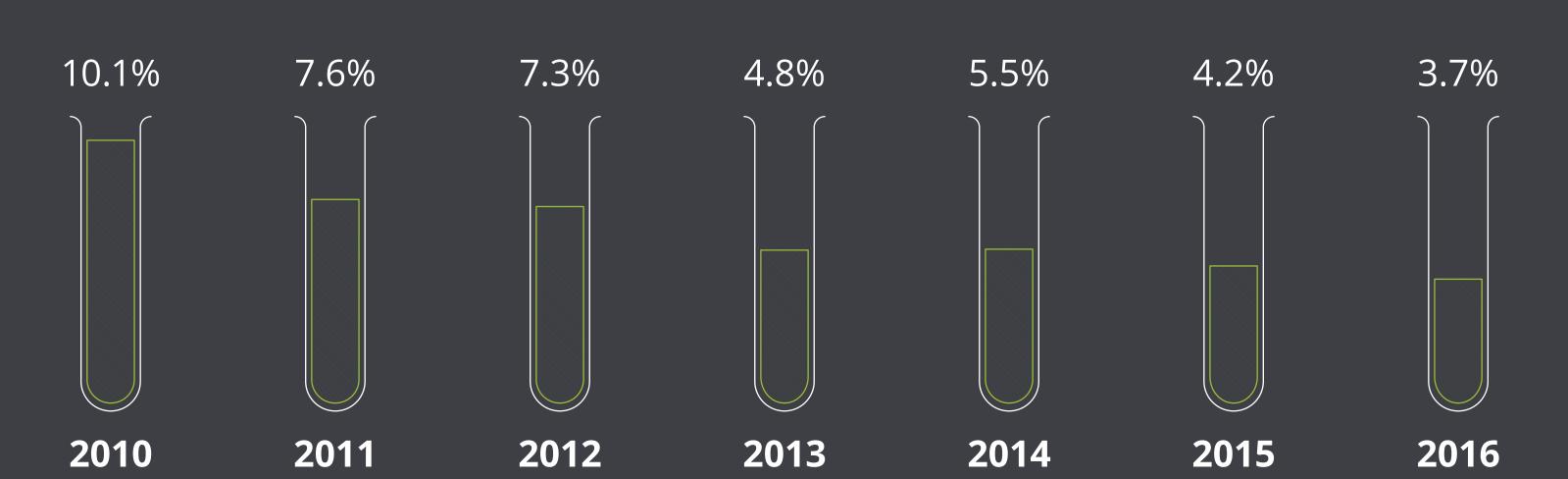
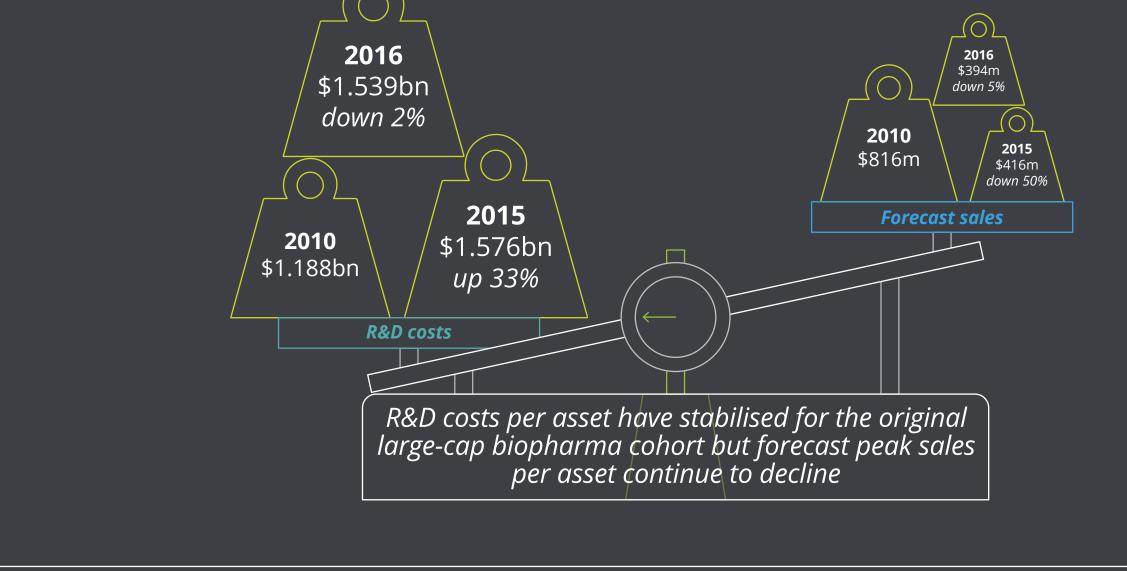
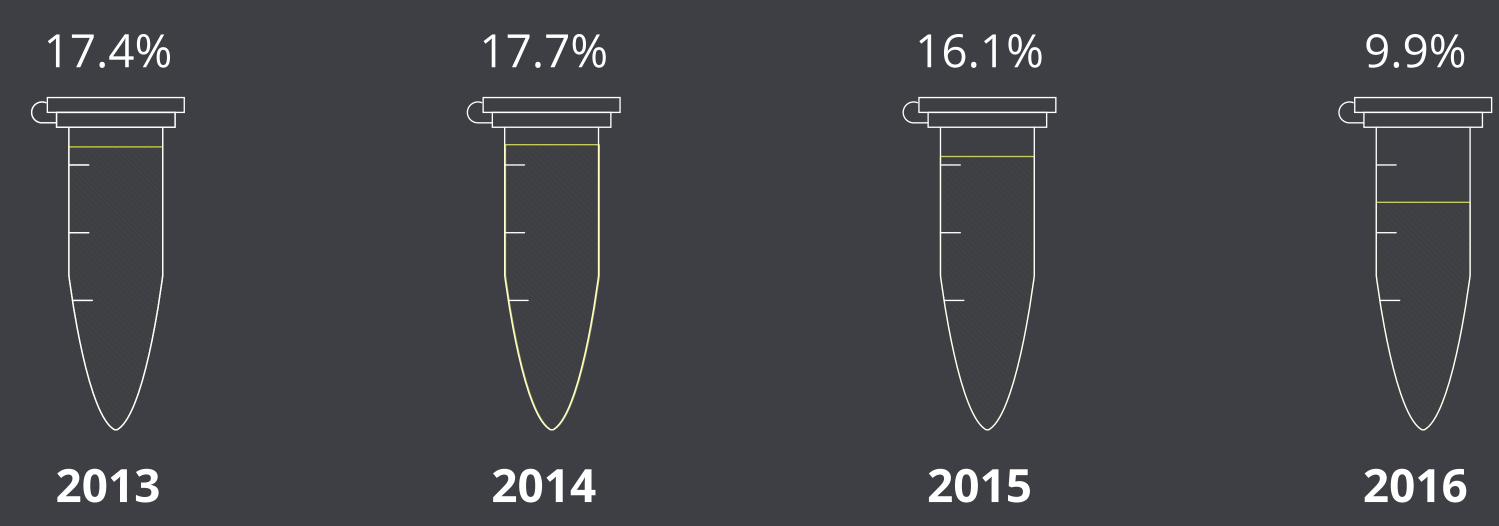
R&D returns continue to decline for the original large-cap biopharma cohort



Blockbuster costs without balancing blockbuster revenues

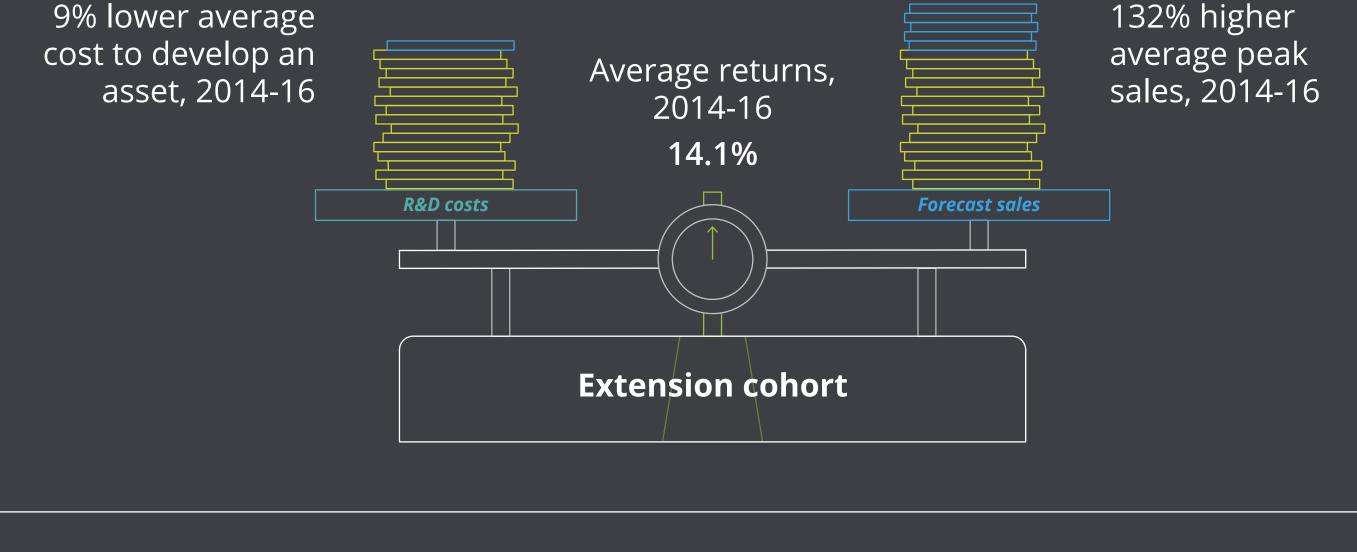


Extension cohort of mid-tier biopharma companies also sees returns decrease in 2016



outperforming their larger peers

Extension cohort of mid-tier biopharma companies are still



External % of Total pipeline value Total pipeline value External % of

late-stage pipeline

((!))

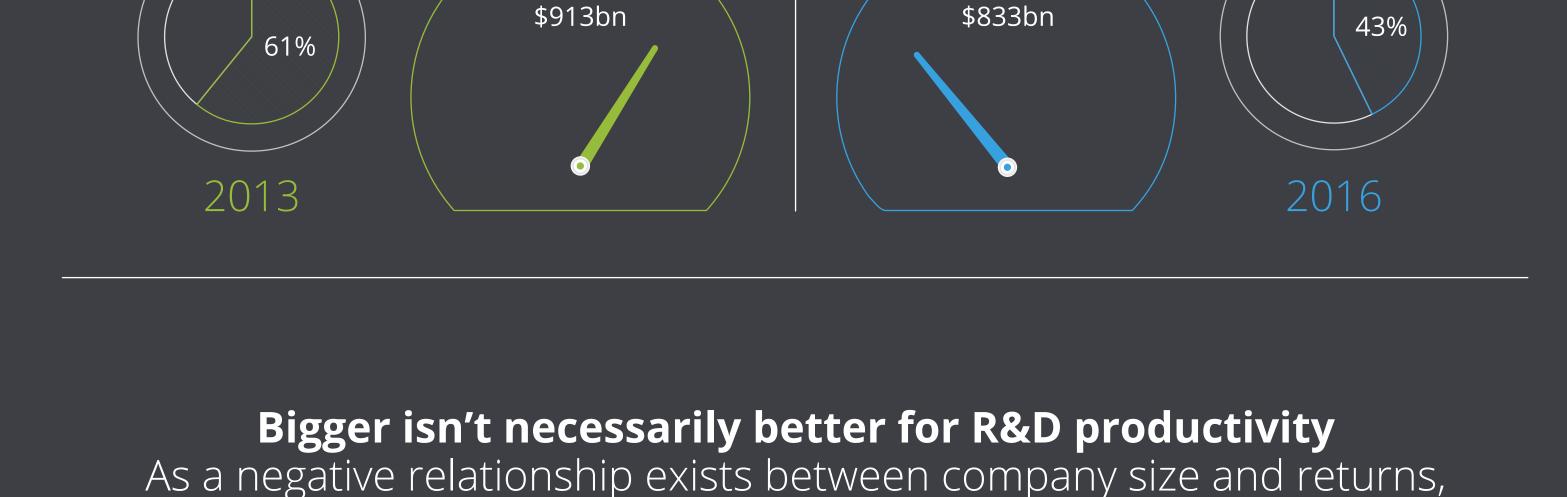
late-stage pipeline

((!))

A large number of externally sourced assets have been commercialised;

with late-stage pipelines close to empty the temptation may exist to

refuel through M&A



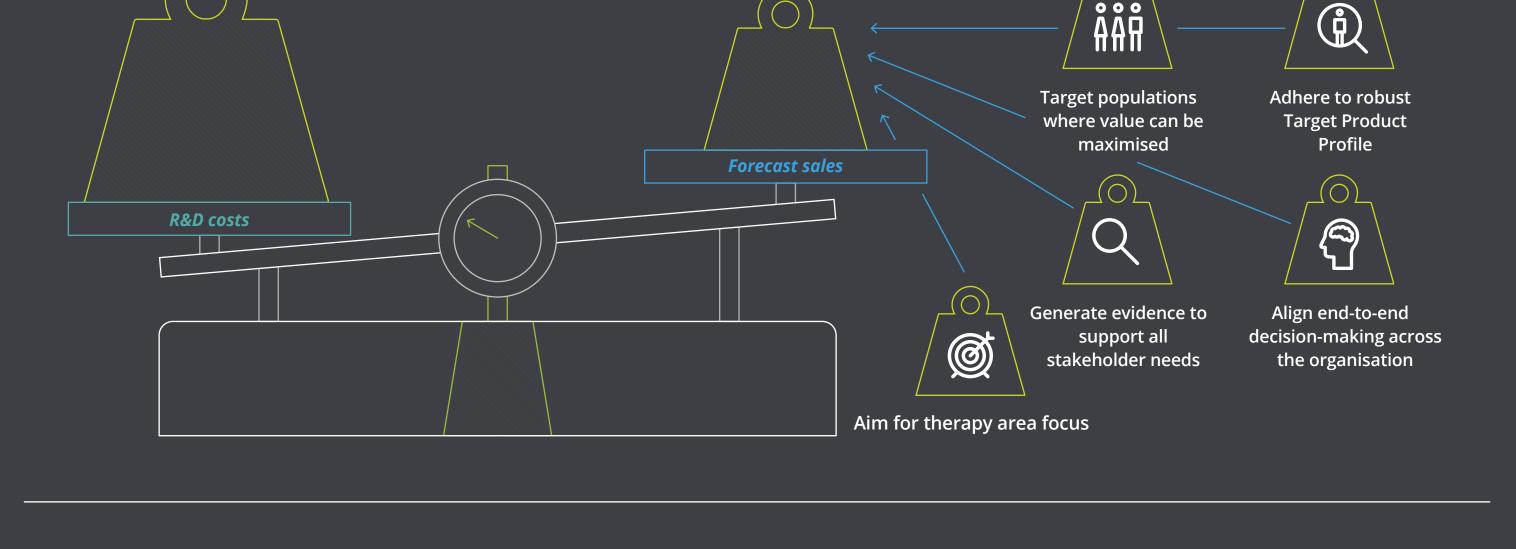
getting bigger through M&A may not be a good strategy



decision making R&D Costs

R&D costs





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Strike the right balance:

internal/external

resources

Think small, win big to

optimise and streamline

Forecast sales

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