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Unlock the hidden potential of your green assets
Solar Smart HEAT 2008

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Marks & Clerk is a leading group of patent and trade mark attorneys with an associated firm of intellectual property lawyers, Marks & Clerk Solicitors.

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Why Intellectual Property?

- Intellectual Property is a means to an end, not an end in itself
- You do not need IP to commercialise products
- Obtaining IP will not guarantee commercial success
- But, IP can be a sword, a bargaining tool and a source of revenue

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Types of IP

- Registrable rights
  - Patents
  - Designs
  - Trade marks

- Inherent rights
  - Confidential information (trade secrets, know-how)
  - Copyright

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What is a patent?

- National Monopoly right (lasts up to 20 years from filing)
- It is a negative right:
  - It confers the right to stop someone from doing something (making, selling, using, keeping, importing, exporting)
- Owning a patent on an invention does not give you the right to work that invention – doing so may infringe someone else's patent or other rights
  - Eg where your product must be used in conjunction with something else
- It is a piece of 'property', so an asset to the company

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What can you protect with a patent?

- Products, Processes, Apparatus

- So long as it is:
  - **Novel**
    (not disclosed anywhere in the world by any means prior to your filing)
  - **Inventive**
    (not obvious to the 'skilled reader' in light of documents and/or 'common general knowledge' prior to your filing)
  - **Not excluded from patentability**
    (computer program, method of doing business, aesthetic creations etc)
  - **Industrially applicable**

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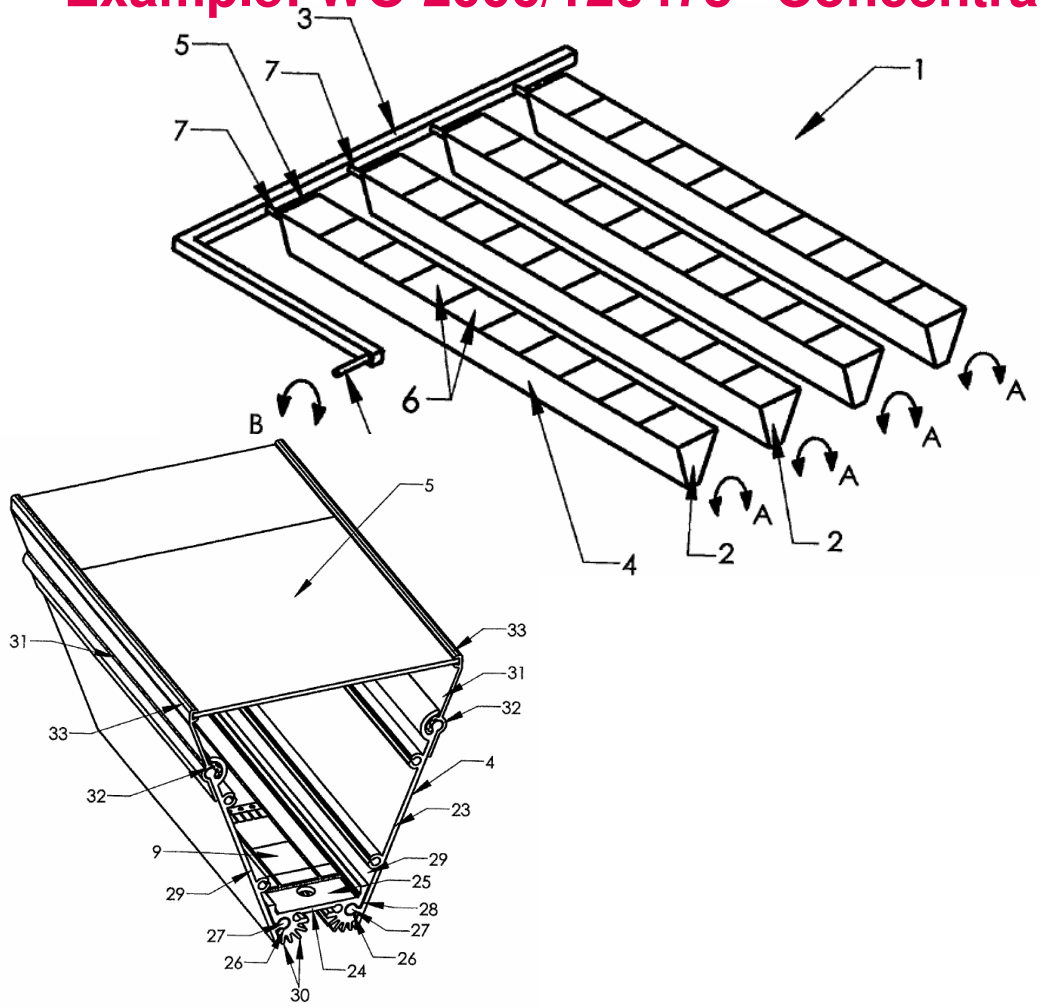
Example: WO 2006/120475 “Concentrating Solar Collector”



Claim:
A concentrating solar collector comprising multiple concentrating modules,

each of the modules comprising a single row of substantially circularly symmetric lenses mounted along an open face of a trough

in order to focus light incident on the lenses to discrete regions along the inside of the trough.

Published November 2006

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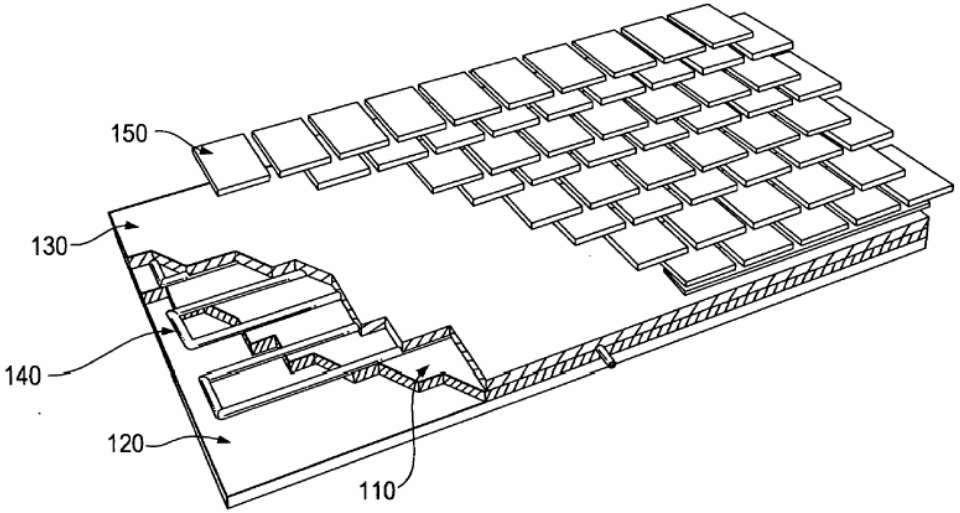
Example: US 2008/0245403 "Solar Heating Method and Apparatus"



What is claimed:

1. A solar heating apparatus of comprising;

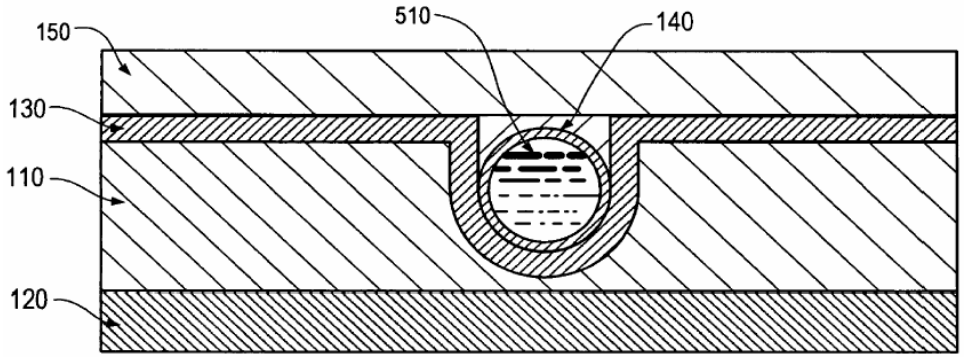
an insulating layer adjacent to an exterior of a structure;

a heat transfer plate adjacent to the insulating layer;

a fluid conduit adjacent to the heat transfer plate;

the heat transfer plate thermally connected to the fluid conduit for transferring heat from the heat transfer plate to fluid within the fluid conduit;

a weather exposed layer thermally connected to the heat transfer plate.



Published October 2008

Example: US 20080257400 “Holographically Enhanced PV Solar Module”

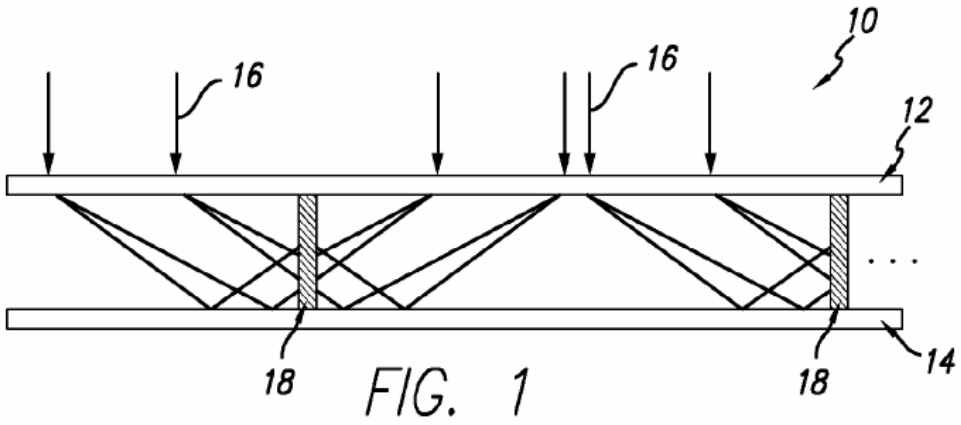


FIG. 1

We claim:

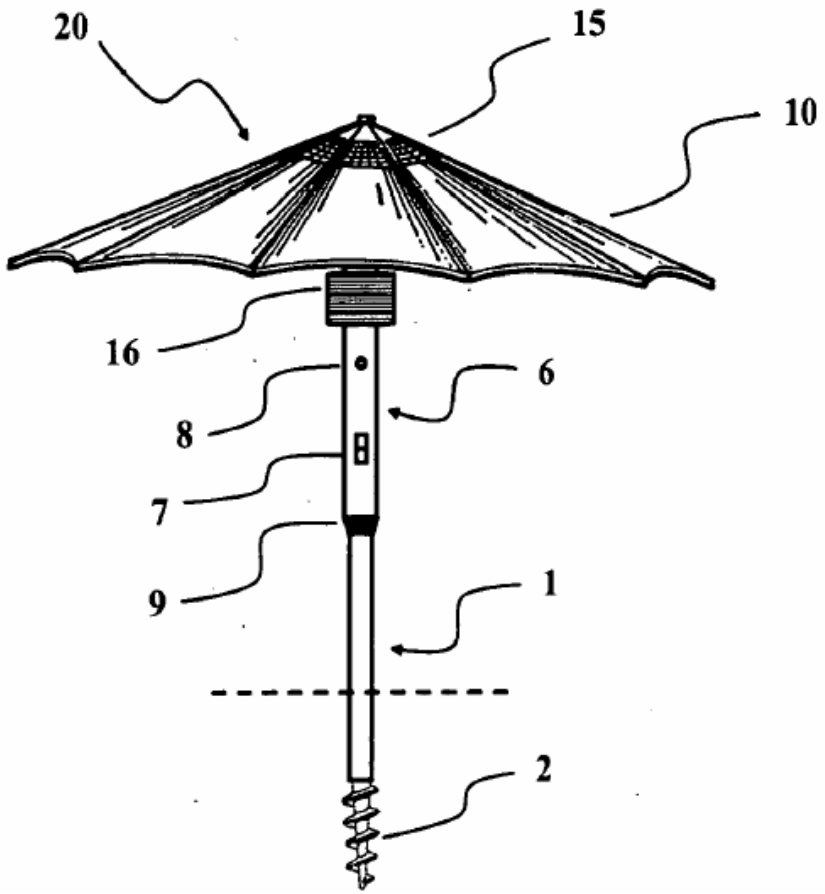
1. A holographically enhanced photovoltaic solar module, comprising:

a first substrate having an outer major surface and an inner major surface, substantially parallel to each other, said first substrate being optically transparent and including a transmission grating hologram on said inner major surface of said optically transparent substrate;

a second substrate having an outer major surface and an inner major surface, substantially parallel to each other, said second substrate including a reflection grating hologram on said inner major surface of said second substrate; and

at least one solar cell interposed between said transmission grating hologram and said reflection grating hologram and oriented perpendicular thereto.

Frivolous Example: US2008/0092936 "Solar Powered Umbrella"



A solar powered umbrella is disclosed for powering multiple components such as an automatic anchoring device, LED lights, a speaker and/or audio system and bug repeller and/or thermoelectric heating/cooling device. The umbrella includes a canopy, an auger, a solar panel or cell, a momentary 3-way/function toggle switch, and a charging and power socket. The auger is used to anchor the device into and out malleable surfaces such as earth, dirt, grass, etc. The umbrella also includes rechargeable batteries, an electric motor and a gearbox. The shaft from the gearbox protrudes thru and outside the housing of the bottom of the lower tubular member which adapts/connects to the helix/auger. When a waterproof 3-function toggle switch is pushed downward, the helix is driven into the ground and visa-versa. Additional methods of charging consist of an AC and/or DC adapter.

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Why patent?

- Competitive defence
  - Presence of patent application may provide a bar to competitors in your specific field
  - Could provide a bar to someone suing you, as you could counter-attack with your patent
- Offensive strategy
  - Aggressive use of patent
  - Enforcement of your rights against competitors
  - Can be very expensive!
- Licensing model
  - Retain some or all of your rights
  - Generate a revenue stream
  - Useful in capital-intensive areas (eg manufacturing)

Why patent?

- Bargaining chip
  - An asset that can be useful for cross-licensing
- Valuation driver
  - For early stage/start-up companies
  - VCs like to see patents on your books as they are an identifiable asset
- A selling point
  - It's a piece of property, so can be bought and sold as such

Why patent?

- Covetous filing
  - Making life difficult for your competitors
  - Filing applications in their projected roadmap to hinder their development programme

- Legal uncertainty of pending patent applications
  - Legal scope of protection of claims not fixed until grant
  - Claims as published are often broader than claims as granted
  - Therefore, competitors are second guessing until the patent application lapses or grants (could be years), eg:
    - PV (time to granted EP): 60 months
    - Heating (time to granted EP): 60 months
    - Transparent (time to granted EP): 45 months
    - Concentrating (time to granted EP): 78 months

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Solar patents in Europe

- 48% of energy-related patent applications relate to emerging technologies
    - 48% of these applications come from Europe

- The EPO has reported an increase of 16% in the number of patent applications filed for alternative technologies from 1998 to 2007.

- The largest of these rises were in:
    - wind power 31%
    - fuel cells 22%
    - solar thermal 11%
    - solar photovoltaic technologies 9%

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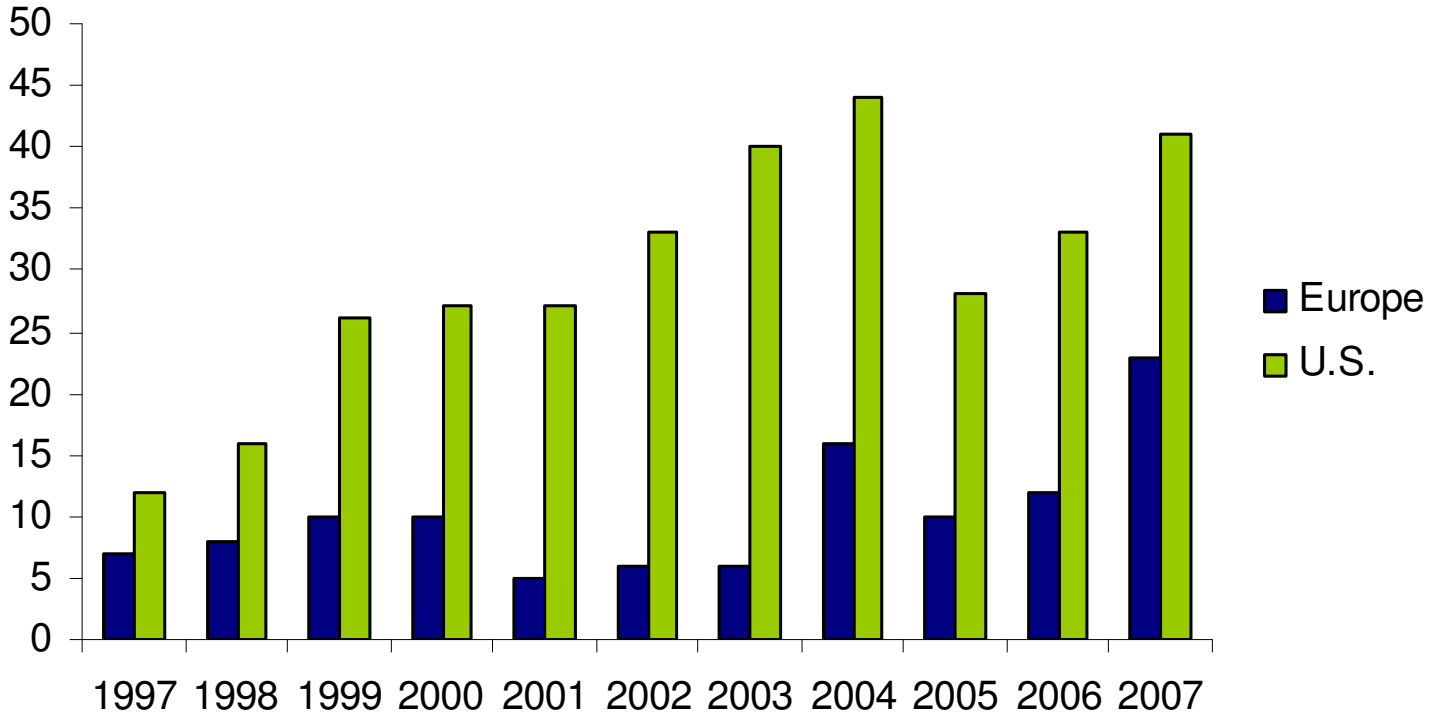
Number of patent applications published in 1997-2007 under the category of solar heating



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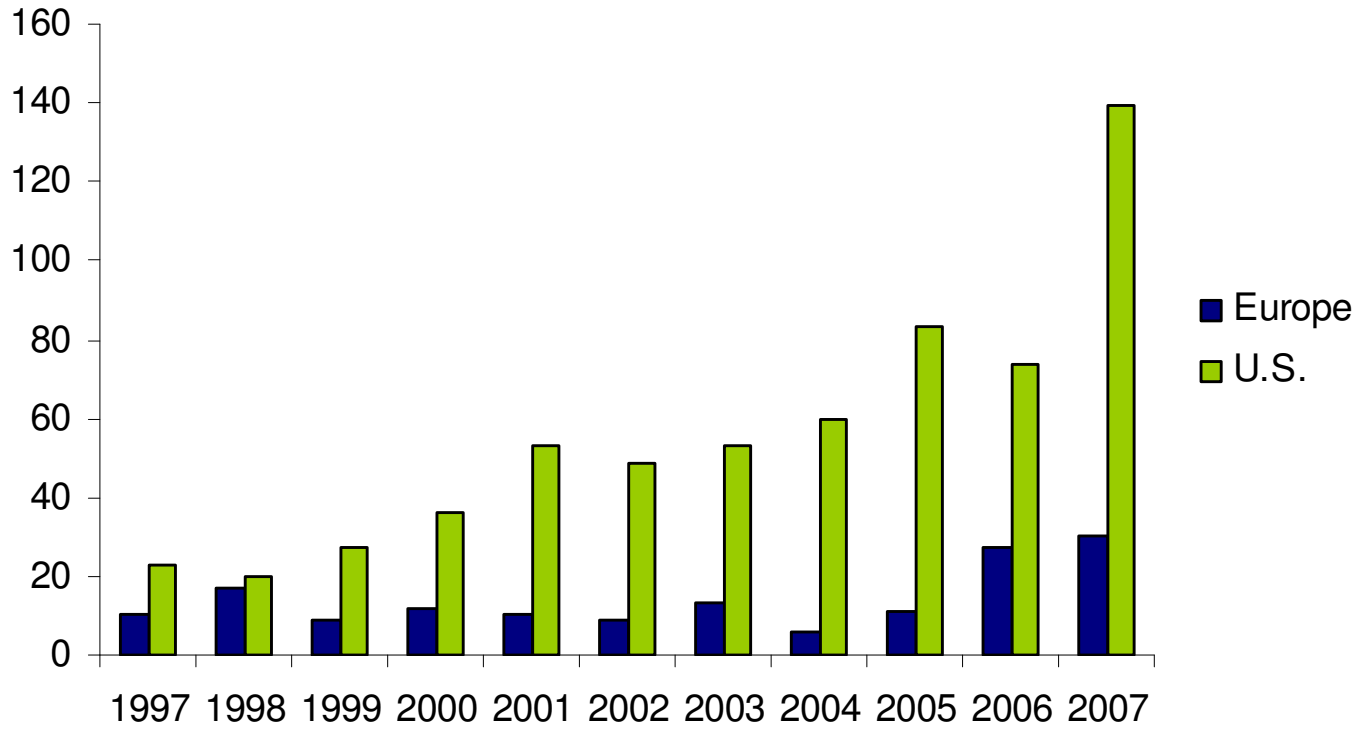
Number of patent applications published in 1997-2007 under the category of solar photovoltaic



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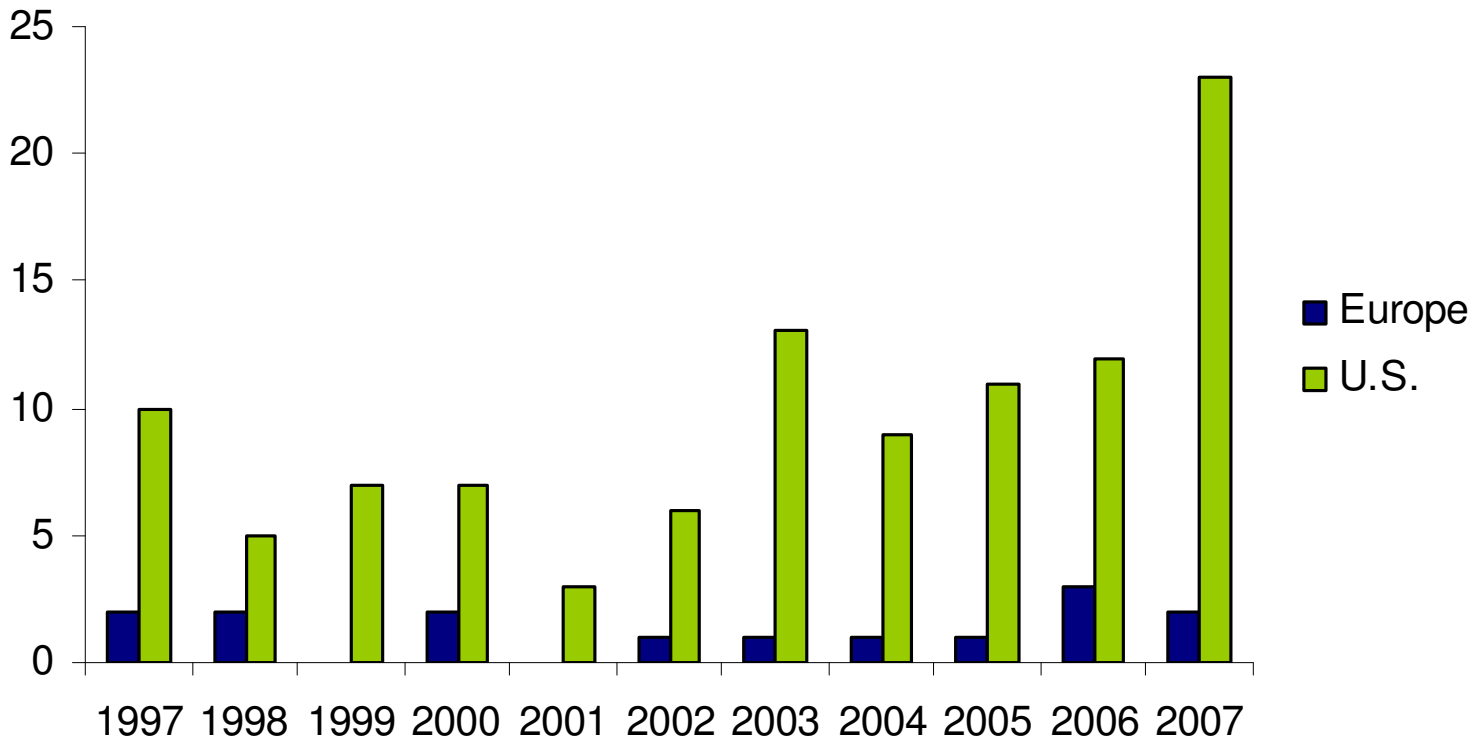
Number of patent applications published in 1997-2007 under the category of concentrating solar



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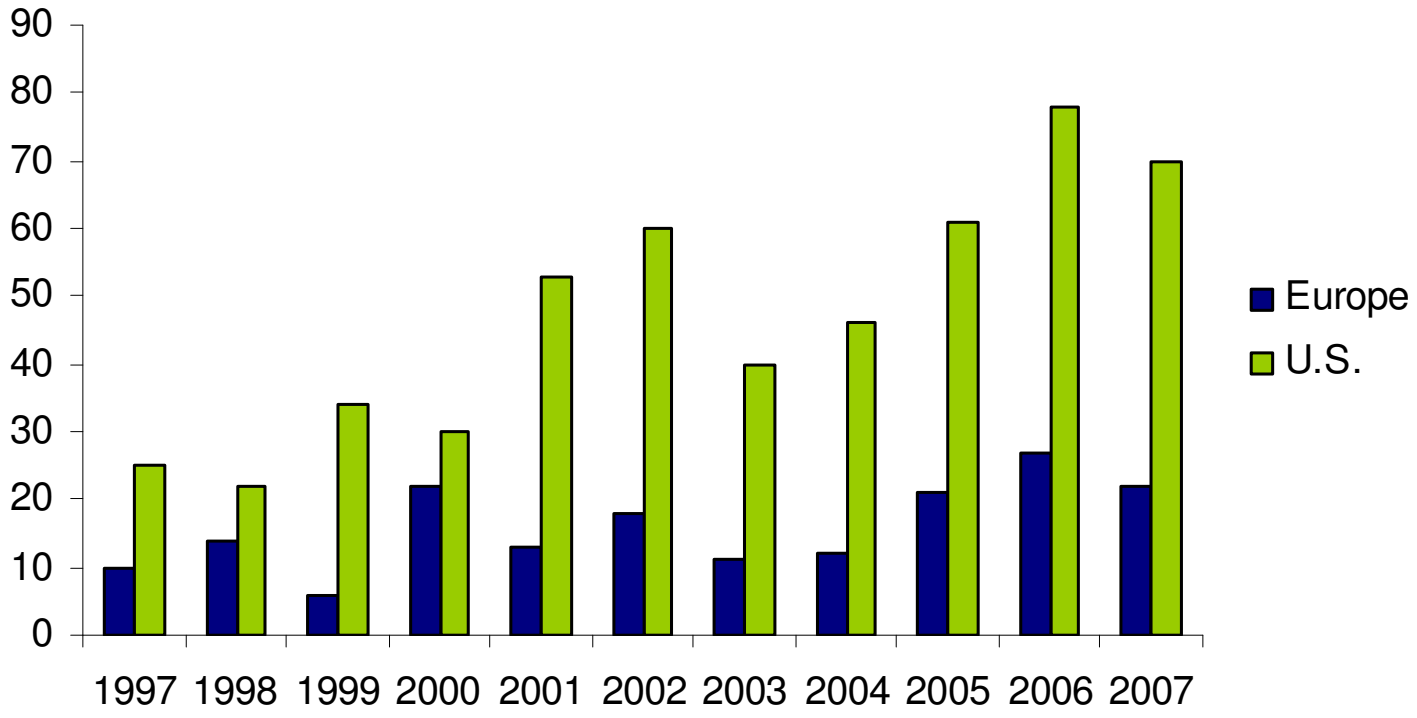
Number of patent applications published in 1997-2007 under the category of transparent solar



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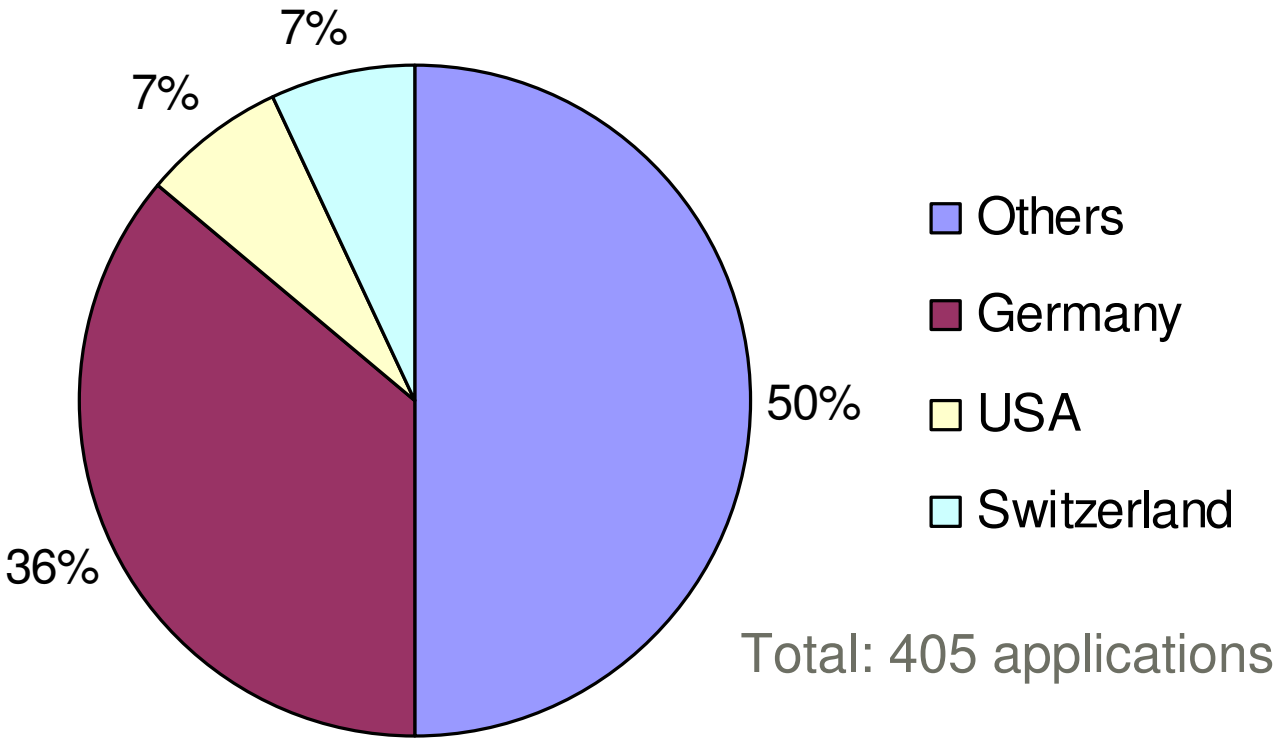
Leading countries in solar thermal technology: 1998-2007



Total: 405 applications

Source: EPO

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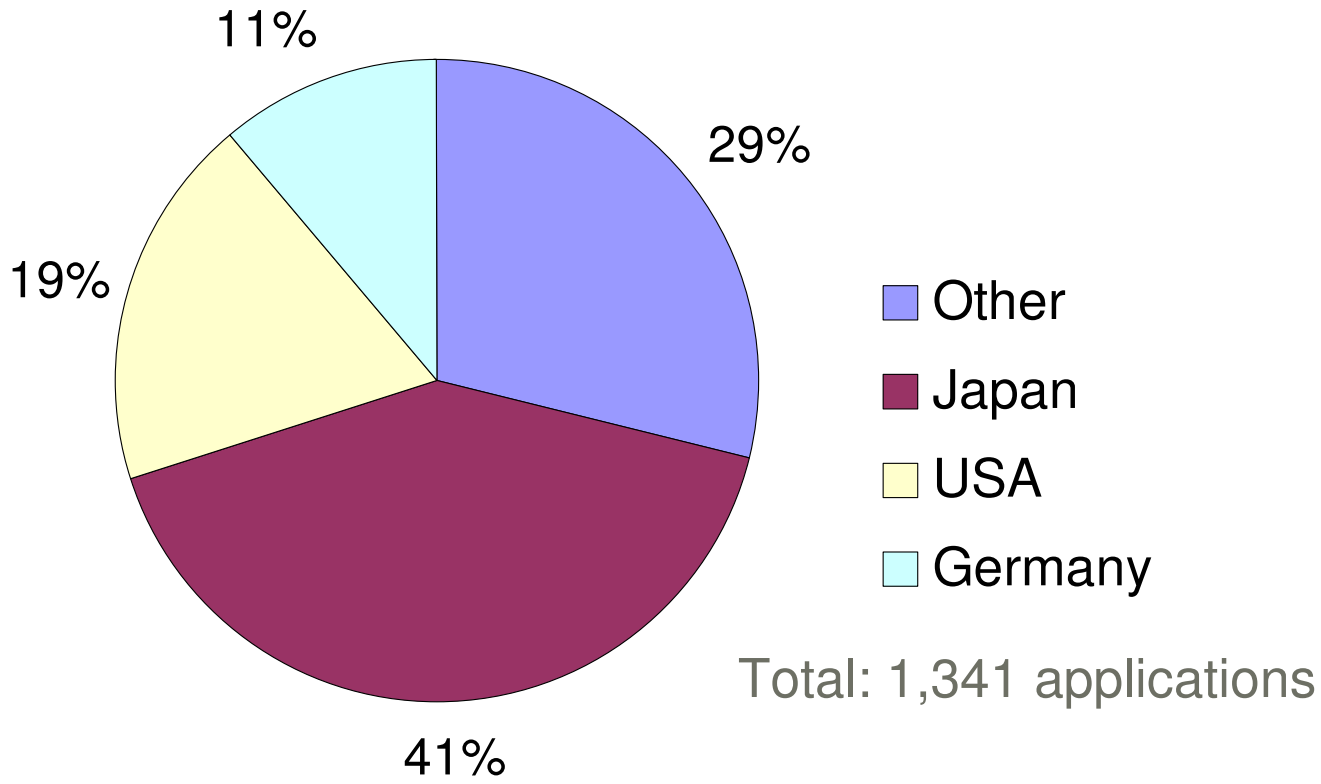
Leading countries in solar photovoltaic technology: 1998-2007



Source: EPO

In Summary

- Patents are assets
  - Can be bought/sold/licensed
  - Used to generate funding in early stages
  - An identifiable asset for company valuation

- The number of patent applications in the solar field is showing an average per annum growth of 9-11% in Europe (greater in USA)
  - Could some of these be blocking your path?
  - If so, do you have any patents to bargain with them/defend yourself?

- Could you be filing applications to keep your competitors on their toes?

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