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# Optimized trading and best execution through algorithmic wheels

Fundamental challenges in trading execution and portfolio management can be resolved with new developments in advanced analytics and machine learning, leading to substantial improvements in PnL and lower regulatory risk.

### Market demand

- Lower transaction costs and operational risk.
- Reduce time spent in routing orders to best algorithms and brokers.
- Improve performance through advanced analytics.





#### Solution

- Algorithmic trading wheels are becoming extremely popular among buy-side investors.
- They consist of an automated routing system that helps traders and portfolio managers execute their orders with the best possible brokers, execution strategies, and venues.
- They provide profound information about broker and trader performance, allowing best execution and lower transaction costs.
- They use statistical analysis and machine learning to build rules that follow trader's specifications for optimal order flow allocation.

### Benefits of algo wheels

- Pre-Trade: Minimal market impact and timing risk. Capture order-book dynamics.
- Order routing: Direct orders to best brokers and algorithms given trader's specifications.
- 3 Post-Trade: Measure performance and monitor outliers for regulatory compliance.

Consistent savings of 6 to 10 bps per order for low-cap and mid-cap stocks.

## Profit from algo wheels for mid-cap and low-cap stocks (in million dollars per year).

A	Avg. orders per day vg. notional per order (\$MM)	500	300	100	50	10
	2	151	91	30	15	3.0
7	1	76	45	15	7.6	1.5
1	0.5	38	23	7.6	3.8	0.76
	0.2	15	9.1	3.0	1.5	0.30
	0.1	7.6	4.5	1.5	0.76	0.15
Ĭ,	0.05	3.8	2.3	0.76	0.38	0.08

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### Optimized trading and best execution through algorithmic wheels

### **LPA Approach**

- ✓ Dedicated team of subject-matter experts.
- Previously developed for large universal bank in Switzerland, yielding an execution PnL of \$23 million/year.
- Automated Best Execution process for regulatory compliance.





02. Preliminary assessment



03. Proof of concept solution



04. Optimization of trading analytics and integration of algorithmic wheel



### Contact

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Founded in 1999 by Stefan Lucht and Roland Probst to offer solutions as the finance industry evolved, LPA was built on the needs of its clients. Today the company has over 400 employees in 12 cities worldwide, delivering cutting-edge consulting through its specialist teams, and technology through software products.

Defy the processes of the past. Deploy innovation in a way that suits you. Run to the forefront of global innovation.

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