

Implementing speech recognition in Sundhedsplatformen (Epic)

*- data, clicks and job
satisfaction of doctors*

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Pilot project

**Neurologic Department
University Hospital, Roskilde, Region Zealand**



23 participants

- 21 Physicians
- 2 Nurses

8 weeks of pilot testing

- 22th of October to 17th of December 2018



Our four Key Performance Indicators (KPI):

KPI:

Better patient communication

More effective documentation workflows

Increase in assessed quality of documentation

Increase in user satisfaction

Method:

Survey to participants before and after pilot testing

PEP reports and Dragon data within selected areas

Manual review with assessment of quality before and after pilot testing

Survey to participants before and after pilot testing

Survey

To which degree do you experience, that ...

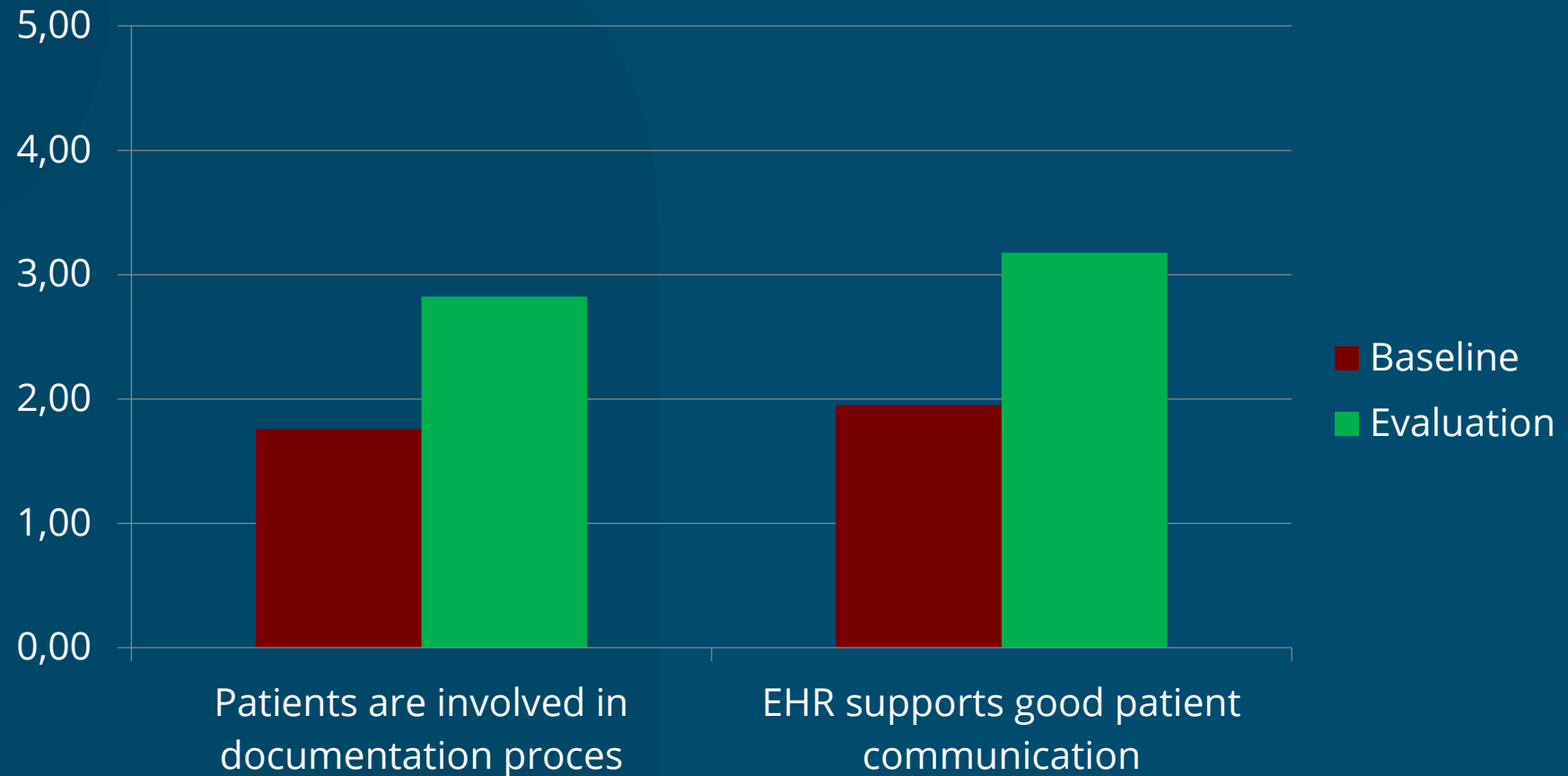
- 1 Not at all
- 2 To a minor degree
- 3 To some degree
- 4 To a high degree
- 5 To a very high degree
- I don't know

4) I hvor høj grad oplever du, at du bruger en rimelig mængde tid på dokumentation i Sundhedsplatformen (med talegenkendelse)?

- Slet ikke
- I mindre grad
- I nogen grad
- I høj grad
- I meget høj grad
- Ved ikke

Better patient communication

Survey before and after pilot testing

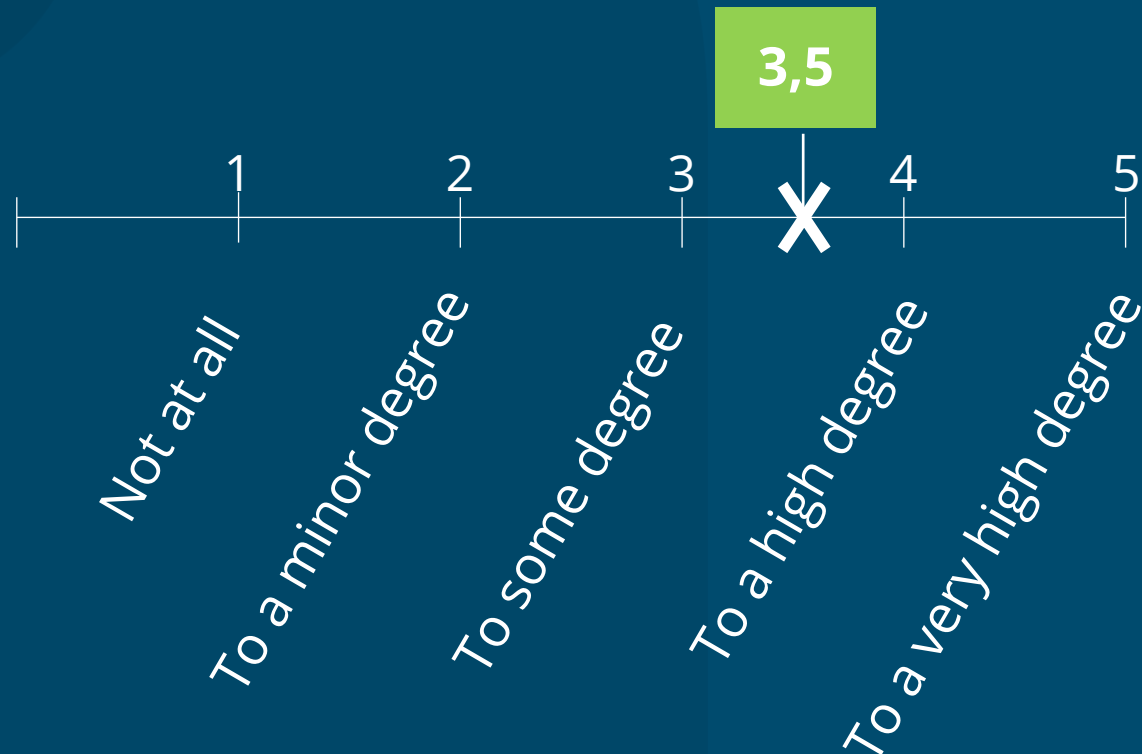


Better patient communication

Survey after pilot testing

"To what degree do you find that...

... the use of speech recognition has increased presence in communication with patients"

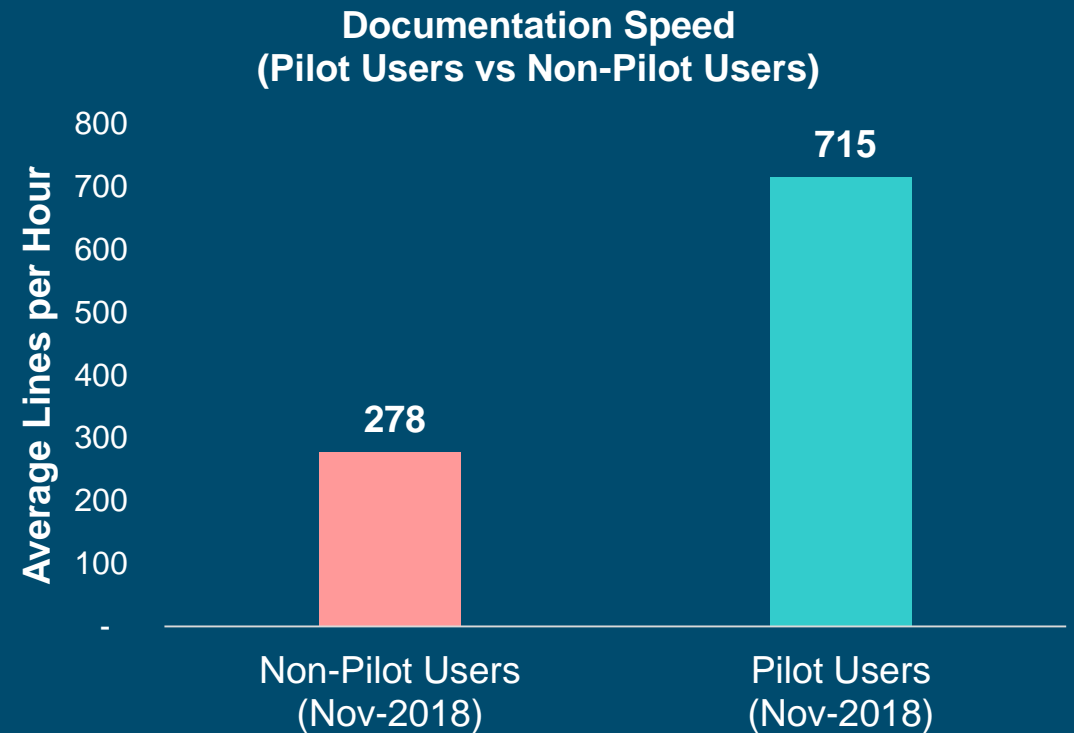
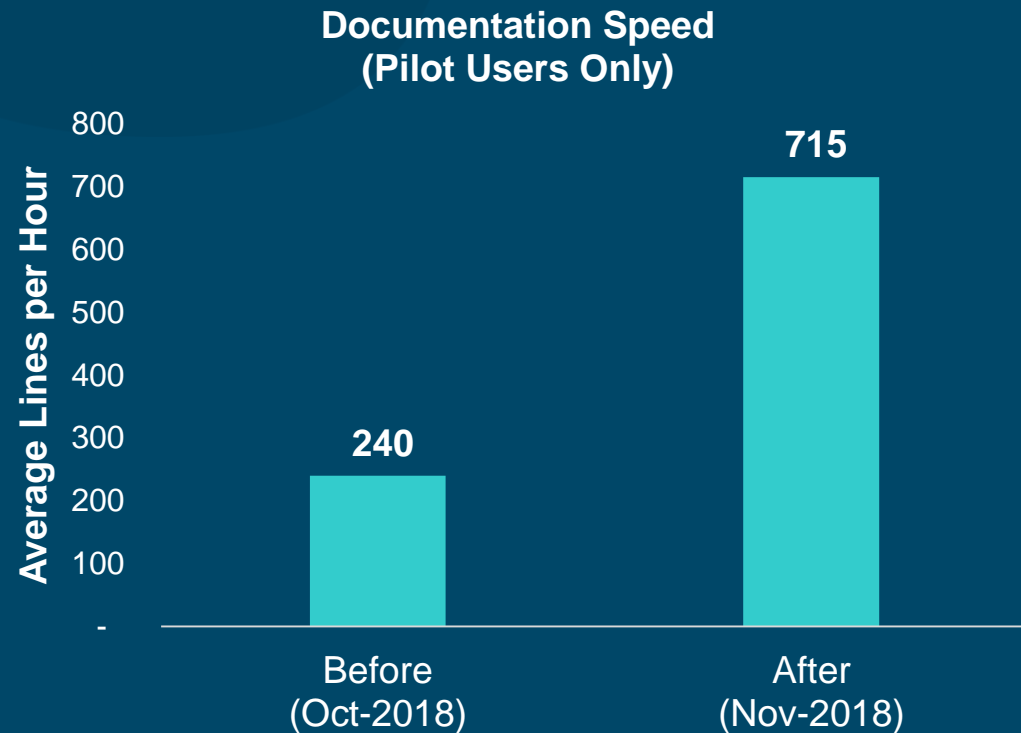


More effective documentation workflows

Data analysis PEP and Dragon

Speed of documentation – pilot users
198% (October vs November)

Documentation speed – Pilot vs Non-Pilot
157% (October vs November)



More effective documentation workflows

Data analysis PEP and Dragon

Impact on time spent in notes:

Without speech recognition:

26

Minutes per Appointment in Epic

With speech recognition:

15

Minutes per Appointment in Epic



Better quality of documentation

Assesment session after pilot testing

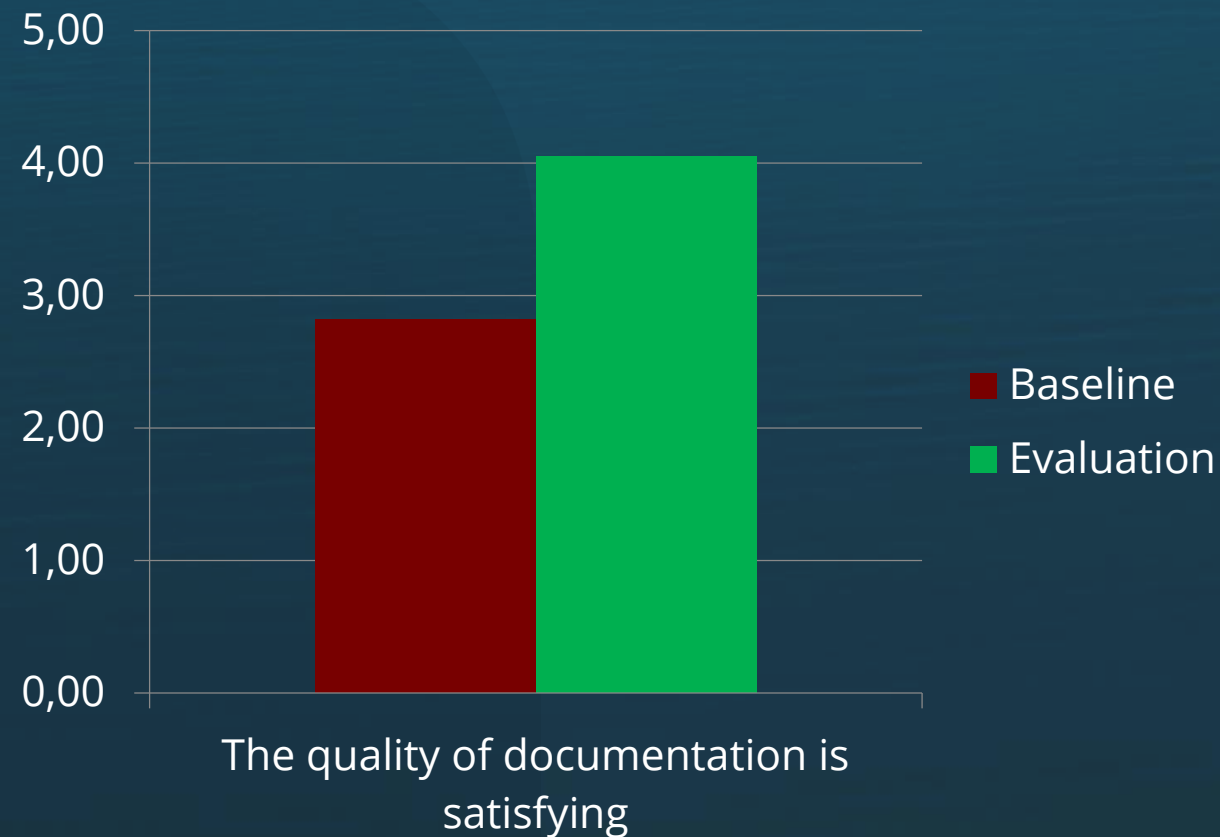
	Average score without speech recognition	Average score with speech recognition	Result
User 1	2,5	3,1	0,6 increase
User 2	2,6	3,1	0,5 increase
User 3	3,5	2,6	0,9 decrease

Check list for assesment session:

- ✓ Content
- ✓ Structure
- ✓ Structured data
- ✓ Spelling and grammar
- ✓ Overall text comprehension

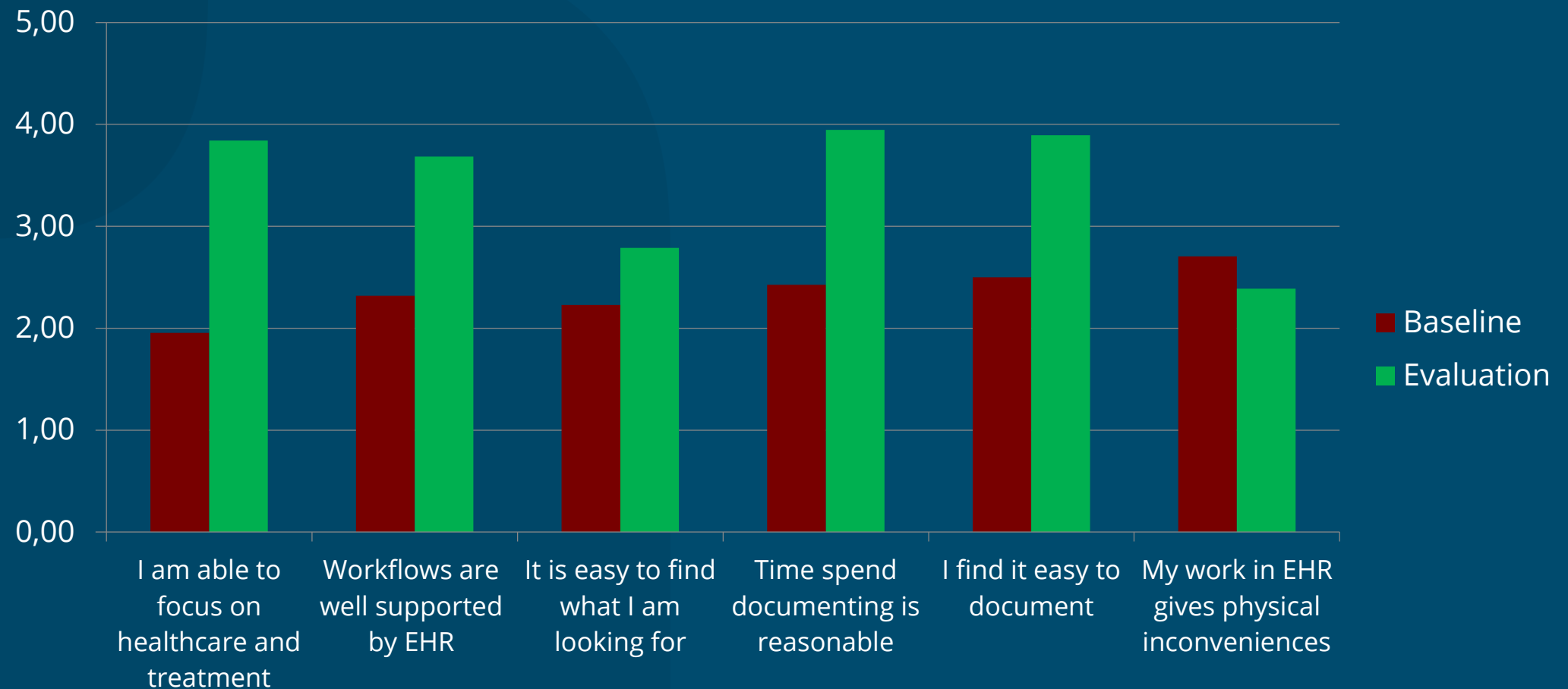
Better quality of documentation

Survey before and after pilot testing



Increase in user satisfaction

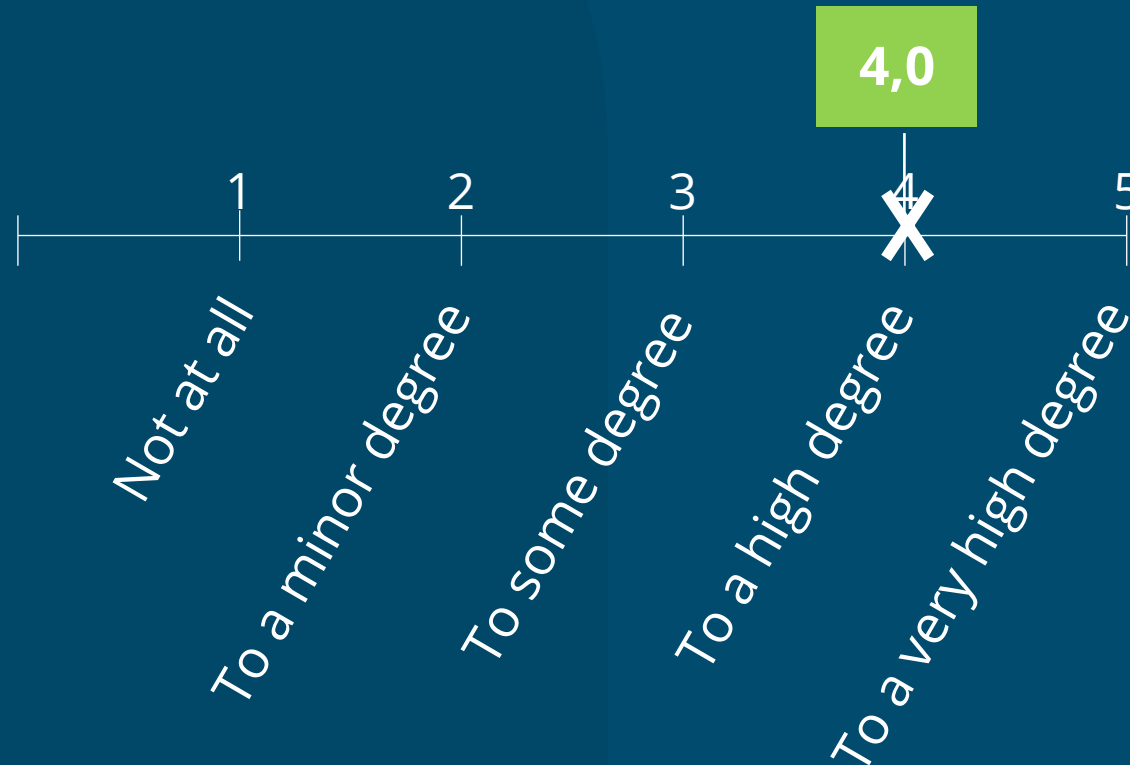
Survey before and after pilot testing



Increase in user satisfaction

Survey after pilot testing

*"To what degree do you find that...
... user satisfaction with EHR has increased using speech recognition"*



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Better patient communication

More effective documentation workflows

Increase in assessed quality of documentation

Increase in user satisfaction

Method:

Questionnaire to participants before and after pilot testing

PEP reports and Nuance reports within selected areas

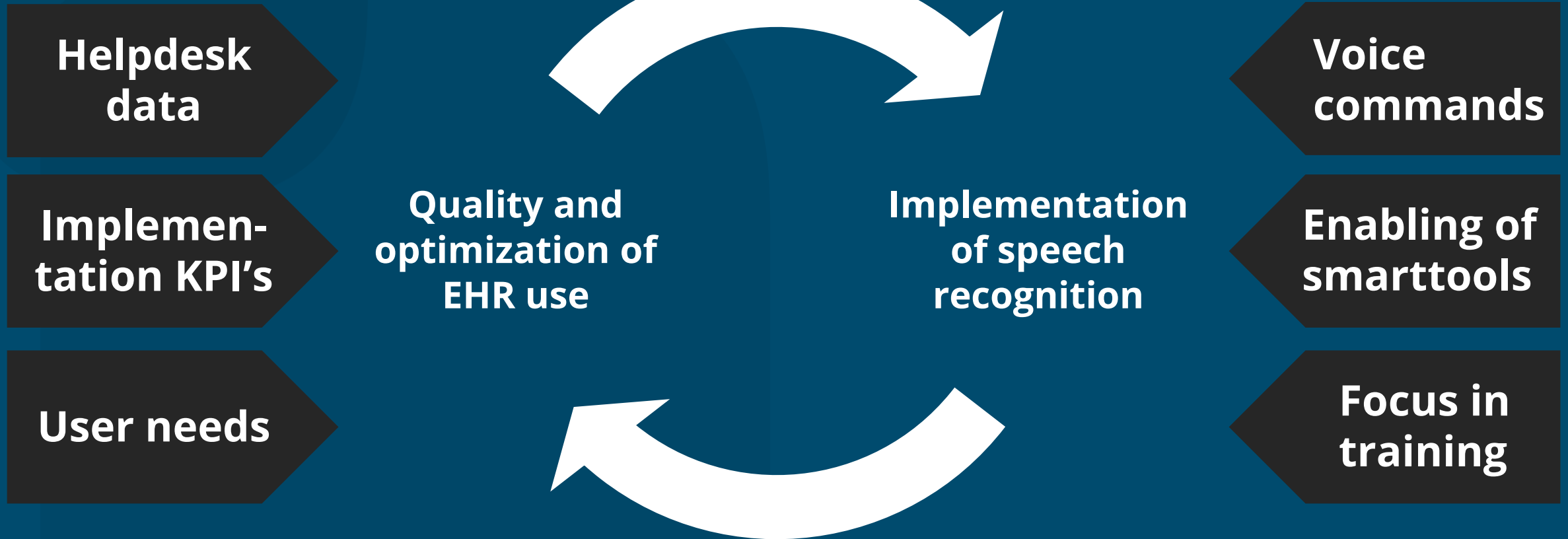
Manual review with assessment of quality before and after pilot testing

Questionnaire to participants before and after pilot testing

Perspective from the hospital ward:

- **Faster documentation – fewer clicks**
- **Better involvement of our patients**
(– remember: the “not-so-digital”-ones are the majority)
- **Happier colleagues**
- **No data lost**
- **Requires habituation and that you will spend time getting to know it**

Perspective from the desk:



Thank you



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