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Multi-Level Product Platform Strategy for a Multi-Level Corporation

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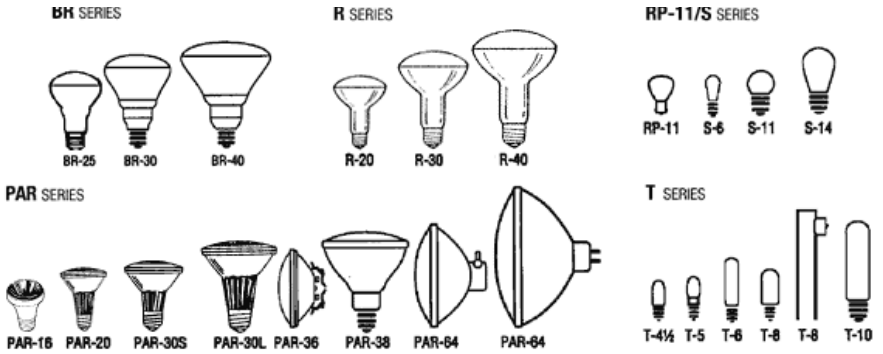
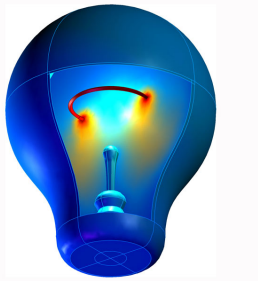
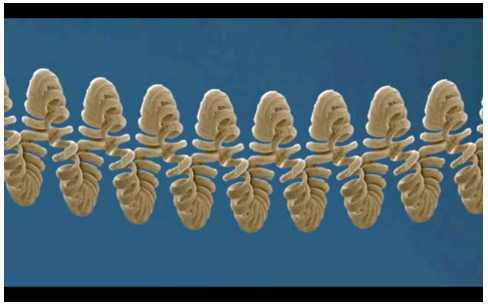
Key Contribution

- Multi-Level Product Platform Strategy:
  - Proposing types of setups for coordinating engineering reuse across business units
- Case Study
  - Situation exemplified with challenges faced by a Global Corporation

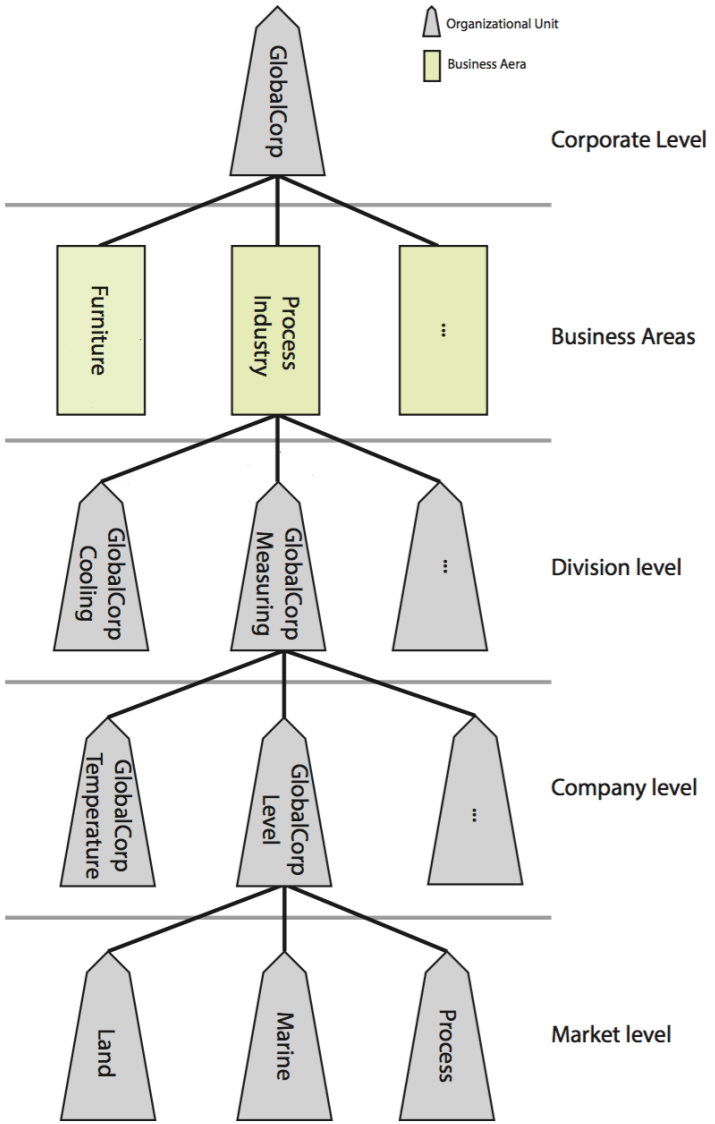
Product Platforms







Case Company



- Supplier of industrial measurement equipment for liquids, such as marine oil tankers
- 150.000 employees at more than 200 manufacturing sites
- Grown through acquisitions, resulting in a variety of standalone subsidiaries
- General challenge; want to reuse more

Problem Formulation

- ***What is a suitable platform approach for supporting efficient reuse in a multi-level organization?***

Research Methodology

- Qualitative case study
- Bottom-up perspective, from the point of view of a subsidiary in the corporation
- Ten interviews with representatives from all levels of the company
- Discussion about the results at platform and strategy forums at the company

Results - Drivers

- New competition
  - Platform seen as enabler to compete with newly appearing low-cost competitors
- Opportunities for asset sharing
  - Similar product portfolios in the three business areas, but currently customized to specific markets and use scenarios
  - Currently clear separation of high-end and low-end models, but it could in fact be cheaper to use the same high-end components also in low-end products
- Rising production volumes, but the number of variants has grown even quicker
  - Variety has increased complexity for production
  - Low volume/article means high price for purchased goods

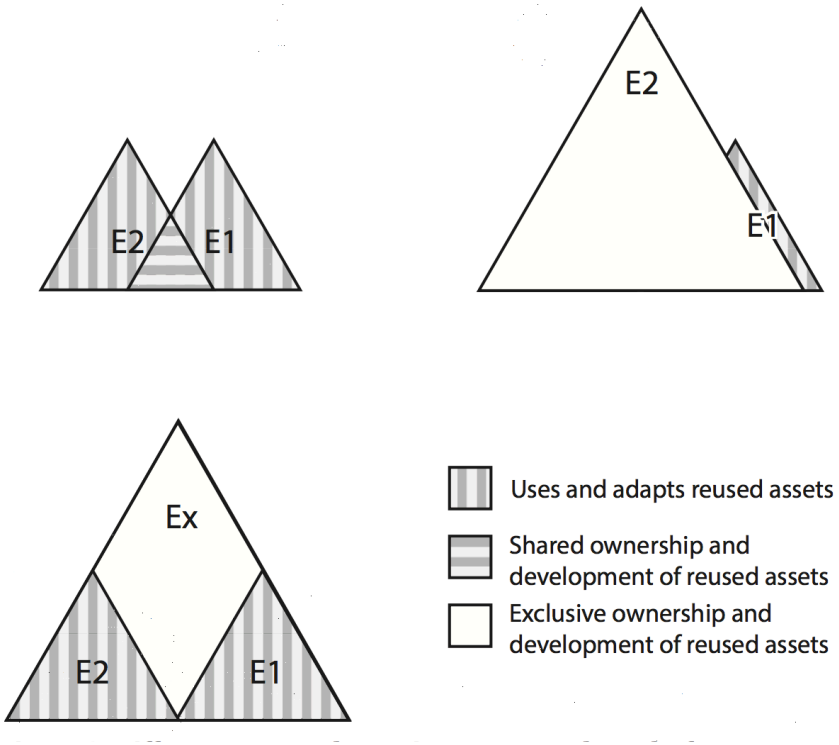
Results – Current problems

- Attitudes
  - Reuse of solutions is seen as highly dependent on the engineers' and project managers' personal knowledge and attitudes towards reuse.
- Politics
  - Subsidiaries are proud to be independent, so political issues are expected
- Knowledge Management
  - The main mode of finding information - difficult for new employees to access knowledge
  - Both formal and informal repositories for reports and other documents. The internally developed document management system is outdated and no standardized structure for saving project data.
- Ad-hoc solutions
  - There are ongoing initiatives at the company for addressing these issues, but no overall strategy

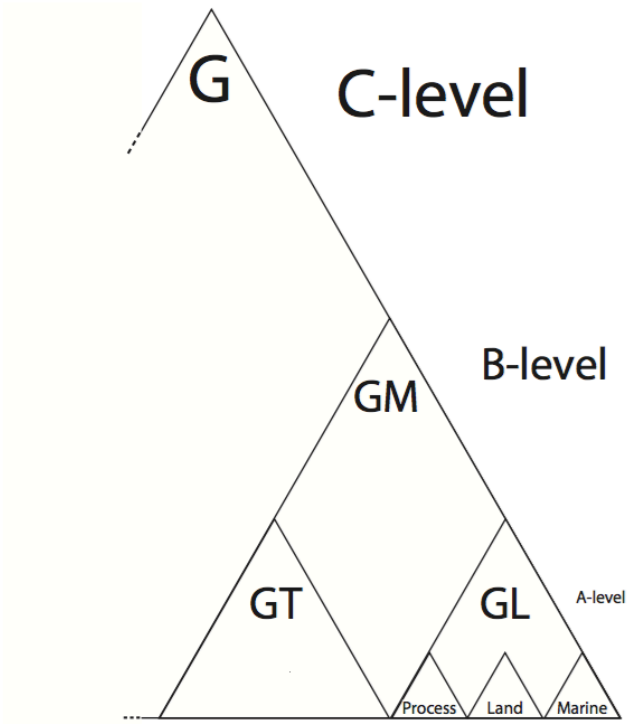
PROPOSED PLATFORM FRAMEWORK

Platform Framework

3 Types

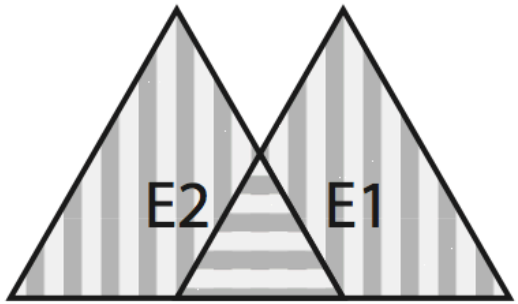


3 Levels



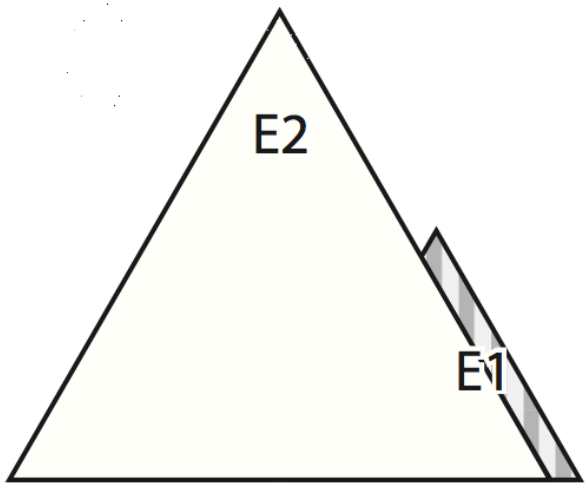
Platform Strategy Type 1

- **A *mutual share* approach**
  - Common assets (modules, parts, technologies etc.) are developed in temporary project constellations between the involved actors.
  - The assets are then used in each subsidiary separately.
- Benefit:
  - Each actor has high influence in development stage
- Drawback:
  - The ownership is not clear. For example, what happens if a change to the common assets is bad for someone and good for someone else?



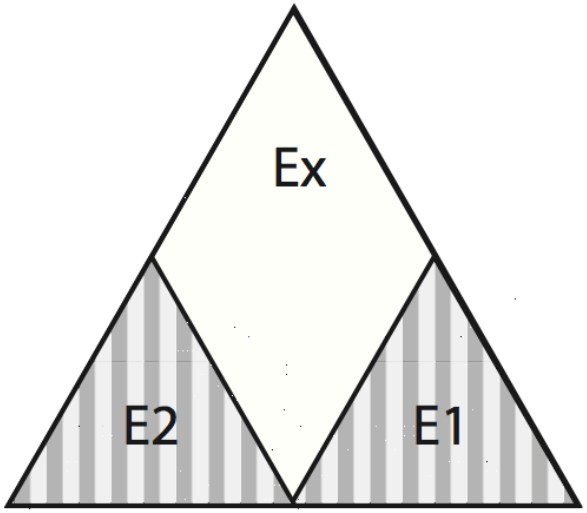
Platform Strategy Type 2

- ***Provider-user* case**
  - Smaller actors can piggyback on other actors' modules that have higher volumes and therefor a lower manufacturing cost.
  - The smaller actor has no saying in changes and development of the used assets.
- Benefit:
  - One actor may benefit from a larger actors greater quantity, thus gaining scale of benefit in production.
- Drawback:
  - There is a high risk of changes affecting the subsidiary's own product.
  - They are also highly constrained to what the other subsidiaries have to offer.



Platform Strategy Type 3

- **The *platform organization* approach**
  - Introduces an organizational unit (Ex) that resides between the participating partners (E1 and E2).
  - Any development or change of common assets such as modules and technologies is managed on the Ex level.
  - Unique parts, modules and technologies are developed and managed by each partner.
- Benefits:
  - Both high degrees of commonality and diversity in products possible.
  - Different actors can participate as found beneficial and changes are managed jointly.
- Drawback:
  - A separate organizational unit is needed, which comes with a high initial cost and potentially higher maintenance cost.



Example 1

Type: Provider-User
Level: Across subsidiaries

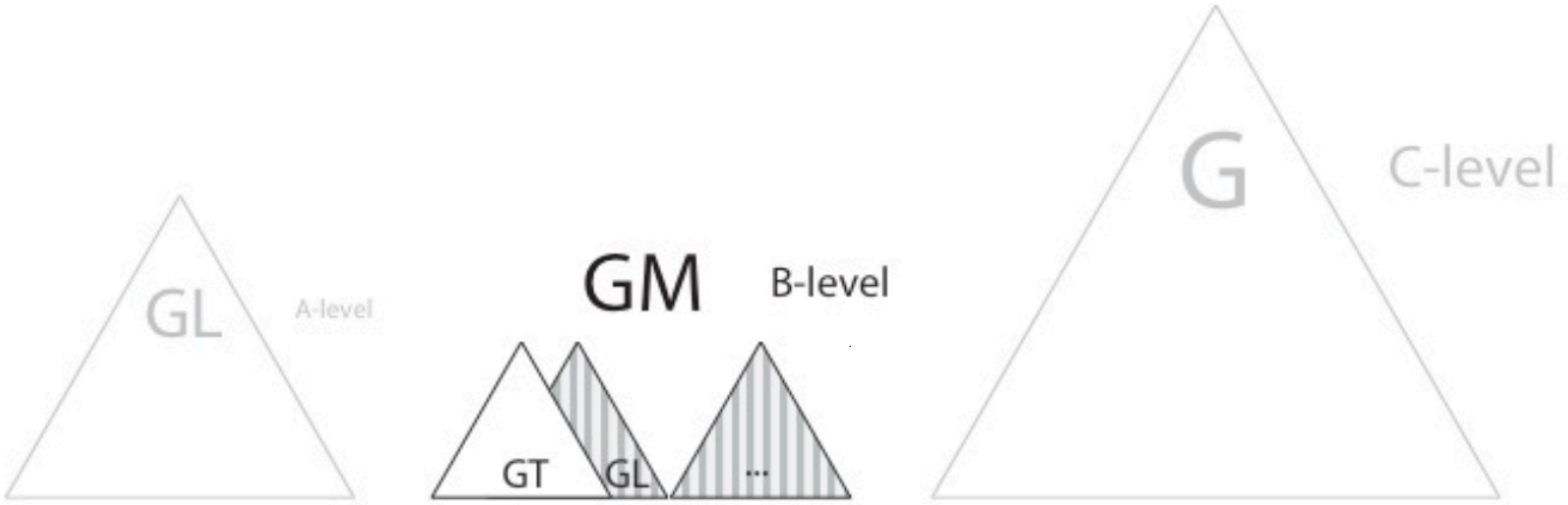


Figure 4: Platform strategy for a casing developed by GT and reused by GL

Example 2

Type: Platform organization
Level: Across subsidiaries

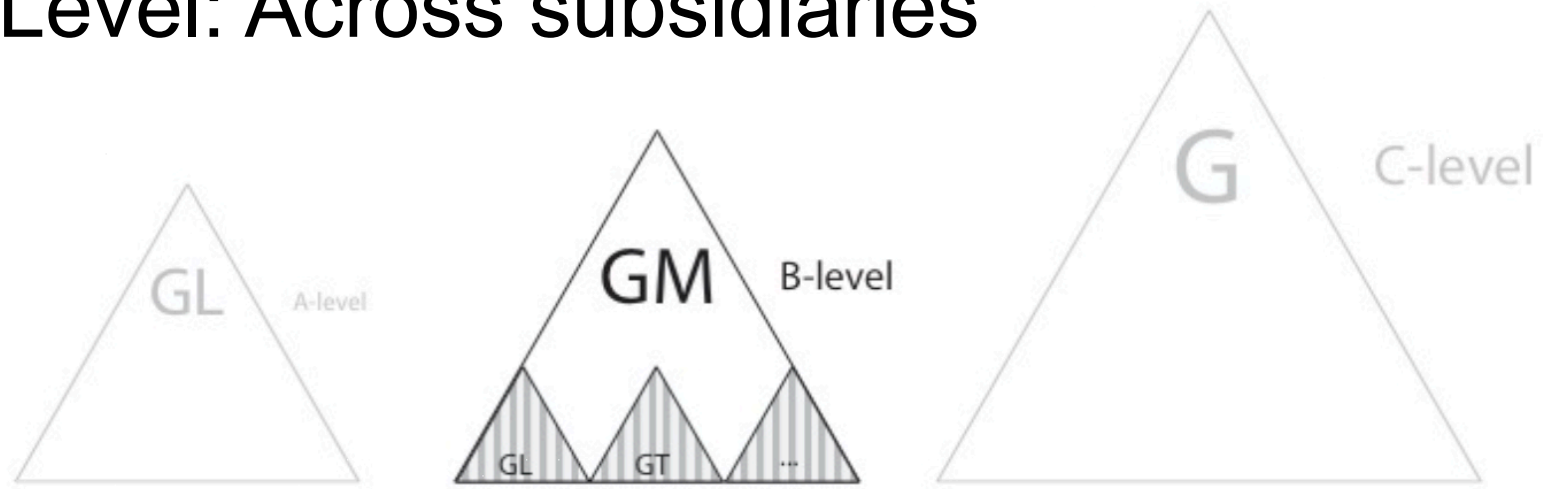


Figure 5: Platform strategy for wireless technology, to be developed in a separate organization and reused by the subsidiaries GL, GT etc.

Example 3

Type: Platform organization
Level: Within subsidiary, across BUs

Figure 6: Platform strategy for similar products for different market segments within GL, to be developed in a separate project within GL and used by the three units.

Example 4

Type: Platform organization
Level: Corporate

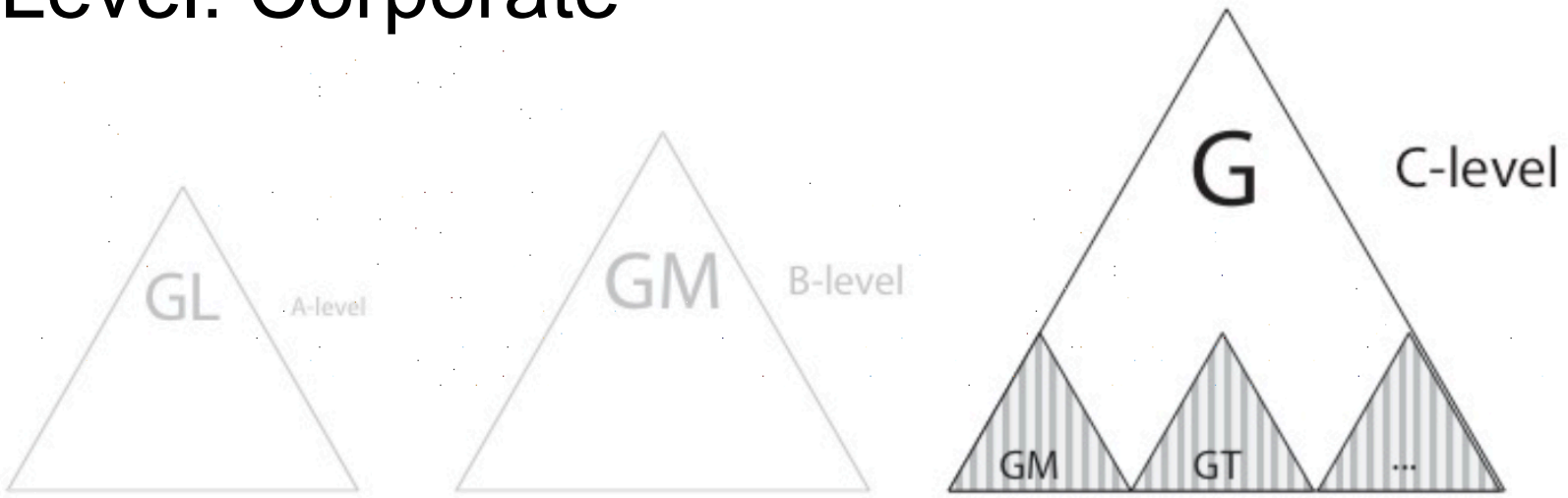
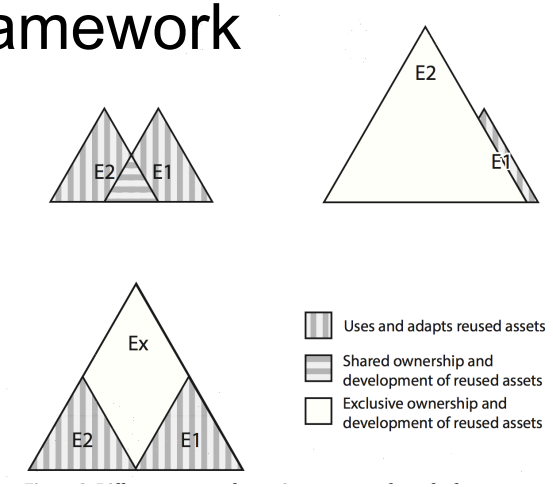
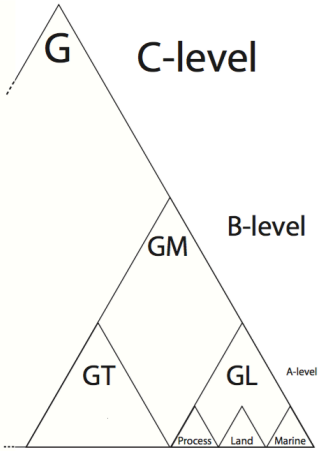


Figure 7: Platform strategy for some IT-tools and processes, to be developed by G and reused within the divisions and their subsidiaries.

Conclusion

- Case Company considers a platform strategy
  - Cost reduction
  - Synergies between acquired subsidiaries
- Challenges
  - Attitudes & politics
  - Knowledge management
  - Ad-hoc initiatives for asset sharing
- Platform Framework
  - 3 Types
  - 3 Levels





THANK YOU!