

Dear Expert,

In completing and submitting the attached *Expert Expression of Interest (Eoi)* form, you are applying to become a reserve expert to work with EIT Urban Mobility. All *Expert Eoi* forms are reviewed against specific tasks, assignments and selection criteria.

The Expert *Eoi* form will help ensure EIT Urban Mobility chooses the right experts for the right tasks. In the *Eoi* form you will be requested to:

- 1) Indicate three prioritised thematic areas in order of preference. This does not preclude you from working in another thematic area.
- 2) Provide personal information for contact purposes.
- 3) Describe your main skills and provide evidence of your expertise for three areas of activity (Innovation, Business, Knowledge Sharing). Please keep to the word limit in each text box. If a section is not specific to your expertise, please insert “*Not Applicable*” in that text box. This will not adversely impact our assessment of your primary skills and expertise.
- 4) You should attach a CV to the application.
- 5) The entire document should then be saved as **one single file** in .pdf format.

Completed Expressions of Interest should be submitted to the EIT Urban Mobility Secretariat by **30 April 2020** to experts@eiturbanmobility.eu. Candidates can be contacted for work assignment from the moment they have a confirmation of Expert *Eoi* registration.

1. Thematic Areas

Select three thematic areas that are best suited to your expertise and skills. These should be selected in order of preference from the following list: Business Creation, Innovation, Education, Factory, Citizen Engagement, Regional Innovation Scheme.

Thematic Area 1

Business Creation

Thematic Area 2

Innovation

Thematic Area 3

Education

2. Personal Information

Name: Marcos	Surname: Rupérez Cerqueda
Nationality/ies: Spanish	Country of Residence: Spain
Email: marcosruperez@gmail.com	Mobile: +34 659 24 92 16
Gender: Male	Mother Tongue/s: Spanish
Languages: English (professional expert)	English (C1 min): C1
Professional Web Profile: (i.e. LinkedIn, ResearchGate) Freelance engineer, consultancy and speaker personal website: www.marcosruperez.com LinkedIn: https://www.linkedin.com/in/marcosruperez/ YouTube channel: https://www.youtube.com/channel/UCQDairs3LOq7NLiFJwZKesQ (Spanish and English videos) Companies I have created and working now: My engineering company (main partner): http://quionnengineering.space/ My energy and waste company (partner): www.ewmsoluciones.com My patented product: https://rollerski.es/producto/quionne-dynamic-flex-rollerski/ (Now is just dedicated on sale our patented product).	

Sustainable mobility courses platform: <http://cursosvehiculoelectrico.com/>

3. Innovation Expertise

3.1 Knowledge and experience related to the three EIT Urban Mobility strategic objectives 1) improved quality of life in cities 2) mitigation of climate change, and 3) competitiveness of cities/ job creation

I have been enrolled on research and innovation consultancy from the start on my career. But later I create my own engineering company developing my own innovative patented products, do sustainable consultancy and designing innovative solution for costumers.

I understand innovation as change and adapt to the environment creatively, that is why I have been enrolled in different areas and projects. But always related with sustainability and mobility, from the perspective of engineering, strategic consulting and teaching

I start my career as a researcher on Aragon hydrogen foundation (<https://hidrogenoaragon.org/en/>), which is a regional research centre in Spain about hydrogen mobility developing projects like hydrogen go kart for clean competition on cities, sustainable waste vehicles for cities, hydrogen refilling stations (development and implementation of the first hydrogen refilling station in my city in 2010), or the elaboration of the region Hydrogen mobility master plan , among other projects. In this period my career evolve from been junior research engineer on hydrogen technologies to the business development responsible of all the research centre talking to companies, regions and city councils to launch hydrogen and electric mobility projects.

Then I decided to create my own company of engineering for mobility and carbon fibre products, "Quionne Tech S.L.". With the aim of create new technological concept of mobility for companies and citizens. We do projects like the design and development of the first electric car on the Dakar rally raid, hydrogen drive trains for competition and luxury sailing yacht and a patented new concept of skates for training cross country sky. After some years the company grows with new partners and focus on manufacture and sale our patented rollerski concept.

Afterwards my self continues with consultancy, trainings, speaking and engineering about mobility and sustainability with my own personal brand www.macosruperez.com and also with the company.

I'm now also creating a new company focused on development of new machines to decrease the climate impact of urban waste (www.ewmsoluciones.com).

3.2 Experience of the innovation, policy framework, skills and programmes for transport/urban mobility at regional, national and EU level.

As freelance I was the director of Griébal Scout Centre (NGO) for one year. Griébal is one of the biggest scout centre of Europe with more than 4000 young guys hosted every year. That was a different experience for me, there I was in contact with young people training them. But I also manage to obtain 2 work national programs to promote unemployed people to learn a job for one year, so I know perfectly how the unemployment and job promotion public institutions works.

During my period on the Aragón Hydrogen foundation I collaborate on the redaction on the first hydrogen master plan for and Spanish region. Which sets the road map to be follow by the region to lead the implantation of hydrogen technologies as mobility on their cities. An also participates in several European forums on the European commission JTI for hydrogen.

As a freelance I was contacted by Costa Rica government as an external consultancy expert for the implementation of electro mobility on the country. Training needed for the country managers, for the workers and business man on the country, relation with mobility companies and car brands, public sector actions on cities. I was also collaborating on the European project mares Madrid (<https://maresmadrid.es/movilidad/>) with is a citizen platform for engagement and collaboration of the citizens on the mobility evolution to a greener economy.

Las years I have been contracted by several institutions in Spain and Europe to do key note speaking to motivate engineers, teachers and citizens in general on the entrepreneur's role of the transition to a more environmental mobility and personal motivation to start a new company (entrepreneurship). As an example I was keynote speaker for Scientix (the community for science education in Europe) event ([link1](#), [link 2](#)), teaching teacher for more than 20 countries about innovation, entrepreneur and sustainable mobility.

3.3 Experience in evaluation, monitoring, assessment of projects across their lifecycle – ideation, conceptualisation, design, delivery, acceleration and commercialisation

All my professional life has been about developing, managing and executing projects from the conception to the end of the project.

I got 2 companies that created as founder from the start: Quionne and EWMsoluciones.

In Quionne I have managed big and successful projects like the first electric car of the Dakar rally raid with more than 2 million euros' budget from the sponsor. We manage the idea, design, the manufacture, motorsport, operation the finance of the project, etc.

But the main project where I manage the full process is the patented rollerski concept we design in Quionne. In this project we start from the idea, the necessity with my partner Victor lobo (Which is a world cup biathlete) the evaluation of the business plan and the feasibility, the investment plan and the finance. Then we start with the product design, the first prototypes, and finally we design and invest on a manufacturing line. We deal with the international supply chain of the material for

the manufacturing, dealing with companies in more than 30 countries between suppliers and costumers.

In parallel we do a patent that after evaluation was granted. We learn from a full complex international patent process. Where we finally obtain the paten for different countries in the world.

We also develop a full commercialization plan where we sale in more than 20 different countries. Finally, we do successful capital increase, introducing a new partner expert in commercialization.

The company now is mainly dedicated to sale this product in china and other countries, so the operation was really successful.

Now a day with my new company we are promoting plants that convert plastic into fuel. Those plants cost over 7 million each. So my day to day is about finance plans, asset risk management and deal with investors.

4. Business Expertise

4.1 Knowledge and experience of business development, commercial innovation, and the start-up environment

At the end of my working period on the hydrogen and renewable energies and mobility research centre (Aragon hydrogen foundation) I Was actually the business development manager. So I was the responsible all together with the director of directing the effort of the company on making the business profitable and sustainable. Looking for research lines profitable and products interesting for our stake holders and companies related.

I have created two start-ups from scratch but also I have been with mi companies in two company incubators in the past. Where I learn from the start up environment and collaborate with it continuously.

I usually do mentoring based on my experience to entrepreneurs and also as a professional and life couch for youth people thanks to my close relation thought my stage as director of the boy scouts NGO and also my relation with university, been a master teaching and project mentoring).

With Quionne company I was commercializing the product in Norway from Spain so dealing with international commercialization, marketing etc. manufacturing in Spain a selling in Norway.

I have been taking part of many forums and been mentor for many start up forums and innovation as an expert on mobility and renewable energies. Mentoring the start-ups hosted there that are related with mobility or environmental sector (my expertise)-

4.2 Specific key skills related to business – R&D, intellectual property provision, incubation, marketing, financial sustainability, commercialisation, venture capital etc.

I have created 2 companies from scratch in my work life that are both still working now. One related with Engineering prototypes mainly for mobility (<http://quionnengineering.space/>). I have design mainly cars and yachts with hydrogen and electric propulsion. The more relevant project is the first electric car of the Dakar rally race (We design it build it and operated) (some of my relevant mobility projects [link](#)).

My second company is related with the development of technologies related with renewable energy and sustainable treat of waste (<http://www.ewmsoluciones.com/>).

In both companies we are developing and research on multiple areas related always with the improvement of machines (R&D).

One of the main project in Quionne was the design patent and production of our own product that is a revolutionary way to train skiing on summer (<https://rollerski.es/producto/quionne-dynamic-flex-rollerski/>), there I learn how to do a paten and how to make it useful for a business.

We are now negotiating a venture capital round on my company EWMsoluciones mainly with Canadian and Chilean investor, so I'm now getting real experience on how to get venture capital and investors.

At the same time, I also work as freelance consultant for entrepreneur, professional speaker, teacher and top engineering consultancy mainly on the areas of hydrogen and electric vehicle.

5. Knowledge Sharing Expertise

5.1 Ability to draw out, support the verbalisation and documentation of knowledge and practice from stakeholders from across the public, private, academic sector and citizen engagement.

My personal way of working is not to reserve the knowledge but give it to your customers and partners. As consultant and engineering company on prototyping we are always creating knowledge that is transferred to stakeholders, it our natural way of working, and mine personally also.

I'm kind of public person been contracted for speaking on events to motivate assistants to innovate, be entrepreneur and evolute the business to more sustainable way of do business, mainly focused on mobility which is my main expertise.

Years ago (2012-2014) I was online teacher of electric, hybrid and hydrogen vehicles on an online platform. But some after that with my experience on real projects I decided to create my own website just to offer my experience on electric and hydrogen vehicles. For Spanish talkers (<http://cursosvehiculoelctrico.com/>).

For one year I was the responsible of a university subject call ``hydrogen technologies and economy`` in Zaragoza university (Spain) on a renewable energies master for engineers.

I really love to communicate my ideas and advises on transition to more sustainable world that is why I also have a YouTube channel on this thematic (mainly in Spanish but some videos on English also):
<https://www.youtube.com/channel/UCQDairs3LOq7NLjFJwZKesQ>

I collaborate on Spanish radio as an expert on mobility and renewable energies. Also regularly collaborate on podcast and citizen forums and public speaking along with other experts.

5.2 Ability to write and edit clear and concise reports in areas such as good practice and policy development to target policymakers, elected officials, trade/industry associations and the general public.

I have been doing consultancy reports for costumers form the early steps of my career till now with my company and as a freelance. In my early stages, working on a public research centre and I was also doing reports for public entities and politician, given them the state of the art actualised of different technologies end sectors related always with sustainable mobility and energy.

In this first stages of my career I collaborate on the Hydrogen Master plan for the region, where the research centre I was working in was established. In this hydrogen plan we installed 2 public hydrogen station and other relevant public action in collaboration with other public entities.

I have written myself and win several European founding proposals for the European union, some of then of several million euros with more than 8 partners from more than 5 different European countries.

During all my life working for my company or for others companies, I have been mainly a consultant and prototype design engineer for costumers. So all my job has been to report to different institution costumers in different countries in the word. I have been working and reporting for companies (costumers) and institutions in: New Zealand, European countries, Chile, Argentina, Canada, Russia...

I have also written scientific papers for the science community with some of my research on hydrogen mobility and fuel cells. I'm now in the process of write a new paper proposing a new index for the real transport pollution of every citizen for the cities to be smarter on their mobility restrictions on down towns.

6. CV

Please include your CV. Then save the entire document as a single file.

CV

MARCOS RUPÉREZ CERQUEDA

PERSONAL DATA



Name: Marcos Rupérez Cerqueda
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Phone: +34 659 249216
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Linked in: <https://www.linkedin.com/in/marcosruperez/en>

Training

- Nov12-mar14** IE Business School
Master on Business Administration, Global MBA (Part-time) + Corporate Finance module
- 2007-2009** Aalborg University (Denmark)
MSc Renewable energies and Hydrogen technology
 (2-year master in English)
- 2002-2010** University of Zaragoza
Industrial Engineering (5-year degree)

Work Experience

- Feb 19- Now** **EWM partner in charge of the technical area** (<http://www.ewmsoluciones.com/>)
 EWM Company designs, improves and imports machines for the circular economy of waste. My functions as a partner are (1) the optimization and management to install machines onsite for customers, (2) as well as the redesign of certain parts and their components.
- Jan 18 -Mar19** **Director of Griébal Scout Foundation** (<http://griebal.org/>)
 Director of the foundation in charge of the rehabilitation of the abandoned village of Griébal to convert it on a camp site for child's. Since young I was collaborating with this NGO and for one year I was working as director of the Project managing rebuilding, finances and also institutional relations.
- Mar 14- Now** **Quionne Company partner (engineering prototyping Company) (Now capital partner)**
 Owner of 50% of a company that is specialized on engineering projects, product and prototype development. My main function in the company was project manager and engineer. <http://quionnengineering.space/>. The main value of Quionne is its multidisciplinary team of engineers

motivated to solve complex challenges in a creative and fast way. The main working areas of Quionne are: Research, Development and production of carbon fiber products, plastic and metal, renewable energies, electric and hydrogen mobility, car and boat competition and product design.

Projects, functions and personal achievements:

- Carbon fiber patented product (Rollerski) with own design (**3D and mechanical simulations**). The manufacturing process was designed and optimized for mass production. The production process was set up and the product sold in 20 countries. ([link](#))
- **FIRST ELECTRIC CAR ON DAKAR RALLY RAID:** I was the person responsible for the electric system and power train of the first electric car ever on Dakar rally raid. I did the conceptual design of the system and components, charging infrastructure and systems, **mechanical design (3D)**, manufacturing of the vehicle and vehicle assistance on race. ([Project Description](#)). Working for 2 months on Chile and Argentina.
- **Hydrogen Propulsion of 36M carbon fiber Yacht:** We designed the hydrogen fuel cell propulsion system for a Dubai luxury yacht. Dubai customer([Project description](#))
- Carbon fiber parts and products design and development
- Carbon fiber molds design (**3d design and finite elements**)
- Plastic parts design for **3d printing and molding**.
- Battery pack design and manufacture (Electric component and mechanical assembly)([link](#))
- Hybrid multicopter design
- Research on graphene integration on carbon fiber resin
- Industrial process and equipment design

2015 - actual

Speaker and media

- I do motivational speaking for engineers and entrepreneurs, based on my personal and entrepreneur experiences as engineer. Short motivation speech: [link](#), conference: [link](#) YouTube Chanel ([link](#)) radio collaboration.

2011- Mar 2014

Project Manager and business development at H2 Foundation

Foundation for the development of new hydrogen technologies in Aragón (R+D Centre)

Achievements:

- Design, manufacture and operation manager of the renewable energy and electric traction system of the first zero emission sailing yacht on circumnavigating the globe in the Vendée Glob 2012 regatta. IMOCA ACCIONA 100% ECOPOWERED. (Conceptual design, wirings, 3D design of the equipment, manufacture, installation and race operation).([Project video](#)) I was part of an international team working on New Zealand. ([project explanation](#))
- Technical consultancy to companies on hydrogen and electric drive trains.
- R+D contract negotiation
- Institutional representation
- Business representation
- University master teacher on renewable energy.
- Online teacher on hydrogen technologies.

Jan-2009/2011 Research engineer on hydrogen fuel cells at H2 Foundation

Foundation for the development of new hydrogen technologies in Aragón (R+D Centre)

Achievements:

- Mechanical and system design of Formula Zero kart, Hydrogen go-kart for international competition based on hydrogen fuel cells. 2nd position on the international championship 2009.
- Mechanical design and manufacturing of hydrogen pressure tanks (3d design, finite element simulation)
- Product design and simulation of a portable mini fuel cell product. (3D design and dynamical simulations of flows)

Additional training

- Full Solid Works presence course (·D mechanical design, wirings and simulation) Araworks
- Full Solid Works flow simulation presence course (Official Araworks)
- AutoCAD
- Law view environment programing
- Web design (WordPress).
- High altitudes working environments certificated
- Child camp leader certificate
- Coordinator of a team of scout's leaders.
- Teacher on several courses for disabled an unemployed people.

Computing

Engineering Software: Solid Works, AutoCAD, Mat lab Simulink, LabVIEW, EES, Ansys, Wind-pro, Homer, Blender,

Design Software: Dreamweaver, Adobe Premiere, Adobe After Effects, Photoshop, blender

Office software: Advance MS Office, Excel Expert.

Languages

Spanish: Native

English: Advance level writing and speaking, (International master coursed on English language for 2 years, giving public conferences on international organism for more than 100 people at time, working on international projects and teams on New Zealand, France)

Hobbies:

- Alpine Skiing, Cross country skiing, Tele mark skiing, trekking, rock climbing, alpinism, paragliding, scouts
- Mechanics, Engineering, electronics, cars, racing drones...
- New culture and international trips