enterprise europe



Research Development Request - Profile Template



FIELD	Field to be populated
Title *	PS FTIPilot-01-2016: A new manually driving vehicle for facilitating transport of physically impaired.
Internal Reference	TBD
Summary * (1-500 characters)	A Polish SME, based in Torun, has developed an innovative vehicle with a manual drive for moving for physically impaired. The device has been designed and developed to provide a simple and low cost in exploitation manual device, suitable to train the upper limbs and transport in short-distances in the same time with the usage of manual drive. Partners sought are R&D or University specialized in sport, recreation and rehabilitation research and companies specialized in the field of construction wheelchairs.
Advantages and Innovations (50-2000 characters)	Through the usage of a new approach the solution allows the physically impaired people unparalleled comfort of driving thanks to powering the levers and unique tilting maneuvering system. Innovation of the vehicle results from the type of drive applied. Oscillatory movement of the levers is converted into unidirectional rotary motion of the wheel axles, which means that each motion of the user's shoulders - forwards and backwards - is productive and drives the vehicle. The vehicle is constructed of a tilting chair, two big wheels, the rear pair of smaller wheels and two levers. Each of the levers is connected to a drive mechanism located in the Center of each big wheel. The user propels the vehicle by setting the levers in motion. The direction of this moves and its length is of no distinction. To make a turn in required direction a user has to be able to tilt his body to this very same side. In the hybrid version- mixed mechanical and electric drive - vehicle is equipped with a small battery pack, and motor located in one of rear wheels. It is of the user choice how much additional power has to be added to mechanical drive. Such a solution allows the user to use a vehicle in difficult terrain condition - especially when up and down hill conditions occur. This vehicle, driven by the power of arms' muscles with an innovative drive solution, will satisfy every user.
Stage of Development	 Already on the market Available for demonstration Concept Stage Field Tested / Evaluated Project Already Started Project in Negotiations - Urgent Proposal under development Prototype available for demonstration Under development / lab tested
Comments regarding Stage of Development	The company has developed and implemented an innovative lever drive for wheeled vehicle propelled only by muscle power in a standing position. There are no additional driving mechanisms in the vehicle. The vehicles can be also equipped with electric driven rear wheels combined with small battery pack. Furthermore, this very same idea makes us possible to generate electric power in order to drive the vehicle. The invention was awarded a gold medal in the category of Sports at the 42nd International Exhibition of Inventions of Geneva and a gold medal in the category of Health / Fitness at the Invention/New Product Exhibition INPEX in USA, where the vehicle also received an award for the Best European Invention. This innovative drive can be implemented to drive wheelchairs. A prototype as such

	a wheelchair is under construction and should be available to tests very soon.
Description * (100-4000 characters)	A Polish company based in Torun and active in the field of small transport vehicles production is looking for additional partners to complete a project proposal under the Fast Track to Innovation Pilot Scheme. The Company intends to develop new techniques and technologies in existing model in order to transform it into a vehicle with a manual drive for moving for physically impaired and to launch an innovative industrial product into the market. Currently, the stage of the novel device is at an advanced level of development. A prototype of the vehicle (designed for clients in standing position) has been prepared and introduced into the market. The consortium in preparation already consists in 2 partners: 1° - the Polish SME described above will be the technical leader. The company will coordinate the activities, providing for the construction of the vehicle based on the suggestions of the project partners, 2° - a technology park, which will contribute to prepare a business plan and provide market analysis in the sector. The Polish company is now looking for at least two additional partners from two different European countries. Deadline for EOIs: 19 February 2016 FTI framework conditions: maximum 5 partners from 3 to 5 countries (2 industry participant in a consortium of 3 or 4 partners, and 3 in a consortium of 5 partners), industrial partners gathering 60% of the founding The grant rate is 70%. Non-profit entities (eg. universities, research institutes) can apply for funding at 100%.
IPR Status Note: Multiple fields can be selected.	 □ Copyright □ Design Rights □ Exclusive Rights □ Other (registered design, plant variety, etc.) □ Patent(s) applied for but not yet granted ☑ Patents granted ☑ Secret Know-how ☑ Trade Marks
Comments	Polish patent granted
Regarding IPR Status	EPO patent granted PCT application finished and patent procedure deploy in chosen countries eg: USA, China, etc
	02009002 Hybrid and electric Vehicles
Technology	, 02006006 Construction engineering (design, simulation)
Keywords *	02009024 Powertrain and chassis
Market	09001007 Other transportation
Keywords *	C.30.9.9 Manufacture of other transport equipment n.e.c.
Responsible *	
•	Tomasz Urbanowicz, Sylwia Zygmont

Restrict Dissemination to specific countries	Not applicable
Type and Size of Client *	 Industry SME <= 10 Industry SME 11-49 Industry SME 50 - 249 Industry 250-499 Industry >500 Industry MNE >500 Inventor Other R&D institution University
Year Established	2014
NACE keywords *	30.9 Manufacture of transport equipment n.e.c.
Turnover (Euros – Millions)	 <1M □ 1-10M □ 10-20M □ 20-50M □ 50-100M □ 100-250M □ 250-500M □ >500M
Already Engaged in Trans - national Cooperation?	□ Yes ⊠ No
Additional Comments	-
Certification Standards	-
Languages Spoken *	English, Polish,
Client Country	Poland

Type and Role of Partner Sought *	1° - R&D or University – University of Physical Education and Sport, University with faculties related to sport, recreation and rehabilitation or University of Medical Education and proven expertise and facilities to realise research on the impact of the vehicle on the human body (impact on cardiological diseases, neurological, rheumatic, logopedic, weight loss, improve of motor coordination), 2° - company – the partner sought should be a company dealing with the construction of wheelchairs outside Poland. Partner should have experience in the construction wheelchair. Preferable would be a company from Germany, England or Ireland able to building a prototype and research on the use of innovative lever drive and test new product.
Profile is Opened for Expressions of Interest?	⊠ Yes □ No
Type and Size of Partner Sought Note: Multiple fields can be selected.	 ☑ SME < 10 ☑ SME 11-50 ☑ SME 51 - 250 ☑ 251-500 ☑ >500 □ MNE >500 □ Inventor ☑ R&D institution ☑ University
Type of Partnership Considered	Research cooperation agreement
Framework Programme	Horizon 2020
Call Name	Fast Track to Innovation Pilot FTIPilot-01-2016
Evaluation Scheme	Grant proposals will be evaluated by experts, on the basis of the award criteria " excellence", "impact" and "quality and efficiency of the implementation". Information on the outcome: maximum 3 months after the corresponding cut-off date. Signature of grant agreements: maximum 6 months after the corresponding cut-off date.
Anticipated Project Budget	around 1 M EUR
Coordinator Required	Tbd

Deadline for Call	1 June 2016
Funding Scheme *	For-profit entities can have their eligible costs covered by an EU grant up to 70% of the total amount. For non-profit entities this can go up to 100%.
Project Duration	Around 24 months
Weblink to the Call	https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/t opics/5060-ftipilot-01-2016.html
Project Title and Acronym	A new manual drive moving vehicle for facilitating transport of disabled people (ACTIVETORQ)
Attachments	Photo.jpg