ACCELERATE EFFICIENCIES AS MANUFACTURING SURGES FORWARD

OUR INTEGRATED COMMUNICATION SOLUTIONS INCREASE UPTIME, PRODUCTIVITY AND SAFETY

A RENAISSANCE
IN THE INDUSTRY
IS UNDERWAY

Manufacturing is back and booming after the U.S. recession. A renaissance is in full swing as plants around the country push their production capabilities and speed product to market. Even though 3 million jobs were lost when the economy tumbled, the manufacturing sector has recovered faster than the rest of the economy, creating 334,000 new jobs in 2 years.[1]

Costs are down, productivity is up, and technology is becoming more automated and advanced. As the industry confronts these realities – and hires a new generation of workers with different skills and expectations – manufacturers must reinvent the way they create and innovate.

50% OF MANUFACTURERS PLAN TO INCREASE PRODUCTION[4]

#10 U.S. MANUFACTURING
AS A WORLD ECONOMY[2]

$2 TRILLION
U.S. GOODS PRODUCED
IN 2013[3]

OVERCOME CHALLENGES BY INTEGRATING PLANT COMMUNICATIONS

Manufacturers face another set of challenges in this rebounding market. More companies are shifting from outsourcing overseas to "next shoring" their products closer to where they are sold to improve efficiencies. And consumers, emboldened by social media, expect instant gratification and faster delivery times.[5]

Whether it is filling job positions or filling customer orders, manufacturers need strategies to stay competitive. According to the 2015 Motorola Nationwide Manufacturing Survey, companies are looking for an integrated communications platform to help them increase workforce productivity, improve worker safety and reduce downtime. They want plant communications to connect all workers and devices seamlessly, and expedite communications between machines and people automatically.
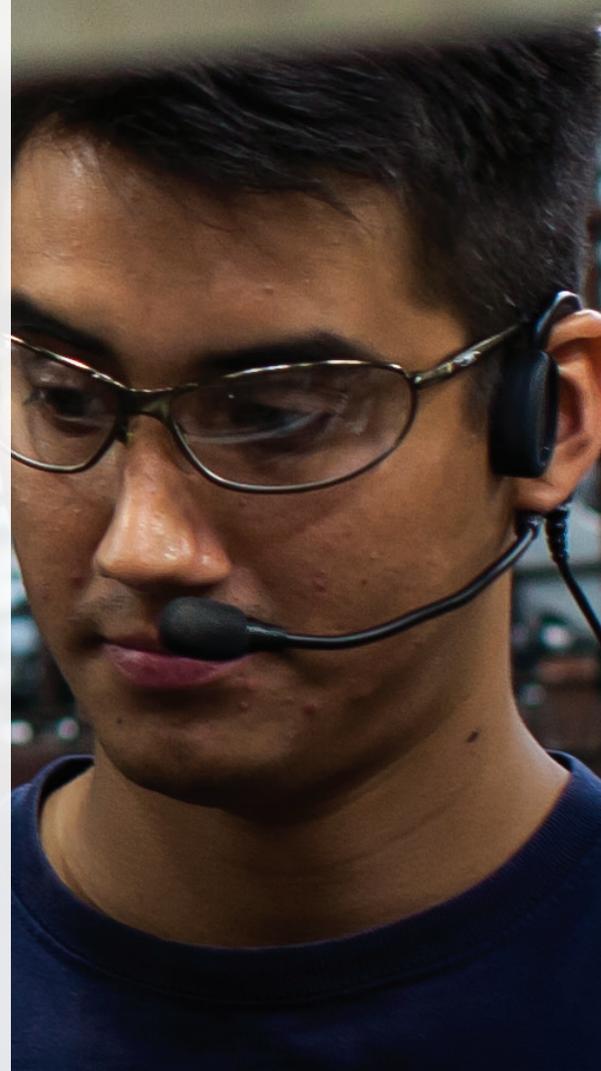
75% manufacturers have a **SERIOUS SHORTAGE** of skilled resources[6]

UP TO 20%
Production capacity **LOST TO DOWNTIME** in factories[7]

UP TO 600,000
UNFILLED POSITIONS in U.S. manufacturing[8]

INTEGRATED MANUFACTURING PLATFORM
WORK MORE EFFICIENTLY AND SAFELY THAN EVER

We understand the realities of manufacturing and we innovate advanced communications specific to the industry. Each year, we survey manufacturers nationwide to understand their needs and collaborate on improved solutions. In Motorola's 2015 Study, almost 45 percent of plant operators said "clarity and coverage of communications" is their top challenge.

The factory floor can be loud and chaotic. It's why the radios we produce for manufacturing businesses have the same specialized features as the radios we produce for fire and police first responders – such as noise-cancelling technology and Intelligent Audio. MOTOTRBO™ digital radios monitor background noise and adjust the speaker volume, so plant workers don't have to. Wireless accessories and noise-cancelling headsets enable them to interact freely, while protecting their hearing.

Unreliable communications can hurt safety and operational efficiency, but when you rely on MOTOTRBO, you have "always available" communications to help teams work more safely and efficiently than ever.

WAVE Smartphone Interface

MOTOTRBO Digital Radio Core

SeQent Production Alarm Interface

Avtec Safety and Security Interface

MOTOROLA SOLUTIONS INTEGRATED MANUFACTURING PLATFORM

MOTOTRBO DIGITAL COMMUNICATIONS
## OPTIMIZE PRODUCTION WITH SEAMLESS COLLABORATION

The backbone of integrated plant communications is the MOTOTRBO digital two-way radio platform. This complete, flexible and adaptable solution includes two-way digital radios, accessories, applications, systems and support services. MOTOTRBO interconnects personnel and equipment to help plants streamline production, automate processes, manage risk and respond to customers quickly.

MOTOTRBO seamlessly integrates voice, data, text messaging and GPS to help resolve equipment issues and reduce unplanned downtime faster. Employees communicate and collaborate more efficiently and effectively, wherever they work. All while protecting their safety and enhancing overall productivity.

WAVE™ WORK GROUP COMMUNICATIONS
CONNECT ANY WORKER ON ANY DEVICE, ANYWHERE

Leverage the resources you already have to communicate with employees on their own devices. WAVE extends your radio's reach to those who may not carry radios. Now, the IT director at a convention or the supervisor away from the plant can talk on their smart phones with radio users at the plant.

WAVE connects to virtually any device — smart phones, laptops, tablets, and landlines — on any public or private mobile data network, including Wi-Fi. You get seamless and secure connectivity, affordable push-to-talk, and the freedom to keep service plans and devices.
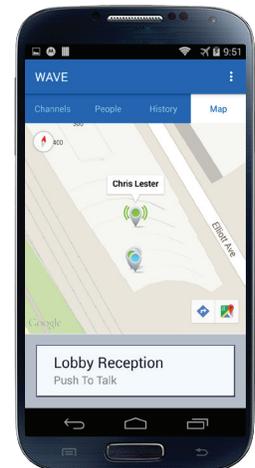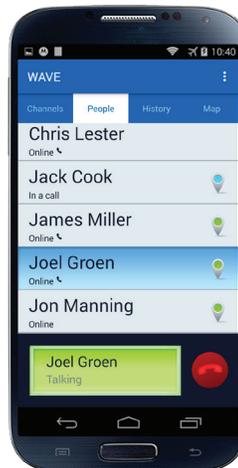
ALARM AND CONTROL SYSTEMS INCREASE UPTIME WITH PROACTIVE ALERTS

Connect your production line directly to your people. Alarm and Control systems allow you to see the status of your machines directly on your radio.

By monitoring manufacturing environments and proactively notifying key personnel of faults and potential issues, the right information is delivered to the right person at the right time. Problems can be prevented and unplanned downtime averted.

WHAT MANUFACTURERS ARE SAYING

52% WANT REAL-TIME MESSAGING BETWEEN MACHINES AND PEOPLE[9]
30% WANT SCADA SYSTEMS TO CONNECT WORKERS AND PLANT EQUIPMENT
46% SAY DIGITAL RADIOS CAN REDUCE DOWNTIME 10 TO 20%
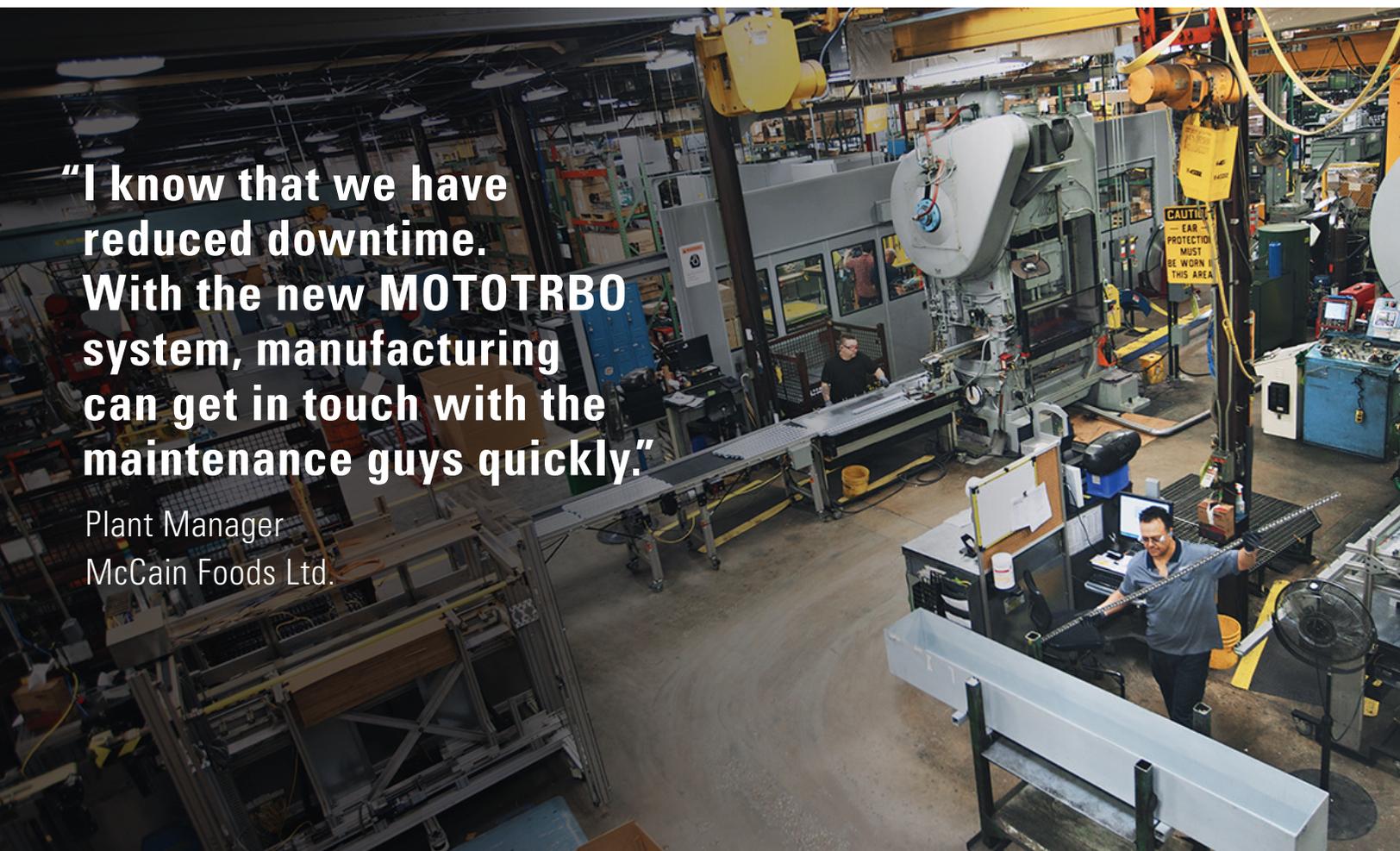
"I know that we have reduced downtime. With the new MOTOTRBO system, manufacturing can get in touch with the maintenance guys quickly."

Plant Manager
McCain Foods Ltd.

MOTOTRBO INTEGRATES IT ALL SO YOU SPEED AHEAD

In the plant, a technician uses a rugged **MOTOTRBO XPR 7550 radio**, certified for hazardous locations.

On the noisy production line, he wears an **XBT wireless headset** to work hands-free while protecting his hearing.

LOW OIL PRESSURE: MACHINE 6

He receives a **text message** on his radio from the factory **Alarm and Control System** signaling low oil pressure in one of the machines.

When he goes to fetch oil, the **MOTOTRBO Indoor Location system** senses he is in a hazardous area and activates **Lone Worker** on his radio.

If he does not respond to periodic alerts, the system will send an **Emergency Alarm** to the factory response team.

Seeing a potential safety hazard, he uses his **XPR 7550 radio** to connect to the plant manager, who is away on business.

She communicates with him using the **WAVE Mobile Communicator** on her smartphone to resolve the issue before it causes downtime.

MANUFACTURERS TRUST MOTOROLA TO TRANSFORM OPERATIONS

From the production line to the loading dock, in the front office or off-site, Motorola Solutions is helping manufacturers work more efficiently, productively and safely in the most demanding environments.

Manufacturers worldwide are transforming their workplace with Motorola's integrated manufacturing platform and expertly-integrated systems, applications, accessories and services.

MOTOTRBO radios connect different teams, departments and machines together to keep operations running smoothly and keep manufacturers competitive at the speed of business today.

SOURCES
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5. Manufacturing Trends that will Shape the Market in 2015, www.businessweek.com, November 14, 2014
7. Costs of Downtime in the Manufacturing Industry, eMaint Enterprises, December 2014
8. The Future of Manufacturing Report, IDC, February 2014
9. Motorola Solutions 2015 Study: Innovations in Plant Communications

To increase your efficiency, productivity and safety,
visit www.motorolasolutions.com/manufacturing

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