**Fig. 2** The status and scale of nanotechnologies. (a) Specific applications and/or application categories are listed (enlarge to view or see Table S3 ESI†) within the following technology readiness levels: applied R&D: proof of concept and/or lab tested; demonstration: field tested, basic prototype, and/or final prototype; commercial: fully tested and/or in operation. (b) Global production volume estimates for 2015 (log scale). The quantum dot (QD) market was not reported on a mass basis, apart from 2016 and 2020 gross estimates (refer to Table S6†); the global quantum dot revenue for the year 2015 was $400–600m. **d.**: diamonds, **fib.**: fibers, **clay**: clays, **ful.**: fullerenes, **ATO**: antimony tin oxide (SnO$_2$/Sb$_2$O$_5$), **QD**: quantum dot, **den.**: dendrimers, **cel.**: cellulose, **G.**: graphene, **CNT**: carbon nanotubes, **UV**: ultraviolet, **MRI**: magnetic resonance imaging, **LIB**: lithium-ion batteries, **RFI**: radio frequency interference, **IR**: infrared radiation, **SIB**: sodium-ion batteries, **EMI**: electromagnetic interference, **LCD**: liquid crystal display, **TV**: television, **3D**: three-dimensional, **TCF**: transparent conductive film, **PEM**: polymer electrolyte membrane/proton exchange membrane, **E-textiles**: electronic textiles, **ESD**: electrostatic discharge, **TEM**: transmission electron microscopy, **SPM**: scanning probe microscopy, **AFM**: atomic force microscopy. Data sourced from Future Markets, Inc., The Global Nanotechnology and Nanomaterials Market Opportunity Report, 2016.57