HORIZON 2020

# Safe personal transportation that makes you healthier.

# **Rapports**

Informations projet

Torqway Hybrid

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Site Web du projet 🗹

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Projet clôturé

Date de signature de la CE 8 Septembre 2017

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**Coût total** € 2 270 790,00

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Coordonné par TORQWAY SPOLKA Z OGRANICZONA ODPOWIEDZIALNOSCIA Poland

## Ce projet apparaît dans...

Gestion des sols et durabilité: l'agriculture européenne relève le défi

# Periodic Reporting for period 2 - Torqway Hybrid (Safe personal transportation that makes you healthier.)

Période du rapport: 2018-10-01 au 2020-01-31

### Résumé du contexte et des objectifs généraux du projet

E-mobility is one of the leading and hottest innovation sectors in our times. Governments, global media and big companies are focusing mainly on electric cars as a solution of the problem of air pollution and climate changes. The philosophy of light electric vehicles for personal transportation is very similar – zero waste, better efficiency, ecology. On the other hand we have another big and global challenge – ageing societies. People over 65 years old will become very soon the biggest age group in North America and Europe. If they will not be independent, if they will not have good physical and mental condition, then many western societies will have even bigger issue, than climate changes. We think, that health prevention is the key to minimalize this problem. That is why we want to combine in our vehicle, Torqway Hybrid, the health prevention and electric mobility. Most of electric vehicles are just a transport modes without any positive impact to our health. This is our innovative solution for large number of particular people to stop or slow down this negative global trend.

Thanks to two sources of power users can ride a Torqway using the strength of theirs arms as a basis and electric engines as a support. This is a new kind of balanced effort and cardio workout mixed with the joy of ride. There are no similar solutions on the market and our product may fulfil the niche and respond with the needs of recreation and physical activation in a new, attractive way. Active Ageing philosophy is also our Torqway Hybrid philosophy.

During the whole period of the project we were cooperating with seniors' NGOs to prepare the best product for our target users. We pay special attention for the vehicle stability, smooth ride, attractive design (1St prize in A'Design Award in sport and entertainment category) and modes of workout (easy, medium and fitness).

Parallelly with the product development we were implementing our communication and commercialization strategies. Our core target are mature people (55+ years old), but we also see big potential of our product in tourism sector. Our customers, except individual clients, are hotels, spa and wellness centres, sanatoria and city rentals with personal mobility vehicles.

We strongly believe, that people deserve for high quality, eco-friendly and well-designed product no matter of the age. That's why we created our Torqway Hybrid.

#### Travail effectué depuis le début du projet jusqu'à la fin de la période considérée dans le rapport et principaux résultats atteints jusqu'à présent

In the first year, in accordance with the assumptions, a vehicle prototype was developed in the V2 lab version.

1. The design of the vehicle has been developed by experienced designer, who specializes in vehicles design.

2. The essence of the project is the combination of our patented manual drive with the electric drives support. We selected motors, batteries and strain gauges. Electric drive control and vehicle communication with the mobile device were also prepared.

3. We will produce crucial parts of our Torqway Hybrid in an injection method. It will allow us to create solid and durable product. Basic tools for the production of injection parts were already prepared.

4. Total novelty, like Torqway Hybrid needs to be present and communicate in a thoughtful way. We created our communication strategy, which include our brand identity and promote product features and advantages.

5. Parallely with the product development we explore the different variants of the product commercialization. A commercialization plan was prepared.

In the second year of the project and according to the project timetable we developed the project to the final prototype stage (prototype v4). We also implemented our communication and commercialization strategy – we participated and presented our final prototype at European and Polish trade fairs and we managed very intensive business networking activities with our potential partners on the market.

WP2. We developed our vehicle to the v3 prototype stage and we also produced first batch of the prototype vehicles for internal and users' tests.

WP3. After the first batch production we started the testing phase:

- The technical assumptions were tested by the testing team.

- We tested our Torqway with end users (age group 55+), potential business partners (distributors, investors) during the international fairs.

- Warsaw University of Technology was responsible for medical tests. The main conclusion is that the tests proved that riding on Torqway Hybrid improves physical condition of the users in the area of specified muscles and it has significant impact on rehabilitation process.

WP4. The final version of the vehicle was prepared. According to the project milestones we developed our product to the market stage version. We also prepared all technical and production documentation. It is our base to CE certification.

WP5. Second year of the project was crucial for the commercialization activities. We manage networking with different kind of partners and we were searching for investment and distribution opportunities. We have now satisfying business network on crucial EU markets (UK, Germany,

Poland, France, Nordics) from the area of e-mobility, senior services, tourism and financial services. We also have three signed memorandums of understanding with B2B customers (distributors and hotels), which are strongly interested in including Torqway Hybrid to theirs portfolio. With another 2 partners negotiations are ongoing. We built a solid base for introducing our product into the market after the Horizon 2020 project.

WP6. We were focused on product promotion, especially after the V3 prototype production. We provide social media communication on Facebook, Twitter, LinkedIn and YouTube services. We developed new promotional materials, like product movie, catalogue and business presentations, investment teasers and pitchdeck in different languages. Moreover, we presented our product and project at international fairs and business meetings in EU, USA and Japan. Torqway Hybrid had very good media coverage including local, nationwide and foreign media. Materials about us were published in such prestigious titles like Forbes and National Geographic.

#### Progrès au-delà de l'état des connaissances et impact potentiel prévu (y compris l'impact socio-économique et les conséquences sociétales plus larges du projet jusqu'à présent)

The Torqway Hybrid may be considered as a global innovation in few important aspects. It is a product innovation, because there are no similar product on the market and no direct competition for it. It combines the most desired features of e-bikes, e-scooters, nordic walking and fitness equipment. Riding on Torqway Hybrid is the new form of physical activity and new way of healthy entertainment. We also introduced the end user approach, which is based on combination of high quality with high functionality and very attractive design. We noticed, that many products addressed to the mature users are very functional, but don't look good or they are a depleted copy of products for younger users. That is why we want to change this customer stigmatization and offer a product which is on the highest level from the technical, functional and esthetic point of view.

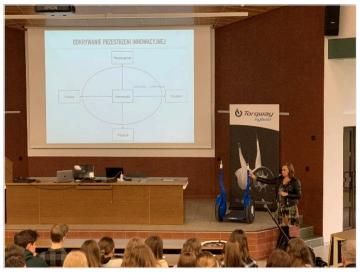
We also like to highlight, that Torqway Hybrid is a technological innovation. The main source of power – manual Torqway mechanism is our internal patented solution. The IPR protection includes the EU area, USA and China. Moreover we developed our own electronical steering system for electric drives which is not available on the market and not used in similar products.





#### Pitching with investors and Torqway Hybrid stand at DLD Tel Aviv, September 2018

#### Torqway Hybrid vehicle



Workshops about innovations for Nicolaus Copernicus University in Toruń (11.2019)



Article about Torqway Hybrid in Forbes – Polish edition



Pitching session during the Impact Mobility Revolution in Katowice (10.2019)



Project presentation for targeted users group -Third Century University in Toruń, January 2018





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