

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:

	Current treatments	Costs (estimated values)	Limitations	StimulAIS expectations
Conservative	Observation	N/D	A high number of curves progress and require bracing and/or invasive surgery	Restorative, avoids invasive fusion surgery and bracing
	Exercise and physiotherapy	N/D	No conclusive evidences of its effectiveness	Restorative, avoids invasive fusion surgery and bracing. Focused treatment and auto-regulation of stimulus
	Bracing	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>	- No permanent correction of curvature - Functional discomfort - Leads to psychosocial and body image concerns - Restriction of movement - Ineffective in overweight patient (and leads to increase progression) - Ineffective to most cervithoracic curves and curves greater than 40 degrees - Final surgical rate similar to non-braced	- Active correction of curvature. Not only stop progression, but also potentially correct the curvature - No discomfort - Low obtuseness (implanted subcutaneously) - No restriction movement - Effectiveness not dependant on patient weight - Applicable on most AIS curve locations with less exclusion criteria than bracing - Effective, avoids surgery
Non-conservative	Surgical fusion treatment	Cost of \$31,832.50 per surgery/patient with a total of total cost of <u>\$514 million a year</u> (USA)	- Invasive - Spinal fusion - High risk of complications (infection, hardware breakage, pseudoarthrosis, nerve damage and sexual dysfunction)	- Minimally invasive technique - Motion preserving - Low risk complications