

Sectors to watch

BY MICHELLE BOWLES JACKSON

HERE'S WHERE THE JOBS ARE—AND
THE SKILLS YOU NEED TO GET THEM.

ILLUSTRATIONS BY NEIL WEBB

Who's hiring? What sectors are faring well? Which of your skills are in demand, and which are yesterday's news?

Here's a sector-by-sector breakdown of project management job opportunities.

AEROSPACE & DEFENSE

[Outlook: Very promising]

The aerospace and defense industry is facing a massive wave of retiring workers in the next 10 to 20 years. And that's good news for job seekers with the right stuff: Thirty-some organizations report they expect to hire more than 129,000 people by 2013, according to an Aerospace Industries Association survey.

"The aerospace industry is experiencing a greater need for experienced and effective project managers who can manage cost, schedule and quality issues while limiting scope creep—all while putting out the myriad fires that come up during every project," says David L. White, PMP, senior project manager and team leader for payloads engineering in the product cost improvement program at aerospace behemoth Boeing in Everett, Washington, USA. He is responsible for cost reduction on the 747, 767 and 777 aircraft programs.

"Boeing is not only hiring project managers, but they are also developing project managers through project management interest groups, communities of practice and communities of excellence," Mr. White says. "I believe many of the larger U.S. cities with service or manufacturing industries could use project and program managers who have experience in either product or process cost improvement programs, both of which enable improvement of the corporate triple bottom line statistics."

That means opportunities for project professionals in outsourcing hubs as well. French aerospace giant Airbus, for one, is sending innovation projects to India.

"There is a huge demand for project managers in aerospace and defense," says Walter Mascarenhas, managing director at the IT and human resources consultancy ATG Solutions, who divides his time between Dubai, United Arab Emirates and Bengaluru, India. "These project teams are working on technology that will be coming down the pipeline in 10 to 20 years' time."

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Source: Aerospace Industries Association



[Career Advice]
Industry experience
required.

"Aircraft are complicated systems, and project managers need to understand the systematic integration aspect of their projects," Mr. White says. "Otherwise, they can foul up the overall integration of the projects and programs by not understanding which deliverables are critical path and necessary to attain scheduled milestones—and which have more schedule leniency."

CONSTRUCTION

[Outlook: Booming in some markets; suffering in others]



Construction took some of the heaviest hits in the global recession. Construction projects, particularly new-home builds, nearly came to a halt—and stimulus funds didn't provide the job stability many governments leaders were banking on.

The worst may be over, though. The United Kingdom, for instance, posted a 22 percent increase in construction job vacancies in 2011 over the prior year, the website TotalJobs.com reported. And that demand also speaks to the need for project managers to lead teams. Expect to see opportunities in the following countries, says Pedram Daneshmand,

planning and risk manager for major projects at UGL Infrastructure Ltd., an infrastructure management, engineering and construction firm in North Sydney, Australia:

- **China:** Boosted by stimulus spending, China overtook the United States in 2010 to become the world's number-one construction market, PwC reported. In fact, by 2015, half of the world's new building construction will take place in China, according to The World Bank.
- **India:** "India is set to race ahead of the United States and Europe," Mr. Daneshmand says.
- **Canada:** By 2020, Canada should be the fifth largest construction market in the world, PwC reports.
- **Australia:** The number of building and construction jobs in Australia is expected to increase by 300,000 to around 1.3 million employees by 2020, according to Master Builders Australia.

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The ranking of China in the global construction sector, overtaking the United States for the first time

Source: Financial Times

"These countries are preparing for their next boom in five to 10 years," Mr. Daneshmand says.

In the United States, construction job growth has been uneven. In June, the Associated General Contractors of America reported that while 22 states and Washington, D.C. added construction jobs in the past year, the other 28 states decreased them.

"Layoffs are falling, but hiring has not picked up dramatically—especially in the housing sector," says John David (J.D.) Harrison, PMP, PgMP, director of risk management at the engineering and construction firm CH2M Hill in Fort Worth, Texas, USA.

[Career Advice] Go where the jobs are.

The right combination of experience and education can land you a job in the sector—provided you're flexible.

"As long as you are willing to move to where the work is and you have the right background, credentials and attitude, your prospects of working in the construction sector are really good," Mr. Harrison says.

As construction organizations see the value of proper project management, employer demand for credentials has increased, Mr. Daneshmand says. "Due to the rise of the project management profile in the construction industry, more employers understand and appreciate project management as a profession. This supports the requirements of relevant credentials and accreditations," he says.

In addition to maintaining the usual constraints, construction project managers contend with uncontrollable issues such as natural disasters, and increased environmental and safety regulations.

To work successfully with engineers, contractors and stakeholders, project professionals need strong communication skills and a cooperative attitude, Mr. Harrison says.

"Develop your communication skills early in your career," he says, suggesting to:

- Join Toastmasters, a public speaking and leadership organization.
- Do volunteer work that enhances communication skills.
- Offer to assist those above you at your organization.
- Work on proposals for your next project.

Project professionals in this sector should also be familiar with the various types of delivery methods used in the construction industry, such as design-build and design-bid-build.

"And more so than ever before, it is critical that project managers have good risk management skills," he adds, recommending a specialized certification, such as the PMI Risk Management Professional (PMI-RMP)® credential.

ENERGY

[Outlook: Getting brighter]



Worldwide energy consumption is on pace to grow by 53 percent from 2008 to 2035, according to the U.S. Energy Information Administration's *International Energy Outlook 2011*.

Project management is still new for many energy organizations—especially in developing nations, where much of the sector's future growth is predicted.

"Job prospects for project managers in the energy sector are improving, though at a very slow rate," says Olaoluwa Ibilola, Lagos, Nigeria-based business development manager at Korea National Oil Corp.

"The regions that have giant oil fields and facilities could be tagged as hot, including Libya, Kuwait, Syria and Norway," Mr. Ibilola says. "Demand for project managers also depends on the amount of discovery and development in these regions. For instance, a huge gas discovery has been made in Western Australia, and that will obviously mean more jobs for project managers in that region."

Renewable energy is also posting impressive numbers. It's slated to account for nearly one-third of the world's electric generating capacity by the end of 2035, according to a U.S. Energy Information Administration report. U.S. investors, executives and entrepreneurs predicted the clean tech and renewable energy sector would play at least a moderate (57 percent) or significant (25 percent) role in U.S. job creation over the next five years, according to a survey of industry leaders conducted by Cooley LLP.

In the United States, the solar energy industry has bright days ahead, with a 24 percent market growth and 24,000 new jobs predicted for next year, according to The Solar Foundation's *National Solar Jobs Census 2011*.

[Career Advice] Build up your expertise through a contract position.

It may be difficult for project managers to transition into the industry, Mr. Ibilola warns. "In energy, background knowledge of the sector is very important," he says, adding that project professionals should be familiar with the duties of petroleum engineers, geoscientists, drilling engineers, civil engineers and other roles of project team members.

"Prospective project professionals targeting the energy sector should focus on a particular aspect (for example production) and get familiar with the basic knowledge needed in this area," Mr. Ibilola says. "This can be achieved by reading several energy journals, some specific short courses on the area of interest or through on-the-job learning."

Due to the highly technical and capital-intensive nature of the energy sector, "awards of contract are mainly based on the track record of the individual or company having performed similar functions, technical skill and financial ability," he adds. "As such, a project manager who is not conversant in these areas will have some challenges."

FINANCIAL SERVICES

[Outlook: Stabilized]

The financial services industry has been slammed in the past few years, but ceased its freefall in 2011, according to the U.S. Bureau of Labor Statistics.

"Despite the hard times, there is a need for good project managers," Mr. Mascarenhas says.

Project management jobs are actually at less risk than others in the sector, Rob Cooper wrote on The IT Job Board Blog. With increased financial regulations and mergers afoot, insurance and banking companies are contracting project and program managers for their expertise.

[Career Advice] Pursue advanced education.

Credentialed project managers are more likely to win out over their non-credentialed counterparts, Mr. Mascarenhas says. And a master's in business administration (MBA) focusing on project management is especially enticing.

"Credentialed project managers can be depended upon to use systematic and defined processes," he explains. "The financial sector is very competitive, and a knowledge of project and program management will go a long way in creating robust systems."

An IT financial services project manager with an MBA has an average salary range of US\$73,915 to \$103,238, according to OnlineMBA.com.



GOVERNMENT

[Outlook: Rock-solid]

Governments around the globe are devoting more resources to IT and infrastructure projects. That spending has been a boon for project professionals, who are being brought on to add efficiency in how the projects are run.

New powerhouse nations such as India and China are throwing millions of rupees and yuan into road and airport construction, power and IT projects (such as India's national ID initiative).

The U.S. Office of Personnel Management recently added a specialized IT program management job classification and career path. In addition, IT programs that don't have full-time program managers will no longer be funded.



[Career Advice] Focus on IT.

Project professionals seeking government work should hone their technology skills, Mr. Mascarenhas suggests, as many opportunities are IT-related.

Sometimes your best bet is to seek employment among the IT giants hired by governments

rather than applying to the governmental organizations themselves, he adds.

Because government projects often are under public scrutiny, project managers in this sector should play up transparency, due diligence and accountability aspects.

HEALTHCARE

[Outlook: Healthy prognosis]

"In countries like the United States, Germany, France and the United Kingdom, the prospects are high," Mr. Mascarenhas says.

The United States expects to add 50,000 to 200,000 new healthcare IT jobs by 2015, according to a survey by the American Society of Health Informatics Managers.

In Australia, the healthcare IT market is expected to grow about 10 percent each year from 2009 to 2014, Frost & Sullivan reported. And the European Union announced its plan to digitize all of its citizens' health records by 2015.

Outsourcing hot spots such as India and Brazil should continue to fare well, as healthcare organizations take advantage of their talent pool of project professionals.

But opportunities are more limited in regions not known for developing new healthcare solutions, such as the Middle East, Mr. Mascarenhas adds.



[Career Advice] Implementation skills are a plus.

In some parts of the world, "the healthcare industry has not necessarily followed a formalized process before," Mr. Mascarenhas attests. So, as in other sectors, credentialed project professionals are in highest demand, he says.

Many organizations feel that "a credentialed project manager will bring to the table a combination of processes and systems, while a

non-Project Management Professional (PMP)[®]-certified project manager may miss something," according to Mr. Mascarenhas.

Healthcare IT projects tend to require strong interpersonal and communications skills to work well with administrators, doctors and nurses. In addition, many organizations require technical expertise in the medical field.

IT

[Outlook: Appears to be slowing down—but remains lucrative]

Looking to make their business processes more effective, more organizations are investing in IT projects. But global information technology spend will significantly decelerate this year, predicts Forrester Research. While spending will grow, the growth would be at half the rate seen in 2010, according to the *Global Technology Market Outlook*.

Technology spend will grow about 5.5 percent in 2012, compared with last year's approximately 11.5 percent. IT purchases globally will be US\$2.15 trillion in 2012, up US\$112 billion from last year. Spend on system integration and IT consulting related services will make up another \$405 billion, Forrester estimates.

As more organizations turn to the cloud to manage projects, software as a service (SaaS) in particular is gaining significant ground. More than 95 percent of organizations expect to maintain or increase their investments in SaaS, according to a study by Gartner—and more than one-third had projects to migrate from on-premise software to SaaS underway as of the middle of last year.

The information and communication technology markets in Asia Pacific, Central and Eastern Europe, the Middle East, Africa and Latin America are poised to grow the fastest, according to market intelligence firm IDC. **PM**



[Career Advice]

Look outside the IT industry proper.

As enterprise IT systems and SaaS developments become increasingly complex, IT project management will require a keen knowledge of that technology.

In addition, Alejandro Iván Tapia Lazcano, project manager at Fulltek S.A., an engineering and IT consultancy, working in Antofagasta and Santiago, Chile, says IT project managers must be skilled at:

- **Negotiation:** "All day we're negotiating," he explains, "primarily with stakeholders, service providers or the project team. We must balance all of the stakeholders' interests so everyone benefits."
- **Conflict management:** "IT project managers are intermediaries," Mr. Tapia Lazcano says. "We must unify all perspectives, and if the interests of stakeholders are not in line, we must intervene and ensure that they are."
- **Problem solving:** "If, for example, an event occurs that was not considered, this could affect the project schedule," he says. "IT project managers must come up with a fast and effective solution."

If you lack specific technical expertise, seek out a knowledgeable mentor, he adds. "An expert or consultant can be found in your professional network. Networking is very important and should be done whenever possible."

As for career opportunities, IT project managers aren't just in demand in the tech sector, Mr. Mascarenhas says. Because IT projects are now widespread at all types of organizations, those with experience can find entrée into a variety of industries.

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Source: Forrester Research