

Light Weight Simulation

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Abstract

Many simulations suffer from the fact that the investment and the maintenance costs more than the harvested value of the simulation results. In this presentation we show a light-weight approach to simulation. Key success factors are discussed to keep the simulation light-weight and to get useful results nevertheless.

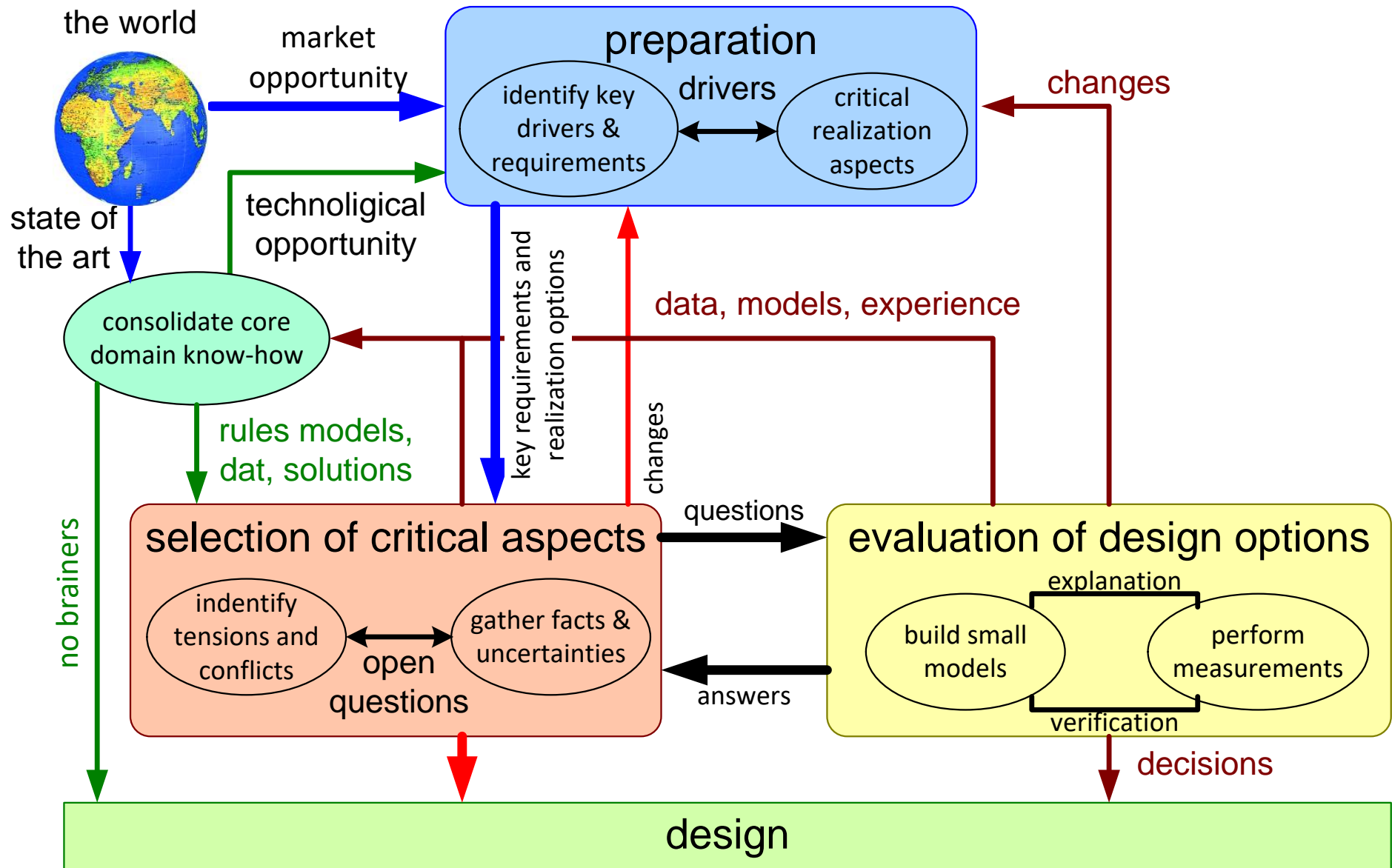
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High Level Method

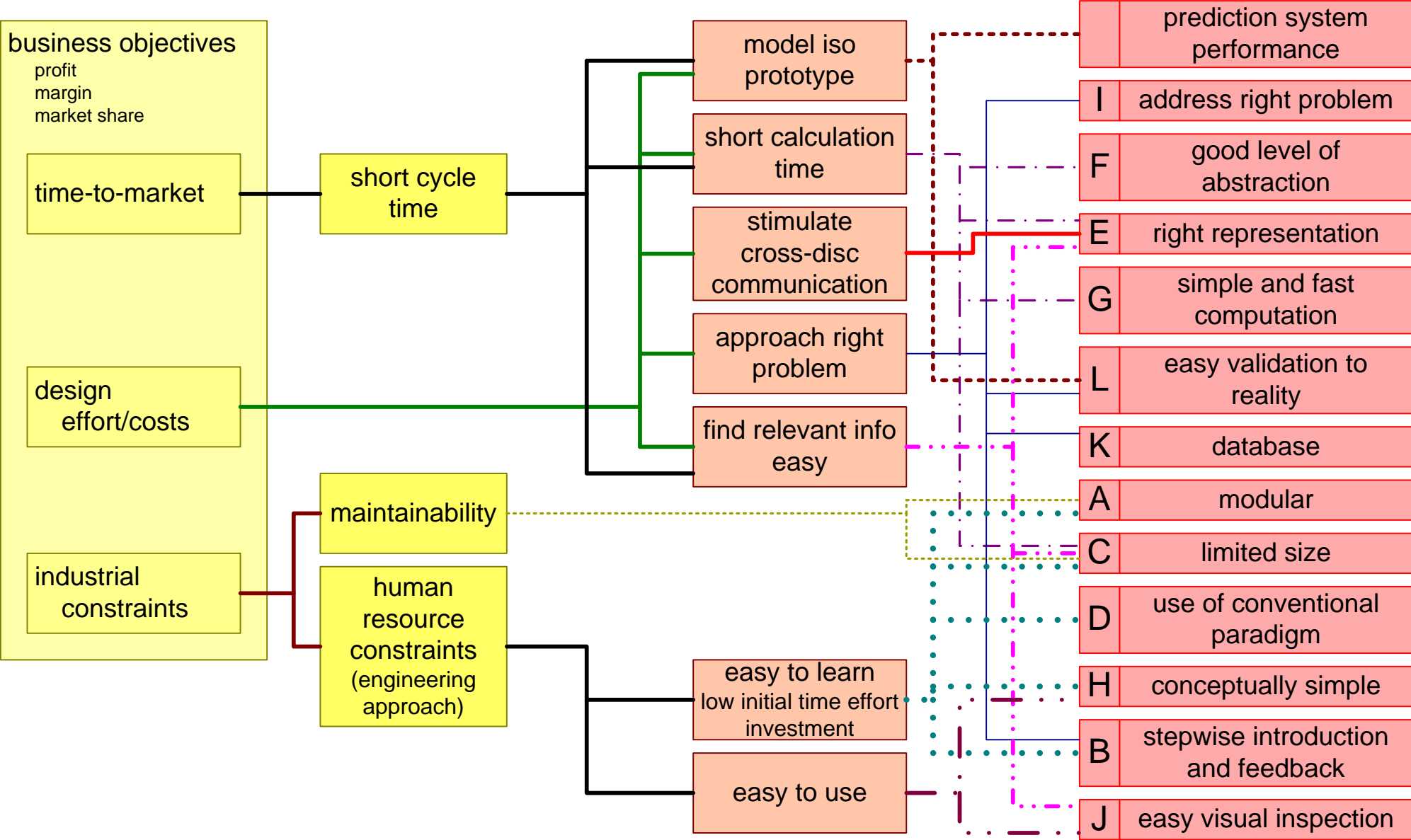


High Level Method Stepwise

| | |
|---|--|
| 1A. Identify (customer) key drivers | in terms of stakeholders and concerns |
| 1B. Identify critical realization aspects | for instance due to cost, performance, robustness, technological maturity, et cetera |
| 1C. Consolidate core domain know how | make implicit know how explicit |
| 2A. Identify tensions and conflicts | |
| 2B. Gather facts, identify uncertainties | figures of merit, design rules |
| 3A. Build small models <i>hours .. weeks</i> | addressing tensions, using facts, and creating insight in the uncertainties |
| 3B. Perform measurements | for calibration and validation |

- Iterate many times
- Provide overview by means of visualizations

Success Factors Light Weight Simulation



Light weight simulation is based on research performed in the *Boderc* project.

Especially the work of

Jan Beckers (Océ) and *Maurice Heemels* (ESI)

has contributed.