New challenges in Auto Electronics & Supply Chain structure
NMI 26th Sept

Climate · Electronics · Interiors · Lighting

Strictly Private and Confidential

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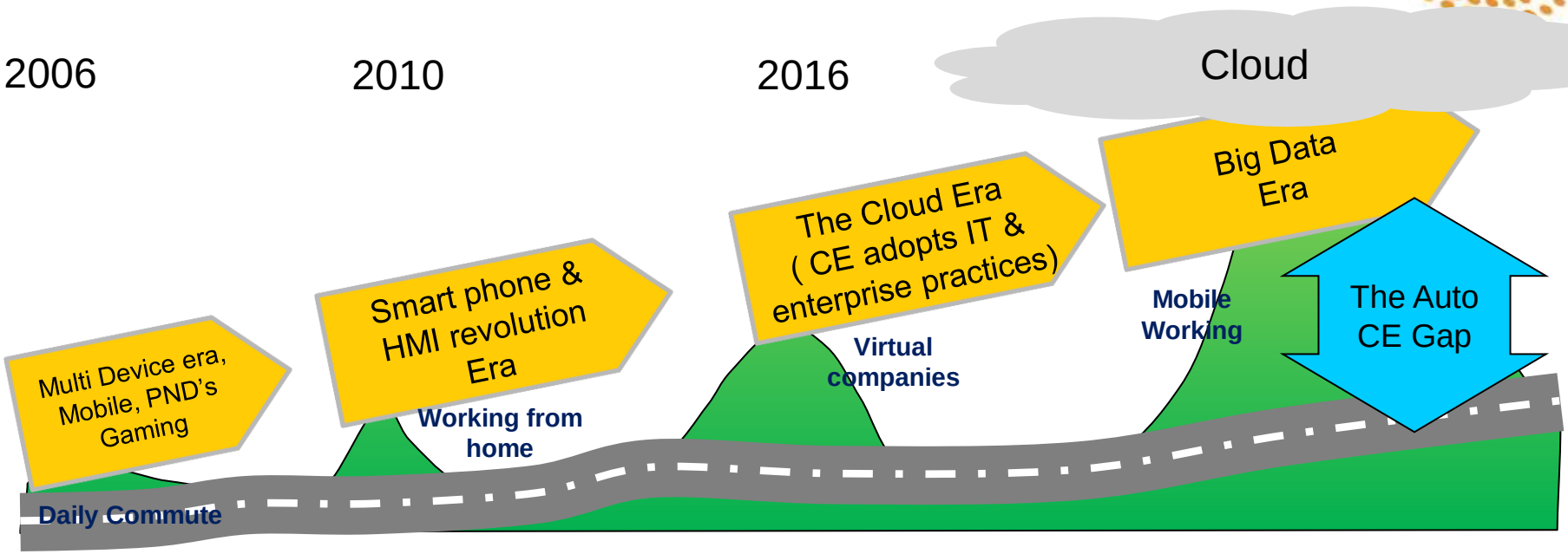
Automotive industry creating self imposed barriers



Small footprint & low power micros

Multicore micros & GPU's Displays, digital media, games and embedded apps (0-30mb/s)

LTE (3GPP) & Wi-Fi, Cloud served apps & services via HTML5, mobile payments. Gaming on the cloud VoIP/VoLTE, M2M, Wideband RF, IAAS, SAAS (30-60mb/s)

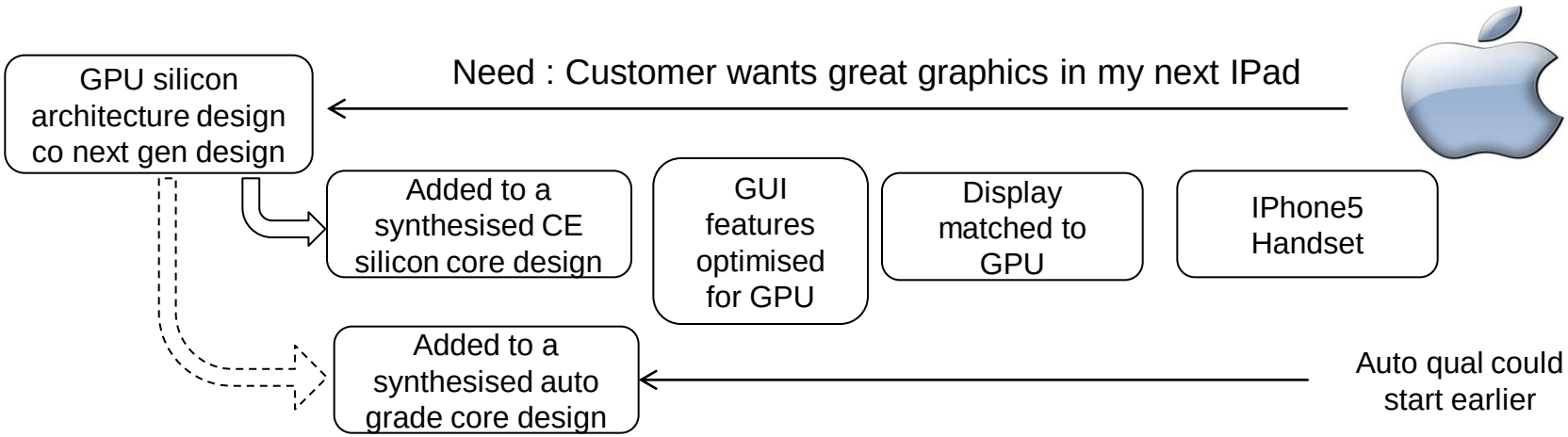
Omni- present connectivity Small cells everywhere (100mb/s)

Our supply base (Micros, Displays, Silicon IP, RF, touch tech) are providing technology solutions that are enabling many of the CE revolutions to occur. So why doesn't Automotive benefit ? The Automotive industry is creating a self imposed barrier "it has to be automotive" when we should really be asking "which bit " has to be automotive !

Which piece has to be automotive ? Think out of the box

- The pace of the CE market cannot be matched by the automotive development cycle but this does not stop us from benefiting from CE developments at either the SW Feature level or even the silicon IP level

- E.g Apple wants a better graphics engine to support its next gen HD IPad

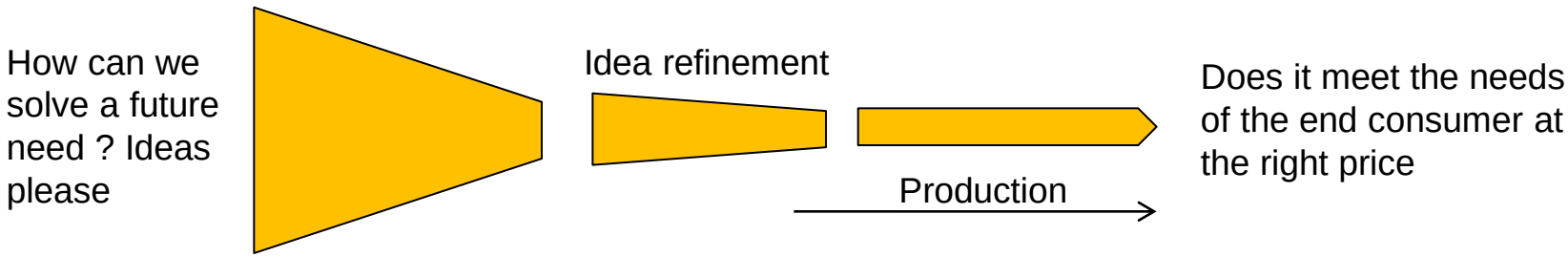


- If the GPU silicon architecture was created with automotive in mind a port to an automotive chip could almost be a parallel process we would not have to wait 3 years to get the same level of GPU performance

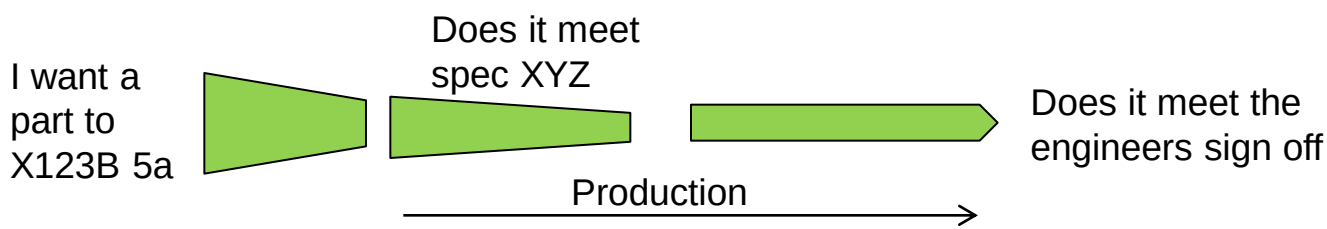
Understanding where the knowledge IP comes from could enable automotive to benefit earlier, whilst managing risk

From Transactional to Collaborative relationships

- CE & Mobile phone companies have much closer collaboration relationship with their supply base engage more regularly and much earlier but also ask “I want to solve this problem” identify the “need” and the CE suppliers helps provide the solution - top down then bottom up “solution”

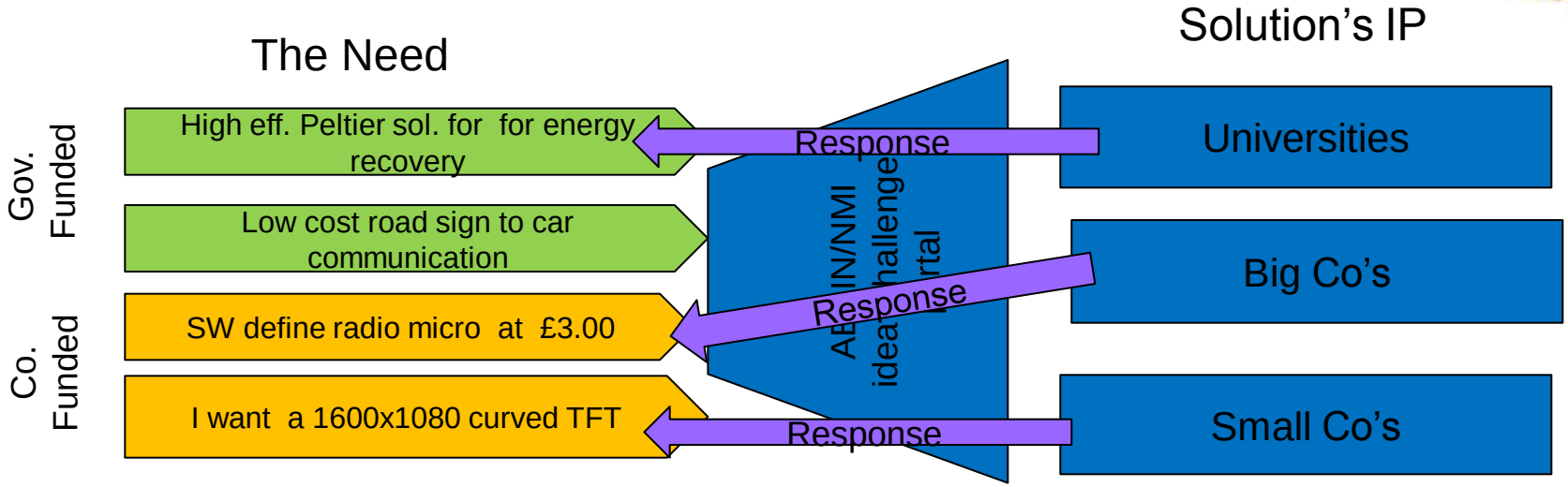


- The transactional top down automotive supply chain (tier1 and OEM) is great for sourcing and launching high quality low cost products BUT we only engage with suppliers at the RFI or RFQ stage, the specification is set and this significantly reduces upstream innovation



Outside sourcing - relationships have to change from transactional to collaborative for the UK industry to innovate

Open innovation - Just an Idea ?



- Open innovation is a process (Visteon is in its infancy) where the need or problem is shared with a wider community in a controlled environment. The problem is defined in a "ideation challenge" that clearly states what the problem is and why the solutions is needed

- The Challenge is then posted on a controlled access website where enthusiastic innovators, universities and innovating companies can respond with solutions in private - this protects the IP

Could AESIN and NMI be enablers for such a system ?

Leveraging our suppliers - Workshops

- For each technology area of interest there is a UK supplier or University who are developing future technology solutions at the IP level and are often market leaders.
- Could NMI enable these innovative companies to run workshops on the technologies
  - Bluetooth
  - Ethernet
  - V2V and LTE
  - Wideband tuners
  - Graphics processing
  - Touch technology
- Suppliers and Universities could use the opportunity to sell and promote there product but the focus would be educating UK companies on the very latest technology

So what do we need to do to change ?

- We need to keep focussed on the consumer and solving the need - the obsession on automotive specification must come later - in the beginning take the “automotive blinkers off”

- Engage more frequently and earlier with the supply base and we need to understand where innovation and actual knowledge comes from in the UK supply chain (small UK co’s with IP’s v’s the Big Brands) - the product may not be made in the UK but the IP was created here

- New strategies to manage risk / validation when migration SW and IP from CE to Automotive – if there are 0.5 million handsets in the market with this core design it should be good

- Develop a independent process outside of the RFQ, RFI process to enable communication between the OEM, the tier 1, the supply base down to the small co’s that create the IP to enable the top down “need” then “bottom up” solutions - We are not talking to each other

If we are serious about innovation in the UK we all have change the way we (Vehicle manufactures & Tier1’s) behave in the supply chain outside the sourcing cycle