

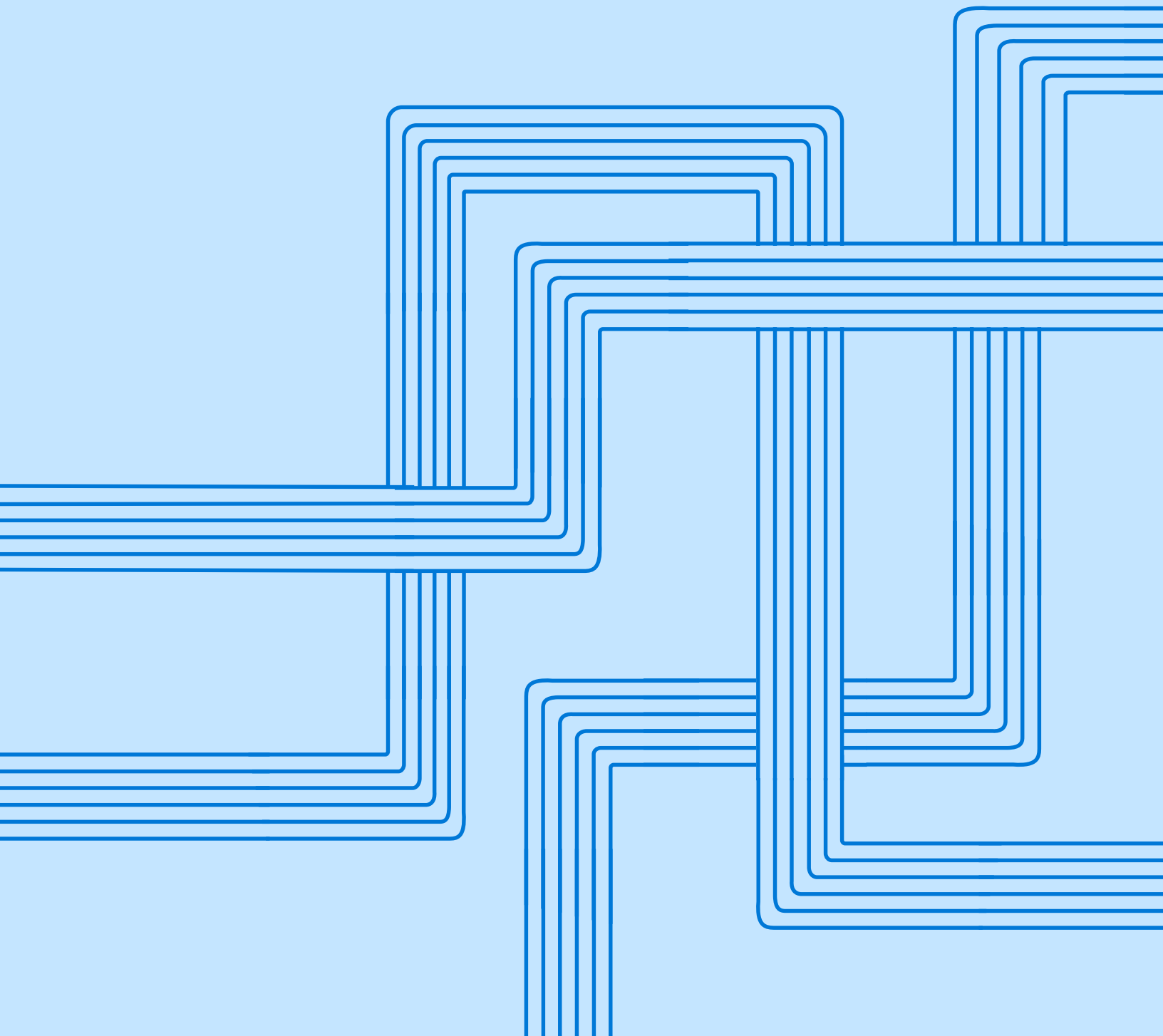
06



Microsoft Services

Internet of Things

Manufacturing



The Internet of Things has unlocked new opportunities for Manufacturers to challenge the status quo and re-think how manufacturing gets done

\$913B

Market opportunity by 2018¹

14B

Connected devices by 2022²

\$10.6T

Cumulative GDP impact of IoT by 2030³

The Internet of Things (IoT) is a quantum technology leap for the manufacturing industry, enabling business opportunities and competitive inroads that were not possible previously.

It's your first step to becoming a digital business and it starts with your things: your line-of-business assets and the data they produce, your cloud services, your business intelligence tools.

Manufacturers are reaping value from IoT technologies by joining machinery, sensors, and control systems—and achieving the rapid manufacture of new products, dynamic response to product demands, enhanced equipment and asset management, and real-time optimization of production and supply chain networks. By automating process controls, operator tools, and service information systems, manufacturers are enhancing factory safety and security.

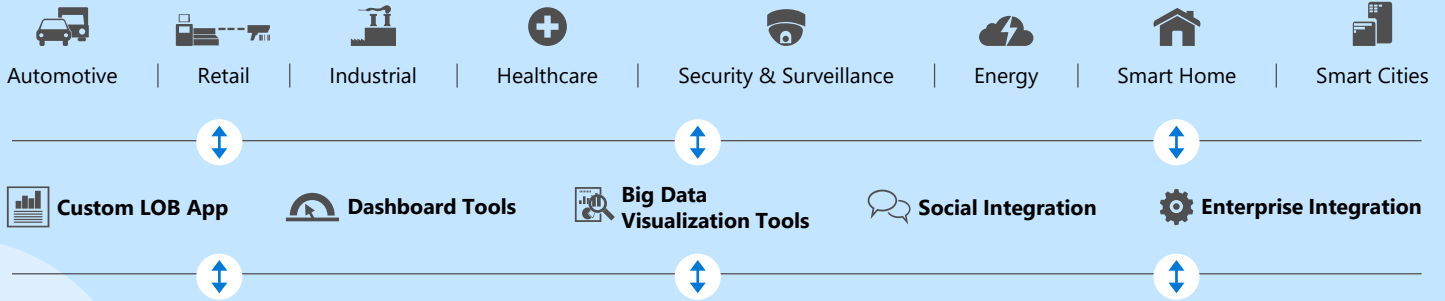
The Internet of Things launches you into a world of innovative possibilities. Reduce maintenance costs and minimize system failures by implementing condition-based predictive maintenance. Better management of remotely controlled vehicles. Enhance presale and cross-sale efforts through the collection of usage data. Minimize failures and eliminate unused features by using research insights early within the product development cycle. Issue alerts in areas of potential risk and prevent injuries through the real-time tracking of employees and equipment.

Microsoft Services and IoT: Helping manufacturers better engage with their customers, empower employees, optimize operations, and transform products.

Source:

- 1) IDC, Internet of Things Spending Guide by Vertical Market, 2014
- 2) Bosch, "Capitalizing on the Internet of Things - how to succeed in a connected world", February 2014
- 3) Accenture and Frontier Economics, 2015

Microsoft empowers manufacturers to do more by accelerating the value imagined and realized from their digital experiences



Windows 10, Azure IoT Services, Analytics Platform System, Azure Stream Analytics, Azure Machine Learning, Data Market



Device Connectivity & Management

Gain visibility into, access to, and control of devices and processes

- Connectivity
- Device management
- Event processing & portal
- Security and IP protection



Data management & Insights

Manage KPIs to improve operational performance and decision making

- Insight
- Performance
- Process excellence



Advanced Analytics

Anticipate problems and deliver new value-added services

- Predictive Analytics
- Predict maintenance
- Manage asset, quality, and energy



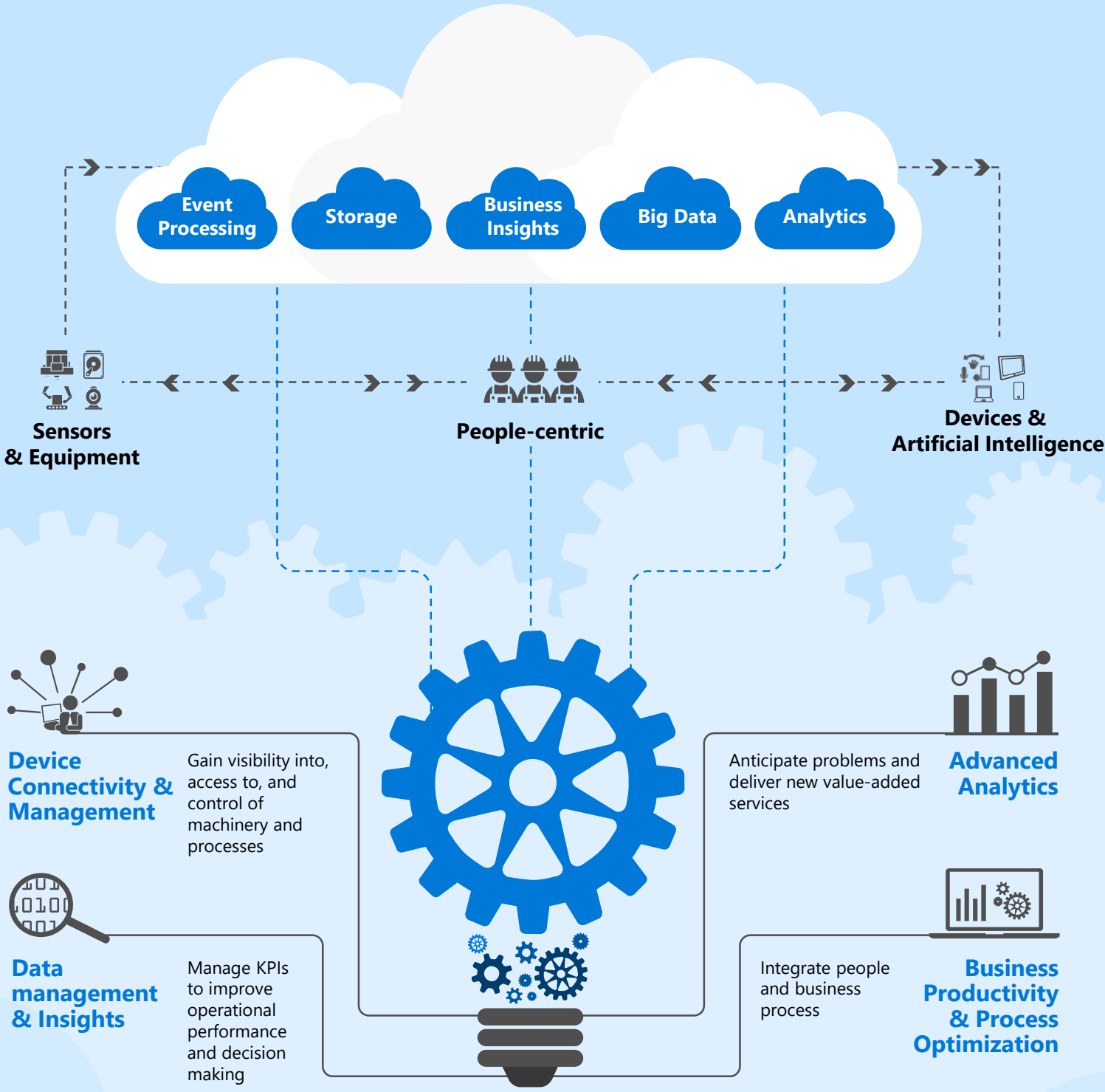
Business Productivity & Process Optimization

Integrate people and business processes

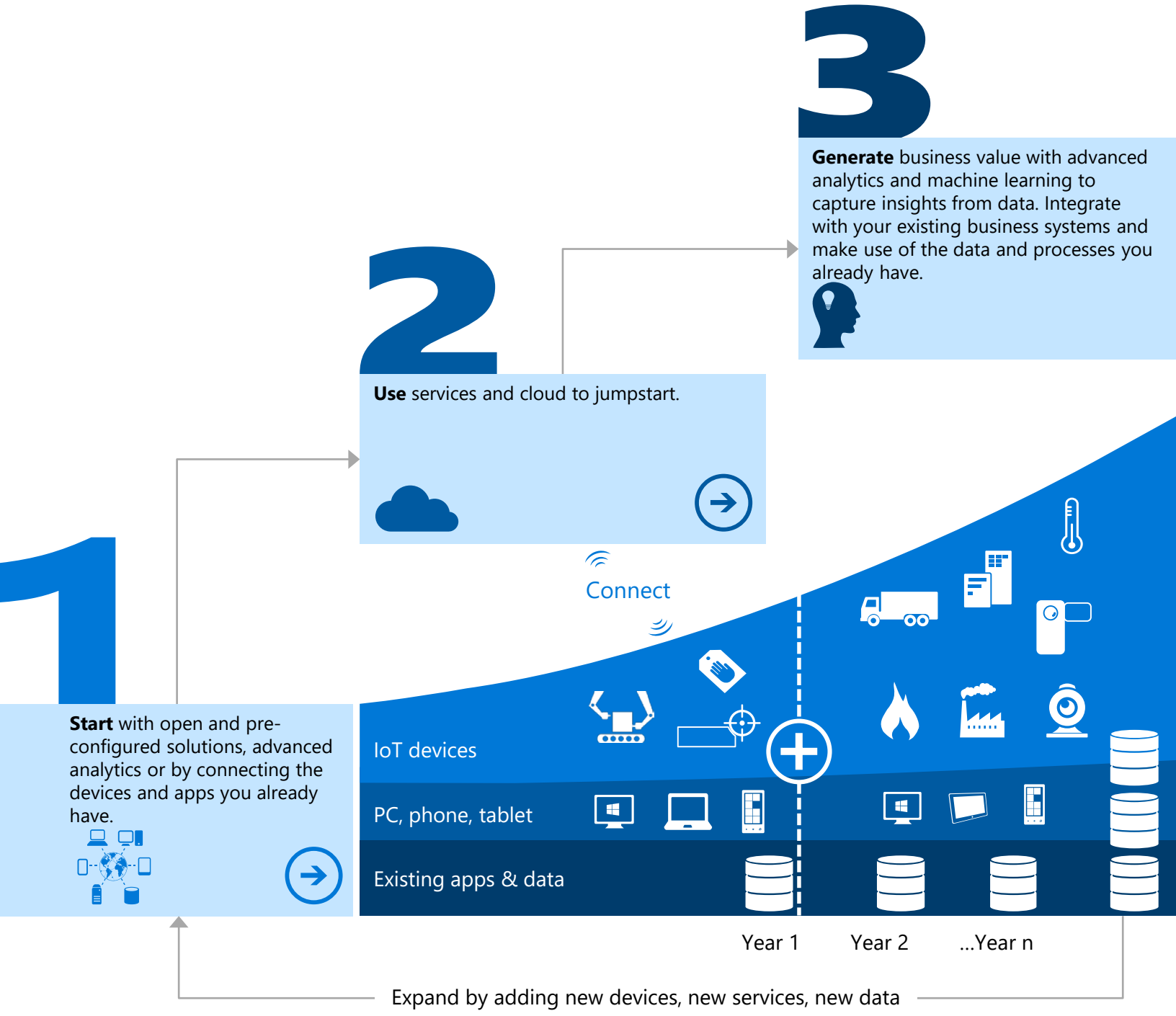
- Engineering Services
- Field/Manufacturing
- Proactive upsell and cross sell
- Supply chain operations



By working together, to unlock opportunities where business, experience, and technology intersect



Starting with your things – your line-of-business assets and the data they produce, your cloud services, and your business intelligence tools



Innovating with business models, services, and solutions that differentiate

24,000 elevator service technicians can now visualize and identify problems ahead of a job, and have remote hands-free access to technical and expert information when onsite, improving the way people and cities moves. Whilst reducing the average length of service calls by 4x.



thyssenkrupp

“Predicting problems enables us to have fewer service interventions, and this equipment helps us do our job faster,”

– Andreas Schierenbeck, CEO of ThyssenKrupp Elevator



Keys to success for making the most from your internet of things strategy

1

Start with your things

Focus on the areas of business that provide the quickest return. Starting with operations—connecting systems and line-of-business assets to deliver better performance visibility, drive toward predictive maintenance and help reduce downtime.

5

Proactively maintain your assets

Take action earlier on emerging trends, streamline processes and avoid costly downtime by connecting to your existing devices and services. Use the data from these assets to identify upcoming maintenance needs or create new business opportunities altogether.

2

Get more out of your existing assets

Start with the assets you already have and build upon them. Regardless of device type or operating system, you can connect them to the Microsoft Azure IoT Suite and the cloud, where they can talk to each other, to your employees, and to your customers. Use business intelligence tools, to make the best use of the data you already have and gain a deeper insight into what your customers and employees want and need.

6

Increase agility

Spend less time wondering and more time taking action. With IoT, data insights can help you respond more quickly to competition, supply chain changes, customer demand and shifting market conditions. Collecting and analyzing data gives you quick insight into developing trends, so you can change your production activity, fine-tune your maintenance schedule, or find less expensive materials. Redefine what's possible.

3

Make small changes, see a big impact

IoT starts with identifying the one process, product line, or location that matters most, then making small changes for big impact.

7

Redefine what is possible

New ideas are born when you work with new partners, new technologies, new assets, and new data streams. Suddenly, your employees can use technology in ways never before imagined. New data opportunities enable you to shift from repairing assets when they break down to using predictive maintenance to fine-tune their performance over the long term.

4

Know the health and status of your assets

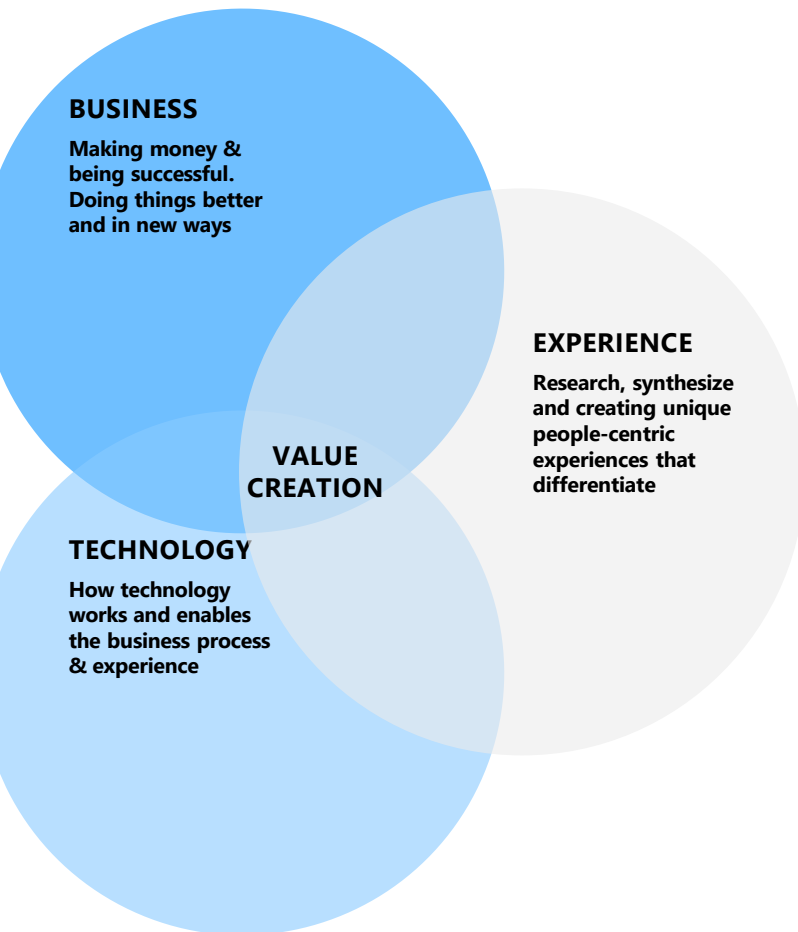
Connect to your line-of-business assets with Azure IoT Suite to gain better visibility into their status, trigger automatic alerts and actions, and avoid system shutdowns during peak production. Proactively maintain your business assets.

8

Transform your business

With breakthroughs in advanced analytics and machine learnings, your employees can discover insights not previously possible. Your company can benefit from enhanced decision-making, more effective innovations, and the ability to identify new business models and revenue streams, all because previously untapped data is now creating new insights.

Delivering business outcomes through your digital transformation



Engage your customers

Deliver personalized, rich, connected experiences to your customers, inspiring loyalty along every step of the customer journey.

Empower your employees

Enable your employees to keep up with your fast-moving customers, efficiently collaborating to quickly meet customer needs with agility.

Optimize your operations

Increase the flow of information across your entire business operations, keep your business processes synchronized, and improve your interaction with partners and your supply chain.

Transform your products

Gather information about the use of your products, design innovative features, and work collaboratively with a development team to improve products and develop new ones.

Credits



Enrique Andaluz,
Director of Business
Development



Rudy Dillenseger,
Director of Industry
Marketing



Susan Jackson,
Director of
Manufacturing
Solutions

Microsoft Services empowers organizations to accelerate the value imagined and realized from their digital experiences.

Imagine. Realize. Experience.

microsoft.com/services

