Smart Structures in the Construction Industry: A Market and Technology Forecast - 2016 to 2025

Description: This report pinpoints the opportunities for smart structures in the construction industry and quantifies them in form of ten-year volume and value forecasts. These forecasts include breakouts by type of technology, materials, and components used. And while the current focus of smart structures is on large prestige buildings, this report also discusses how current technology trends will bring the benefits of smart structures down to smaller buildings and residential construction.

The forecasts in this report are also segmented by the geographical location of the building in which the smart structures are used – all construction is local and the forecasting models used here are designed to map smart building activities in specific countries and regions into our projections. For example, we have specifically taken account of activity in the Middle East in this report, because so many smart buildings are being constructed in this region at the present time with smart structures inside.

The analysis in this report ranges over the complete value chain and covers materials, components and final products. Our intent is to provide a technological roadmap for smart structures in the construction, showing how they can create value by enhancing the safety, energy efficiency, aesthetics, and lifetimes of buildings. This roadmap analyzes the revenue generation potential for smart structures in buildings ranging from existing products such as smart windows and SHM systems, through the latest self-cleaning walls to future smart skins using the most advanced smart materials.

Finally, this report examines the product market strategies of leading suppliers active in this space. This analysis includes both the largest firms playing at the international level and interesting new startups. We also examine where the funding for these companies is coming including a look at important government funding for smart structure deployment in the construction industry.

This study is part of n-tech's ongoing and expanding program of analysis of smart materials markets. Previous reports have covered self-healing materials, self-cleaning materials, color-shifting materials, smart coatings, smart surfaces, smart composites, smart windows, etc. The goal of n-tech smart materials program is to identify where the money will be made in smart materials and to set out realistic product market strategies for smart materials that make sense in today's economy.

Contents:
Executive Summary
E.1 Opportunities Presented by Smart Structures Deployment in the Construction Industry
E.1.1 Smart Materials Firms and the Specialty Chemicals Industry
E.1.2 Sensor and Components Makers
E.1.3 SHM and Control Systems Firms
E.1.4 Building Materials Firms
E.1.5 The Construction Industry: Architects, Designers and General Contractors
E.2 Summary of Market Opportunity by Geography: Ten-Year Forecasts
E.3 Summary of Market Opportunity by Addressable Market
E.3.1 Ten-Year Forecast of Smart Structures in Construction: Prestige Buildings
E.3.2 Ten-Year Forecast of Smart Structures in Construction: Other Commercial and Industrial Buildings
E.3.3 Ten-Year Forecast of Smart Structures in Construction: Residential Construction
E.3.4 Ten-Year Forecast of Smart Structures in Construction: Retrofit and "Facelift" Market
E.4 Six Firms to Watch in this Sector

Chapter One: Introduction
1.1 Background to this Report
1.1.1 Evolution of Smart Structures in the Construction Industry
1.1.2 Smart Structures as Damage Control: From Isolation Designs to SHM
1.1.3 Towards Smart Building Skins: The Role of Smart Structures
1.1.4 Patterns of Opportunity
1.2 Objective and Scope of this Report
1.3 Methodology of this Report
1.3.1 Forecasting Methodology
1.4 Plan of this Report

Chapter Two: Smart Structures in Construction: Materials and Technologies
2.1 Smart Materials for Smart Structures
2.1.1 Shape Memory Alloys
2.1.2 Piezoelectric Technology
2.1.3 Self-Cleaning and Self-Healing Technologies
2.1.4 Color-shifting Materials
2.1.5 Biomaterials
2.1.6 Other Important Smart Materials for Smart Structures in the Construction Industry
2.2 Sensors for Smart Structures
2.2.1 Fiber Optic Sensors
2.2.2 Strain Gauges and Related Sensors
2.2.3 Other Sensors for Smart Structures in the Construction Industry
2.3 Role of Smart Concrete, Smart Asphalt, Smart Brick, etc.
2.3.1 Technology Evolution of SHM Systems
2.4 Ten-Year Technology Forecast for Smart Structures in the Construction Industry
2.4.1 Smart Materials including Smart Concrete
2.4.1 Sensors
2.4.2 SHM
2.5 Key Points from this Chapter

Chapter Three: Smart Structures in Construction: Market Evolution
3.1 Mature Markets for Seismic Monitoring and Recovery
3.2 Other Disaster Recovery Markets
3.3 SHM: New Markets and Functionalities
3.4 Shift Towards Smart Skins
3.4.1 Enhanced Energy Efficiency and Environmental Functionality
3.4.2 Lowering the Cost of Construction
3.4.3 Increasing the Lifespan of the Building
3.4.4 Improving the Aesthetics of the Building
3.5 Key Points from this Chapter

Chapter Four: Smart Structure Deployment in Construction: Geographies and Markets
4.1 Smart Structures Inside: An International Comparison
4.2 Beyond New Prestige Buildings: Retrofits and Residential Markets
4.3 The Impact on the Smart Cities on the Future of Smart Structures
4.4 Similarities to the BIPV Market
4.5 Smart Structures in the US Construction Market
4.5.1 Notable Buildings Using Smart Structures in the US
4.5.2 Expectations for the US Construction Industry: Implications for Smart Structures
4.6 Smart Structures in the European Construction Market
4.6.1 Notable Buildings Using Smart Structures in Europe
4.6.2 Expectations for the European Construction Industry: Implications for Smart Structures
4.7 Smart Structures in the Japanese Construction Market
4.7.1 Notable Buildings Using Smart Structures in Japan
4.7.2 Expectations for the Japanese Construction Industry: Implications for Smart Structures
4.8 Smart Structures in the Chinese Construction Market
4.8.1 Notable Buildings Using Smart Structures in China
4.8.2 Expectations for the Chinese Construction Industry: Implications for Smart Structures
4.9 Smart Structures in the Middle East Construction Market
4.9.1 Notable Buildings Using Smart Structures in the Middle East
4.9.2 Expectations for the Middle East Construction Industry: Implications for Smart Structures
4.10 10-Year Forecast of Addressable Market for Smart Structures by Geography
4.11 Key Points from this Chapter

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