

USER EXPERIENCE DRIVEN INNOVATION (UXDI)

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GOAL

- Create the body of knowledge necessary to establish a center of excellence in user experience (UX) for innovation projects within the AISIN group
- The body of knowledge consists of models, methods and a toolbox adapted to the innovation process in the sustainable mobility and logistics sectors
- Mix of academic and industrial research

DELIVERABLES

- A Capability Maturity Model (UXCMM) suitable for industrial processes and in particular for innovation processes in the mobility and logistics sector
- Validated tools to implement UX models and methods:
 - A set of new methods and guidelines to integrate user research data in product requirements
 - A tool to assess the level of effort required to use each UX method
 - A new method of evaluating the social return on investment (social ROI) of UX, i.e. the perceived value that UX provides to the company.
 - A UX training platform
 - VR protocols and scenarios to design and evaluate immersive experiences

WHO'S AISIN

- Aisin is the 5th largest worldwide automotive supplier
- 120 000 employees worldwide
- Technical center located in Braine l'Alleud
- Connected and sharing solutions department in charge of the project

UX DEFINITION

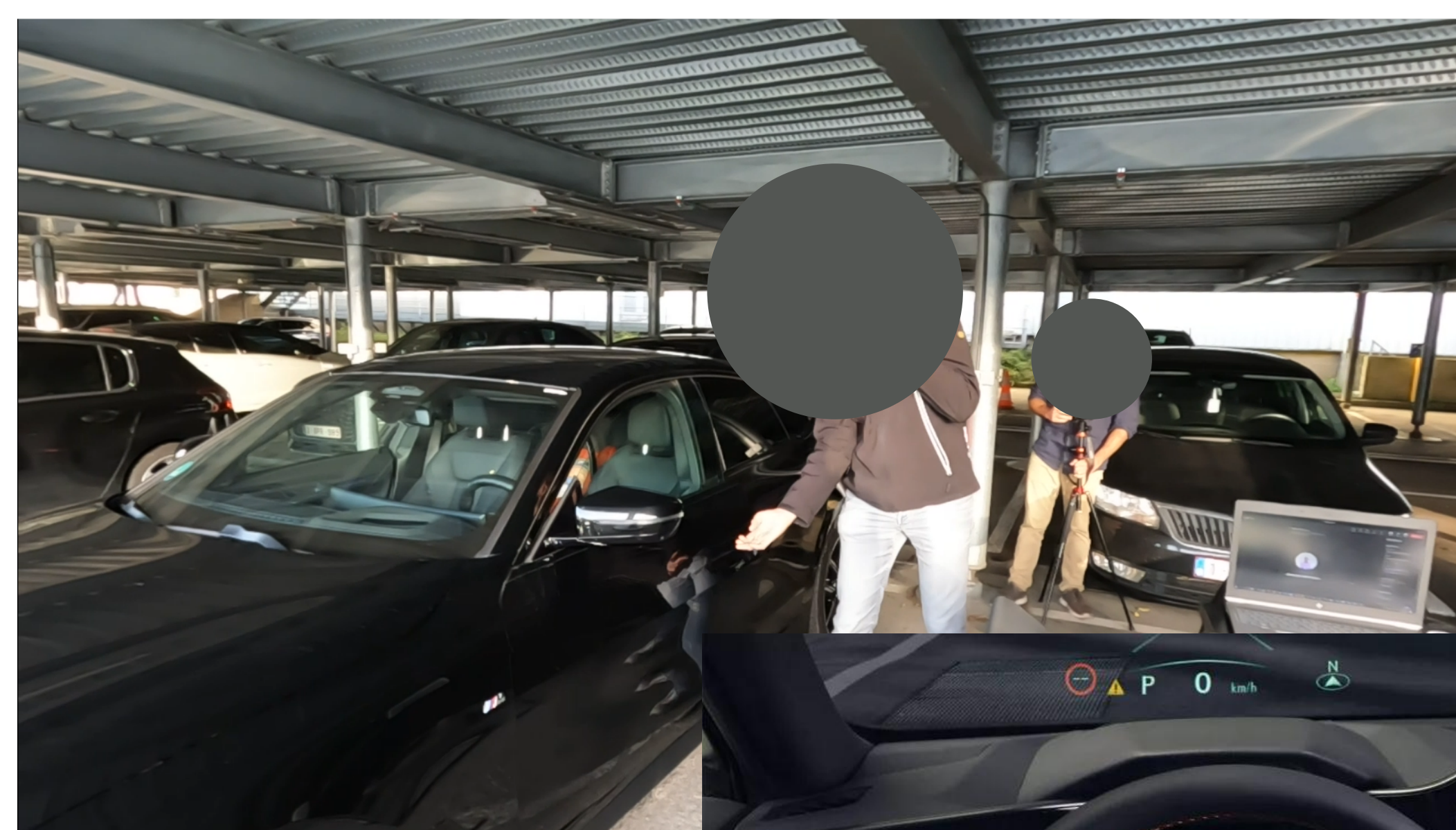
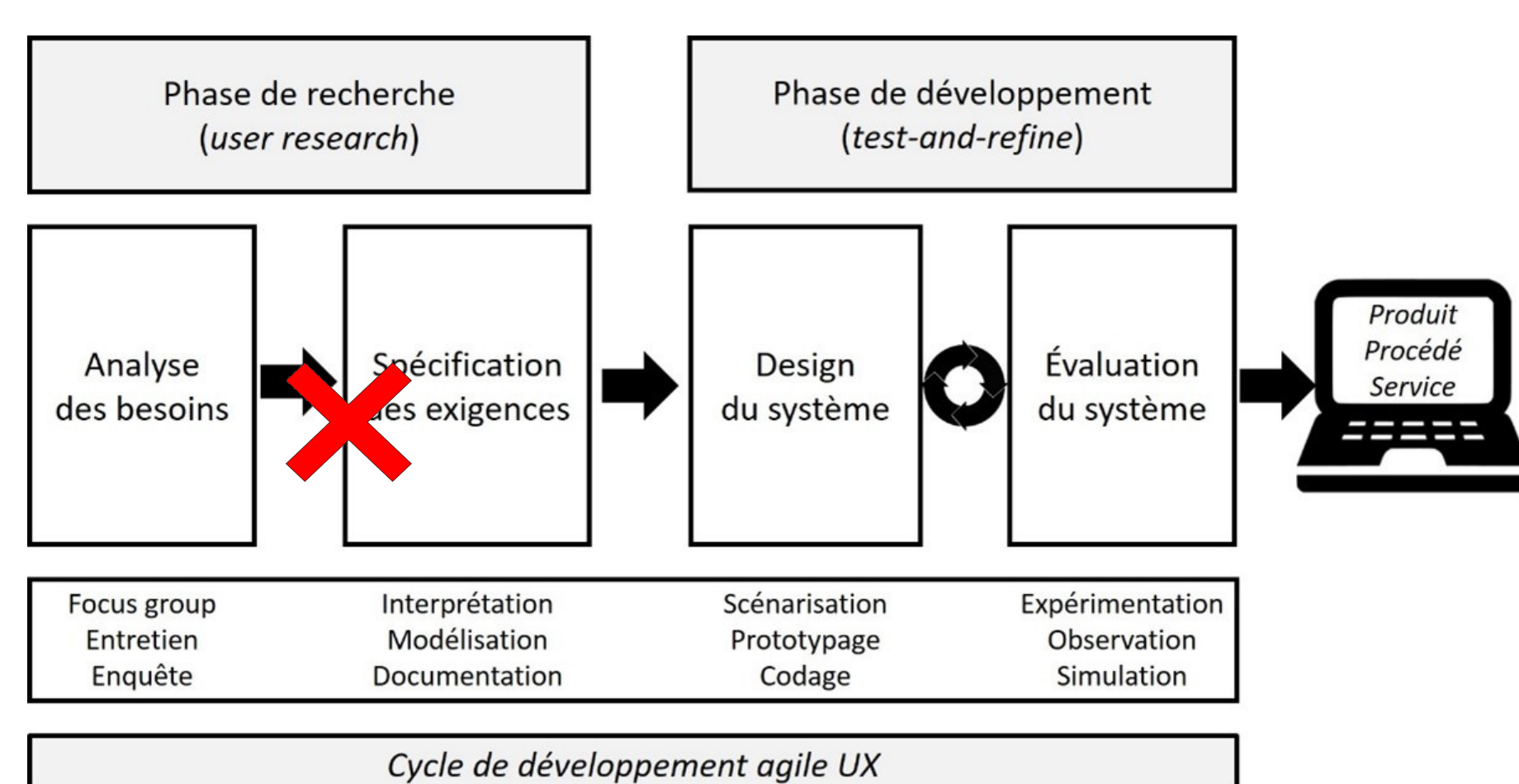
- « A person's perceptions and responses that result from the use or anticipated use of a product, system or service » (ISO 9241-210)
- Focus on user needs
- Real test with end users
- Upfront and refine research about system

METHODOLOGIES

- 2 systematic literature reviews (SLRs)
- Applied research:
 - Ethnography
 - Interviews
 - User tests
 - Focus group

SLR1: AGILE / UX INTEGRATION

- **Research question:** how to translate user research data into user stories and product requirements ?
- **Status:** running / close to end
- **Number of articles covered:** 551
- **Hypothesis:** there is a gap on how to concretely coordinate the two fields and make them work together



User Story

Title:	Priority:	Estimate:
User Story: As a [description of user], I want [functionality] so that [benefit].		
Acceptance Criteria: Given [how things begin] When [action taken] Then [outcome of taking action]		

ProductPlan

COMPARATIVE STUDY

Research question:
Does virtual reality provide valid results for industrial development ?

Ethnography

- Inductive method
- Participant observation : navigation system, entertainment environment, driver assistance, communication tools
- Interviews

Virtual Reality

- Testing VR as research framework similar to the reality
- Comparison with observation on the field with same KPI



SLR2: UX RETURN ON INVESTMENT (UX ROI)

- **Research question:** how to measure the perceived value of UX in organization ?
- **Status:** just started
- **Number of articles:** not known yet
- **Hypothesis:** there is not so many articles covering the area, the concept of UX ROI is well defined but there is no guidelines and techniques on how to concretely assess and evaluate the UX ROI within a project in the industrial world

SLR PROTOCOL

Planning the review	Research questions Data sources Inclusion and exclusion criteria Search strings Quality criteria for study selection
Conducting the review	Primary studies selection Data extraction Data synthesis
Reporting the review	Document all the extracted results