

# Performance Measurements

## Designing a Generic Measure and Performance Indicator Model

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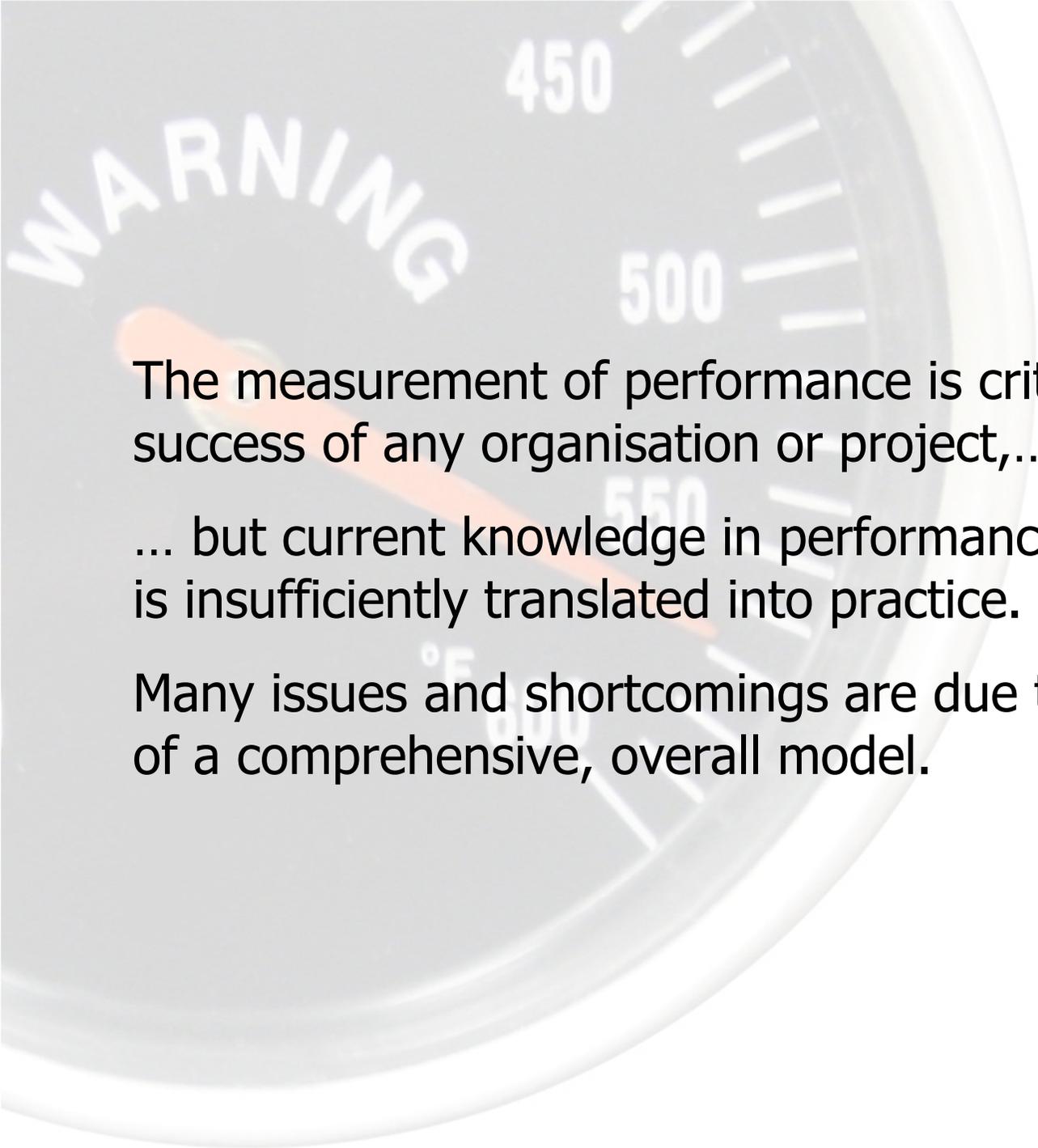
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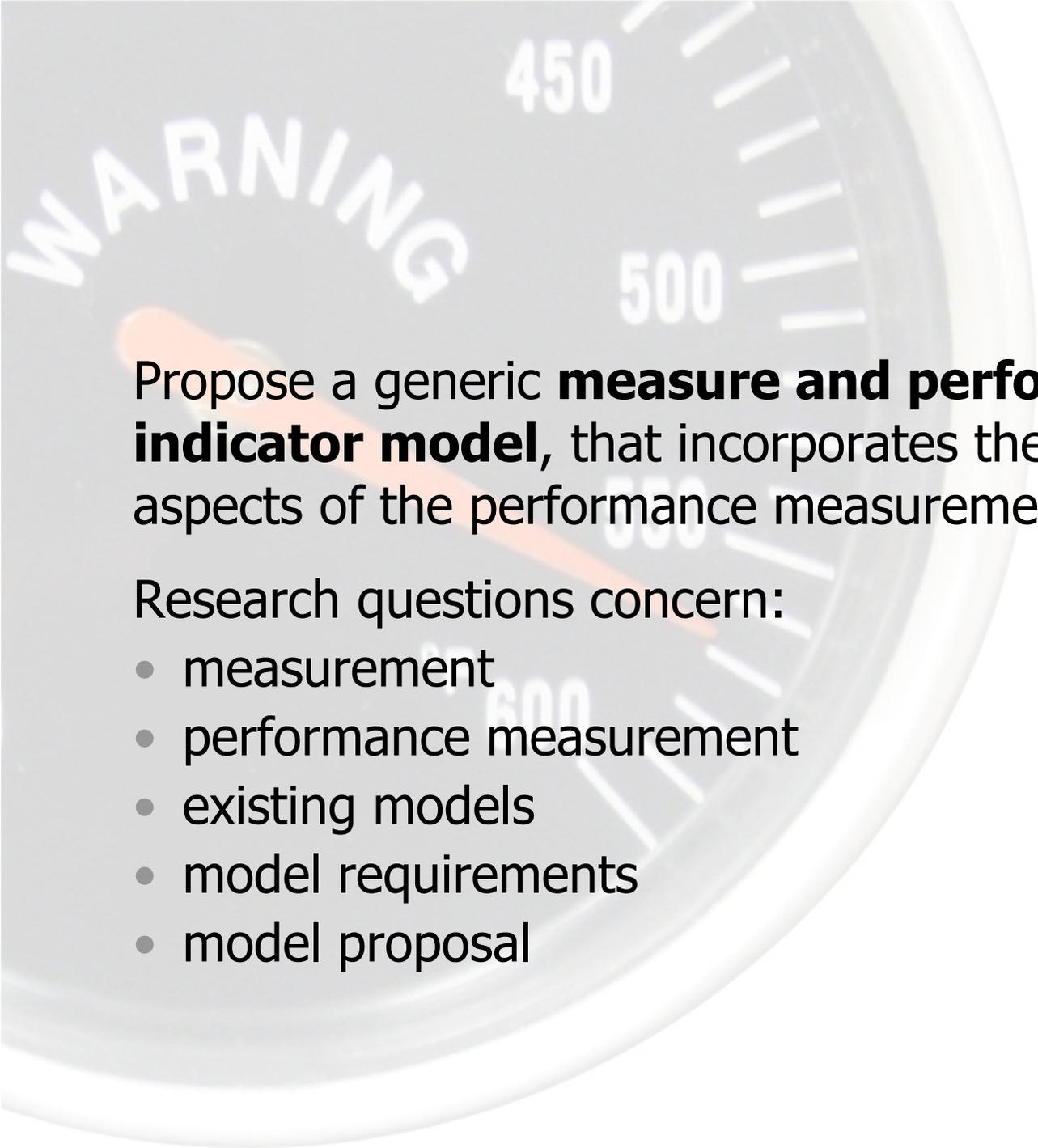


## **introduction**

The measurement of performance is critical to the success of any organisation or project,...

... but current knowledge in performance measurement is insufficiently translated into practice.

Many issues and shortcomings are due to the absence of a comprehensive, overall model.

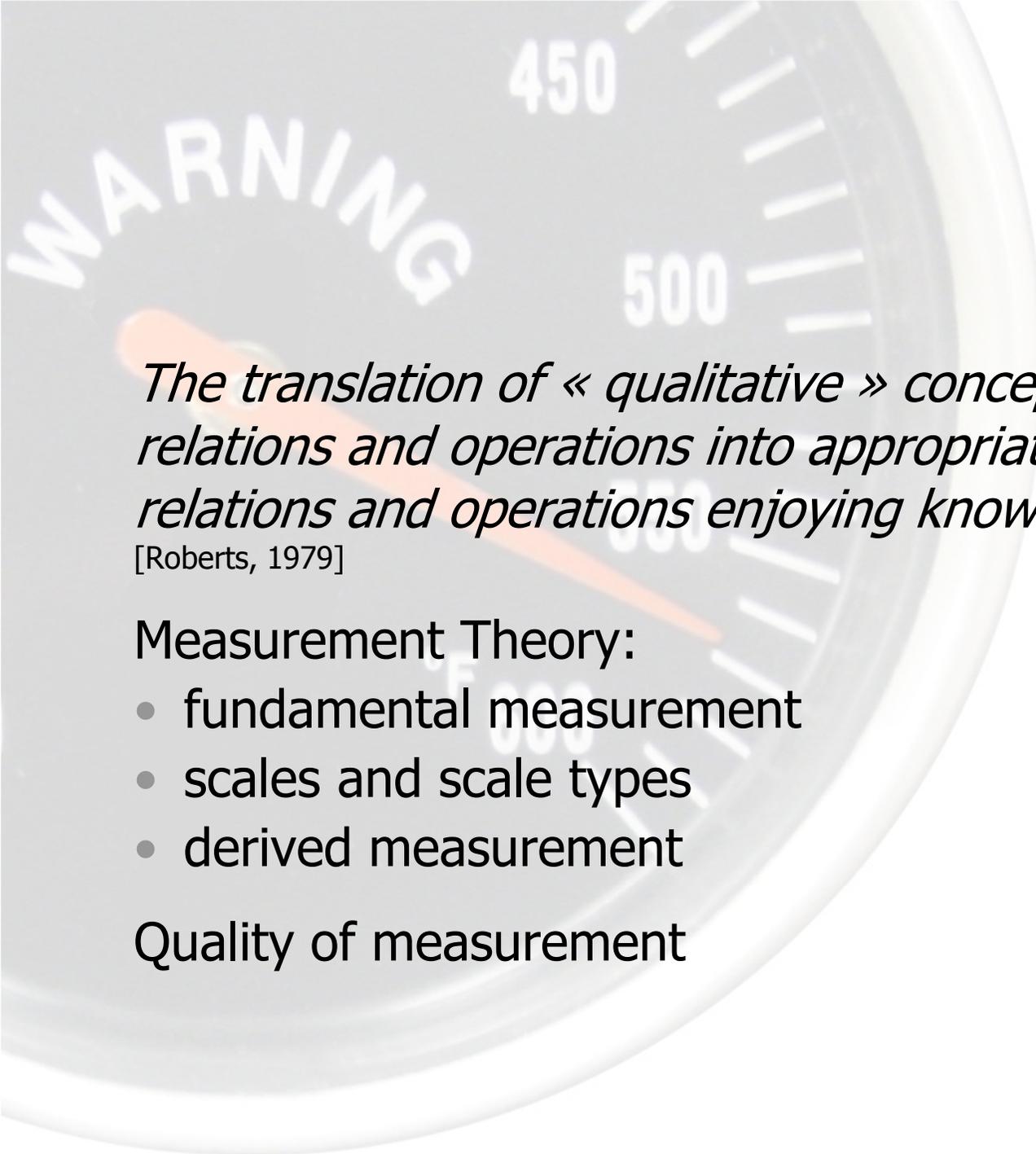


**objective**

Propose a generic **measure and performance indicator model**, that incorporates the essential aspects of the performance measurement process.

Research questions concern:

- measurement
- performance measurement
- existing models
- model requirements
- model proposal



## measurement

*The translation of « qualitative » concepts such as relations and operations into appropriate « quantitative » relations and operations enjoying known properties.*

[Roberts, 1979]

Measurement Theory:

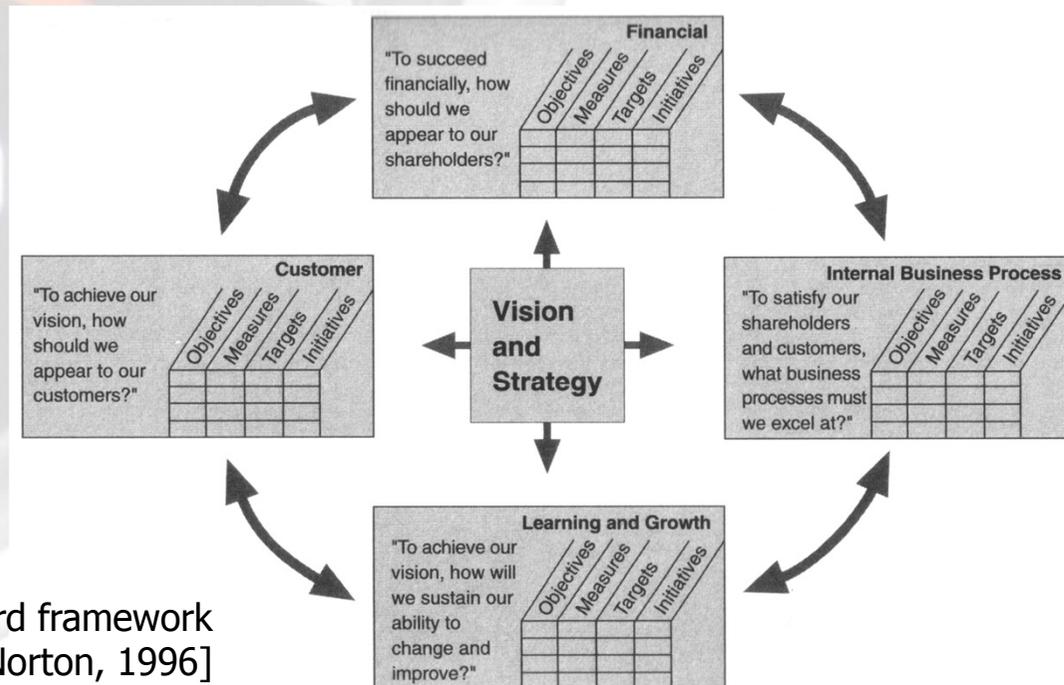
- fundamental measurement
- scales and scale types
- derived measurement

Quality of measurement

# performance measurement

*The process of quantifying the efficiency and effectiveness of action.* [Neely et al., 1995]

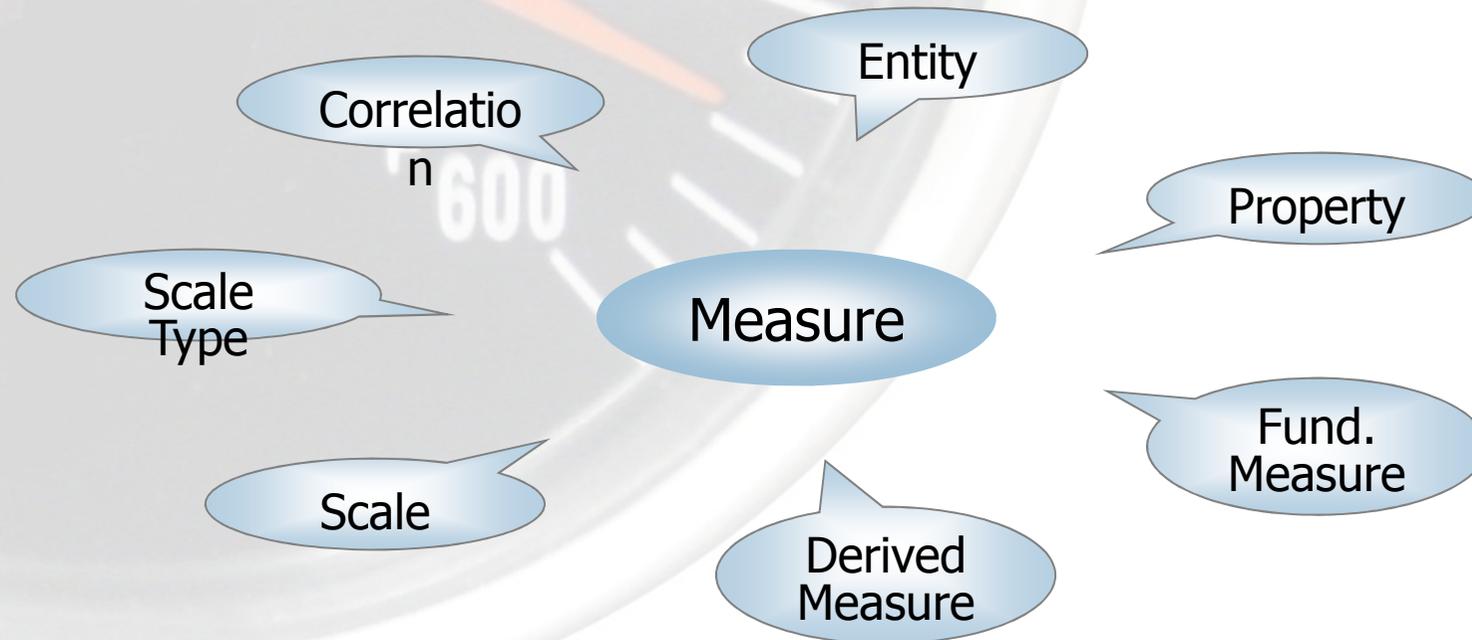
Research led to numerous recommendations and frameworks.



Balanced Scorecard framework  
[Kaplan and Norton, 1996]

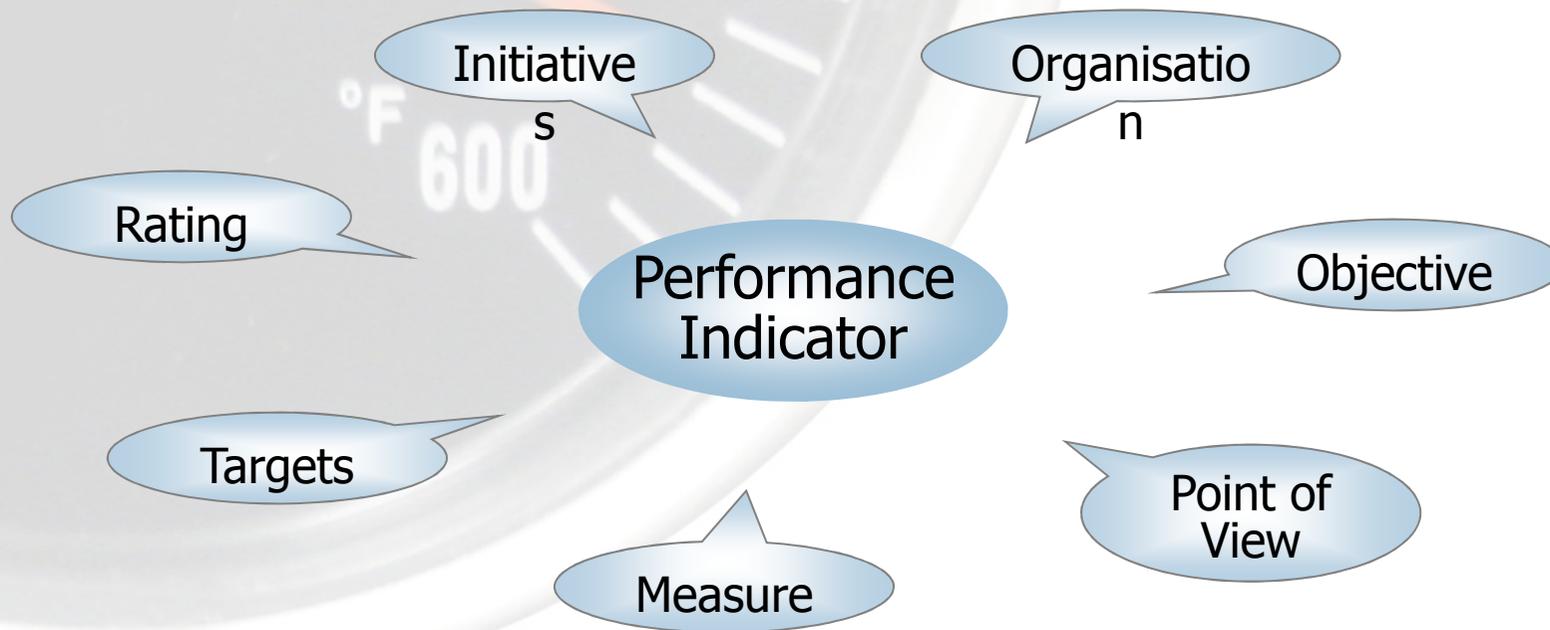
## measures & requirements

*A **measure** is a standard of measurement that allows to represent a property of an entity in a quantitative manner.*



## performance indicators & requirements

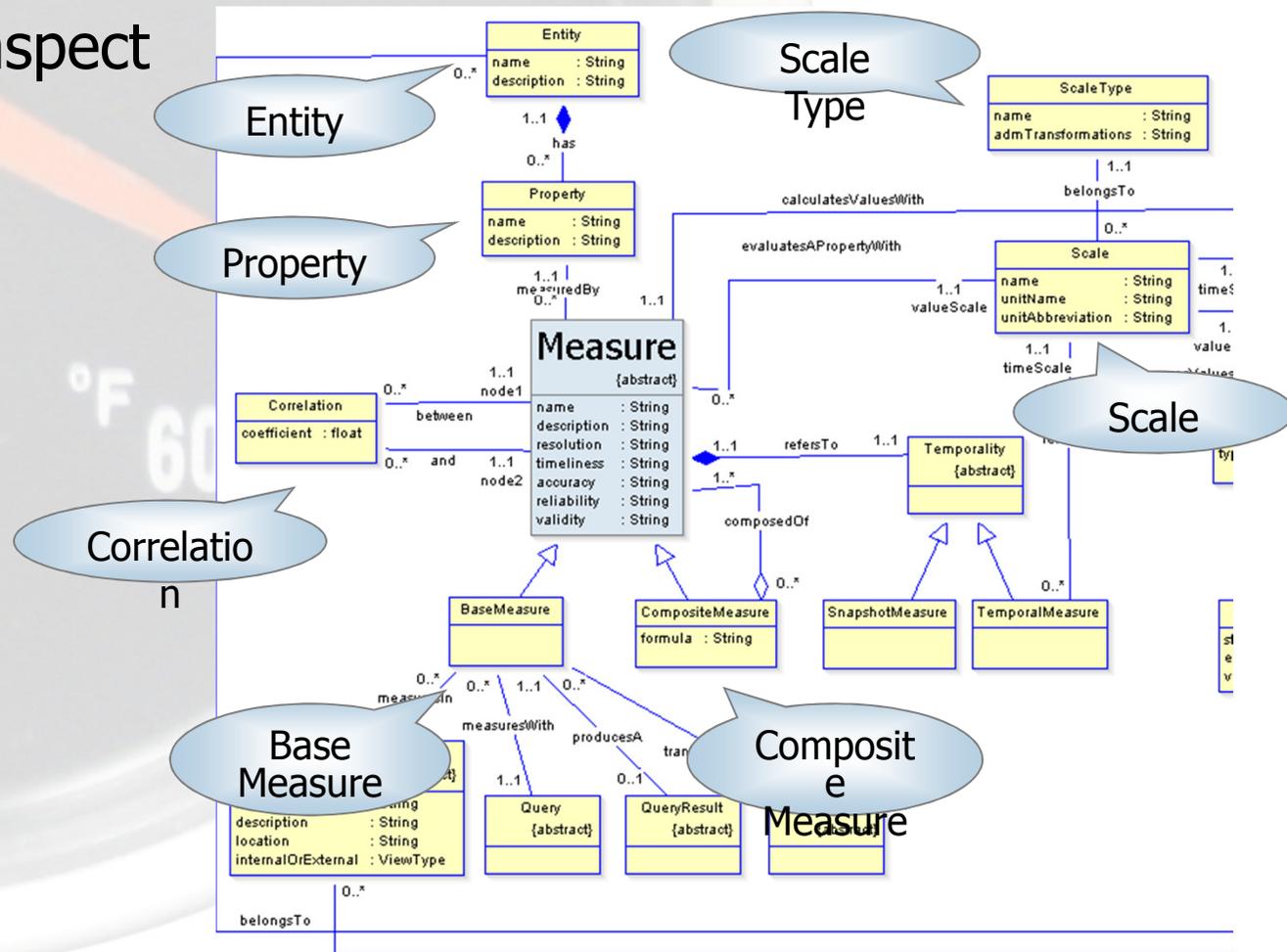
**A performance indicator** *is a strategic instrument which allows to evaluate performance against targets.*





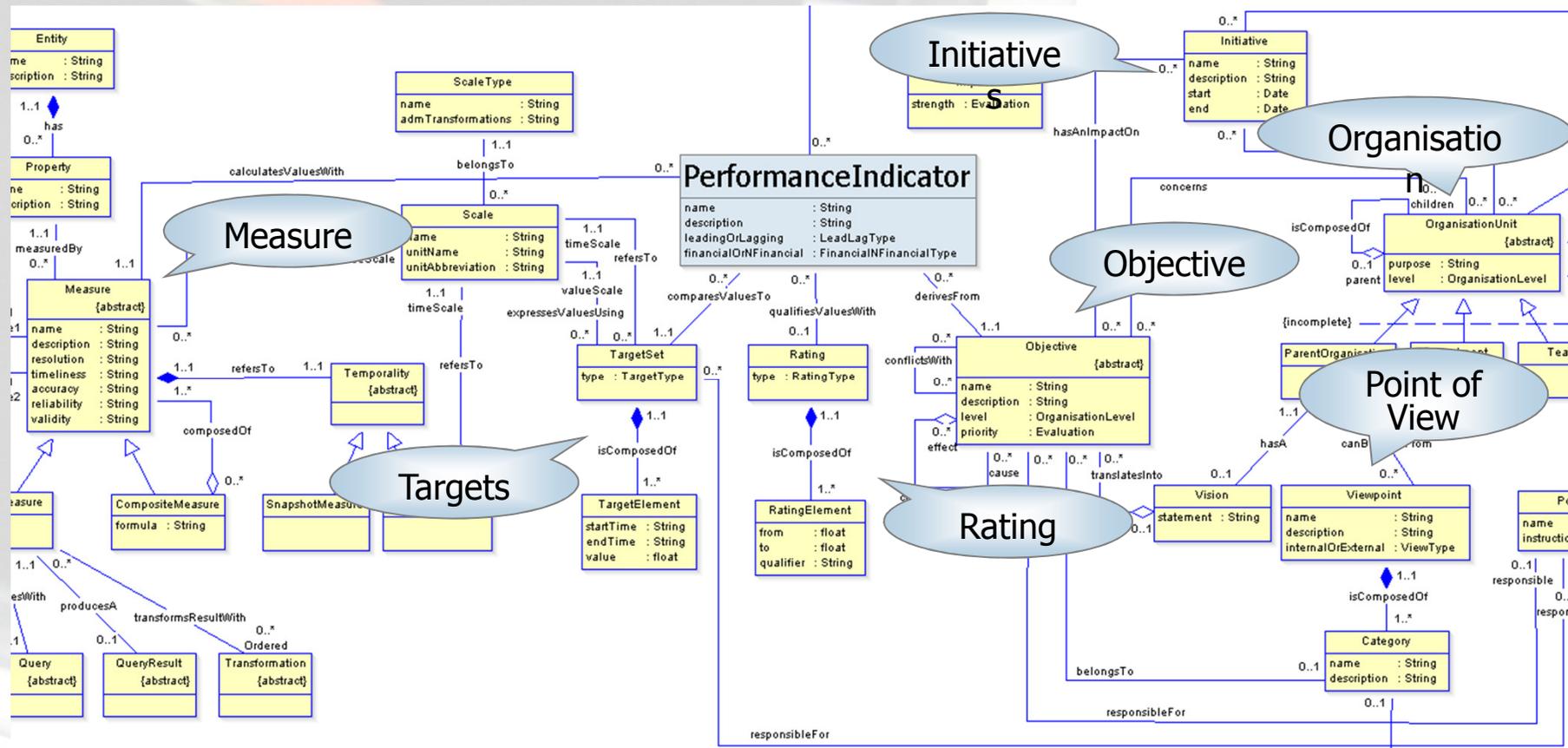
# measure and performance indicator model

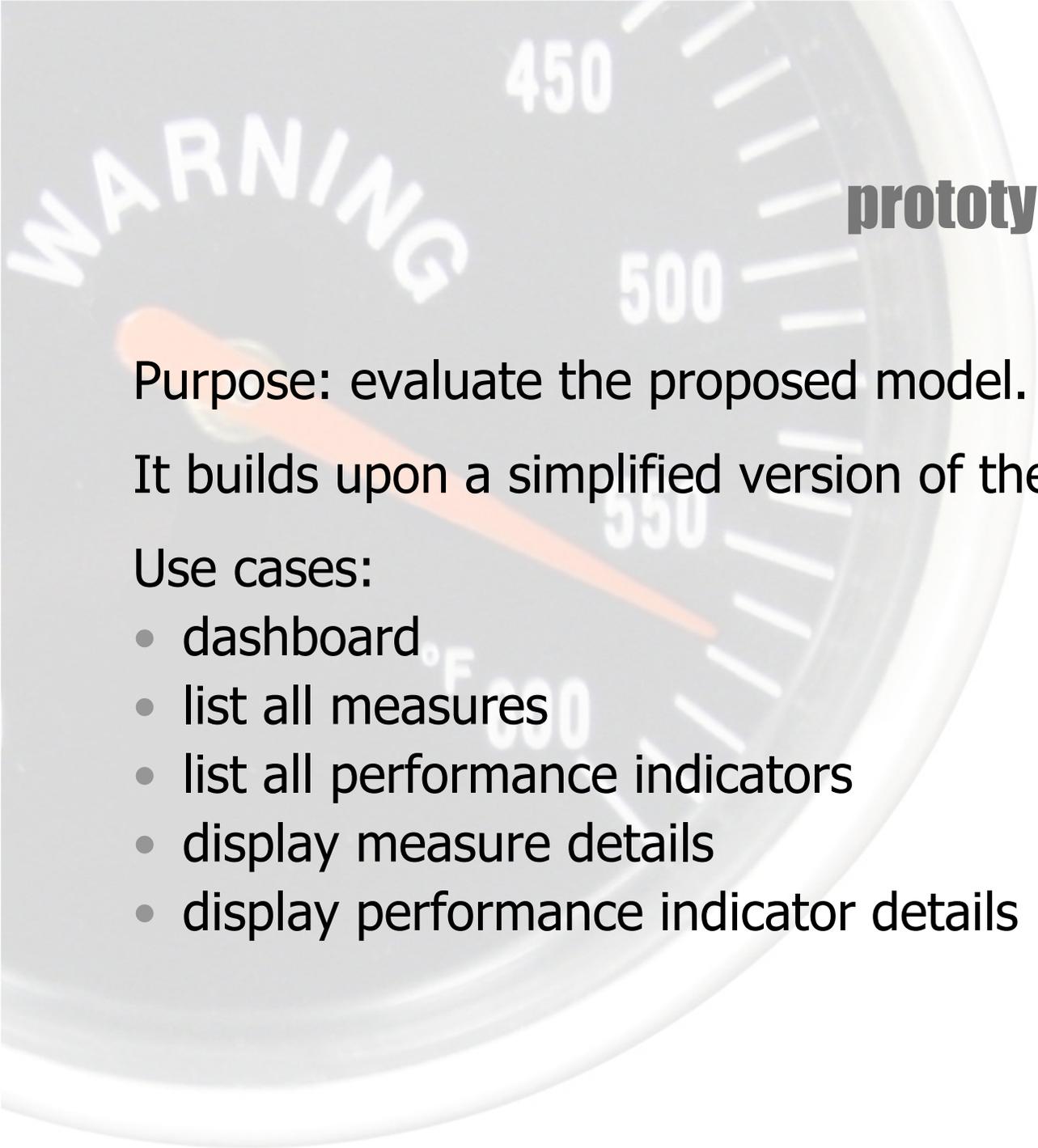
Measure aspect



# measure and performance indicator model

## Performance Indicator aspect





## prototype application

Purpose: evaluate the proposed model.

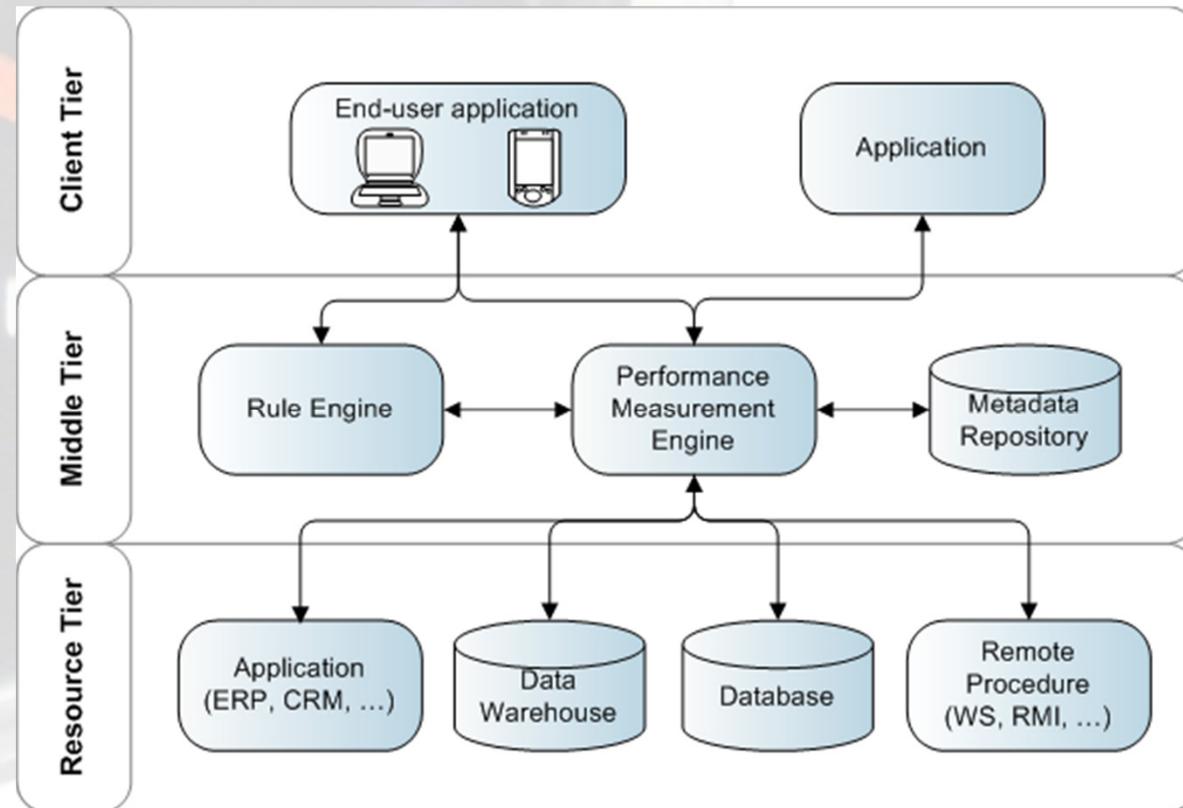
It builds upon a simplified version of the model.

Use cases:

- dashboard
- list all measures
- list all performance indicators
- display measure details
- display performance indicator details

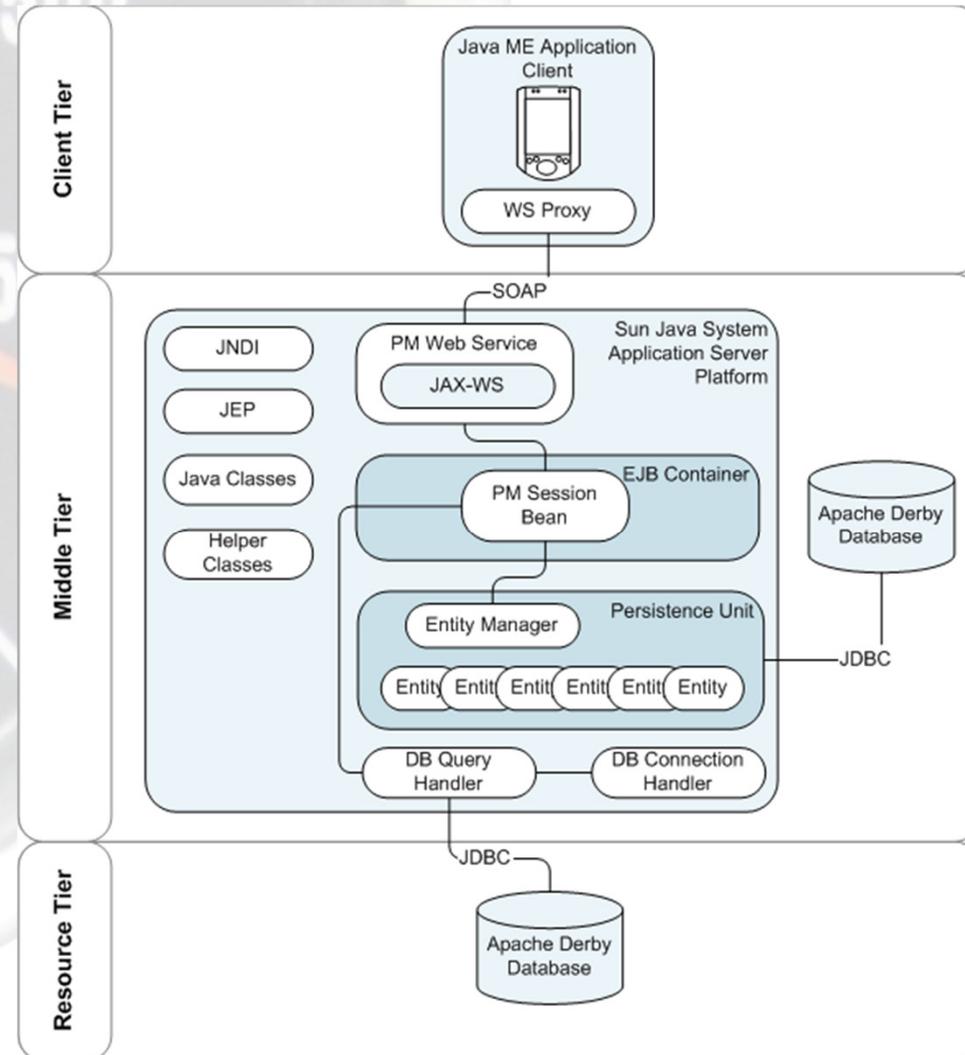
# prototype application

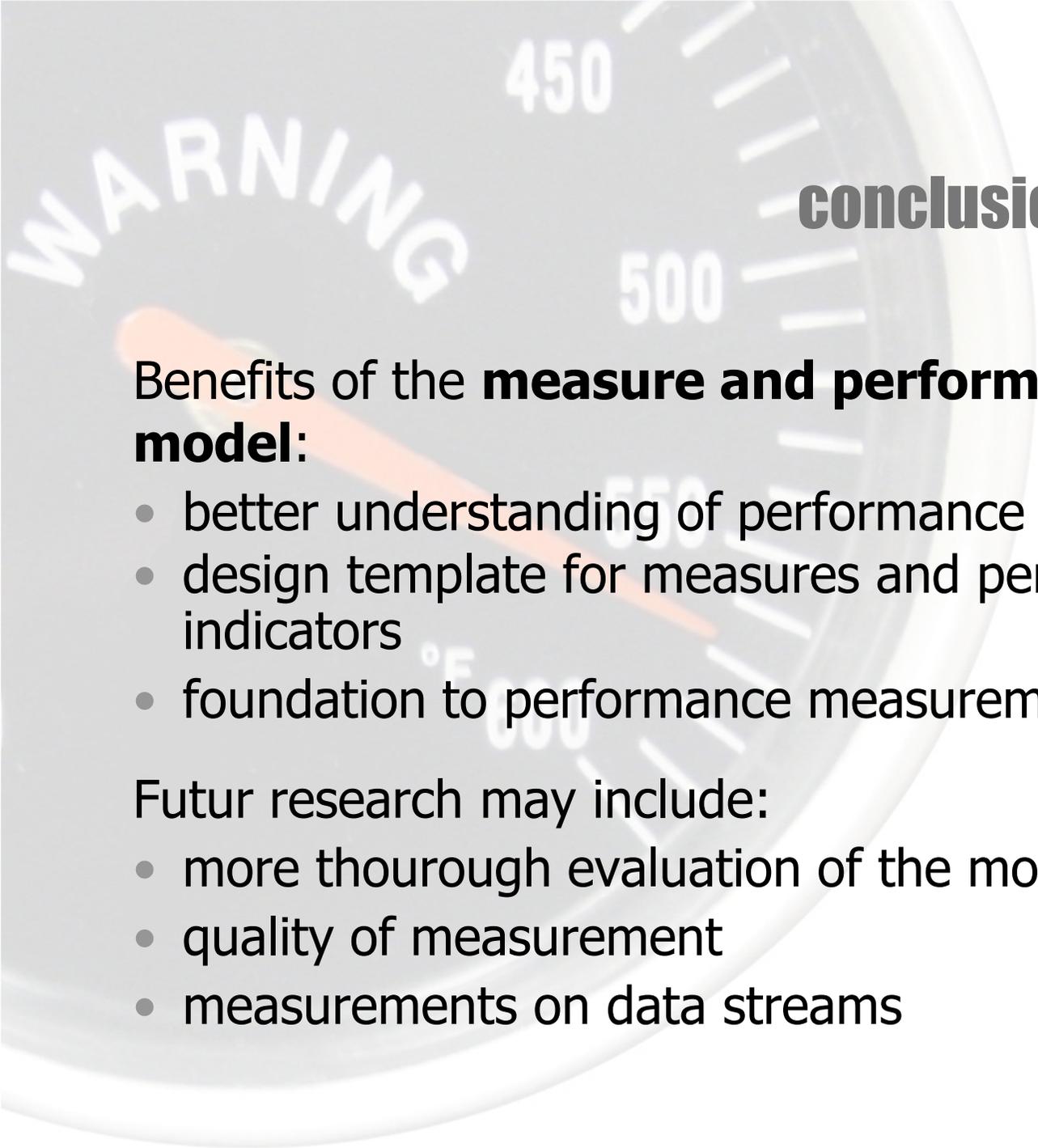
Architecture proposal for a performance measurement system



# prototype application

Prototype architecture





## conclusion and outlook

### Benefits of the **measure and performance indicator model**:

- better understanding of performance measurement
- design template for measures and performance indicators
- foundation to performance measurement systems

### Futur research may include:

- more thourough evaluation of the model
- quality of measurement
- measurements on data streams

