SHORTER LEAD TIMES AND HIGHER EXPECTATIONS
Manufacturers are feeling the pressure to hit their production targets in a highly competitive global market. To maintain their edge and maximize their profits, they’ve made operational efficiency a top priority. Yet up to 20 percent of profits are being lost to unplanned downtime. Adding in the nearly 600,000 skilled manufacturing jobs unfilled in the U.S., it’s even tougher to ensure peak efficiency and productivity. In today’s aggressive marketplace, there’s no room for continual delays and costly disruptions to production.

Whether they’re managing a single food processing facility or a string of multinational automotive plants, manufacturers are looking for new ways to improve performance, increase safety, optimize resources and run their operation smoothly.

UP TO 20% PRODUCTION LOST TO DOWNTIME

UP TO 600,000 UNFILLED POSITIONS IN U.S. MANUFACTURING

OVER 75% MANUFACTURERS WITH A SERIOUS SKILLS SHORTAGE
**DOWNTIME IS AN EVER-PRESENT AND EXPENSIVE THREAT**

Manufacturers know that downtime is detrimental to plant performance. A stalled production line upsets workflow and can jeopardize customer relationships. Equipment failures – from malfunctions to aging machines – cause expensive disruptions. The longer it takes plant personnel to respond and repair equipment, the more damaging the interruption. This can create a domino effect that results in missed deadlines, lost revenues and disappointed customers.

When downtime occurs, any communication delays are costly. If workers don’t have access to vital real-time information or only find it at a fixed station, downtime will be prolonged. If they must rely on additional personnel to handle a situation or are stretched too thin, their ability to react quickly and make informed decisions is compromised.

Unplanned downtime creates higher safety risks and the potential for worker injury. Real-time communication helps mitigate those risks. Devices such as two-way radios have been effectively used in plants for years to coordinate response and improve safety.

**ALMOST 50% OF MANUFACTURERS SAY DIGITAL RADIOS REDUCE DOWNTIME BY 10 TO 20%**

**INSTANT GROUP COMMUNICATIONS**

Virtually everyone – from the smallest workshop to the largest manufacturing plant – can benefit from Push-To-Talk (PTT) technology across their entire operation. The two-way radio PTT experience delivers instant communications to connect and empower your workforce. And now the WAVE™ Work Group Communications solution allows you to interconnect radios with other devices – like consumer-grade smartphones, land lines, tablets and PCs. More employees can connect, communicate, and collaborate.

**ACCELERATING THE RIGHT INFORMATION TO THE RIGHT WORKER**

While the threat of downtime is ever-present, manufacturers can prevent it from happening by being proactive. By giving employees the information they need where and when they need it, management can act in real time. This is particularly important as customer, regulatory and operational demands intensify.

Traditional plant communication systems such as overhead paging, no longer meet the needs of manufacturers. Rather than relaying the right information to the right team, they blast out the same message to everyone. Two-way radios, which provide targeted one-to-many communication, are used by virtually every department in manufacturing: from technicians to drivers; supervisors to security; even connecting personnel outside the plant using other devices.

Radios integrate voice and data to link people to each other, people to machines, machines to people, and machines to machines. Plant management can efficiently and affordably connect everyone, anywhere they go – even if a smartphone or tablet is their main communications device.
OVER 75% OF MANUFACTURERS WANT TO CONNECT WORKERS ANYWHERE
OVER 90% OF MANUFACTURERS WANT TO CONNECT RADIOS TO SMARTPHONES
OVER 50% OF MANUFACTURERS WANT TO CONNECT RADIOS TO LAPTOPS AND TABLETS

IMPROVING PRODUCTIVITY WITH SEAMLESS COLLABORATION
There’s virtually no area of a plant where using two-way radios doesn’t improve throughput and productivity: enhancing employees’ ability to collaborate and act on real-time information. Digital technology delivers better coverage and clearer voice — essential for noisy environments with internal barriers and obstructions.

Because digital radios offer greater capacity and advanced applications, manufacturers can connect more workers across an expansive footprint and link those in multiple sites. Solutions for alarms and alerts with Programmable Logic Controllers (PLCs) and integration with other devices and networks provide an even wider array of communication options.

Radios improve plant collaboration so production problems can be resolved quickly and operations streamlined for maximum workflow and revenue. Manufacturers in the 2015 Motorola Manufacturing Survey say two-way radios are of greatest value for increasing collaboration. Accelerating problem resolution and improving worker safety round out the top three benefits of radios by almost 60 percent of respondents.

INCREASING SAFETY THROUGHOUT THE PLANT
Twelve million workers were employed in U.S. manufacturing in 2013, and nearly 434,000 reported injuries. Digital radio communications can help keep them connected and safer. Innovative text-to-speech features allow workers to receive text messages while keeping their eyes on the task. Man down applications send an automatic emergency alert if an individual falls or is inactive for a certain period of time. WAVE Work Group Communications software enables workers to use their radio to talk directly with the safety team and local emergency responders on their radios, smartphones or PCs.

12 MILLION EMPLOYED IN U.S. MANUFACTURING IN 2013
ABOUT 434,000 REPORTED INJURIES ON THE JOB
ALMOST 4 OF EVERY 100 ARE INJURED EACH YEAR
ACHIEVING GREATER GAINS WITH INTEGRATED COMMUNICATIONS

Developing and deploying an integrated plant communications platform delivers significant benefits to manufacturers, including:

- **Cutting capital and operating costs** by reducing the number of networks and devices
- **Optimizing employee communication** by providing the right device for the right need
- **Increasing employee productivity** through real-time access when and where it's needed
- **Enhancing employee safety** by increasing communication capabilities and mitigating risk
- **Improving plant productivity** by streamlining voice and data communications and accelerating information
- **Making better decisions** based on real-time information to respond to changing conditions
- **Decreasing up-front equipment costs** because each employee only needs one device, but can communicate with everyone on different devices
- **Protecting existing investments** in technology while enabling cost-effective extensions for mobile voice and data
- **Enhancing data security** by increasing control over information between devices/workers and disabling or wiping clean missing devices
- **Reducing strain on IT resources** to deploy, manage and maintain multiple networks and systems. Devices can be provisioned, deployed, updated and more without dropping them off for IT support.

WHEN EVERYONE CONNECTS, PRODUCTION KEEPS MOVING

Manufacturers are discovering that when they integrate plant communications, they resolve equipment issues and reduce unplanned downtime faster. Not only is equipment running at full speed, but employees are communicating and collaborating more efficiently. Despite disruptions that occur, they are making huge strides in meeting targets, decreasing costs and exceeding customer expectations – all while protecting their safety and enhancing productivity.

We work closely with manufacturers to enhance safety, minimize downtime and differentiate themselves from competitors. Our integrated digital communication solutions are designed for the heavy-duty, high decibel plant and supported by an expert partner network. When manufacturers connect with Motorola, production keeps moving.

Sources:
2. The Future of Manufacturing Report, IDC, February 2014
3. Accenture 2014 Manufacturing Skills and Training Study
4, 5. Motorola Solutions 2015 Study: Innovations in Plant Communications

Contact your local Motorola representative or visit www.motorolasolutions.com/manufacturing