



World Energy Investment 2017

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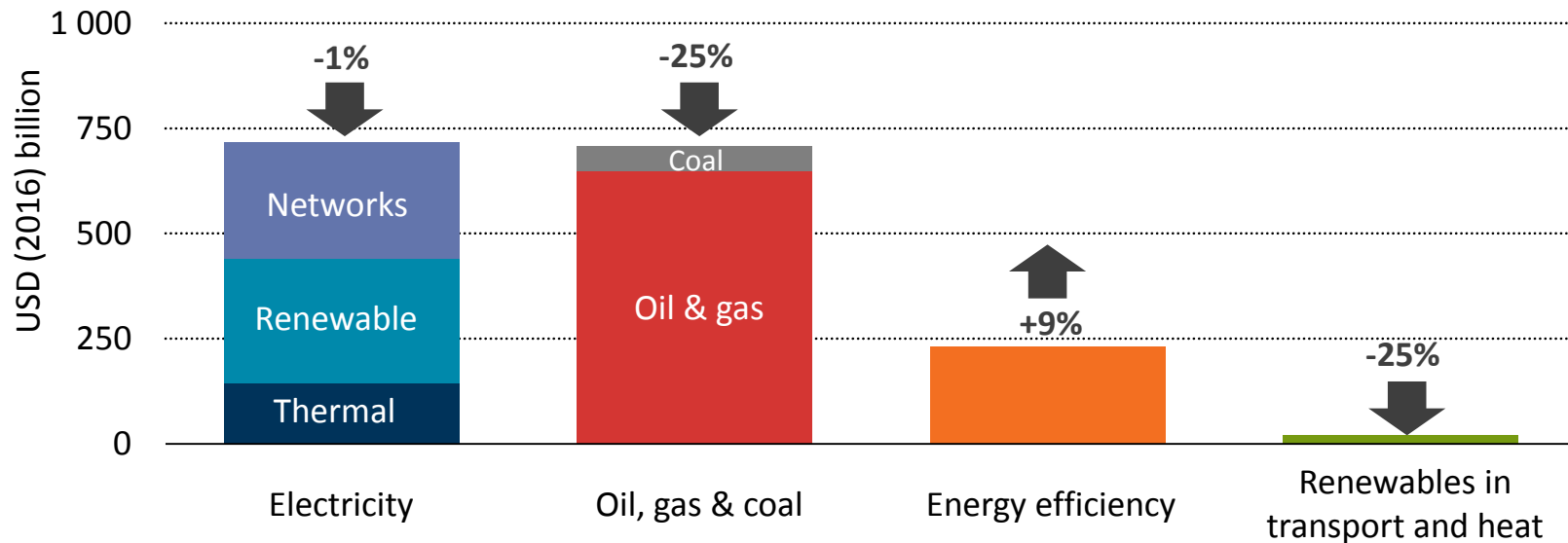
11 July 2017



Global energy investment fell 12% in 2016, a second consecutive year of decline



Global energy investment 2016

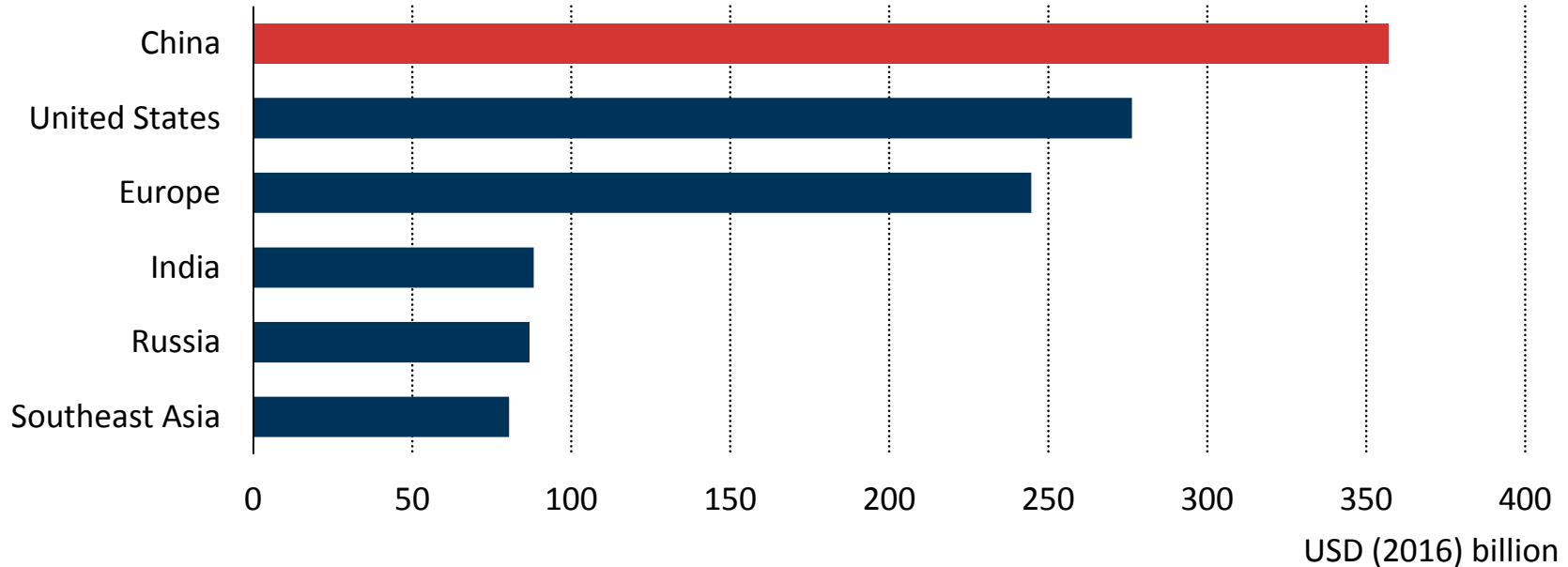


Total energy investment was \$1.7 trillion in 2016. Electricity sector investment overtook oil and gas for the first time, while energy efficiency was the biggest growth sector.

China remains the first destination of energy investment in 2016



Energy investment in selected markets, 2016

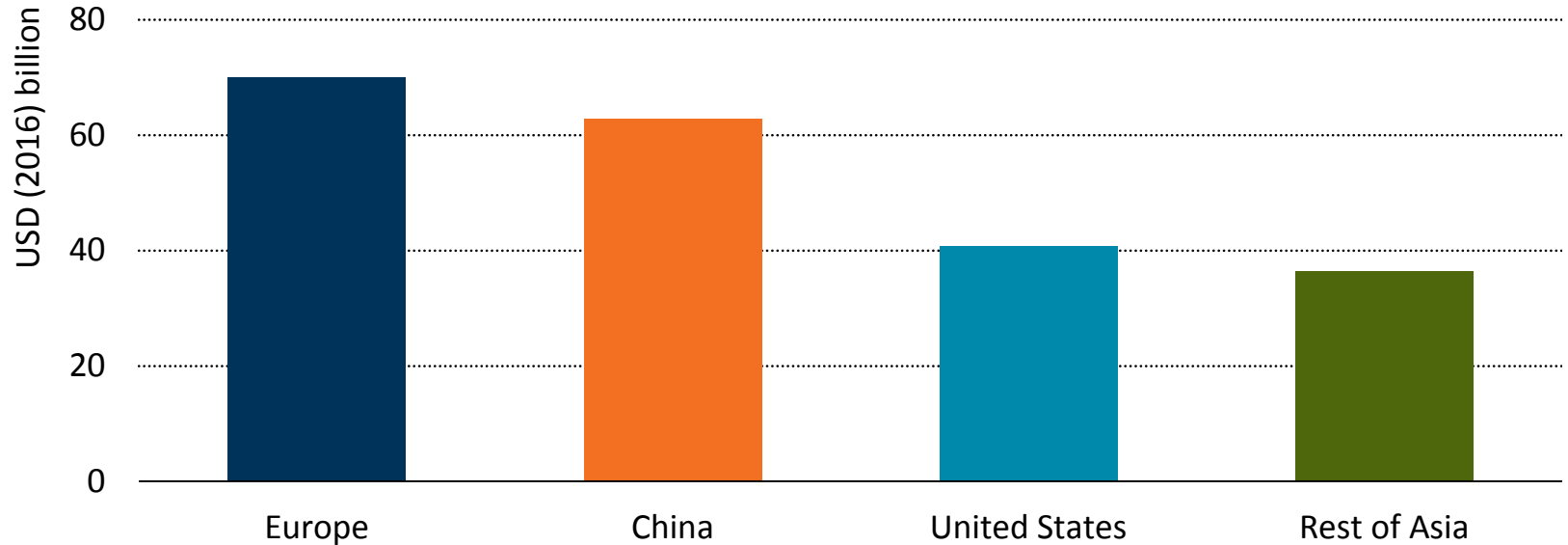


China represented 21% of global energy investment, supported by electricity supply and networks; despite a sharp decline in oil and gas, the US total share rose significantly.

Europe leads efficiency spending but China is set to overtake it by 2018



Global energy efficiency investment, 2016

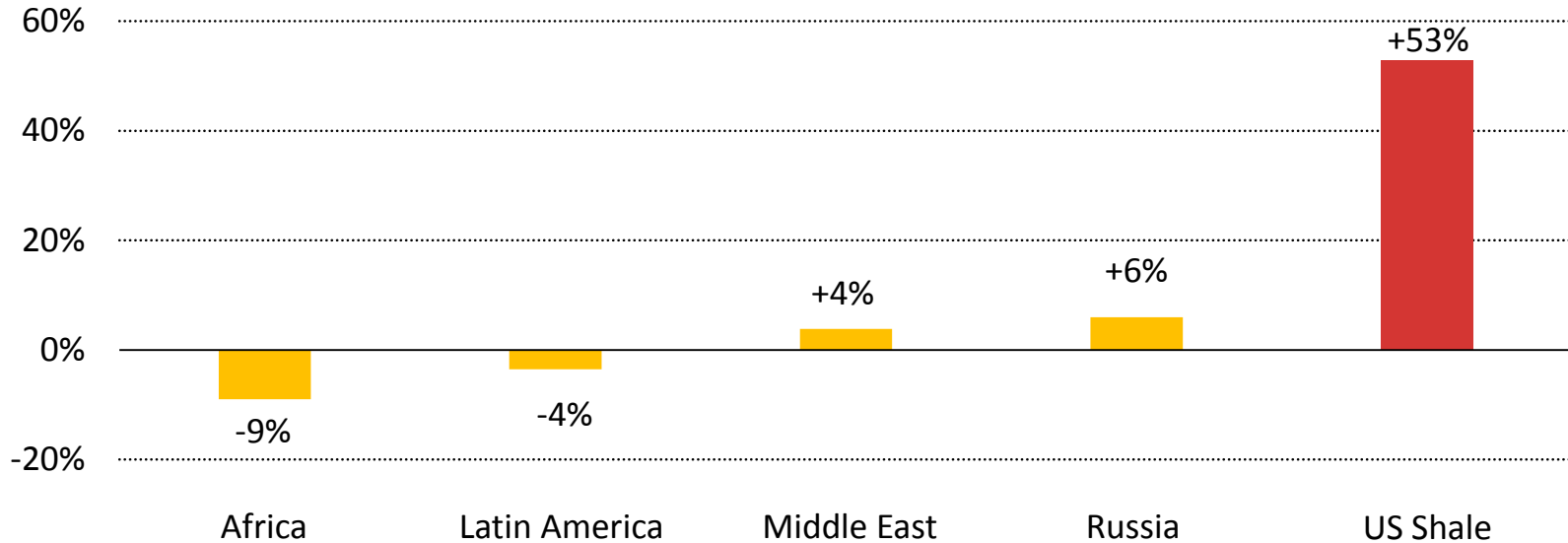


Policy continues to underpin efficiency spending, especially in buildings insulation, heating systems and home appliances. Much of the growth in transport efficiency spending is in electric vehicles.

A two-speed world oil market



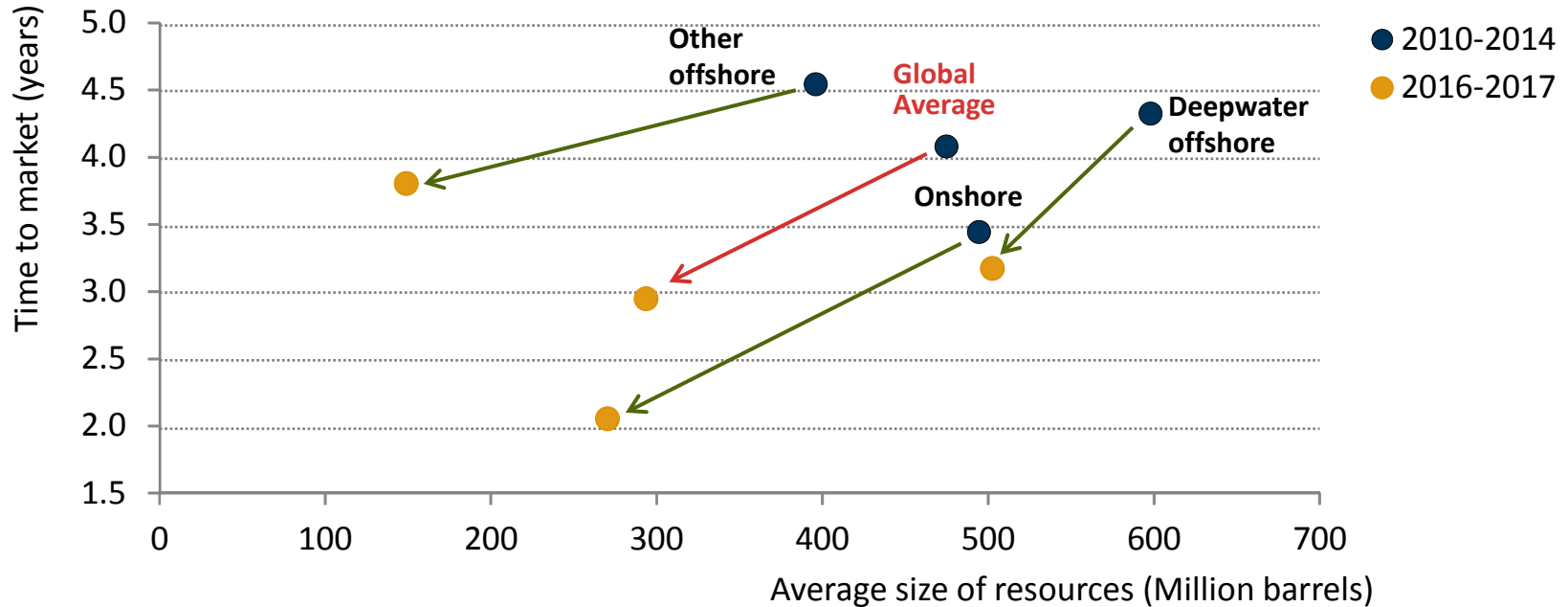
Change in Upstream investment, 2017 vs 2016



After two years of unprecedented decline, global upstream investment is expected to stabilize in 2017, but downside risks remain

Oil and gas projects moving to shorter timelines and smaller sizes

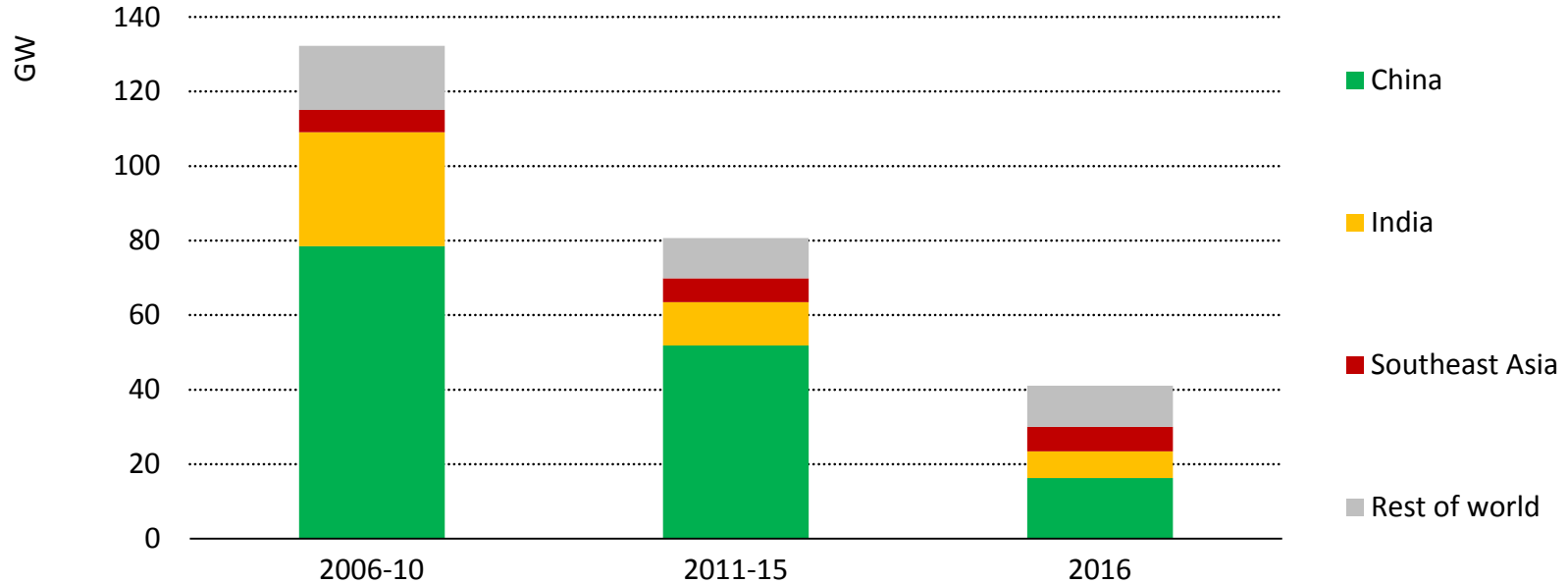
Average size of conventional resources sanctioned and time-to-market



A shift in company strategies and technology developments leads to shorter project cycles across all the oil and gas industry

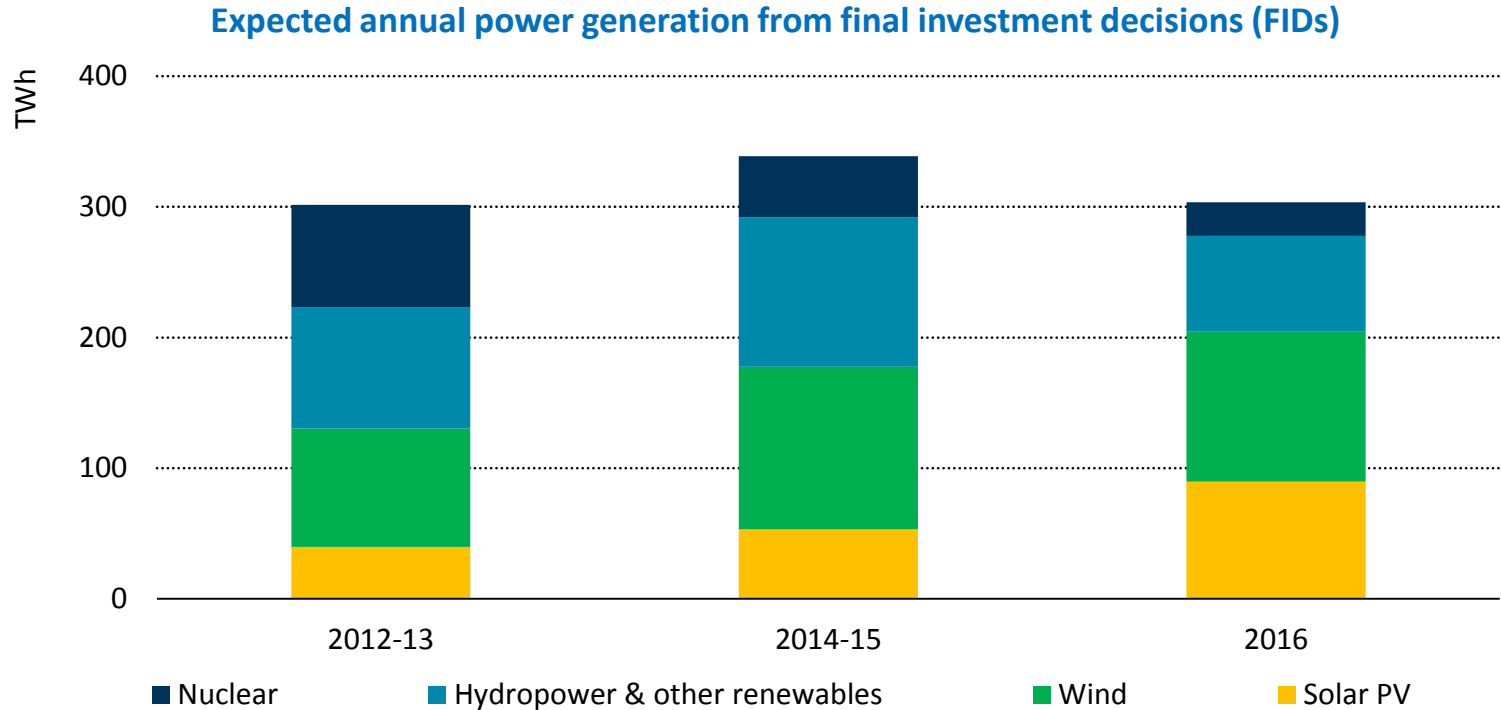
A wave of coal power investment is coming to a pause

Average annual final investment decisions (FIDs) for new coal-fired power capacity



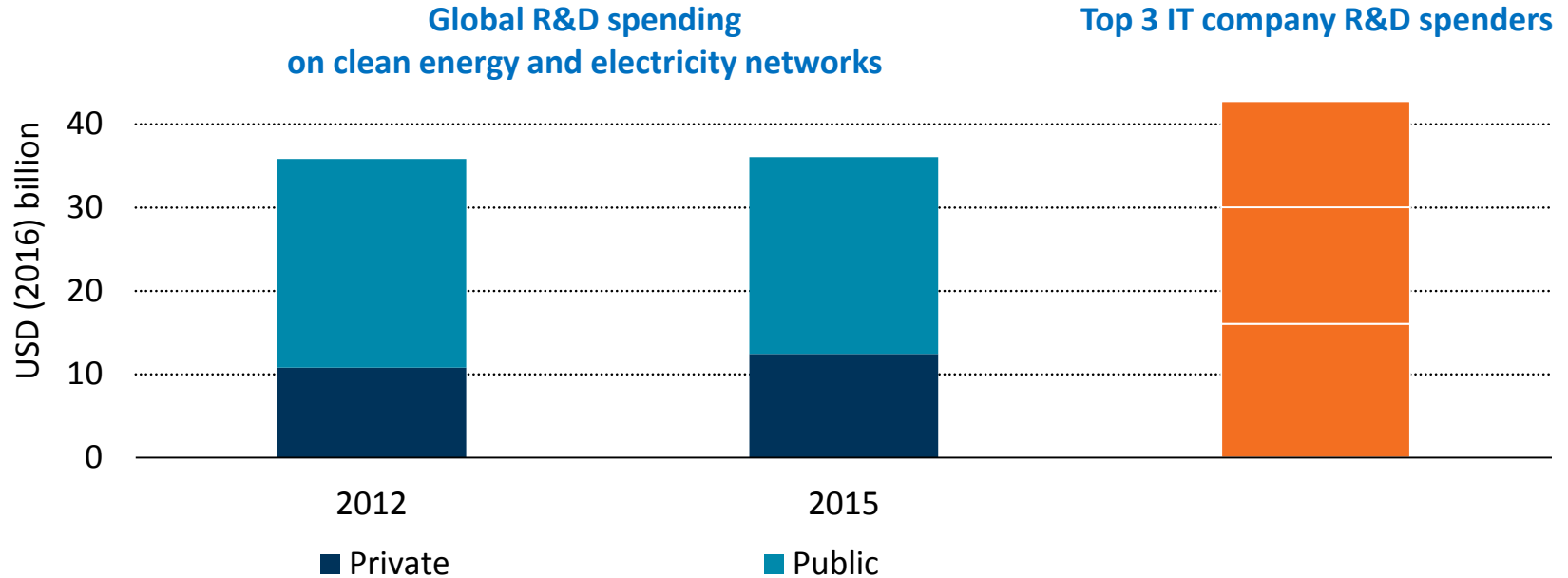
In 2016, FIDs for coal power fell to the lowest level in nearly 15 years, hampered by competition from renewables and environmental challenges. Gas power FIDs exceeded those for coal by over 1.5 times.

Investment in clean power is not keeping pace with demand



Only two-thirds of power demand growth is met by FIDs for clean power, which has remained stable the past 5 years. Despite the success of solar PV and wind, other sources are needed to fill the gap.

Global clean energy R&D funding needs a strong boost



We've tracked a steady \$37 billion/year of clean energy and electricity networks R&D spending, with room for growth from the private sector. As a share of GDP, China now spends most on energy R&D.

- **Investment fell by 12% in 2016, a second consecutive year of decline, and electricity sector investment overtook oil, gas and coal investments combined**
- **An upswing of US shale investment is creating a two-speed oil market and triggering a rapid transformation of the oil and gas industry**
- **Despite a decline in coal power investment, China remained the top destination for energy investment due to robust renewables, electricity networks and energy efficiency spending**
- **The clean energy transition needs more R&D but energy R&D expenditures are stable; there is a lot of scope for increased spending on energy innovation by governments and, in particular, the private sector**
- **Investment decisions today will leave their mark on energy on energy infrastructure for decades to come; the IEA will continue to focus on investment as a cornerstone of a secure and sustainable energy system**

