

Figure 1: Section of the Foot-LITE AH with means ends links highlighted.

 Table 1: Object-related processes and Physical objects considered for the AH.

	Efficiency, reliability,	Adherence to road traffic laws		
Object-	convenience, cost	and regulations		
related	Constraints and disincentives	Driver seating position		
processes	Incentives and motivation	Driver skill		
1	Feedback off-line	Vehicle position on road		
	Feedback in-vehicle	Driver training		
	Additional weight in car	Driver mental workload		
	Anticipation and observation	Acceleration patterns		
	Drag coefficient	Spatial and situational awareness		
	Conserve momentum	Route planning		
	Ancillary device usage	Braking strategy		
	Adapting to road conditions	Energy efficiency		
	Traffic monitoring	Gear selection		
	Vehicle telematics	After journey review		
Physical	Other forms of transport	HMI in-vehicle feedback		
objects	Social networks	Headway sensors		
	Internal / external league tables	Passive / active vehicle safety		
	Insurance companies / premium	systems		
	Driver incentive / reward schemes	s Proximity sensors		
	Traffic violations	GNSS and other location systems		
	Vehicle powertrain information	Inspection and maintenance		
	Engine temperature	advice		
	Passengers	ADAS		
	Goods	Journey information		
	Emissions produced	Coaching manuals		
	Fuel consumption	Dashboard instruments		
	Safety critical vehicle electronics	Driving simulators		
	(lights, wipers etc.)	Other road users (hard / soft)		
	Non-safety critical vehicle	Throttle position		
	electronics (ICE etc.)	Hands-on wheel sensor		
	Tire pressure sensors	Eye tracker		
	Training organizations (IAM,	External driving conditions		
	DVLA)	Road markings and signs		
	Ambient temperature	In-vehicle noise sensor		
	Weight sensor	Start-up drill		
	Road topography	Traffic information		
	Speed alerts	Use of HVAC		
	Driver coaching aid	After treatment equipment		

 Table 2: Score and related priority.

	Low	Medium	High
Object-Related Processes	1 - 6	7 – 12	13 +
Physical Objects	1 - 9	10 - 27	28 +

 Table 3: Object-related process assigned priority.

Object-Related Processes	Priority
Adherence to road traffic laws; Vehicle position on road; Driver training; Spatial and situational awareness; Feedback off-line; Driver mental workload; Feedback in-vehicle	High
Gear selection; Driver seating position; Driver skill; Acceleration patterns; Braking strategy; Energy efficiency; Constraints and disincentives; Incentives and motivation; Anticipation and observation; Conserve momentum; Adapting to road conditions; Traffic monitoring; Route planning	Med
Efficiency, reliability, cost of transport; Additional weight in car; Drag coefficient; Ancillary device usage	Low

 Table 4: Physical objects assigned priority.

Physical Objects	Priority	
Emissions produced; Passive/active vehicle safety systems; Fuel consumption; Other road users (hard/soft); Driver coaching aid; GNSS and other location systems; ADAS; HMI in-vehicle feedback		
Passengers; Social networks; Engine temperature; Ambient temperature; Road topography; Coaching manuals (highway code etc); Driving simulators; Start-up drill; Driver incentive / reward schemes; Hands-on wheel sensor; Eye Tracker; Traffic violations; Traffic information; Vehicle telematics; Non-safety critical vehicle electronics; Vehicle powertrain information; Headway sensors; Road markings and signs; After journey review; Inspection and maintenance advice; Dashboard instruments; External driving conditions; Speed alerts; Training organizations (IAM, DVLA); Journey information	Med	
Other forms of transport; Weight sensors; Tire pressure sensors; Goods; Throttle position; Use of HVAC; After treatment equipment; Safety critical vehicle electronics; Internal/external league tables; Insurance companies/premium; Gear position; Proximity sensors; Invehicle noise sensor	Low	

**Table 5:** Contribution of each values and priority measures to the three functional purposes of Eco-friendly, Safe and Efficient road transport use. \* indicates the contribution is halved as these nodes were deemed of medium, as opposed to high, importance in section 3.2.

No	Values and Priority Measures	Eco	Safe	Efficient
1	Reduce carbon footprint	100%	0%	0%
2	Reduce polluting emissions	100%	0%	0%
3	Reduce local environmental impacts	50% *	0%	0%
4	Reduce risk, number, severity of RTA	10%	80%	10%
5	Reduce inappropriate driver behavior	40%	40%	20%
6	Reinforce good driver behavior	20% *	20% *	10% *
7	Satisfy personal mobility requirements	0%	0%	50% *
8	Increase predictability of journey times	0%	0%	50% *
9	Reduce cost of use	0%	0%	100%
10	Increase availability of capacity	0%	0%	50% *

**Table 6:** Contribution of each purpose-related function to the three functional purposes of Eco-friendly, Safe and Efficient road transport use.

Purpose-Related Functions	Eco	Safe	Efficient
Influencing transport choices	High	Medium	Low
Awareness of impact of transport choice	High	Medium	Low
Improve comms between vehicle and driver	High	Medium	Low
Reduce vehicle energy losses	High	-	Medium
Improve driver information provision	Medium	Low	Medium
Improve driving styles and technique	Medium	Low	Medium
Improve route management	Medium	Low	Medium
Awareness of cost of transport choice	-	-	High

**Table 7:** Contribution of each object-related processes to the three functional purposes of Eco-friendly, Safe and Efficient road transport use.

Object-Related Processes	Eco	Safe	Efficient
Efficiency, reliability, cost of transport	High	Medium	Low
Constraints and disincentives	High	Low	Medium
Incentives and motivation	High	Low	Medium
Feedback off-line	Medium	Low	Medium
Feedback in-vehicle	Medium	Low	Medium
Gear selection	Medium	Low	Medium
Additional weight in car	High	-	Medium
Anticipation and observation	Medium	Low	Medium
Drag coefficient	High	-	Medium
Conserve momentum	Medium	Low	Medium
Ancillary device usage	High	-	Medium
Adapting to road conditions	Medium	Low	Medium
Traffic monitoring	Medium	Low	Medium
Adherence to road traffic laws	Medium	Low	Medium
Driver seating position	Medium	Low	Medium
Driver skill	Medium	Low	Medium
Vehicle position on road	Medium	Low	Medium
Driver training	Medium	Low	Medium
Driver mental workload	Medium	Low	Medium
Acceleration patterns	Medium	Low	Medium
Spatial and situational awareness	Medium	Low	Medium
Route planning	Medium	Low	Medium
Braking strategy	Medium	Low	Medium
Energy efficiency	High	-	Medium