

PRODUCT ARCHITECTURE DESIGN

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in collaboration with Helkama and Microsoft



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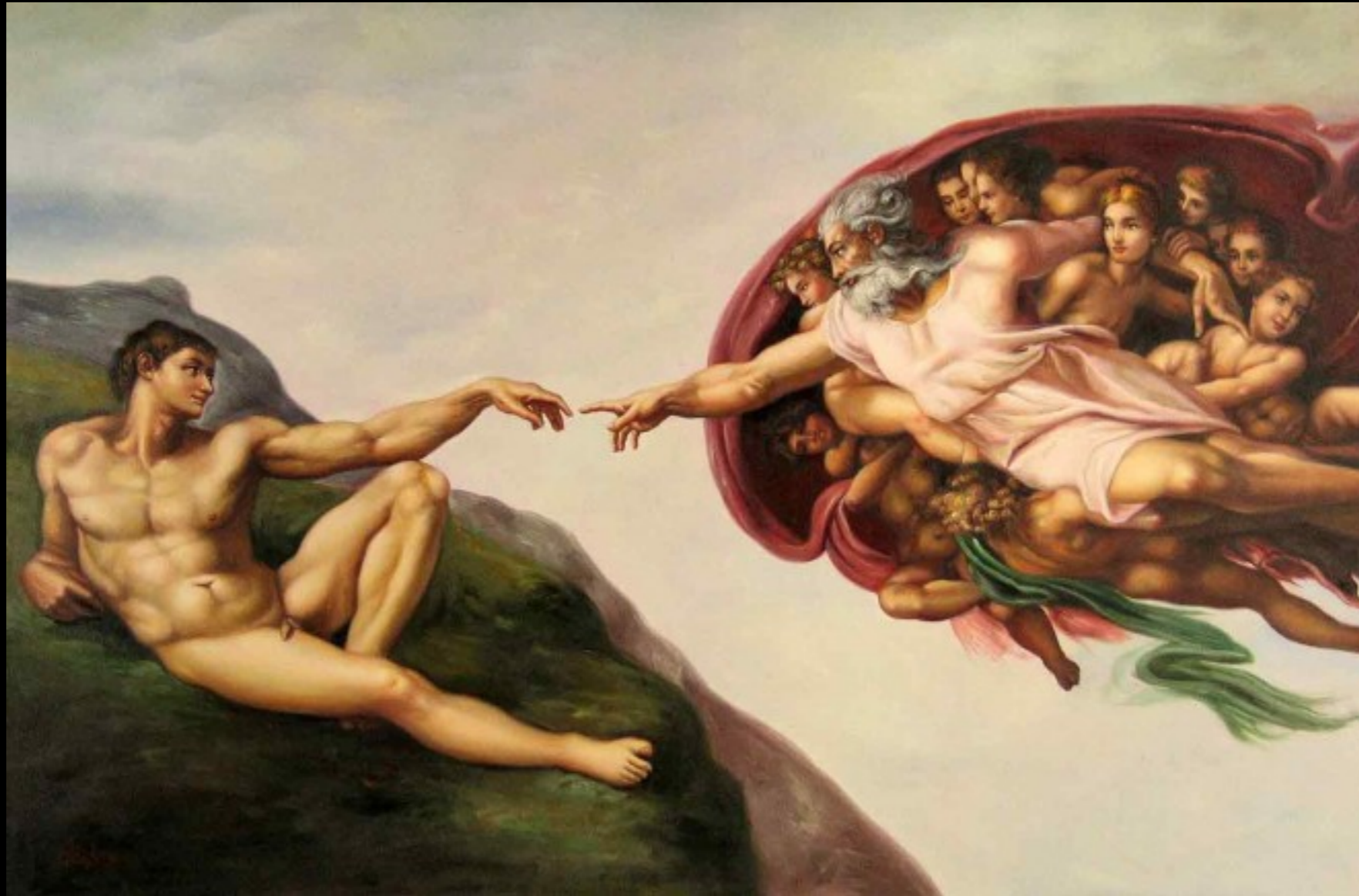
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Some fundamental statements
around design...

Design has always been



by people for people



holistic approach
fuzzy front end
the big picture



Functionality
Esthetics
Accessibility



Someone always pays





Products

objects, services, applications

basic requirement for all successful activity and business

materials



materials , chosen based on product features,
production volumes and cost structure.

elements



elements, basic building blocks
with only little of functions

components



components, compilations of functional features ready to be assembled

modules



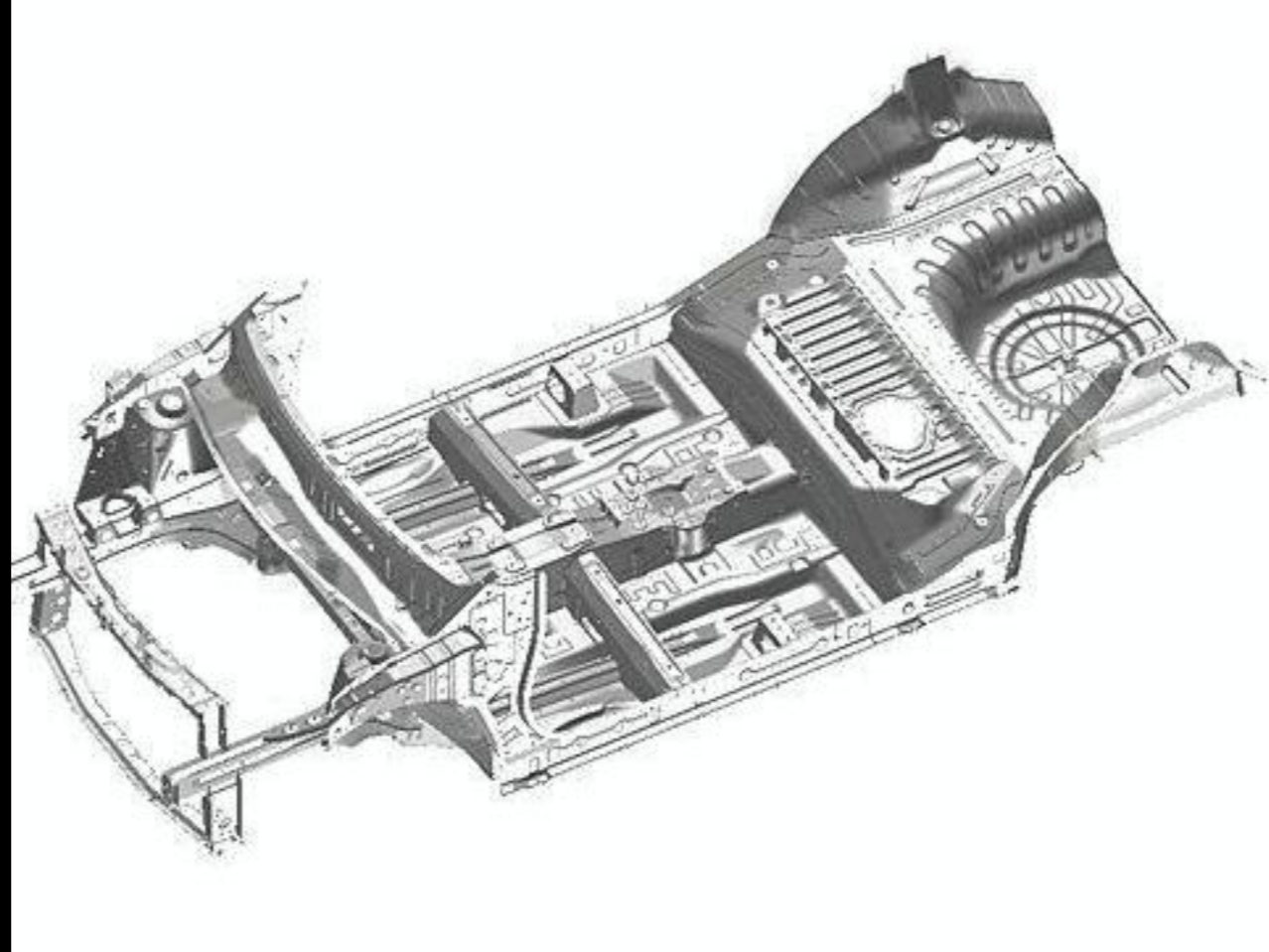
modules, as few as possible to create the widest possible variety of products or product features.

interfaces



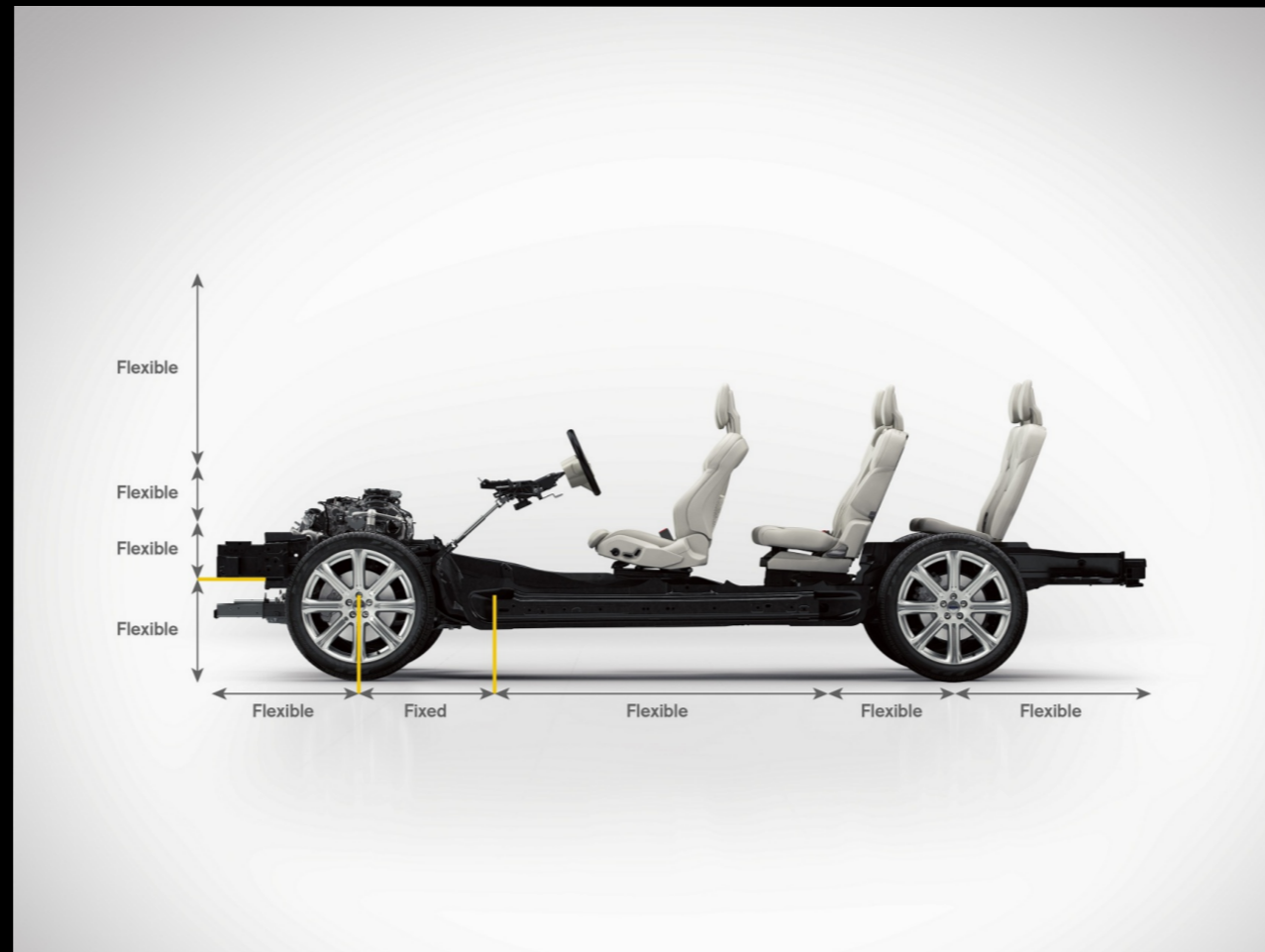
interfaces, as few as possible to connect as many as possible modules flexibly together

platforms



platforms that are shared with as many as possible products

product architectures



product architectures, where one or more functional builds can be scaled or replaced with an alternative one

integration



function integration within a part or component

feature integration within a product

systems



systems design involves external stakeholders

customisation



customisation through a set of variables in the product offering

personalisation



means of personalisation turns a volume product into an unique one



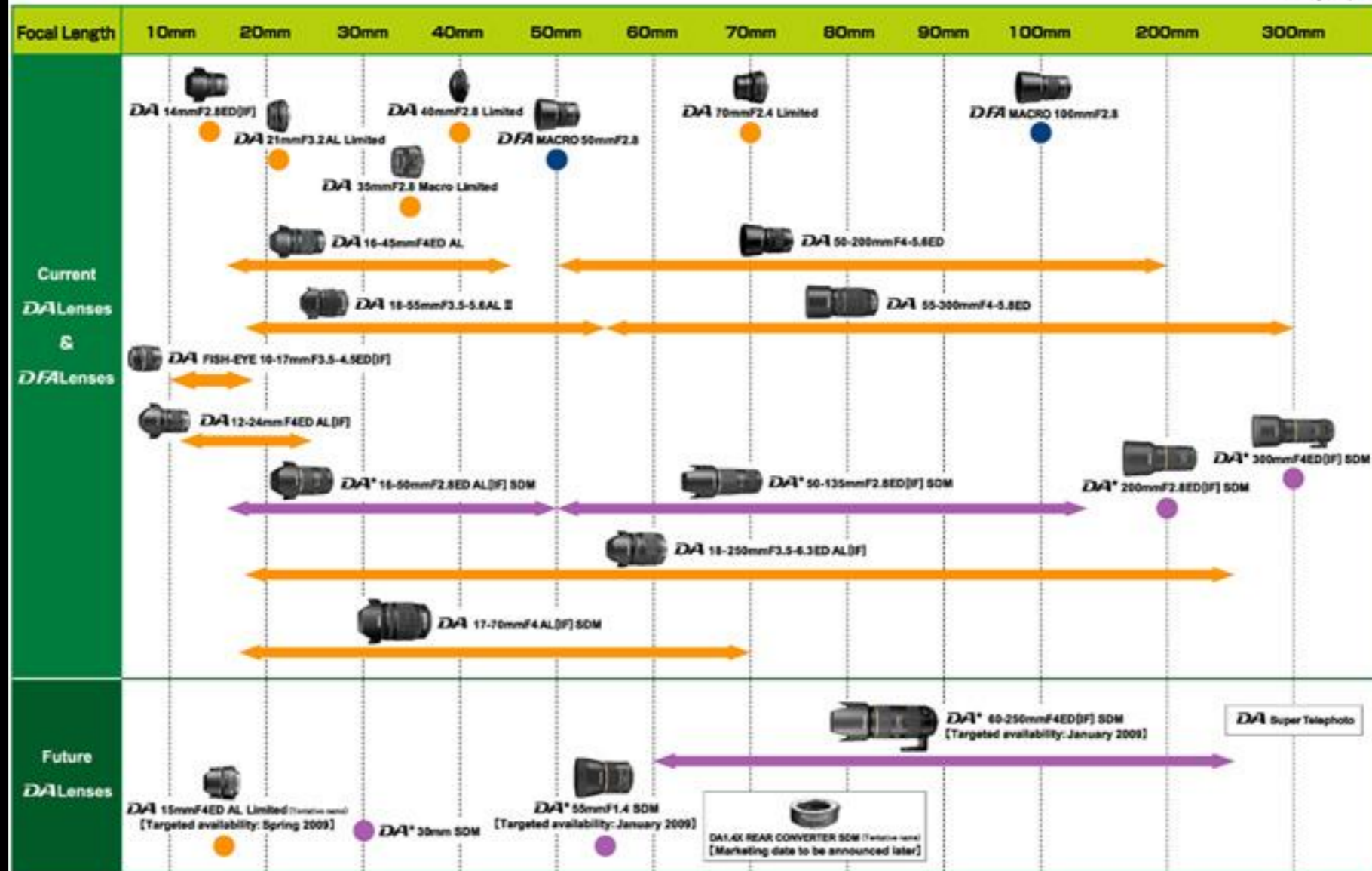
demand break down
requirements specification



product specification

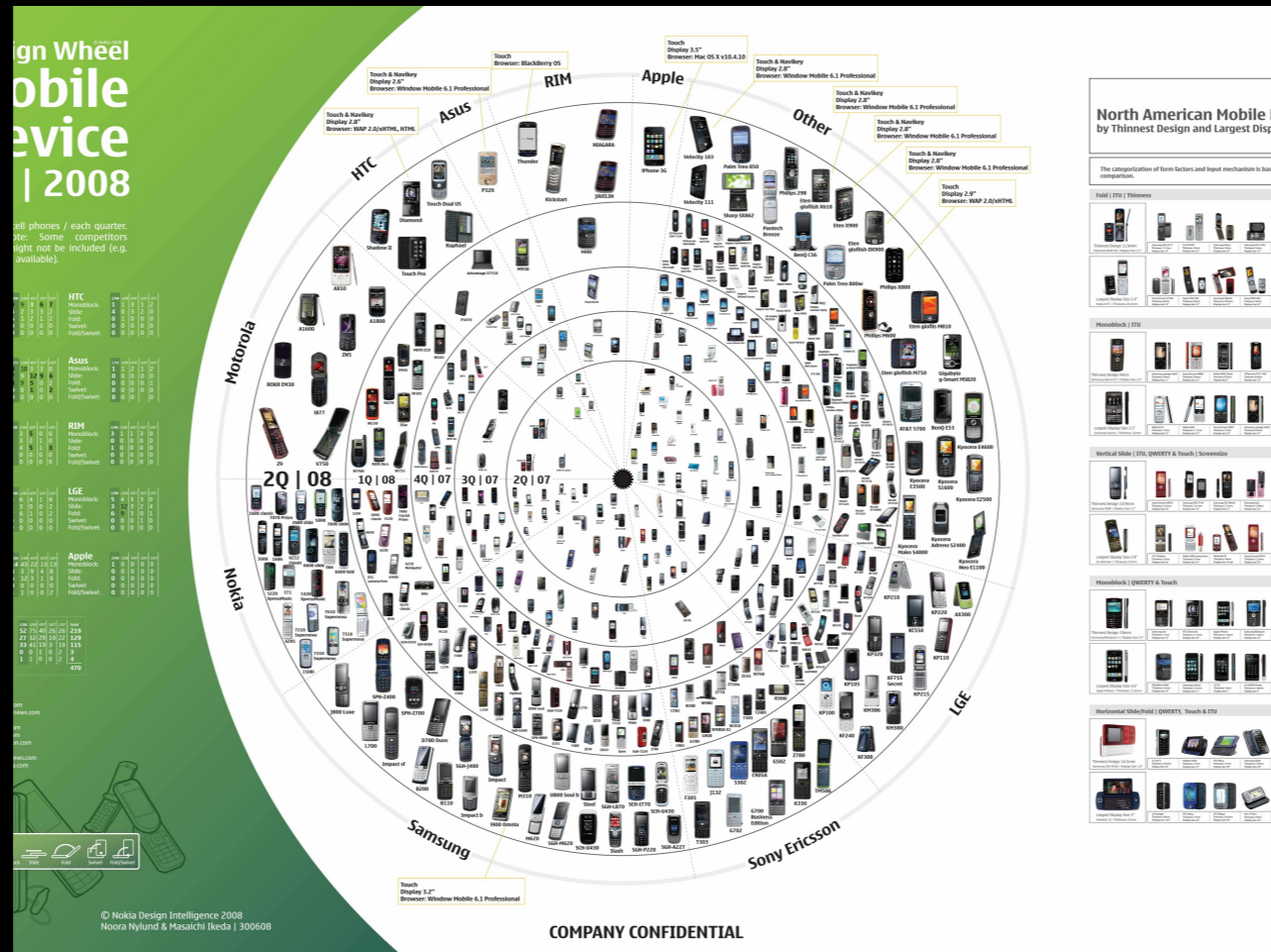
PENTAX SMC PENTAX Lens Development Roadmap

As of Sept.22,2008



Model names, designs, specifications and market launch schedules of these products are all tentative and subject to change without notice.

product planning



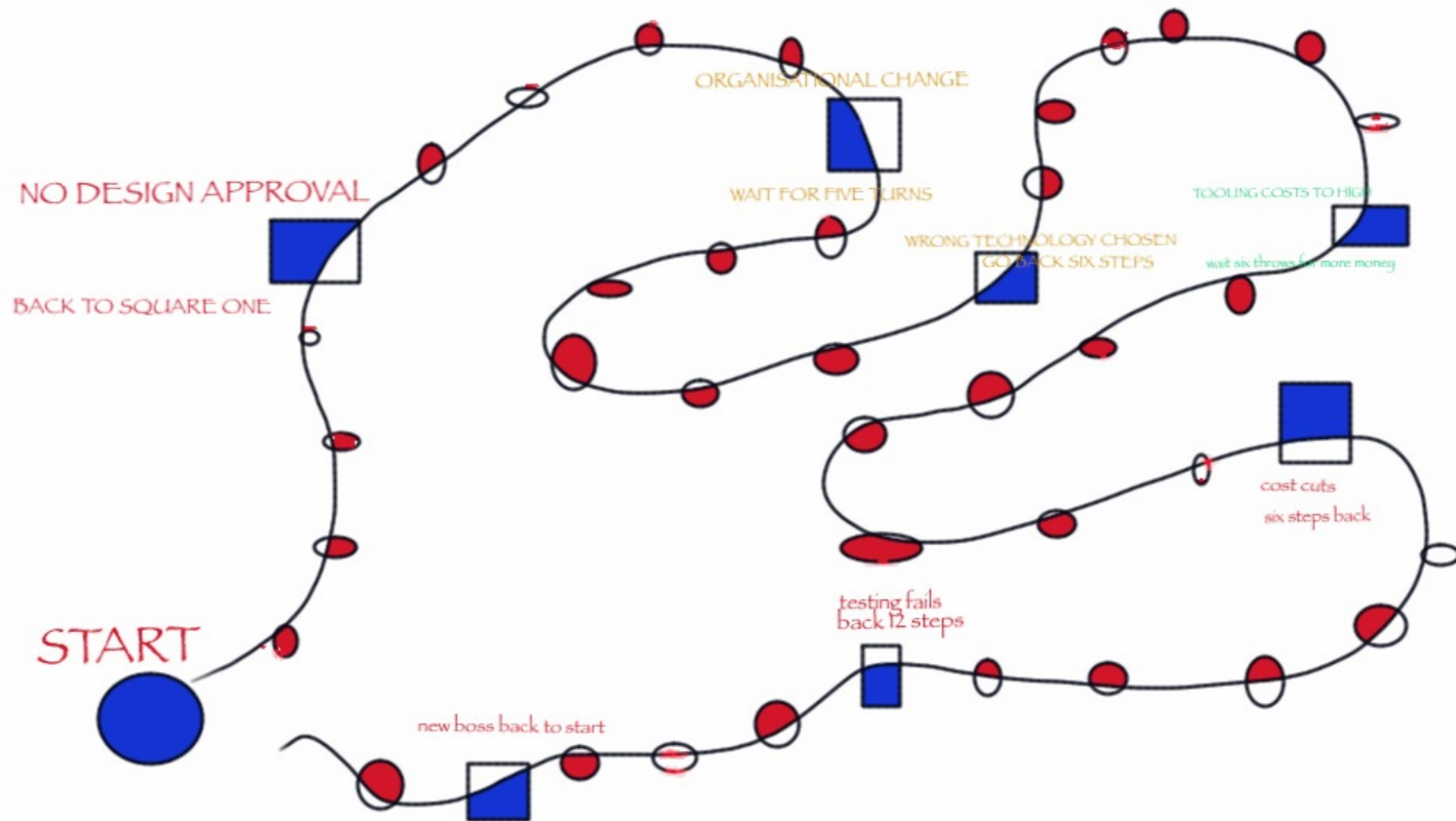
design research

product calculation

- Target group and size global 1000 000
- Market area focus Finland 10 000
- competitors yes, 40 % market share avrg.unit price 200
- target market share 60% of local markets 6000
- your value added slightly better, a bit more expensive 20
- estimated product price 220
- gross revenue targeted 6000×220 1320000
- gross margin/ profit 7% 92400
- for product development, production, marketing, distrib 1227,600

design process

PUPPELI



Your 1st assignment

Get organized to teams of 3-5

With your team's present understanding of product- platforms, architectures and systems.

Get acquainted with Microsoft and Helkama Velox products and technologies and based on what you learn, formulate 3 questions to ask the company during our briefing sessions with the companies