

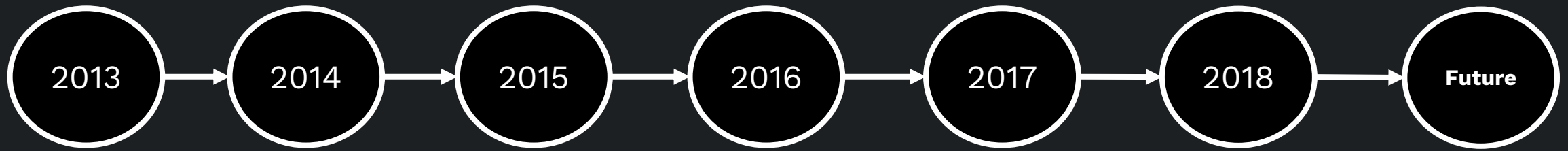
VICTA INNOVATION BAZAAR

Open Innovation

- driven by Vehicle ICT Arena

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- A review of open innovation initiatives enabled by Vehicle ICT Arena (VICTA)
- A brief account of each initiative and one (1) key takeaway
- Common aim between the initiatives
 - Boost collaboration between actors in the automotive domain
 - Identify and address challenges nurturing the automotive ecosystem
 - Catalyze knowledge development and validation



• Volvo Cars Challenge Active Safety

- First open innovation challenge organized by VICTA partners.
- Explore a platform that enables actors outside VCG to develop functions that adhere to active safety and driver support.
- 12 teams joined the initiative participating in a two-stage contest.

One key takeaway

Open Innovation as process is catalyzed by trailblazers – impact from open innovation requires the willingness to adapt and adopt on an organizational level



• PAW – Tjänstelyftet

- A joint research & innovation project VCG, Semcon and RISE anchored in VCC Active Safety
- To support the implementation of PAW, explore business models, barriers and coping strategies to onboard functional development companies

One key takeaway

Ten barriers and equal number of coping actions to support onboarding functional development companies





• Volvo Cars Challenge UX

- Digital solutions with clear consumer needs presented in a car-use-situation, that utilize data available in the car's electrical system and/or in the cloud
- 18 innovation ideas from 7 partners, participating in a two stage process
- 10 pitches from 28 developers on location at Volvo Cars

One key takeaway

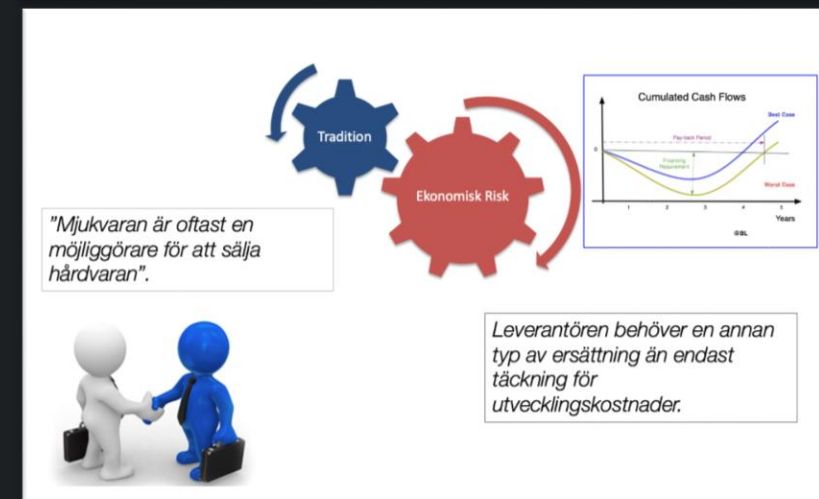
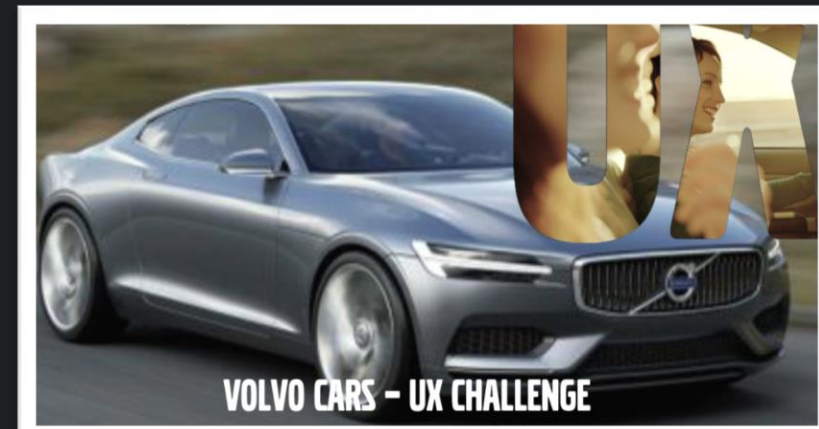
Selection criteria where the jury combined the TRL scale with consumer needs (e.g. UX insight)

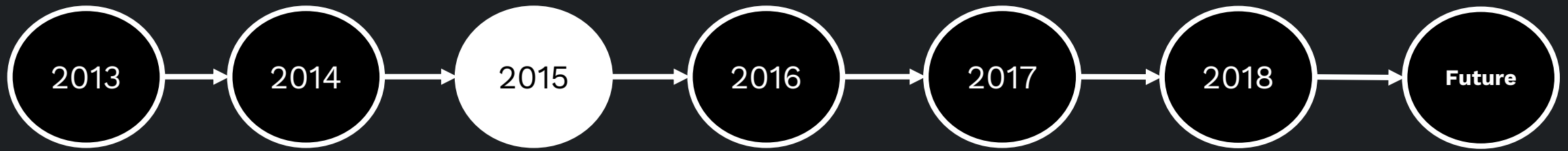
• COTS

- An initiative with Arccore, Volvo and RISE to explore the value with Commercial Off The Shelf (e.g. COTS)
- Develop business model, a POC and a market analysis – to unveil drivers and challenges to procure COTS

One key takeaway

The barriers that hinder COTS is not technology, rather tradition how to view software in the industry and a need from suppliers to transform software in to product.





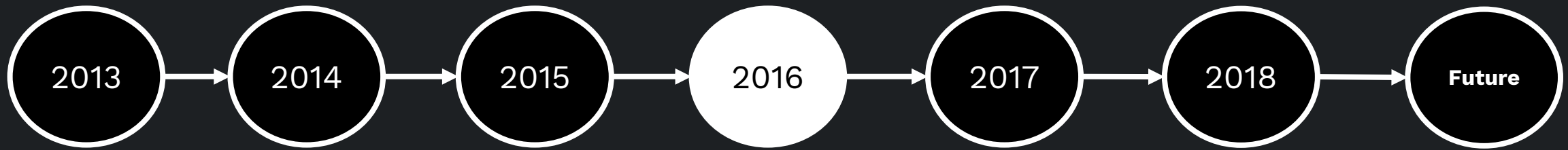
• Volvo Trucks Innovation Challenge

- A hackathon – to propell digital innovation
- Develop prototypes using data from the platform Automative Grade Android (AGA)
- Three winning teams were invited to pursuit the development based on dev support as prize.
- Validate the AGA platform for Open Innovation

One key takeaway

Early on in the process engage non-contest core Volvo resources (marketing, product planning, procurement) to setup an efficient post-contest process.





• Born to Drive

- Large-scale consortia-based R&D project targeting autonomous transport:
 - a vehicle (car), acting like its own AGV transporting itself driverless, enabled by a novel cyber-physical system
- On-board functionality, communication protocol, traffic control system

One key takeaway

Open Innovation as consortia-based R&D is possible in our ecosystem, generating both tangible industry relevant solutions and knowledge published in high-level academic outlets

• SHOP – 1st iteration

Connecting Software and Hardware Opportunities to the Performance Engine

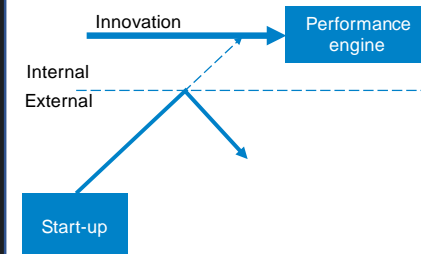
- Develop and validate a novel organizational structure (gateway) that connects external IT-innovations with performance engines (e.g. Volvo Group, Volvo Car Group, Autoliv) in the Swedish Automotive Industry

One key takeaway

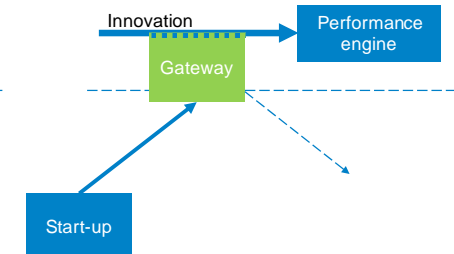
20 challenges identified based on interviews with representatives from startups and OEM/T1s within the Automotive Industry

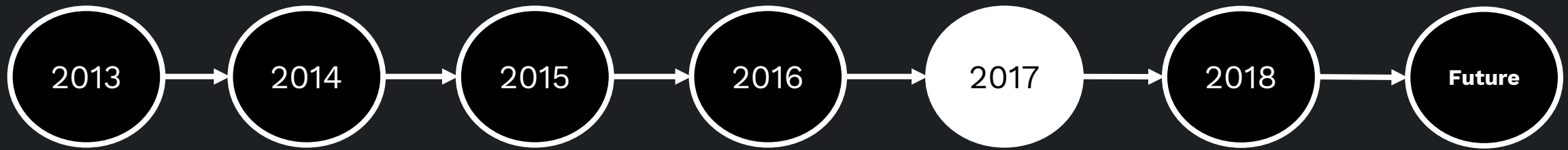
BORN TO DRIVE

BEFORE



AFTER





• SHOP – 2nd iteration

- The challenges were used to build an overall design for a gateway between startups and the automotive industry
- The developed design was used as one input to setup the first version of Mobility X Lab

One key takeaway

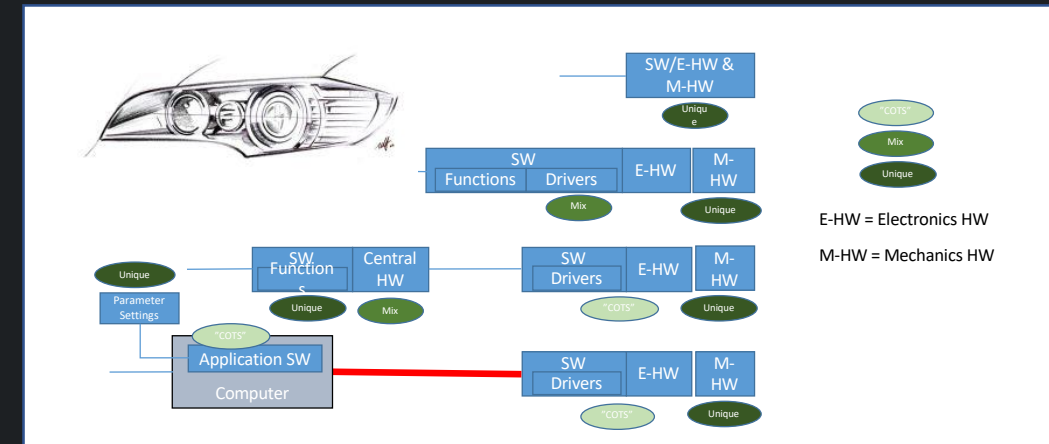
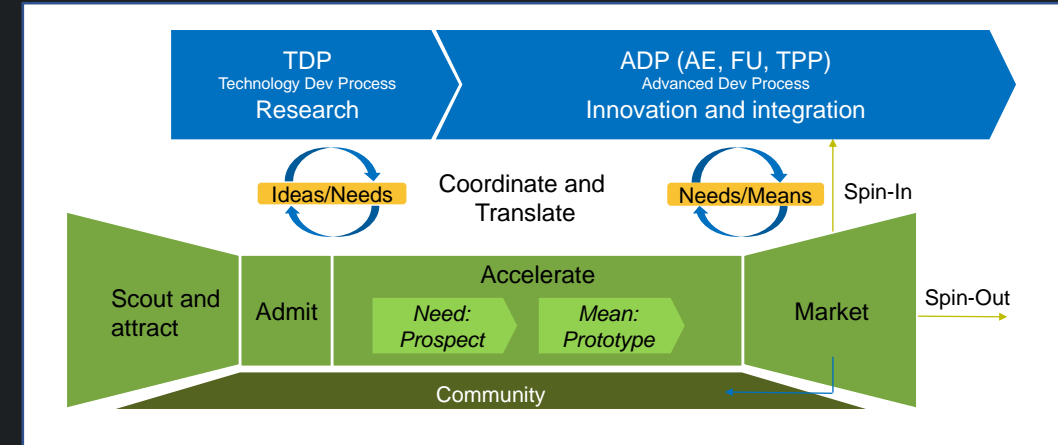
Five functions that constitute a gateway between startups and the automotive industry

• COTS – 2nd iteration

- Explore the emerging market for COTS application softwares
- To areas in the automotive industry that are appropriate for COTS business models and processes

One key takeaway

The identification of five business concepts with relevance for COTS – Open Source, Open Innovation, High IP COTS, Low IP COTS, Old core functions and Third party added value
- And that Tier1's needs to be involved



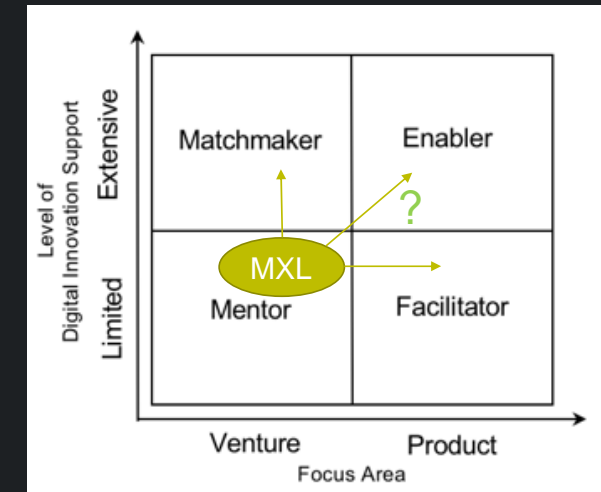


• SHOP – 3rd iteration

- Perform ongoing research on Mobility X Lab
- Interview startups, partners, members from the line organisation to explore values and challenges with MXL
- Benchmark international independent accelerators to better understand how to organize corporate incubators (e.g. MXL)

One Key takeaway:

Four possible operational models how to organize corporate incubators within the automotive industry – based on focus and level of digital innovation support



• VIPPS

- Development and test of a coaching program to elevate the capability within the automotive industry to organize and perform open digital innovation
- Collaboration: RISE Viktoria, Combitech, VCG, Autoliv, and Volvo Group

One key takeaway:

Innovation managers are not the only target group. To increase the awareness of benefits and challenges with open innovation, roles in the line organization are also target group for the program





- **PONTON** – Elevating Mobility X Lab to the next level
- **DATA DRIVEN COORDINATION** – Explore opportunities with blockchain and digital twin in the automotive industry
- **WELCOME ONBOARD** – Explore the use of crowdsourcing in public transport based passengers sharing their position
- **CIRKULÄRA AFFÄRSMODELLER FÖR ELFORDONSBATTERIER**
- Conceptualize and validate circular business models

Funding approved

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