

units, if any, upon vesting, subject to the same forfeiture provisions that apply to the underlying awards. Subject to certain exceptions set forth in the 2016 Plan, for awards to employees, no performance-based restricted shares or restricted share units shall be based on a restriction period of less than one year, and any time-based restricted shares or restricted share units shall have a minimum restriction period of three years.

We record compensation expense related to stock options, stock-settled stock appreciation rights, restricted shares, and performance shares granted to certain employees and non-employee directors based on the fair value of the awards on the grant date. The fair value of restricted share and performance share awards is based on the closing price of our common shares on the grant date. The fair value of stock option and stock-settled appreciation right awards is estimated on the grant date using the Black-Scholes-Merton option pricing model, which includes assumptions regarding the risk-free interest rate, dividend yield, life of the award, and the volatility of our common shares.

The following table summarizes the share-based compensation expense for options, SSARs, restricted and performance awards included in the Consolidated Statements of Operations for fiscal 2019, 2018 and 2017:

(In thousands)	Year ended March 31,		
	2019	2018	2017
Product development	\$ 1,478	\$ 1,306	\$ 1,545
Sales and marketing	469	371	360
General and administrative	2,429	3,011	522
Total share-based compensation expense	\$ 4,376	\$ 4,688	\$ 2,427

#### *Stock-Settled Stock Appreciation Rights*

Stock-Settled Appreciation Rights (“SSARs”) are rights granted to an employee to receive value equal to the difference in the price of our common shares on the date of the grant and on the date of exercise. This value is settled only in common shares of Agilysys.

We use a Black-Scholes-Merton option pricing model to estimate the fair value of SSARs. The following table summarizes the principal assumptions utilized in valuing SSARs granted in fiscal 2019, 2018 and 2017:

	2019	2018	2017
Risk-free interest rate	2.68%	1.74%-1.94%	0.94%-2.14%
Expected life (in years)	5	5	5
Expected volatility	32.42%	32.42% - 32.84%	35.25%-40.22%
Weighted average grant date fair value	\$4.72	\$3.36	\$3.69

The risk-free interest rate is based on the yield of a zero coupon U.S. Treasury bond whose maturity period approximates the expected life of the SSARs. The expected life is estimated using historical data representing the period of time the awards are expected to be outstanding. The estimated fair value of the SSARs granted is recognized over the vesting period of the awards utilizing the graded vesting method. Under this method, the compensation cost related to unvested amounts begins to be recognized as of the grant date.

The following table summarizes the activity during fiscal 2019 for SSARs awarded under the 2016 and 2011 Plans:

(In thousands, except share and per share data)	Number of Rights	Weighted-Average Exercise Price	Remaining Contractual Term	Aggregate Intrinsic Value
		(per right)	(in years)	
Outstanding at April 1, 2018	1,103,160	\$ 10.60		
Granted	158,244	14.22		
Exercised	(193,819)	10.20		
Forfeited	(44,804)	10.91		
Cancelled/expired	(6,138)	10.62		
Outstanding at March 31, 2019	1,016,643	\$ 11.22	4.8	\$ 7,251
Exercisable at March 31, 2019	707,950	\$ 10.93	4.5	\$ 7,251
Vested and expected to vest at March 31, 2019	1,016,643	\$ 11.22	4.5	\$ 10,111