

# Smart Built Environment in Turkey



## Basic Data on the Economy

GDP Per Capita (PPP): \$9,130

Population: 78,665,830

Urban Population : 57,738,359

Industries: Automobile, Agriculture, Construction, Energy, Chemicals, Petrochemicals, Textiles, Tourism

The Largest Turkish Cities: Istanbul, Ankara, Izmir, Bursa, Konya, Antalya, Kayseri, Adana, Gaziantep

## Market Insight

Turkey features the third largest urban population in Western Europe. Along with the increase in urbanization rate (75%), the number of residential and commercial buildings in large cities has risen sharply.

Turkey expects a strong growth in green building industry. Higher perceived value of green buildings and decreasing operating costs are the most important reasons that most professional firms in Turkey become interested in having green buildings. Building or having green properties helps companies to create higher and socially responsible brand image.

Turkey's green buildings are more of a presence than ever. In 2015, Turkey ranked as the 9th in the world in the number of LEED applications and it was in the first place in Europe. As of September 2016 there are 159 LEED (rose from 21 in 2012), 47 BREEAM, 1 DGNB certificated buildings in Turkey. These numbers are rising rapidly as there are around 500 on-going projects that are in the application process. All the new malls are built as green malls (BREEAM in this case) and all the major office buildings are likewise.

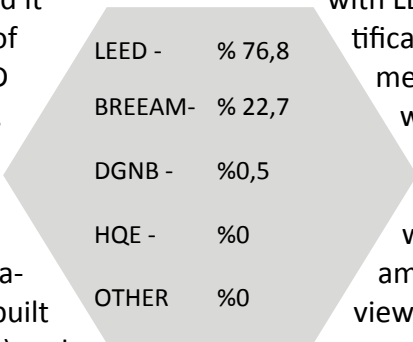
In Turkey, there are also other certifications in addition

to LEED and BREEAM. Turkish Green Building Council, Turkish Standards Institute and a university also created their own green building standards. A team formed by different government entities, universities and NGOs under the coordination of Ministry of Environment and Urbanization (MoEU) is working on unifying these Turkish green building standards.

Although there are several private examples, the first public green buildings of the Turkish government has started with the UNDP's Project on **Promoting Energy Efficiency in Buildings** . You can find more info [here](#).

Ministry of Health has announced in 2015 that the public hospitals over 200 beds has to be green buildings with LEED certifications. So far, LEED is the only certification specified to be used at hospitals. This means 204 public hospitals already in operation will be retrofitted with green building technologies and have LEED certifications in the future. Moreover they will build the new ones with those technologies. Ministry of Health's ambitious hospital investment plans can be viewed from [here](#).

U.S. companies are perceived as frontrunners in the green building technologies. Therefore there is a great opportunity in Turkey for US firms.



## LIGHTING

- Lighting appliances were the most dynamic category in home furnishings with value growth of 10% in 2015.
- LED lamps experienced 31% whereas compact fluorescent lamps (CFL) recorded 20% value growth largely owing to the increasing awareness of energy efficiency and cost of electricity.
- Opportunity: 6,5 million halogen street lamps in Turkey will be changed to LED lighting during the next five years.



## BUILDING AUTOMATION

- In 2015, 12.4 million houses and 8.2 million apartments existed in Turkey.
- Between 2016-2030, number of houses will rise by 20% while apartments will increase by 24%.
- Both housing types are seeing rapid expansion as economy grows. Urbanization and population expansion are pushing demand for new technologies and new homes in large cities. People are becoming more interested in automated buildings and smart homes and the developers are differentiating their properties with smart and energy efficient applications.
- Many US companies are already active in Turkey such as Honeywell and Johnson Controls, however, there is room for other U.S. suppliers.



\*Turkish Contractors Association's LEED Platinum HQ Building

## HVAC & Water

- In 2015, exports to Turkey in the HVAC sector was worth \$7,4 billion. In 2023, this number is expected to be \$10,7billion, rising from \$6,6 of 2013.
- Even though ,there is some local production in the HVAC sector, the raw materials are 70% imported.

## Important Trade Shows and Events

1. **WICS 2016 - World Intelligent Cities Summit & Exhibition — October 5 & 6, 2016** - <http://www.wicsummit.com/>
2. **SBE16 - The Sustainable Built Environment Conference - October 13 & 15, 2016** <http://www.sbeistanbul.com/>
3. **Second International Smart City Conference - March 2017—** <http://www.kamuteknolojiplatformu.org/>
4. **EKODesign - April 2017** - <http://www.yemetkinlik.com/> & <http://www.yemetkinlik.com/etkinlik/ekodesign-konferansi-2016-337.html>
5. **Turkey Build—Throughout 2017 in Istanbul, Ankara, Izmir —** <http://www.yapifuari.com.tr/en-GB/>
6. **Turkish Green Building Council Congress - 2017—**<http://www.cedbik.org/>

## ENERGY PERFORMANCE MEASURES

- There is a legislation on energy efficiency in the buildings that sets the framework for the standards of energy performance and the calculating tools in the buildings. Old and new buildings have to comply with this legislation.
- There are several other government projects on the sustainability in the buildings. Build Upon Project (<http://buildupon.eu/>), implemented by EU, aims to help Turkey to establish a 'national renovation strategy' to reach high standards of energy efficiency.
- Istanbul Seismic Risk Mitigation and Emergency Preparedness Project (ISMEP), led by the Governorship of Istanbul, is being implemented for the retrofitting or reconstruction of priority public facilities by using sustainable technologies for the purpose of strengthening public buildings as part of the disaster management. More details are at this [link](#).
- Another EU project that MoEU is handling is "Improving Energy Efficiency in the Buildings" (<http://beva.csb.gov.tr/>). The project aims to address the gaps and needs that exists in the current energy efficiency legislation and institutional framework for new and existing buildings in Turkey, and to align these with the European policies and directives related to energy efficiency in buildings, particularly the Energy Performance in Buildings directive.

## SUSTAINABLE BUILDING MATERIALS

- Market for sustainable building materials are expanding parallel with the green building sector and the demand is increasing.

### Key Contacts

- **Turkish Green Building Council (ÇEDBİK)** — <http://www.cedbik.org/>
- **The Association of Real Estate Investment Companies (GYODER)** - <http://www.gyoder.org.tr/en/>
- **Turkish Contractors Association (TMB)** - <http://www.tmb.org.tr/eng>
- **The Association of Thermal Insulation, Waterproofing, Sound, Insulation and Fireproofing Material Producers, Suppliers and Applicators (İZODER)** - [www.izoder.org.tr](http://www.izoder.org.tr)
- **Association of Housing Developers and Investors (KONUTDER)** - [www.konutder.org.tr/](http://www.konutder.org.tr/)

- **The Turkish Society of HVAC and Sanitary Engineers (TTMD)** - <http://www.ttmd.org.tr/>
- **Air Conditioning & Refrigeration Manufacturers (İSKİD)** - [www.iskid.org.tr](http://www.iskid.org.tr)
- **Union of Air Conditioning Sector Exporters (İSİB)** - [www.isib.org.tr](http://www.isib.org.tr)

### CS Contact in Turkey

- **Yaprak Cakilcioglu**  
Tel: +90 312 457 7136  
Email: [Yaprak.Cakilcioglu@trade.gov](mailto:Yaprak.Cakilcioglu@trade.gov)