

System Thinking & Organizational Design A.K.A.

Sub-set of slides

LeSS

LeSS Guides: *Organize by Customer Value*

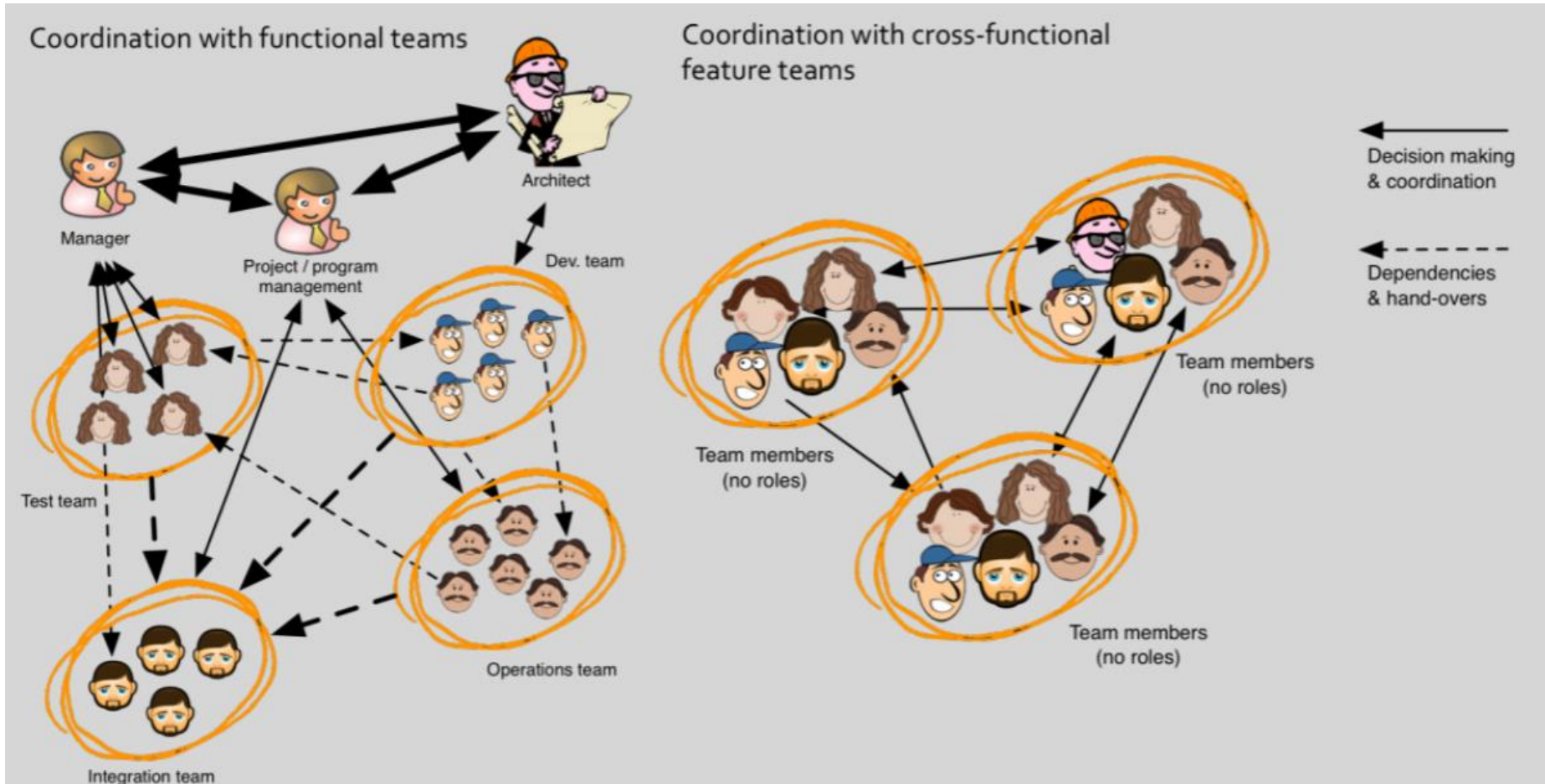
Synonyms for “Component Team”

Local Optimization

platform team
core or shared services team
micro-service team
application team
subsystem team
library team
service team
API team
front-end (or back-end) team
DB team
module team
framework team
DDD bounded-context team

Sourced from creative commons repository of Certified LeSS Trainers: <https://less.works/courses/become-less-trainer>

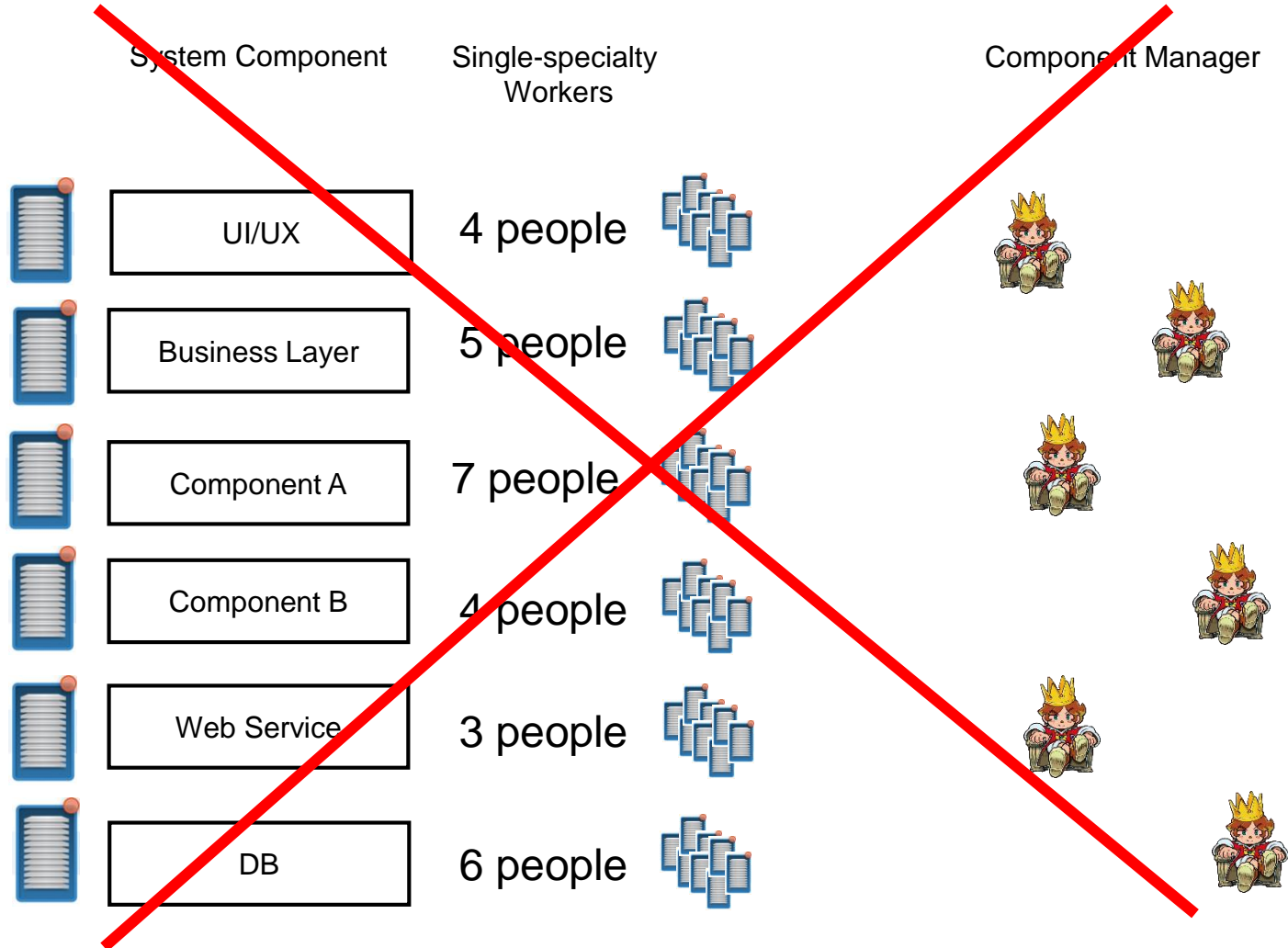
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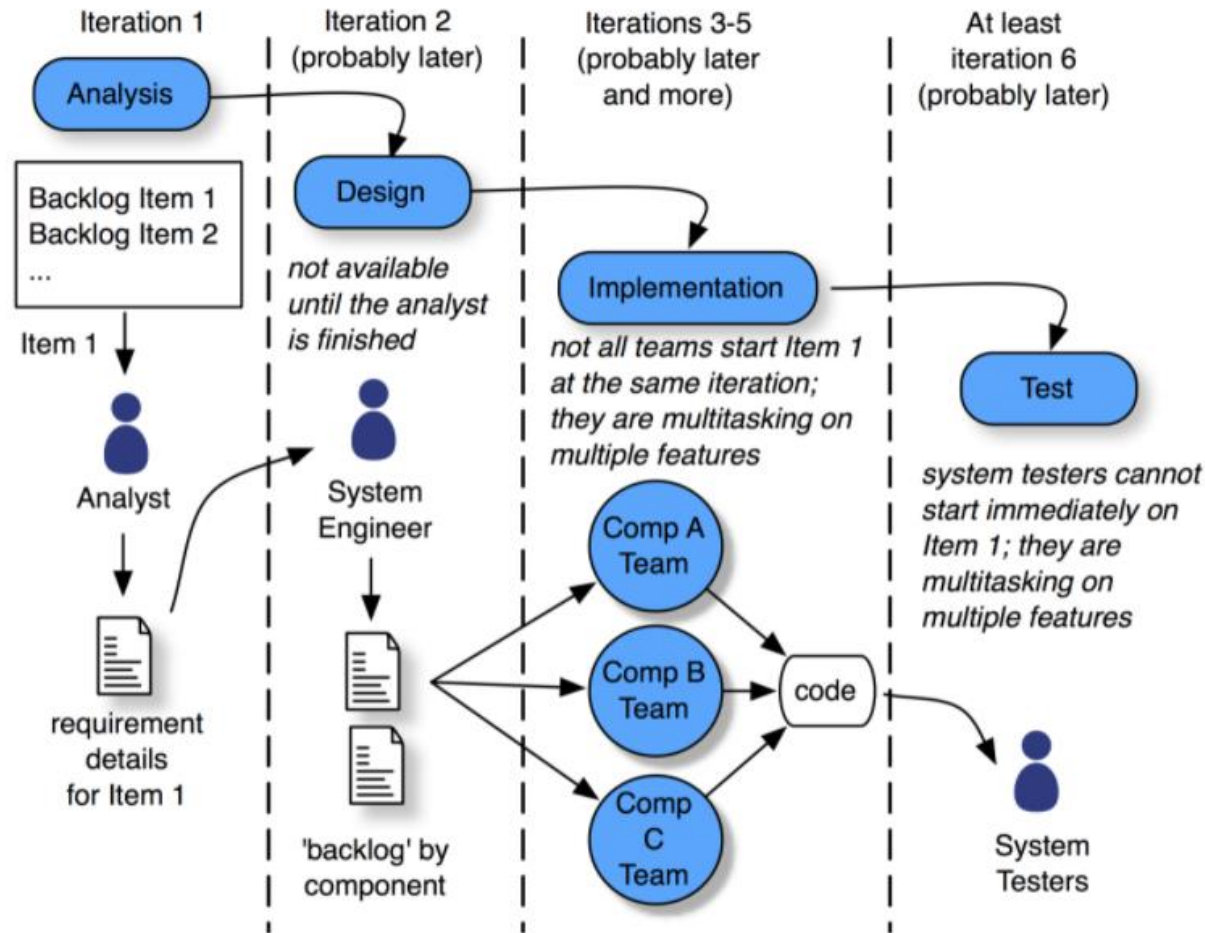
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"Back story" of Component Teams

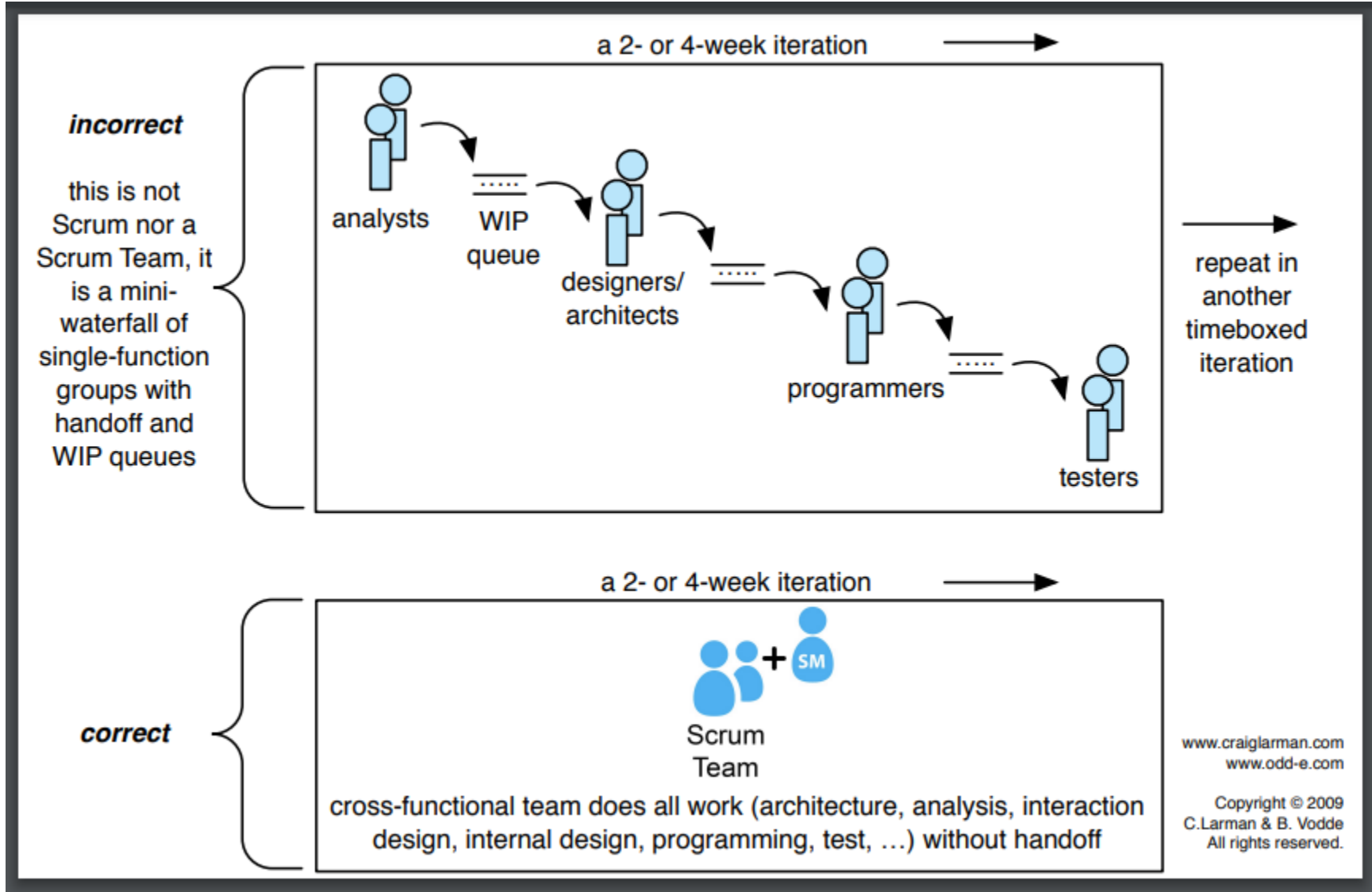


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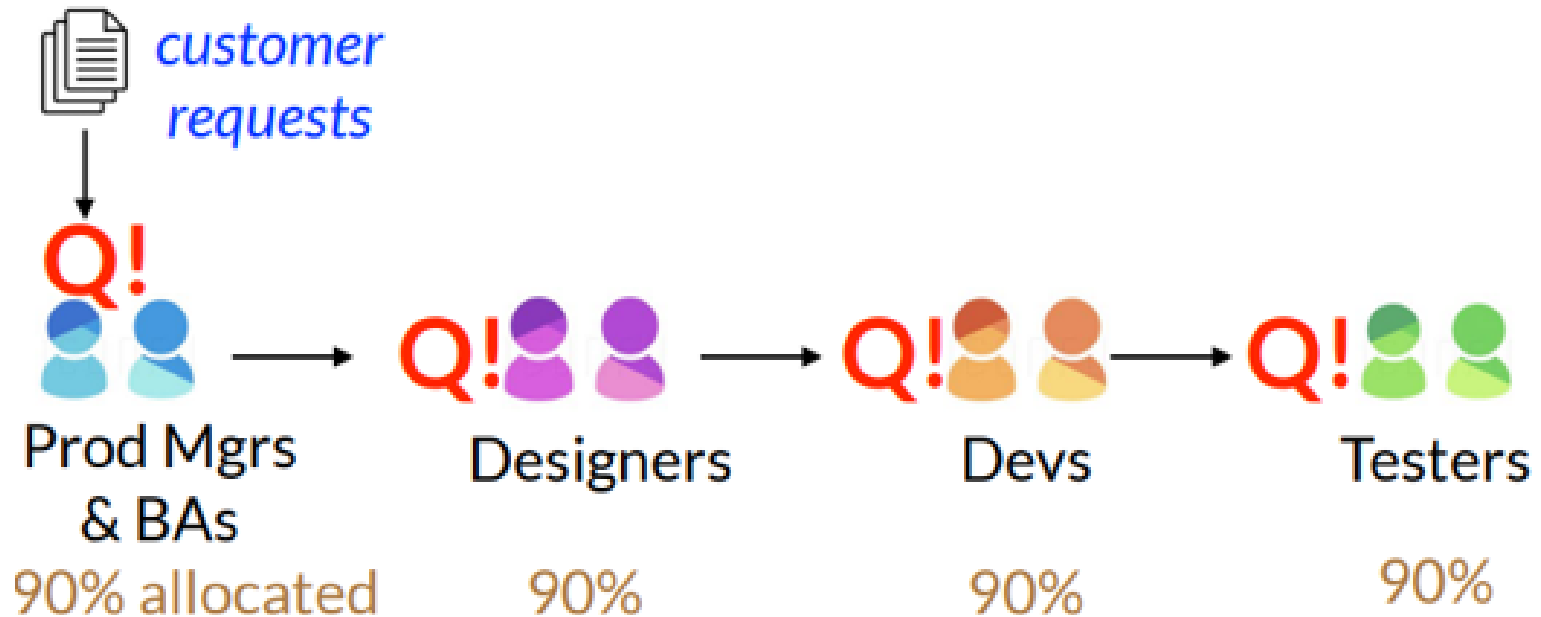
Component teams lead to a sequential life cycle with handoff, queues, and single-specialist groups and not true cross-functional teams without handoff.

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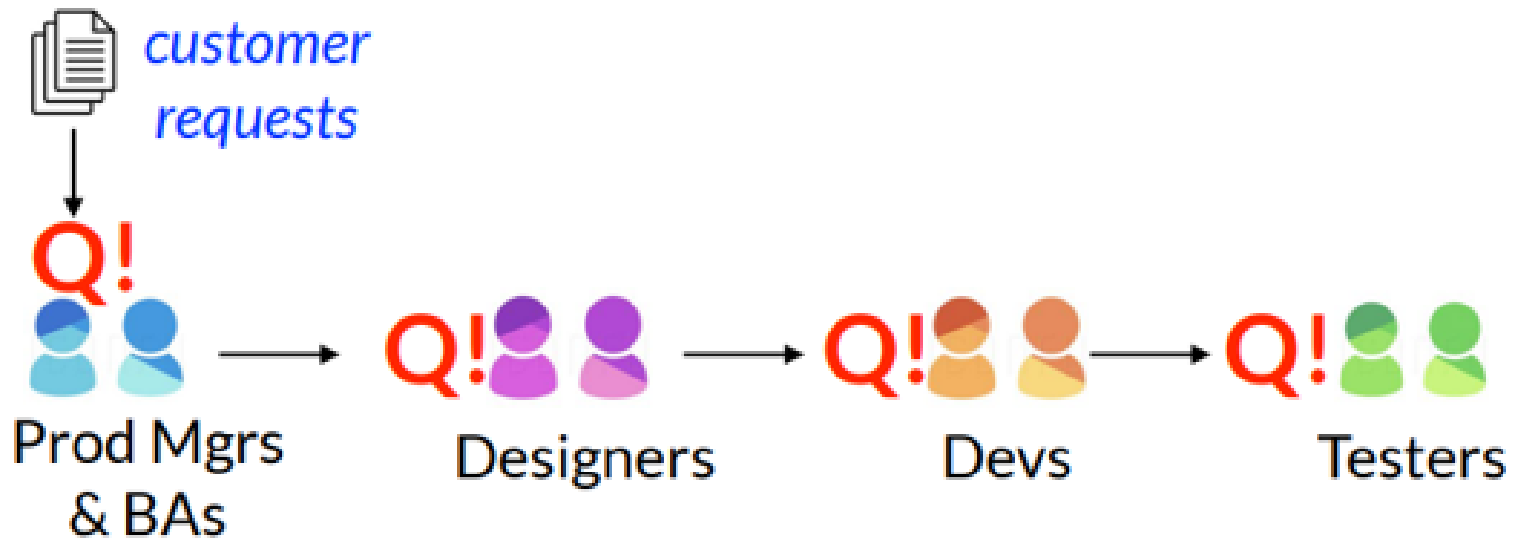
Sourced from <https://less.works/scaling-book-images/scaling-agile-lean-development-thinking-tools/chapter-8-single-function-groups-en.pdf>

Queue Management



in a system with “servers” and Qs, plus variability, as *server resource utilization* increases (“people are 90% allocated”), total duration **INCREASES**

Queue Management



in a serial process with handoffs to downstream "servers", plus variability, total duration increases **SUPER-linear** per # of Qs

Queue Management

Principles of Product Development Flow

Little's Law

Wikipedia: "The long-term average number of customers in a stable system L is equal to the long-term average effective arrival rate, λ , multiplied by the (Palm-)average time a customer spends in the system, W ; or expressed algebraically: $L = \lambda W$."



$$L = \lambda W$$

Diagram illustrating Little's Law: $L = \lambda W$. The variables are labeled with green arrows:

- L is labeled "Queue Length".
- λ is labeled "Arrival Rate".
- W is labeled "Average Wait Time".