Modelling a Safe Interlocking Using the Event-B Theory Plug-in

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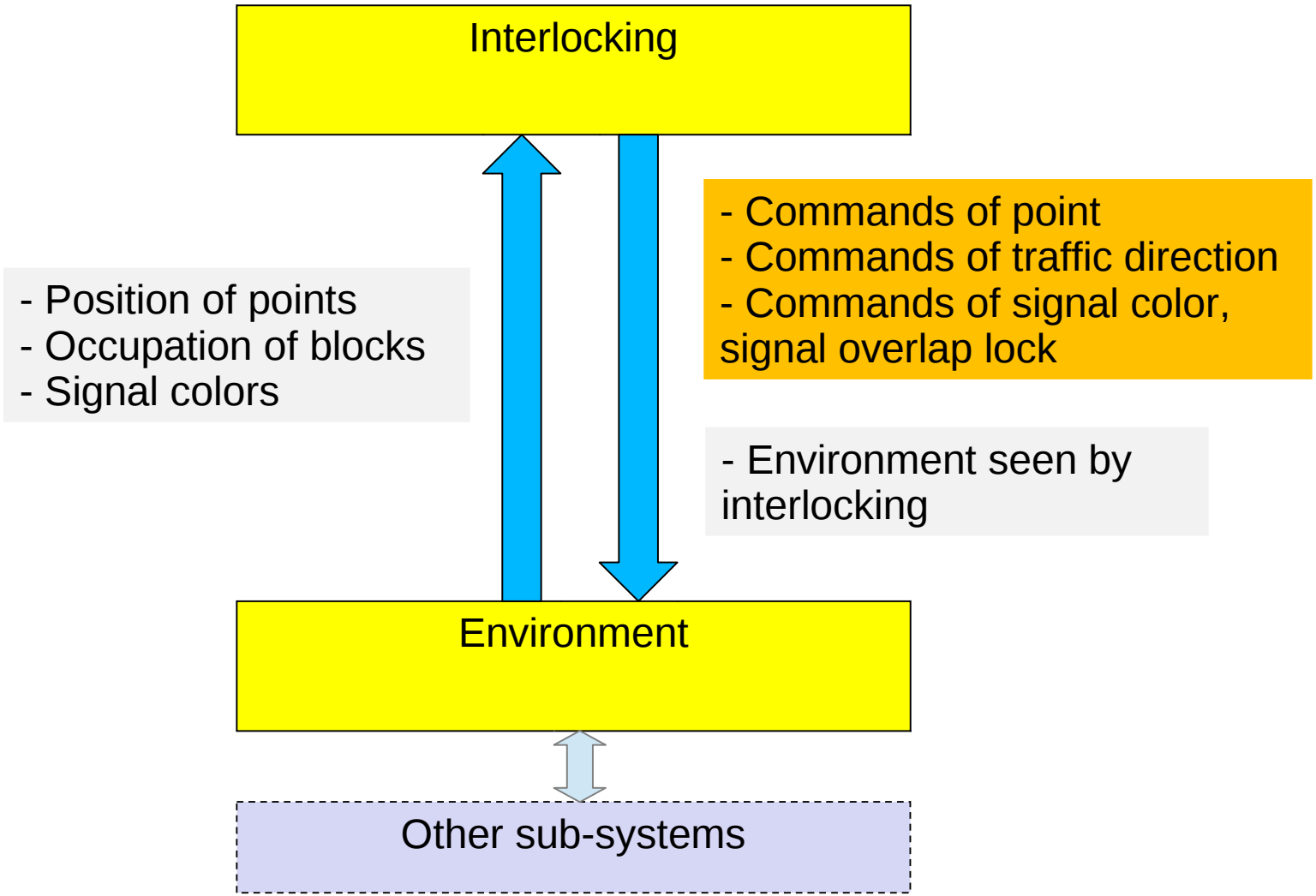
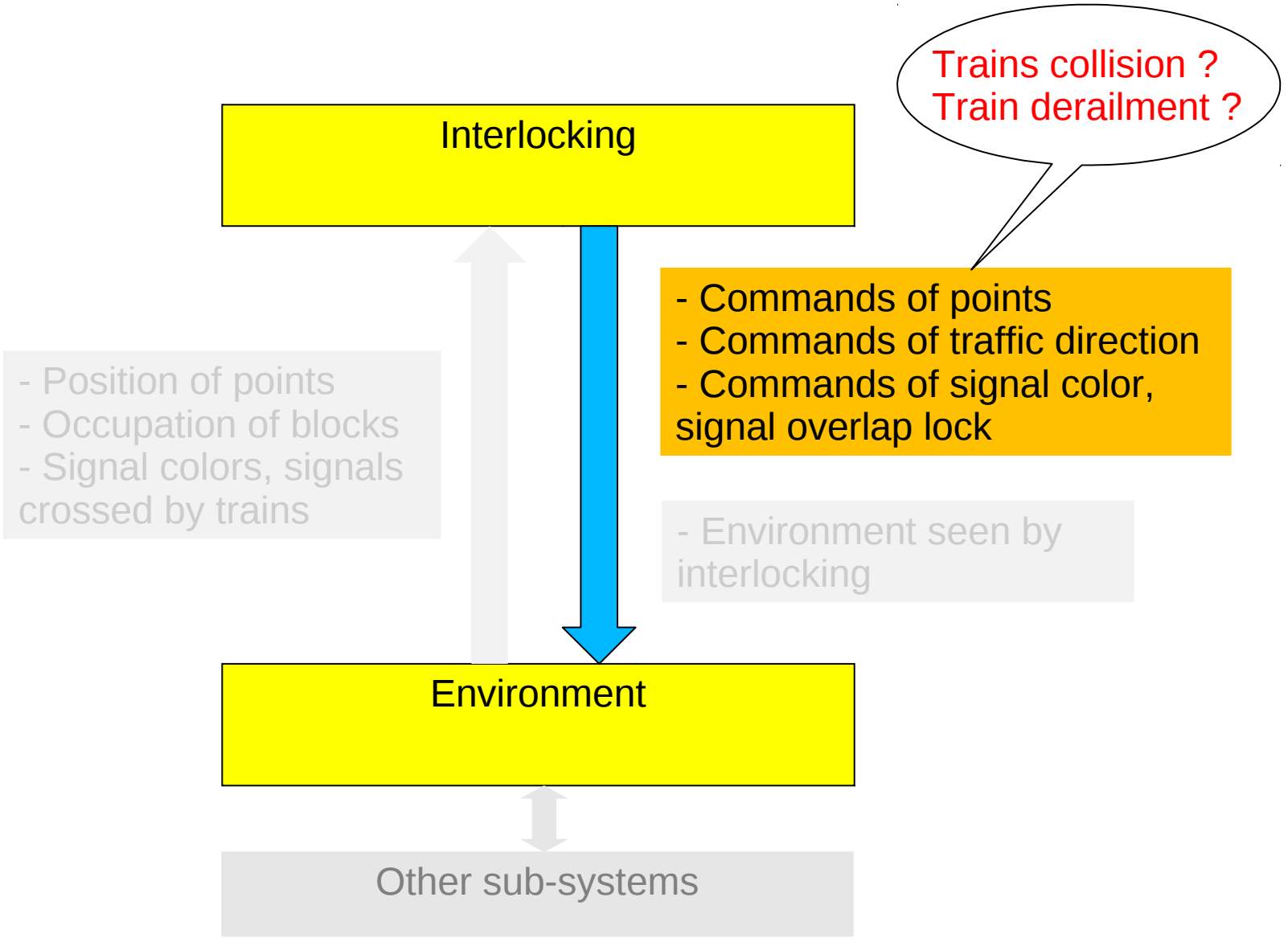
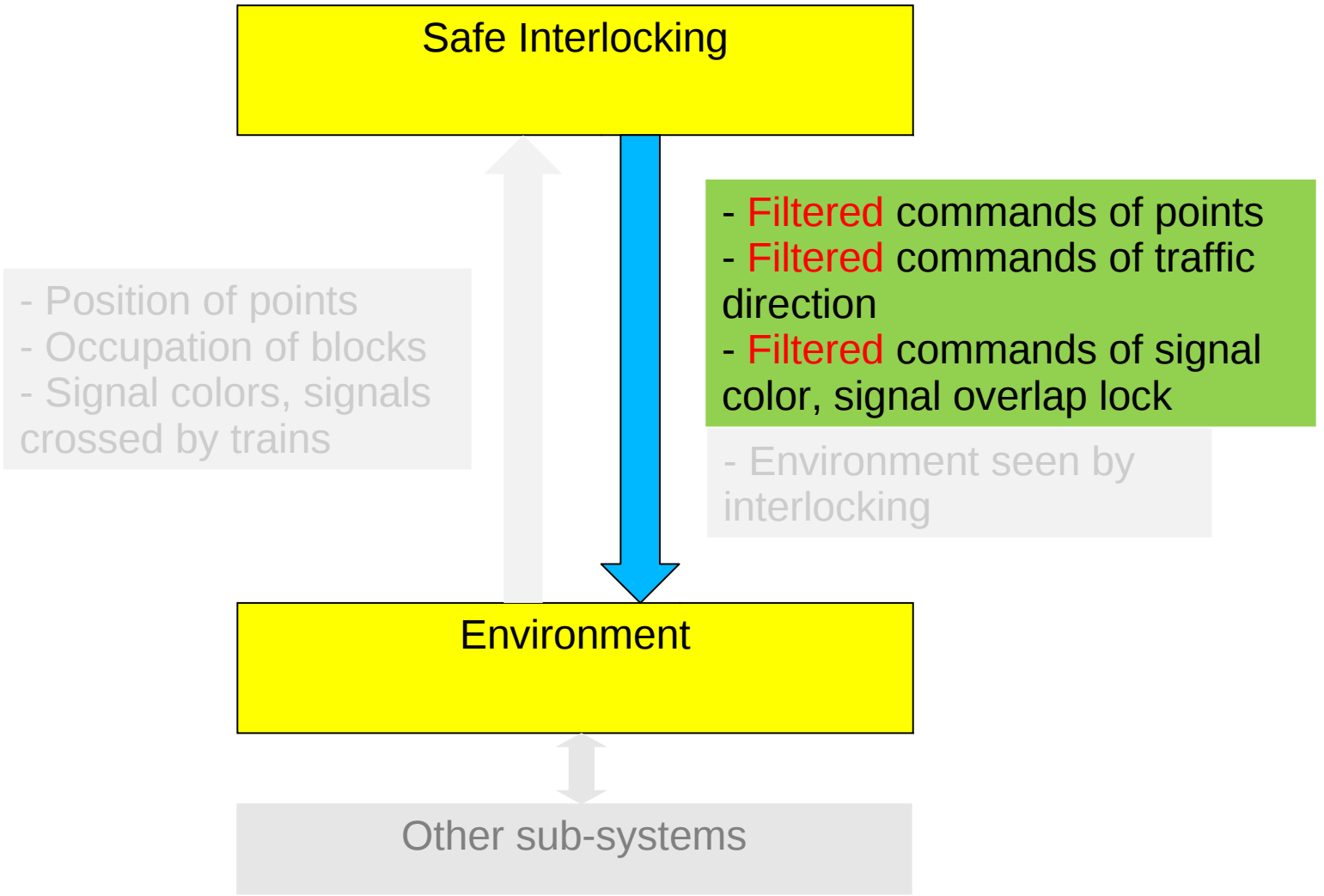
Interlocking sub-system



Interlocking sub-system



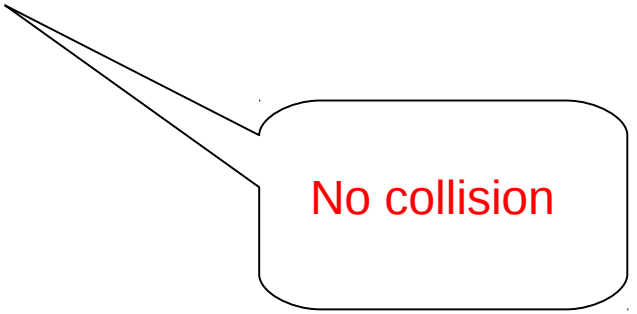
Interlocking sub-system



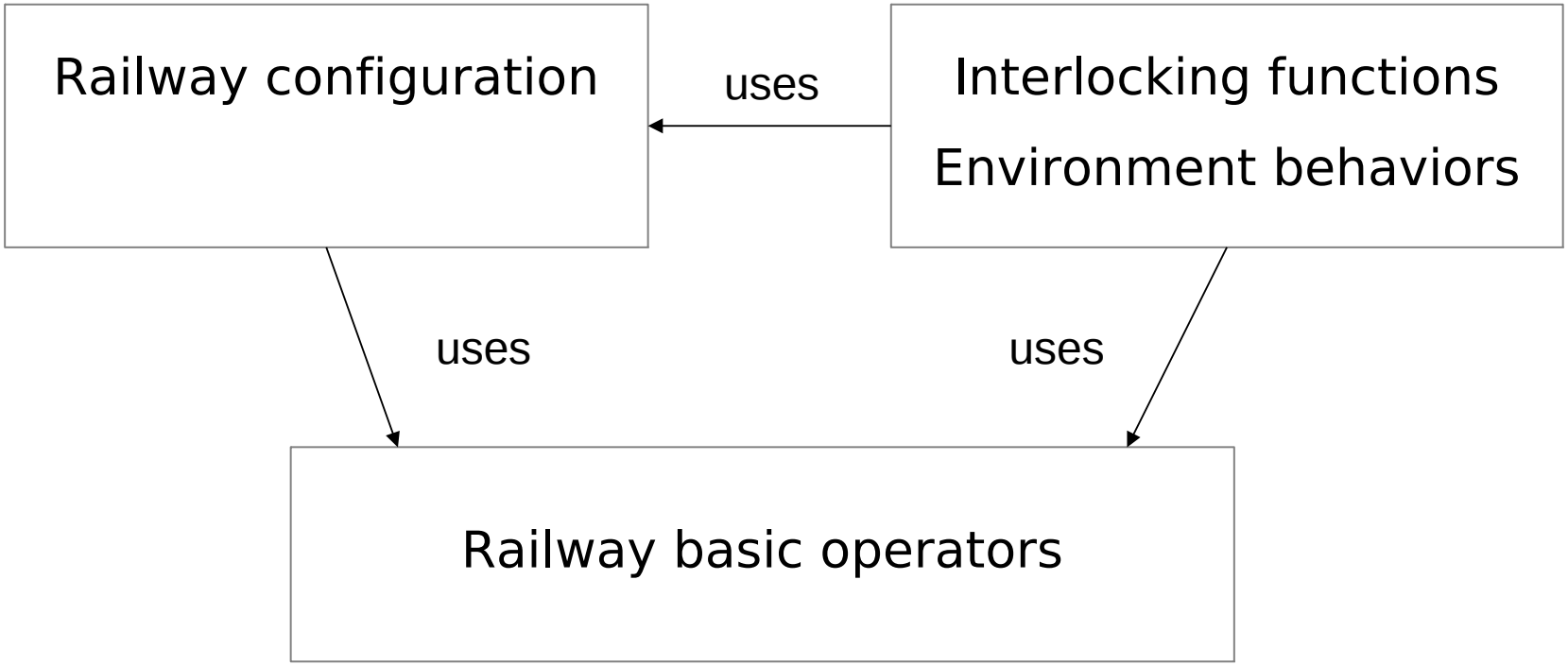
Interlocking modelling

Block chaining based on point positions

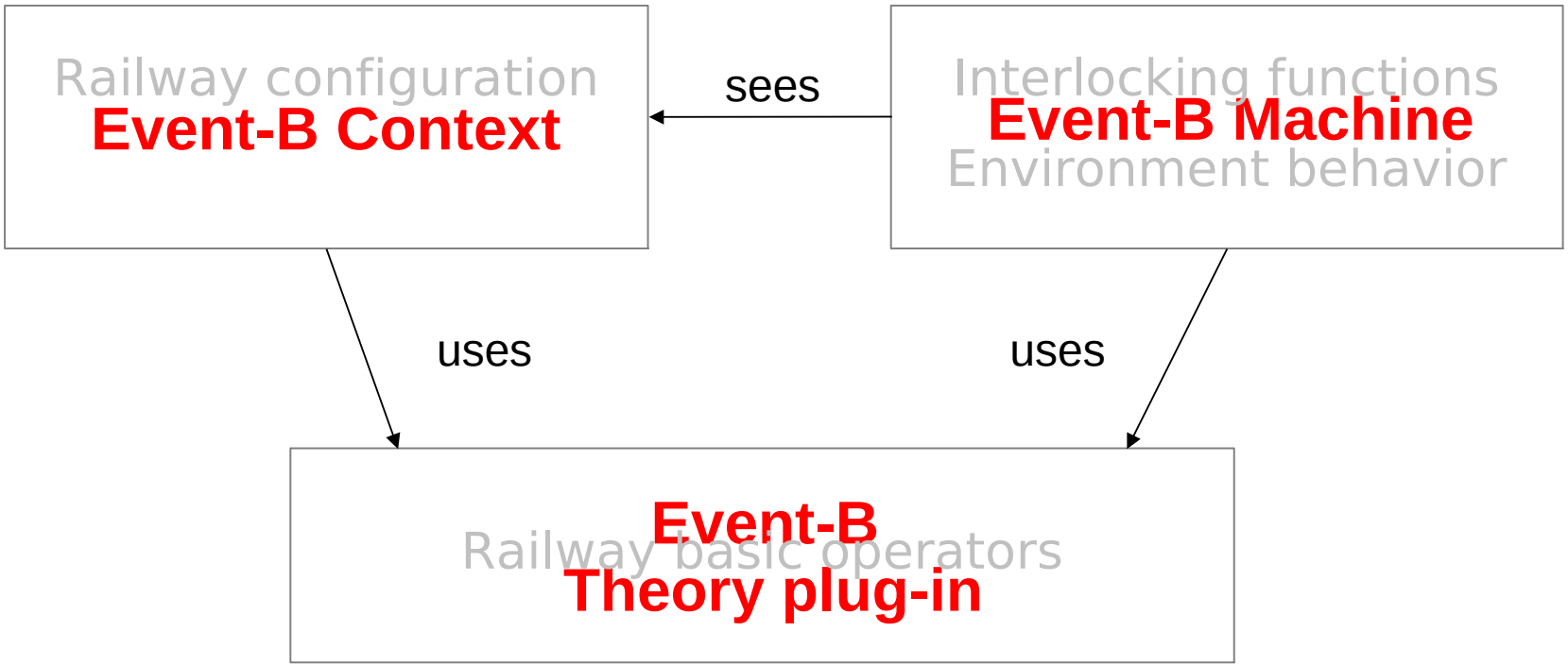
Track occupation/liberation sequence



Interlocking modelling



Interlocking modelling



Interlocking modelling

The event-B model in developping

Conclusion and Future work

- Conclusion
  - Clarify domain terms
  - Domain terms defined in *Theory* can be reused
    - ➔ **Enhance model maintainability**
    - ➔ **Reduce proving effort**

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- On working
  - A more visual animation of the model (BMotion Studio)
  - Decomposition of the model :
    - Environment
    - Interlocking
    - Communication buffer

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