WHAT CAN SOFTWARE ENGINEERING DO FOR SUSTAINABILITY: CASE OF SOFTWARE PRODUCT LINES

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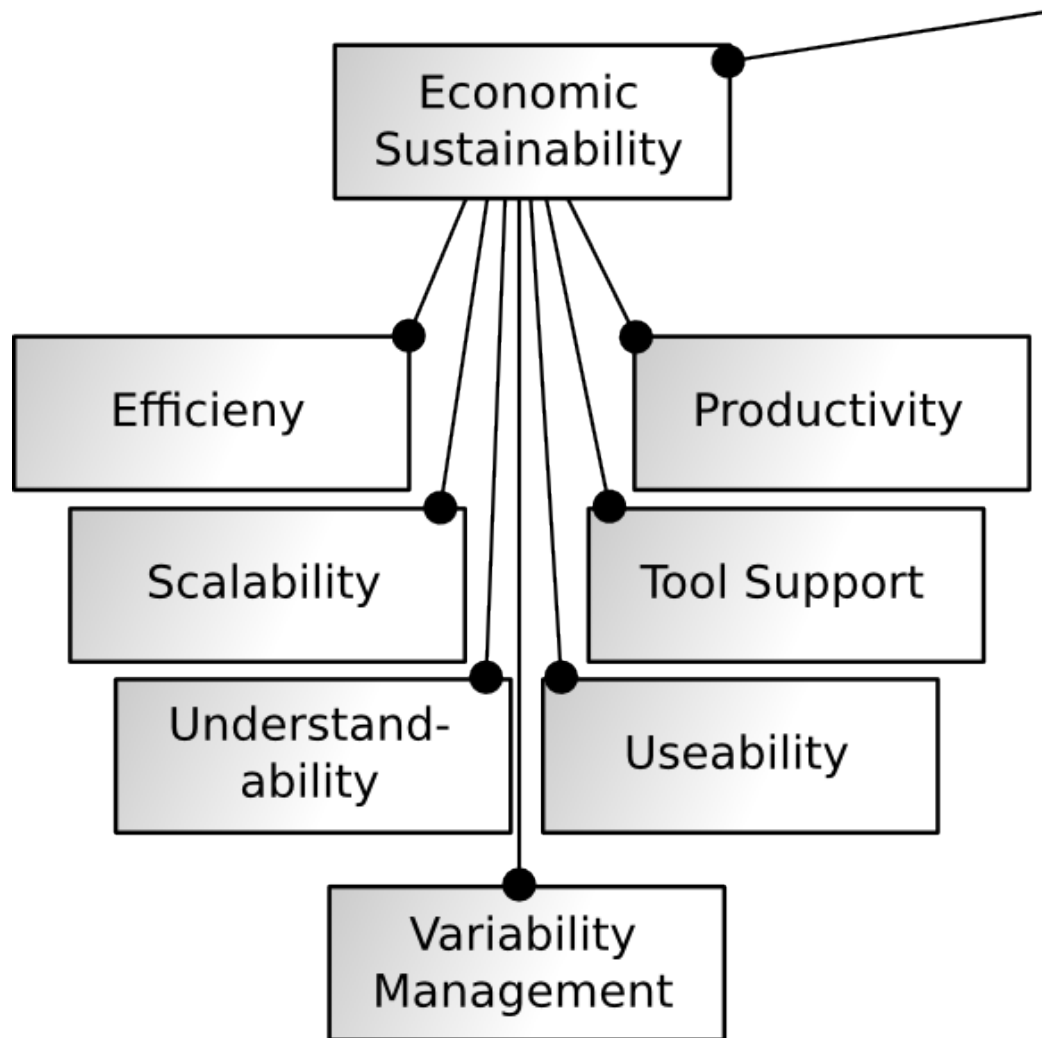
QUESTIONS ON SUSTAINABILITY

Sustainability in general is defined as the *capacity to keep up*:

1. **What does sustainability mean within the context of SPLE?**

2. **How does it relate to the interests of the SPL community?**
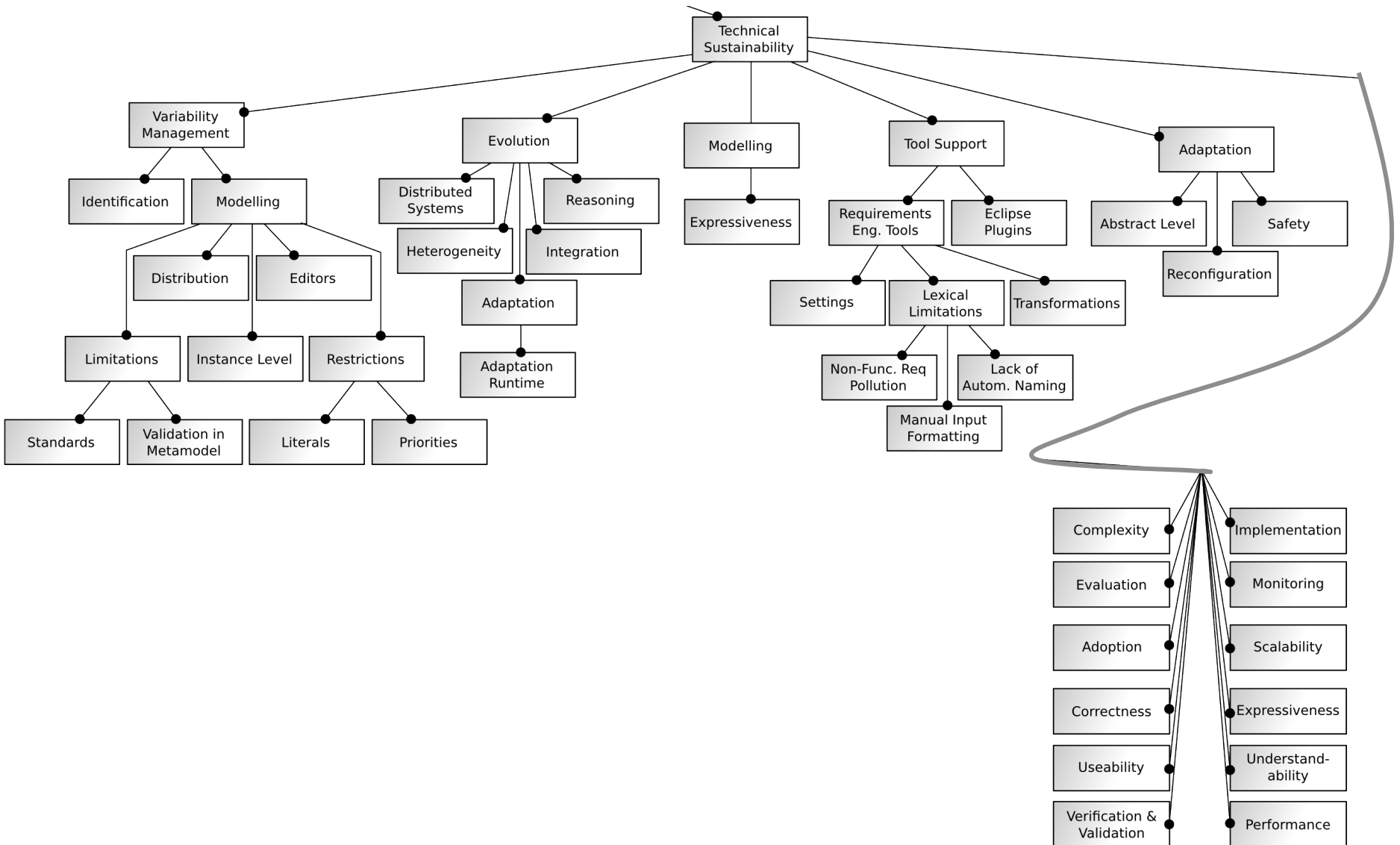
3. **Can sustainability be promoted through SPLE?**

Study Method:

1. **Case Study: DiVA Project**
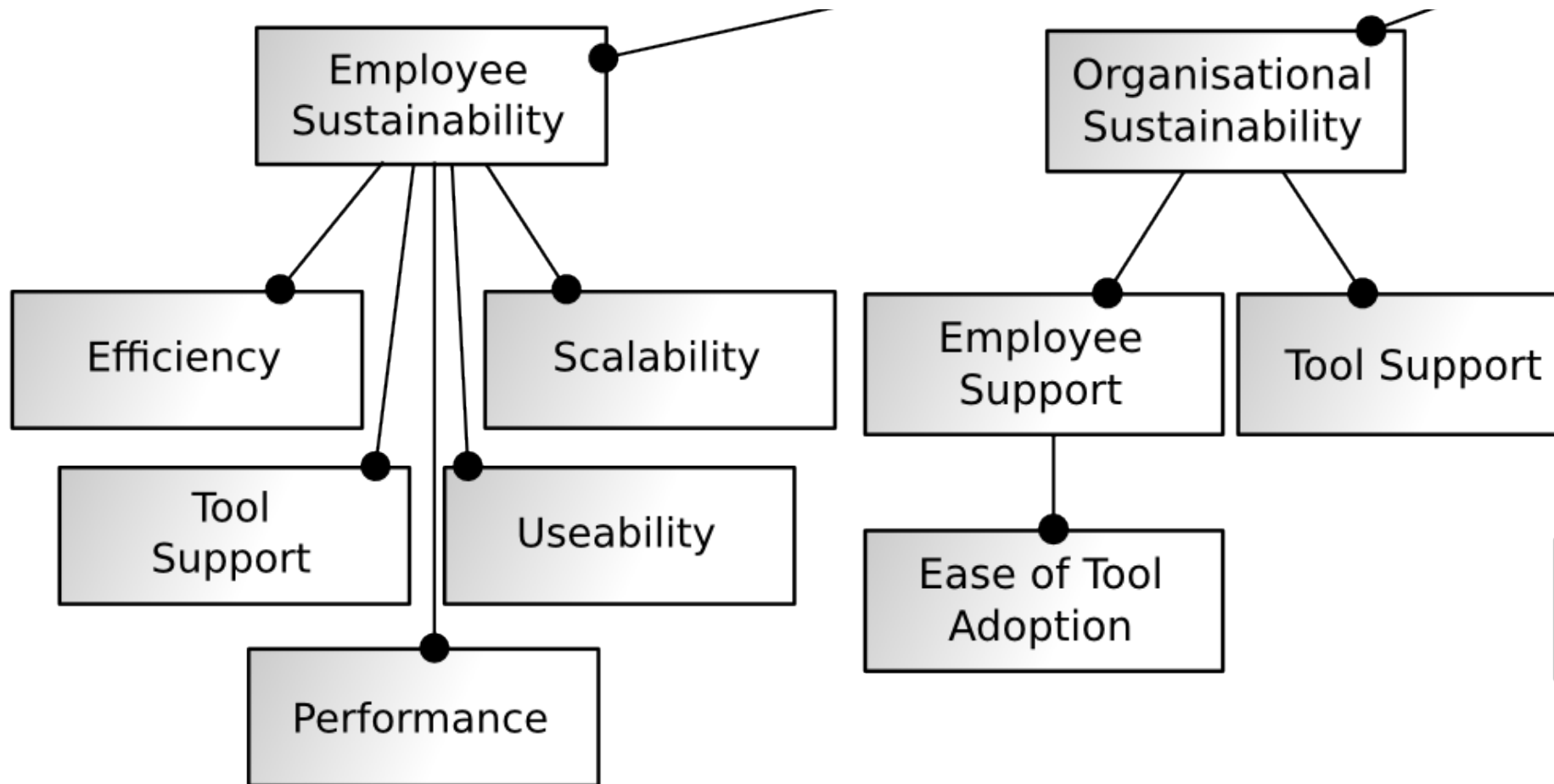
2. **Method: Grounded Theory Analysis**

ECONOMIC SUSTAINABILITY

TECHNICAL SUSTAINABILITY

SOCIAL SUSTAINABILITY

METRICS ON TEC. SUSTAINABILITY

Quality of the software:

1. Number of lines of code
2. Cyclomatic complexity
3. Depth of inheritance

Technical ability of the SPL to support the production process:

1. Core asset utility,
2. Percent reuse,
3. Specialised SPL maintainability metrics

METRICS ON ECON. SUSTAINABILITY

Performance:

1. total product development cost
2. time to market
3. market feature coverage

Streamlined production process:

1. effort to produce core assets
2. core asset utility
3. percent reuse.

METRICS ON SOC. SUSTAINABILITY

Organizational:

1. Process compliance
2. Back to financial points
3. MISSING
    1. Trust
    2. Collaboration
    3. Cooperation….

Personal:

1. Back to efficiency and performance
2. MISSING
    1. Job satisfaction
    2. Personal worth….

METRICS ON ENV. SUSTAINABILITY

Missing, but

1. **Topics of resource consumption**

   1. Energy
   2. Materials…

2. **Architecture**

CONCLUSIONS

Clear presence of sustainability topics in SPL

PLEASE WORK ON THIS