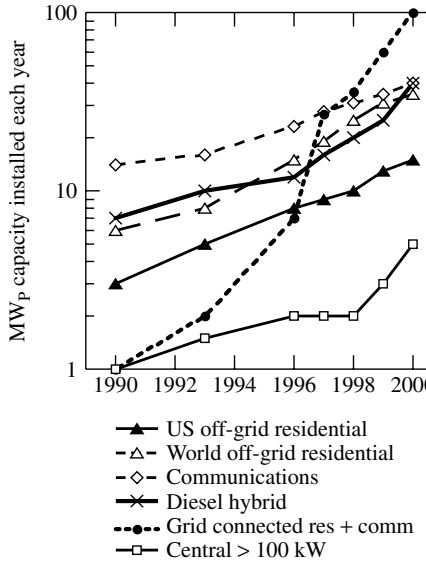

Figure 1.3 Trend in worldwide PV applications (From Reference [5] Maycock P, *Renewable Energy World* **3**, 59–74 (2000)

the modest forecasts that some attribute to photovoltaics. We shall come to this point again.

4. *No more R/D is needed since PV technology has demonstrated the technical capability to perform, so we should stop all public funding and let the economic markets decide if it is worthwhile*:

The present cost of photovoltaics is affordable for certain markets but it is still too high to actually compete with conventional electricity. If PV technology is to be promoted for environmental or social reasons, public subsidy to R&D and to installation will be necessary to stimulate production and thereby reduce costs. Without continued subsidies, photovoltaics will probably remain as a specialty cottage industry for the next half century.

Public support for photovoltaics is one of the major factors compelling politicians to fund R&D. This funding had been comparable to PV sales in the 1980s, as shown in Figure 1.4. Private funding has doubled this public support so that PV companies themselves have also heavily supported the development of photovoltaics. After two decades of constant investment in a promising market that was slow to actually start, the market finally awoke and became one of the fastest growing in the world by the beginning of the twentieth century, with sales now greatly exceeding public investment.

But, this fast growing market is still dependent on public/government funding. As with many goods and services (e.g. military hardware, commercial air travel), photovoltaics is partly publicly financed. In Germany or in Japan, for instance, significant public support is being given to grid-connected installations. If photovoltaics is going to become a major energy contender, the countries where the support has been lacking will remain technologically inferior with respect to those, where the support has