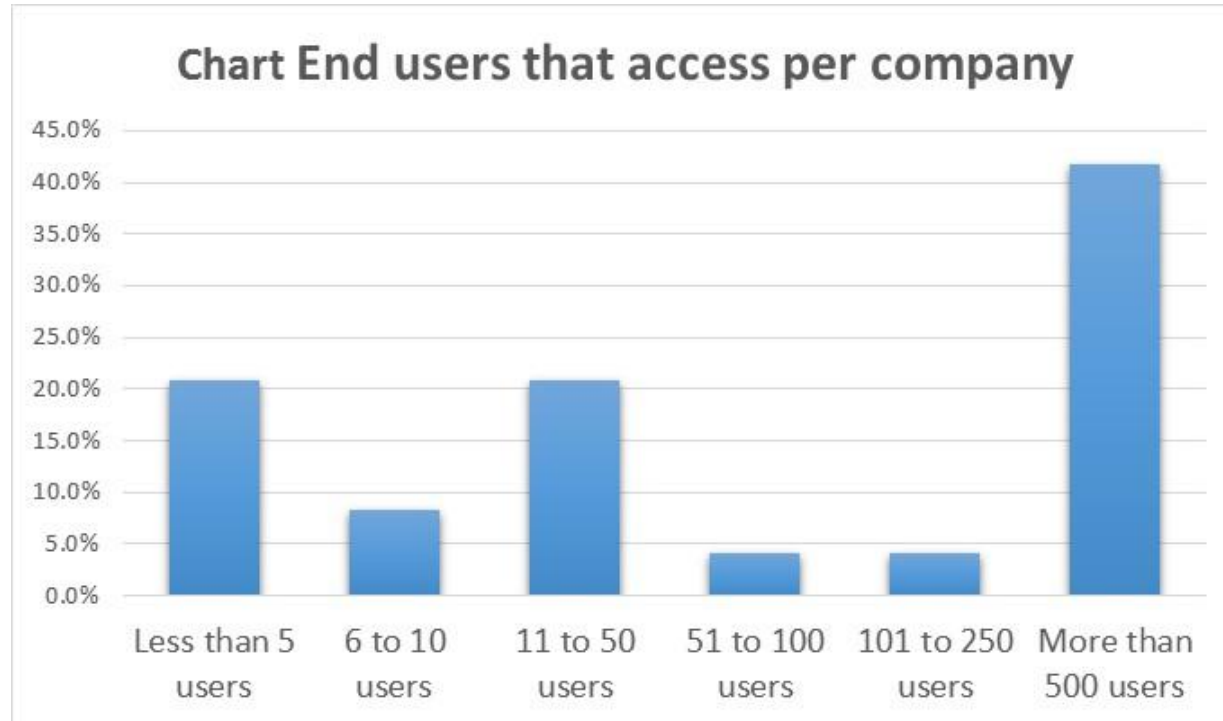


- **Preliminary Results**

Questions – email:
jabel@arcweb.com



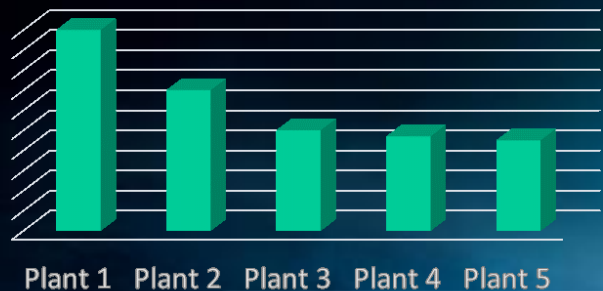
End Users that Access Per Company



40% with over 500 users

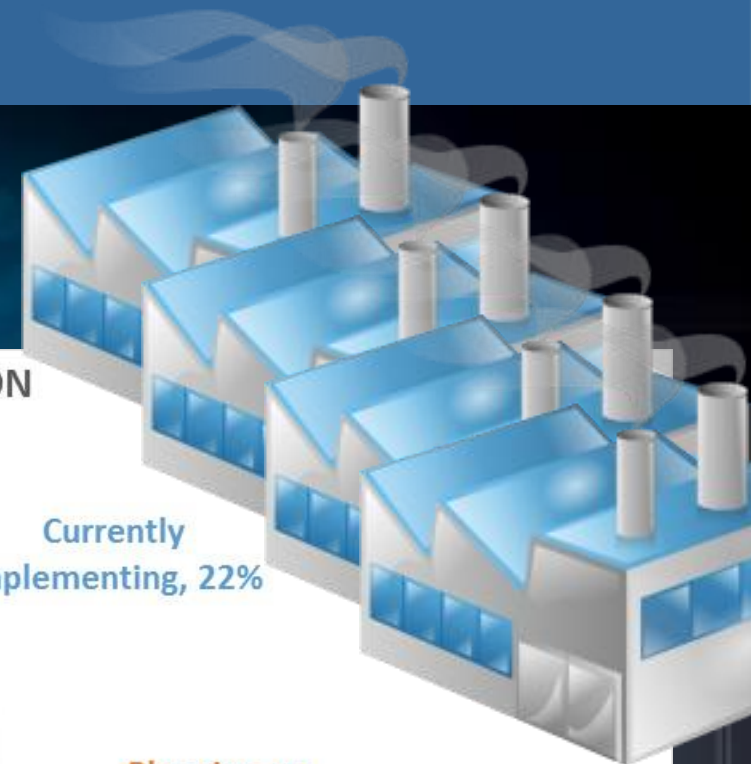
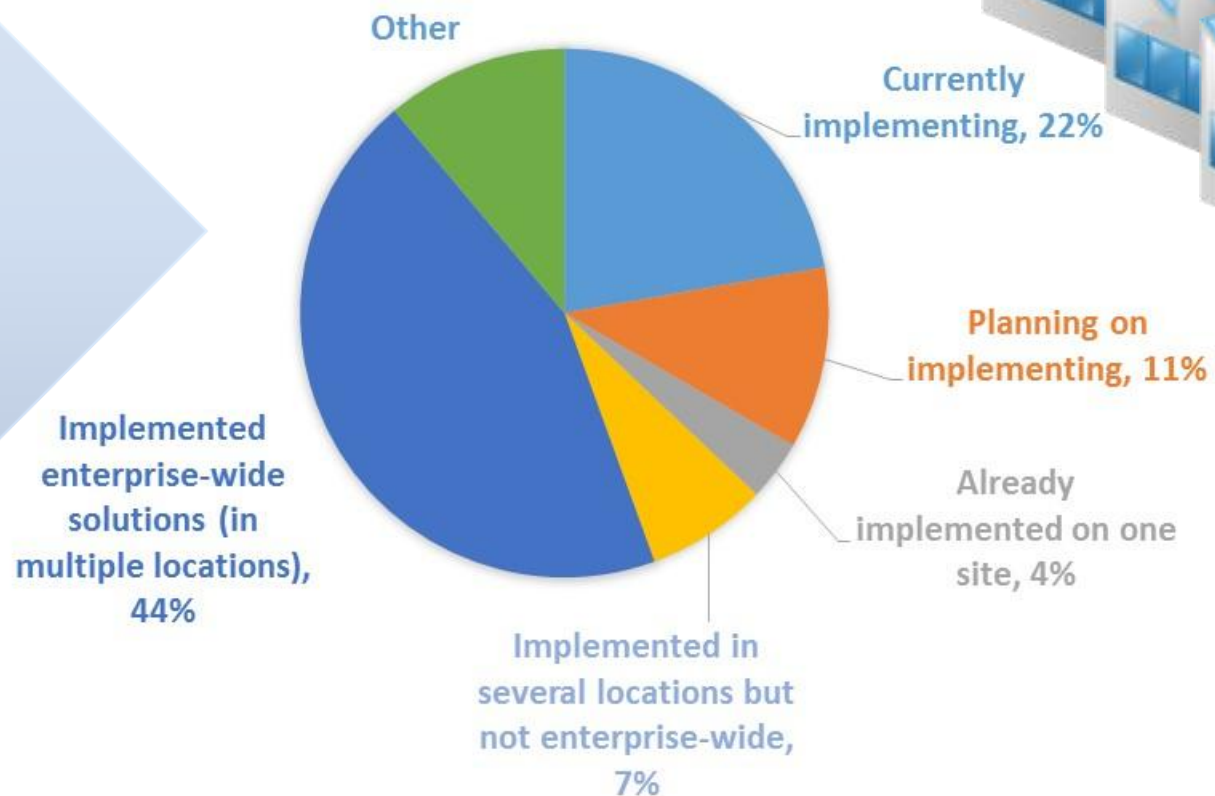
Implementation Situation

Cost Reduction

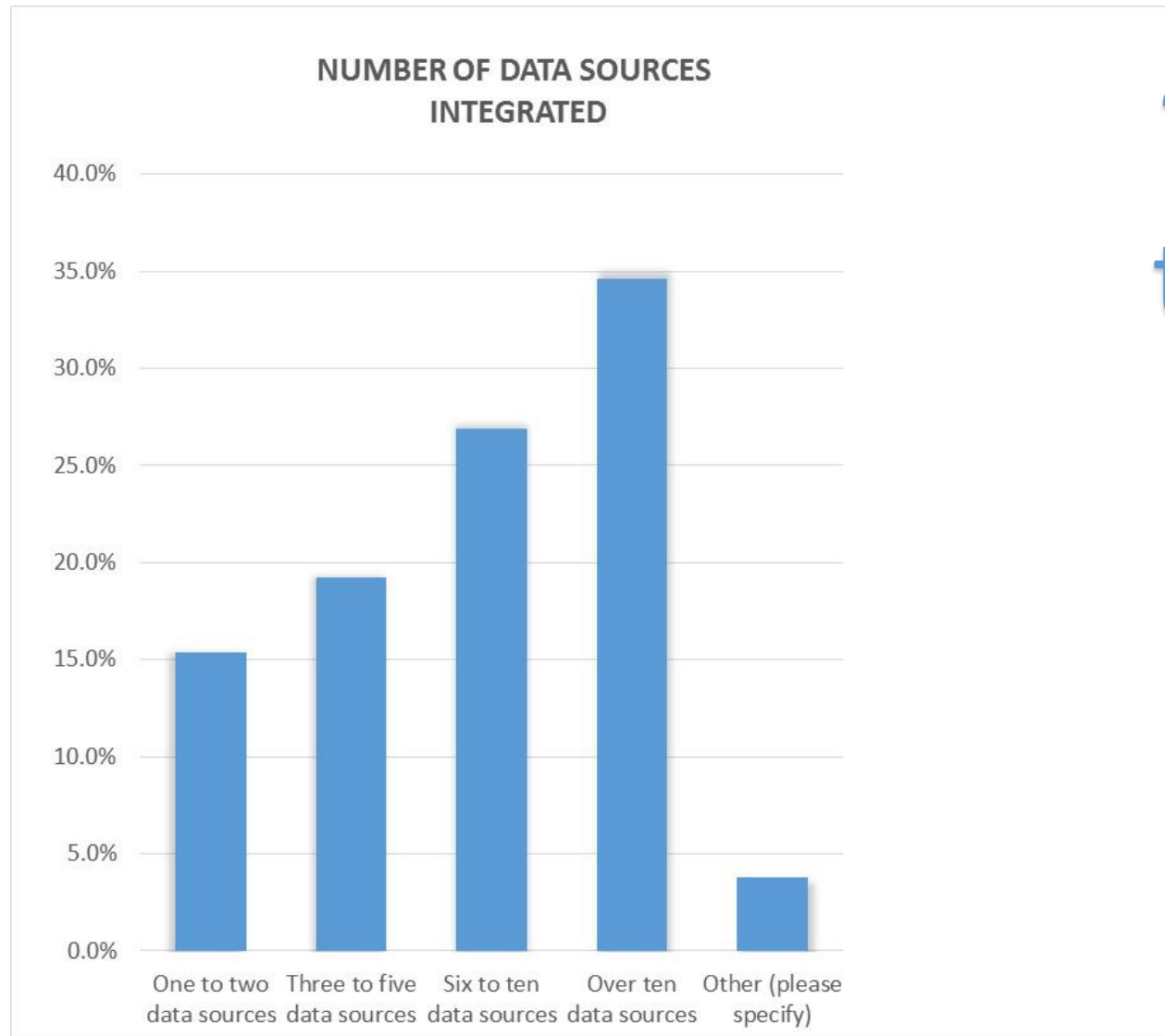


Over 44%
Implemented
Enterprise-wide
solutions

IMPLEMENTATION SITUATION



Number of Data Sources Integrated



~ 35% with more than 10 data sources



Any Data
Any Source



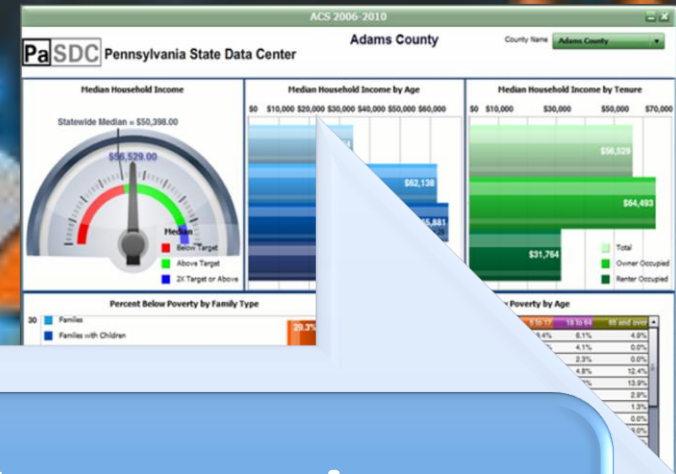
Top Drivers for Operations Intelligence



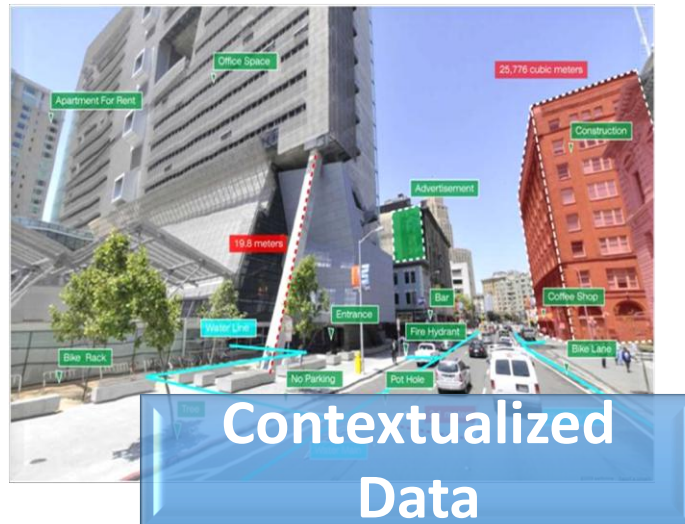
Top 5 Drivers



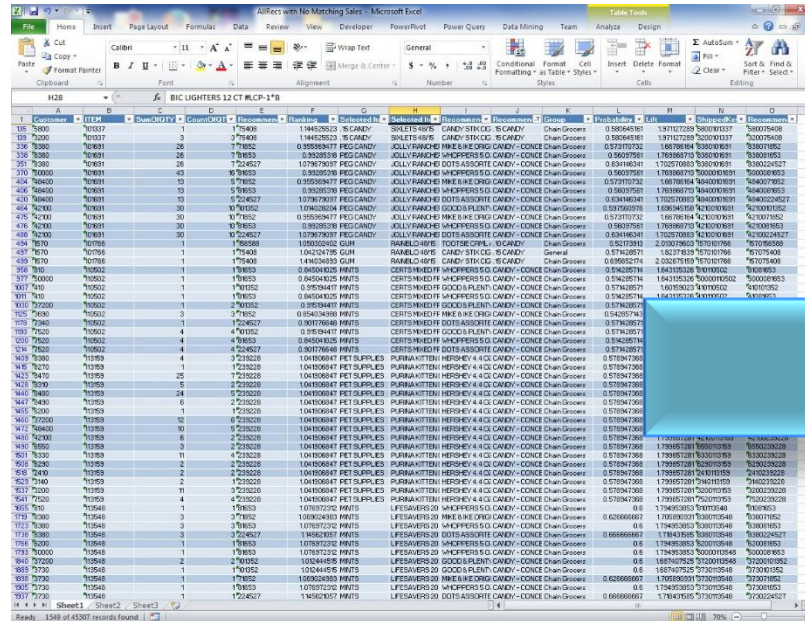
#1 Improving
Process Visibility



Visualization & Dashboards



Visualization Digital Dashboards



The screenshot shows a Microsoft Excel spreadsheet with a large data table. The table has columns labeled A through O. The data appears to be a list of items, possibly vehicles or products, with various attributes like model, year, and price. A blue arrow points from the spreadsheet towards the right, indicating a transition from raw data to a visual dashboard.



I'll pause for a moment so that you can determine the next action."

Importance of Dashboard Designs

Visualization & Dashboards

Is that guy drunk or is he on his cell phone?

What is the speed limit?
Am I driving too fast?

Is there a cop behind me?

Why is that car behind me following so closely?

Is it dark outside? Are my lights on?

How long will it take me to get there?

Anticipation:
Is that car going to turn in front of me?

Is there someone in my blind spot?

Context Aware
Situation Aware
Location Aware

Visualization Drives Performance

The Future is NOW!

Autonomous Operations



Dog or the Deer?



**Lowest risk? Lowest liability?
Less people? Age?**

Making the Right Decision!

Analytics and Dashboards



Real-Time



Accessible



Actionable

Predictive =
Predictions
of what will
happen



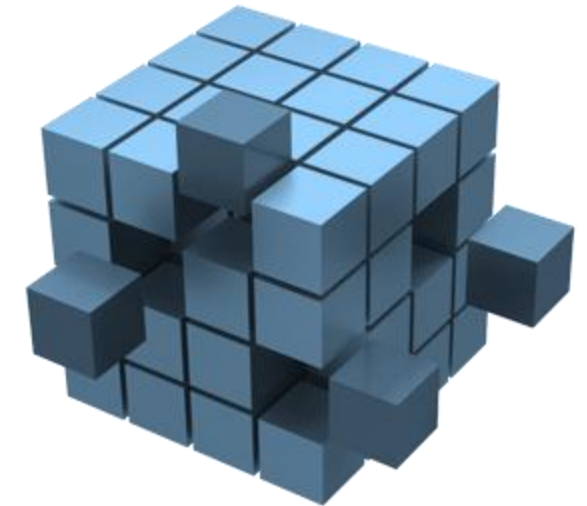
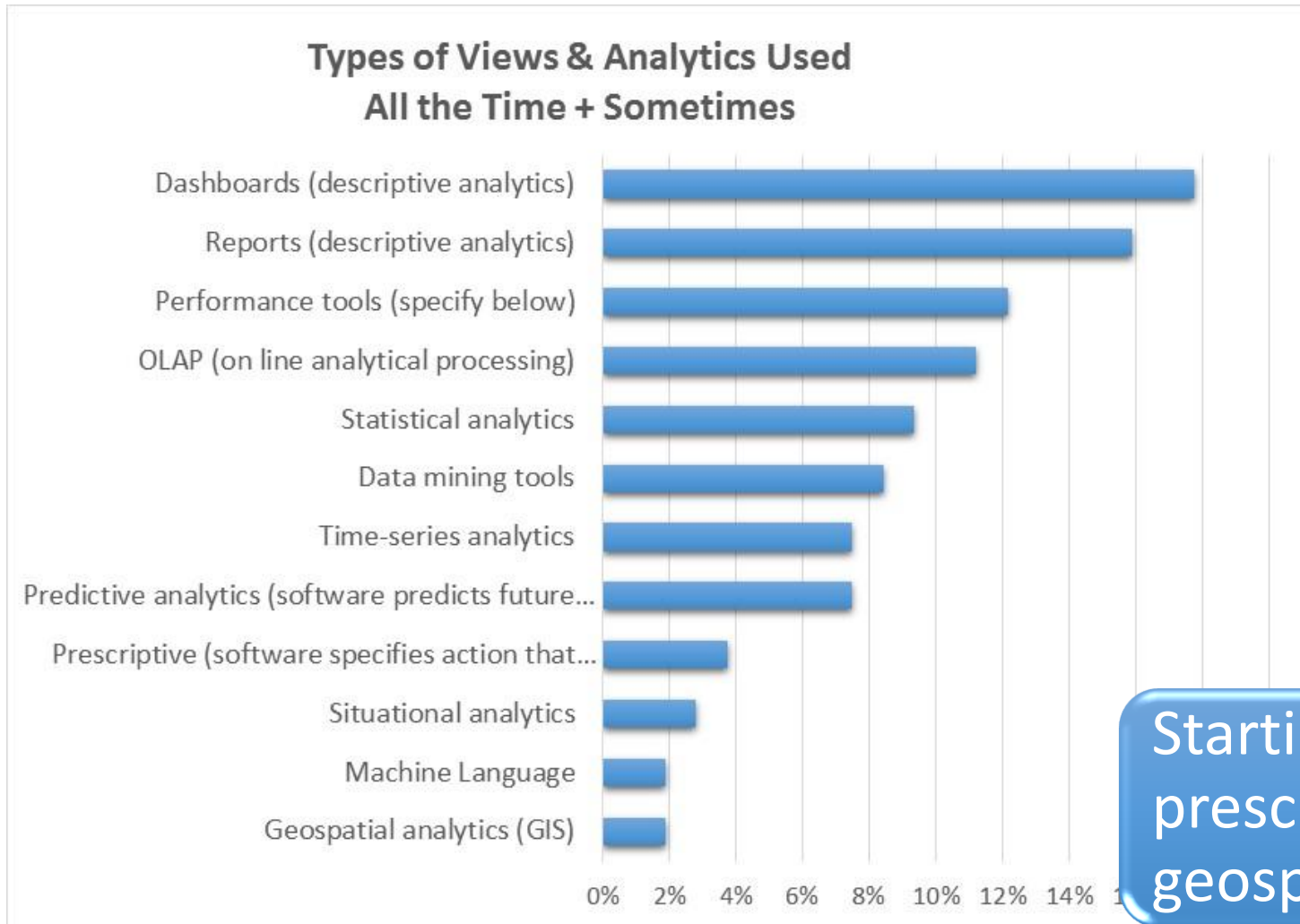
Benefits of
real time
decision



Prescriptive
= Impact of
decision

**Analytics and Dashboards are tech tools that enable
Operations Intelligence**

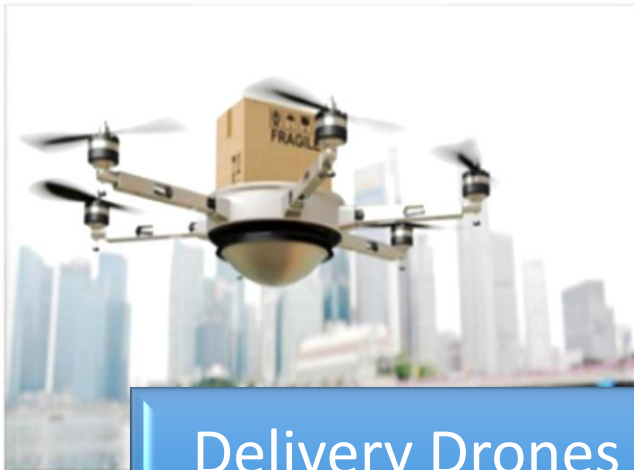
Views and Analytics



Starting to see predictive,
prescriptive analytics and
geospatial analytics

The Future is Now – Look to Nature...

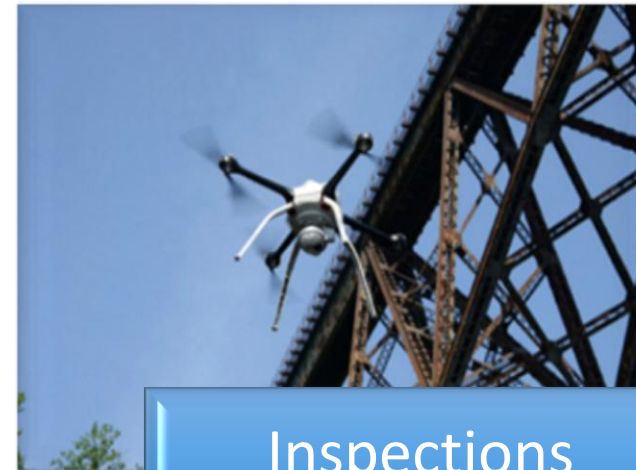
Manufacturing INNOVATION



Delivery Drones



Warehouses



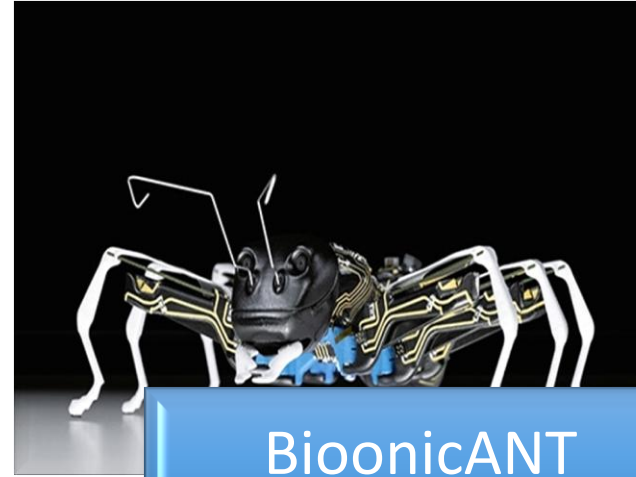
Inspections



Inspecting Facilities



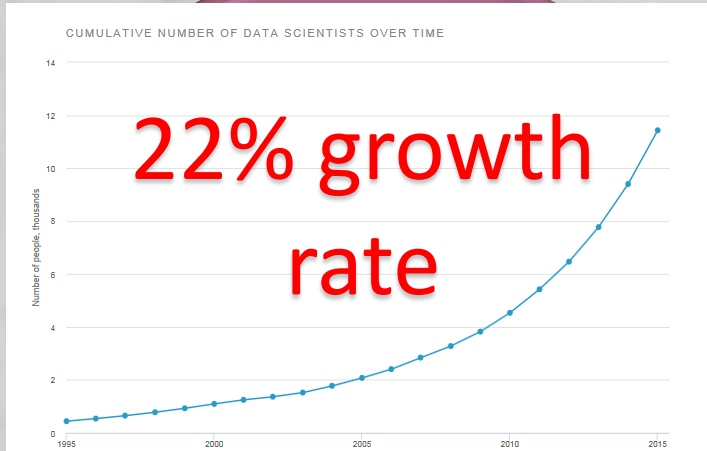
Butterfly Drones



BioonicANT

Data Scientist is important

Lot of value in data



Still need engineers,
operations, logisiticians
and operational
intelligence software
tools

Data Scientist:
The Sexiest Job of the 21st Century

Harvard Business Review
GETTING CONTROL OF
BIG DATA

2016'S BEST JOBS IN AMERICA

1. Data scientist
2. Tax manager
3. Solutions architect
4. Engagement manager
5. Mobile developer

SOURCE: GLASSDOOR.COM

Still need understand operations, manufacturing,
the supply chain, etc....culture, tools and innovation

CDO – Chief Data Officer
Data Architect
Data Scientist
Data Team Lead
Statistician
Data Consultant
Business Intelligence Analyst
Data Analyst
Data Engineer

Operations INTELLIGENCE is Important



“Value is in using intelligence for the decision making with ROI.”



FUTURE IS NOW

Final Thoughts...



Operations
Intelligence



Real-Time
Insights &
Actions



Optimize
Performance



Getting
Value

Thank you!
For More Information Contact
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Questions

Please wait for the **microphone** before asking your questions

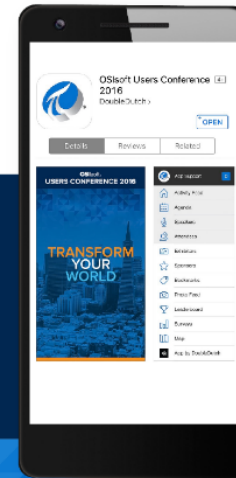
State your **name & company**



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감사합니다

谢谢

Danke

Merci

Gracias

Thank You

ありがとう

Спасибо

Obrigado

The background of the image is a blue-tinted photograph of the San Francisco skyline, featuring the Golden Gate Bridge on the left and the Transamerica Pyramid on the right. Overlaid on this background is a geometric pattern of blue triangles. The OSIsoft logo is positioned at the top center.

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