



Greentech Media and SEMI PV Group Survey:

PV Manufacturing Opportunities and Challenges in the U.S.

July 14, 2009



Greentech Media Overview



greentechmedia:

- The world's leading online information and research resource for the greentech market, with particular strength in solar industry knowledge and economic analysis
- Business model of online, market analysis and events, leveraging our deep market understanding to enhance all our products and services

Greentech Media Topics and Channels

greentechmedia:

Greentech Media is the anchor site supporting more detailed, market-specific content channels. Coverage on the Greentech Media home page will span power generation, power distribution and power consumption, including all forms of renewable energy, biofuels, smart grids, energy efficiency, carbon management, policy and finance. The three channel diagrams below represent industry-specific coverage areas under the larger Greentech Media umbrella of content.

greentechsolar:

- ▶ Centralized and distributed solar power generation
- ▶ Thin-film
- ▶ Polysilicon
- ▶ Concentrated solar
- ▶ Global supply and demand
- ▶ Project finance
- ▶ Policy

greentechgrid:

- ▶ Smart grid infrastructure
- ▶ Intelligent utility networks
- ▶ Advanced applications and services
- ▶ Home area networks
- ▶ Grid storage
- ▶ Vehicle to grid
- ▶ Policy

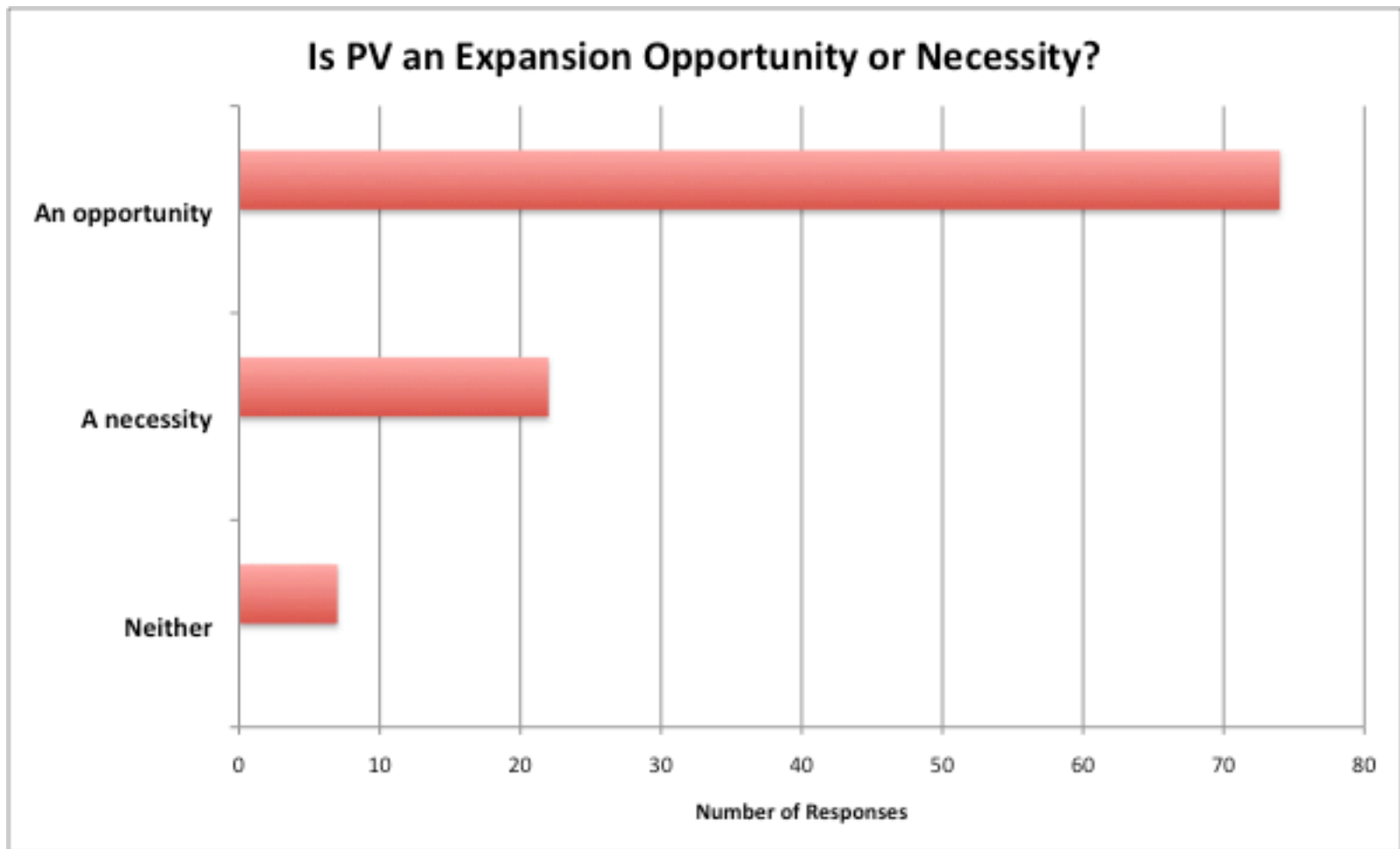
greentechenterprise:

- ▶ Carbon management
- ▶ Energy efficiency
- ▶ Green IT
- ▶ Green buildings
- ▶ Corporate sustainability
- ▶ Green supply chain
- ▶ Policy

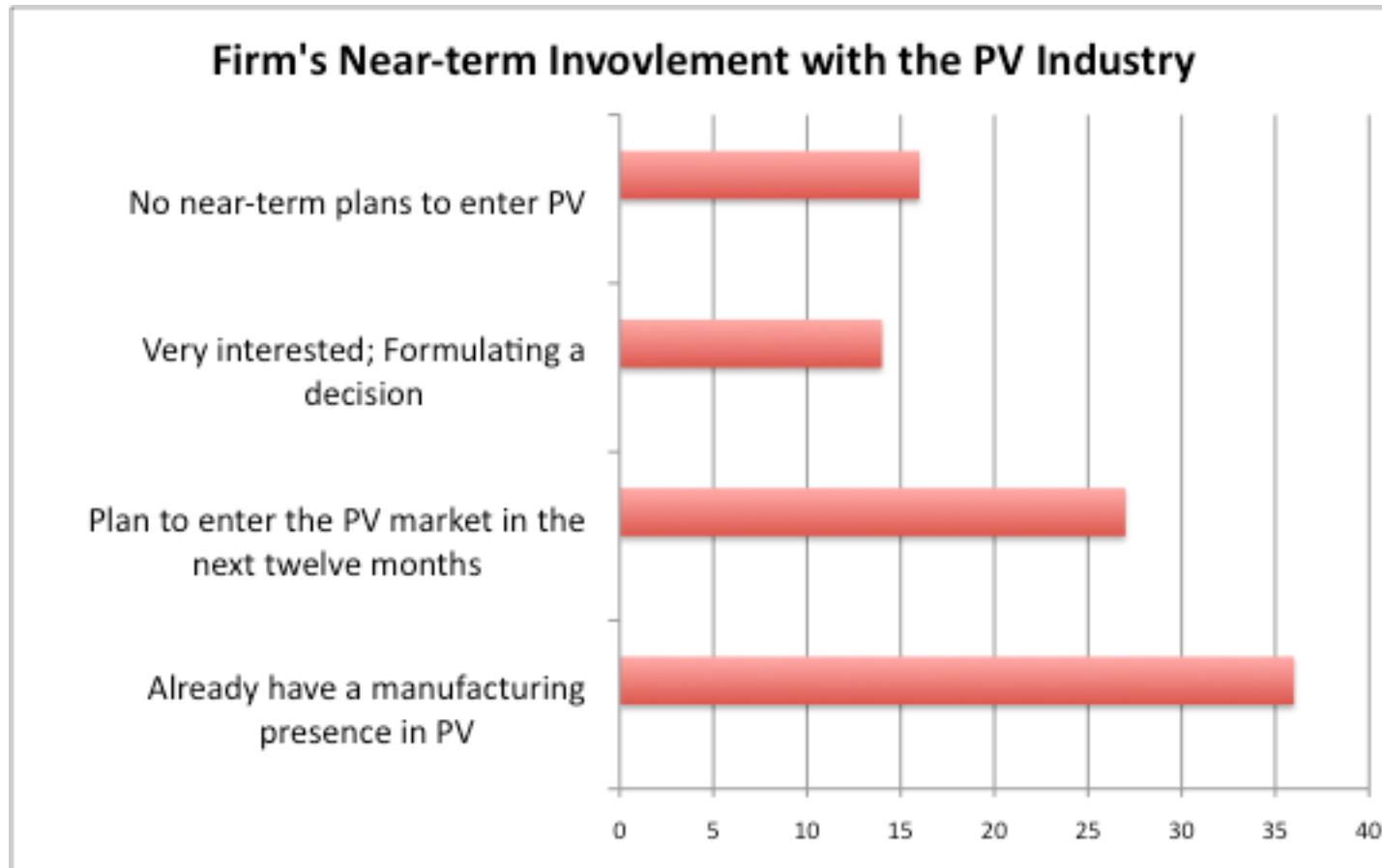
The PV Group/Greentech Media Survey

- Survey intended to gauge the sentiments and perceptions of leading Semiconductor market participants on
 - The opportunity to participate in the PV market
 - Building a manufacturing base for PV in the U.S.
 - Choosing the right technologies to pursue
 - Choosing the right strategies for success
 - Identifying winning policies to support a robust PV manufacturing base in the U.S.
- Survey ran from June 15-July 10, 2009
- 106 survey responses, including
 - Semiconductor Manufacturers (16%)
 - Materials Suppliers (14%)
 - Equipment Suppliers (16%)
 - PV Manufacturers (14%)
 - R&D Labs (2%)
 - Financial services, investors (4%)
 - Consulting (15%)

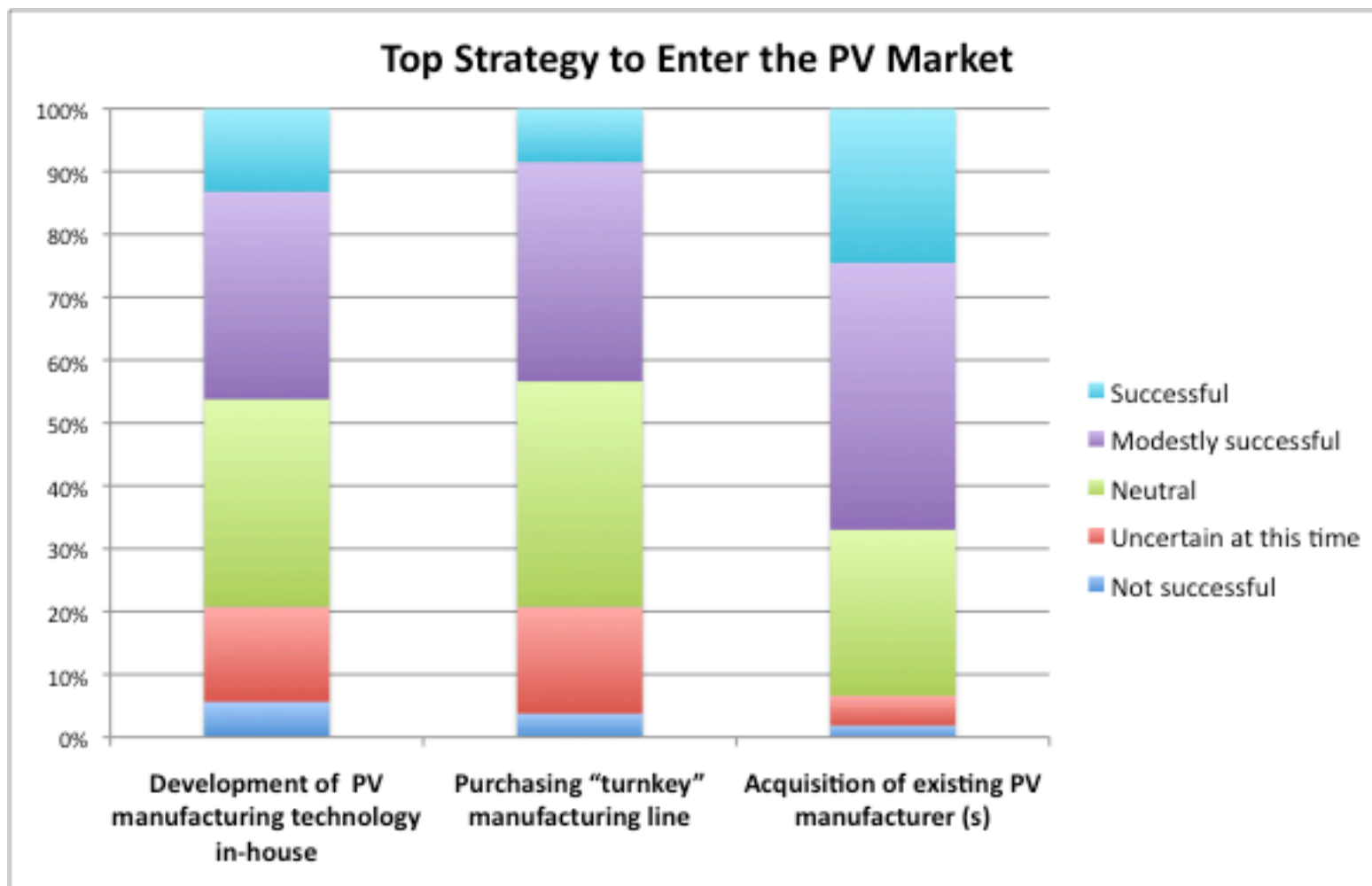
An Opportunity...but not yet a necessity



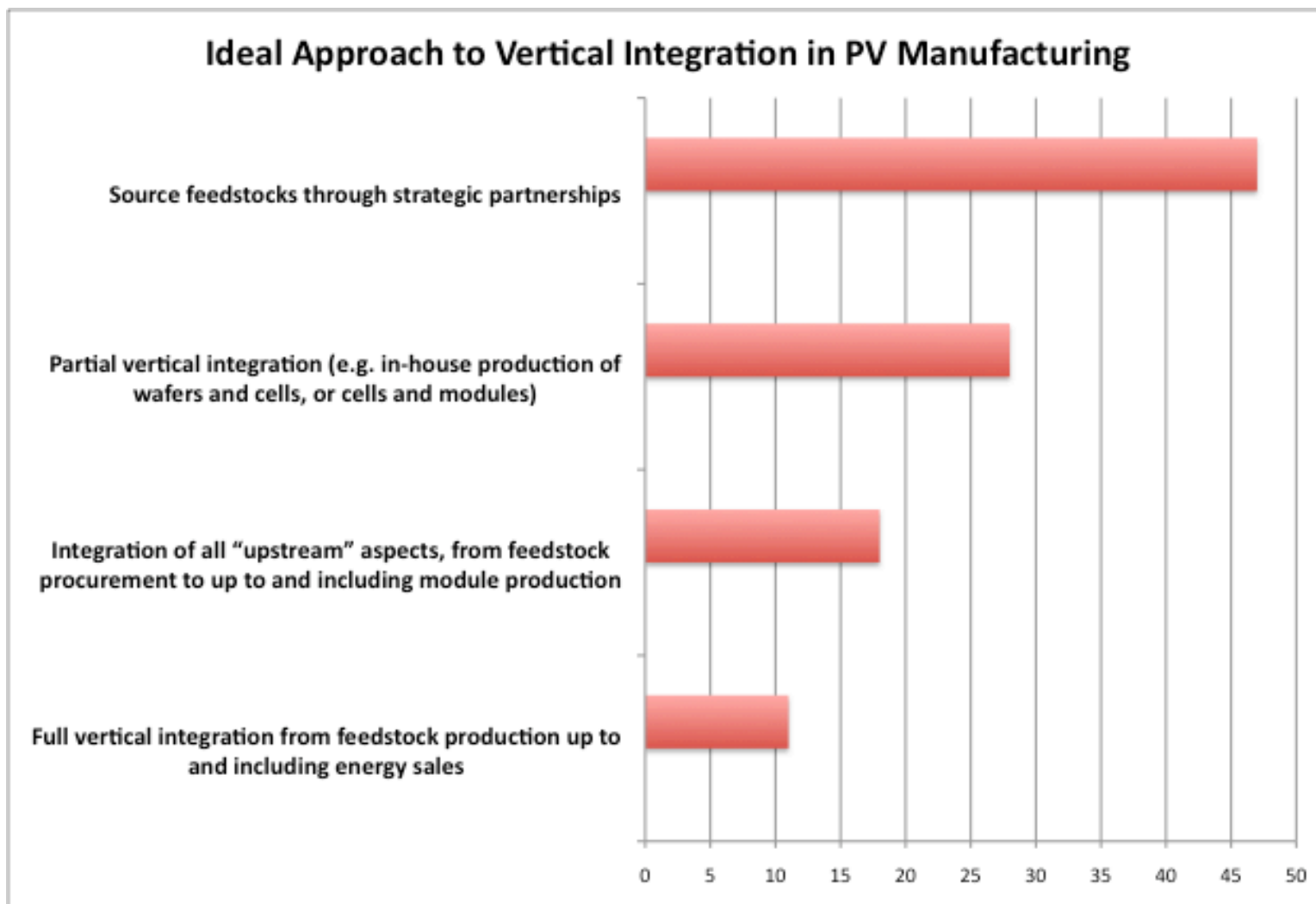
Majority Have Already Made the Move, or Planning a Move to PV Manufacturing



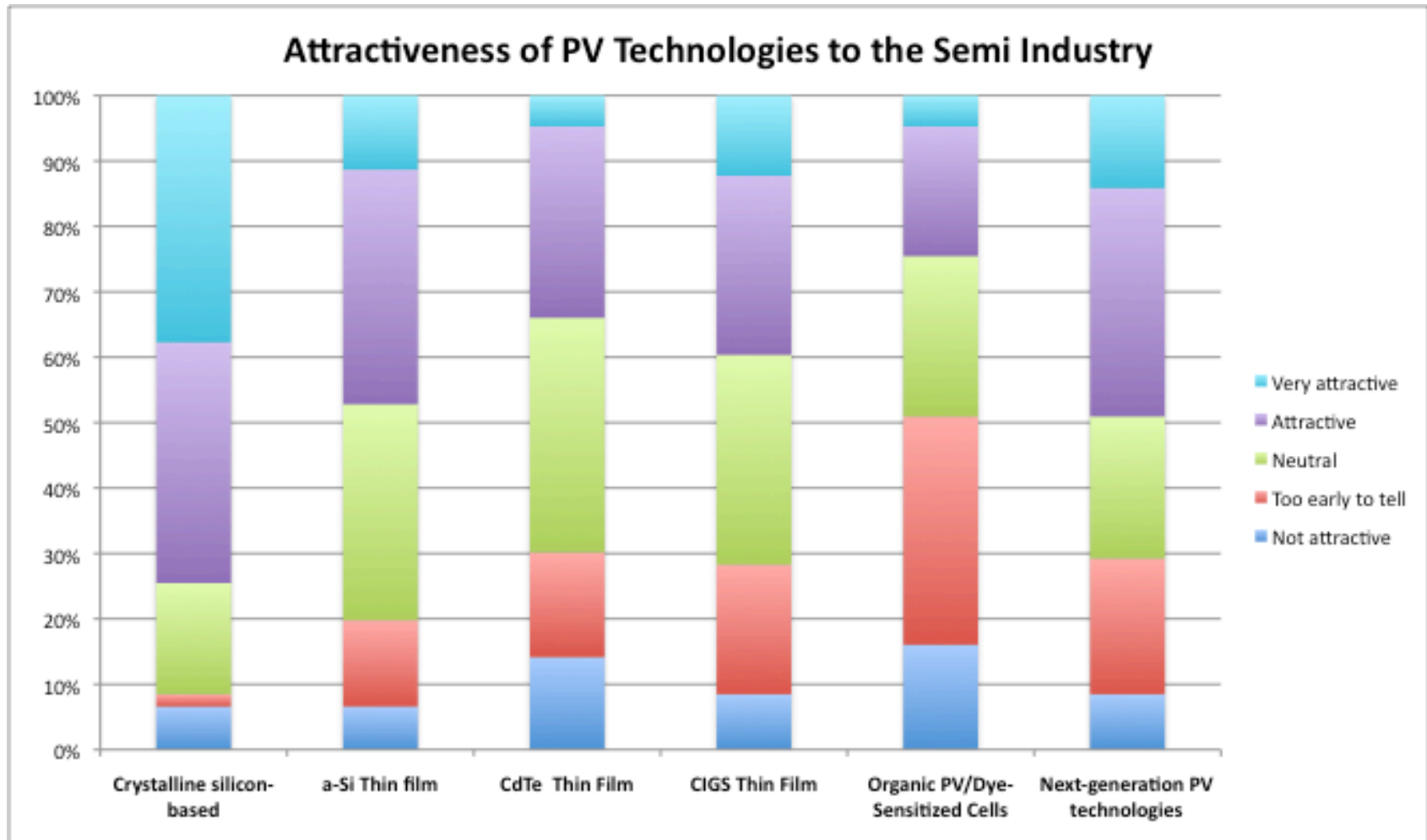
Acquisition more attractive than developing PV manufacturing in house



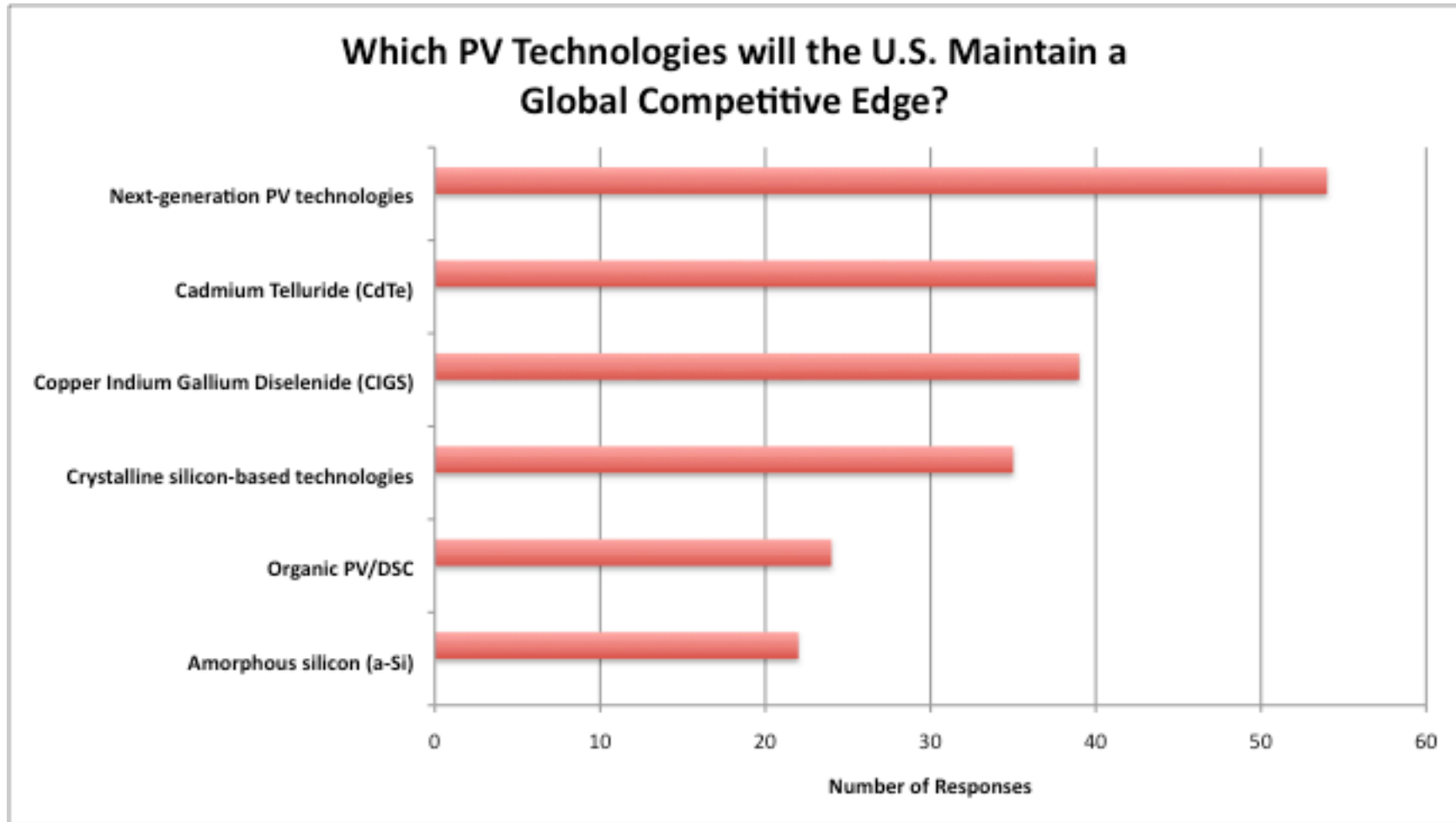
Suspicious about the value of vertical integration persist



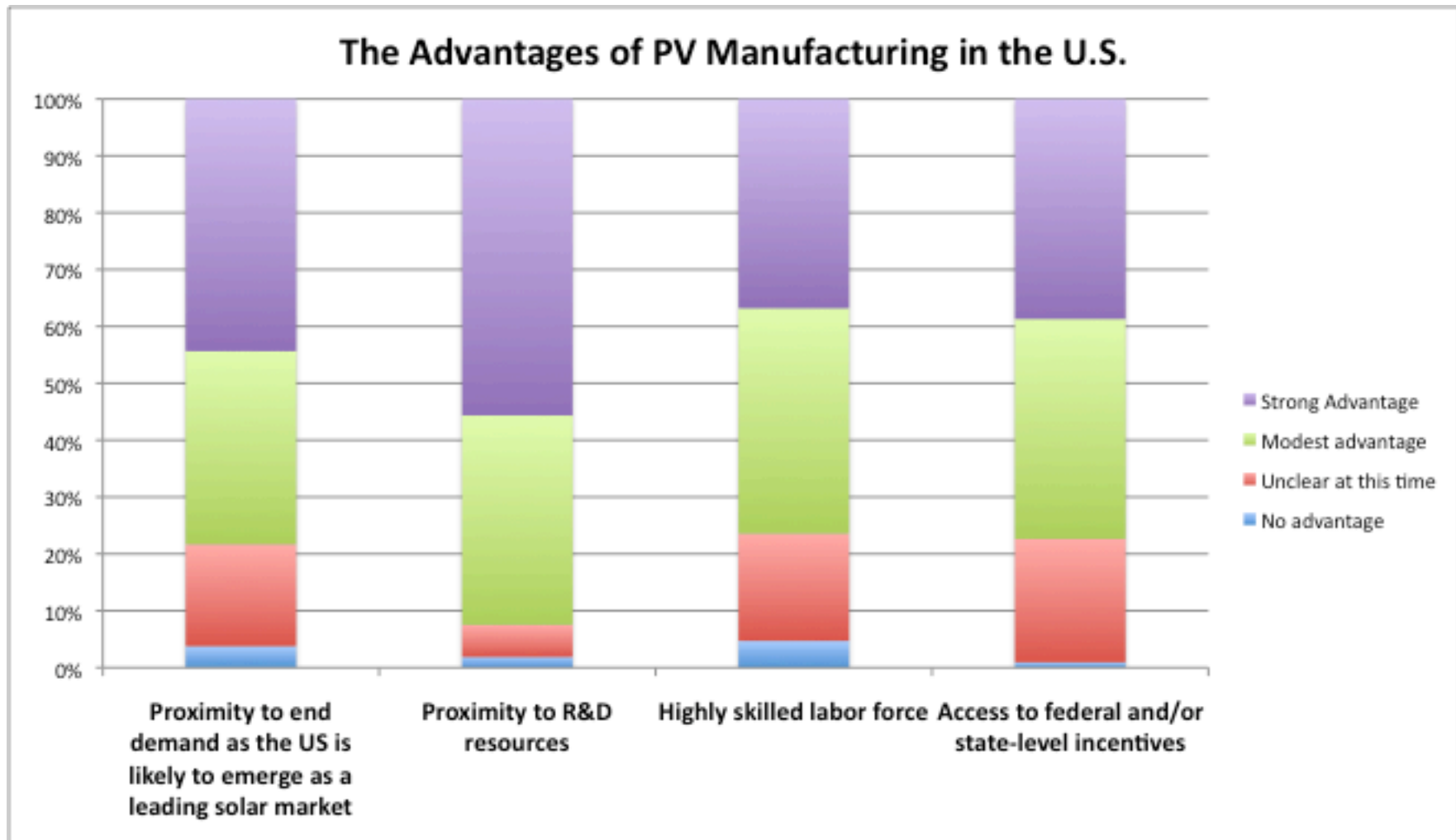
Staying close to home when picking winning technologies in PV



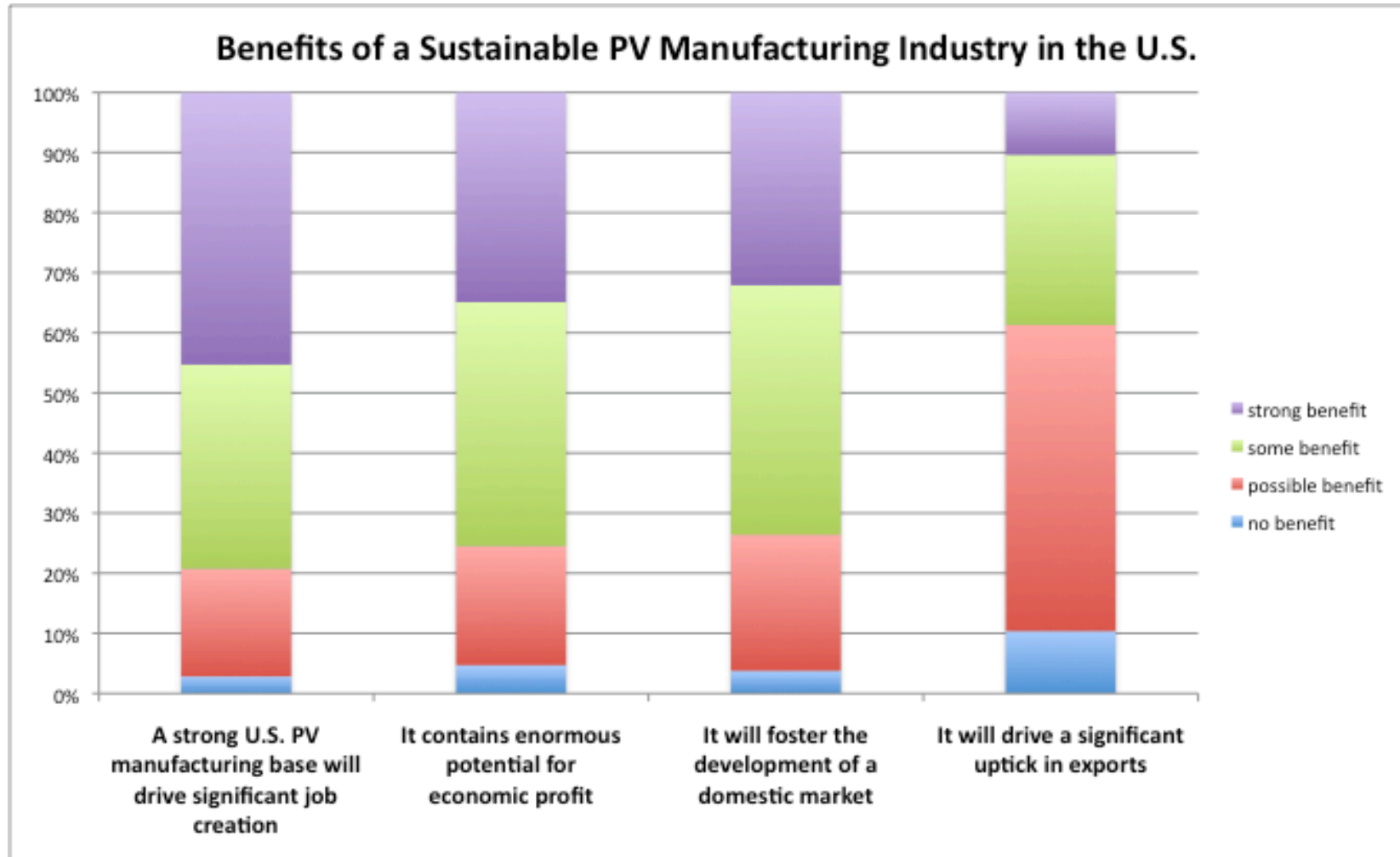
But...The long-term bet is on next-gen PV technologies



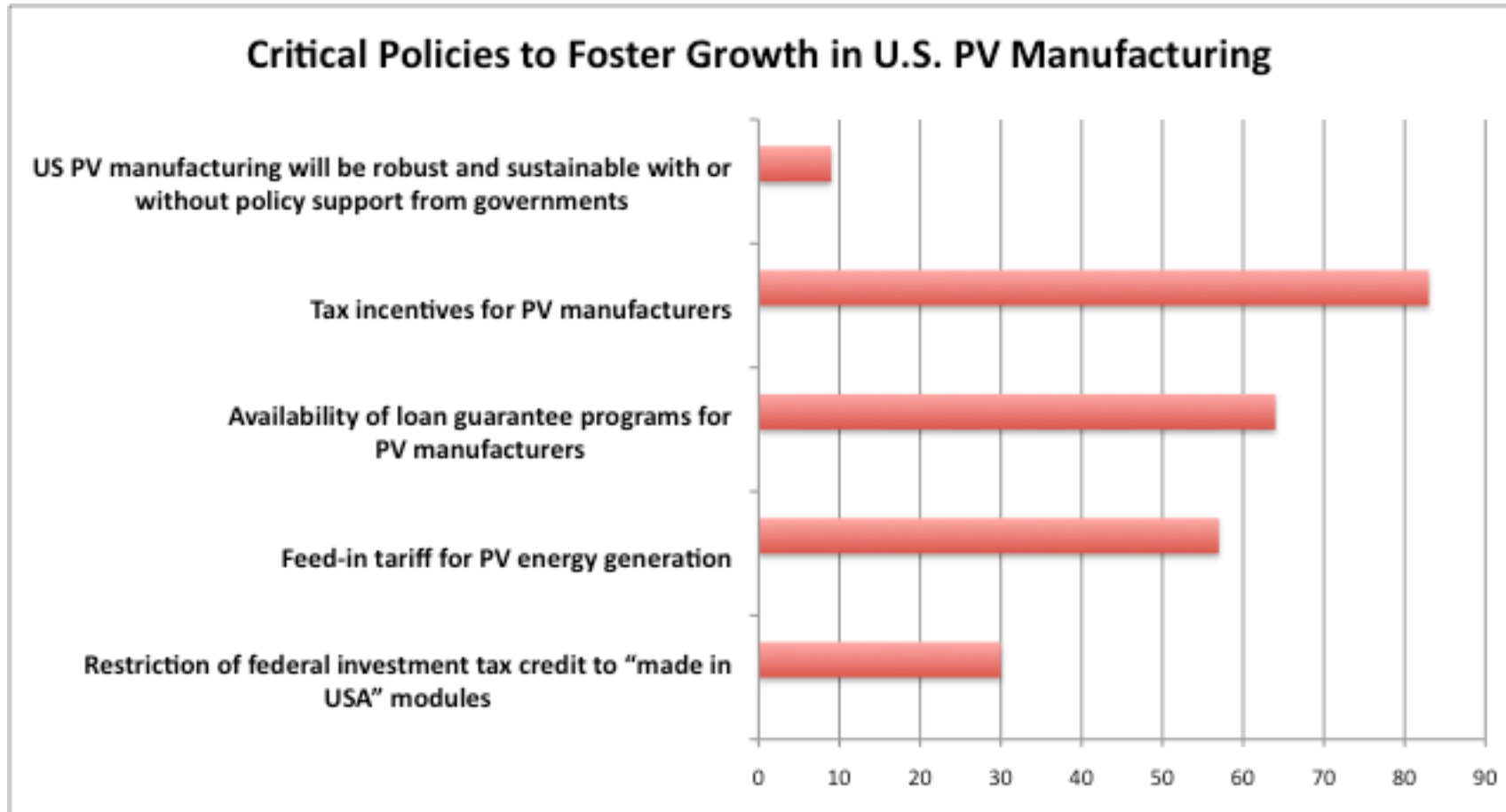
R&D talent is seen as a key draw in the U.S.



Politicians Take Note: Jobs, Jobs, Jobs....

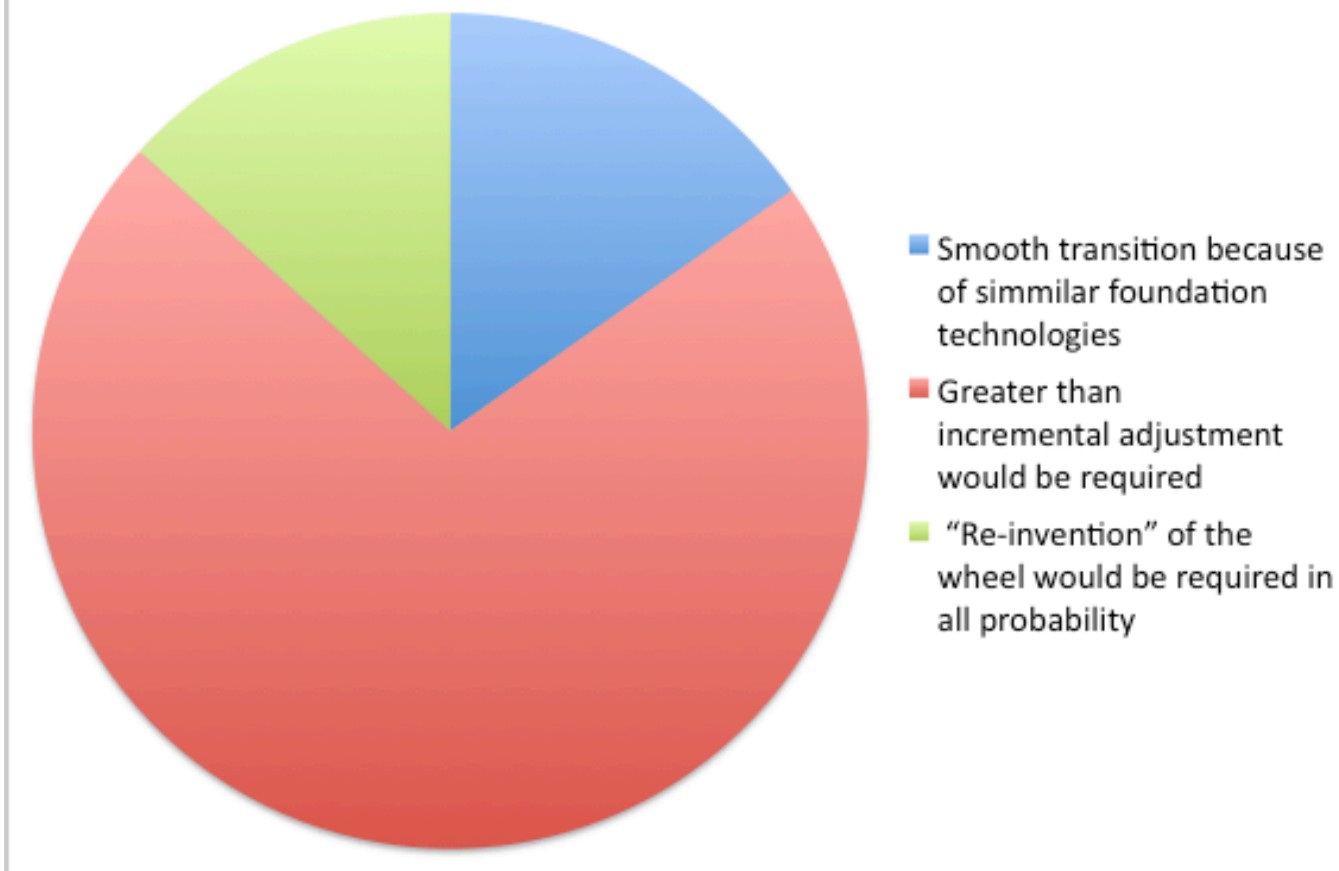


Everyone likes a good tax incentive...



Transition isn't a snap, but there is confidence

Rating the Ease of Transition from Semi to PV



Worries about the immaturity of the PV Industry

