

## The outlook for complex robotic surgery



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[Zimmer's decision to restructure](#) will create a new competitor in robotic surgery. While Zimmer's move concerns orthopaedic procedures, it is also worth looking at the market for the larger, more complex general surgery robots. This too will see big changes in the coming year, with Medtronic's modular Hugo system expected to make its market debut. Two companies, CMR Surgical and Avatera Medical, sell their machines in Europe but not yet in the US, though CMR's Versius could make the leap this year. Johnson & Johnson's Ottava, announced with much fanfare in November, remains some way behind the competition. So far, however, only two companies contest the US market: Intuitive Surgical, whose 2020 revenues topped \$2.4bn, and Transenterix, which is to report its 2020 sales in the coming weeks that might reach \$2.4m.

### Selected major surgical robots

Company	Robot	Status	Source
Intuitive Surgical	Da Vinci Xi	FDA-approved Apr 2014	In-house R&D
	Da Vinci X	FDA-cleared May 2017	
	Da Vinci SP	FDA-cleared April 2014	
Transenterix	Senhance	FDA-cleared Oct 2017	\$100m acq of surgical robotics division of Sofar in 2015
Avatera Medical	Avatera	CE marked Nov 2019	In-house R&D
CMR Surgical	Versius	US approval poss 2021	In-house R&D
Medtronic	Hugo	Filing expected in 2021	In-house R&D
Johnson & Johnson	Ottava	US approval poss 2024	Verb Surgical acq in 2019

Source: EvaluateMedtech, company websites.