

PROJECT

## STRINGBIKE

### Highly innovative push-pull handbike for boosting wheelchair mobility

**Funding:** European (Horizon 2020)

**Duration:** Nov 2016 - Apr 2017

**Status:** Complete

**Total project cost:** €71,429

**EU contribution:** €50,000



[CORDIS RCN : 206807](#)

#### Background & policy context:

According to the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) to ensure effective personal mobility, wheelchair users need a wheelchair which fits them correctly and meets their specific needs. This requires an approach that is responsive to individual needs. However, statistics show that less than 5% of those in need have access to a properly fitted wheelchair. As the 'traditional' wheelchairs usually offer only a limited mobility and/or less healthy movements for their users, different connectable bicycles have been invented, but mainly with the traditional chain drive that can be operated by hand pedalling movements.

#### Objectives:

We find the chain drive an outdated solution and the pedalling motion less healthy than the rowing moves, therefore we created a push-pull handbike with our highly innovative string drive technology, which can better meet the above cited requirements concerning wheelchair users' mobility. With our future developments we aim to adjust our push-pull handbike to all segments of wheelchair users including women, children, the elderly and those who can use only one arm. After fully meeting all users' needs, we plan to bring the handbike into serial production. For resultful developments - to be done preferably in a Phase 2 project - and a successful commercialisation, we would like to carry out the proposed Phase 1 project.

#### Parent Programmes:

[H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport](#)

**Institute type:** Public institution

**Institute name:** European Commission

**Funding type:** Public (EU)

#### Lead Organisation:

**Stringbike Kft**

**Address:**

BODVA UT 7  
FELSOZSOLCA  
3561  
Hungary

**EU Contribution:** €50,000

#### Technologies:

Electric road vehicles  
Vehicle concept for individuals with reduced mobility

**Development phase:** Implementation

**STRIA Roadmaps:** Vehicle design and manufacturing

**Transport mode:** Road transport

**Transport sectors:** Passenger transport  
Decarbonisation, Societal/Economic issues, Environmental/Emissions

**Transport policies:** aspects

**Geo-spatial type:** Other