Everyone loves “executive summaries,” so let’s start this article, which deals with the current economic state of the U.S. paint and coatings industry, with one:

In the U.S. paints and coatings market, circa mid-2015, margins for coatings producers will continue to strengthen amid a more stable growth environment, supported by recovering end markets and favorable raw material pricing and availability. Titanium dioxide dipped yet again in Q1, and there are those who are predicting that it is likely to fall further prior to year-end.
Softer pricing for oil-based derivatives are also contributing to the health of the paints and coatings industry, which ended 2014 at an estimated 1,260 million gallons, valued at $22.1 billion (Figures 1 and 2).

In the United States, and to a somewhat lesser extent, globally, consolidation continues to be a key theme: with PPG’s Comex acquisition, the top three global coatings firms account for 62% of the top 10 global coatings firms’ sales, up from 48% 10 years ago (Figure 3). Overall, the tone remains upbeat for the major coatings producers, and—as long as the recovery continues its steady (albeit slower than most companies would wish) upward trajectory—things look pretty good for the regional producers, as well. Thus endeth the Executive Summary . . .
Now that that is out of the way, and the Executive Summary crowd has been satisfied, I would like to devote the remainder of this article to those who seek some of the detail and background dynamics that underpin the forces at work to create the scenario that I have just described. I would also like to focus this article so that it speaks to those within the industry who would benefit from the formation of a “Marketing–Technology Complex” within their own companies and, in a somewhat looser sense, within the coatings industry as a whole.

So what is a “Marketing–Technology Complex”? If one is of a certain age, it is easy to remember a striking, and strikingly prescient, turn of phrase that President Dwight D. Eisenhower used during the last speech of his administration on 17 January, 1961: “the military–industrial complex.” He was, of course, issuing a warning that the very principles underlying democracy in America were in danger of being assaulted from within, and—as it turned out—he was right on the money.

I’d like to turn a similar phrase, only this is one that should be seen as a suggestion that would produce positive results in the paints and coatings industry if properly—and broadly—implemented. The fact of the matter is this: for the past 20 years or so, coatings producers large and (to a lesser extent) small have been shedding technical and marketing specialists like cats shed hair in the spring, but without replacing them in the fall, as cats do with their hair. Unfortunately, technical and marketing personnel have been the casualties of “re-engineering” and “right-sizing” efforts in our industry, and the result is a tragic loss of the very people who can guarantee the future for the coatings industry and the companies that participate in it. There are so few chemists and technicians in most companies these days that, even though they can read their own copy of CoatingsTech for free if their companies are members of the American Coatings Association, they simply don’t have the time to do so. This is a terrible shame,
but an even greater shame is that the concept of Marketing, with a capital "M," has disappeared from the industry faster than the dinosaurs disappeared after the meteor strike. Capital M Marketing is not the modified sales function that it has become during the past two decades, when it has morphed into the essentially meaningless phrase, “Sales and Marketing.” Marketing is most emphatically not sales, nor are the same people who are suited to be Sales people by temperament, talent and training suited to be Marketing people. Sales people must have a strongly tactical bent to do their jobs effectively. Marketing people, however, must have a strongly strategic bent to do their jobs effectively. They are the antennae of an organization—and are equipped by both training and temperament to—

• Look farther down the road than the rest of us
• Seek new segments for the company’s products and platform technologies
• Sense product changes that will need to come about to keep satisfying current customers and regulatory requirements
• Identify areas in which new products will need to be developed for sustainable growth
• Ferret out unarticulated customer needs
• Determine future trends

While the ideal is for “everyone to work together as a team” in every company, this rarely happens. Sales groups work heroically to keep companies afloat by selling current products and recommending tactical actions and product improvements. They rarely have either the time or the temperament to work on strategic issues, however. For this to happen, the two groups that absolutely must work together are Technology and Marketing, so that they can identify and develop what will be needed in the future to create sustainable and profitable growth. This is the combination that really creates the opportunity for strategic, transformational product development to happen. This is what I mean by the phrase, “Marketing–Technology Complex.” It is a powerful concept; it is a meaningful concept; and it is a necessary concept for any paint or coatings supplier that wishes to be in business 10–20 years from now.”

THE U.S. COATINGS MARKET: A SLICE IN TIME

With that in mind, let’s take a look at what’s happening in mid-2015 in the U.S. paint and coatings market space. From a macroeconomic point of view, since the turn of the millennium, coatings have shown relatively steady growth of about 2%. The paints and coatings industry can be categorized into three market segments: architectural (aka: decorative), industrial OEM, and special purpose. The architectural coatings segment is recovering, and this is good news, since this segment accounts for 59% of the volume, and 48% of the value, within the coatings industry. The other two major segments of the U.S. coatings industry—industrial OEM and special purpose coatings—account for 29% and 12%, respectively, of the value and 31% and 21% of the value. (See Figures 4 and 5 with respect to the relative volume and value of these three major paint and coatings segments.)

Architectural

In the United States, architectural coatings sales are highly correlated with the health of the housing/construction market. Industrial OEM coatings benefit from a pickup in industrial production, while special purpose coatings tend to track with automotive sales and total miles driven (refinish paints)—and construction and the price of oil (industrial maintenance coatings).

Architectural coatings were the star performer in 2014. Greatly helped by volume growth of 2.9% and pricing gains of 1.1%, the architectural coatings segment grew at a 4.0% compound annual growth rate (CAGR) in value. Special purpose coatings grew at a rate of 1.4%, with industrial OEM at 3.8%. Architectural and OEM coatings are expected to have a solid 2015, while the special purpose segment faces headwinds from weak oil and gas activity. While weaker oil prices have a disproportionately negative effect on special purpose coatings, particularly with regard to industrial maintenance (I/M) coatings, they should provide a raw material tailwind for all three end markets.

Architectural coatings sales are forecast to rise 3.7–3.9% in 2015, based on an anticipated,
and very significant, volume growth of 3.4–3.7% and an increase in selling price of 0.3%. (From a historical perspective, as a result of increased volume and price, the total value of coatings sold is more than 20% above 2005 levels—see Figure 6.) It is reasonable to anticipate margin improvements throughout the entire value chain, since approximately 50% of raw material purchases are tied to oil, whether one or multiple chains away. Another 30% is tied to titanium dioxide pigments, which dropped in Q1 of 2015, and appear to be seeking a bottom, with many industry observers anticipating further declines as the year marches toward its end.

With regard to regulatory trends, there is a potential shift toward lower volatile organic compound (VOC) formulations for interior paints, with California considering lowering the threshold of content allowed to 25 g/l. If it should take this route without allowing exceptions, then it is likely that the response from paint companies will be a shift to ultra-low VOC coatings (≤10 g/l), rather than to 25 g/l, using the logic that California will eventually lower the level from 25 g/l, and there is little to be gained from the time and effort necessary to reformulate multiple product lines twice, rather than once. If, however, California should lower the VOC limit to 25 g/l, but allow the current “low VOC” (<50 g/l) paints to continue to be sold in return

Figure 7—U.S. architectural coatings split between Pro and DIY (1980–2014).
for a “carbon fine” of one sort or another, then it is likely that the industry will continue into the foreseeable future with a mixture of low-VOC and ultra-low VOC coatings.

The upward shift toward contractor-applied paints (“Pro”) that began in 2012, following a steep decline during 2006–2010 as a result of the run-up to, and the results of, the Great Recession (December 2007–June/July 2009), continued into 2014, increasing the relationship of contractor-applied paint to Do-It-Yourself (DIY) paint to a ratio of 59% to 41%, the highest that this ratio has been since 2006 (Figure 7). Barring any unforeseeable economic events, this upward shift toward contractor-applied paints will continue, at a rate of approximately 80–100 basis points per year, through 2019, when it is likely to stabilize for a period of time around 63–64% contractor-applied paint. The reasons for this growth are largely demographic:

- Baby Boomers are growing older, and are moving away from DIY and toward Pro.
- The “DIY factor” is not very significant with Gen X—both husbands and wives need to work, and are less likely to undertake any type of DIY activities than are single-earner households.
- Millennials have not yet entered DIY territory—many are unmarried, living at home and/or are unable to obtain credit. Home ownership for them will be delayed from their mid-twenties to their mid-thirties.

Convenience paints (“2-in-1”/“Primer and Paint in One,” etc.) also performed well for the architectural segment, as a public that is increasingly concerned about the demands on its time is looking for time-saving DIY products. Pro painters, however, still prefer primer + topcoat systems, and are unlikely to embrace the “paint plus primer in one” concept between now and 2019.

Because the architectural coatings segment is so intimately related to construction, it is positive news that construction in the U.S. continues its prolonged recovery from the unprecedented low point experienced in 2011. Total construction spending exhibited year-over-year (yr/yr) growth of 9% in 2012, and 5% in 2013 and 2014. While impressive, these years followed five years of declines from the 2006 peak, which drove overall construction spending down ~32%. This strongly suggests that there is further growth potential for architectural coatings during the period 2014–2019 (see Figure 8).

With construction in both the private and the public sectors on the upswing, this is a good sign for 2015 and beyond. The private sector has an especially powerful impact on the sales of architectural coatings, so it is particularly important to note that housing starts are projected to reach 1.12 million units in 2015, up 12% from 2014, with the potential for reaching 1.23 million units in 2016. Adverse weather conditions delayed the start of the construction season in 2015, but a return to normal weather in the spring helped to boost the activity level. The seasonally adjusted annual rate (SAAR) of housing starts for April was 1.14, up 9.2% yr/yr.

Existing home sales are also looking very positive, which is extremely important, since as
**Figure 9**—Remodeling market index (Q1 2004–Q1 2015).

**Figure 10**—U.S. industrial OEM coatings, volume and value (2005–2014).

**Figure 11**—U.S. total motor vehicle assemblies (2005–Q3 2015e).

Source: National Association of Home Builders (NAHB) and The ChemQuest Group, Inc.

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much as 75–80% of architectural coatings are tied to existing home sales and remodeling. In Q1’15, existing home sales were up 6% yr/yr. Finally, homeowner improvements play a very significant role in the sales of architectural coatings and, as can be seen in Figure 9, after a dramatic drop in the Remodeling Market Index from 57.4 in Q1 of 2004 to 21.9 in Q4 of 2008, it rebounded to a new high of 59.6 in Q4 of 2014.

**Industrial OEM**

During 2014, the U.S. industrial OEM segment generated $6.9 billion in sales (~360 million gallons by volume). After posting sales growth of 3.8% in 2014, industrial OEM coatings are forecast to increase 3.5% in 2015, with volume and pricing up 2.8% and 0.7%, respectively. As of 2014, volume remained 14% below the most recent peak, however, which occurred in 2005 (Figure 10).

The OEM segment was led by robust activity in the automotive sub-segment, where light vehicle sales (automobiles, light trucks, vans and SUVs; total of domestic production, transplants, and imports) increased for the fifth year in a row and are forecast to approach 17MM units during 2015 (Figure 11).

While the continued recovery of manufacturing in the United States may be negatively affected by the stronger dollar, lower-cost raw materials should provide an offset. The OEM segment contains over a dozen sub-segments, of which appliances, HVAC, fireplaces, microwaves, rigid and flexible automotive exterior trim systems, brake systems, coil coatings, and wood furniture and cabinets are just a few representative coatings areas (Figure 12). As a result, the industrial OEM segment tends to be driven by a variety of factors, although most are involved in one way or another with the macroeconomic environment. An example of this is the negative effect that slowdowns in mining and agriculture have had on industrial OEM coatings, and the lower price of oil has hurt OEM coatings sales for equipment that is manufactured for the fracking process, as a result of cutbacks in that process.

Major trends in the OEM market segment are driven by the need for products that create operational efficiencies (increase productivity/reduce labor/lower cycle times), and increase sustainability (reduce CO₂ footprint) and innovation (infrared reflectance/noise vibration/insulation). Overall 2015 sales are expected to grow 3.5%, led by volume, which will be up approximately 2.8%.

**Special Purpose Coatings**

In 2014, the special purpose segment contributed $4.4 billion (~160 million gallons) of the $22.2 billion generated by the U.S. paint and coatings industry. This represents only 12% of the volume, but 20% of the value, of all coatings produced. Compared to 2013, volume for 2014 was up slightly less than 1%, but value was flat. Projections for 2015 suggest a volume decline of as much as 1.5%, albeit with a slight increase of

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![Figure 12](image-url)  
**Figure 12**—Major sub-segments of the U.S. industrial OEM coatings market segment (2014).
0.5% in selling price (Figure 13). If this projection turns into reality, as is likely to be the case, 2015 will be the first year since 2010 exhibiting negative volume, due largely to the weaker oil and gas activity that will impinge upon industrial maintenance/protective coatings sales.

The special purpose coatings market segment serves far fewer end-market segments and sub-segments than are served by industrial OEM coatings, but—as an overall segment—typically commands higher margins than OEM coatings. The major end markets for special purpose coatings include automotive refinish, industrial maintenance/protective coatings, traffic-marking paints, marine coatings and aerosol paints (Figure 14).

Marine coatings are directly related to shipbuilding activity which is cyclical in nature and demand for which has softened recently as a result of a relatively severe slump caused by market deterioration in the flagship bulk ship market during Q1/Q2 of 2015. The Chinese shipwrights were hurt the most by this slump—the general opinion of the analysts is that Korea and Japan have high-performance ship technology that is superior to that available in China, so the remaining business in this sector is resident in those two countries. Because shipbuilding is concentrated almost exclusively in South Korea, Japan and China (41%, 29% and 24%, respectively), this leaves only a 6% share of the global market for all other countries. For this reason, shipbuilding is not a driver for the sale of marine coatings in the United States, where marine coatings primarily address the needs of pleasure craft, military ships, platform and offshore supply vessels, etc.

Automotive refinish paints are indirectly tied to the number of miles driven and directly tied to the accident rates. For several years prior to 2010, largely as a result of declining accident rates in the United States, automotive refinish paint volume had been dropping, at a rate of roughly 0.5–0.7%/year (reliable numbers prior to 2012 do not exist). This was largely the result of improved education of the populace with regard to safer driving habits, as well as the advent of safer and “smarter” cars that are making it easier for drivers to avoid accidents—and to minimize the amount of damage when an accident does occur—with an assortment of devices from energy-absorbing bumpers to backup cameras and automatic controls that keep cars from accidentally crossing the center line. Between 2010 and 2014, this trend appeared to reverse itself, and automotive refinish paint volume not only stabilized but increased. This was partly the result of a “pent up demand” factor at work, as car owners delayed fixing cars damaged during the Great Recession of 2008–2009 until the economy
began to look somewhat better in 2010–2011. Another major factor has been the high number of new cars on the road, since car owners tend to have scratches and minor dings repaired on a new car, but not on an older car. Finally, the accident rate has been negatively impacted by the newest driving distractions in the form of activities such as talking and texting while driving and glancing at the GPS screen. We believe that the apparent reversal of this trend over the past three to four years is temporary, however, and expect to see automotive refinish coatings trending downward again in volume by 2016–2017, as distractions are reduced and safety factors enhanced.

Value for automotive refinish coatings has historically been quite high, and in the past it was relatively easy for producers to increase prices by 4–5%/year, because the cost of the paint was so low relative to the cost of labor and other materials to repair a car, that it was rarely challenged. It is, therefore, quite a change to forecast that selling price, rather than being routinely increased by 4–5%/year, is now entering an era in which the ability to raise prices will be more dependent upon inflation and general economic circumstances, which resulted in price increases (realized, not announced) for 2015 of 2–3%, and we forecast that they will be closer to 1–2% for 2016.

The Industrial Maintenance (I/M) market segment (also referred to as the protective coatings market segment) represented volume of 40.1 million gallons valued at slightly under $1.3 billion in 2014. I/M coatings are tied very heavily to construction, maintenance of medium- and heavy-duty facilities such as petrochemical and wastewater treatment plants, and oil and gas production—and indirectly tied to the global price of crude oil, as a result. In 2014, the I/M market sector benefitted from the uptick in construction activity, as the commercial and public sectors finally began to show signs of life following a very slow recovery from the Great Recession. Counterbalancing this positive activity was the fall in the price of crude oil during the final six months of 2014, which caused a considerable slowdown in fracking activity, and a reduction in the demand for the equipment, pipelines, etc., that are necessary to support this activity—all of which are coated with I/M paint products.

DATA IS GREAT, BUT ACTION IS BETTER

Okay—the numbers, trends and drivers have all been presented for those readers who have arrived at this point. This is the data. The real question is this: How are we, as an industry—and how are individual companies that are now armed with this information—going to use it? The possession of data is always comforting. It gives us the feeling that we are in control—the feeling that armed with fundamental information about our industry, we will automatically have an understanding of that industry, which will in turn confer safety and prosperity upon both the present and the future of our individual businesses. . . .

. . . Nothing, of course, could be further from the truth. The possession of data is falsely comforting. Industry trends on a macro scale do nothing to help individual companies with tactical decisions, since they normally don’t perceive such trends until it is too late to make really substantive tactical decisions. Financial and trend data only have value if they are used to help coatings producers make strategic decisions regarding where they are going to position themselves in the future, based upon the predictive ability of information available in the present. The only way in which the creation of strategy can be effected, however, is via a deeply committed working relationship between Marketing and Technology—a cooperative effort between those whose antennae detect the direction in which the wind is blowing, and those who can develop the products that are able to follow the wind to new and exciting destinations.

The years between 2014 and 2019 will be good ones, but the forces that account for this are already in place—each individual coatings producer has the ability to make tactical decisions that will either take advantage of the underlying economic, demographic and sociological forces, or run counter to them and pay a high price for doing so. The real question, therefore, is not “what should we be doing between now and 2019,” but what should we be doing now to prepare for the years beyond 2019. This is where the need for the creation and nurturing of a Marketing–Technical Complex comes to the fore, if we wish to harvest the fruits of a truly strategic approach that will take the best and most forward-looking companies past 2019 and well into the future.

The phrase “Military–Industrial complex” does justice to President Eisenhower’s perception and ability to think strategically, even though the result has not been positive for the United States. Let’s honor his memory by paraphrasing his warning, but with a “twist” and—in so doing—create a “Marketing–Technology Complex” that will be a vital, positive and very active part of the future of the U.S. paint and coatings industry.

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