

## Socio-Economic Impact of the Project

A **summary** of current available solutions with associated costs and potential advantages of StimulAIS system over all of them is provided in the following table:

	<b>Current treatments</b>	<b>Costs (estimated values)</b>	<b>Limitations</b>	<b>StimulAIS expectations</b>
<b>Conservative</b>	<b>Observation</b>	N/D	A high number of curves progress and require bracing and/or invasive surgery	Restorative, avoids invasive fusion surgery and bracing
	<b>Exercise and physiotherapy</b>	N/D	No conclusive evidences of its effectiveness	Restorative, avoids invasive fusion surgery and bracing. Focused treatment and auto-regulation of stimulus
	<b>Bracing</b>	Cost of \$53 million in the USA per year plus \$51 million for the associated revision appointments to the physician making an <u>estimated total cost: \$104 million/year</u>	<ul style="list-style-type: none"> <li>- No permanent correction of curvature</li> <li>- Functional discomfort</li> <li>- Leads to psychosocial and body image concerns</li> <li>- Restriction of movement</li> <li>- Ineffective in overweight patient ( and leads to increase progression)</li> <li>- Ineffective to most cervithoracic curves and curves greater than 40 degrees</li> <li>- Final surgical rate similar to non-braced</li> </ul>	<ul style="list-style-type: none"> <li>- Active correction of curvature. Not only stop progression, but also potentially correct the curvature</li> <li>- No discomfort</li> <li>- Low obtuseness (implanted subcutaneously)</li> <li>- No restriction movement</li> <li>- Effectiveness not dependant on patient weight</li> <li>- Applicable on most AIS curve locations with less exclusion criteria than bracing</li> <li>- Effective, avoids surgery</li> </ul>
<b>Non-conservative</b>	<b>Surgical fusion treatment</b>	Cost of \$31,832.50 per surgery/patient with a total of total cost of <u>\$514 million a year</u> (USA)	<ul style="list-style-type: none"> <li>- Invasive</li> <li>- Spinal fusion</li> <li>- High risk of complications (infection, hardware breakage, pseudoarthrosis, nerve damage and sexual dysfunction)</li> </ul>	<ul style="list-style-type: none"> <li>- Minimally invasive technique</li> <li>- Motion preserving</li> <li>- Low risk complications</li> </ul>