



# Learning from things that go right

Five years of applying FRAM in  
Danish Health Care settings

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Region Syddanmark  
**CENTER FOR KVALITET**

*'Look at what goes right as well as what goes wrong.*

*Learn from what succeeds as well as from what fails.*

*Indeed, do not wait for something bad to happen but try to understand what actually takes place in situations where nothing out of **the ordinary** seems to happen.*

*Things do not go well because people simply follow the procedures. Things go well because people make sensible **adjustments** according to the demands of the situation.'*

*Erik Hollnagel, 2013*

# The ETTO Principle

## Efficiency-Thoroughness-Trade-Off

Time to think



Thoroughness



Time to do



Efficiency

Adjustments

# The ETTO rules

- "Looks fine"
- "Not really important"
- "Normally OK, no need to check"
- "I've done it millions of time before"
- "Will be checked by someone else"
- "Has been checked by someone else"
- "This way is much quicker"
- "We always do it in this way"
- "We must get this done"
- "Must be ready in time"



Adjustments

# Adjustment – how do they look like?

## Work-as-imagined

The GP reads the full text of the CT-scan test result

## Work-as-done

The GP reads only the headings of the CT-scan test result, saving time for other patients

A habit shown to be effective and giving the wanted result normally time

ETTO rules?

# Adjustments – how do they look like?

## Work-as-imagined

The physicians at the Spine Centre assess the CT-scan during pre-admission

## Work-as-done

The physicians at the Spine Centre normally only assess the referral of the GP and the age of the patient, not the CT-scan

ETTO rules?

# Adjustments – how do they look like?

## Work-as-imagined

Output from the preadmission evaluation:

- "Urgent"
- "Normal"

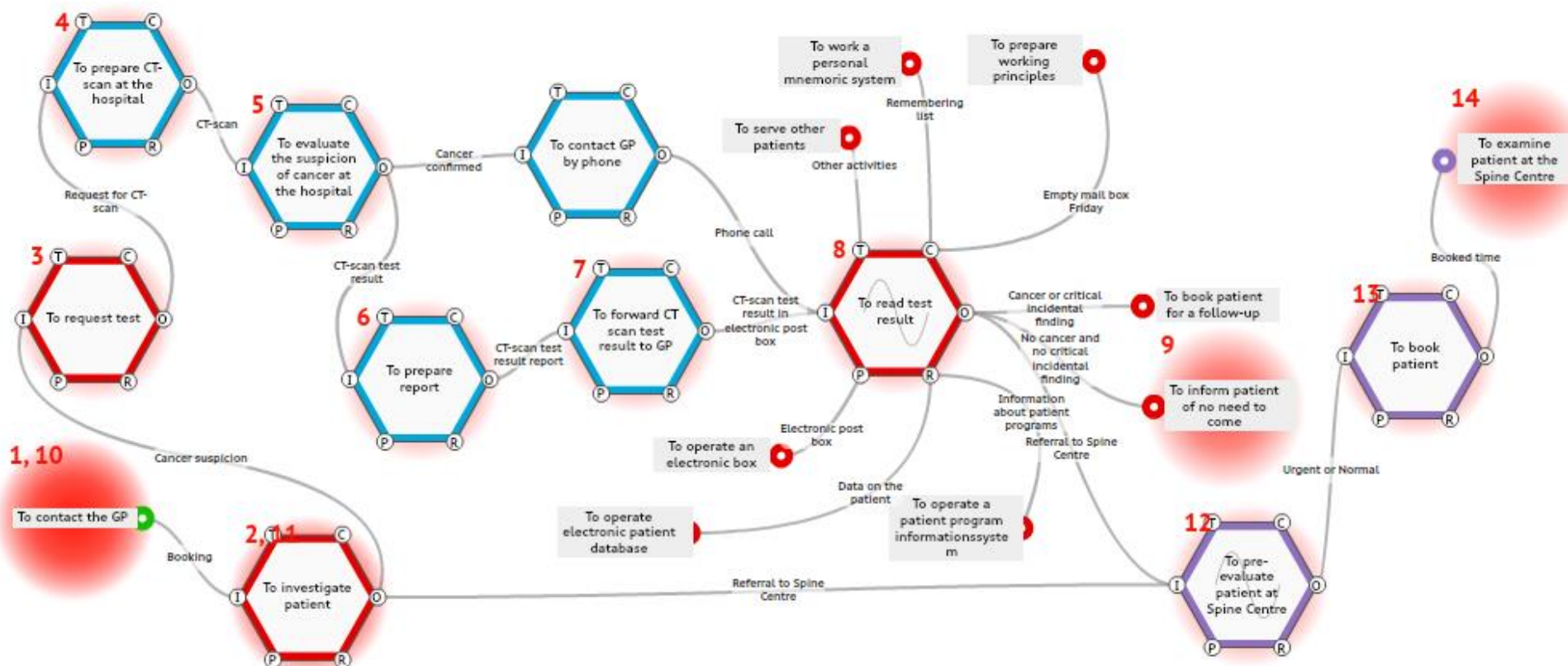
## Work-as-done

Output from the preadmission evaluation

- "Urgent"
- "Urgent +"
- "Urgent ++"
- "Urgent +++"
- "Urgent" - and the doctor would go to the secretary and say: This is urgent !
- "Normal"

ETTO rules?

# An ordinary day.....



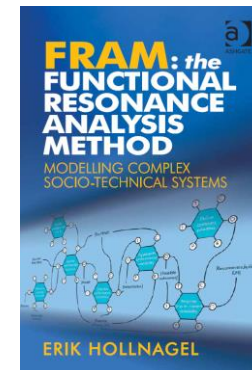


# What did we find?

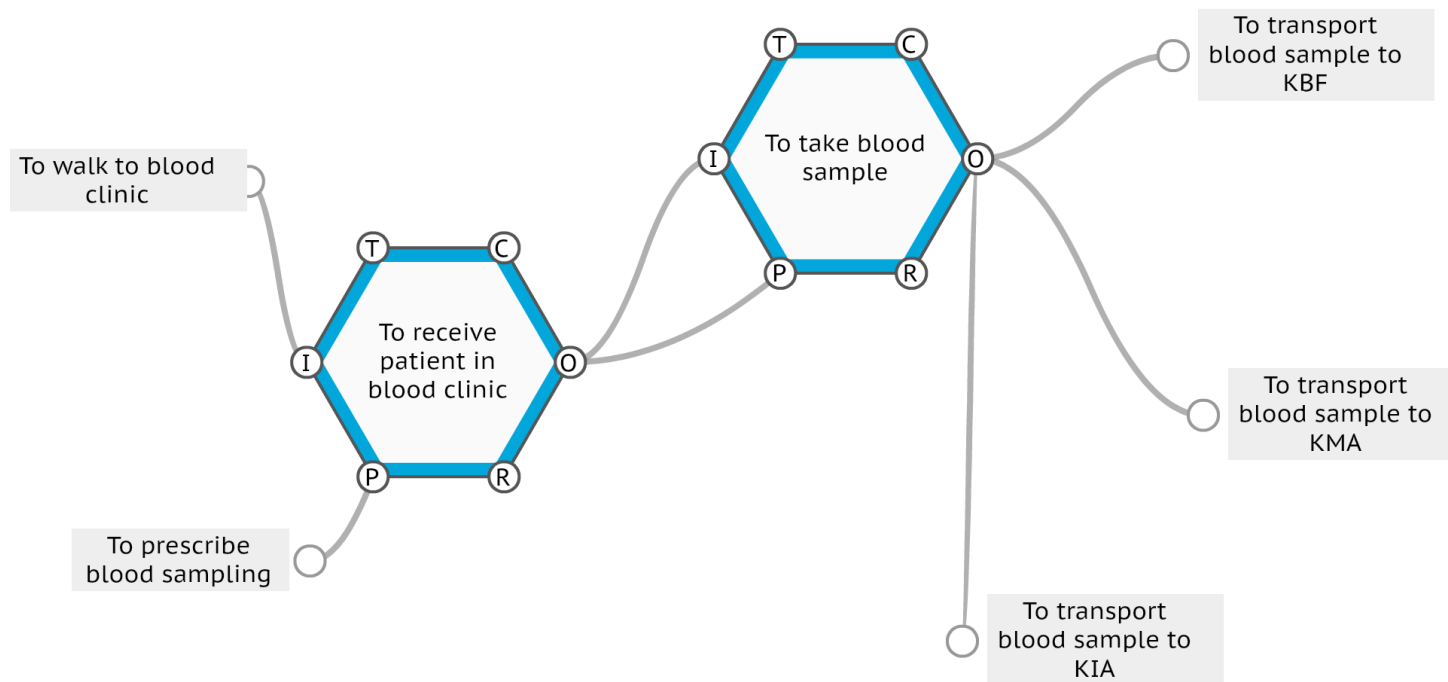
## Work-as-imagined versus Work-as-done

- Differences between work as it is imagined to be carried out and how it is actually done
- Work as imagined is defined in protocols and instructions or verbally by management or colleagues (habits) or by assumptions about how others work

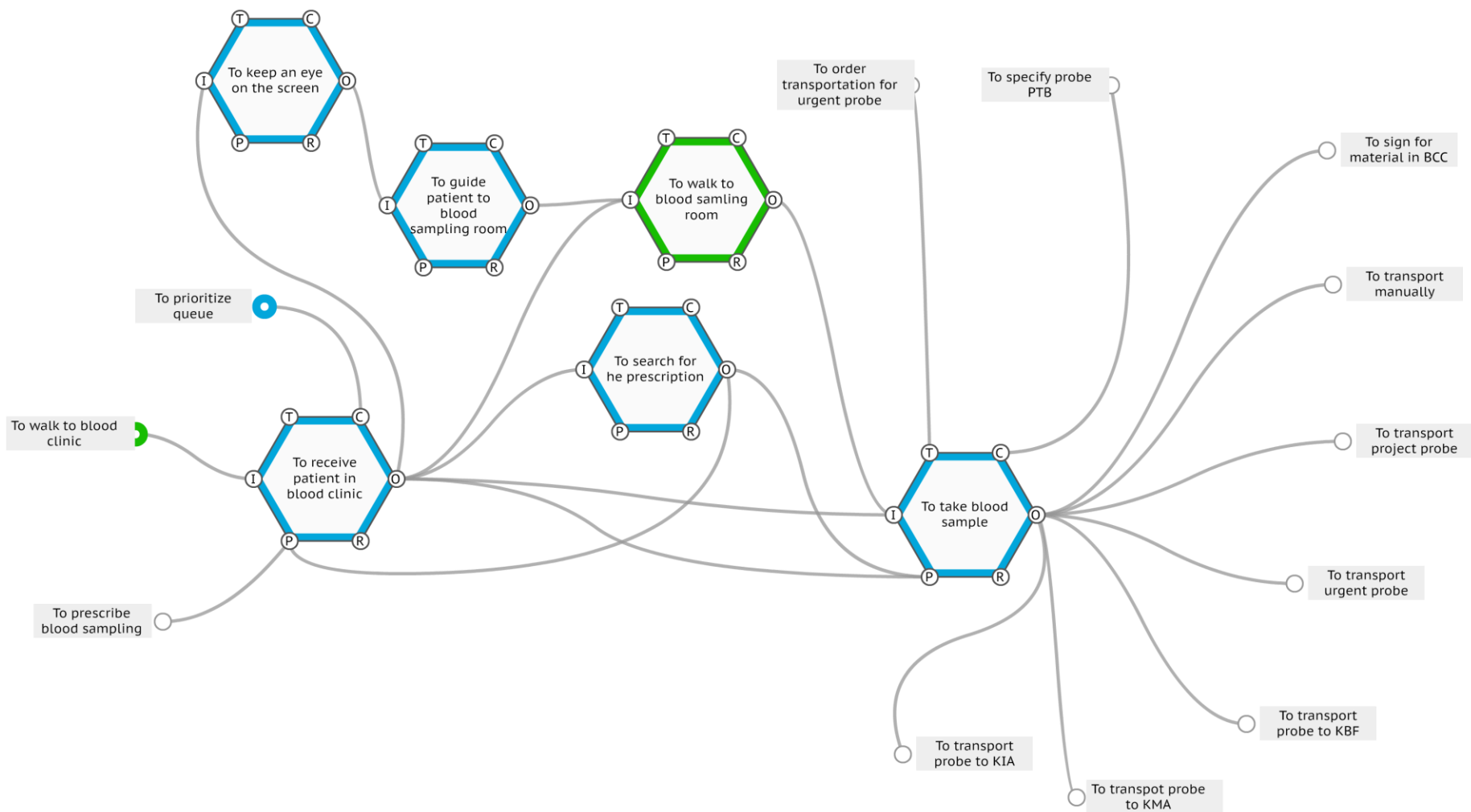
## WAI versus WAD



# Example WAI

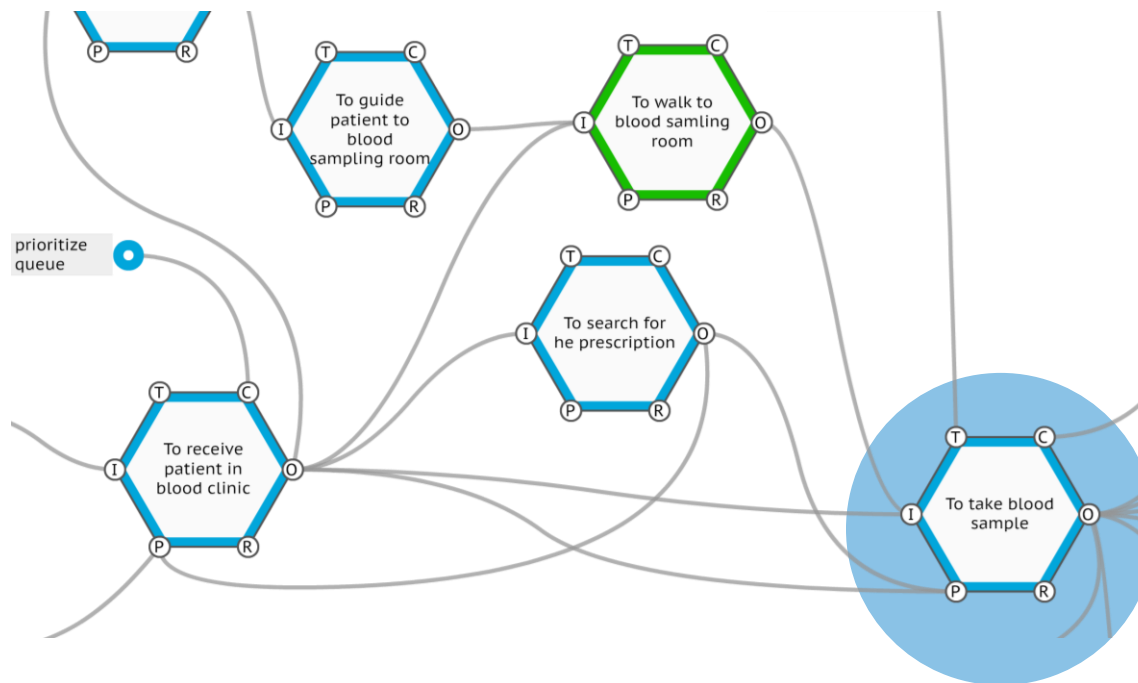
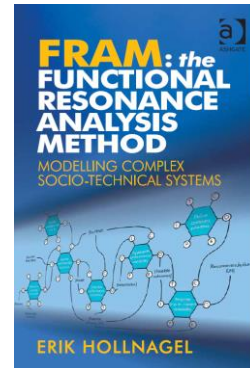


# Example WAD



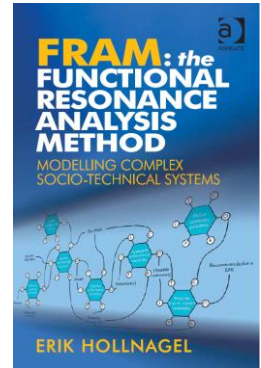
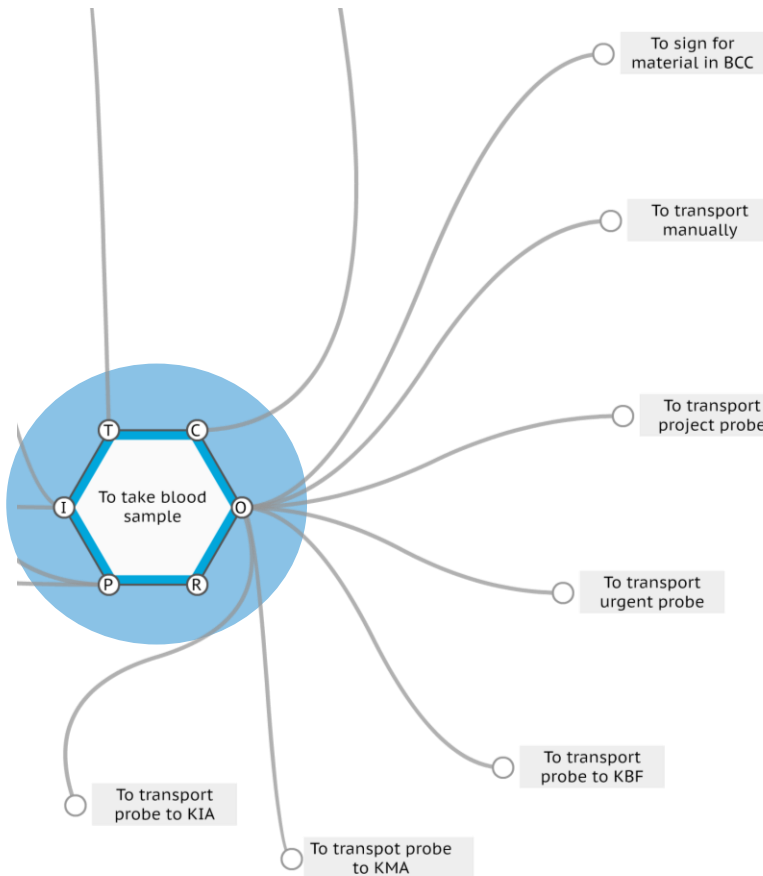
# What did we find?

Functions that were started from more than one function and not knowing which one started the function in the actual situation

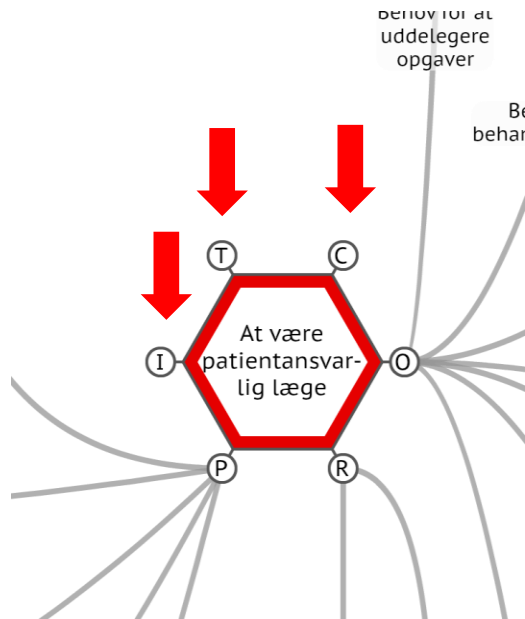
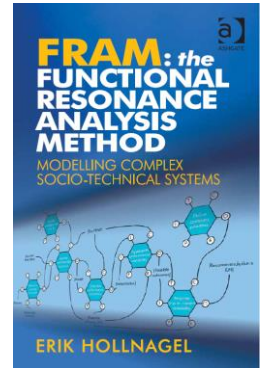


# What did we find?

Critical functions where a number of functions are dependent on the output from the actual function

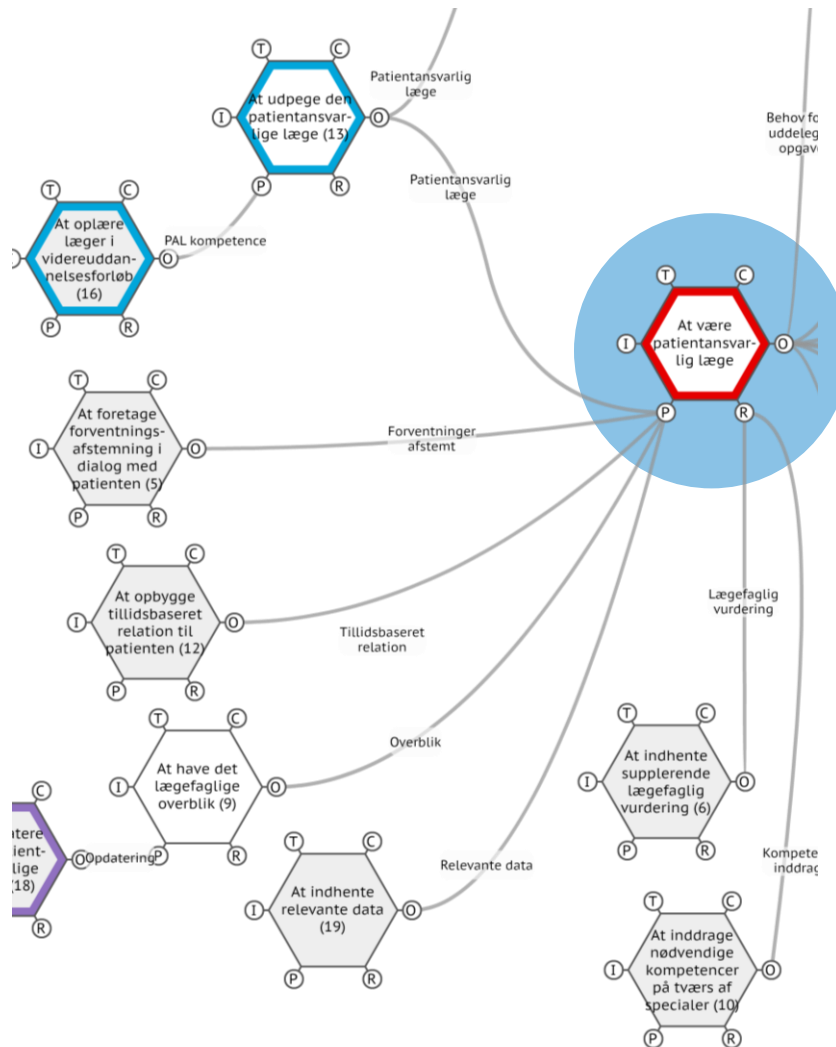


# What did we find?



Functions with poorly defined conditions needed for the function to succeed

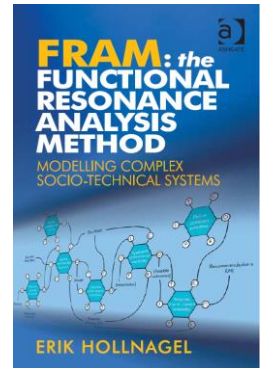
# What did we find?



Functions with no defined start or control

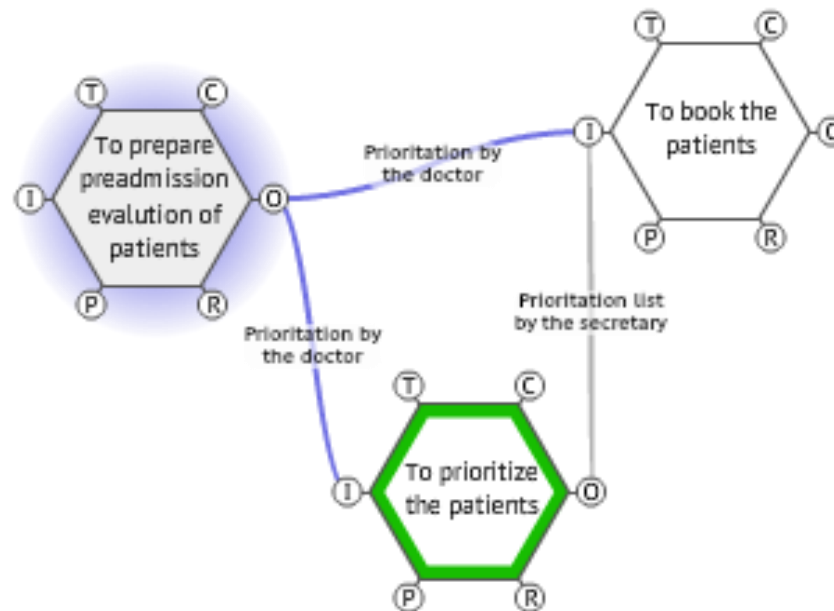
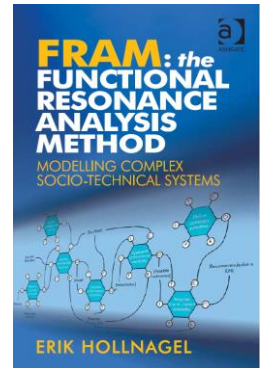
Functions where the time constraints were not considered

A high number of preconditions, likely to result in a high variability



# What did we find?

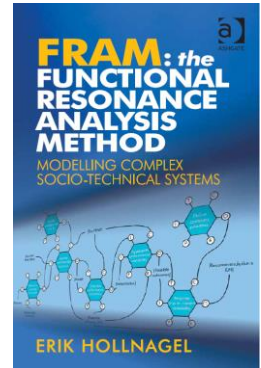
'Hidden' functions that were not common defined but made the system work





# What did we find?

- The use of an individual mnemonic or priority system
- The insight that these individual mnemonic systems ensure the safe and effective functioning of the system but also are catalysts for patient safety incidents
- The insight that openness about these individual mnemonic systems are necessary to dampen the potential negative effects on the patient outcome



# Conclusion

- FRAM is a structured way to get information about the adjustments and the performance variability in everyday work
- The Health Care Professionals are aware of the adjustments they make and can describe them
- ...but they are not aware of how the adjustments sometimes can emerge into an unwanted and unexpected outcome for the patient (resonance)
- The FRAM model helps the Health Care Professionals to realize that even small adjustments in everyday work can lead to resonance

# Conclusion

- The FRAM model can explain why an actual patient safety incident happened, not caused by a failure in the system but the performance variability of everyday work
- The FRAM model provides a detailed description of everyday work and gives a shared insight into how everyday work actually is performed
- The FRAM model helps management and health care professionals to identify opportunities for improving patient safety in everyday work and to predict the consequences of a change

# The value of modelling

- Gives an overview of the complexity of everyday work
- Shows dependencies and interactions between the things we do
- Is easier to 'read' than a verbal description
- The health care professionals recognize easily their daily work in the model
- Gives management and health care professionals a common language and a common baseline to improve quality and patient safety

# Thank you for your attention!

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FRAM: [www.functionalresonance.com](http://www.functionalresonance.com)