



Preliminary results on

Clinical Protocols and Circular Economy in Healthcare

Heidi Annala / WP3 "How we act"

12.02.2026



Background

What you can expect:

1. Introducing myself
2. Introducing my research
3. Three most interesting observations so far

Your thoughts make this research better!

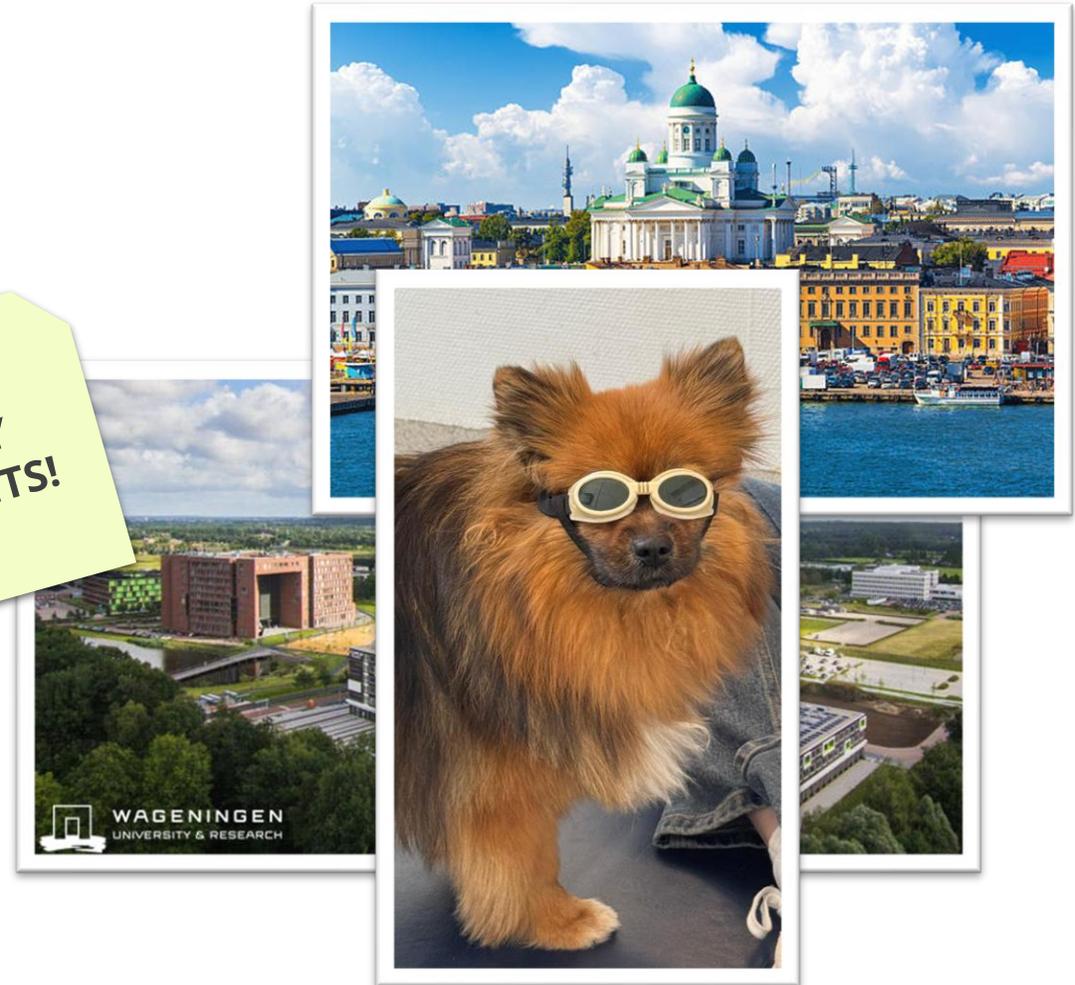


Background

Who am I? What do I do?

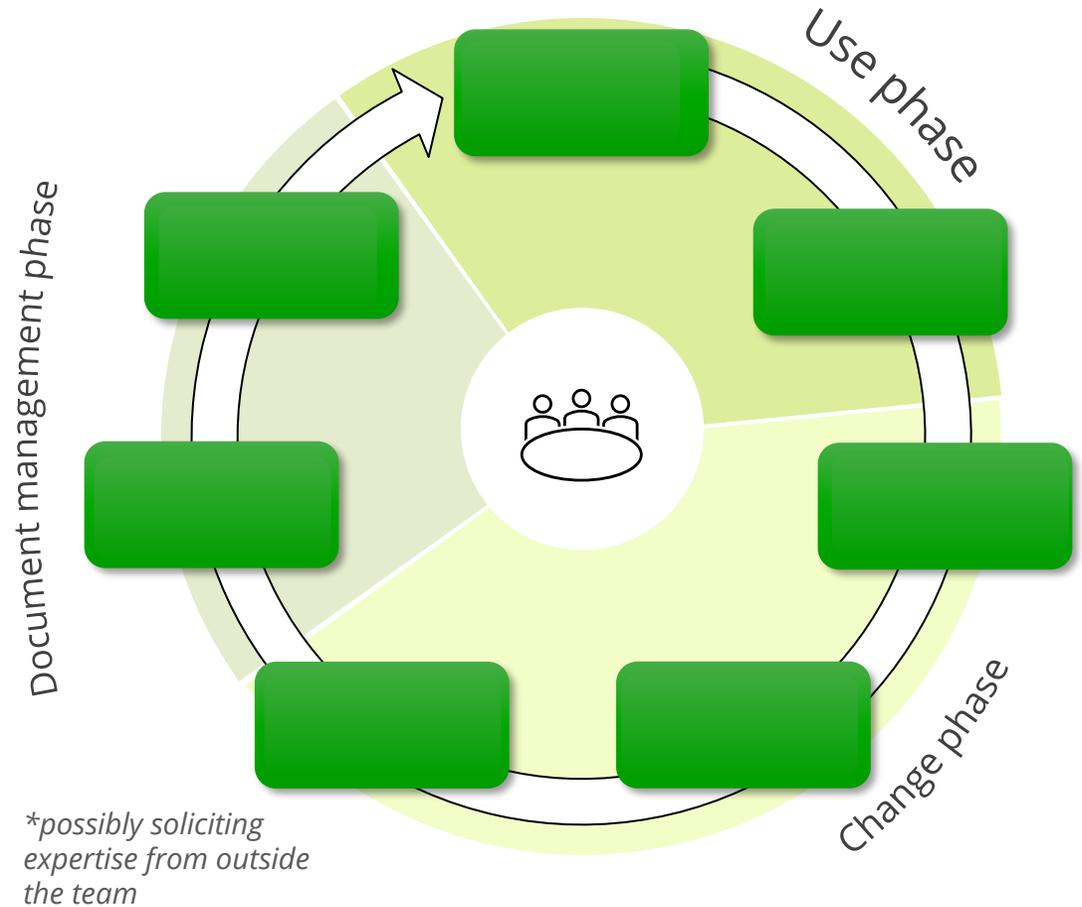
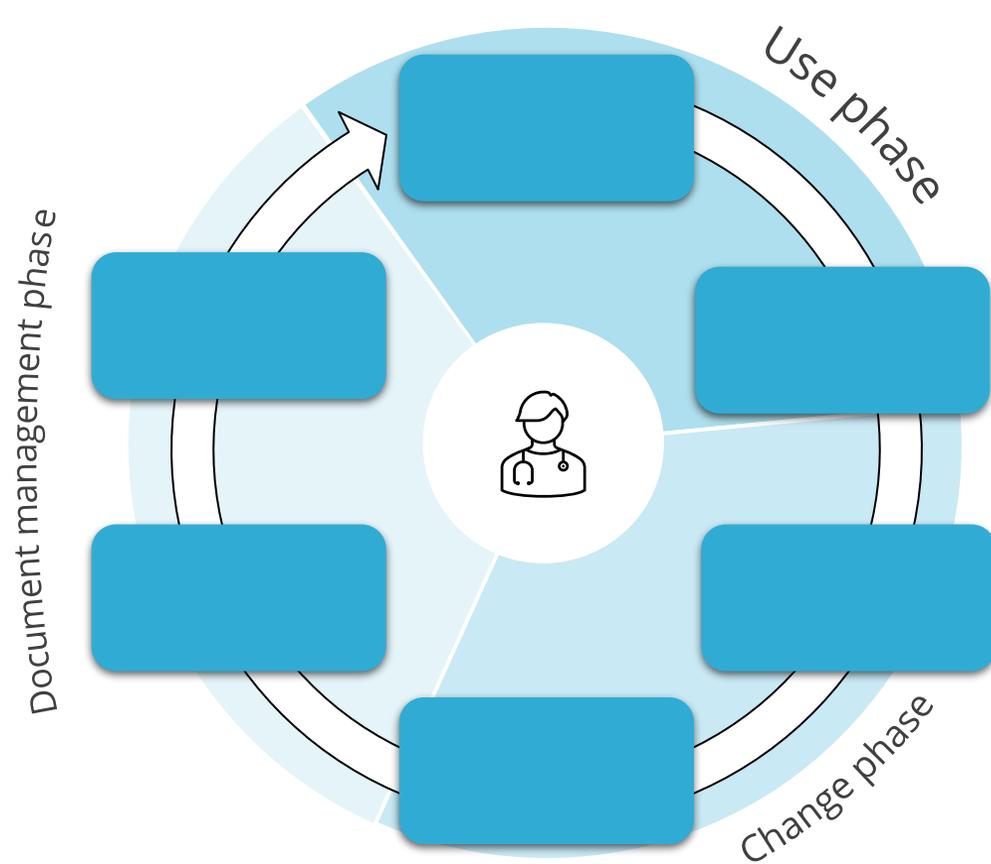
- PhD student in ESCH-R
 - WP3 “How we act”
 - In Wageningen
 - From Finland
- 1 / 4 years
 - Document analysis, interviews, observations
 - Dialysis, eye surgery, obstetrics
- *Why?*
 - *What is it in the care practices that keeps single-use products so indispensable?*
 - *What is the role of protocols?*

EARLY INSIGHTS!



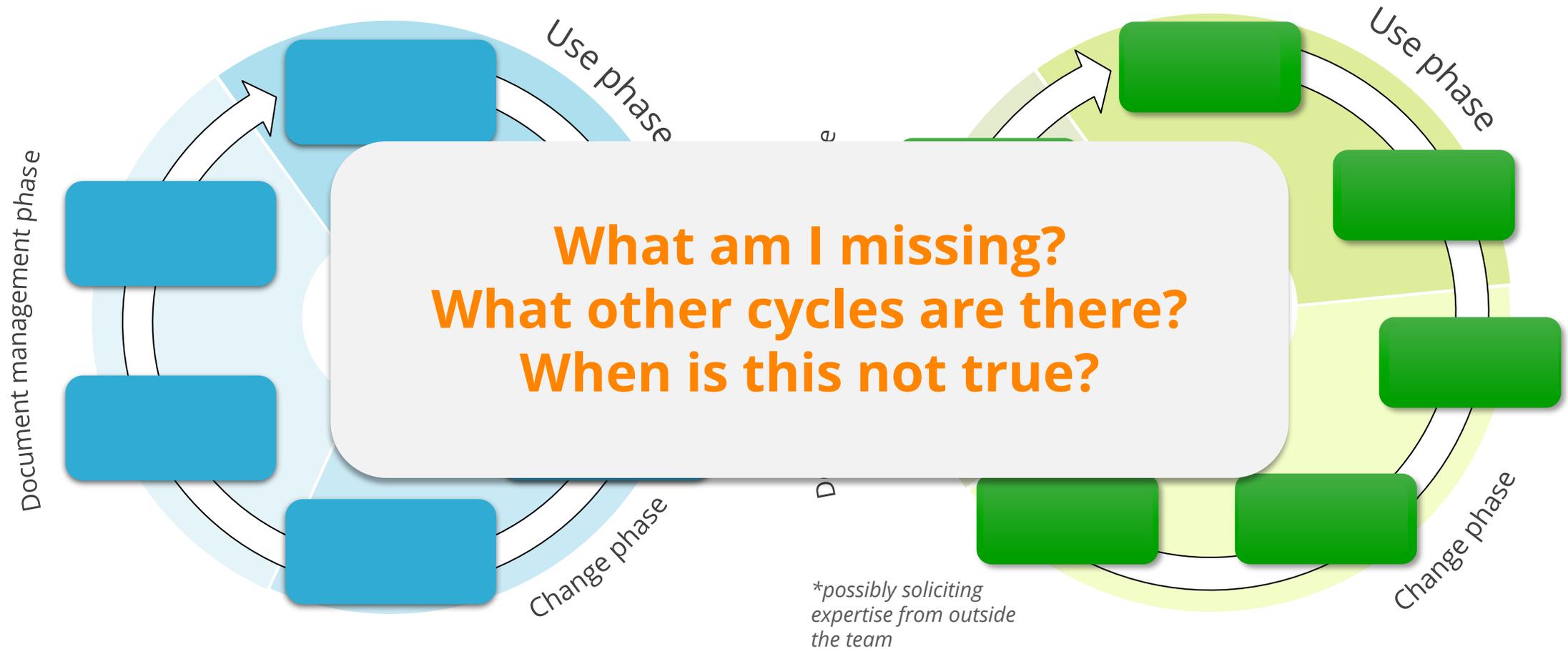
First observation

Guidelines and protocols change all the time



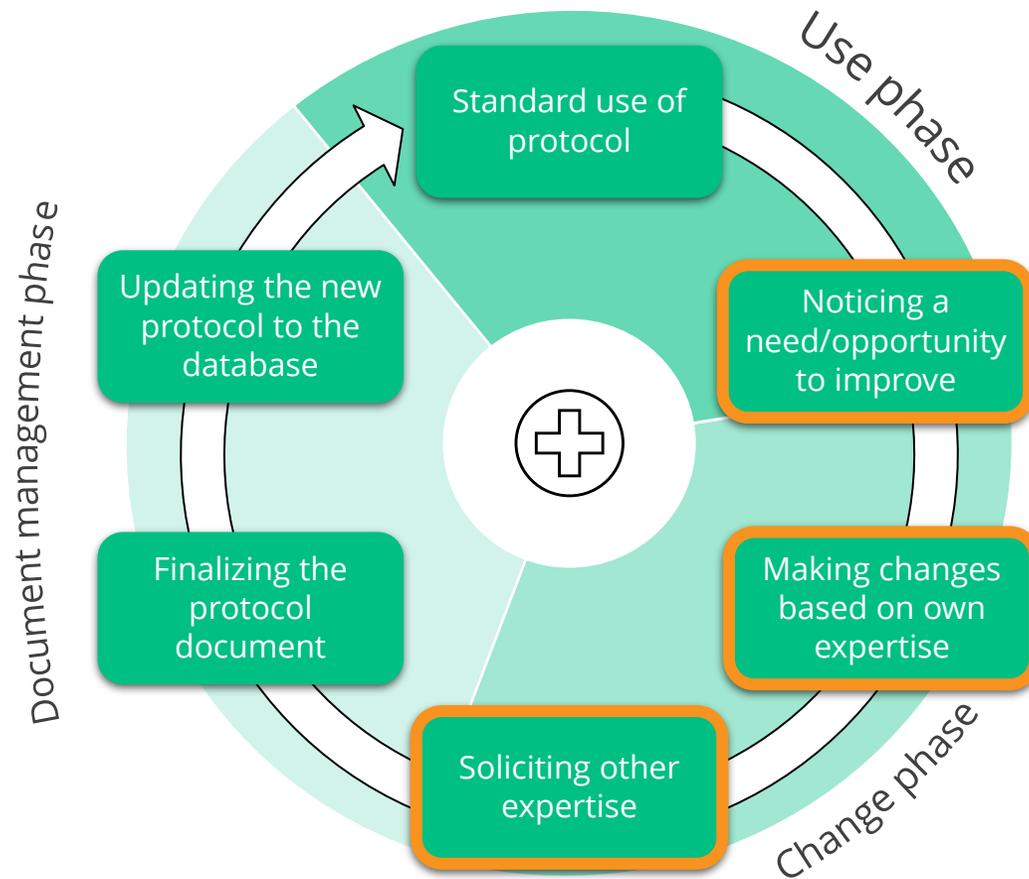
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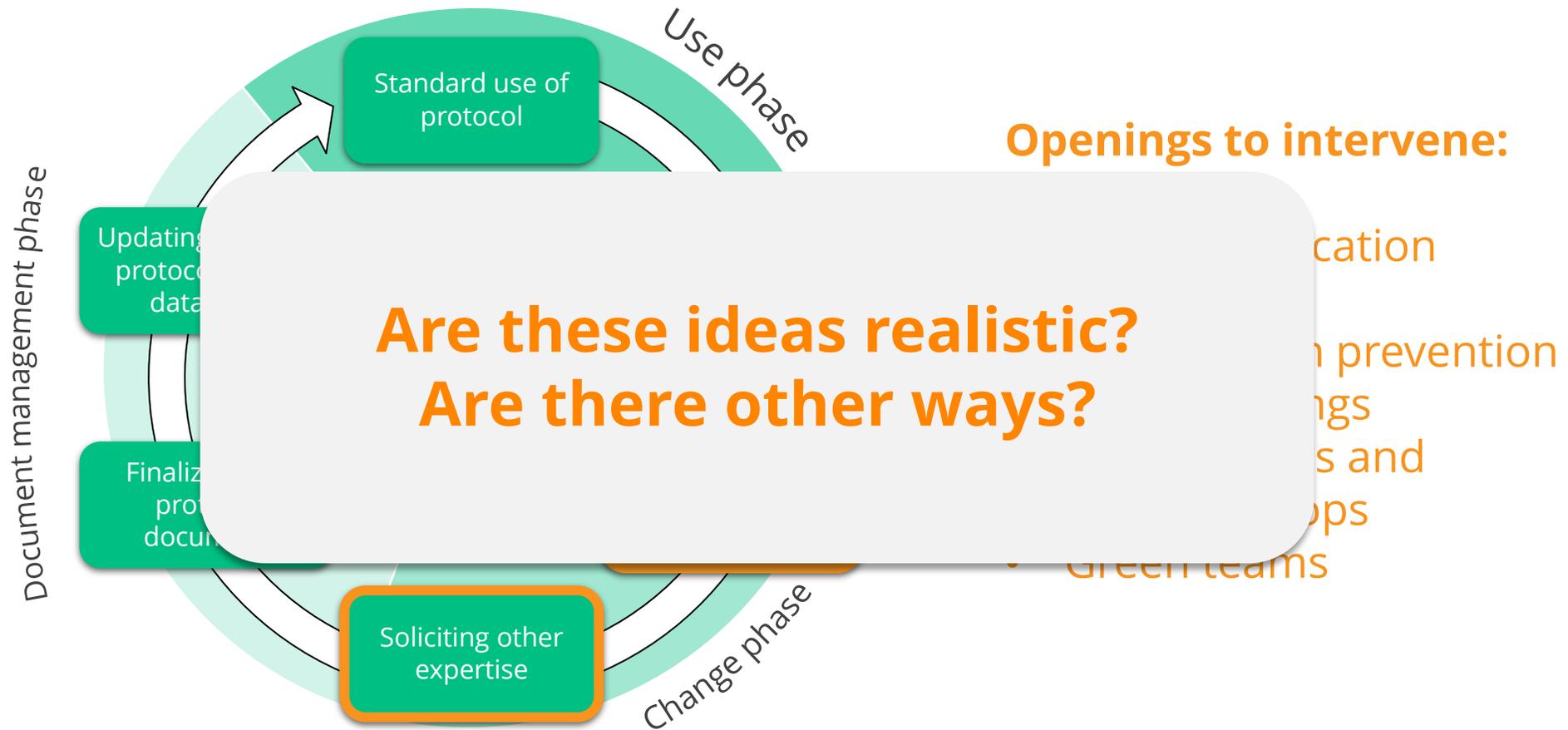


Openings to intervene:

- “Green” Education
 - Nursing
 - Infection prevention
 - E-learning
 - Seminars and workshops
- Green teams

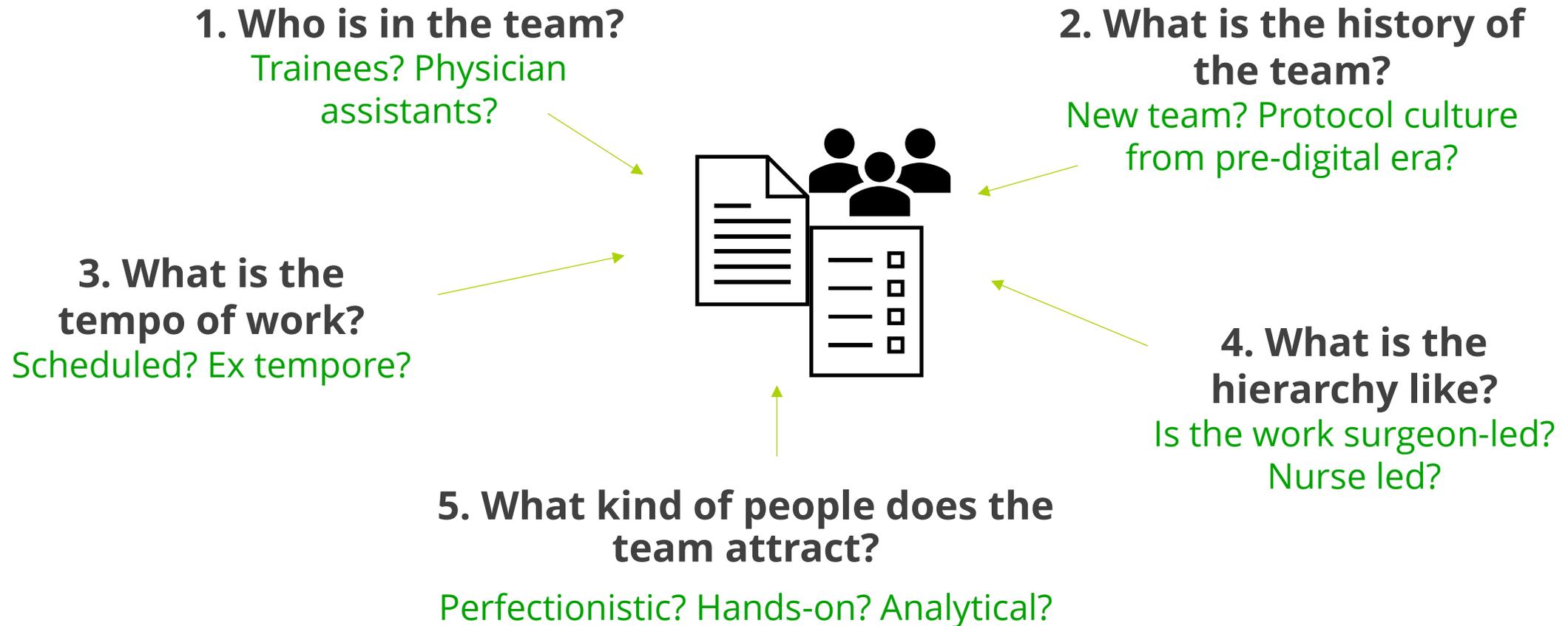
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Second observation

Protocols are an image of their team



Second observation

Protocols are an image of their team

1. Who is in the team?

Trainees? Physician
assistants?

2. What is the history of
the team?

New team? Protocol culture
digital era?

3. What is the
tempo of work?

Scheduled? Ex temp

**Does this sound familiar?
Have you seen this in your work?**

What is the
hierarchy like?

Surgeon-led?
Nurse led?

5. What kind of people does the
team attract?

Perfectionistic? Hands-on? Analytical?

Third observation

There is life outside protocols

- Not every practice has a protocol
- A protocol doesn't cover 100% of a practice
- What can be changed without changing protocols?
 1. Work further away from the patient
 - Administrative?
 - Waste management?
 - Preparation?
 2. Switching from one protocol to another



Third observation

There is life outside protocols

- Not every practice has a protocol
- A protocol doesn't cover 100% of a practice
- What can be changed?
 1. Work functions
 - Administration
 - Waste management
 - Preparation
 2. Switching

How much do you think can be changed without changing protocols?





Thank you for your attention and input!

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