## Summary

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BioChemTech
**Technology Offer**

**POD REF: TOES20190307001**

**A Phase 2a-stage drug for Huntington’s disease for license agreement**

**Description**

The Spanish company has developed an efficient and predictive artificial intelligence (AI) technology for drug reprofiling.

Through its AI technology, the company has built its own pipeline of assets in the Central Nervous System (CNS) orphan disease space—the company’s therapeutic focus.

The company’s pipeline consists of clinical-stage assets for Huntington’s disease and Adrenoleukodystrophy, as well as preclinical-stage assets for Adrenomyeloneuropathy, Phenylketonuria and Niemann-Pick disease.

The current most advanced asset is for Huntington’s disease which is in Phase 2a, with preliminary clinical data expected in September 2019.

The technology is a VMAT-2 inhibitior being developed as a prevention and treatment of chorea movements associated with Huntington’s disease. It may also be used for hyperkinetic movement disorders associated with Tourette’s syndrome, tardive dyskinesia and hemiballism.

The company’s business model involves drug discovery, preclinical/clinical development and out-licensing after Phase 2a proof-of-concept. The company is seeking pharmaceutical and biotechnology companies for a license agreement and is flexible with reference to deal structure, depending on the prospective licensee.

**Advantages and Innovations**

The technology is a repurposed drug with an already established safety profile for its primary indication. Compared to the available treatments for Huntington’s disease on the market, which have black box warning, it is safe and may also be used in Huntington’s disease patients with neurological afflictions such as depression, psychosis and aggressive behaviour.

The AI platform has demonstrated success through the company’s first asset for Transthyretin Amyloidosis which reached Phase 2a completion in five years since its discovery in 2011 and was licensed for worldwide rights to a US-based pharmaceutical company. Recently, the technology has yet again proven its predictive accuracy through the Phase 2a milestone achieved by the company’s second asset for Huntington’s disease in the 3rd quarter of 2018.

**Type and role of partnership sought**

The company seeks to collaborate with biotechnology and/or pharmaceutical companies that wish to expand their pipeline through licensing the company’s clinical- or preclinical-stage assets.
A drug discovery and development company offers its artificial intelligence (AI) platform for a co-development opportunity to find new medical uses for a chosen drug and/or to identify new drugs for a selected indication

Description

A clinical-stage drug discovery and development company based in Barcelona (Spain) has developed an efficient and predictive proprietary artificial intelligence (AI) technology for drug reprofiling. The AI platform has demonstrated success through the company’s first asset for Transthyretin Amyloidosis which reached Phase 2a completion in five years since its discovery in 2011 and was licensed for worldwide rights to a US-based pharmaceutical company. Recently, the technology has yet again proven its predictive accuracy through the Phase 2a milestone achieved by the company’s second asset for Huntington’s disease in the 3rd quarter of 2018.

The discovery and identification process is dependent on the company’s proprietary AI technology which uses a database of biological targets comprising more than 300,000 ligands and a library composed of 10,000 compounds and molecules. It includes the use of the platform’s relevant software and predictive tools needed for the course of screening.

Although the company’s business model is concentrated on the discovery and development of drugs for the CNS orphan disease space, its technology is not only limited to that therapeutic area, but is designed to perform its screenings and validations in a broad spectrum of medical indications such as in dermatology, ophthalmology, psychiatry and more.

Advantages and Innovations

- Ligand-based virtual screening equipment based on molecular fields and artificial intelligence evolutionary algorithms.
- It identifies non-structural analogs of a given compound.
- Technology based on the 3-D superposition of molecular fields.
- High predictive accuracy of the Technology.

Type and role of partnership sought

The company seeks to collaborate with biotechnology and/or pharmaceutical companies that wish to expand their pipeline through finding new medical indications for their chosen drug and/or identifying new drugs that can be used for their preferred indication, and that are looking for a reliable drug discovery partner that fits strategically with their development direction.
Healthcare
Large worldwide data record system offered for health research projects, vector maps and feasibility/exploratory studies

Description

The Spanish research institution based in Catalonia was founded in 1996 by the regional government, in order to promote and manage innovation, training, teaching and clinical research, epidemiology and health services in the field of primary care. One of its main aims is to promote the development of research based on real world data from primary care electronic medical records and other complementary databases.

The institute developed a large database which was launched in 2010 and includes more than 150 available clinical and demographic variables of 300 care centers information with a total catchment of about 5,8 million people.

The research institute offers its database to be used in research projects, feasibility and exploratory studies, vector maps and other kind of projects demanding real world evidence. It is looking for public and private institutions and companies for research and technical cooperation agreements. The center has been involved in several research projects originated from competitive calls for proposals, from projects with funds available from other sources and from programmes promoted by public or private institutions worldwide. The Institute has the ISO 9001:2015 (ER-0821/2011) quality certification in support and advice activities for research projects since 2011.

Advantages and Innovations

- One single database with high population representativeness
- Validity of available information
- Extra data
- Availability of vector maps
- Experience in national and international projects

Type and role of partnership sought

The research institution is looking for public or private institutions and companies interested to use the database for their research and innovations projects or joint in research and co-development in private or funding competitive schemes.
Catalan SME is looking for new solutions for vascular therapies

Description

The Catalan medical device company has the aim to develop advanced medical devices and therapies for the treatment of cardiovascular system disorders. The company has an extensive knowledge of biopolymers, coatings, drug delivery, mechanical engineering, medicine and pharmacy, and has implemented a project surrounding the vertical integration of design, development, and manufacturing of cardiovascular devices. This means they are able to complete the whole process from basic raw materials (drugs, polymers and metals) to the final product.

With the goal to improve its products and add new projects to the pipeline, the SME has launched a competition.

It is addressed to established companies, mainly startups.

The Catalan SME is looking for proposals, approaches, solutions and ideas for vascular therapies such as:
- Medical devices for the treatment of vascular disorders
- Drug delivery systems for local treatments
- Replacement of open surgery with minimally invasive procedures

The project status must be TRL>3 and the organization must have a project leader (who may or may not be the CEO of the company) but who has exclusive dedication to the project. The award for the winner of the contest consists of:
1) Cash prize of 8.000 €.
2) Tailored Mentoring program from the company’s top executives.

Type and role of partnership sought

The challenge is open to companies, mainly startups, with technologies in a proof of concept stage. These technologies could be medical devices for the treatment of vascular diseases, drug delivery systems for local treatments or new minimally invasive procedures to replace open surgeries.

After the mentoring, a technical cooperation agreement is envisaged for the development of a prototype or the assessment on the product development, manufacturing and regulatory. Other cooperation types will be also considered.
A Catalan SME specialized in dental medical devices offers its deep production experience for manufacturing agreements

Description
The Catalan company has been producing high quality dental products with high precision parts since 1992. The company’s hallmark is the quality and high accuracy of its products, being able to produce components with engineering tolerances within the micron range.
The company produces 500 different CE certified references, including 4 different implant systems, with their prosthetic components and tools.
The basic raw materials used by the company in its current production is titanium (grades 4 and 5) stainless steel for medical use, Cobalt chromium for medical applications and also polyether ether ketone (PEEK) and polyoxymethylene.
Its metrology department has been recently improved with a Zeiss D-Inspect physical and optical control machine that ensures the final result with a high quality product.
The company is highly versatile and is able to meet very competitive deadlines thanks to its top notch production facilities and capacity.
The company has both ISO 13485 (medical devices) and ISO 9001 certificates.
The company has a vast client base currently and it is now looking for new manufacturing agreements with industrial companies all over the world.

Advantages and Innovations
- The final products are extremely complex and accurate.
- The company has state of the art machinery, including a 6 axis machining center (Willemin) to produce complex, angulated and multipart pieces with a high precision.
- The company is constantly investing in new processes, software and machines in order to meet a very demanding market.
- Maximum size of the components the Company can produce is 100 mm length and 16 mm diameter
- An in-house engineering department allows the company to undertake new developments and bringing new products to the market to improve.

Type and role of partnership sought
The company is looking for international SME in dental sector in production scaling up phase with manufacturing needs. It offers subcontracting collaborations where the company will provide the technical and manufacturing resources to support companies, under manufacturing agreements.
Technology Offer

POD REF: TOES20180130001

3D additive manufacturing machine for tubular medical devices for technical cooperation or license agreements

Description

A research group of Spanish university has developed a 3D additive manufacturing machine specially thought for tubular devices such as stents. Metallic stents are effective in preventing acute occlusion and reducing late restenosis after coronary angioplasty but many concerns still remain. The role of stenting is temporary and is limited to the intervention and shortly thereafter, until healing and re-endothelialization are obtained. Biodegradable stents (BRS) were introduced to overcome these limitations with important advantages: complete bioresorption, mechanical flexibility, does not produce imaging artefacts in non-invasive imaging modalities, etc. Biodegradable stents offer the potential to improve long-term patency rates by providing support just long enough for the artery to heal. Nowadays in the stent industry the manufacture process par excellence is the laser micro cutting. Nevertheless, in the case of polymeric stents, the 3D additive manufacturing techniques could be a more economical solution.

Recently, three-dimensional (3D) printing, a specific technique in the biomedical field, has emerged as an alternative system for producing biomaterials. The 3D printing system, applied to rapid prototyping in structural fabrication can easily manufacture biomaterials, such as BRS, better than other devices. The machine developed by the research group is based in the Fused Filament Fabrication (FFF) and the 3-axis 3D printing technologies. The filament is melted into the extruder nozzle, which deposited the material onto a heated computer-controlled rotatory Cartesian platform. The machine provides a precision of 0.9375 µm in the X axis, 0.028125º in the W axis, 0.3125 in the Z axis, and 0.028125º in the extruder. The nozzle provides 0.4 mm of diameter.

Advantages and Innovations

Comparing to the nowadays technologies used for the stent manufacturing, this technology allows to reduce the required steps to only two (stent printing and sterilization), which implies a reduction of lead-time and material costs.

Type and role of partnership sought

Stents manufacturer to collaborate under a technical cooperation agreement in the development of the technology and/or license agreements to bring it to the market.
Environment
Sensor-based and machine vision waste sorting equipment

Description

A Spanish company based in Barcelona, with more than 10 years of experience, has designed a new sensor-based sorter and machine-vision equipment that applies hyperspectral vision, electromagnetics and metal induction technologies. The equipment integrates industry 4.0 applications with self-monitoring and connectivity, as well as data management and computer control. Touch screen based interface systems allow configuration and control of the optical unit, as well as the data mining and alarm management. The equipment facilitates plant management through the integration of ERP (Enterprise Resource Planning) systems. The sorter equipment designed by the company is composed by a feeding system (belt conveyor or vibratory feeder) with 2.7 to 3.5 m/s speed, an identification and sorting module equipped with machine-vision camera and sensors, a data processing system and a separation chamber with pneumatic ejection system based on compressed-air jets. The identification and sorting system is composed of one or more NIR (near infrared) and/or VIS (vision light) machine vision cameras, inductive sensors for metals, an integrated automate programmable logic computer (PLC) with different levels of ingress protection of control boards and high blowing resolution valve-blocks. Multi-channel feeding and processing are available with double or triple-tracks for simultaneous sorting of two or three material streams (up to 9 sorting operations) on a same optical sorter.

Advantages and Innovations

- High production capacity and availability under demanding industrial conditions.
- High recovery (efficiency) and purity rates of targeted materials.
- Short payback period.
- Versatility and flexibility when separating different materials with the same optical sorter.
- Computer-aided calibration for high reliability and production stability.
- Easy maintenance and cheap spare parts.

Type and role of partnership sought

The company is looking for waste management companies, waste treatment operators, recyclers, industrial contractors and local authorities who can implement the equipment in new or existing material recovery facilities (MRF), waste treatment plants and recycling facilities interested in a commercial agreement with technical assistance. A technical cooperation agreement will also be considered when specific tests to meet partner’s materials needs may be required.

The company is also looking for commercial agents with technical customer service capabilities interested in a commercial agreement with technical assistance.
Cost effective and energy efficient new desalinisation process

Description

A Spanish SME has developed, in cooperation with a local university, a new process for water desalinisation through a system of compression, heating and injection. Current desalinisation processes are usually based in reverse osmosis. They have high energy consumption and high cost of maintenance associated. Furthermore, big amounts of brine are discharged to the sea at the end of the process.

The new process developed by the Spanish company allows obtaining distilled water and recovering of dry salts from seawater, brackish water or residual water with lower energy consumption and lower maintenance costs than current reverse osmosis desalinisation systems.

The saline water is compressed under high pressure, then heated below its thermal limit curve and finally it is injected horizontally at high speed inside a superheated tunnel at low pressure without air injection, resulting in a separation of steam and dry salts. The dry salts fall on drawers at the bottom of the superheated tunnel. Salts can be sorted by applying an ionising field, followed by a directional electric field.

The system can be powered by renewable energy. The thermal energy required in the process can be generated by concentrated solar power. The recovered and sorted salts can be sold and used in further industrial processes. This allows to recover part of the cost invested in the treatment and avoids the discharge of brine to the sea.

Advantages and Innovations

Comparing with reverse osmosis, commonly used in desalinisation process, the new technology shows the following advantages:
- 80% reduction of energy consumption
- 90% reduction of the maintenance costs
- Not discharge of brine to the sea.
- Recovering of dry salts for consumption.

Type and role of partnership sought

They are looking for industrial engineering companies working in water and wastewater treatment with manufacturing capacities to produce the equipment required for the application of this technology. The partner sought should be able as well to provide after-sales technical assistance services (maintenance and repair). The cooperation type desired in this case will be a manufacturing agreement. The Spanish company will commercialise the equipments.
Looking for inductive sensor-based solutions for ferrous and non-ferrous metals detection to be integrated in sensor-based sorting equipment

Description

The Spanish company is a sensor-based sorting specialist in a wide range of waste material sorting solutions, including optical sorting.

They are looking for metal detection solutions for the separation of ferrous and non-ferrous materials in a same stream, and, subsequently, in a different machine, for the differentiation of two or three ferrous materials and three or four non-ferrous materials. The inductive sensoring solution is to be integrated in existing equipment of the company that currently provides only machine-vision sorting solutions.

The Spanish company manufactures two types of sensor-based sorters in terms of the particle-size of the materials to be sorted: particles from 2 to 50 millimetres and particles from 50 to 300 millimetres. The width of the sorters varies mostly from 1 to 2 metres, until 3 metres. Most of the materials to be treated correspond to municipal and industrial wastes, after-shredder residues (ASR) of end-of-life vehicles (ELV), electronic waste (WEEE), etc.

In a first working scenario, the inductive sensors sought must detect the ferrous and non-ferrous particles contained in a wide range of mixed waste streams consisting of different amounts of metal contents, plastics, glass, etc. In a second scenario, the inductive sensors must differentiate mostly iron and steel of the ferrous stream. In a third scenario, the inductive sensors must differentiate mostly aluminum, copper, stainless steel, brass of the non-ferrous stream.

Type and role of partnership sought

The Spanish Company is looking for providers of integral solutions or engineering electronic companies with the necessary expertise to develop the required technology.

The solution sought may be applied as well in other sectors different from the waste sorting and recycling. So the partners sought may be as well providers of solutions for quality control laboratories and manufacturing companies of metallic components with the same need as the Spanish company.

The partners sought are expected to provide an inductive sensoring solution or adapt an existing technology to the specific requirements of the Spanish company. Depending on the stage of development of the solution the collaboration could run through a technical cooperation agreement or a commercial agreement with technical assistance.
Software to manage time, cost and quality decisions in the construction process using a life cycle approach

Description

The Spanish technology centre provides the building industry with tools and technical support to improve efficiency and competitiveness. Many different aspects (costs, materials, environmental impact, certifications, …) have to be considered in the different phases of the process (planning, design, execution, monitoring …) to run an efficient and effective construction project. A good integration of all these data and share of information with the different players involved is essential for the success of the project. Different solutions for the data integration and information share as well as integration of modelling methodologies, that allow reduction costs, such as BIM (building information modelling), have been developed and are being used in the construction industry since years. However, most of the existing solutions do not integrate or only to a limited extent environmental parameters in the planning and execution of the construction project. The solution offered by the Spanish technology centre integrates an extensive database of environmental indicators that allows to consider energetic cost of materials and other environmental impacts and in all the phases of the process using a life cycle approach. They have developed a software solution for the AEC industry (Architecture, Engineering and Construction) to manage and make time, cost and quality decisions throughout the construction process with a life cycle approach. The software provides support with the activities of drafting, contracting, planning and control of construction projects and works. It is a methodology that enables setting and monitoring the values of the parameters "time", "costs" and "quality", as well as the formulation of safety and health on construction sites, the waste generation and the energy cost of construction materials.

Advantages and Innovations

- The software works with BIM (Building Information Modelling) and includes an IFC (Industry Foundation Classes) viewer that helps in better planning. - It works with files of the main modelling platforms: Bentley-AECOsim, Nemestcheck-Allplan, Graphisoft-Archicad, Autodesk-Revit, Trimble-Tekla, etc. - It integrates information from different sources to make a budget. - It works in the cloud and enables better interaction between stakeholders.

Type and role of partnership sought

Companies from the north, centre and east of Europe working in the construction sector with the necessary technical expertise to develop specific databases adapted to the requirements (e.g. regulation) of the country. The databases will be integrated in the software of the Spanish technology centre and the European company will commercialize the complete solution. The collaboration envisaged is a license agreement.
Materials
Process to reduce hydrogen content during manufacturing of metallic alloys to increase steel mechanical performance

Description

A Catalan company expert in solutions for metallurgy industry developed both model to predict interstitial elements behaviour in alloys (responsible for severe degradation of the material) and method to extract it by cooling process, improving the material quality and performance.

Said interstitial elements being selected from a group consisting of hydrogen, carbon, nitrogen, boron and argon. Hydrogen is the most common. The presence of hydrogen in metallic alloys, especially in steels, is due to several reasons, from the presence of humidity in the raw materials or equipment or the decomposition of compounds present in the later, as well as actions performed during the alloy casting and refining process, for example those where hydrogen is blown through the molten metal with the aim of eliminating other elements, with the final consequence that some fraction of the hydrogen used remains dissolved in the molten metal.

Hydrogen is well known to cause severe degradation on high performance alloys, leading to irreversible damage. Having a set of criteria able to predict the threshold of permanent damage in real structural components and during industrial practices would perform an invaluable service during component manufacturing and process supervision.

Advantages and Innovations

- More efficient than the currently used ones. The results show than the cooling process leads to a lower Hydrogen content in alloys than the other methods
- Compatible with other interstitial element is desired, such as, for example, carbon, nitrogen, boron and others.
- Economic: the investment for this extraction method is lower than the other ones.

Type and role of partnership sought

The Catalan company is looking for alloy manufacturers interested in applying either one of both solutions and increase the quality of their production
- The predictive method of Hydrogen behaviour could be implemented by a Technical cooperation agreement.
- The method to extract hydrogen from alloy during manufacturing process could be implemented into the partner manufacture by a licensing agreement.
Spanish agent specialised in forest products representing international sawmill products and panel producers is looking for new suppliers for commercial agency agreements and distribution services

Description

Spanish commercial agent specialised in forest products based in Barcelona and with 30 years of experience in the Spanish market offer its services to sawmill and lumber companies or producers/distributors of wood and panels.

The company represents in the Spanish market mainly wood and panels from all over the world. Their clients are generally construction companies and wood importers.

The company has recently detected an increasing demand of particular products, such as boards and panels having the following characteristics: Oriented Strand Boards (OSB), Middle Density Fibreboards (MDF), Shuttering beams, Thermo treated, Particleboards, Glue edge, Fibreboards, Scaffold, Pressure impregnation wood, Rough sawn, Plywood.

They would like to extend their sales opportunities and they are looking for suppliers in Europe, Asia and South America, specially in Sweden, Finland, Germany, Austria, Estonia, New Zealand and Chile. They are looking for companies able to offer the following materials: glulam beams up to 13.5 m from spruce, larch and redwood, ecosleepers, laths, flooring.

The company is interested in importing wood from the following type of trees: Radiata pine, Pine, Spruce, White wood, Siberian larch, Birch, Beech, Douglas, Acacia, Tropical hardwoods.

Advantages and Innovations

1. 30 years of inherit experience in the Spanish market.
2. Good reputation and reliability among their clients and market.
3. Representing in exclusivity prestigious sawmills from USA, Sweden, Finland, Africa, among others.
4. Members of the Spanish Timber Trade Federation.

Type and role of partnership sought

The company is looking for reliable suppliers of good quality wood and timber products to increase its portfolio of wood construction products. They offer to sawmill companies and lumber companies commercial/distribution agreement for representation in the Spanish market.
Smart IOT tool for Lean management of material supply in manufacturing plants

Description

Catalan company has developed a smart system for logistics based on Kanban calls.

Their Kanban system is an automatic system for material supply management. The platform helps their customers to lean their work processes and improve the efficiency of the supply chain. Their system feels and manages the factory in real time thanks to the use of a smart sensor that detects the lack of material and automatically triggers the supply.

The main functionalities of the system are:

- Wireless sensors with 10 years of autonomy are easily installed in material locations
- Information is transferred all over the plant through a secure protocol
- The Server stores all the events as Big Data and manages the material supplies
- The tasks are assigned depending on the carrier geolocation and the current workload
- The system is integrated to SAP and other ERPs (Enterprise Resource Planning) or MES Systems (Manufacturing Execution Systems)
- The system has already been connected to AGVs (Automated Guided Vehicles), Robots, RFID (Radio-Frequency IDentification), Vision systems, etc.

Advantages and Innovations

The benefits are:

- Response time reduction in more than 50%
- Intermediate inventory reduction in more than 40%
- Reduction of the production stoppage due to stock break in more than 25%
- Total reduction of the wrong supplies due to human factor
- The tool to analyse the whole material supply chain with graphics and KPIs

Type and role of partnership sought

The catalan company is looking for an industrial company interested in applying lean concepts to his manufacturing plants, in order to increase his efficiency. the Catalan offers a commercial agreement with technical assistance to implement the tool.
Catalan startup offers open source hardware manufacture

Description

A Catalan company, which has taken part in a scale up business support project run by the Enterprise Europe Network, offers industrial automation electronic devices based on open source hardware electronics. Their production plant is ready to produce more than 25,000 products per month. They can produce the plastic enclosure, the electronic printed circuit board (PCB), the final assembly and the testing service and logistics. They develop a complete programmable logic controller (PLC) based on open source hardware under industrial parameters design, that can be bought at the significant price discount if compared with other proprietary products.

The Catalan company is offering:

- Manufacture agreement: they can design and manufacture open source hardware for an industrial company looking for a tailor made automation or monitorization system.
- Service agreement: they can provide an engineering service from prototype to certification of the final product, for industrial companies interested in using open source hardware.

Products that they are currently providing are:

- PLC based on Arduino (PNP, NPN, Relay, analogical, …)
- Touch screen with integrated Linux system
- Industrial sensors
- Mechanical and electronic devices
- Machinery automation and human interface add-on

Advantages and Innovations

Most part of their products are available on the shelf and ready to be shipped immediately from Barcelona (Spain). This gives them the flexibility to deliver their products in the shortest period of time.

They also offer technical assistance to make the final product ready to be certified: CE, Federal Communications Commission (FCC), Underwriters Laboratories (UL), Electromagnetic Compatibility (EMC), Restriction of Hazardous Substances (RoHS), International Electrotechnical Commission (IEC), …

Type and role of partnership sought

The catalan company is looking for industrial partners: equipment or machinery manufacturers interested in implementing an open source hardware for tailor made automation or monitorization.
Mobility
[EUROSTARS] Spanish company is seeking an electric bicycle manufacturer and a polymer manufacturer to design a plastic material which enables the production of a lighter shaft drive transmission for the bicycle

Description

The project:

One of the systems that more affects the bike reliability is the transmission and currently, most of them are with the chain that presents important troubles due to its frequent derailments. How many bikers going at work have dirtied their hands fixing the derailed chain? The shaft drive transmissions now present in the market consist entirely of metal gears and aren’t used more due to their cost and weight.

The company is a product design and mechanical engineering firm, with experience in transmission and bike design, has detected the opportunity to improve the existing shaft drive transmissions substituting the metal of the gears with Polyphthalamide (PPA), an advanced plastic material. Gears made of PPA weigh less than metallic ones and permit a 50% cost reduction.

The objective of the project is to produce a chainless bike transmission made of advanced materials which use a driven shaft instead of a chain to transmit power from the pedals to the wheel. It is based on a shaft and gears made of advanced polymer material, a reliable, light and cheap solution that integrates a torque sensor for electric-assisted bikes.

The SME has already made and tested a prototype, but it is necessary to test different combinations of polymers and plastic materials to improve the injection processes. Besides, it is necessary to define the specifications and design to integrate the transmission to the bicycle.

Type and role of partnership sought

2 types of partners sought:

1. Electrical bike manufacturers: This partner will be responsible for designing all the specifications required to create an electric bicycle with a chainless transmission. Tasks: Define the functionality requirements of the bike transmission and design the bike shaft together with the selection of other components.

2. A Polymer manufacturer will be in charge of producing the best polymers composition for the injection process. Tasks: Based on the functionality requirements, the partner will define the plastic materials of the transmission elements.
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