

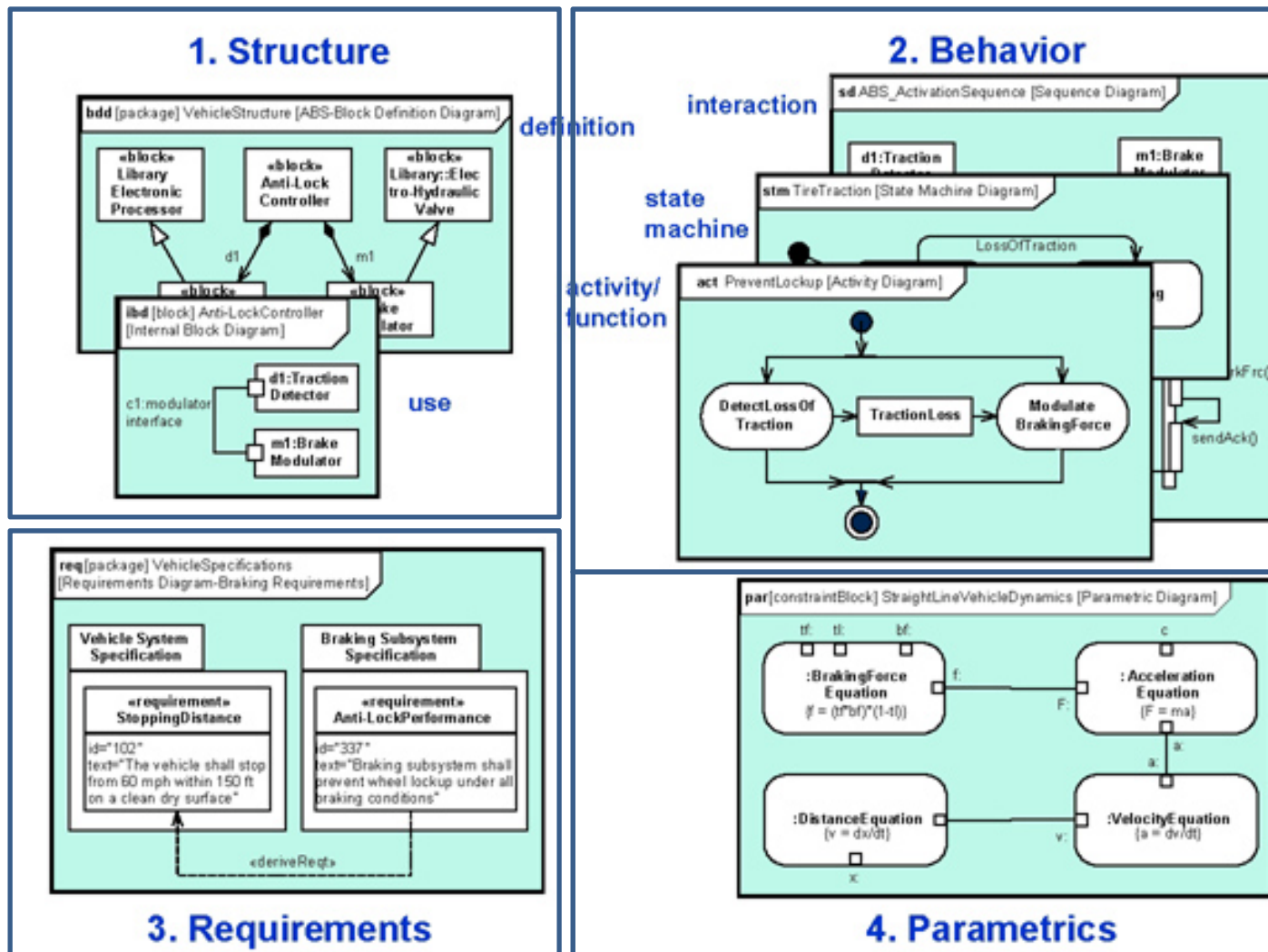
# SysML Introduction

Introduction to Systems Engineering  
I2ISE

# Introduction to SysML

- SysML = *System Modeling Language*
  - Supports analysis, specification, design, and verification/validation of *systems* (hardware, software, mechanics, personnel)
- Allows the formation and communication of a system *model* using *diagrams*
- Elements in different (types of) diagrams are reused to convey different aspects of the elements' use
- SysML is an enabler of *Model-Based Systems Engineering*
  - The *model*, not documentation, is in focus

# SysML "pillars" (diagrams)



Note that the Package and Use Case diagrams are not shown in this example, but are respectively part of the structure and behavior pillars

# SysML: Diagram frame

- The diagram frame consists of header and canvas

Diagram header

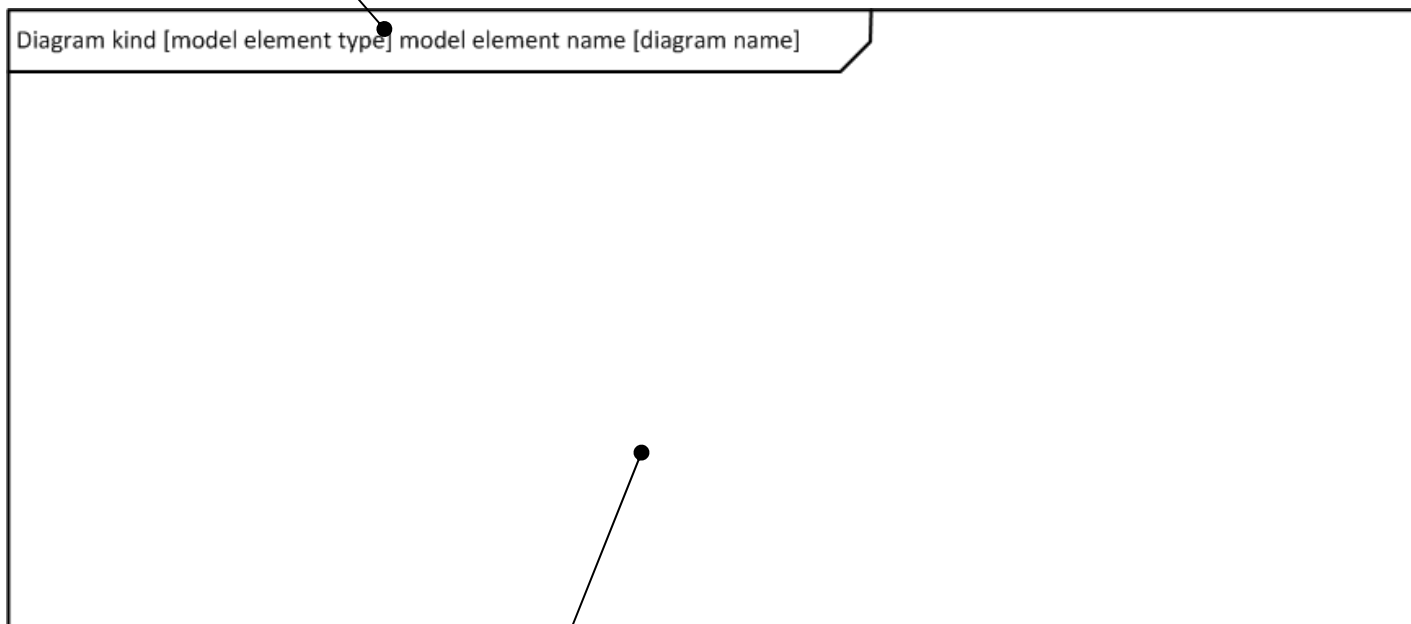
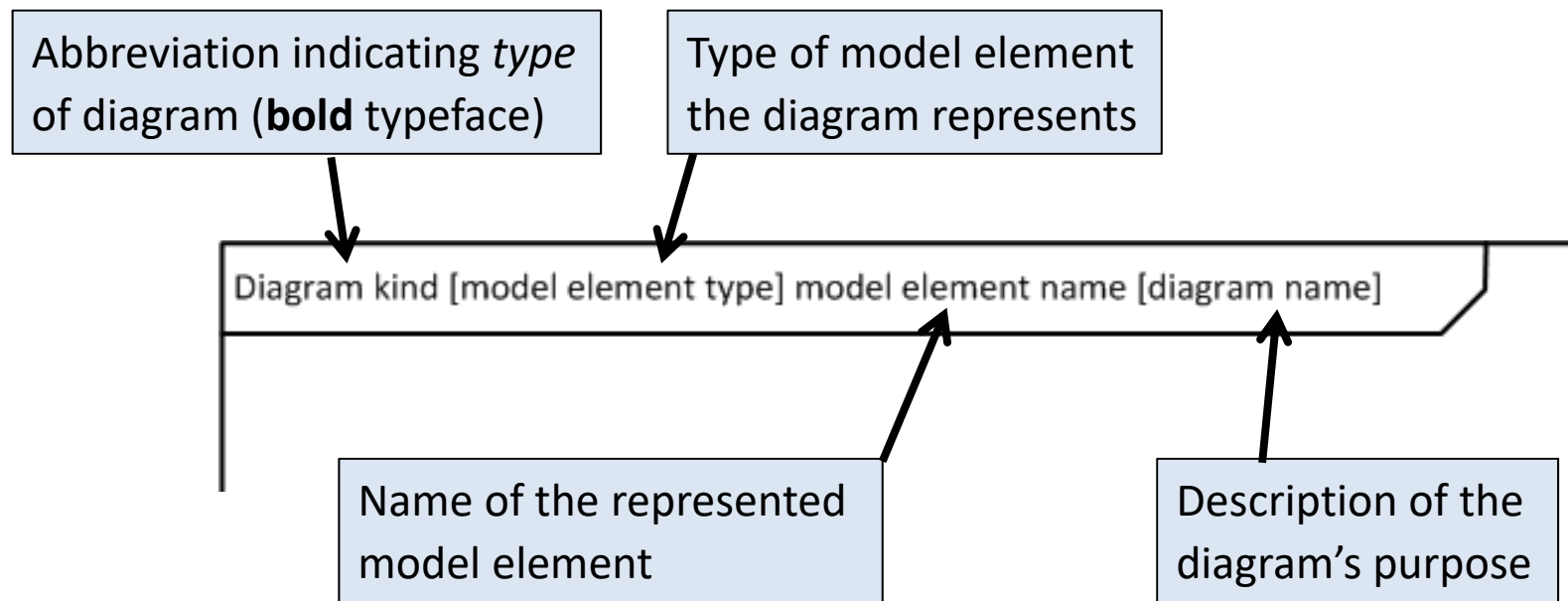


Diagram canvas (content)

# SysML: Diagram header



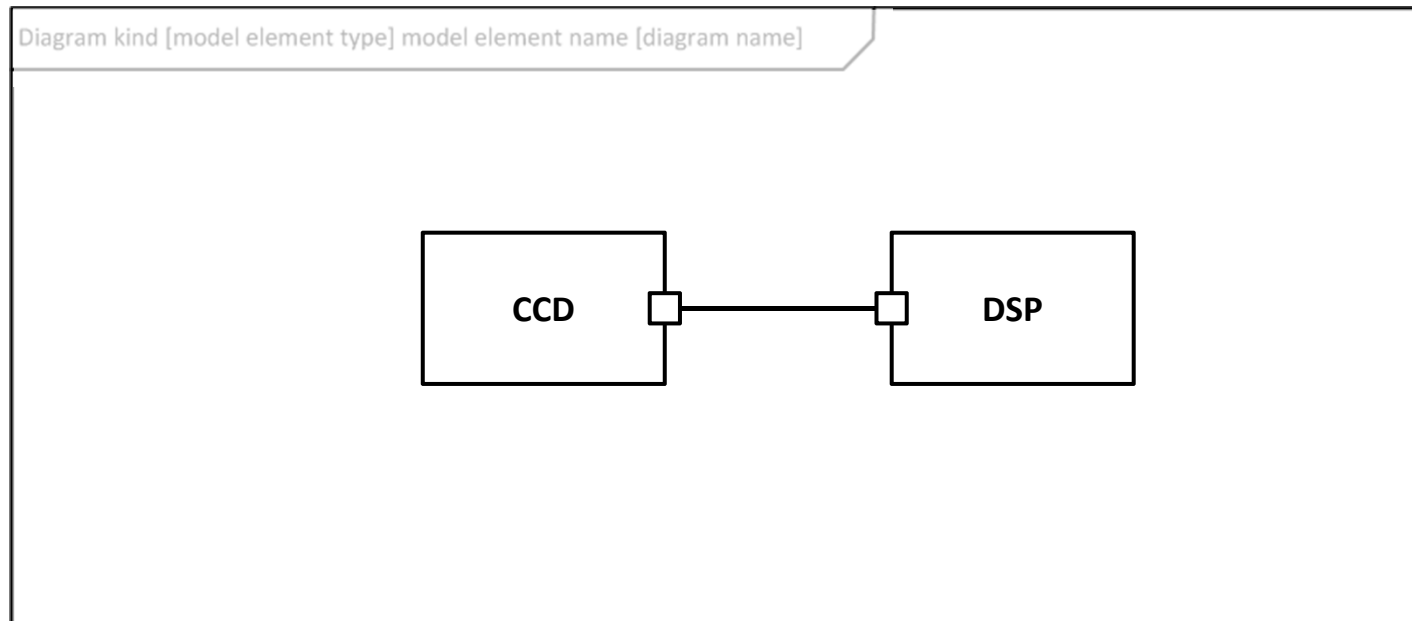
# SysML: Diagram header - example

**bdd** [block] Camera [Hierarchical system structure]

- This is a *block definition diagram* (**bdd**),
- for the [block]
- *Camera*
- describing its [*Hierarchical system structure*]
  
- Items in brackets are optional
  - - *model element type* [block] is frequently omitted,
  - - *diagram name* [*Hierarchical ...*] frequently included

# SysML: Diagram canvas

- The diagram canvas holds the modeling elements



# SysML: Diagram types compared to UML

