

## Aims of the Solar Mobility Association

The German Solar Mobility Association (bsm) supports environmentally conscious transport systems and renewable energy sources.

Means of transport within "solar mobility" should:

- consume little energy
- not emit exhaust gases
- be quiet
- use renewable / sustainable energies.

We are still right at the beginning and it will be a long way to achieve these aims. Many steps will be necessary and we are pursuing our aims by making use of the following means:

- bicycles and public transport, when this is possible and sensible
- light, energy-saving electric vehicles
- vegetable oil vehicles
- car sharing or cash car systems

The type of use also plays a role. Thus, car sharing vehicles or cash cars (privately owned vehicles which, via an organisation, one can make available to other users when they are not needed), are ways of reducing the number of cars on our roads without needing to give up on any quality of life.



A great number of City El participated at the Tour de Ruhr

## Activities of the Solar Mobility Association

The main fields of activities are:

- International German Solar Vehicle Championship
- special show „Solar Mobility“
- participating in discussions on mobility and energy, e.g. with politicians, associations and unions
- presentations and publications
- cooperation with the magazine „Solarmobil Mitteilungen“
- Internet-Infos at [www.solarmobil.org](http://www.solarmobil.org)
- distribution of written information material



bsm exhibition stand with the special show „Solar Mobility“



Solar vehicles at the Solar-Parade 2002 in Munich



## German Solar Mobility Association (Bundesverband Solare Mobilität e.V.)

for environmentally conscious mobility  
on land, water and in the air:

- with solar vehicles, electro-mopeds and electric bicycles
- solar boats, solar trains and solar planes
- powered by electricity from environmentally friendly and sustainable sources
- e.g. solar, wind and hydropower
  
- clean, quiet and environmentally friendly
- real zero emission vehicles

Further infos on the Internet:

[www.solarmobil.org](http://www.solarmobil.org)

**Bundesverband Solarmobil e.V.**  
Roland Reichel, Reifenberg 85  
91365 Weilersbach, Germany  
Tel. 0049 (0)9194 8985, Fax 0049 (0)9194 4262  
e-mail: [bsm@solarmobil.org](mailto:bsm@solarmobil.org)

## Solar Mobility on land:

### Electric vehicles, mopeds, powerbikes

There are currently around 5,000 electric vehicles in Germany and more than 150 publicly accessible electric recharging stations (e.g. using the **Park&Charge** system, on the Internet under [www.park-charge.de](http://www.park-charge.de)), and additionally a rising number of electromopeds and electric bicycles. Light electric vehicles are currently being produced in Germany (City-El) and in Switzerland (TWIKE), and electric scooters mainly in France (Peugeot Scootelec) and Taiwan (EVT). Apart from this there is a large number of prototypes and individual conversions.



City-El and TWIKE at a **Park & Charge** solar charging station

### Solar railway

For demonstration purposes, a small narrow-gauge tourist railway locomotive was converted to solar running and successfully shown at various events in Hamburg, Berlin and other places. The narrow-gauge loco shown below can run on solar power alone given enough light intensity and can carry up to 16 people.

There is a further project (not by bsm): the Kirmitschtalbahn in Saxony generates about 40% of the electricity required from solar arrays on the engine sheds.



Small solar locomotive at a demonstration

More on solar mobility can be found on the Internet at [www.solarmobil.net](http://www.solarmobil.net)

### Vegetable oil vehicles

Rudolf Diesel developed the original motor named after him to run on vegetable oil. The fuel named after him came much later! Today, there is once again a growing number of vehicles which can run on pure vegetable oil. As long as 20 years ago professor Elsbett developed a motor which only consumes 4.5 litres of pure vegetable oil per 100 km (~60 mpg). Today there are conversion kits with which many diesel motors can be converted to run on vegetable oil.

### Solar mobility on the water:

Solar boats and solar ships are electrically powered boats with batteries and a solar source of power. There are currently two well-known producers in Germany; both build electrically powered catamarans for 2, 8 or up to over 100 passengers. The power requirement of solar boats matches the available energy from the sun particularly well. Solar boats are mainly used in good weather, at least in the leisure field. Developments here are at very initial stages and large growth is both possible and desirable.



Solar-Taxi „Zukunft“ (=Future), in the Internet: [www.SolarWaterWorld.de](http://www.SolarWaterWorld.de)

### Alternative use concepts

To use a car one doesn't necessarily have to own one. Alternatives are for example:

- car pools
- rented vehicles
- car-sharing or city-car systems
- cash-car systems

Individuals sometimes say that they can't bring about much change. But together we are strong! Please support our work through a supporter's membership. Fill in the following section and send it to us by post or by fax, or send an e-mail !

## Steps towards „solar mobility“

- I want to support the bsm on its way towards bringing about environmentally conscious transport systems and wish to become a supporting member. This includes the charge for the specialist magazine "Solarmobil Mitteilungen" (german language only). The personal membership fee is a minimum of 36 Euros per annum per person (shipment of the magazine by surface mail) or 50 Euros (shipment of the magazine by airmail). For company membership, please see the Internet: [www.solarmobil.org](http://www.solarmobil.org). or aks for the application to be sent by fax.
- Please mail me a sample copy of the German language specialist magazine "Solarmobil Mitteilungen" (please include a payment of 6 Euros for shipment worldwide by surface mail or 10 Euro for shipment by airmail). Please note, that the written information is in German language!

\_\_\_\_\_

surname

\_\_\_\_\_

first name(s)

\_\_\_\_\_

street

\_\_\_\_\_

City, ZIP

\_\_\_\_\_

country

\_\_\_\_\_

telefon, fax

\_\_\_\_\_

e-mail

\_\_\_\_\_

date, signature

please send to:

Bundesverband Solar Mobilität c/o R. Reichel  
Reifenberg 85, 91365 Weilersbach, Germany

Fax: 0049 (0) 9194 4262, e-mail: [RR@solarmobil.n](mailto:RR@solarmobil.n)