

## Partner Search

Project Title:	<b>Easy positioning of in-bed patients with reduced mobility</b>
Project Coordinator:	Spaldin (Spanish SME in the beds manufacturing sector) <a href="http://www.spaldin.com">www.spaldin.com</a>
Proposal Type:	Research for the benefit of SMEs ( Call FP7-SME-2007-1)
Proposal Call Deadline:	04 September 2007
<b>Partners Call Deadline:</b>	<b>25 July 2007</b>
Contact details:	Amelia Suarez, PhD Pera Innovation (Spain) amelia.suarez@pera.com , Tel: +34 985 335 499

### The Need

The in bed repositioning of patients with limited mobility is of major importance in order to improve their comfort, give them some relief and prevent the worsening of their health condition. Patient positioning is also required for the administration of medical treatment and the basic nursing cares (feeding, drug administration, cleaning,...). Every 2 to 4 hours, nurses need to change the in bed position of patients with mobility limitations, such as disabled patients, postoperative patients or elderly people.

Nowadays, speciality beds in hospitals have electric systems for moving backrest and knee rest panels. Patients with limited mobility need to request aid from the nurses for any other change in their position (such as lateral rotation, sitting,...), the lack of autonomy cause them anguish and discomfort. In addition, patients positioning frequently cause serious injures to the nurses. Manual lifting, transfer or repositioning of patients with limited mobility causes 63% of the back, neck and shoulder injures that suffer nurses and support staff.<sup>1</sup>

### The Market

Revenues in the speciality beds market reached ~€800 million in Europe in 2005.<sup>2</sup> The annual growth rate for this market is estimated as ~9% as a consequence of the tendency in developed countries towards an increasing number of obese people and an aging population. The aim of this project is to enable European SMEs in the bed sector to either enter or strengthen their positioning in the speciality bed market by getting funding from the European Commission to develop new technology that fills unmet market needs.

### The Solution

A speciality bed with an automatic positioning system will be designed and validated. The novel system requires a pressure sensor network that detects small movements of the patient, intended to change his/her position. An embedded software system will interpret the sensor signal to determine the movement the patient is intending to do and automatically activate a servo system that aids the movement desired by the patient.

This novel speciality bed will have a major impact on patient comfort and independency, improving the quality of the patient health. This system will significantly reduce the hospitals expenditure associated to work-related injures in the nurses community and to the number of working hours spent in turning patients.

### The Partners and Benefits

We are seeking partner SMEs (Small to Medium Enterprises), each in the following areas:

- **Actuators and controllers producers (specialist in systems for beds)**
- **Pressure sensors producers**
- **Sensor networks and embedded software specialists**
- **Speciality bed manufacturers (Eastern/Northern EU)**
- **Distributors of speciality beds directly to hospitals**

By being part of this project you have the potential to realise significant commercial benefits with minimal real cost. Your contribution is not financial but **"in kind effort"** of your skills, knowledge and expertise. You will have the opportunity to meet the project partners and generate other commercial benefits.

The objective of EC funded projects such as this is to promote collaboration between European SMEs and Research Technology Organisations to enable the partner SMEs to obtain a significant market lead, generate sales revenue and create jobs.

If you are interested in becoming part of this project, please contact Amelia Suarez ([amelia.suarez@pera.com](mailto:amelia.suarez@pera.com), +34 985 335 499) asap.

<sup>1</sup> Study conducted for the Workers Compensation Board of British Columbia in 1996.

<sup>2</sup> "US Speciality Bed and Support Surface Markets" Frost and Sullivan, 2006.