

<b>INTERNATIONAL PROJECT</b>		Project under Management <input style="width: 80px;" type="text"/>
<b>Summary Form:</b>	<b>Agreement Reached</b> <input style="width: 80px;" type="text"/>	
<b>Input date:</b> 20/02/25	<b>Country of origin:</b> Spain <b>Country of Interest:</b> India	

✓ <u>Information about the demanding company</u>							
<b>Name of the company</b>		Digital Antomics, S.L.					
<b>Contact Person (name, position)</b>		Alberto Aguilar-Montoro (CEO)					
<b>Address</b>		Avda. Gregorio Peces Barba, 1					
<b>Zip Code and City</b>		28919 Leganés (Spain)					
<b>Telephone</b>		0034919891406					
<b>Email</b>		aaguilar@digitalanatomics.com					
<b>Fax</b>							
<b>Web Page</b>		www.digitalanatomics.com					
Last exercise Revenues M€	400·k€	Number of employees	19	Year of Constitution	2020	Share Capital	31·k€

## ✓ Technology Cooperation Project

An innovative patient-specific device for guiding WILTSE spine surgery

### Problem (meaning opportunity)

The placement of transpedicular screws using the Wiltse approach is a minimally invasive technique that reduces muscle damage and accelerates patient recovery. However, its execution presents significant challenges.

Precise screw placement requires constant fluoroscopic monitoring, increasing radiation exposure for both the patient and the surgical team. Despite this control, in some cases it is still difficult to determine whether the final position is correct.

Although navigation can improve accuracy, it requires a high initial investment, as well as a longer time in the operating room due to prior preparation and calibration for each procedure. Due to these factors, many institutions cannot access to perform this type of approach, which limits the number of surgeries that can benefit from this minimally invasive approach

### Device description

The device to be developed is a system of patient-specific 3D printed surgical guides for the precise placement of transpedicular screws using the Wiltse approach in spine surgery.

#### Key features:

- Patient-specific design based on patient medical images (CT), driving an optimal anatomical fit.
- Fabrication using efficient 3D printing with biocompatible and sterilizable materials, suitable for use in the operating room.
- Automatic design to reduce lead times and production costs.

### Impact and Benefits

- Greater precision and safety: It shall allow the placement with high precision of two or more transpedicular screws in a single guide, optimizing the Wiltse technique.
- Cost reduction: Compared to expensive navigation systems, 3D guides shall offer a more accessible alternative, democratizing access to minimally invasive spine surgery.
- Optimization of surgical time: The device shall decrease reliance on constant fluoroscopy and avoids pre-calibration of navigation systems, which could greatly reduce time in the operating room
- Reduced radiation exposure: By reducing the need for prolonged fluoroscopy, the surgical team and patient will be less exposed to ionizing radiation.
- Alignment with the MISS trend: Contributes to the development of minimally invasive spine surgery (MISS), facilitating its implementation in more hospitals and clinics.

Estimated Foreseen Budget M€	400,000	New Partner contribution M€	150,000
Public Funds %		Funding %	

## ✓ Profile of the partner wanted: activities to do by the new partner



GOBIERNO  
DE ESPAÑA

MINISTERIO  
DE CIENCIA, INNOVACIÓN  
Y UNIVERSIDADES



### Profile

**Spine implant manufacturer with R&D resources.**

### Activities

**Concerning the development of an innovative patient-specific medical device for Spine MIS, Partner shall:**

- **Participate in the device architecture definition**
- **Participate in the design**
- **Lead the fabrication (3d printing) engineering**
- **Manufacture prototypes**
- **Coordinate clinical trials with associated hospital/surgeon(s)**
- **Participate in the product certification**

### ✓ Potential Partner Information

<b>Name of the firm</b>	
<b>Contact Person (name, position)</b>	
<b>Address</b>	
<b>Zip Code and City</b>	
<b>Telephone</b>	
<b>Email</b>	
<b>Fax</b>	
<b>Web Page</b>	

Last exercise Revenues M€		Number of employees		Year of Constitution		Social Capital M€	
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**Firm profile: main activity, sector, market position, etc.**