WHY CHALLENGING THE INCOSE CONSISTENCY METRICS MIGHT BENEFIT YOUR REQUIREMENTS?

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WHO ARE WE?

Cecilia Karlsson-Llorens

cecilia.karlsson@reusecompany.com

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WHO ARE WE?

Katerina Godunova

katerina.godunova@reusecompany.com

www.linkedin.com/in/kgodunova

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TRACEABILITY **REUSE** **CALIDAD = QUALITY**

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CORRECTNESS

COMPLETENESS

CONSISTENCY

WHAT DO YOUR REQUIREMENTS DEPEND ON?

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CORRECTNESS

ENSURING NEEDS FULFILLED AS EXPECTED

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COMPRISE ALL COMPONENTS/STAGES/ NEEDS/... REQUIRED

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01 **02** **03**

DEFYING INCOSE CONSISTENCY APPROACH

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CONSISTENCY AGAINST MODELS

01

DEFYING INCOSE CONSISTENCY APPROACH

QUALITY PROPERTIES: CCC

3 INCOSE CHALLENGES

> Another key tool is the use of diagrams and other models that show the relationships between needs and between the resulting requirements. Using a software tool, e.g. diagraming and modeling, to manage dependencies can help in identifying conflicts and manage dependencies.

DEFYING INCOSE CONSISTENCY APPROACH

QUALITY PROPERTIES: CCC

3 INCOSE CHALLENGES

Another key tool is the use of diagrams and other models that show the relationships between needs and between the resulting requirements. Using a software tool, e.g. diagraming and modeling, to manage dependencies can help in identifying conflicts and manage dependencies.

Consistency in needs and requirements wording is greatly assisted by the use of a centralized domain ontology that is shared among all stakeholders.

DEFYING INCOSE CONSISTENCY APPROACH

QUALITY PROPERTIES: CCC

3 INCOSE CHALLENGES

Rules that help establish this characteristic:
R4 - /Accuracy/UseDefinedTerms
R29 - /Uniqueness/Classify
R30 - /Uniqueness/ExpressOnce
R36 - /UniformLanguage/UseConsistentTerms
R37 - /UniformLanguage/DefineAcronyms
R38 - /UniformLanguage/AvoidAbbreviations
R39 - /UniformLanguage/StyleGuide
R40 - /Modularity/RelatedRequirements
R41 - /Modularity/Structured

DEFYING INCOSE CONSISTENCY APPROACH

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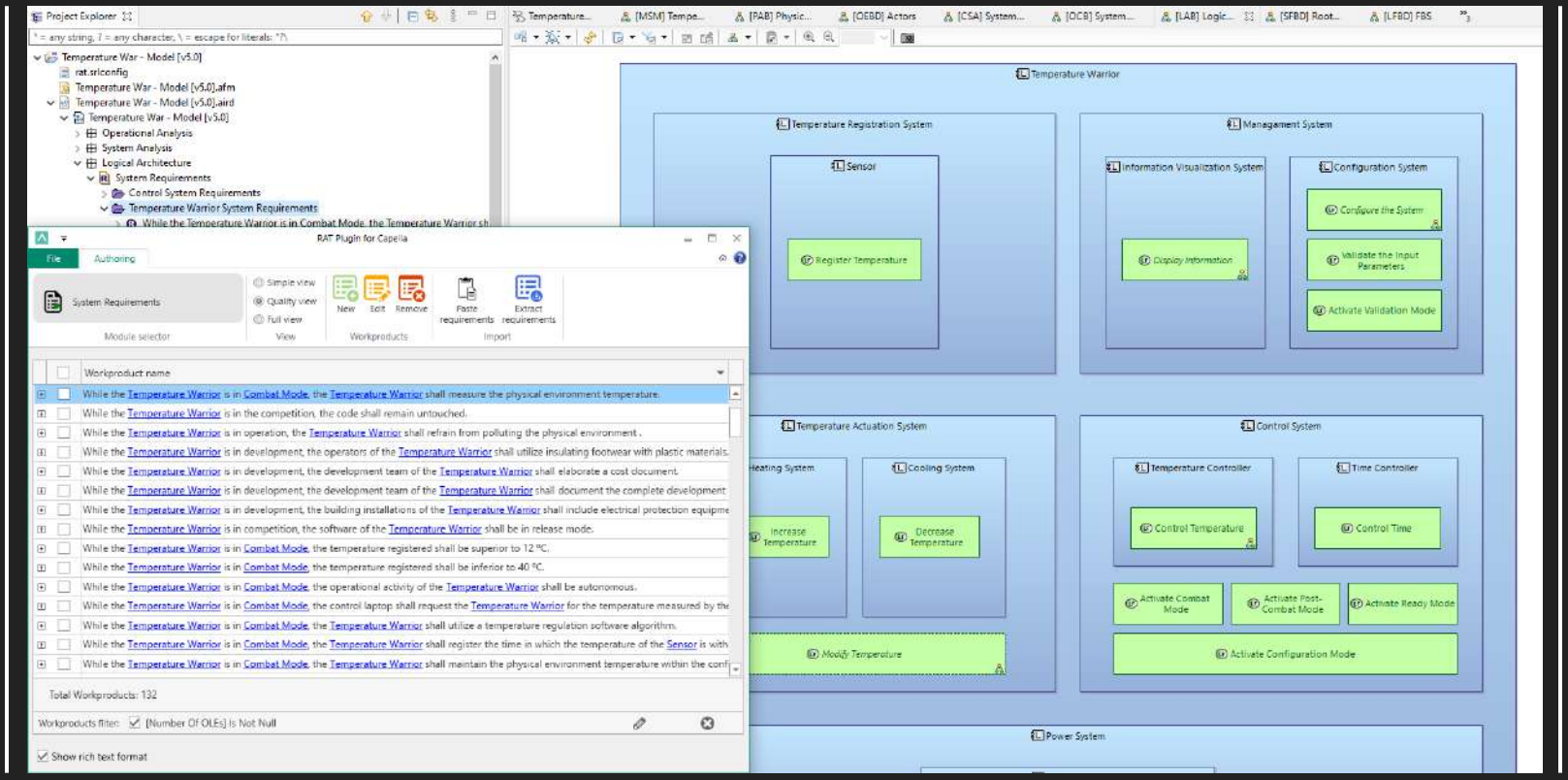
3 INCOSE CHALLENGES



DEFYING INCOSE CONSISTENCY APPROACH

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02

TAILORING & EXTENSION

DEFYING INCOSE CONSISTENCY APPROACH

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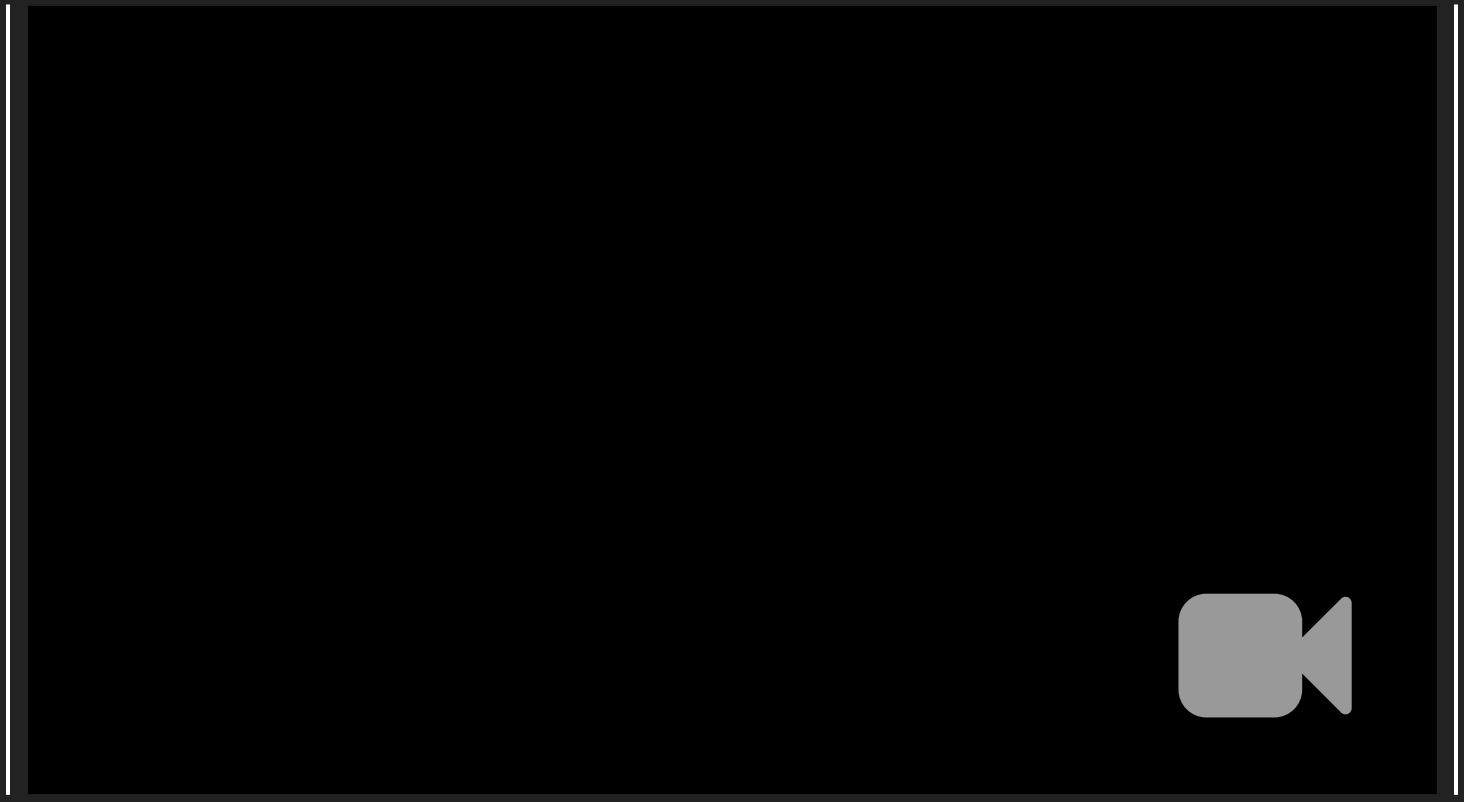

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DEFYING INCOSE CONSISTENCY APPROACH

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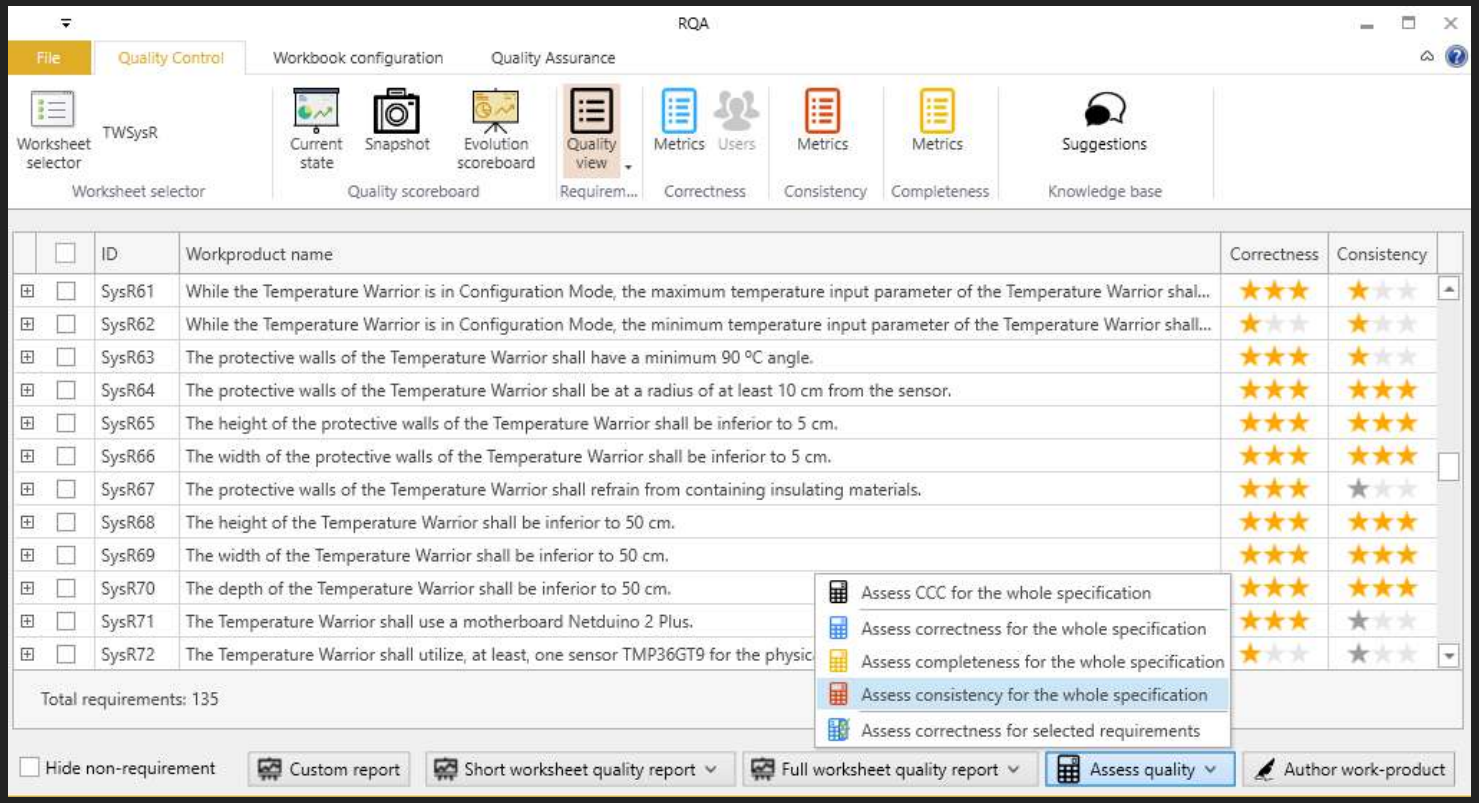
3 INCOSE CHALLENGES



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COST IMPACT

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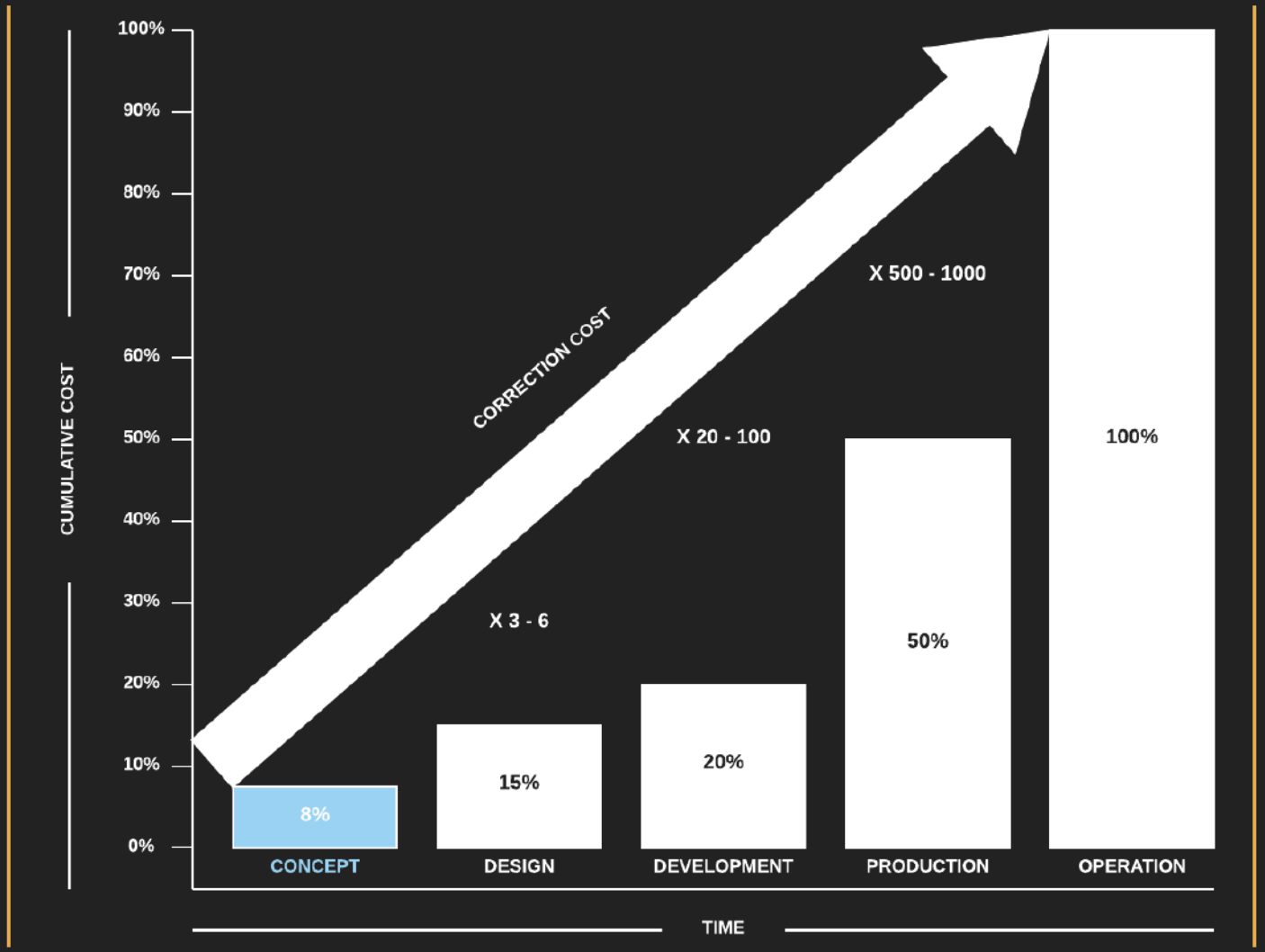

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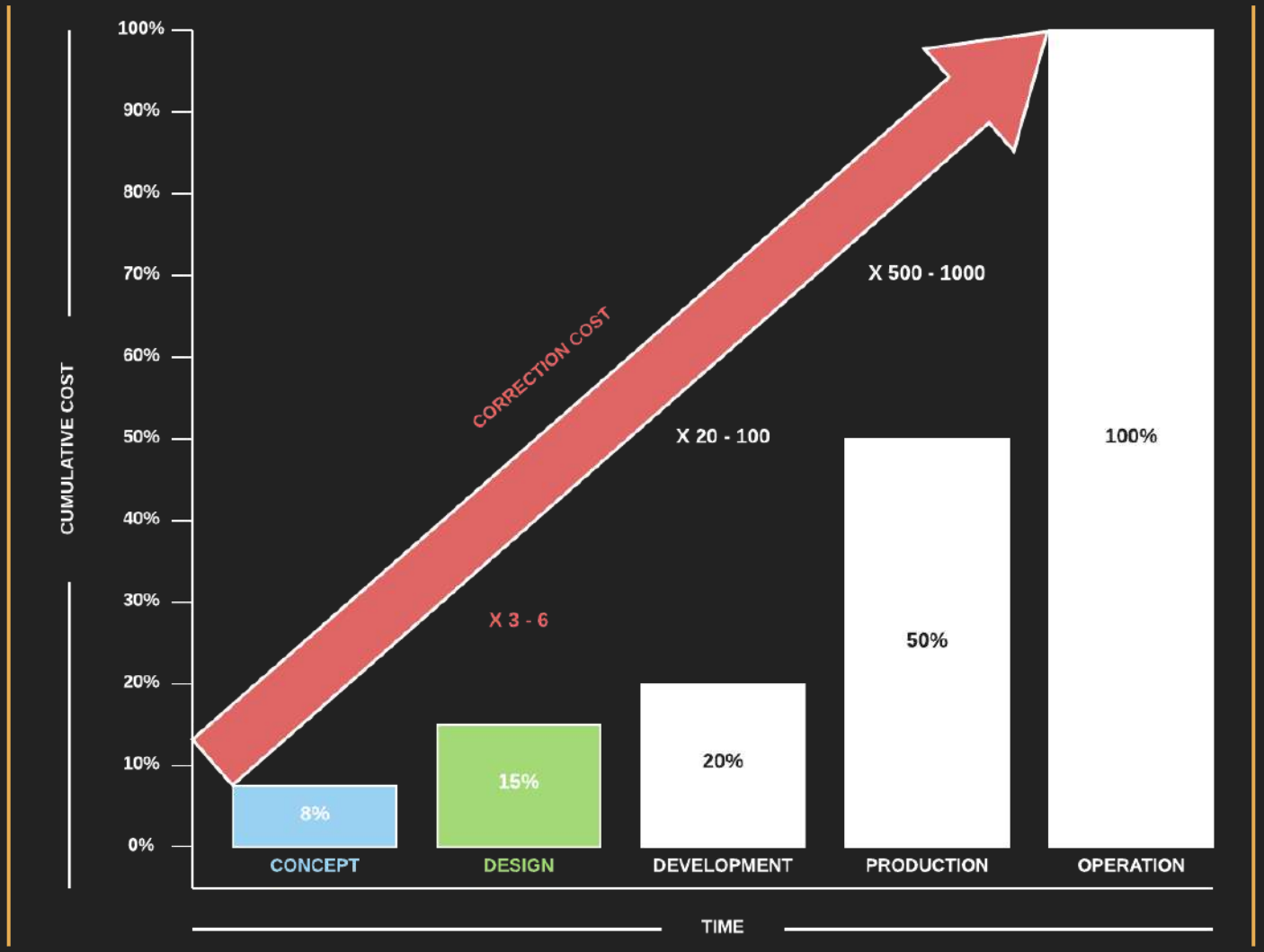

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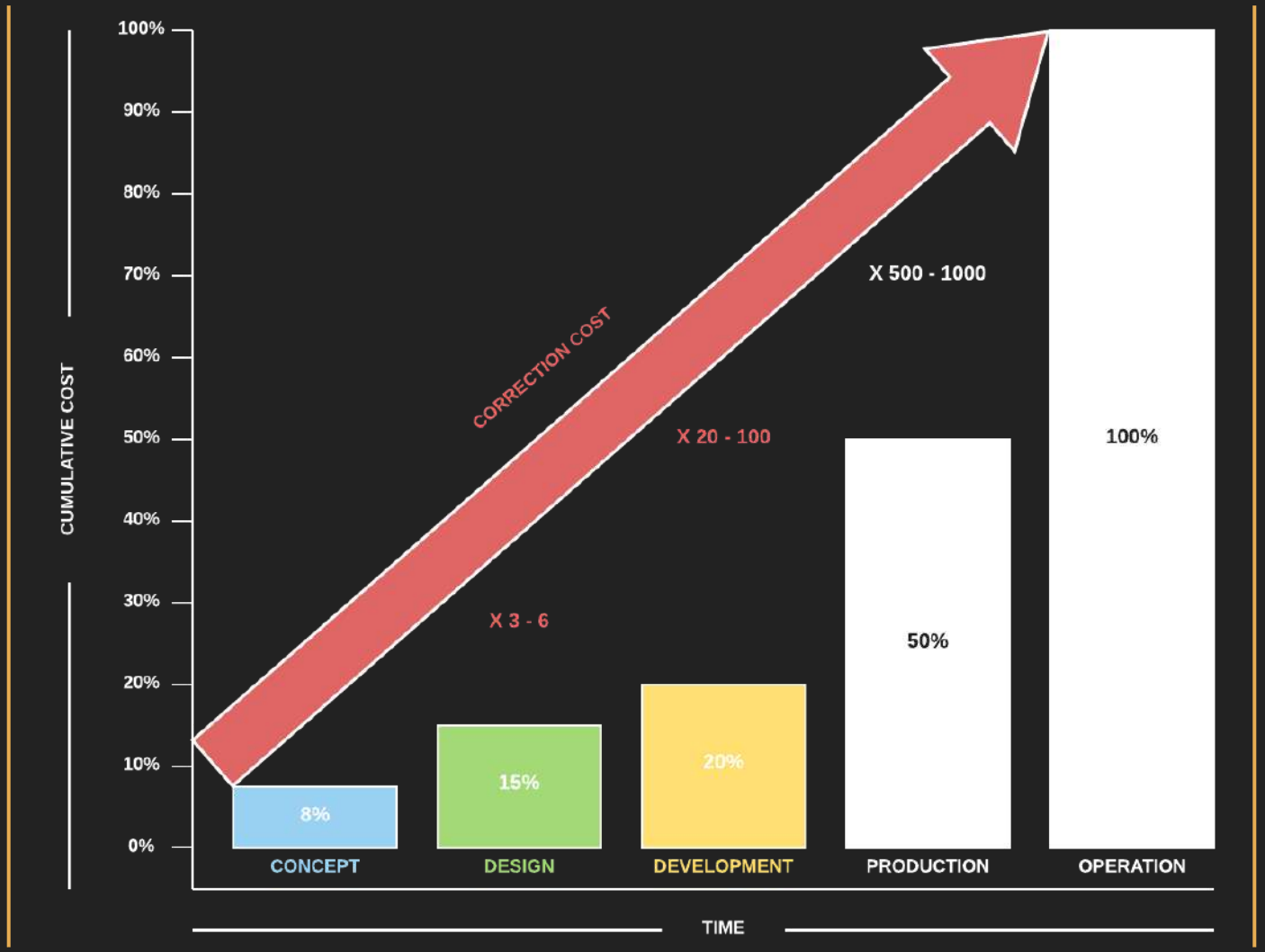

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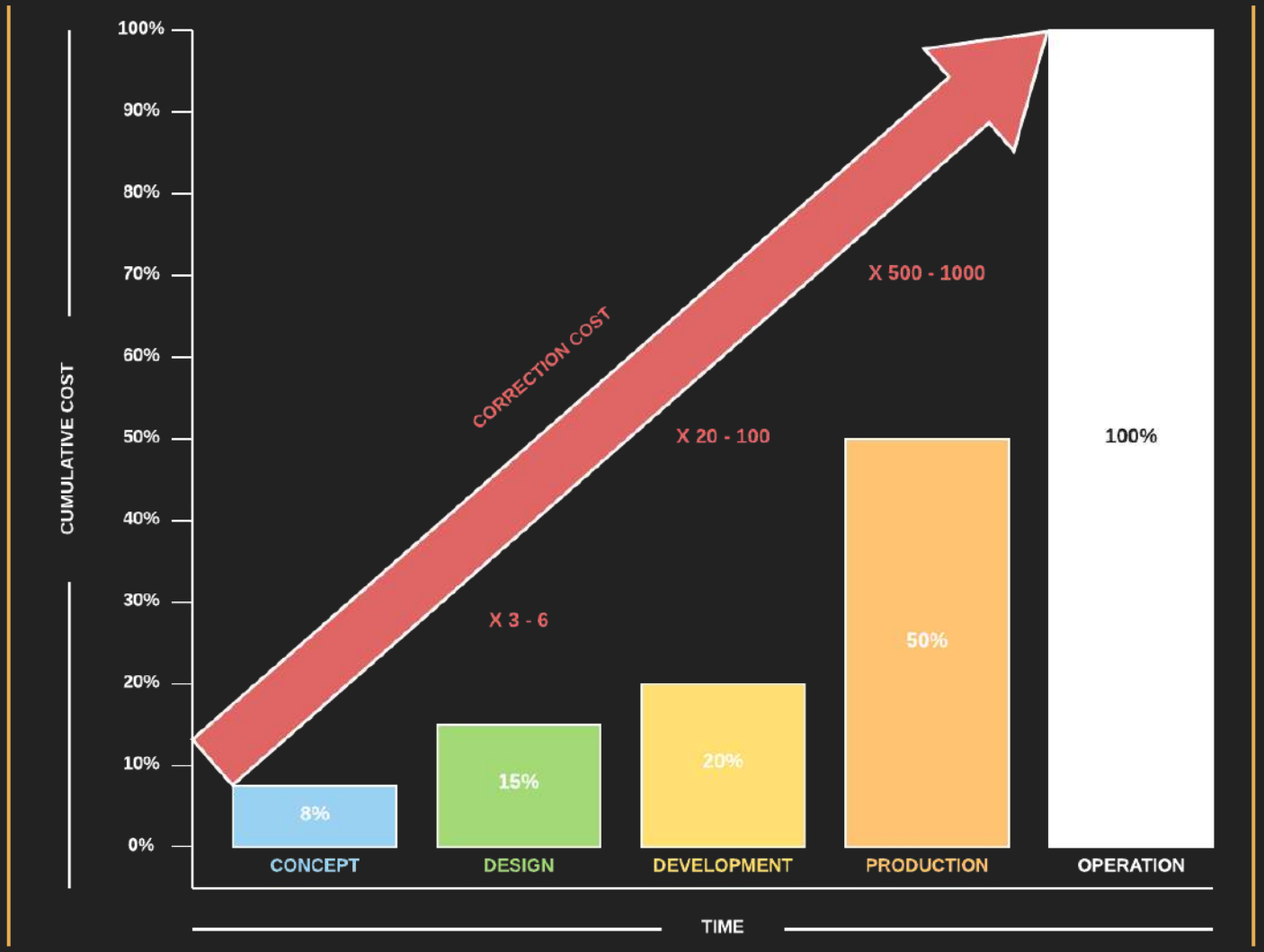

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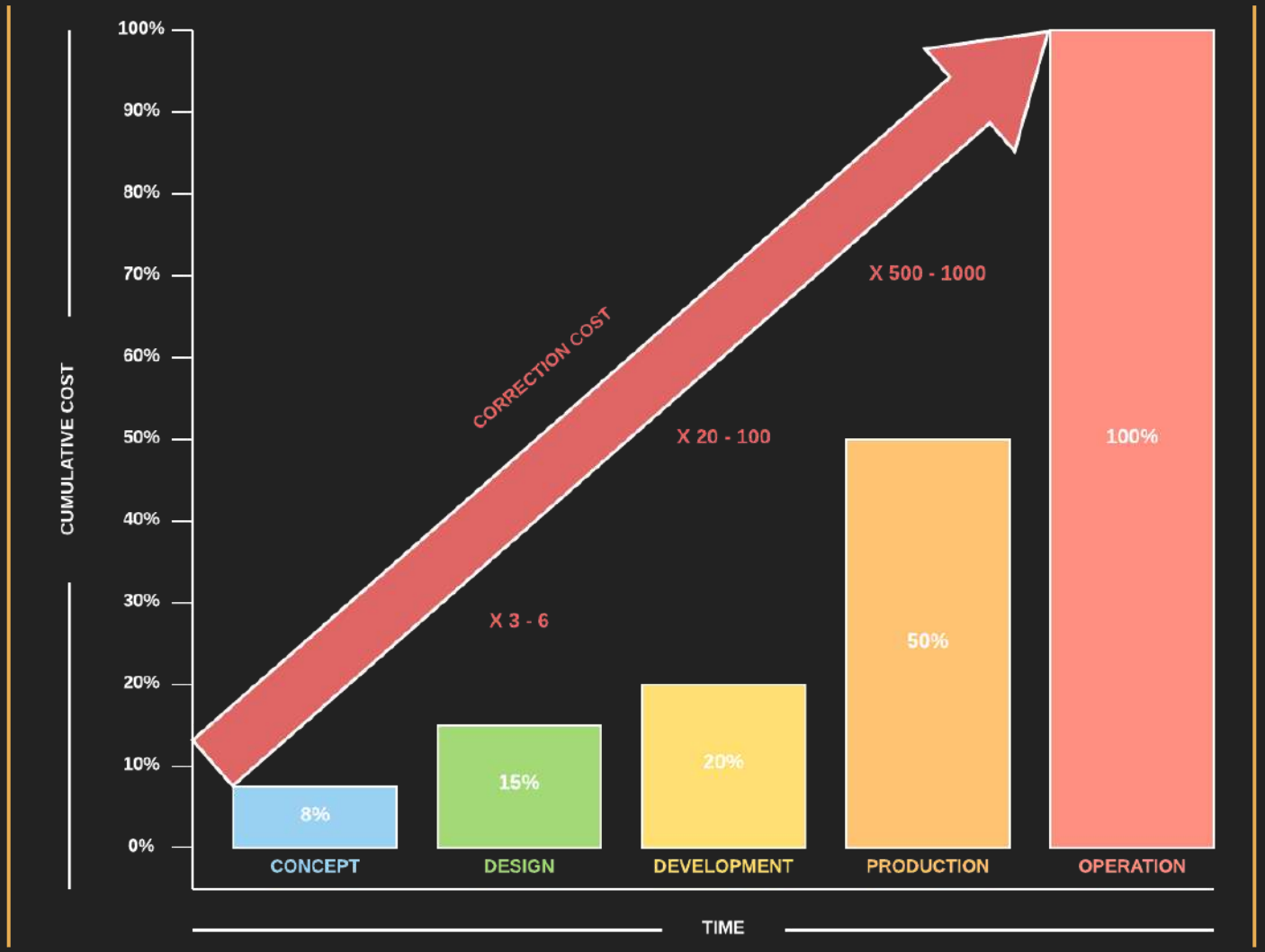

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REAL-LIFE IMPACT

WHY SHOULD YOU CARE ABOUT CONSISTENCY?

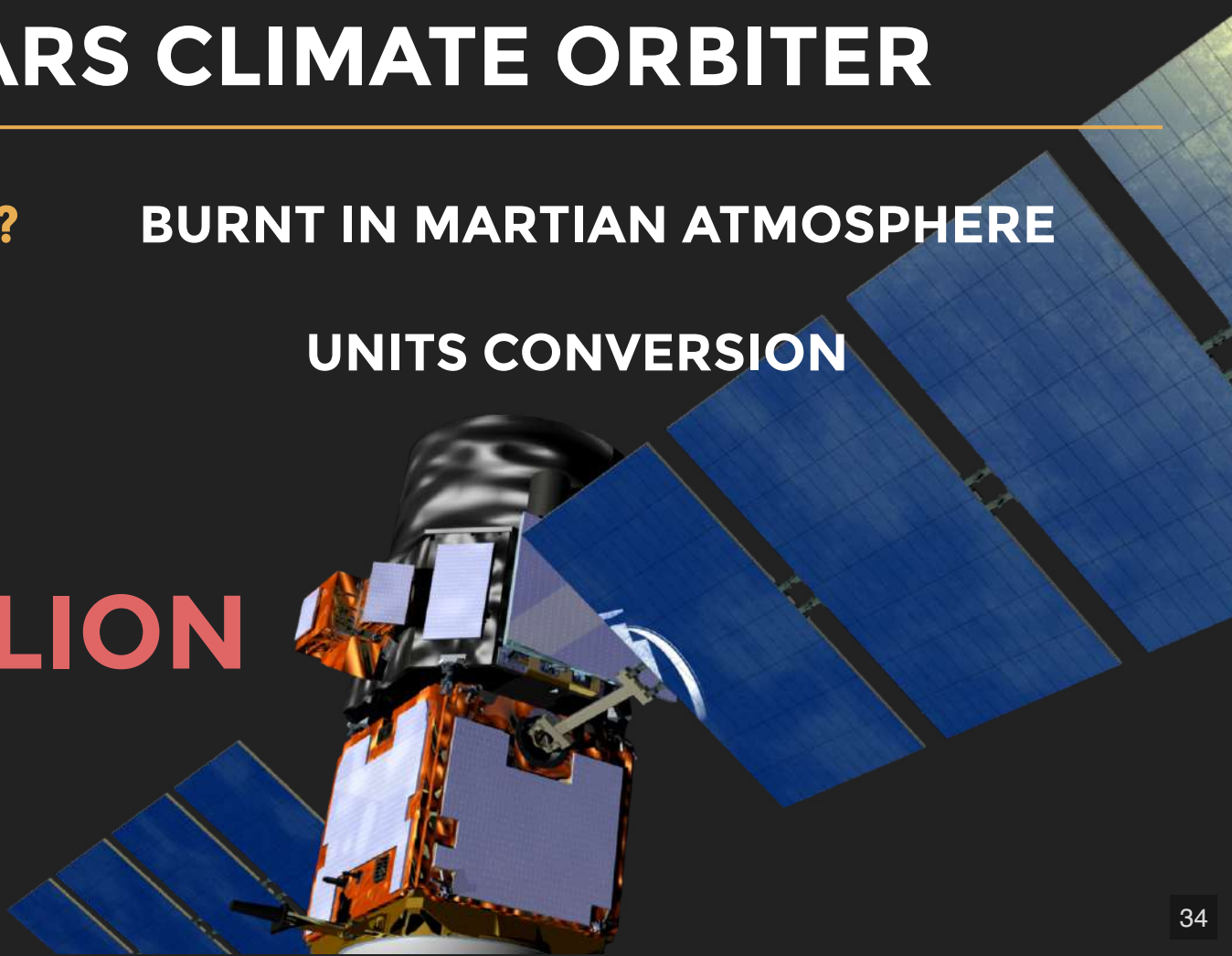
NASA's MARS CLIMATE ORBITER

WHAT HAPPENED? BURNT IN MARTIAN ATMOSPHERE

WHY? UNITS CONVERSION

IMPACT?

$125 MILLION



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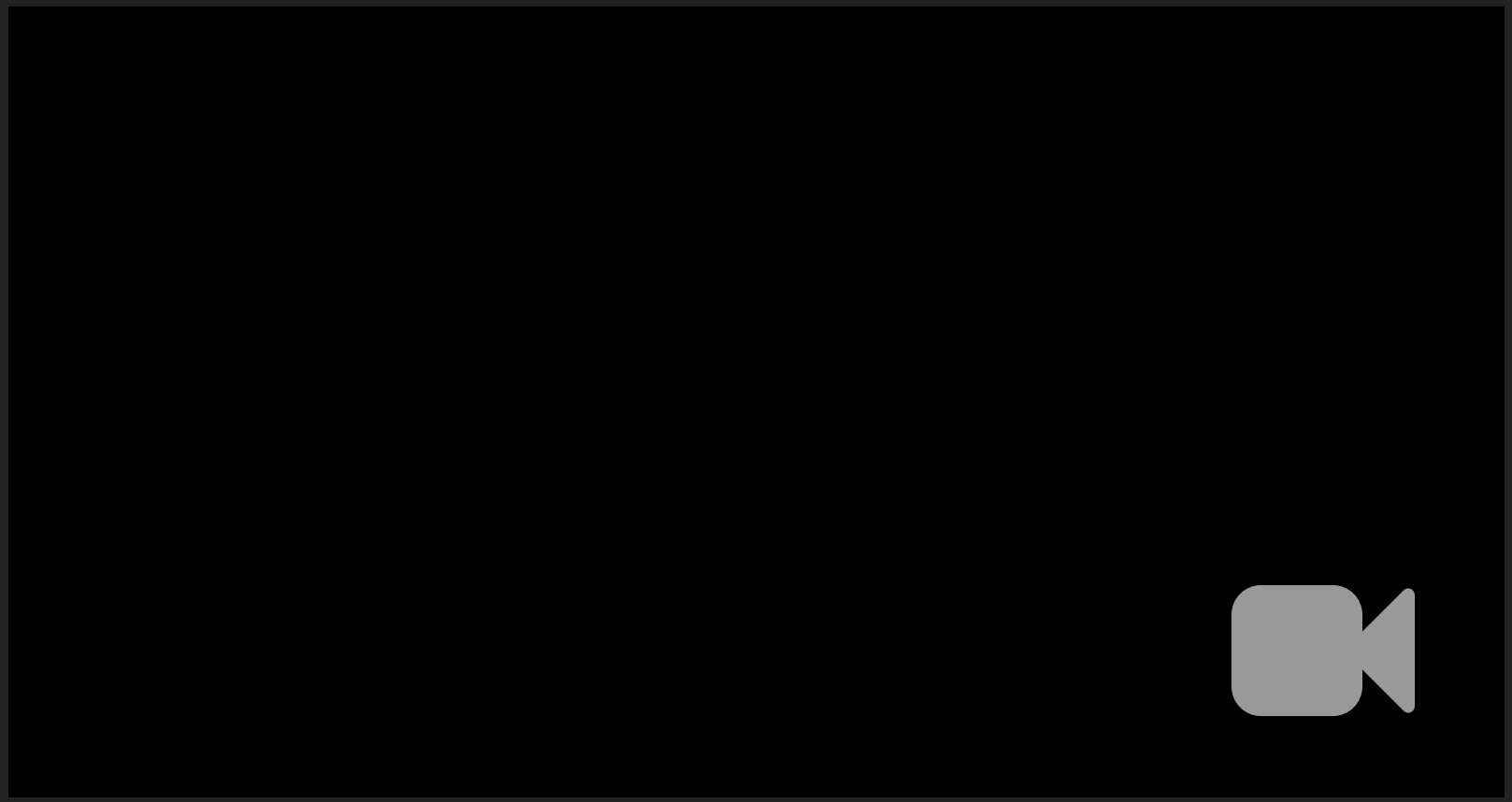

EXPECTED VALUES WITHIN RANGE

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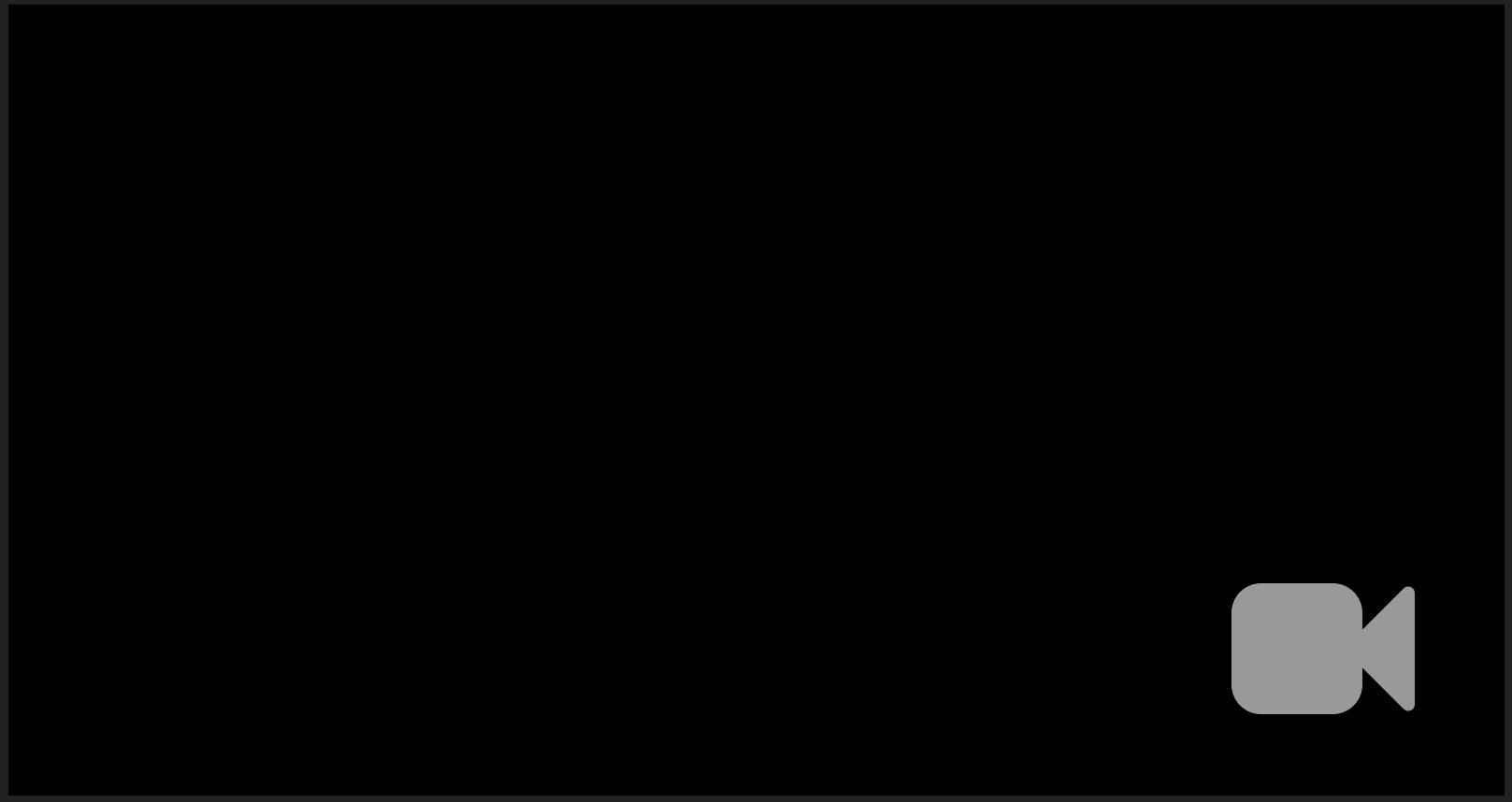

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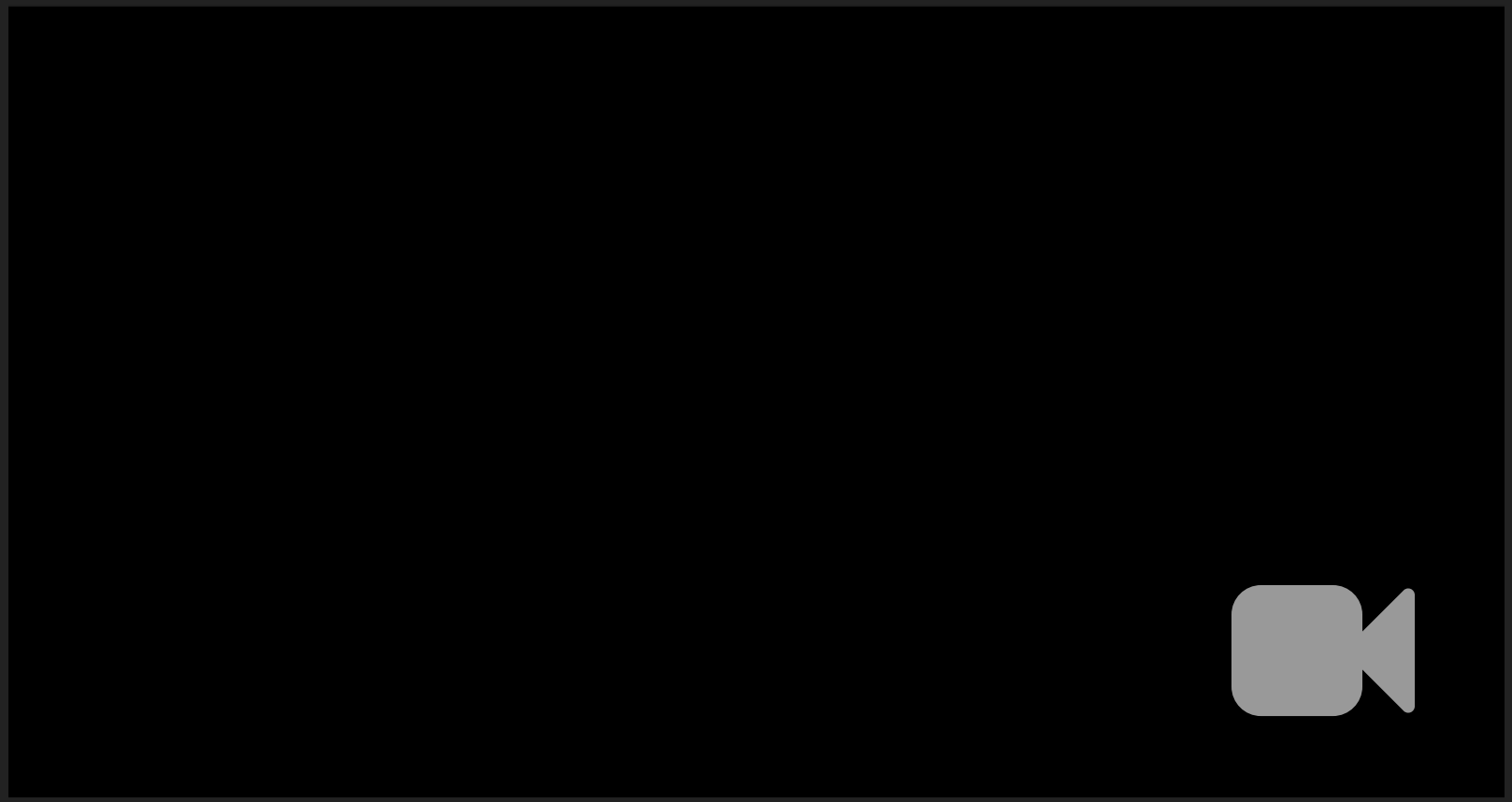

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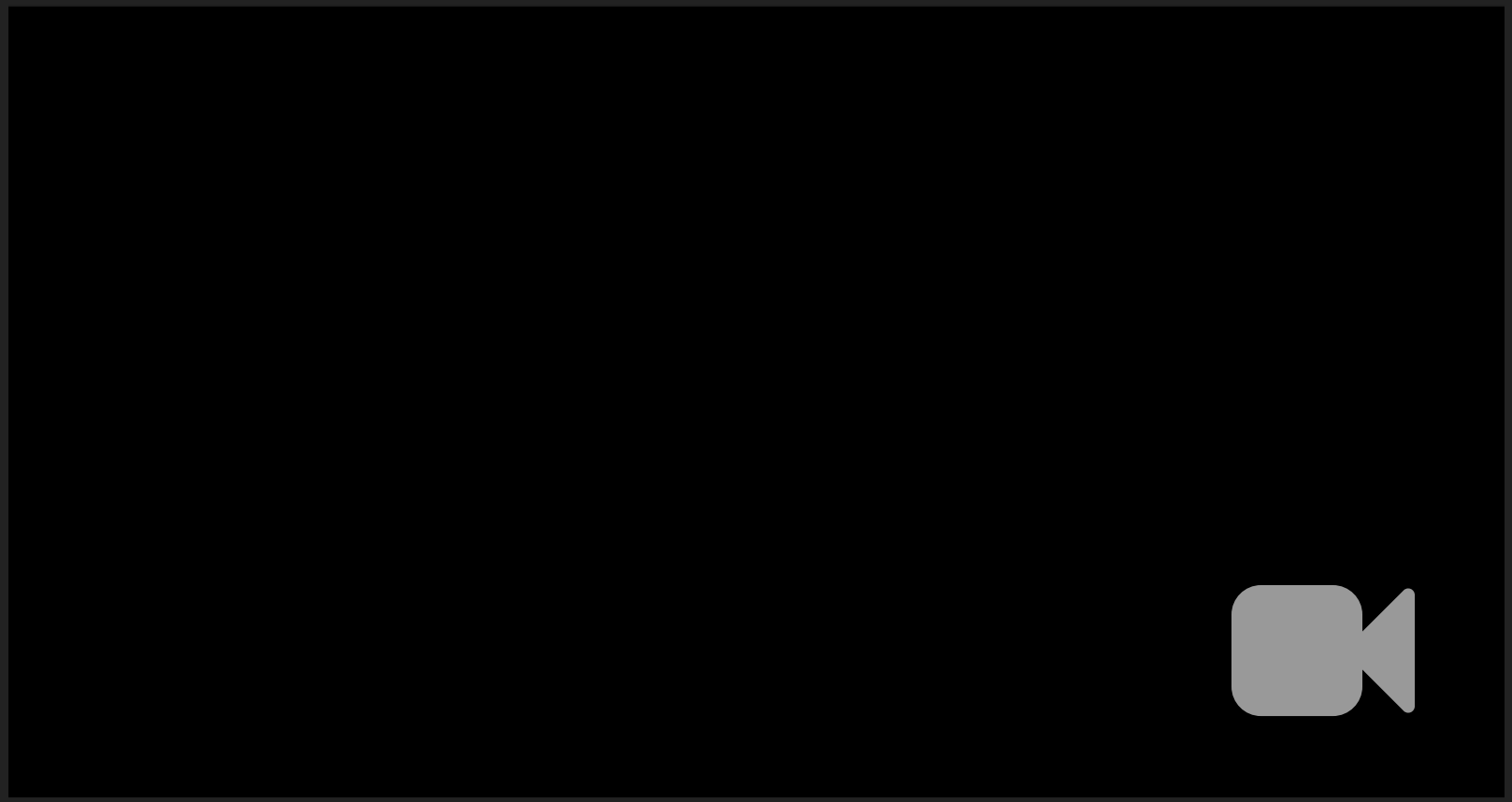

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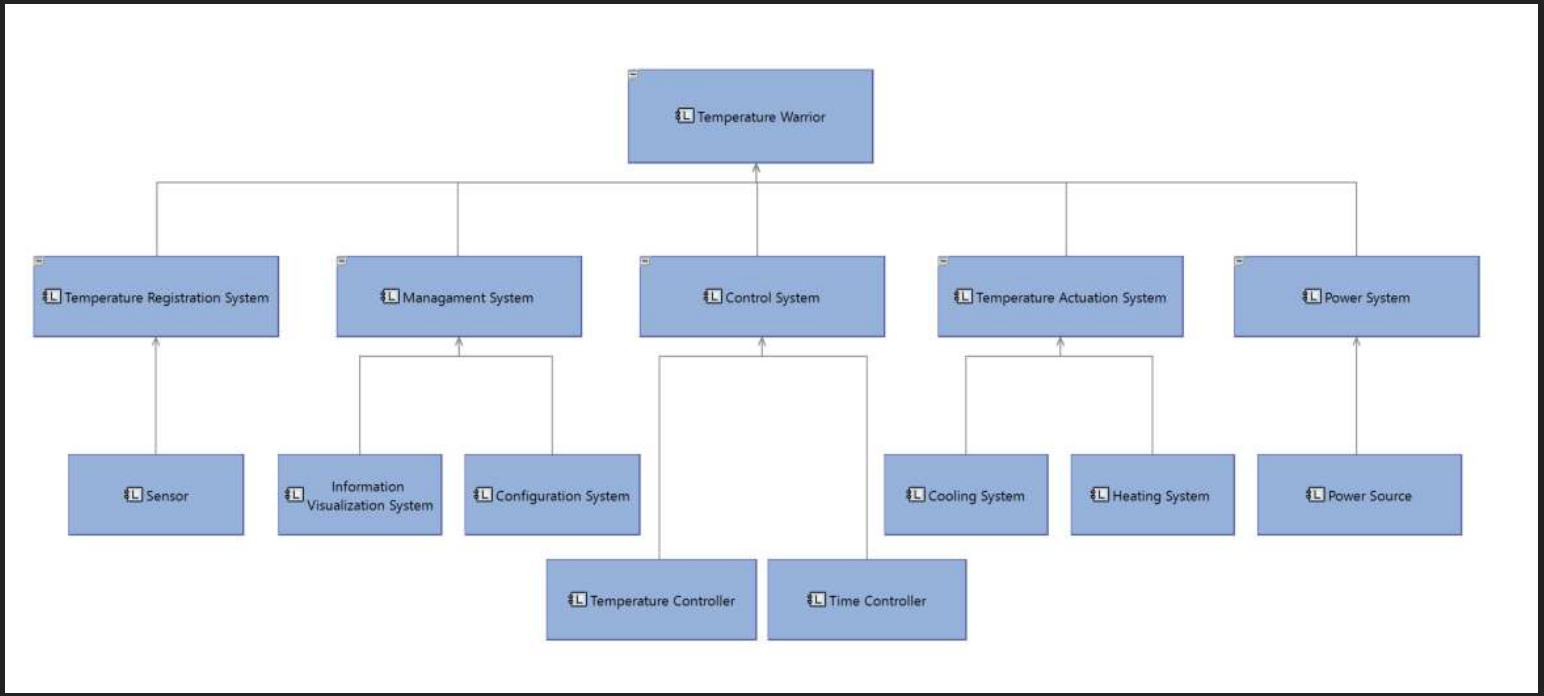

The TEMPERATURE WARRIOR shall have a CONTROL SYSTEM

The TEMPERATURE WARRIOR shall have a POWER SYSTEM

The TEMPERATURE WARRIOR shall have a DEFENSE SYSTEM

WRONG STATES & TRANSITIONS

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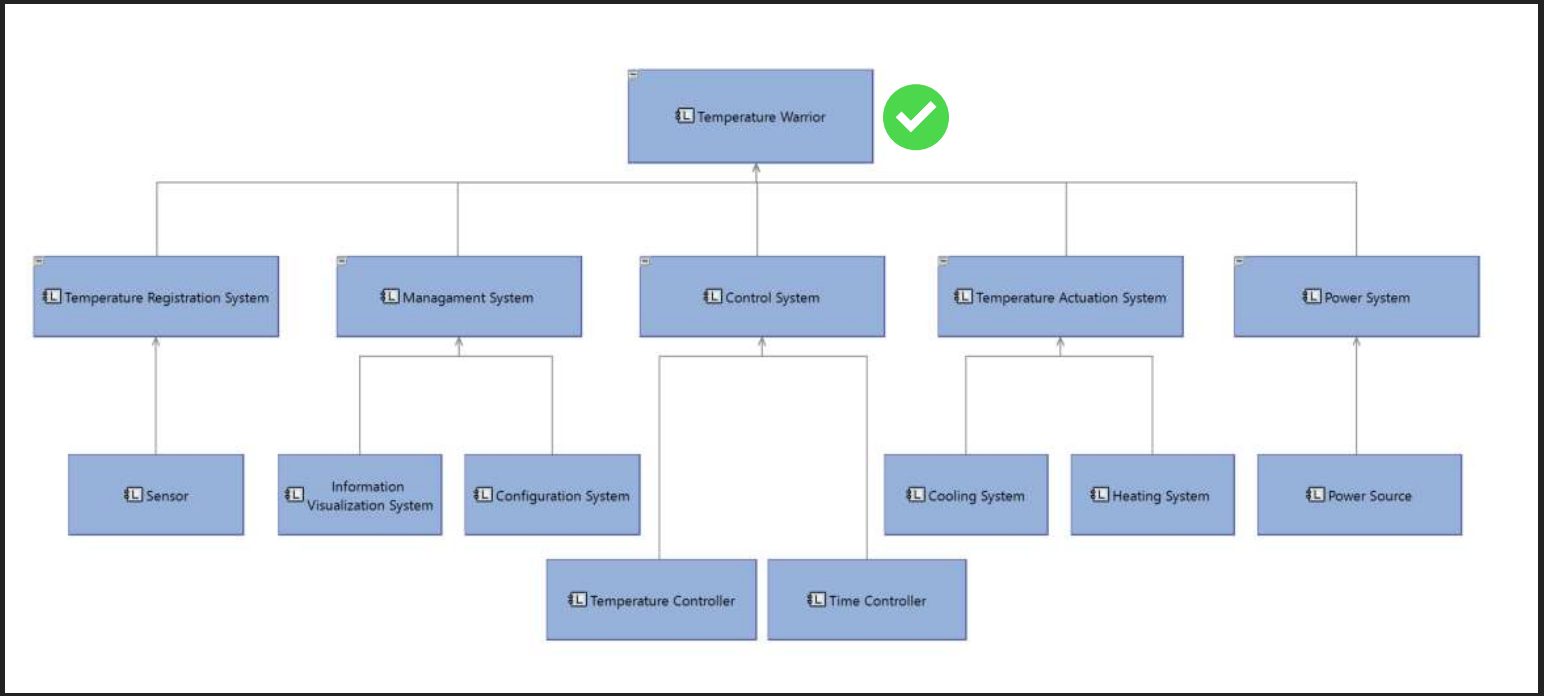

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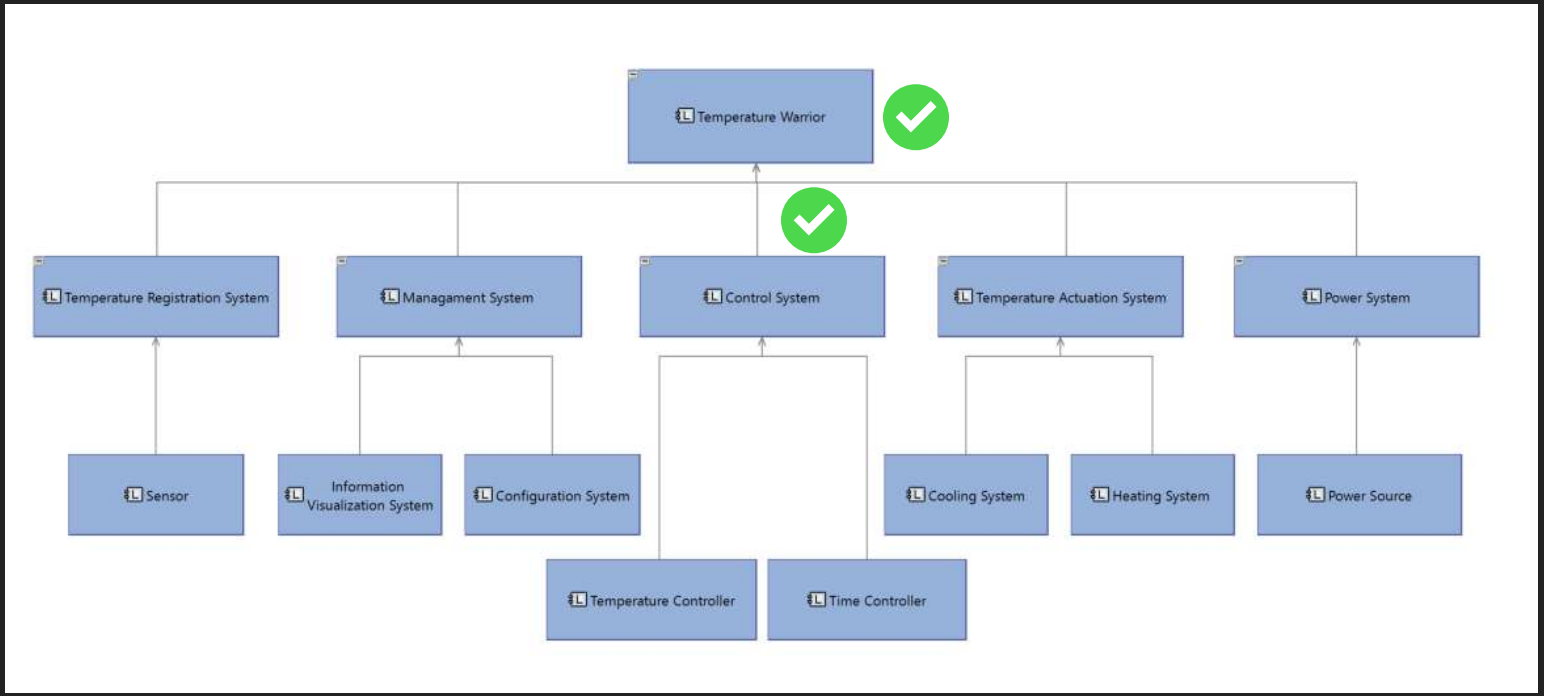

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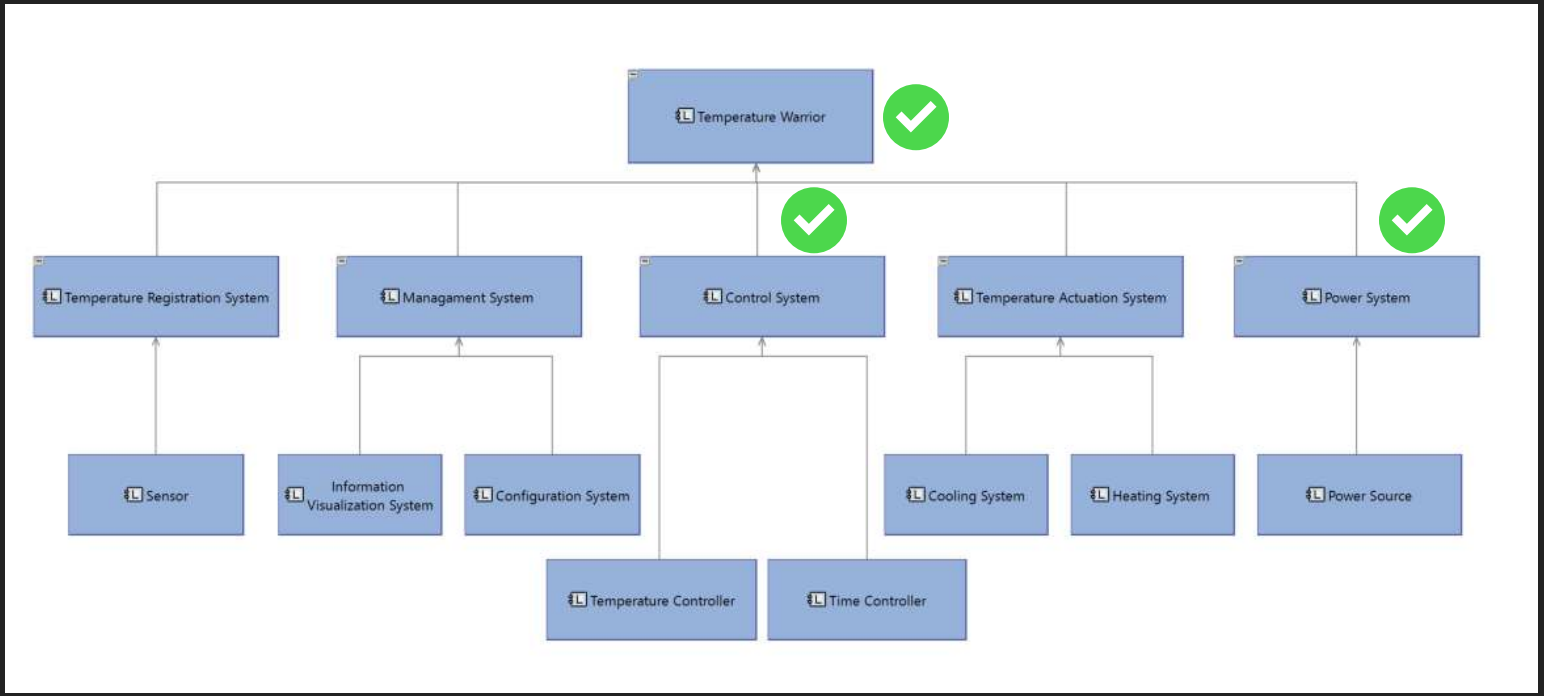

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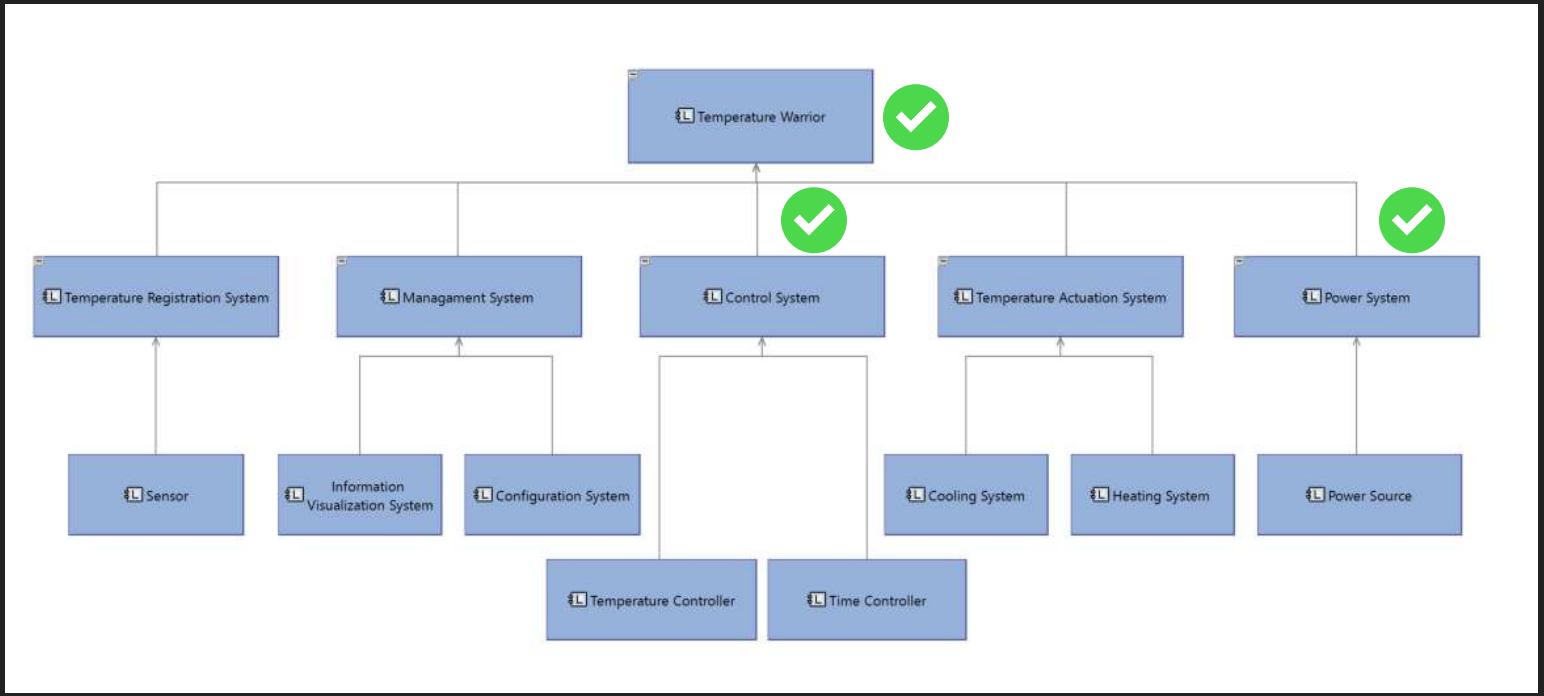

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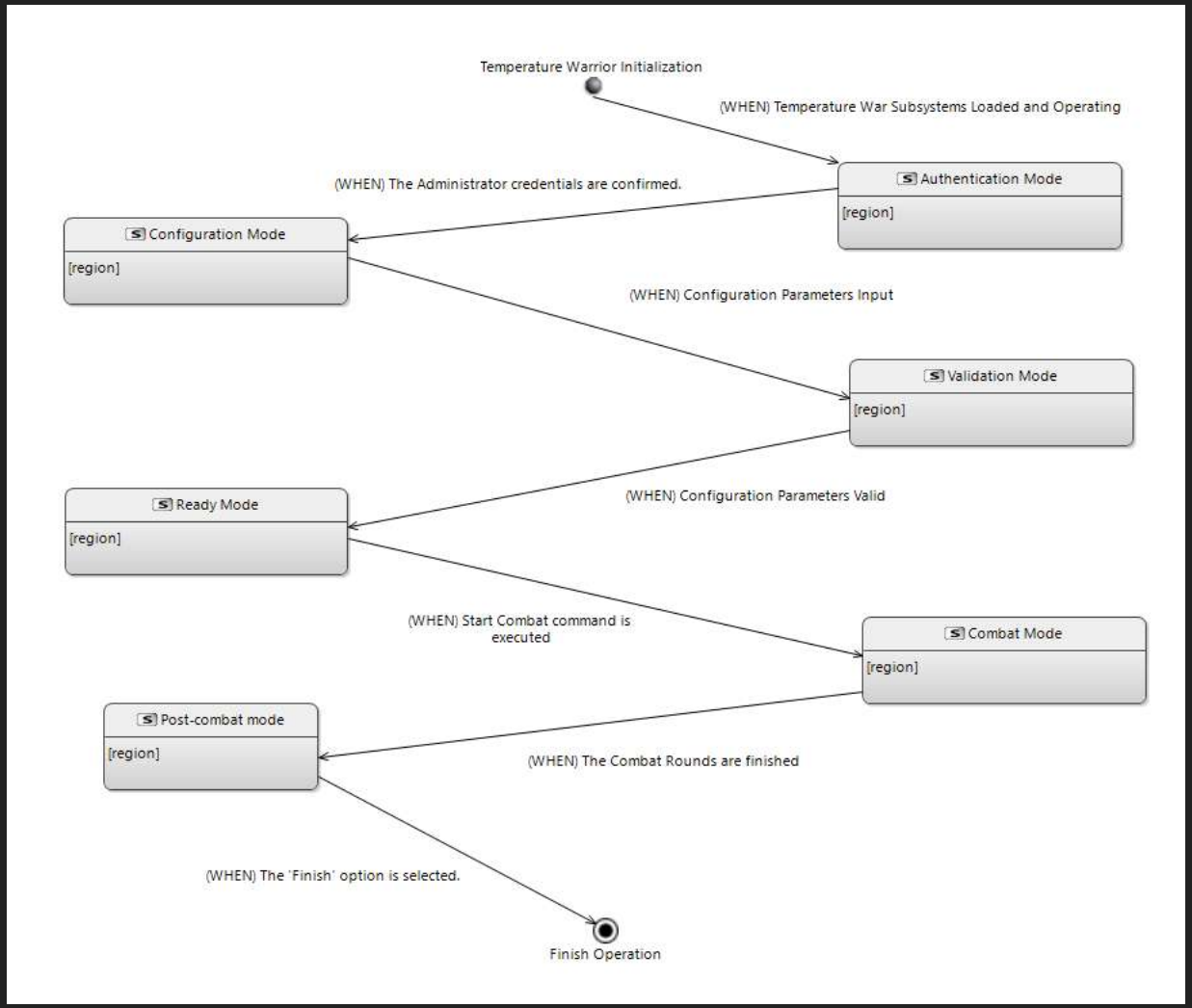

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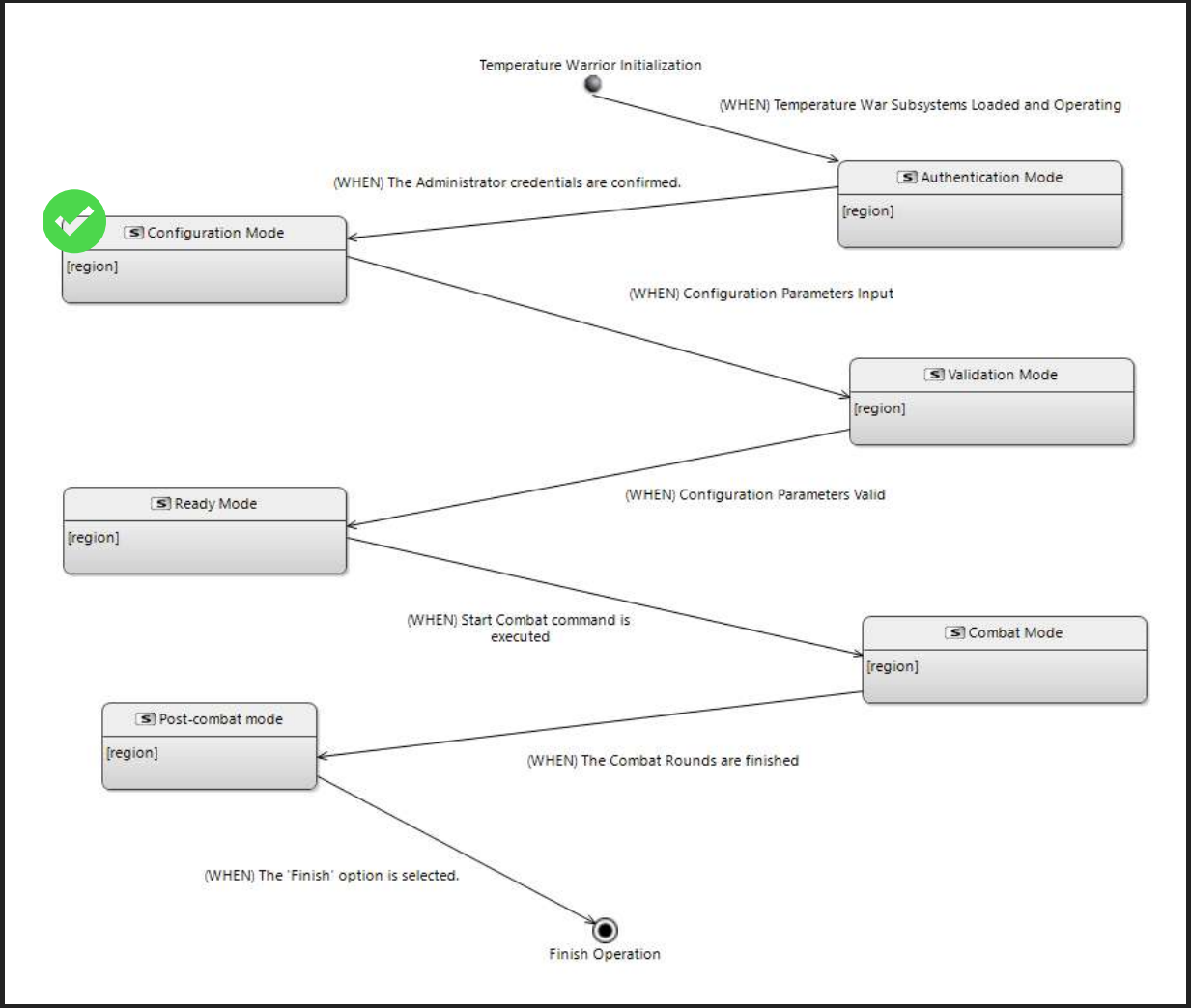

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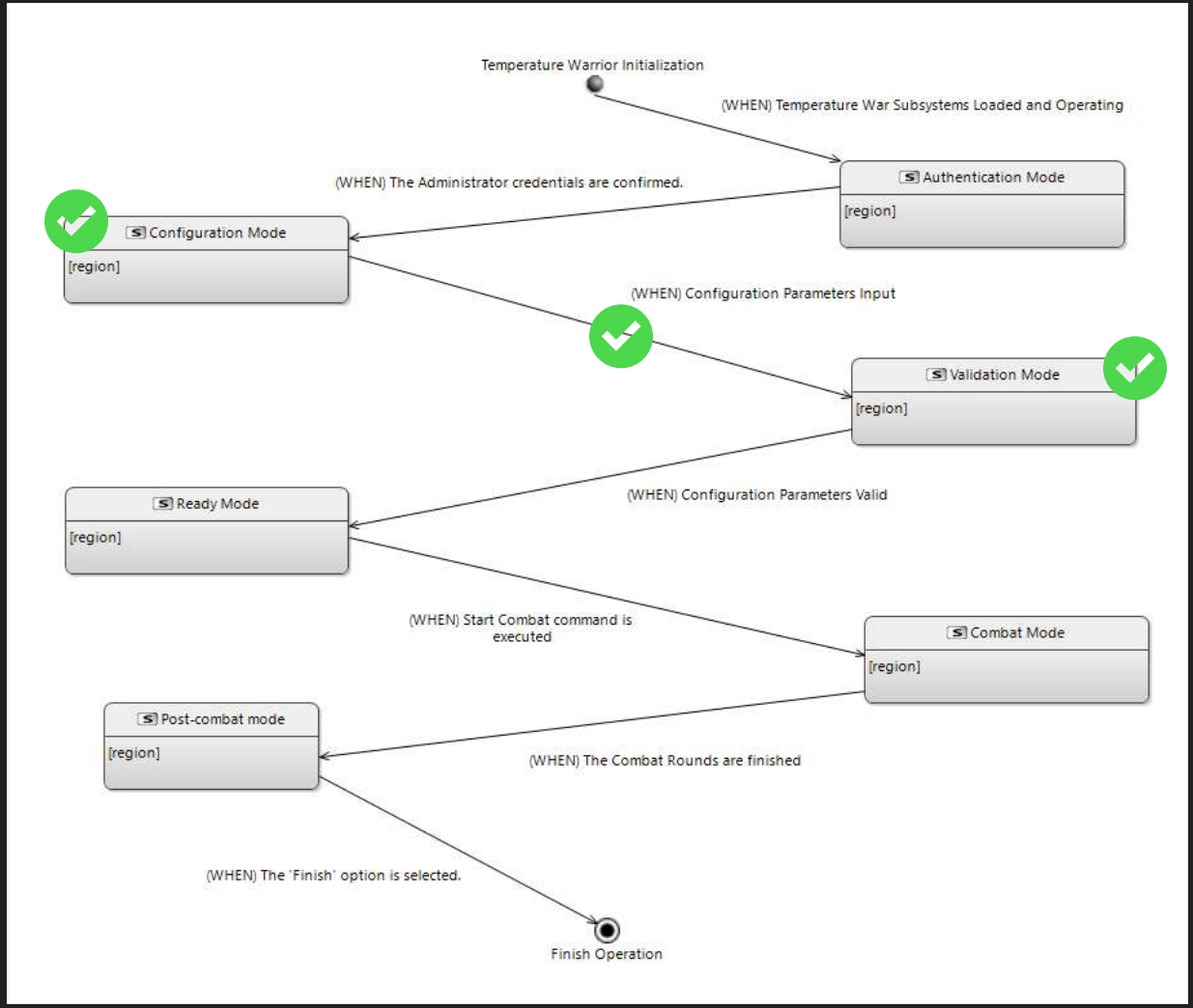

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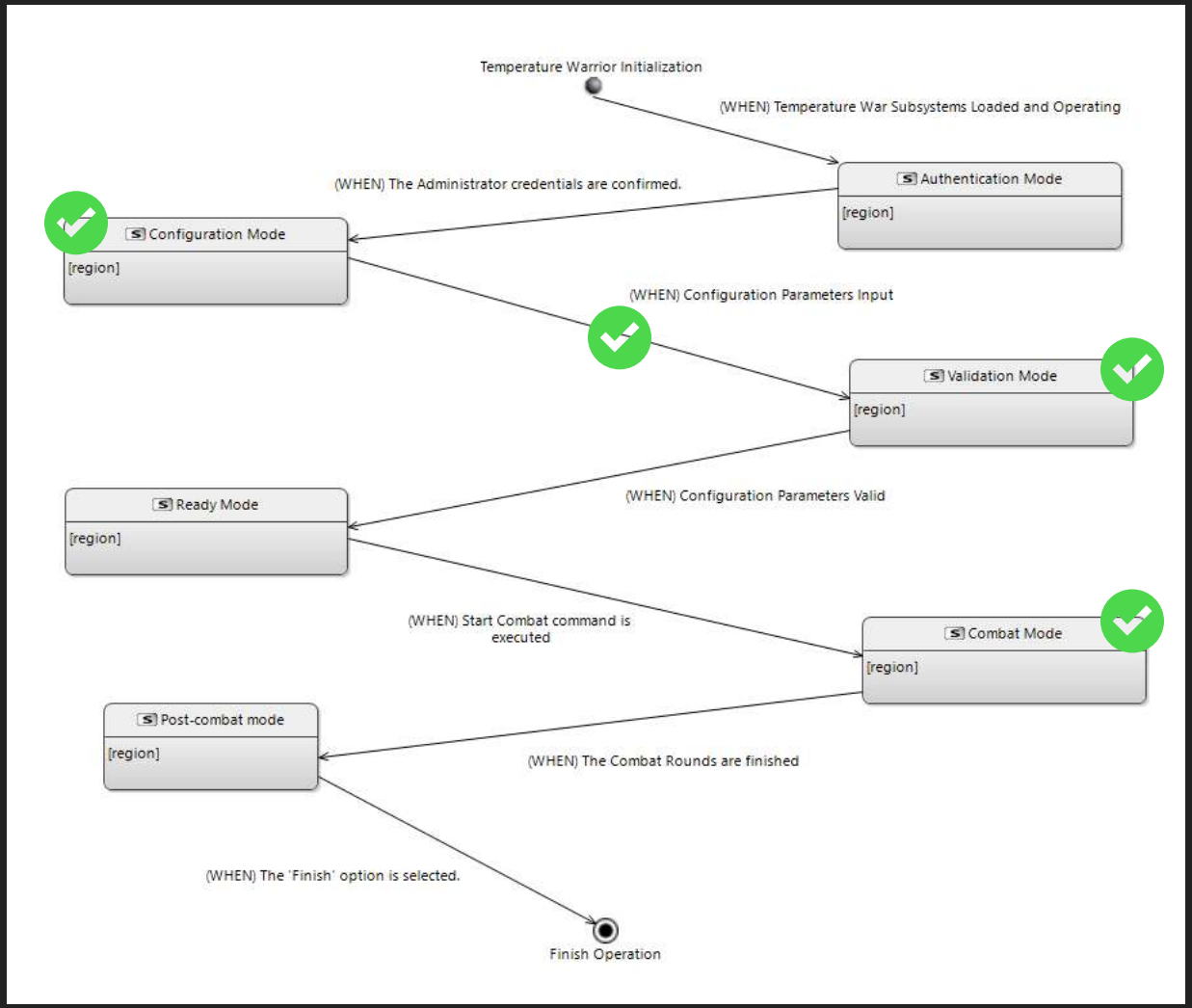

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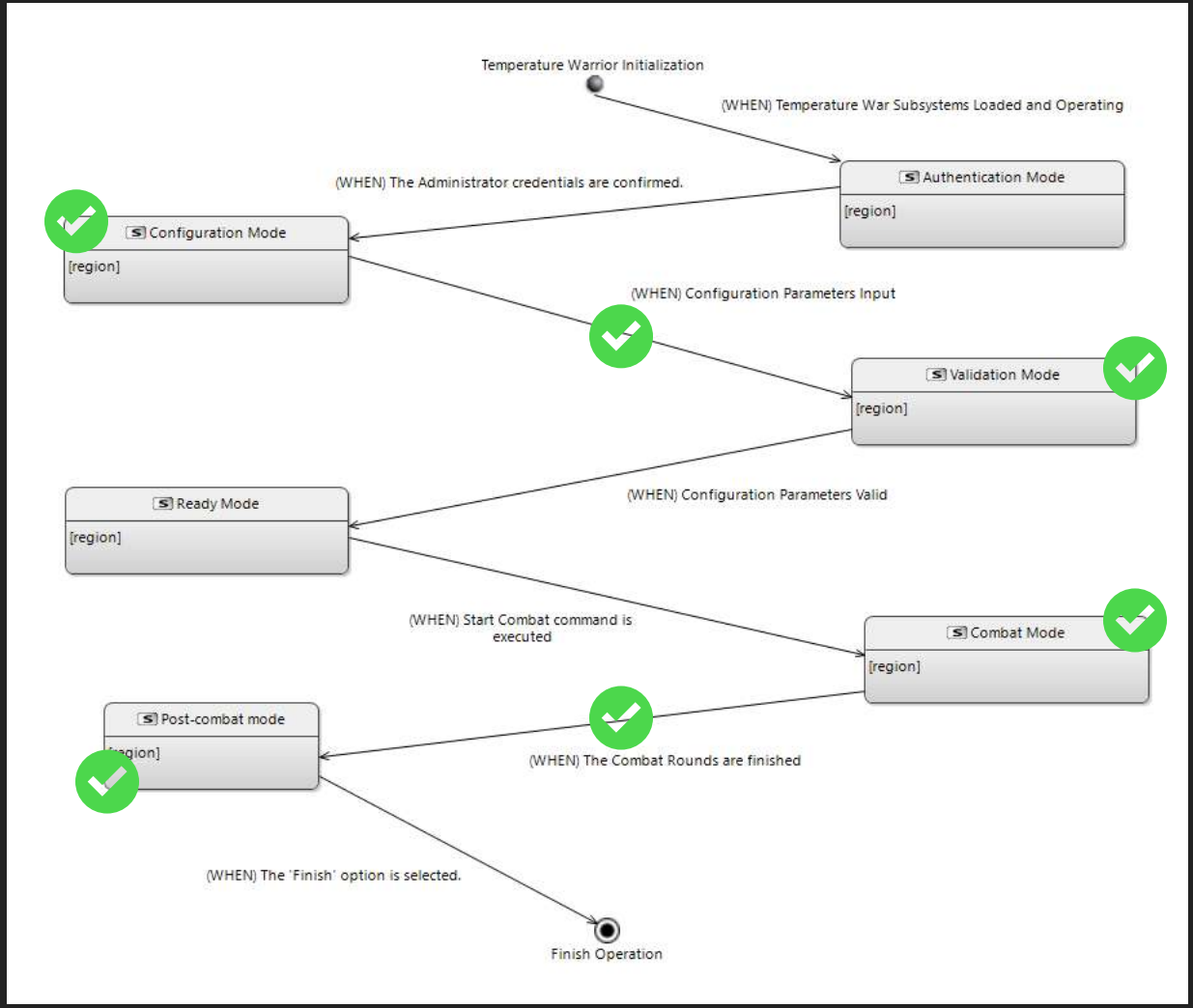

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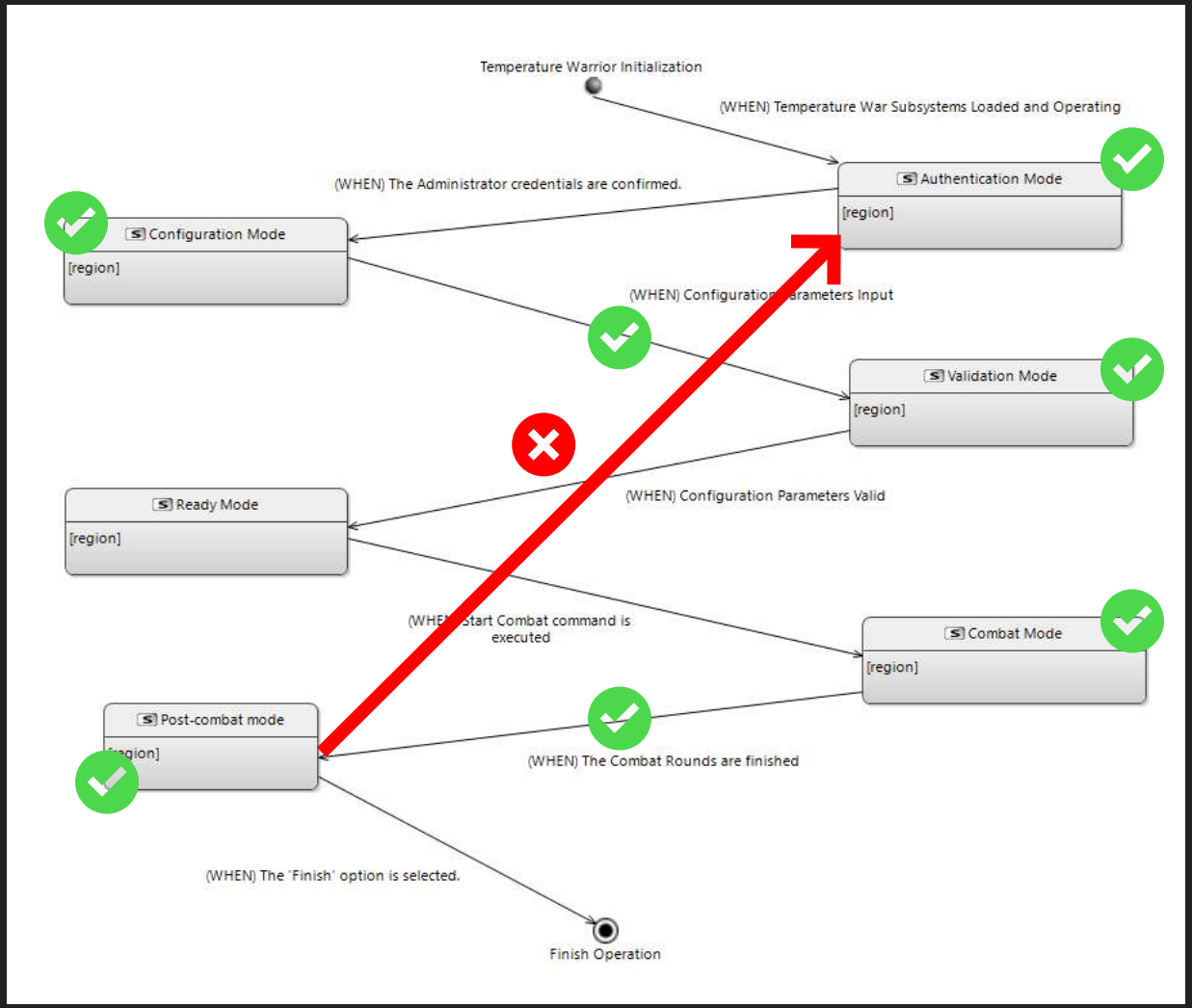

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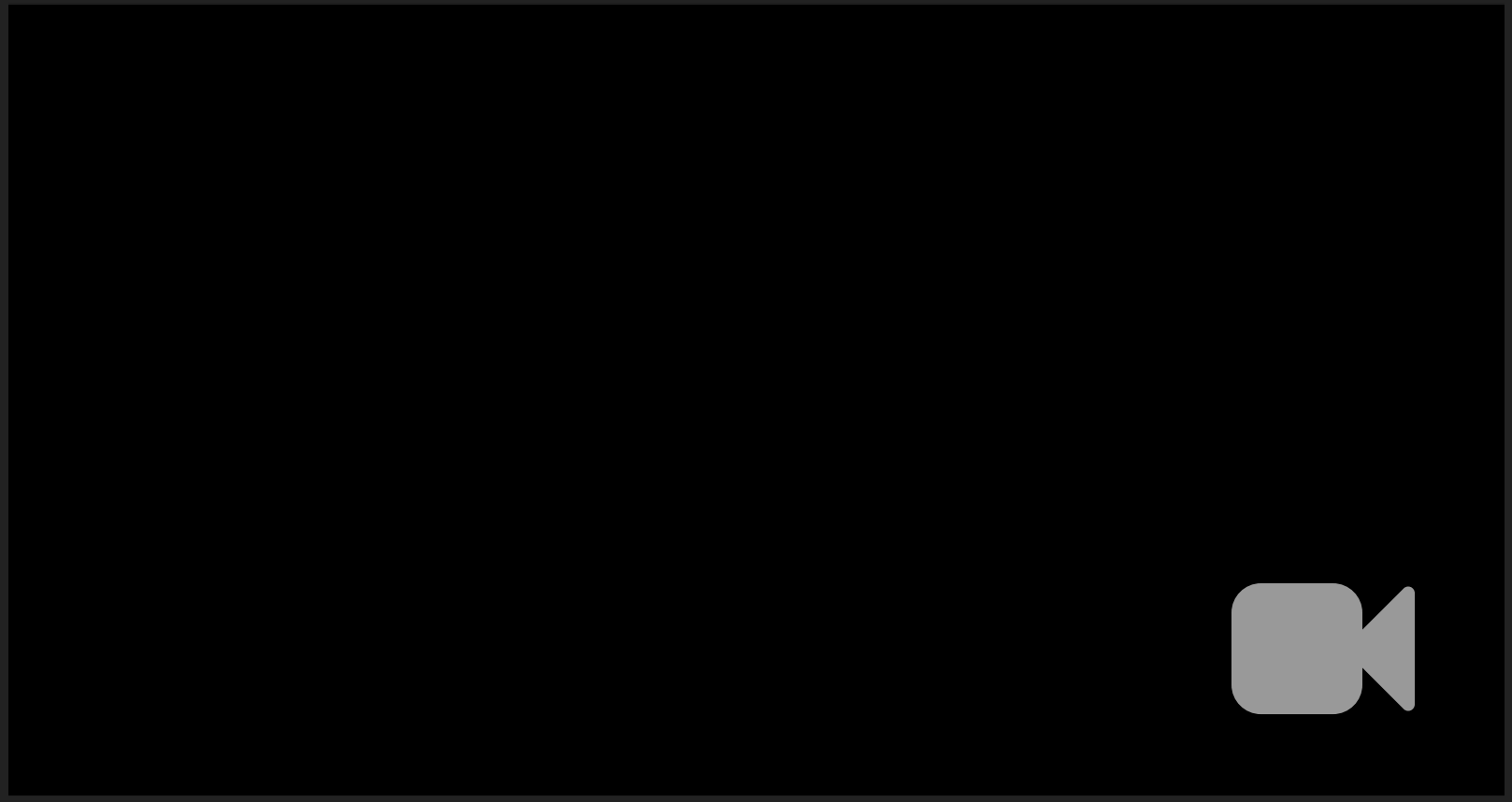

Q&A

THE REUSE COMPANY

COMING UP... IN ONLY

10 MINUTES!

HOW TO GENERATE QUALITY REPORTS

BASED ON THE INCOSE GUIDELINES

NOVEMBER 2ND, 2021

NOVEMBER 3RD, 2021

DON'T MISS IT!

THE REUSE COMPANY

THANK YOU FOR YOUR

TIME AND ATTENTION

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