

# How to organize a Research team

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Miguel Almeida  
miguelbalmeida@gmail.com

Why talk about this?

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- 2012 - 2015 Research Scientist at Priberam
- 2015 - 2018 Data/Research Scientist + Head of Research at Feedzai
- 2018 - 2019 Consultant at Pionér Labs, Oslo

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  - Different transfer processes

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- (Data Engineer / Data Scientist) ratios in  $[0, 2]$
  - Different transfer processes
  - Less than half of successful projects actually implemented

# How are Research teams born?

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### Product Team

- Product Manager
- Frontend
- Backend
- UI Designer

### Research Team

- Scientist

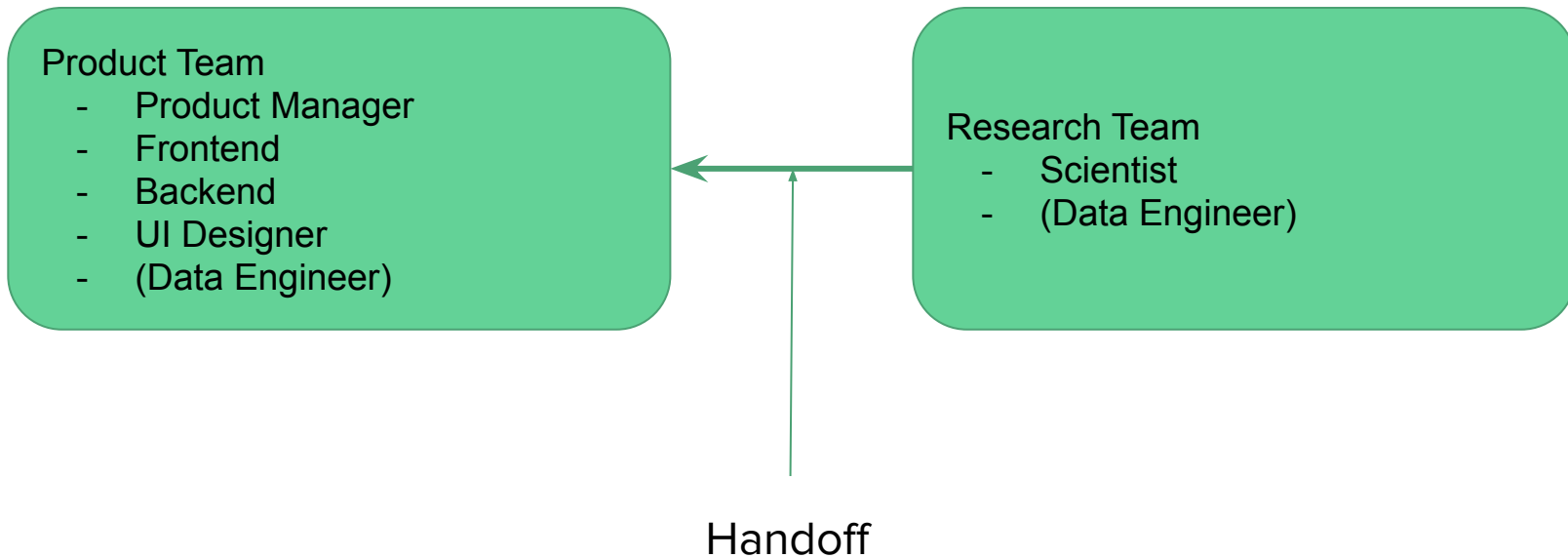


### Product Team

- Product Manager
- Frontend
- Backend
- UI Designer
- (Data Engineer)

### Research Team

- Scientist
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Two concepts

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  - + E.g. “Algorithm B is a one-line change from our current algorithm A and improves accuracy from 50% to 80%”

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  - + E.g. “Algorithm B is a one-line change from our current algorithm A and improves accuracy from 50% to 80%”
- + Successful transfer: it actually gets put into your product
  - + E.g. you can run an A/B test in production between the two algorithms
- + Not considered
  - + Novelty / papers / patents
  - + Thought leadership / marketing value
  - + “Let’s try this script we got from Research”

Some anecdotal data!

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- + I've researched/managed 22 projects
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- + I've researched/managed 22 projects
- + Of which 16 were **successful projects**
- + Of which 7 were **successfully transferred**

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16 out of 22



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16 out of 22

7 out of 16!

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16 out of 22

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#### Approaches:

- Dedicated Engineer per Scientist
- Transfer the people
- Add to Product backlog

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  - + 1 successful project per researcher



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  - + 3 out of 3 projects transferred (100%)
  - + Inefficient, not scalable
- + Transfer the People:
  - + 4 out of 5 projects transferred (80%)
  - + 1 successful project per researcher
- + Add to backlog:
  - + 0 out of 8 projects transferred (0%)
  - + Cost too high for people who never worked on it

Alternative 1: Separate team

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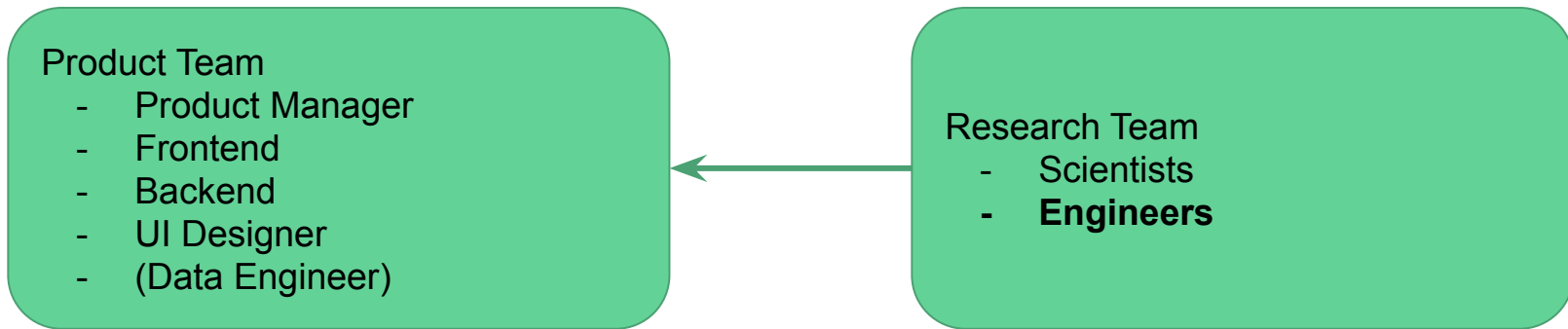
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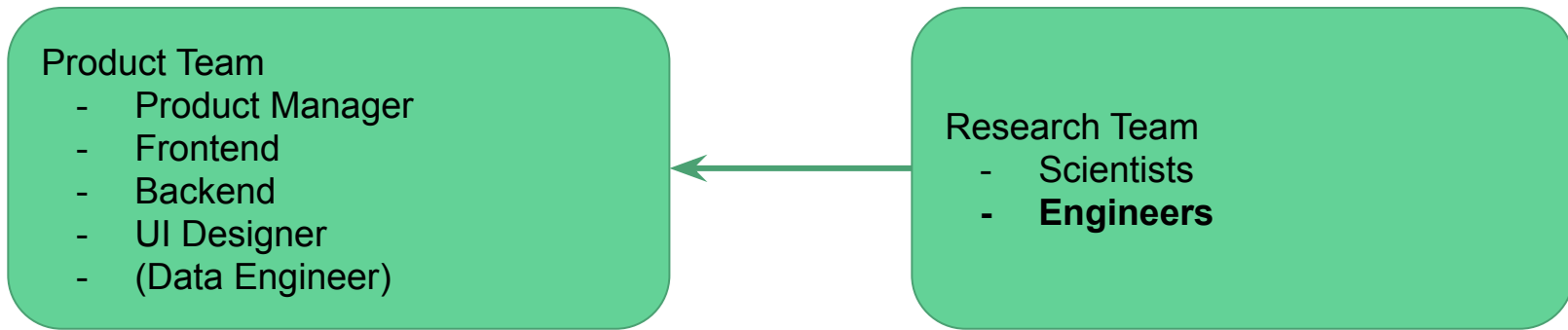
### Research Team

- Scientists
- **Engineers**

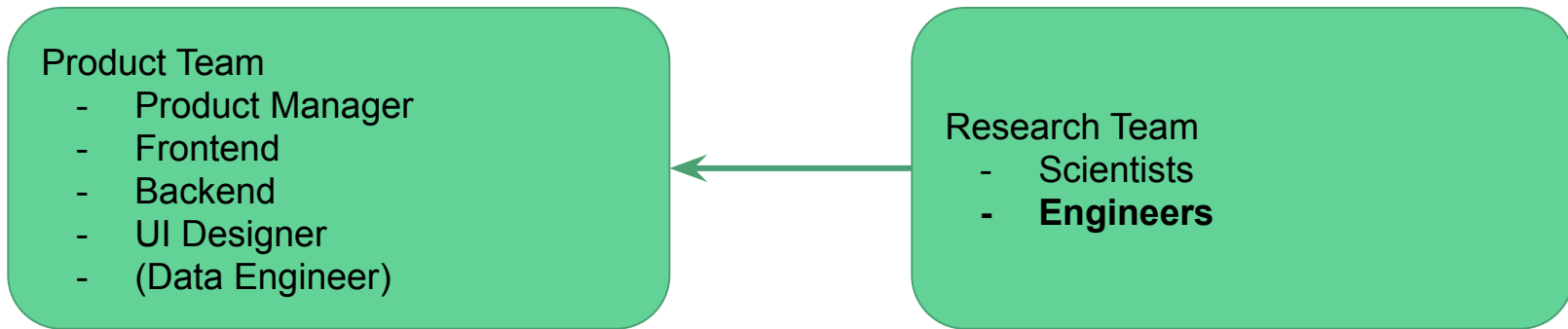




+ Handoff through APIs



- + Handoff through APIs
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- + Handoff through APIs
- + Still risks “sucking” Research into Product
- + ... but easy to convert existing team into this option

Alternative 2: No team

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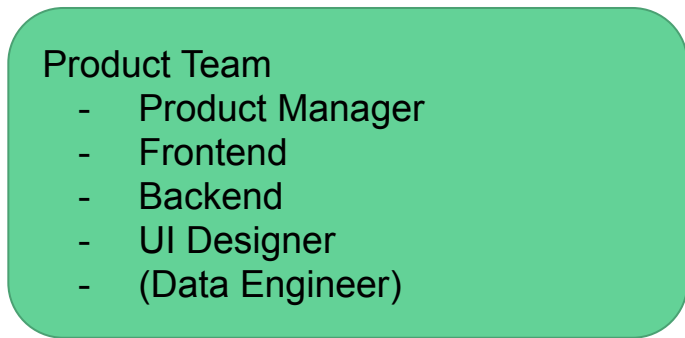
### Research Team

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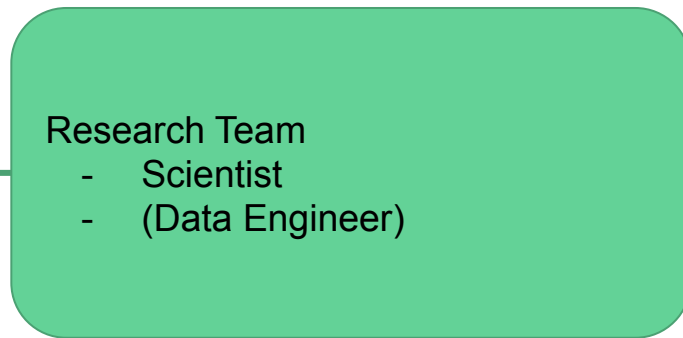
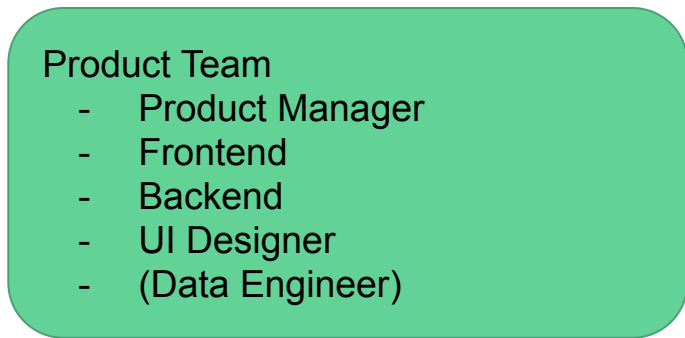


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  - + Otherwise they risk just building Product
- + Consider having a Research guild/tribe for whiteboard discussions

“We need Research”

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“We need a Research team”

Thank you!

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