

COOPERATION OFFER

GENERAL DESCRIPTION

Title: Digital infrastructure for new mobility

Summary* *(max. 500 characters)*

Brief summary of the whole profile: where is the Offer from (country), what is offered, type/s of partnership sought?

A German engineering office has developed a platform concept similar to "Smart Home" for the digitalisation of roads and traffic infrastructure allowing the intelligent networking of mobility, energy and infrastructure which results in minimization of CO2 emissions and optimised traffic flow. The engineering office looks for operational partners from several sectors (IT, automotive) for technical, research or financial agreements and for government-related organisations to promote the concept.

Description* *(min. 100 characters, max 4000 char.)*

The current lack of an overall mobility concept that includes new mobility options, results in excessive individual and heavy goods traffic with internal combustion engines which in turn leads to high emission, noise and environmental pollution.

A German engineering office that is active in the field of innovation and renewable energies since 1996 has therefore developed a smart road concept for the digitalization of roads and traffic infrastructure. This new concept ensures the optimal use of all new mobility possibilities (autonomous driving, eMobility, networking of public transport etc.). It stands for the intelligent networking of mobility, energy and infrastructure through digitalisation. As a result of the intended sector coupling, a minimization of CO2 emissions, a steady and accident-free traffic flow is achieved.

Similar to 'Smart Home' the system developed for smarter roads stands for a platform concept providing services and value-added products in the road infrastructure sector.

On the basis of a pilot line, a real laboratory is to be set up and further developed to test and demonstrate the new digital possibilities of mobility.

To achieve this goal the engineering office needs partners from the following areas:

-Partners to build a high-performance fibre optic network along the smarter road as a backbone and to provide computing capacity.

- Partners for the further development of high-performance sensor technology for real-time measurement and recording of traffic and road conditions

- Partners as supplier and operator (provider) of mobile radio and communication systems for real-time data transmission in rural areas.

-Partners who offer IT platforms to connect different services and products, similar to a smart home platform.

-Partners from the automotive industry (suppliers, OEMs, manufacturers) who are interested in the further development of such cross-system sector couplings, especially in autonomous driving.

The envisaged type of co-operation would be a technological co-operation although the engineering office is open to all kinds of co-operation and might also be prepared to licence their trademark for the concept.

Moreover, the engineering office is interested in a financial agreement with a partner who would like to participate financially in a start-up in the field of infrastructure digitisation and who would also be prepared to apply for funding in the frame of a Horizon 2020 project in the frame of a research co-operation.

To promote the implementation of the concept the engineering office is also looking for government-related organisations having access to decision makers.

Advantages and Innovations* (*min.50 characters, max. 2000 char.*)

DNA, guiding idea and objectives of the innovative smart road concept:

- no traffic jams, no accidents, constant traffic flow through the use of digital technologies, CO2 neutrality,

- Networking of different transport systems using regionally produced renewable energies.

Objective: The climate-neutral road

- Testing and introduction of new mobility technologies for motor vehicles, public transport and eBikes

- Predictive maintenance of road infrastructure through sensor technology

- Prevention of noise and CO2 emissions from internal combustion vehicles

- Auditing and certification of the developed concept for safe autonomous driving, eMobility, sustainability, environmental protection and tourism

- Long-term achievement of climate neutrality of a road/region (Smart Grid)

- Use of renewable energy for e-mobility

- For tourism there are additional positive effects and destinations:

Soft tourism, educational tourism and innovative character

- Containment of uncontrolled individual traffic at weekends and peak loads with alternative mobility offers for excursion traffic

Current Stage of Development*

Under development /laboratory tested

Available for demonstration

Already on the market

Field tested / evaluated

Prototype available for demonstration

Concept stage

Comments Regarding Stage of Development: 3-4 from 10

Intellectual Property Rights Status*:

- | | |
|--|--|
| <input type="checkbox"/> Patent(s) applied for but not yet granted | <input checked="" type="checkbox"/> Secret know-how |
| <input type="checkbox"/> Granted patents | <input type="checkbox"/> Exclusive rights |
| <input type="checkbox"/> Copyright | <input type="checkbox"/> Trade Marks |
| <input checked="" type="checkbox"/> Design rights | <input checked="" type="checkbox"/> Others (registered design, plant variety, etc) |

Comments Regarding IPR Status: (e.g. countries for which protection has been granted or applied for): Germany, EU

Preferred Countries for Dissemination: Germany, EU, worldwide

DETAILS OF YOUR OWN ORGANISATION/COMPANY

Type* Industry R&D Institution University Private Inventor

Other: please specify

Comments:

Organisation/Company Size* (please tick one box) < 10 employees 11-50 employees
 51-250 employees 251-500 employees > 500 employees

Year Established: 1996

Turnover (only for business profiles): < 1 mio 1 – 10 mio
 10 – 20 mio 20 – 50 mio 50 - 100 mio

Already Engaged in Trans-National Cooperation Yes No

Experience Comments:

Certification Standards:

Languages Spoken: Englisch

TYPE OF PARTNERSHIP CONSIDERED:**Technology Offers (beinhalten Technologietransfer)**

- | | |
|---|---|
| <input type="checkbox"/> Commercial Agreement with technical assistance (an agreement arranging the acquisition of a product/technology paired with the provision of a number of services in support of a transfer of technology) | |
| <input type="checkbox"/> Joint Venture Agreement | <input type="checkbox"/> License Agreement |
| <input checked="" type="checkbox"/> Technical co-operation agreement | <input checked="" type="checkbox"/> Research co-operation agreement |
| <input checked="" type="checkbox"/> Financial agreement | |

Type and Role of Partner Sought*:

- Type of partner sought
Project developer, industry, research organisation, government-related organisations, others

- Specific area of activity of the partner: IT, IoT, Mobile Operator, car manufacturer, Infrastructure developer, tourism
- Tasks to be performed by the various partners sought:
- Set up a high-performance fibre optic network along the smarter road
- Further development of high-performance sensor technology for real-time measurement and recording of traffic and road conditions
- Provide a mobile radio and communication systems for real-time data transmission in rural areas
- Offer IT platforms to connect different services and products
- Further development of cross-system sector couplings (especially in autonomous driving).
- Financial participation in a start-up in the field of infrastructure digitisation and application for funding in the frame of a Horizon 2020 project
- Promotion of the concept implementation

Size and Type of Partner Sought (e.g. industry, research): not important

Additional information (pictures)

CONTACT (Ihre Kontaktdaten werden nicht in der Enterprise Europe Network Datenbank veröffentlicht)

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<input checked="" type="checkbox"/>	I confirm that I am entitled to release the information provided on this form. I understand that it will be stored electronically and be made accessible to interested parties.	
Date	03.03.2020	Signature: Michael Becker