

# Kanban Flow Metrics

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Kanban is a strategy for optimising the flow of value delivery. Utilising key metrics can help teams speed up and forecast the delivery of value to the customer.

## Cycle time



The average time it takes for the team to complete a piece of work from when they actually started it to when it is ready for delivery. An average cycle time measures a team's delivery speed and can inform planning, highlight bottlenecks and reflect the effectiveness of changes to ways of working.

## Lead time



The total time from when a request is made for a piece of work until that request is completed and delivered to the customer. Therefore, lead time is cycle time plus the additional time before the request is worked on and the additional time at the end it takes to deliver into production. This can help identify improvement opportunities beyond just the building phase of the work.

## Throughput



The average number of items completed in a given period of time. An average throughput indicates productivity and can reflect how other changes may impact that productivity. It is useful in planning and forecasting.

## Work in Progress (WIP)



The number of items currently started and in process but not yet finished. Little Law asserts that if average WIP is reduced this will lead to increased average throughput and/or decreased average cycle time. It is one of the major levers a team can use to improve flow.

## Work item ageing



The period from when work actually started on an item to the present time. This leading indicator highlights items that are moving slower than average and can help drive strategic decisions, e.g., do we need to focus and swarm on this item to help pick up the pace?

## How do we track these?



One of the simplest ways to do this is by using a cumulative flow diagram (CFD) which are normally available in the digital board you are using. In one diagram we can see our average cycle time, WIP; and can work out lead time plus throughput from the data shown.

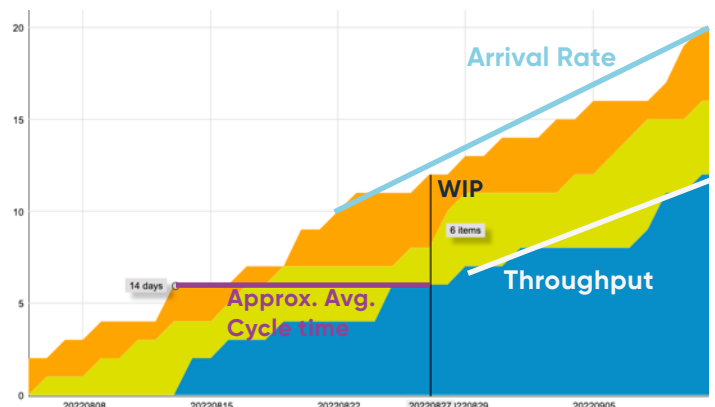


Diagram from: <https://actionableagile.im>

