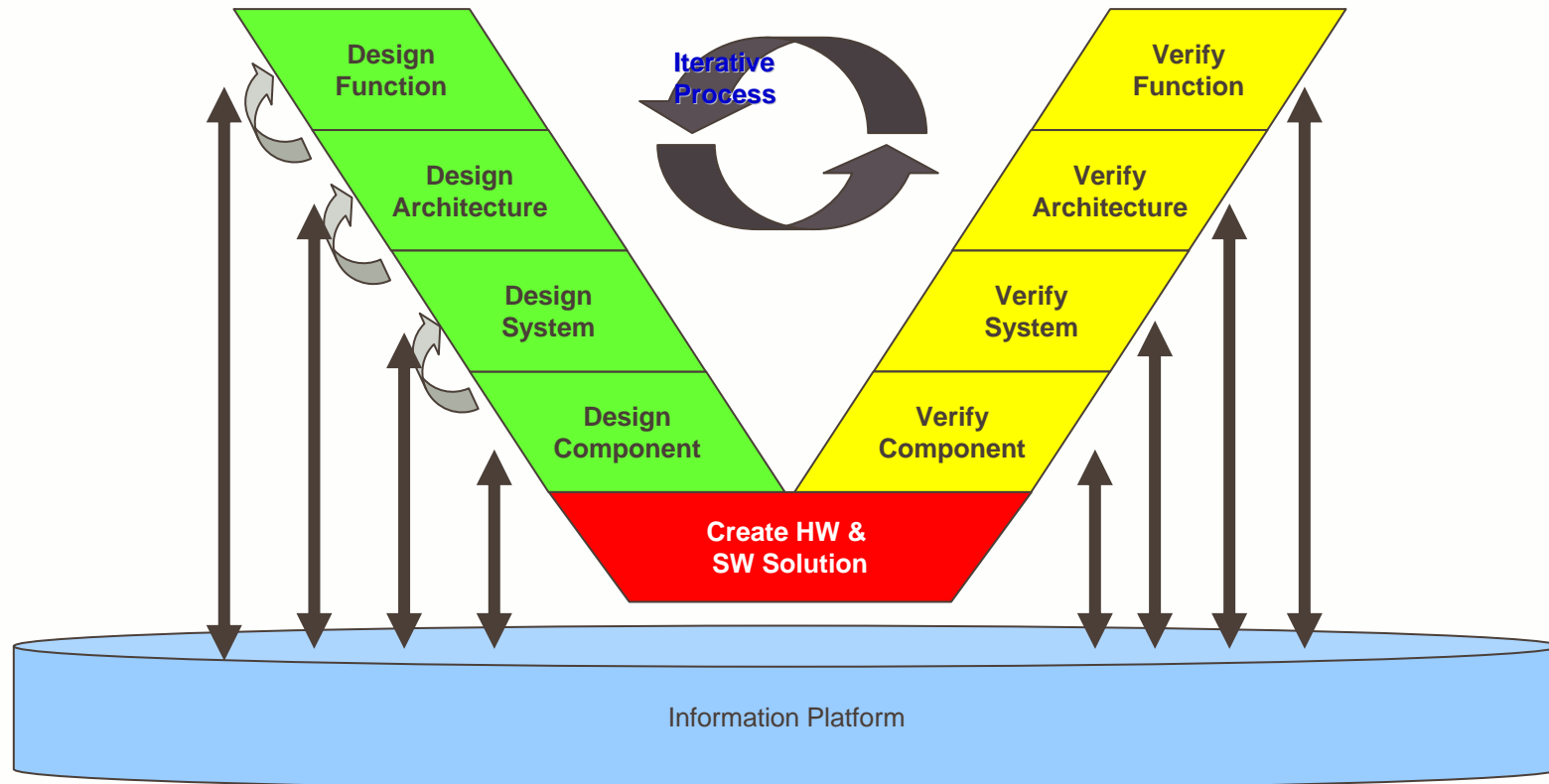


# ELEKTRA-the Vehicle Systems Engineering Environment at Volvo



**Jerker Andersson, Volvo Car Corporation**

# ELEKTRA-the Vehicle Systems Engineering Environment at Volvo

## Current situation:

Tools available but they are non-connected

Document based subsystem and component engineering

Inefficient development process:

- Frequent reviews

- Duplication of information

- Translations/distortion

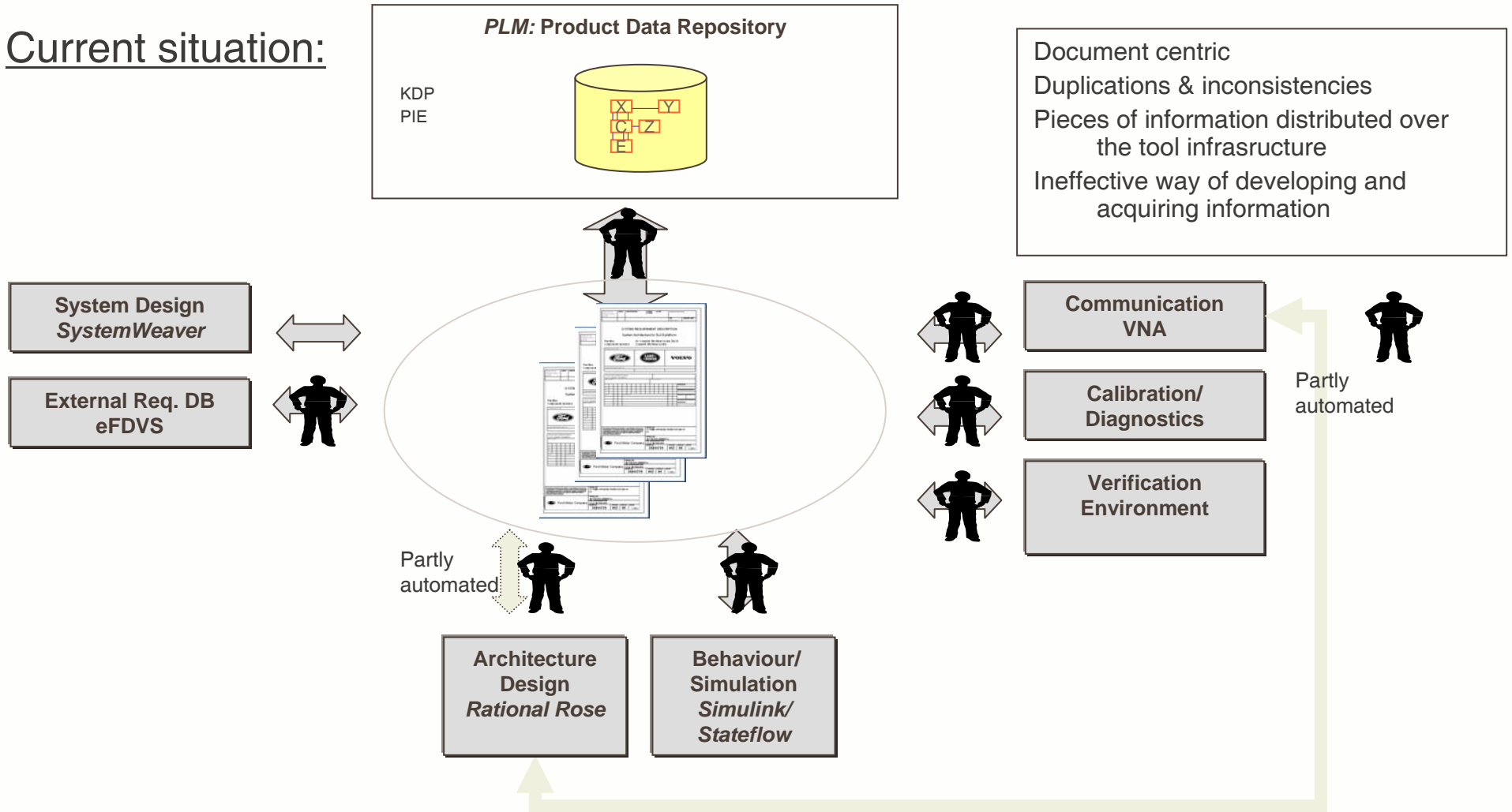
- No support of data management/version control

- Requires SW and target HW for validation and verification



# ELEKTRA-the Vehicle Systems Engineering Environment at Volvo

## Current situation:



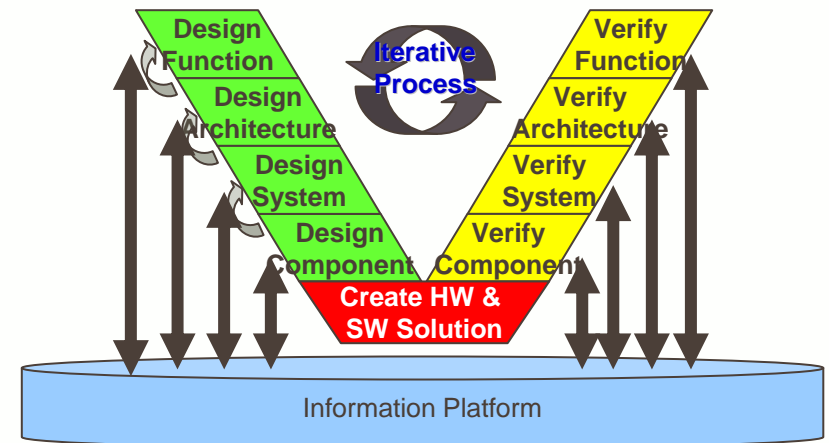
# ELEKTRA-the Vehicle Systems Engineering Environment at Volvo

## Goal:

Engineering Efficiency

Quality/consistency

Shorter leadtime

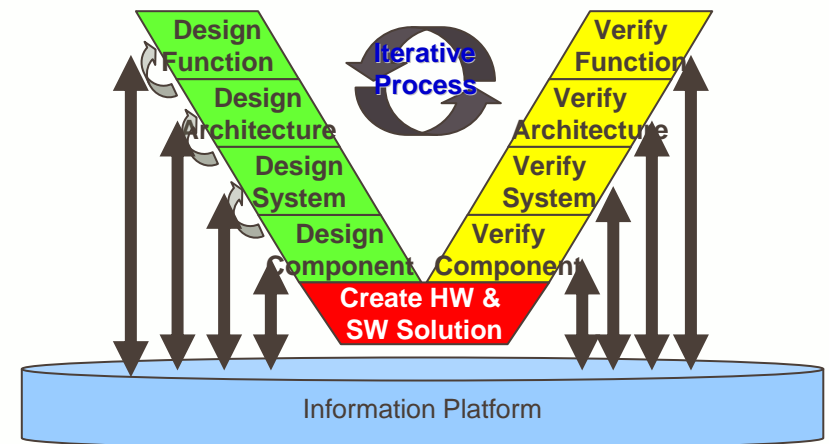


# ELEKTRA-the Vehicle Systems Engineering Environment at Volvo

## Guiding principles:

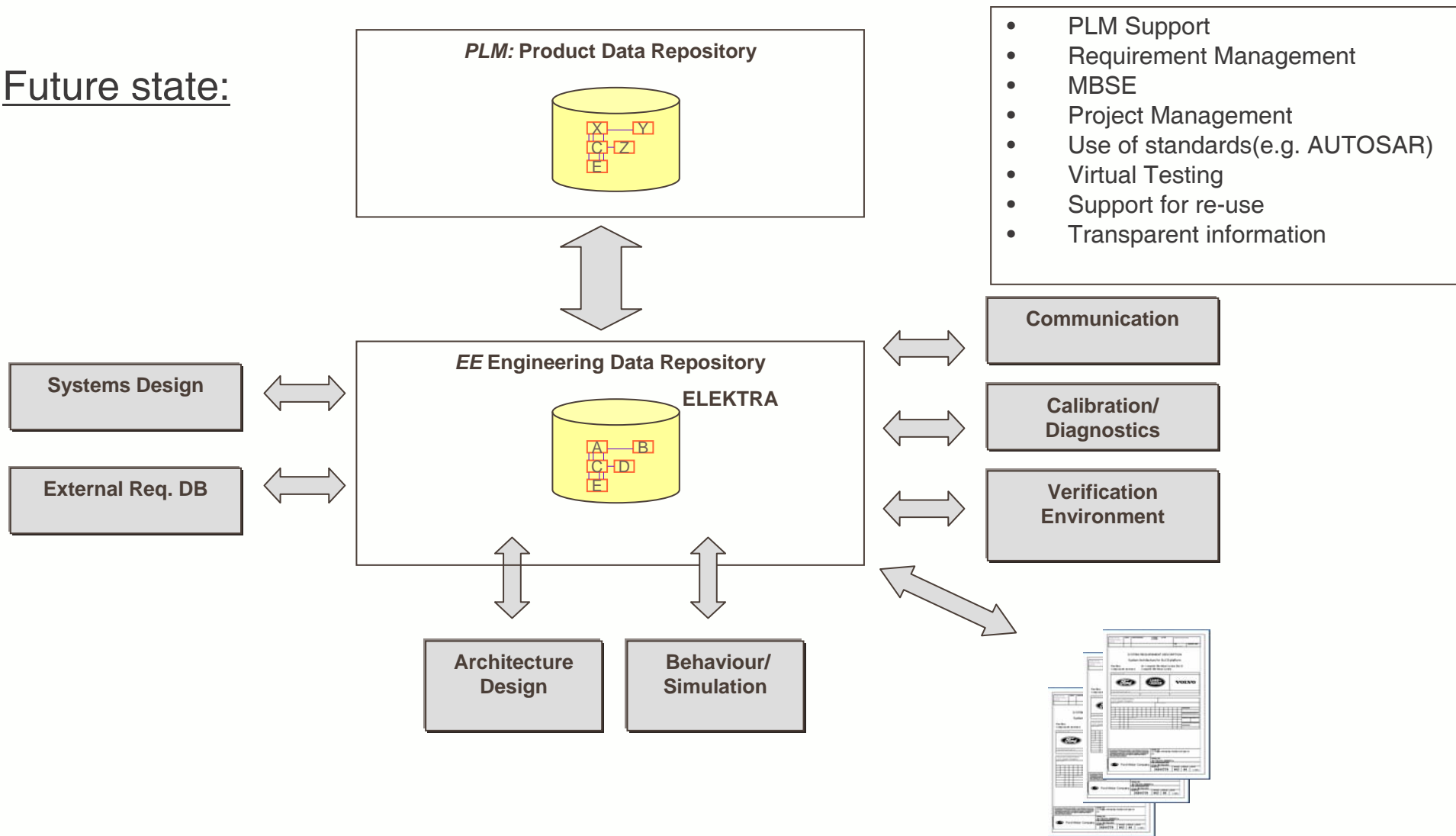
Seamless information management of Engineering Data from Function to ECU S/W&H/W

- Alignment of processes
- One source of information.
- Simple hand shaking mechanism for changes.
- Reusability of information.
- Utilize AUTOSAR standard
- Use commercially available tools
- Continuous development instead of step-wise



# ELEKTRA-the Vehicle Systems Engineering Environment at Volvo

## Future state:



# ELEKTRA-the Vehicle Systems Engineering Environment at Volvo

## Approach:

The information backbone ELEKTRA is developed in partnership with Vector. It is based upon the eASee toolsuite.

The SDM and TDM modules are central in the application.

Volvo Cars is driving the development but information is shared within the Ford group.



# ELEKTRA-the Vehicle Systems Engineering Environment at Volvo

## How to introduce it:

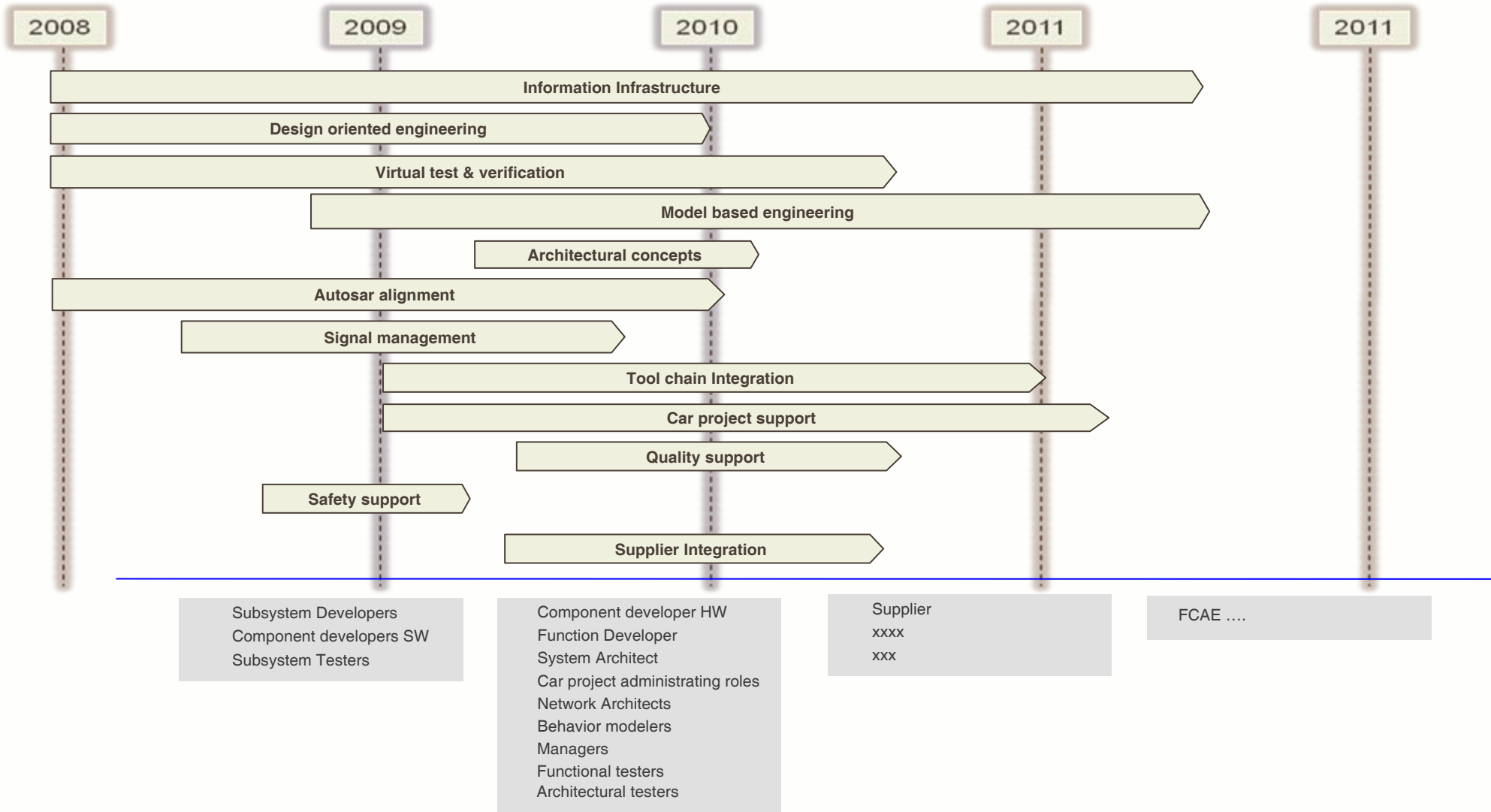
A four year project time (2008-2011) with the first roll out in Q1 2009

The data backbone ELEKTRA is introduced in the first phase

Gradual introduction with growing scope (further tools are linked in)



# ELEKTRA-the Vehicle Systems Engineering Environment at Volvo



# ELEKTRA-the Vehicle Systems Engineering Environment at Volvo

## Key steps to ensure acceptance in the organization:

- Management support from all levels
  - SVP is heading the VSEM Gov Board
- Intensive information on all levels
- Reference group with key users active in the development
- Phased introduction with:
  - growing scope (4 year program time)
  - more stringent and aligned usage (Roles&Rights enforced step-by-step)



# ELEKTRA-the Vehicle Systems Engineering Environment at Volvo

Will we succeed ?

YES..... provided:

- That we can make ELEKTRA a baby of the whole electrical community (we have built it together.....)
- That we can ensure enough easy-to-use feeling to allow a broad user base
- That upper management supports alignment of processes
  - Not ”narrowing” too quickly but in a phased manner



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THANK YOU FOR YOUR ATTENTION !

QUESTIONS ?

