

Introduction

-Project **FEARLESS** within the Seventh Framework Program (FP7)

-Coordinator: CogVis GmbH

- Detect a wide range of risks
 - Falls
 - Smoke/Fire
 - Flooding
 - Deterioration of health condition
 - ...



- Reduction of barriers
 - Enhancing mobility
 - Enabling elderly to take active part



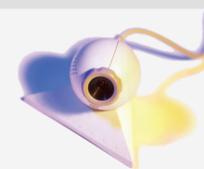
- Integration of supply chain

- Integration in existing buildings

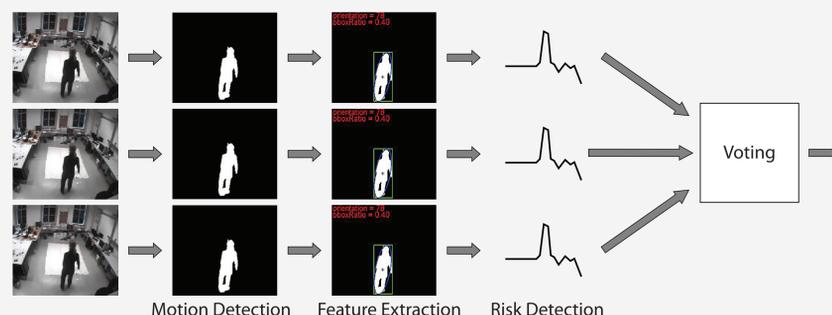


Methods

- Single sensor unit
 - Vision and Acoustic based
 - Flexible
 - Extendable



- Risk detection
 - Motion detection
 - Identification of feasible features
 - Scene analysis on each camera individually
 - Combination of results ("Late Fusion")



Results

- Elderly suffering from fears
 - Criminal violence
 - Falls
 - ...



- Fears cause low self-efficacy
 - Elderly are afraid
 - Reduce risk by avoiding activities
 - Decrease of muscle strength
 - Psychological effects
 - Less participation in social life



- Reduction of fears by providing safety
 - Automatic alarm activation
 - Reduction of consequences of any incident
 - Mobility enhancement
 - Increased muscle strength
 - Take active part in self-serve society



Discussion

- Focus on ethical and legal issues
 - Privacy concerns



- AAL technology influences
 - primary end-user
 - all persons linked to and related with them



- Degree of intrusion
 - Possibility of reducing cognitive demands
 - Negative side-effects possible
 - System has to be present and reliable
 - Assistance instead of surveillance



Conclusion

- Straightforward integration to ensure high user acceptance
- Small and flexible sensors provide minimal intrusion
- Visual and acoustical sensors are able to fulfill these needs
- Self-Efficacy and mobility will be enhanced
- System will be affordable for everyone

Future work

- Research on side and long-term effects of AAL systems
- Dissemination utilising an international network of electricians