Understand the Industry’s Winter 2015 Outlook... Looking Ahead
As a consultant with FMI, Bridget Wandelt advises clients in the engineering and construction industry. Primarily, she conducts research to inform client strategy, including market sizing and forecasting.

Prior to joining FMI, Bridget was a senior analyst with ScottMadden, a management consulting firm focused on the energy and utilities industry. There she developed expertise in project management, operations improvement, process redesign, and research. Previously, Bridget worked in electric power project development in the United States and Europe.

Bridget attended the University of Virginia, graduating with a bachelor’s in environmental sciences and environmental thought/practice (coursework in policy and economics) and subsequently a master’s in environmental sciences. She is currently completing an Executive MBA at UNC-Chapel Hill Kenan Flagler Business School and will graduate in fall of 2016.
Founded in 1953 by Dr. Emol A. Fails, FMI is the leading management consulting, investment banking,† and people development firm dedicated exclusively to the engineering and construction industry. FMI professionals serve all sectors of the industry and combine more than 60-plus years of industry context and leading insights to achieve transformational outcomes for our clients. We have subject matter experts in the following practice areas and serve clients throughout the U.S., Canada, and internationally:

**Management Consulting**
- Strategy
- Market research
- Business development
- Operations and project execution
- Risk management
- Compensation
- Peer groups
- Performance management

**Investment Banking†**
- M&A representation
- Valuations and fairness opinions
- Private capital placement
- Ownership transfer planning

**People Development**
- Organizational leadership development
- Leadership training
- Executive coaching
- Succession planning
- Training and talent development

† Investment banking services provided by FMI Capital Advisors, Inc., a registered broker-dealer and wholly owned subsidiary of FMI.
Construction Outlook and U.S. Markets Construction Overview – published quarterly and annually, respectively, these publications provide detailed forecasts for the construction industry.

Nonresidential Construction Index report – published quarterly, this report quantifies sentiment/level of optimism among construction executives.
FMI offers several research solutions to assist with the development of your market strategy:

- **Market assessments** – define, characterize, and forecast key dynamics in the marketplace including:
  - Geographic assessment
  - Product/industry assessment
  - Construction segment

- **Market perception studies** – assess the market’s opinions of your service performance, brand image, competitive positioning, and degree to which you are meeting customers’ needs.

- **Craft labor studies** – craft labor studies evaluate the balance between market demand and the available labor supply.

- **Forecasting** – forecasts include econometric and demographic relationships developed by FMI and FMI’s analysis and interpretation of current and expected social and economic conditions.

- **Customized research services** – if you are facing a business problem, we can help. Reach out to us and we will prepare a customized proposal.
Today’s webinar

Construction market overview
Electronic systems outlook
Key trends
Q&A
The construction market is forecast to continue its current growth.

Total construction put in place, 1994-2019f
Billions of current dollars.
Source(s): FMI
Construction investment continues to recover following the Great Recession.

GDP and total construction put in place, 1994-2019f
Billions of current dollars.
Source(s): FMI
Corporate is forecast to grow 8.8% annually over the next four years.

Corporate construction put in place, 2000-2019f
Billions of current dollars.
Source(s): FMI

Drivers:
- Office vacancy rate
- Unemployment rate
Education is forecast to grow 5.4% annually over the next four years.

Education construction put in place, 2000-2019f
Billions of current dollars.
Source(s): FMI

Drivers:
- Population change younger than age 18
- Population change ages 18-24
- Stock market
- Government spending
- Nonresidential structure investment
Government is forecast to grow 3.6% annually over the next four years.

**Government construction put in place, 2000-2019f**

Billions of current dollars.
Source(s): FMI

Drivers:
- Population
- Government spending
- Incarceration rate
- Nonresidential structure investment
Healthcare is forecast to grow 6.3% annually over the next four years.

Healthcare construction put in place, 2000-2019f
Billions of current dollars.
Source(s): FMI

Drivers:
- Population change younger than age 18
- Population change ages 18-24
- Stock market
- Government spending
- Nonresidential structure investment
House of worship is forecast to grow 3.4% annually over the next four years.

House of worship construction put in place, 2000-2019f
Billions of current dollars.
Source(s): FMI
Lodging is forecast to grow 11.7% annually over the next four years.

Lodging construction put in place, 2000-2019f
Billions of current dollars.
Source(s): FMI

Drivers:
- Occupancy rate
- RevPAR
- Average daily rate
- Room starts
Manufacturing is forecast to grow 6.3% annually over the next four years.

Manufacturing construction put in place, 2000-2019f
Billions of current dollars.
Source(s): FMI

Drivers:
- PMI
- Industrial production
- Capacity utilization
- Durable goods orders
Retail is forecast to grow 5.4% annually over the next four years.

Retail construction put in place, 2000-2019f
Billions of current dollars.
Source(s): FMI

Drivers:
- Retail sales
- Core CPI
- Income
- Home prices
- Housing starts
- Housing permits
FMI’s Q1 2016 NRCI declined slightly, but still indicates growth.

FMI Nonresidential Construction Index (NRCI), Q4 2010 to Q1 2016
Scores about 50 indicate expansion, scores below 50 indicates contraction.
Source(s): FMI

The most recent NRCI of 55.6 is part of a downward trend since early 2015; however, it still indicates growth (>50).
Electronic systems outlook

Construction market overview  Electronic systems outlook  Key trends  Q&A
Commercial electronic systems account for 5.3% of total construction.

Nonresidential and electronic systems construction as a portion of total construction
Source(s): NSCA, FMI

- Total construction market: $1,058 billion
- Total nonresidential construction: $438 billion
- Total commercial electronic systems construction: $23.4 billion
Building automation and control saw the largest percentage increase 2014-15.

Commercial electronic systems outlook, 2013-2015
Billions of current dollars.
Source(s): NSCA, FMI
Commercial electronic systems activity is comparable across four regions.

Electronic systems construction by region, 2015
Source(s): NSCA, FMI
Key trends

Construction market overview
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The shortage of skilled workers is intensifying.
Connected lighting has finally taken off.

- Connected lighting refers to lighting systems that are wirelessly connected and send information on occupancy, activity patterns, changes in temperature or humidity, etc.
- Already widely used for street lights, facilities managers are showing increasing interest in implementing connected lighting solutions during building retrofits.
- Drivers:
  - Widespread use of LED lights
  - Drive towards energy efficiency
  - Increased concern for occupant comfort
The Johnson Controls-Tyco merger—a sign of things to come?

“The technology is converging. That’s the real opportunity that's coming along.”

— Alex Molinaroli, CEO of Johnson Controls
Bundling of complementary services can be a source of differentiation.

- One service contract (instead of multiple service contracts) reduces the paperwork and administrative burden for your customers.
- Before bundling products or services together, ask yourself:
  - How unique is my product or service?
  - Is the customer’s problem complex?
  - Can the quality of the service I offer be improved?
- Consider that bundling of products and services may be necessary in order to stay ahead of competition.
- A co-marketing arrangement with another firm, joint venture, or acquisition are all means of offering customers bundled products and services if you don’t currently.

Source(s): Harvard Business Review
Questions?