

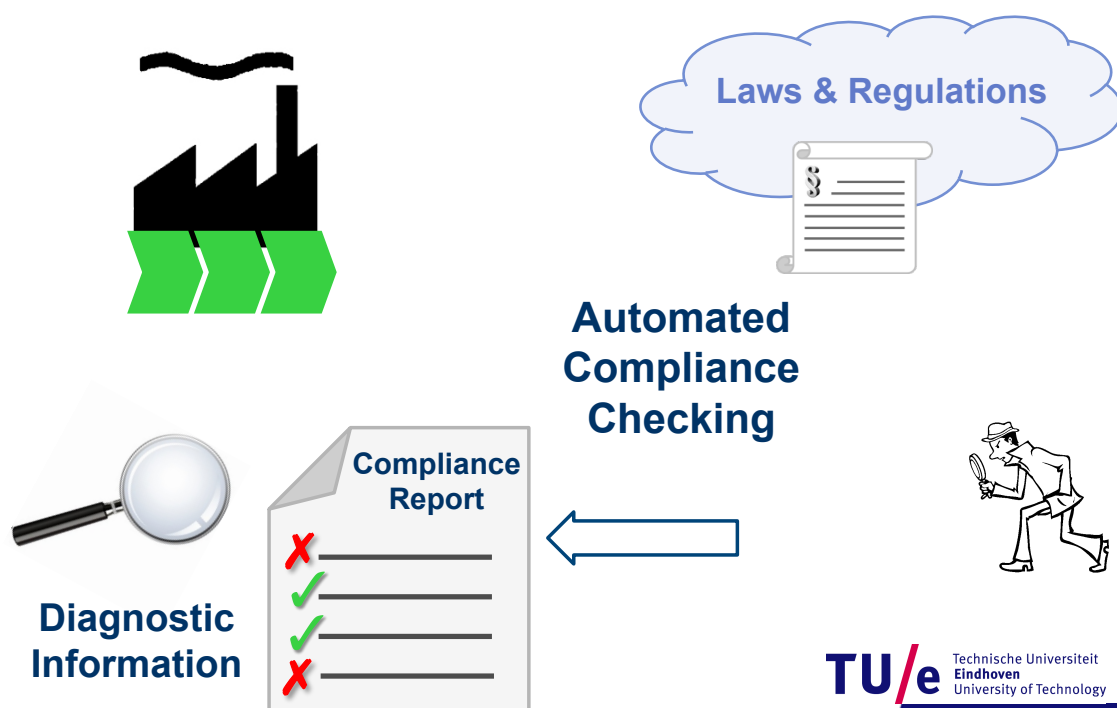
# Supporting Domain Experts to Select and Configure Precise Compliance Rules

Elham Ramezani

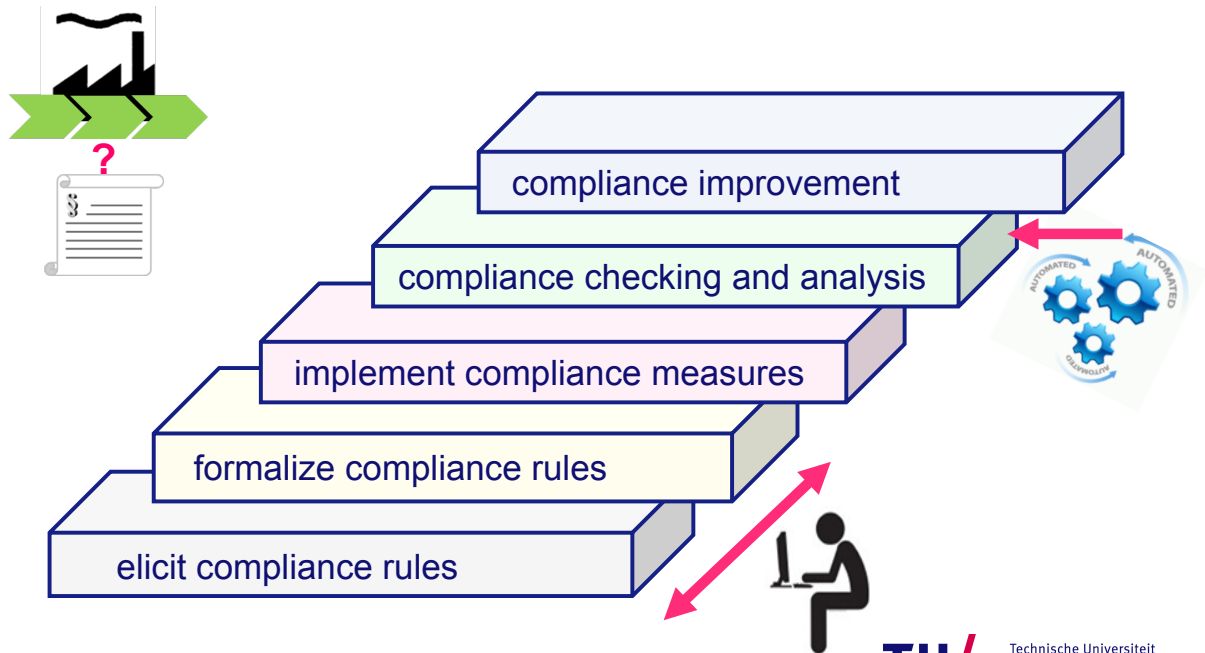
Dirk Fahland

Wil M.P. van der Aalst

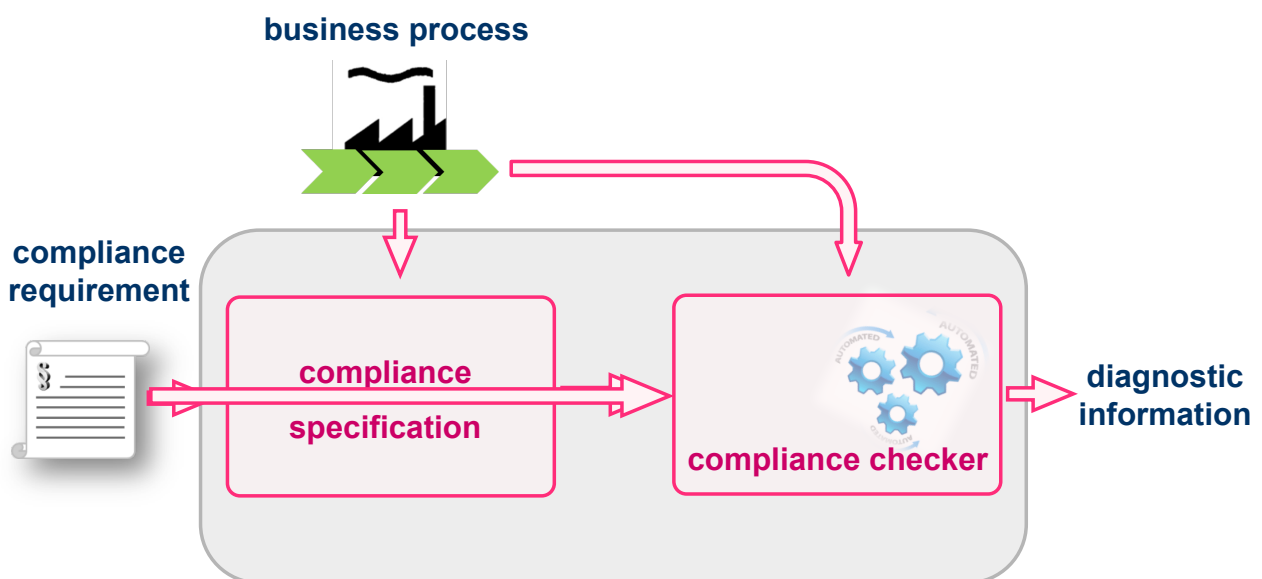
## Enterprises are governed by regulations



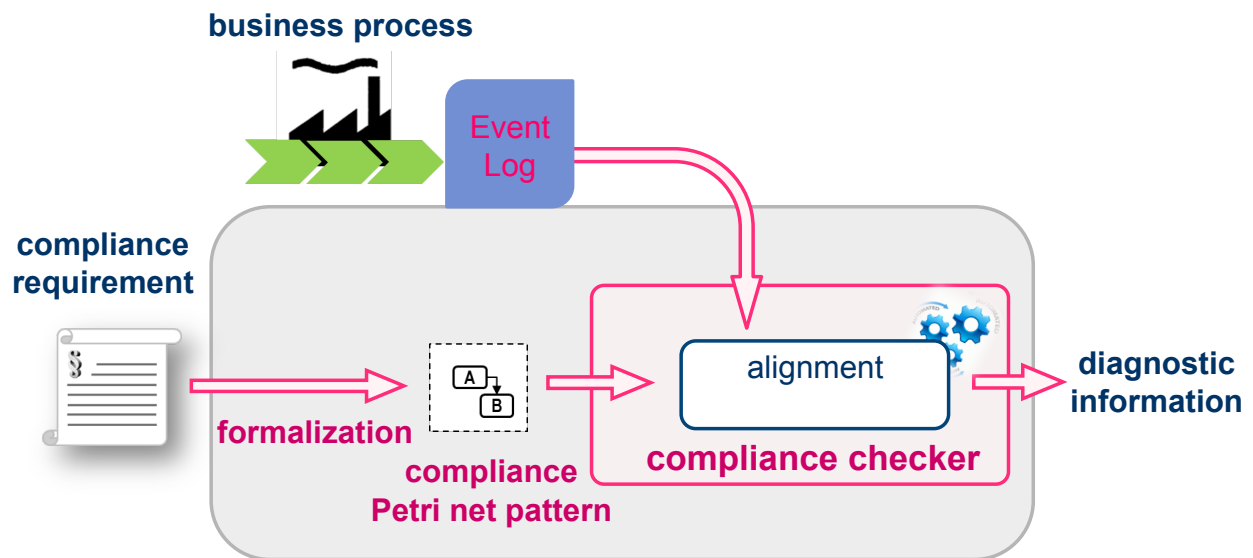
# Compliance management in enterprises



## Automated compliance checking



# Compliance requirements formalization

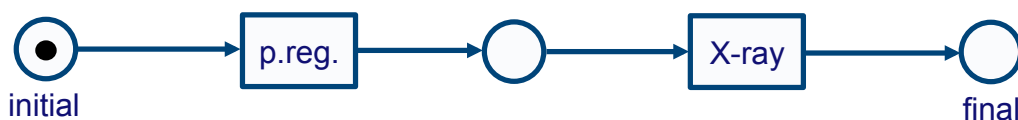


## Example

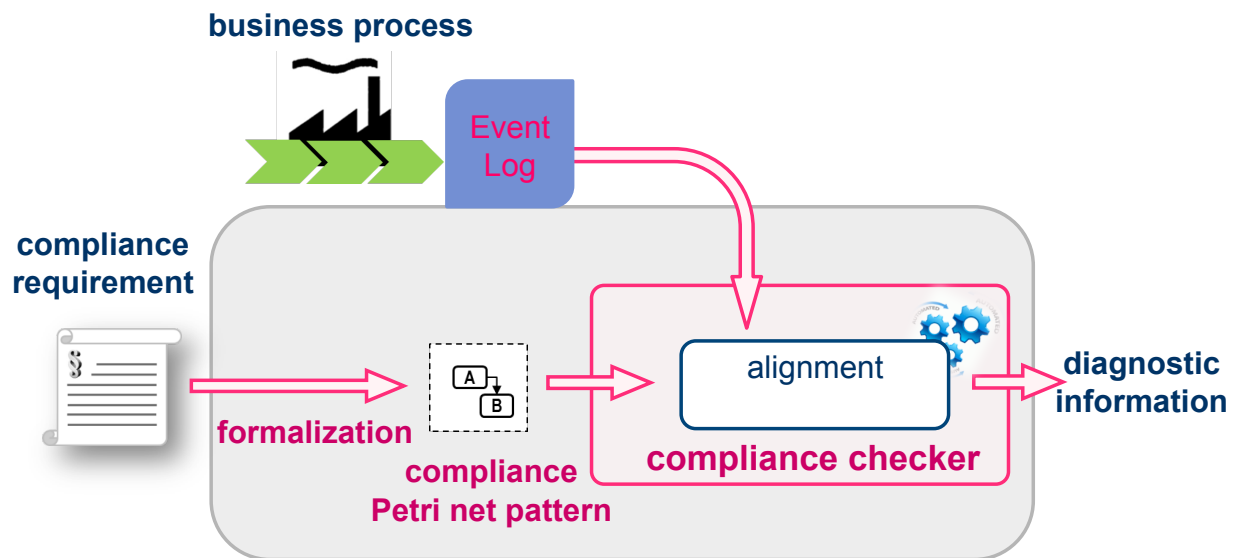
For every patient registered in the hospital an X-ray must be taken.

Control-flow rule:

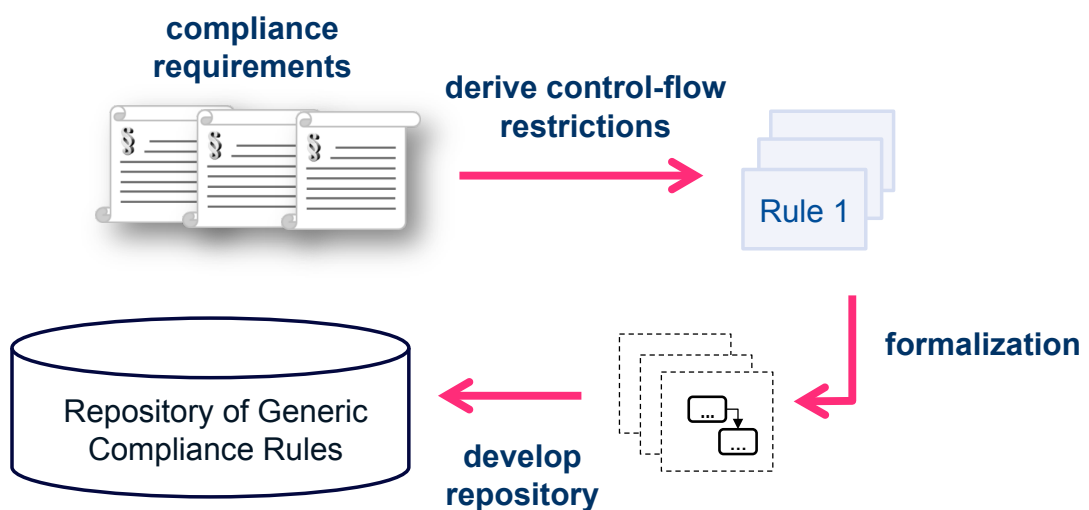
Activity **patient registration** must be followed by activity **X-ray**.



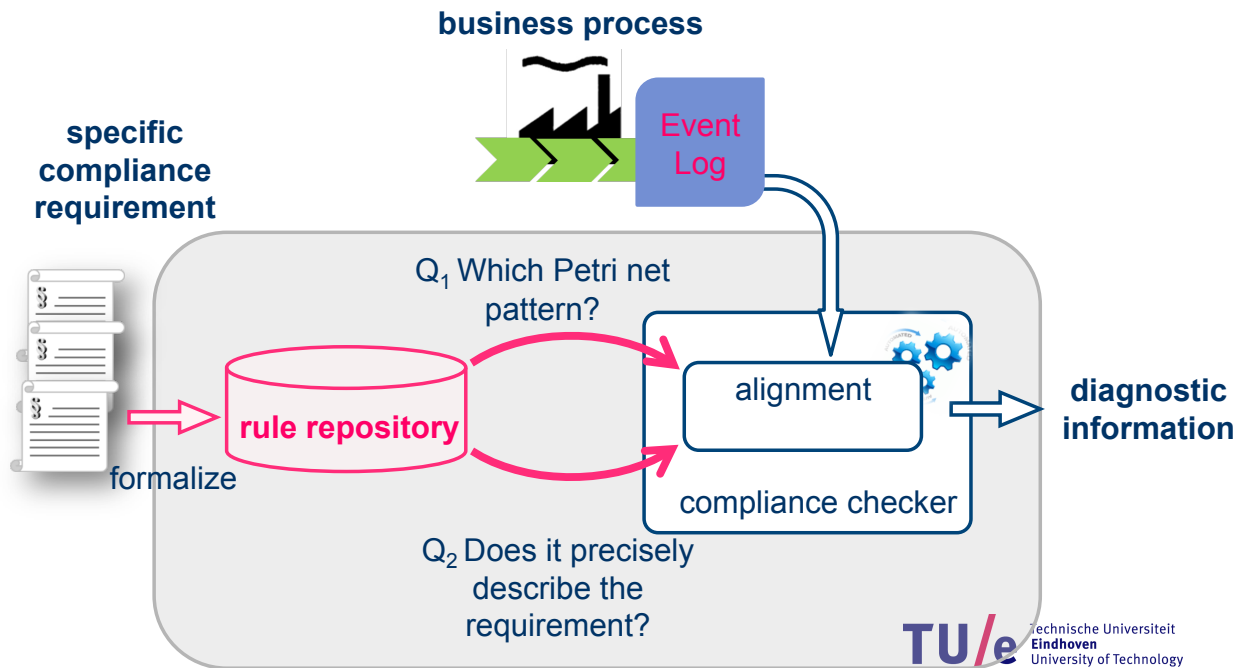
# Compliance requirements formalization



# Compliance pattern repository

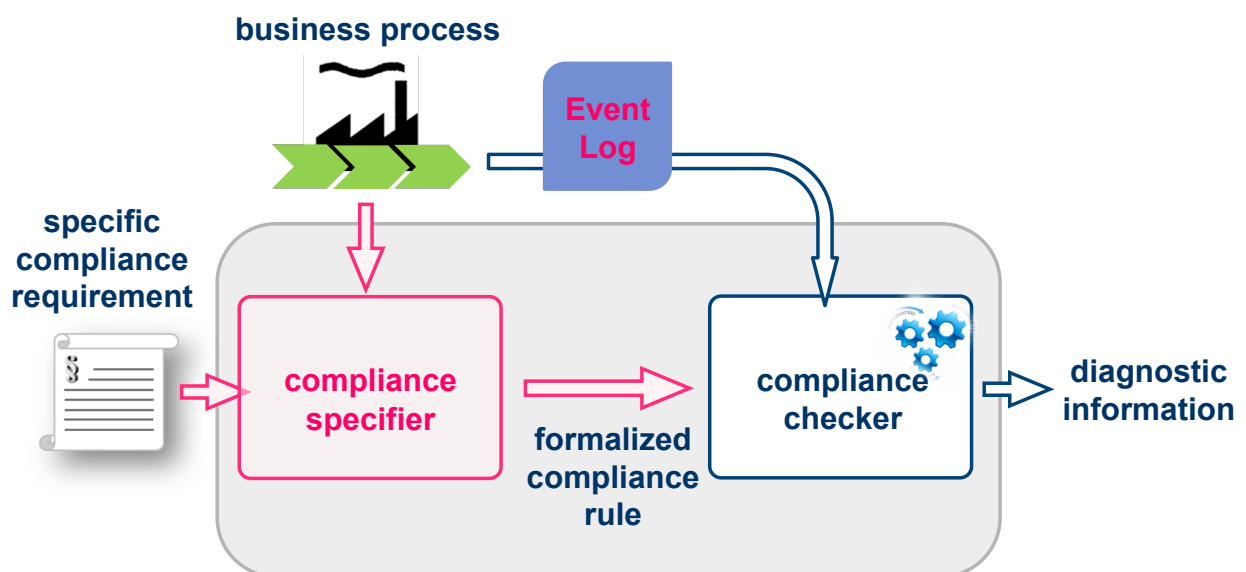


# Problem setting (I)



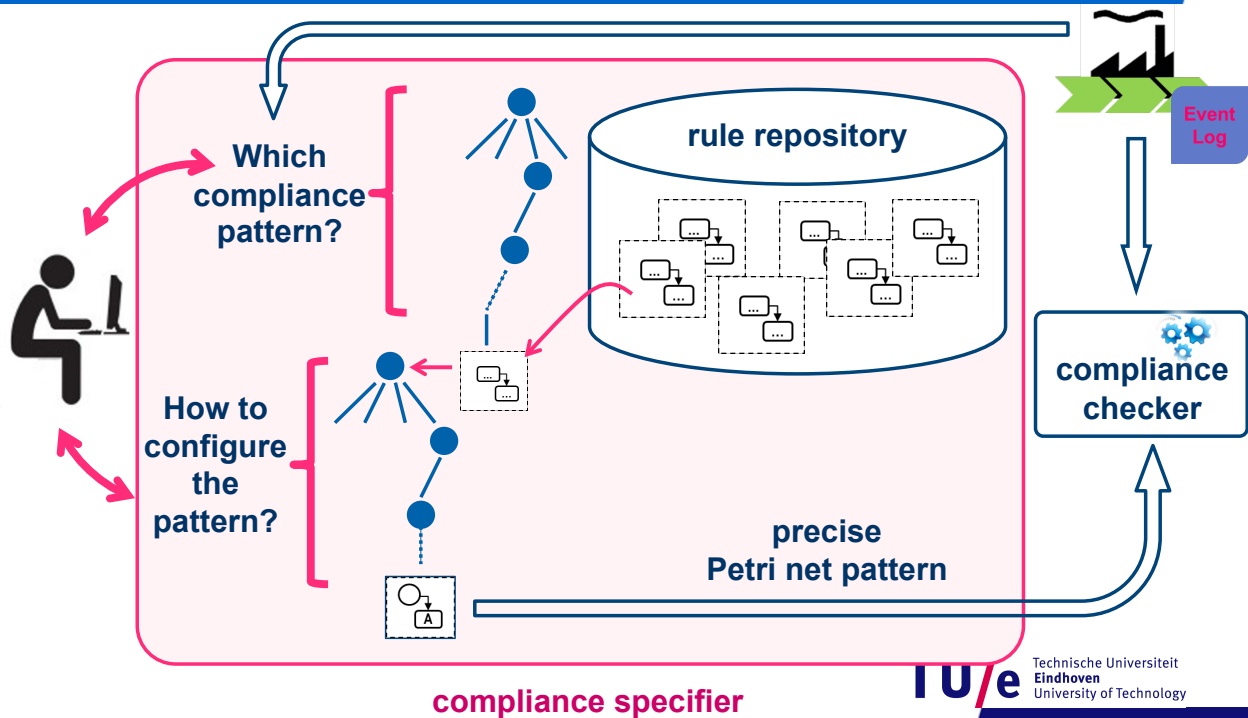
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# Problem setting (II)



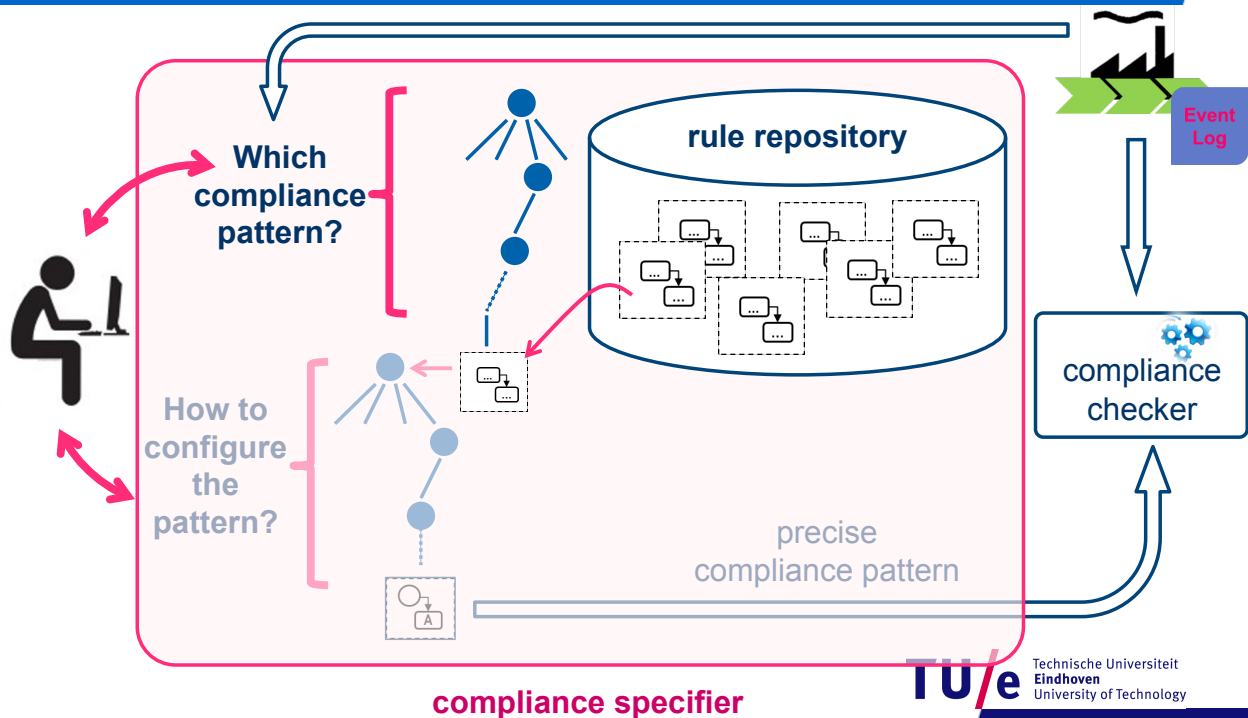
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# Solution overview



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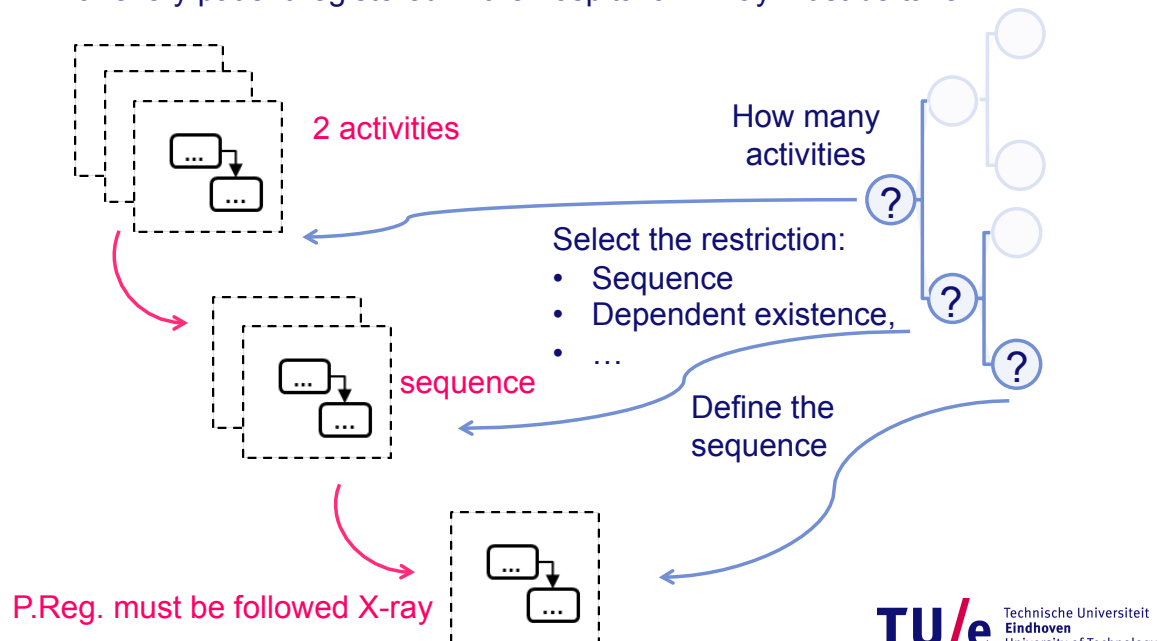
# Question and answer approach (I)



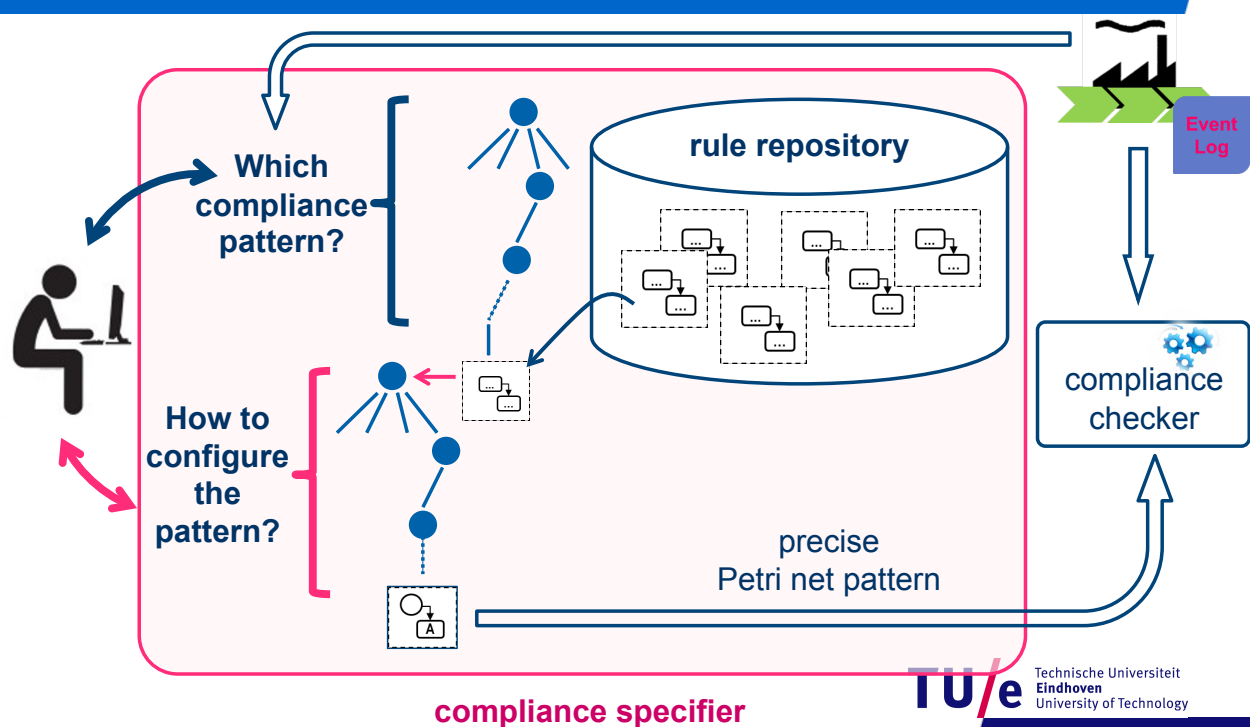
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## Question and answer (1<sup>st</sup> phase)

For every patient registered in the hospital an X-ray must be taken.

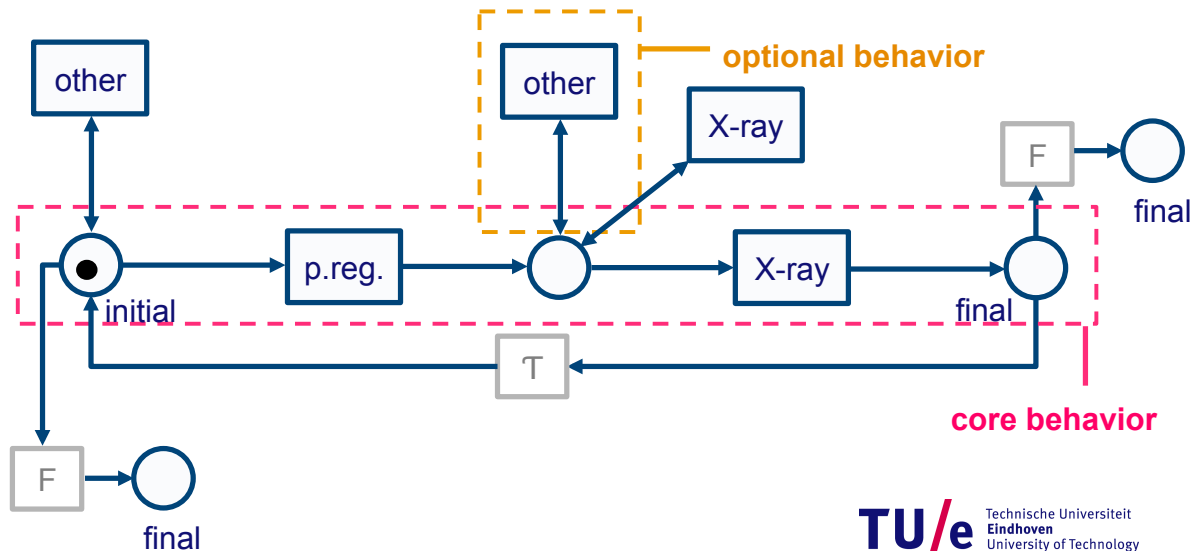


## Question and answer approach (II)

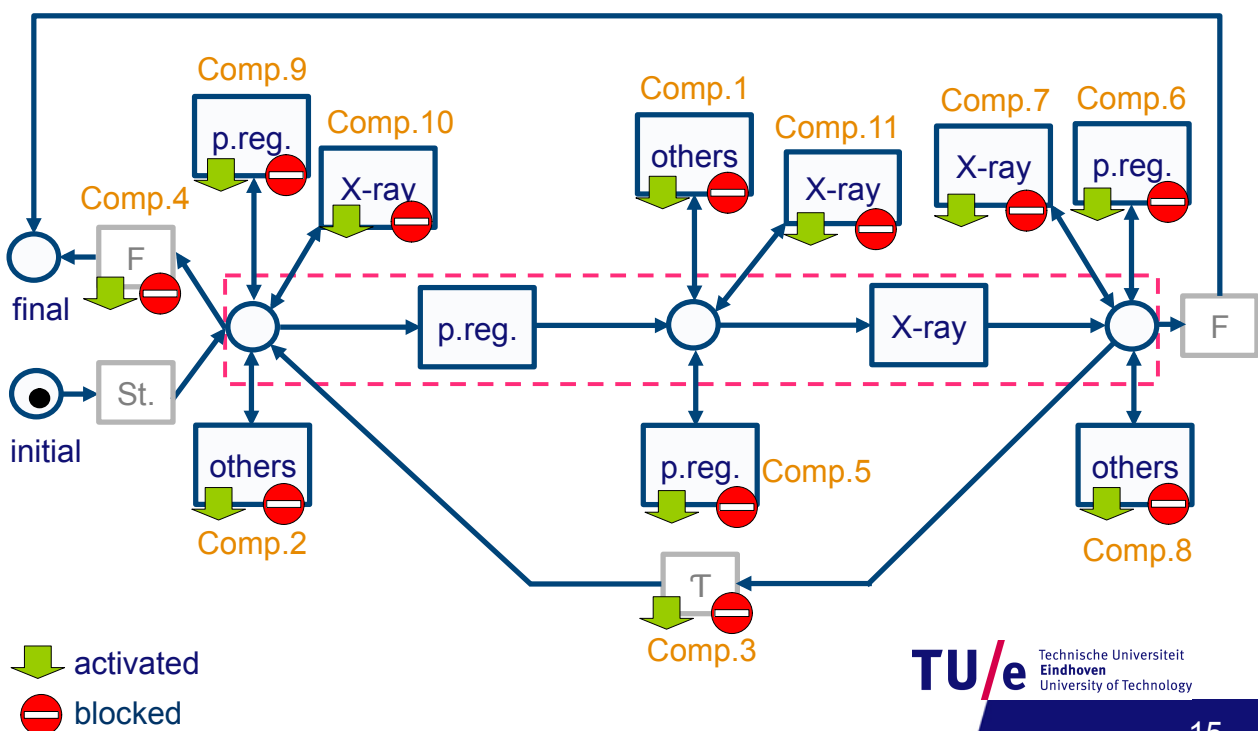


# Core behavior and optional behavior

For every patient registered in the hospital an X-ray must be taken.

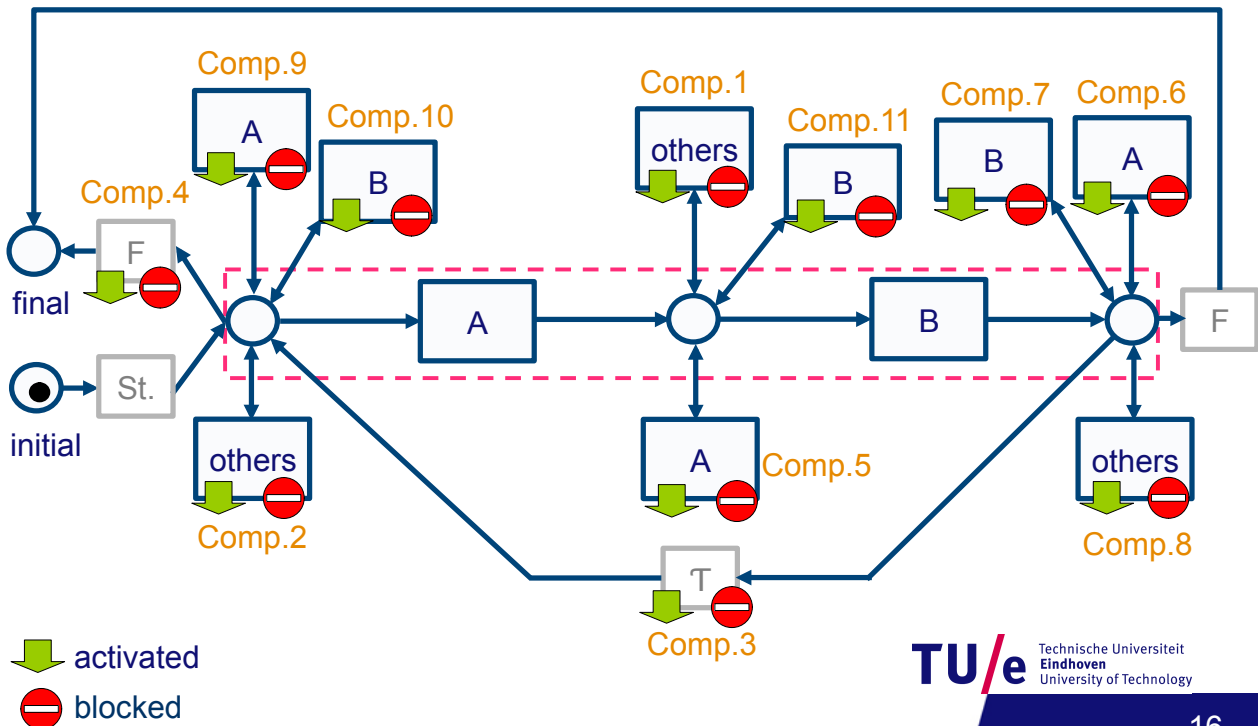


# Configurable compliance pattern



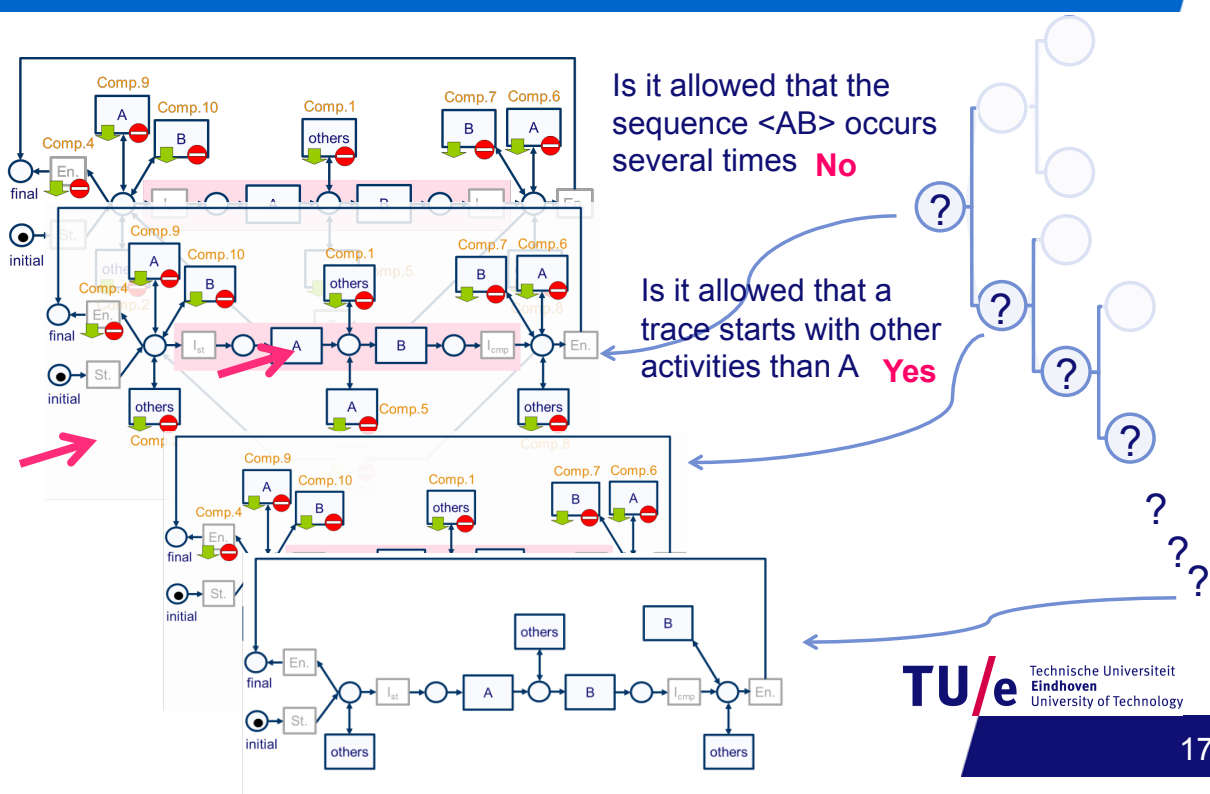


# Configurable compliance pattern



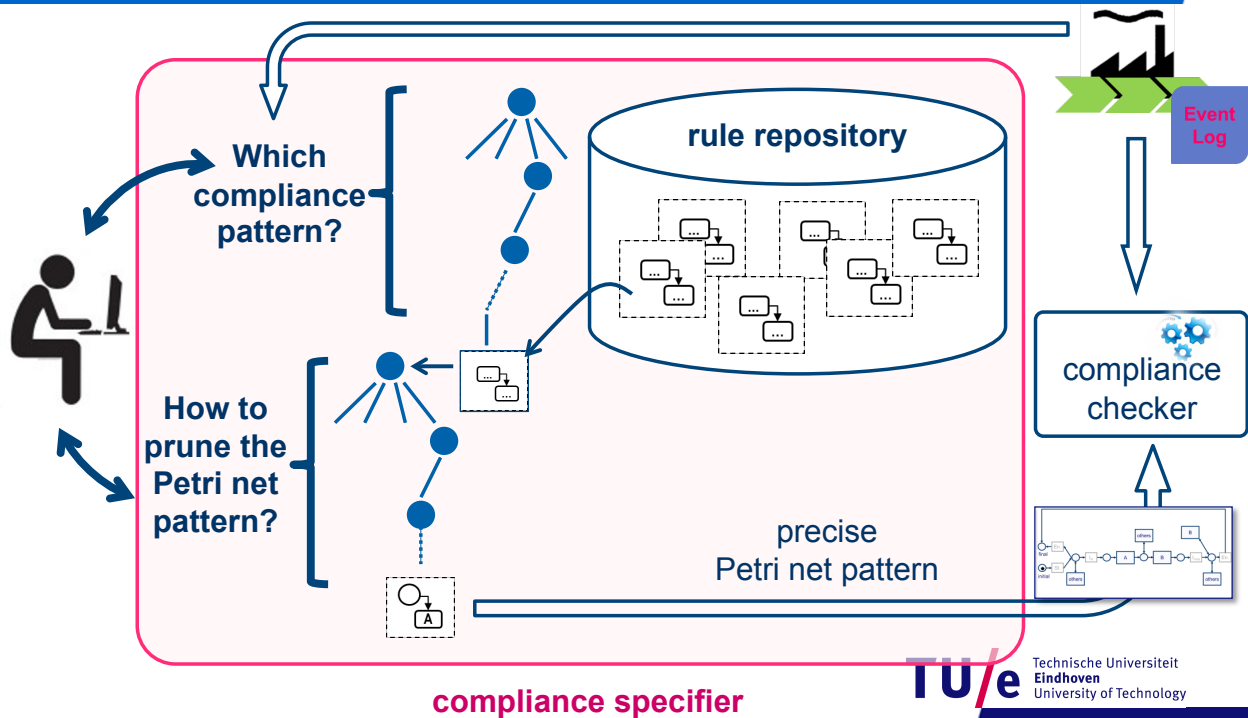
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## Question and answer (2<sup>nd</sup> phase)



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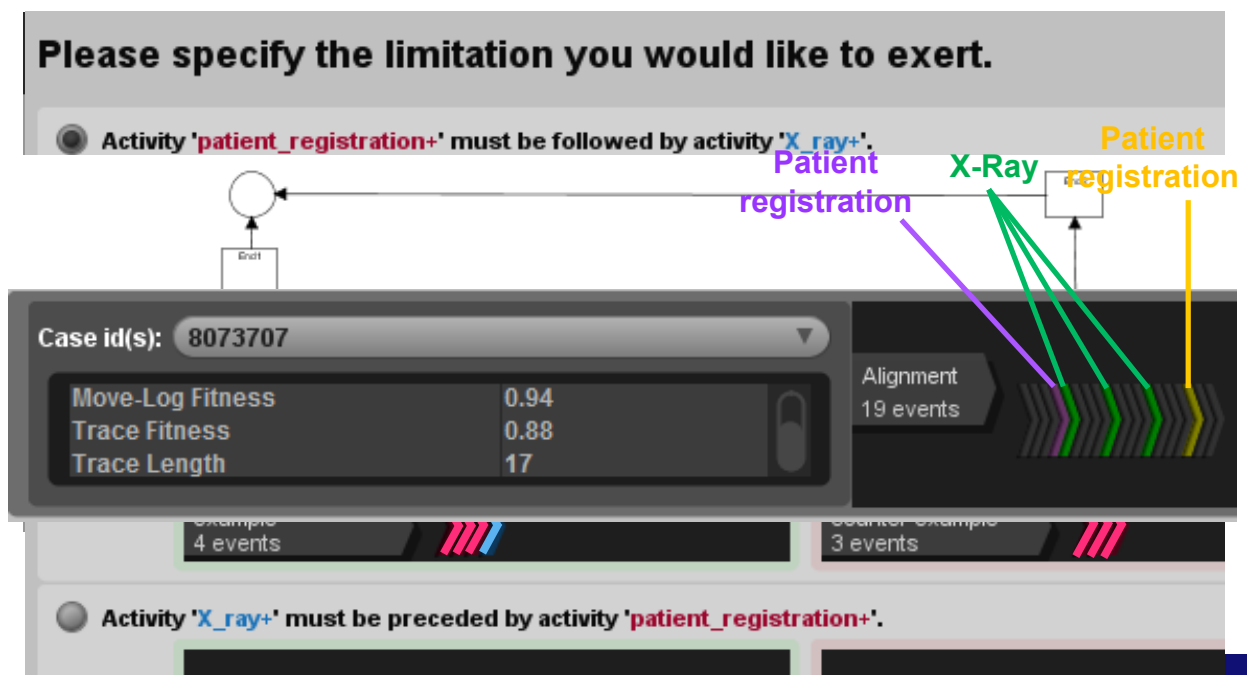
# Solution overview



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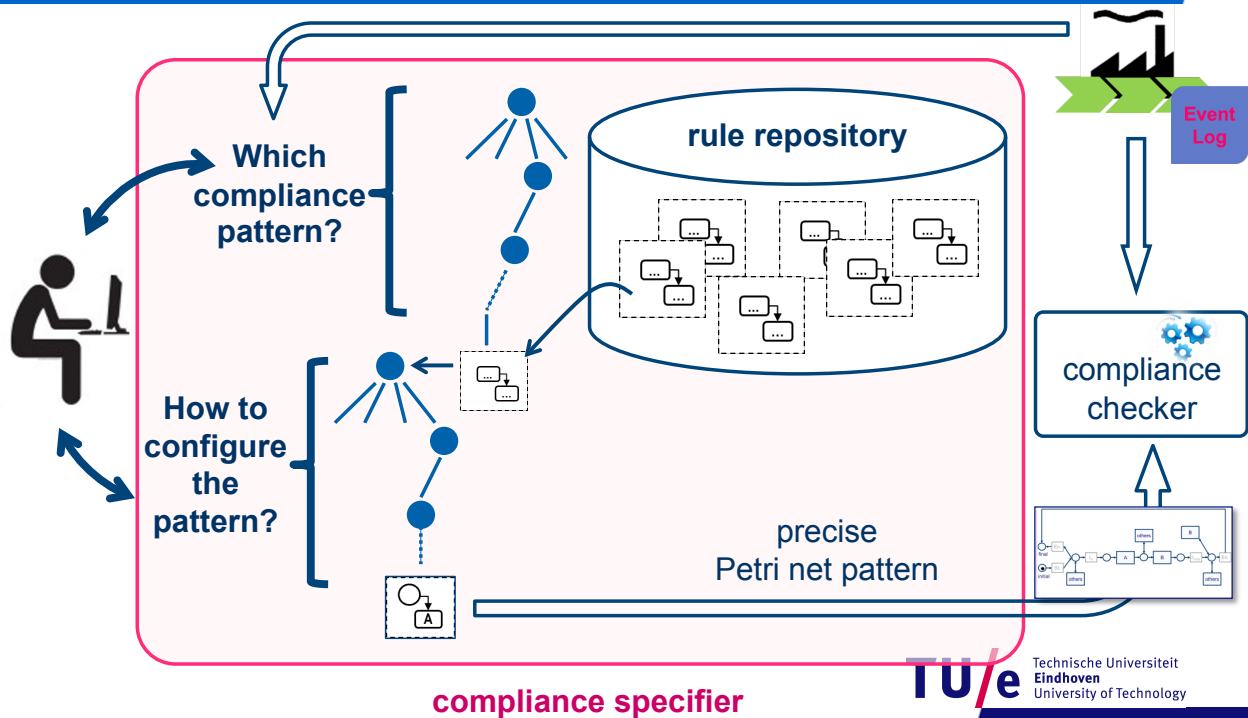
# Implementation

ProM6 ([www.promtools.org/prom6](http://www.promtools.org/prom6)) **Event Log Compliance Checking Using Conformance Checking**



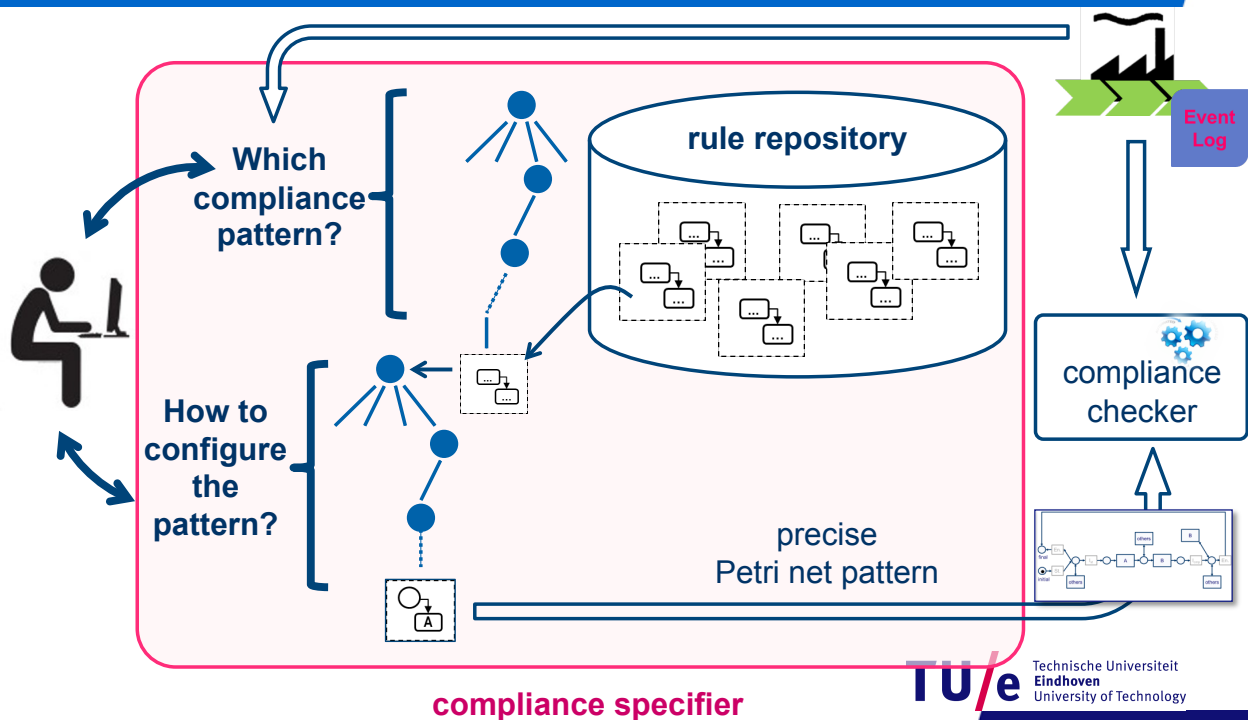
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# Solution overview and limitations



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# Take home points and future work



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**Question?**

**Thank you for your  
attention!**

