

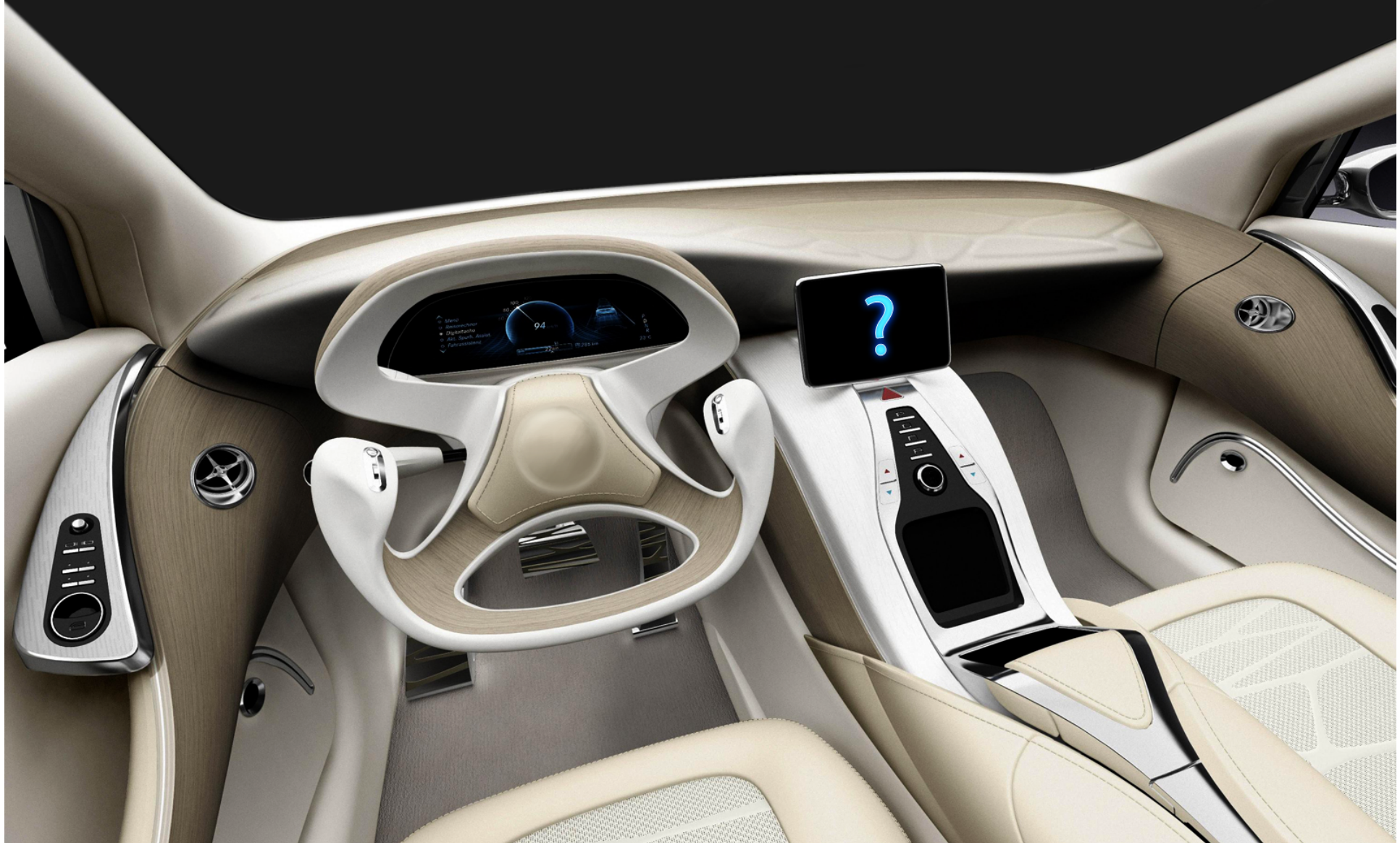


Futureproof?
Automotive HMIs for Long Term
Success.

Ronald Zehmeister, MBA
automotive interiors EXPO 2011
May 18th, Stuttgart



What is the future of your product?



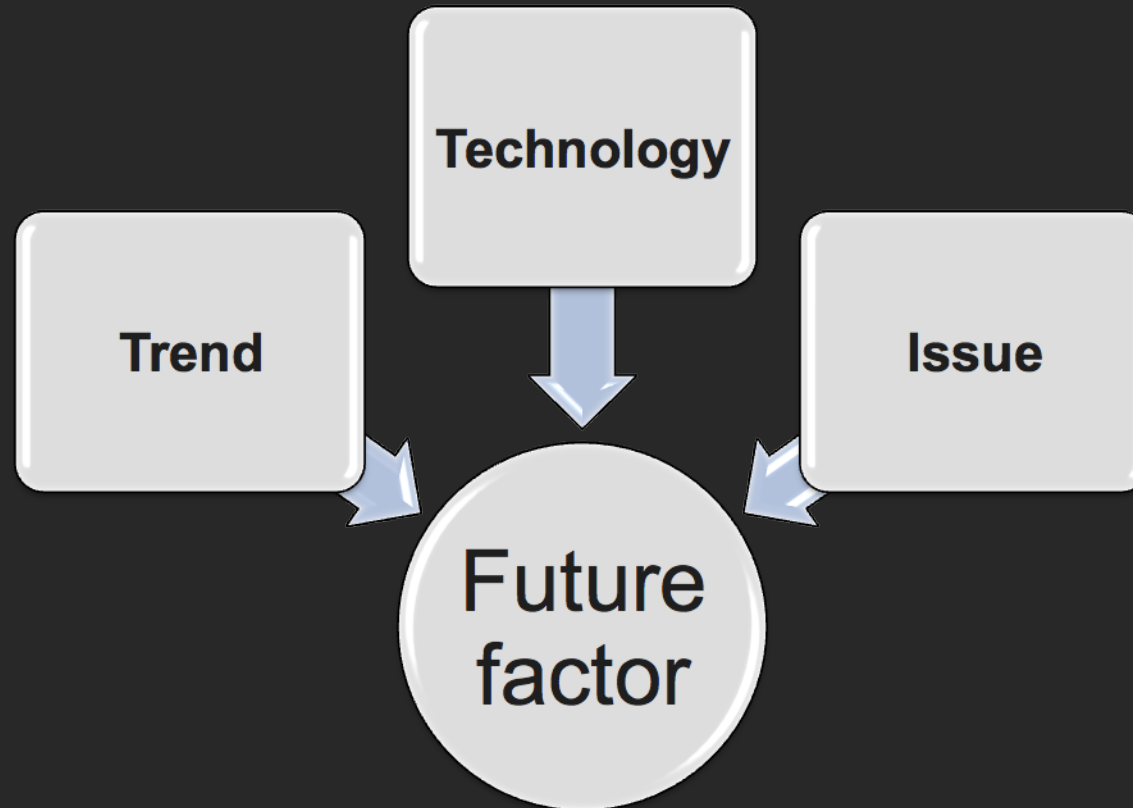


Future Studies

- Is not a method for predicting the future
- Is a study of current trends in order to forecast future developments



The Concept of Future Factors





Catch Phrases

FUTURE

Trends

Business Laws

Mega-Trends

Economic cycles

Global Events

Fashion

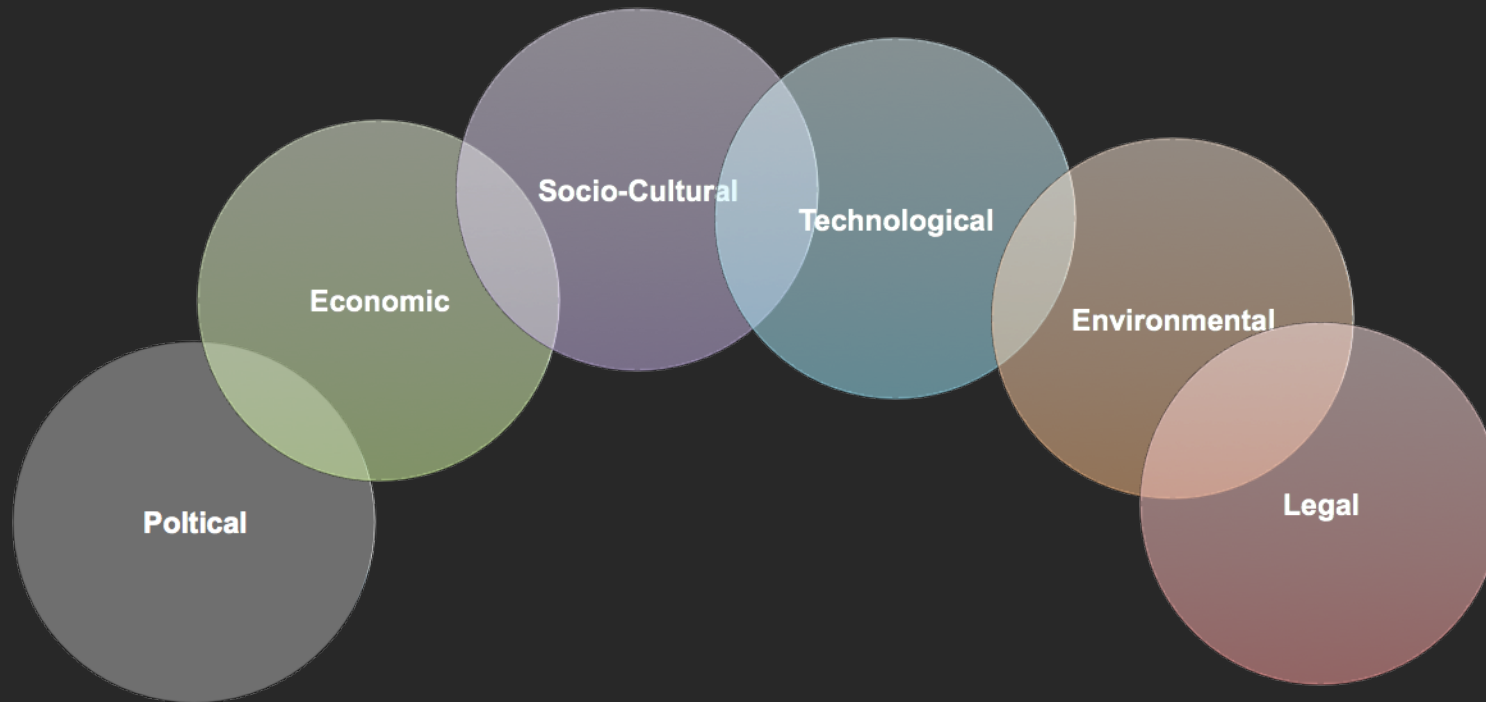
Cultural Phenomena

Government Regulations

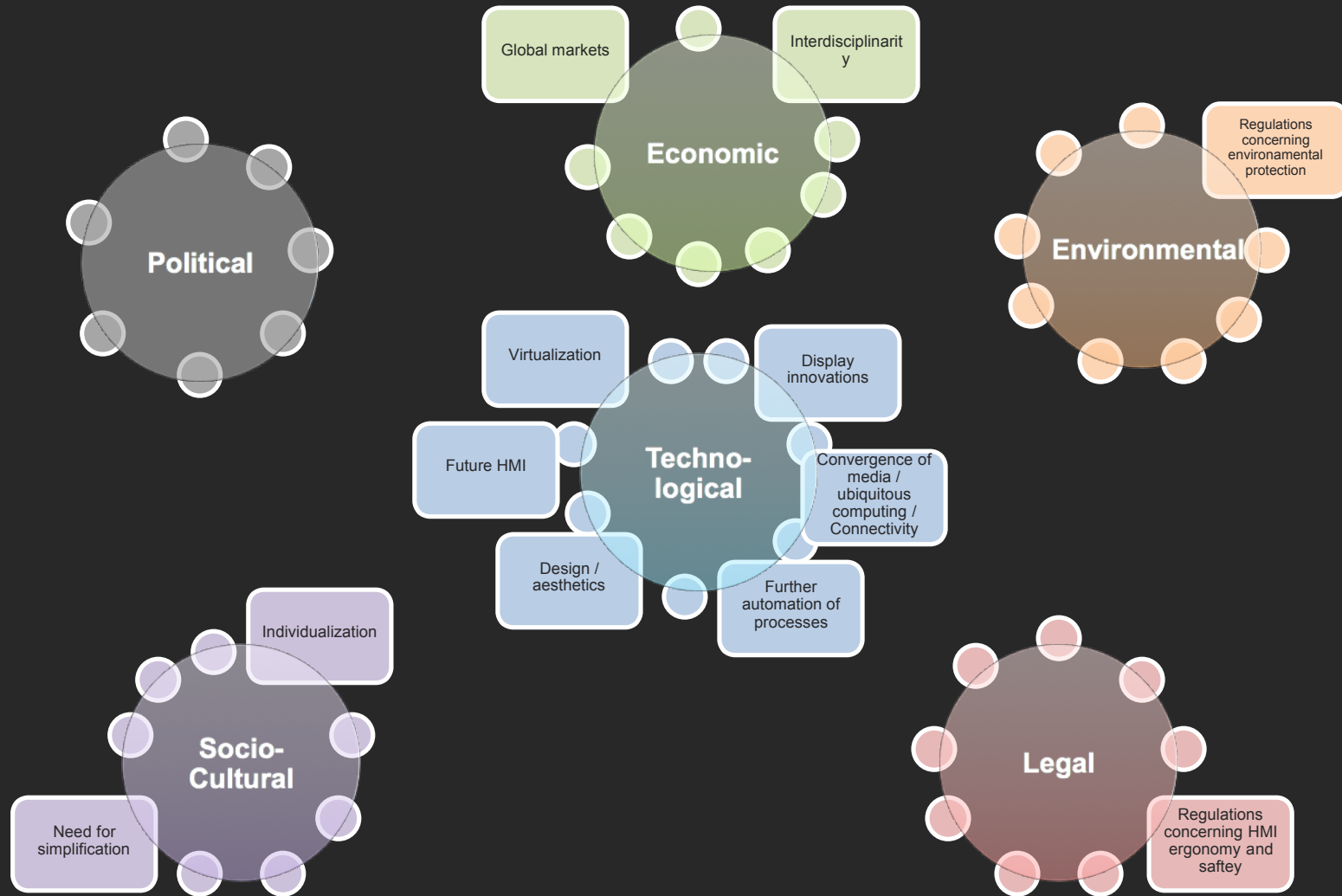




A More Systematic Approach

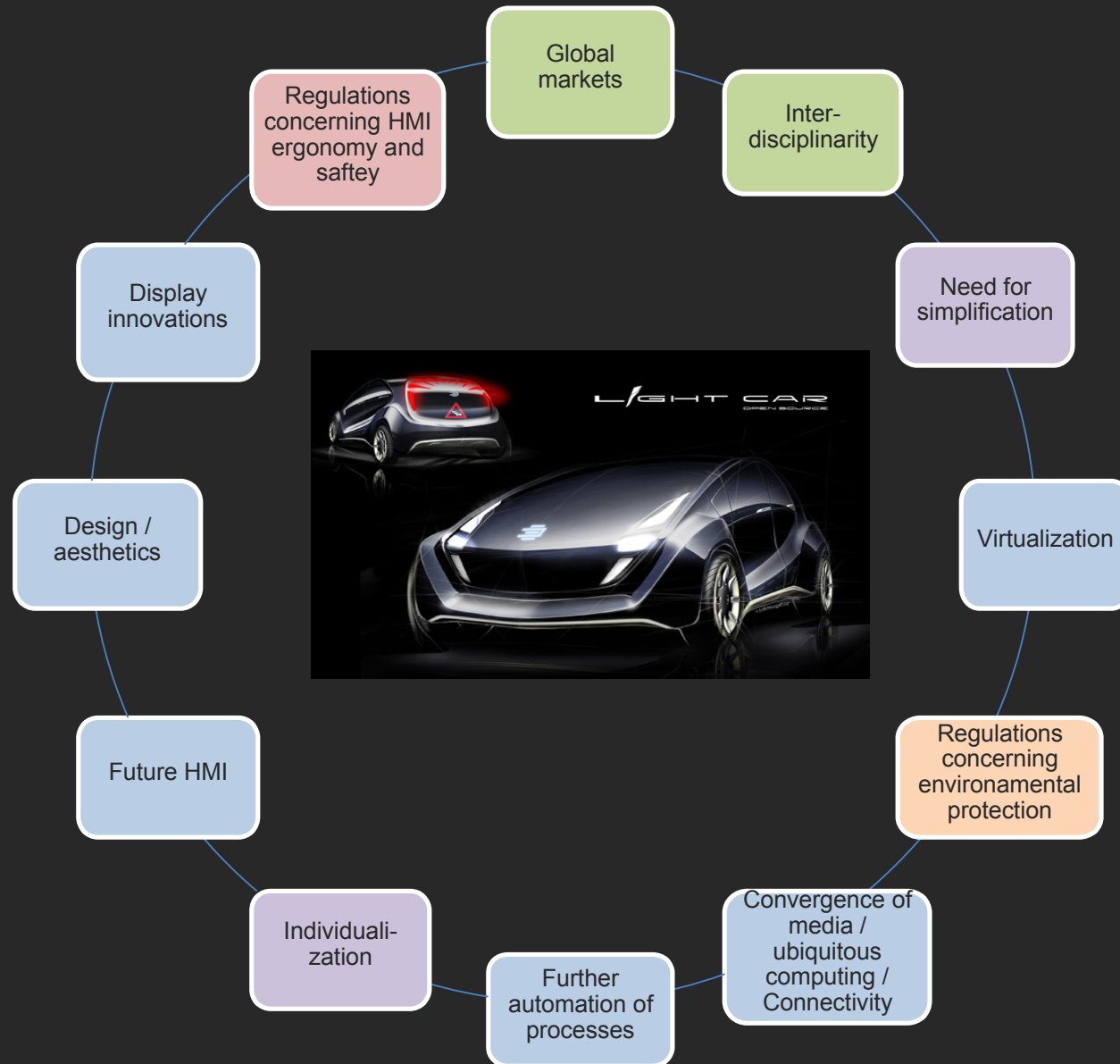


Identification and selection of factors



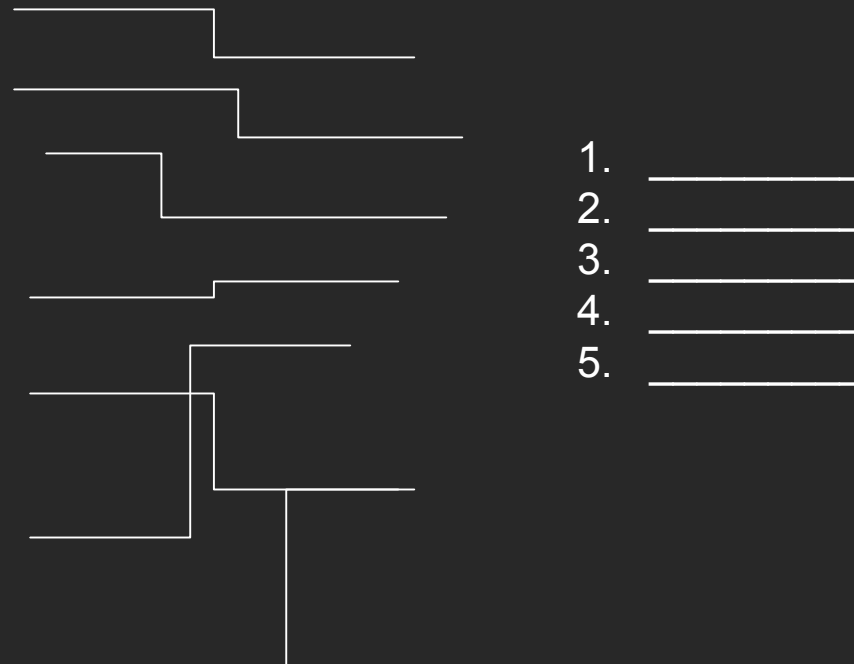
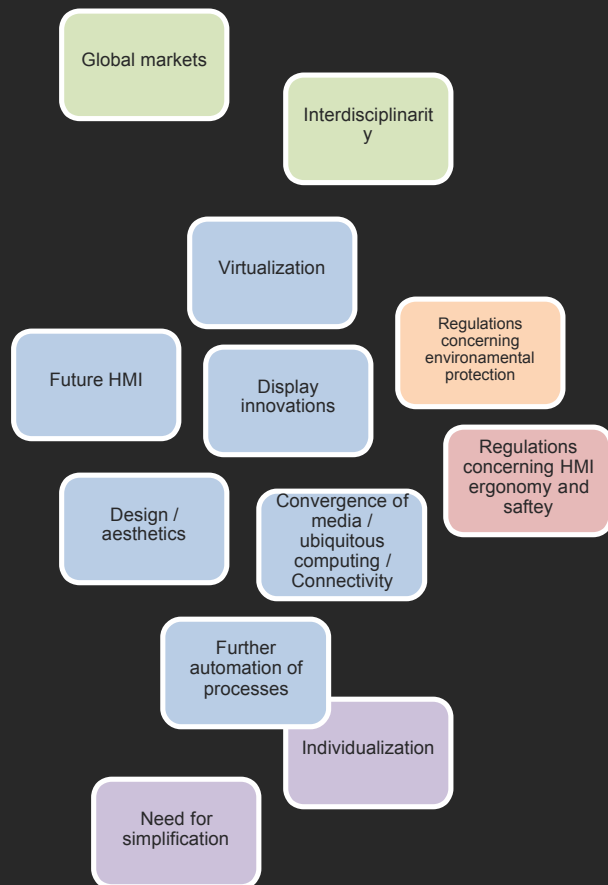


Relevant Factors in Automotive HMIs

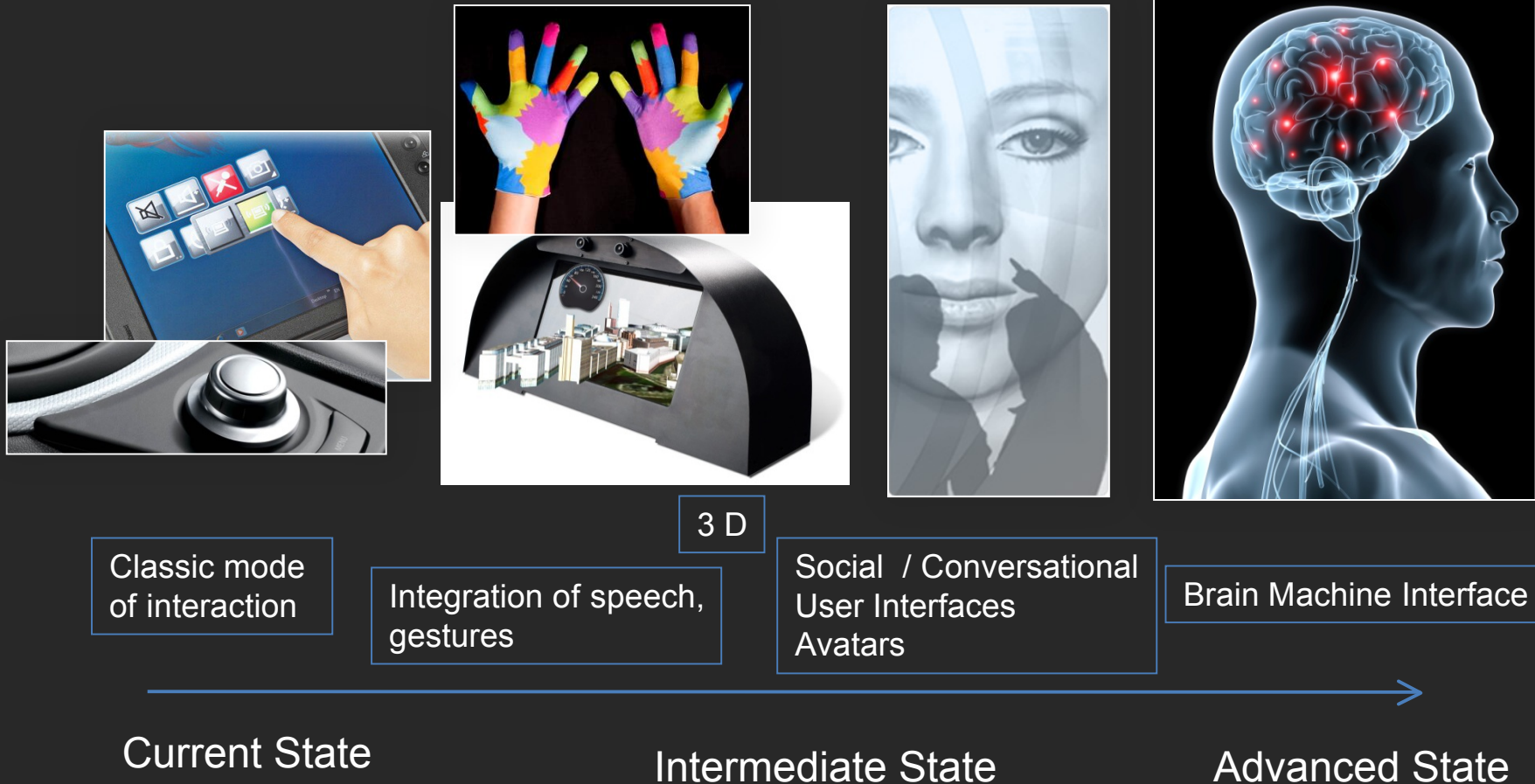




Further Consolidation of Factors for Automotive HMI



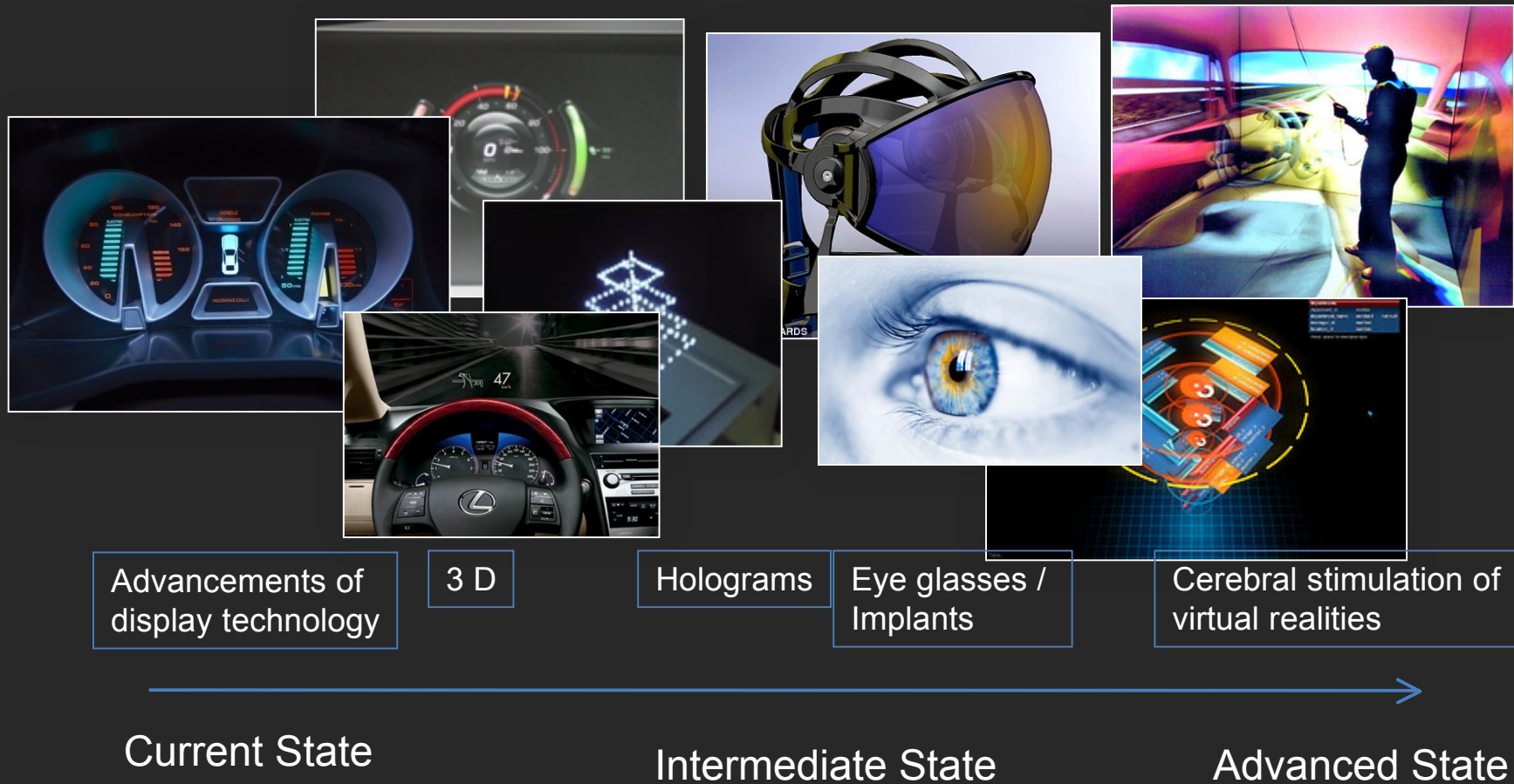
1. Mode of HMI Interaction





Consolidated List of Factors

2. Type of Display



3. Ubiquitous Computing

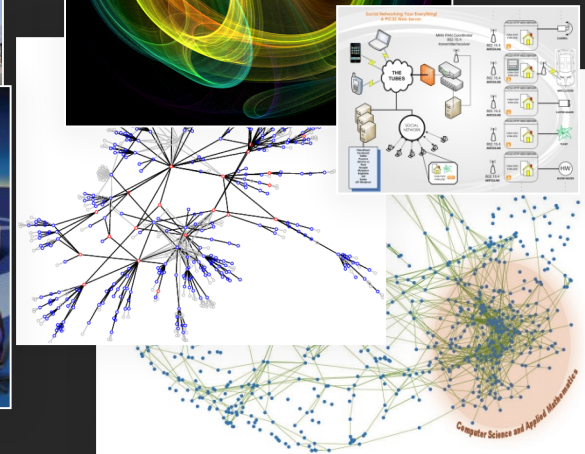
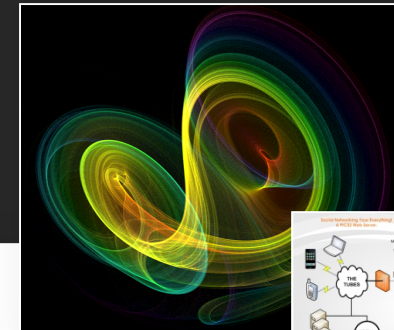


Convergence of media /
Connectivity



Internet of things

Augmented reality



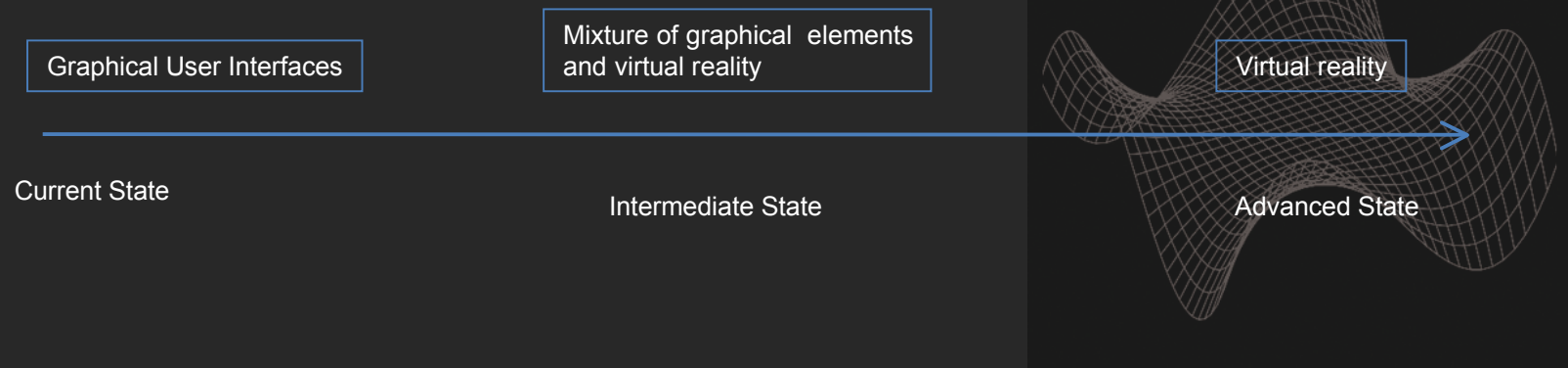
Automated self
organization / Self improving
processes

Current State

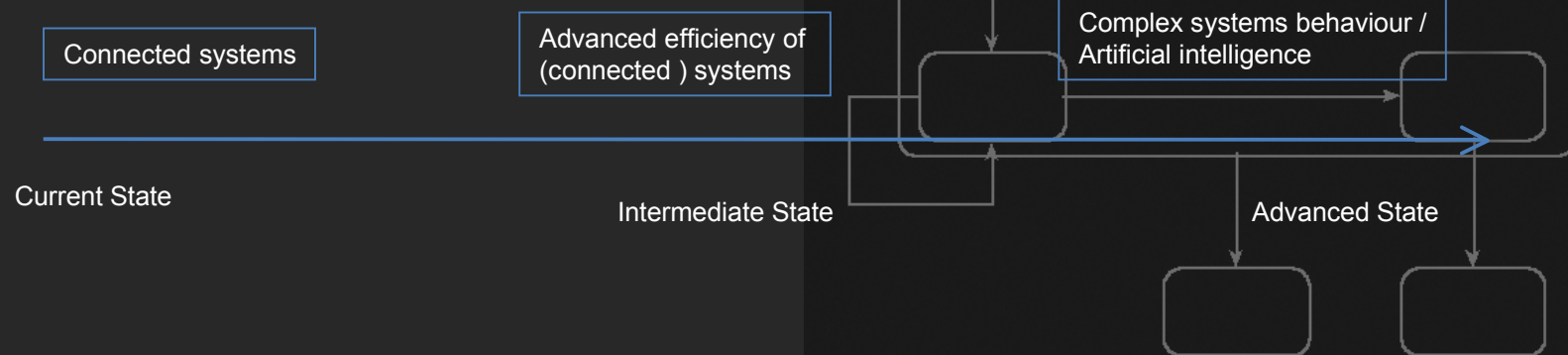
Intermediate State

Advanced State

4. Level of Virtualization



5. Self-improving Processes





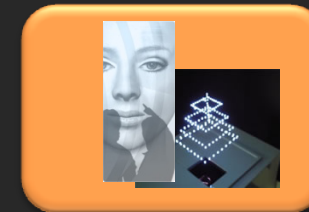
Scenario Development

1. Mode of interaction	2. Type of display	3. Ubiquitous computing	4. Virtualization	5. Self improving processes
a. Weak	a. Weak	a. Weak	a. Weak	a. Weak
b. Medium	b. Medium 1	b. Medium	b. Medium	b. Medium
c. Strong	c. Medium 2	c. Strong	c. Strong	c. Strong
	d. Strong			



Scenario 1

1. Mode of interaction	2. Type of display	3. Ubiquitous computing	4. Virtualization	5. Self improving processes
a. Weak	a. Weak	a. Weak	a. Weak	a. Weak
b. Medium	b. Medium 1	b. Medium	b. Medium	b. Medium
c. Strong	c. Medium 2	c. Strong	c. Strong	c. Strong
	d. Strong			



Scenario 2

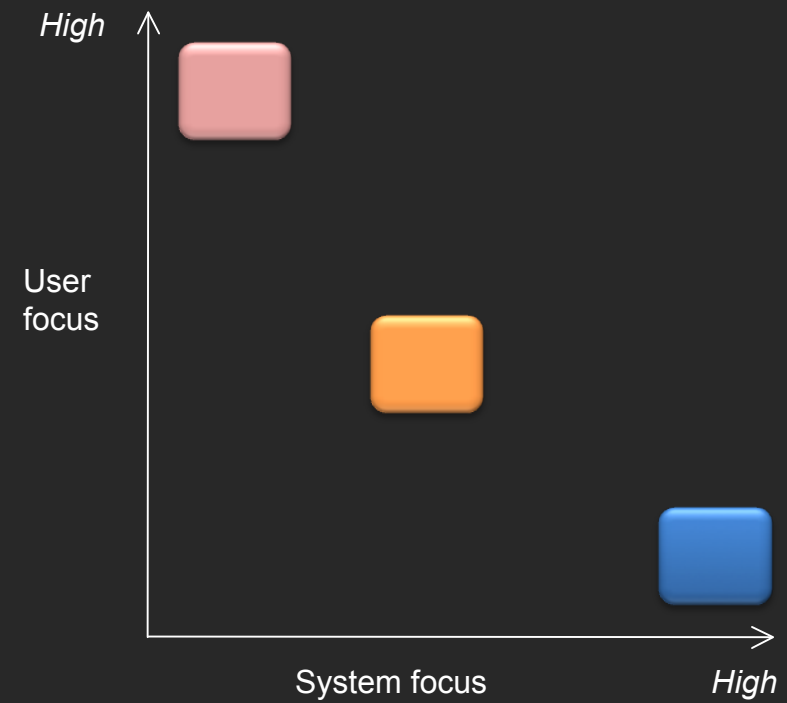
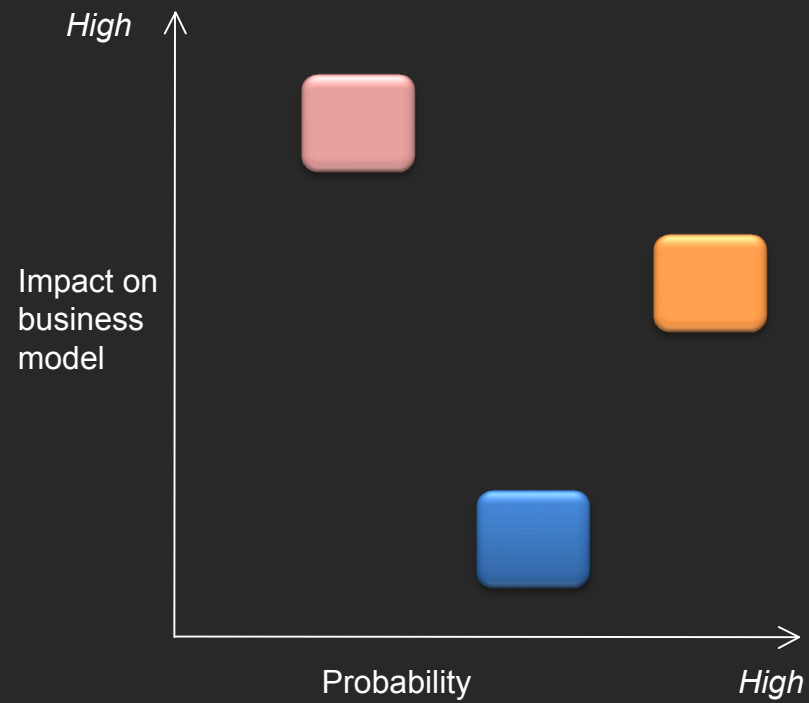
1. Mode of interaction	2. Type of display	3. Ubiquitous computing	4. Virtualization	5. Self improving processes
a. Weak	a. Weak	a. Weak	a. Weak	a. Weak
b. Medium	b. Medium 1	b. Medium	b. Medium	b. Medium
c. Strong	c. Medium 2	c. Strong	c. Strong	c. Strong
	d. Strong			



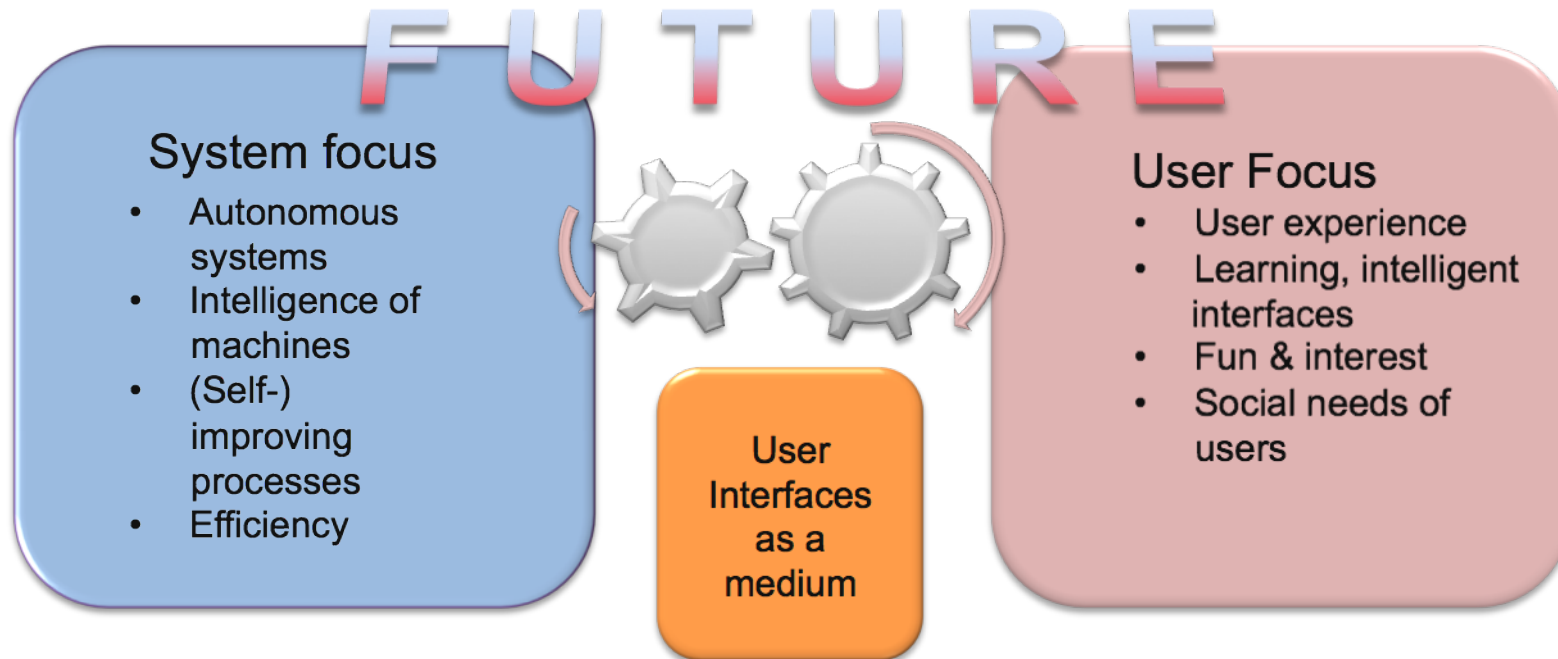
Scenario 3



Sample Scenario Analysis



Key drivers of HMI development



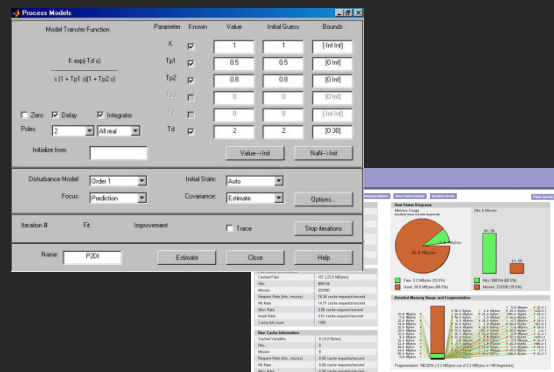
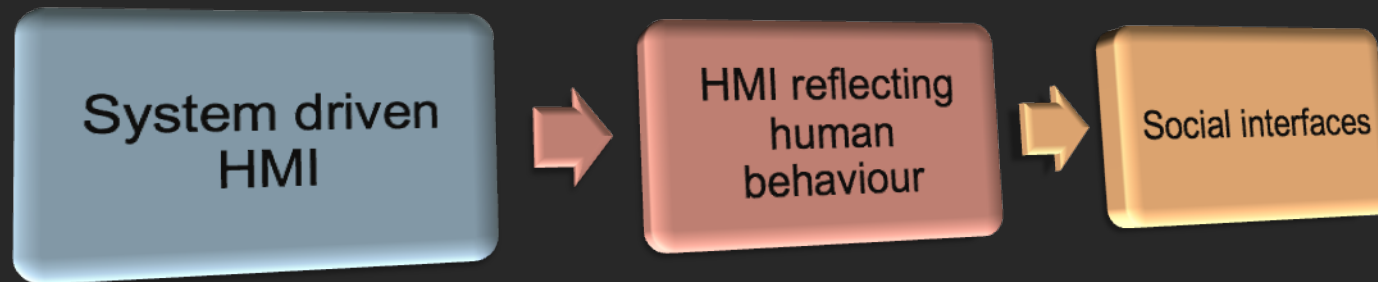


Brain Hemispheres





Paradigm Shift





2016: The User Interface Revolution Underway

“Looking at the next five years, the role of interface design will only increase in importance as companies compete to win market share worldwide. Ease of use is essential to winning hearts, minds, and customers.”

“The process for designing UIs will continue to come from research related to behavior, and from evaluation of how information hierarchies and protocols can be more intuitively accessed.”

Peter Eckert, *UX Magazine*
February 24, 2011



People spend more time communicating
with or via machines than with other people.

HMIs replace and change
social interaction.



What directions should HMI be in right now?

- Produce an interface that is
 - Engaging and fun
 - Safe
 - Intuitive
 - Learning (adapts to behavior and preferences of user)
- How do you do this?
 - Find out what features your customers want
 - Develop a graphical model with those features
 - Test!
 - Incorporate feedback into your model (Test again!)
 - Generate code for the approved model...and deploy it into your production vehicle



Altia's Mission

Get a cool, effective HMI design from the Artist's imagination
to the lowest cost hardware in the shortest amount of time



Tools and services to accelerate HMI development

For more information, contact:

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