

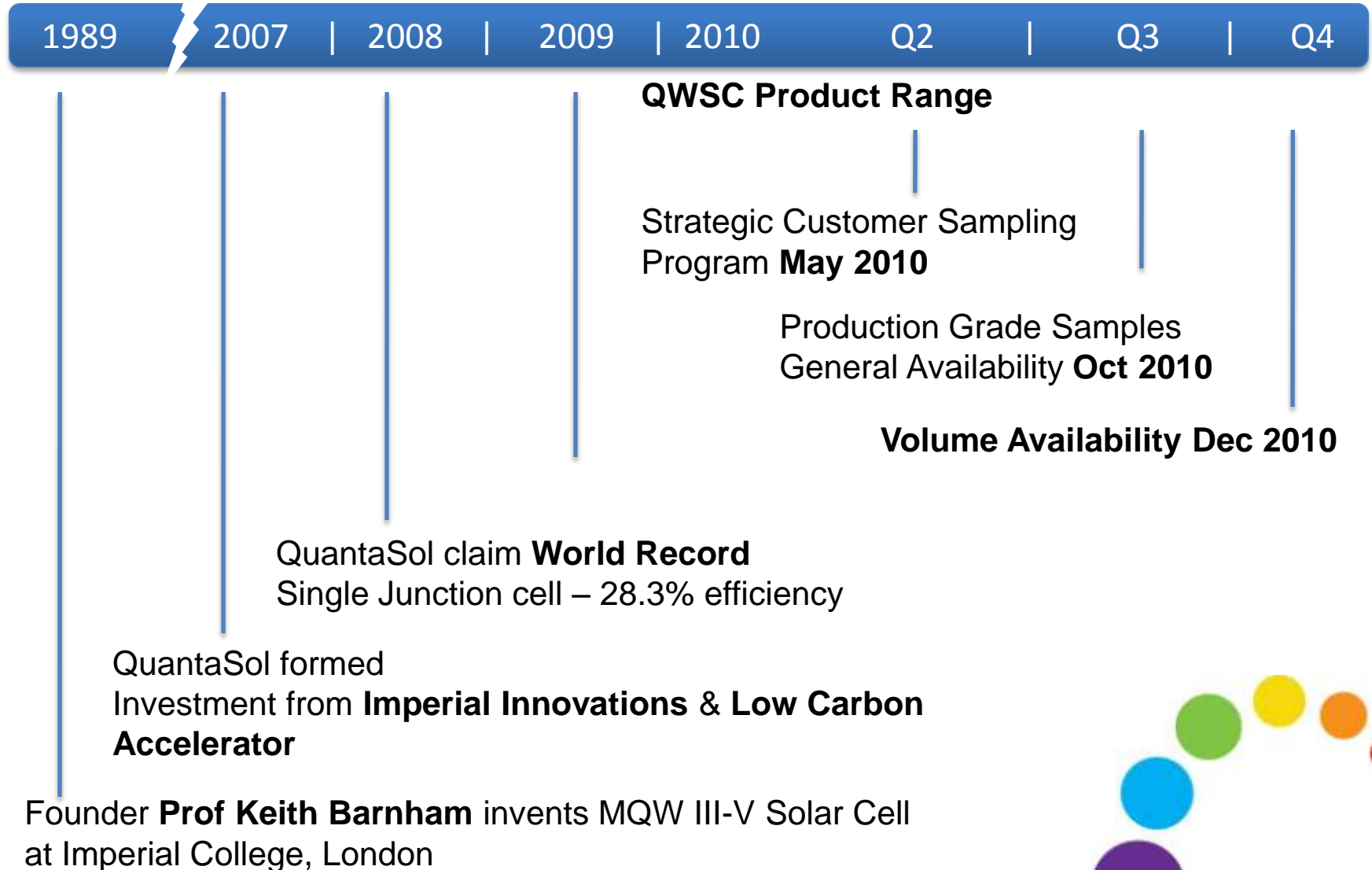


Challenges in Solar

QuantaSol September 2010



Company Background



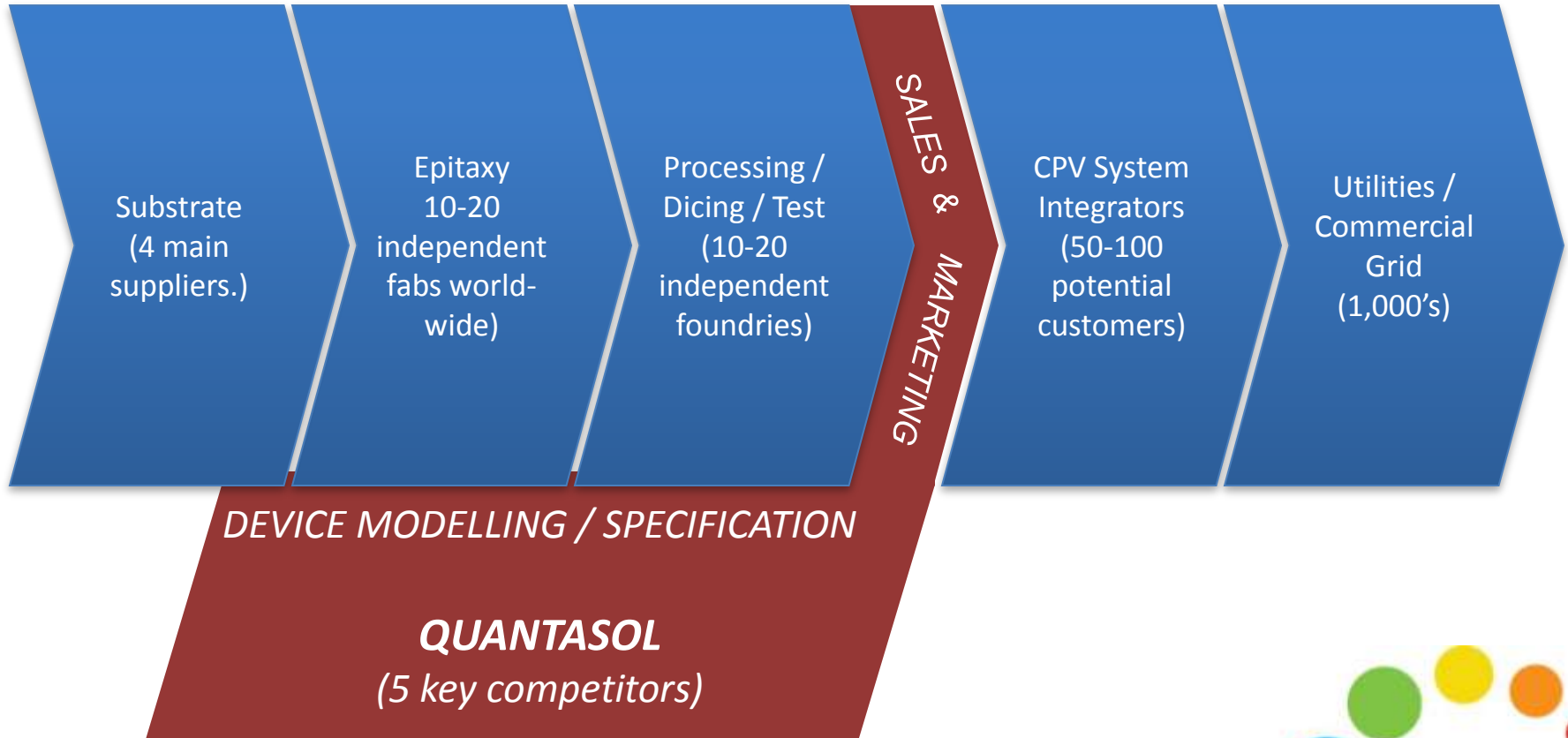
Concentrating Photovoltaics (CPV)



- Concentrated PV provides cheaper electricity in areas of high DNI
- Australia, SW USA, Mediterranean basin, South China
- Sustainable growth story
- Dual use of land

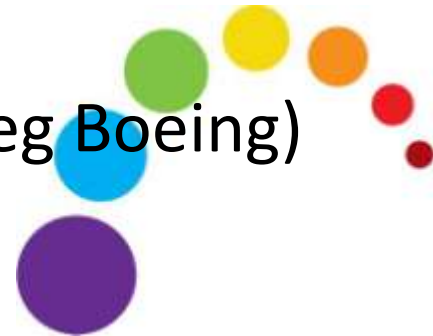


Supply Chain



Demands of Project Finance

- Utility scale power generation
 - 1-100MW typical
- Project Finance
 - Purely a financial investment vehicle
 - PV – 30yrs experience; CPV is new!
 - Risk premiums: cost of capital 50% higher
- Warranties....
 - Fabless start-up vs global incumbents (eg Boeing)



Potential Demand

- Approximately 20-30MW in 2010
 - Around 750 6" wafers per 1MW installation
- 150-200MW in 2011
- 500MW in 2012?
 - Capacity of 1 'tool' = 15k wafers per year
 - To become a 50% player requires 10 tools installed by early 2011
- Most epitaxy providers today have ~ 1-2 'spare' tools



China

- Shanghai Expo 2010
 - 70million people will visit in 6 months



What's Happening in Asia?

- Phenomenal demand for power
- LED lighting...
 - Shanghai – an area 40 times the size of Manhattan lit up floor to ceiling by LEDs...
- Chinese & Korean companies manufacturing most of the III-V semi-conductors (same as CPV solar)
- China Govt funding 80% of any purchase of a reactor tool for LEDs or Solar
- All capacity of tool manufacturers booked out
 - Typical lead time minimum 18 months
- Gas costs rising due to Asian demand; gases on allocation



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Thank You

