

## Final Conference

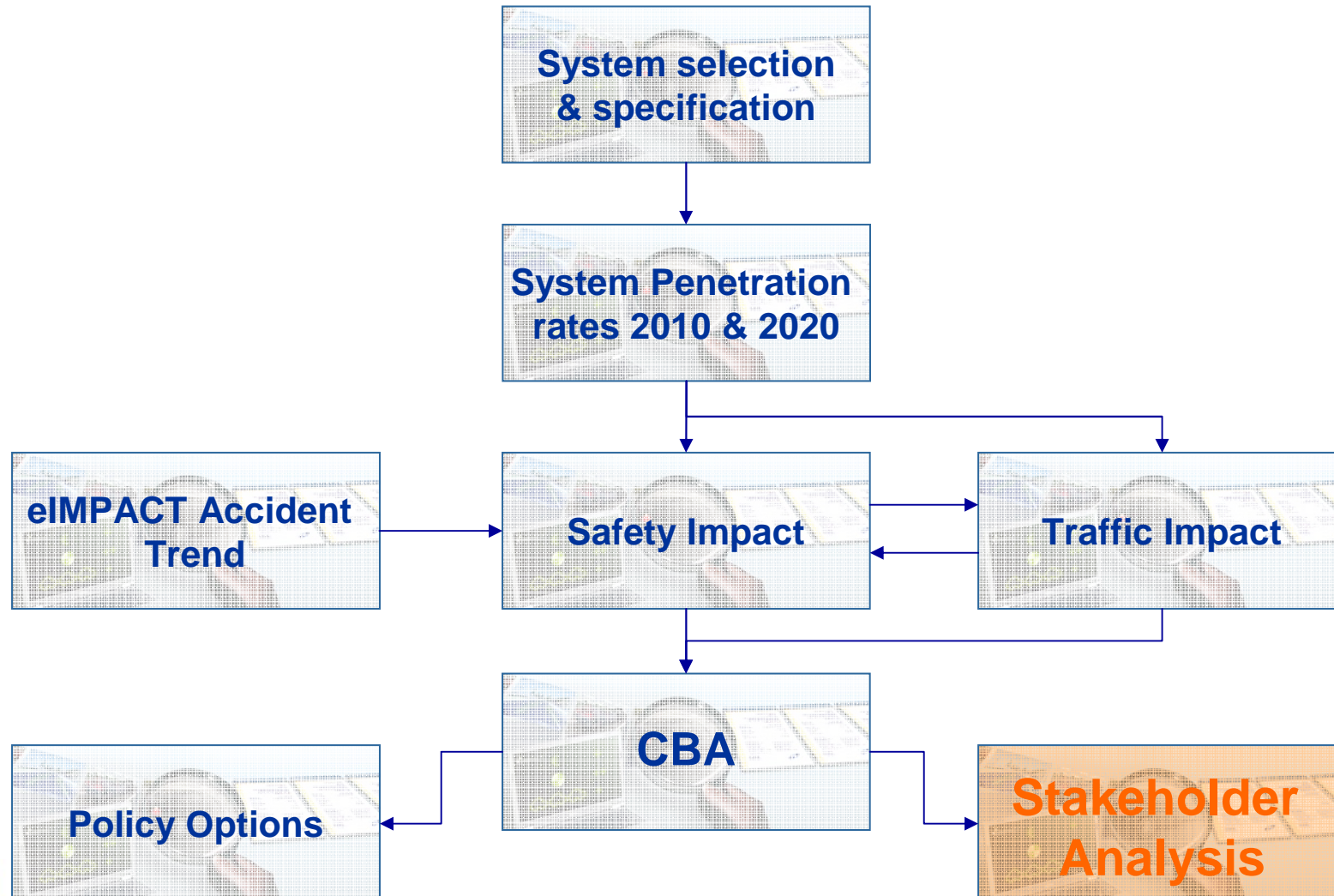
eIMPACT

# Stakeholder Analyses for Intelligent Vehicle Safety Systems

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## Stakeholder Analysis in eIMPACT



## Why stakeholder analysis?

### CBA as preferable method for assessing IVSS on society level

- sound methodological background
- widespread international practice

### Limitations of CBA in a multi-stakeholder environment

- CBA does not distinguish between who incurs the benefits and who bears the costs (my cost, your benefit)
- Macro-economic impacts (production, income, employment) and income distribution effects are not taken into account in CBA

### Need for stakeholder analysis

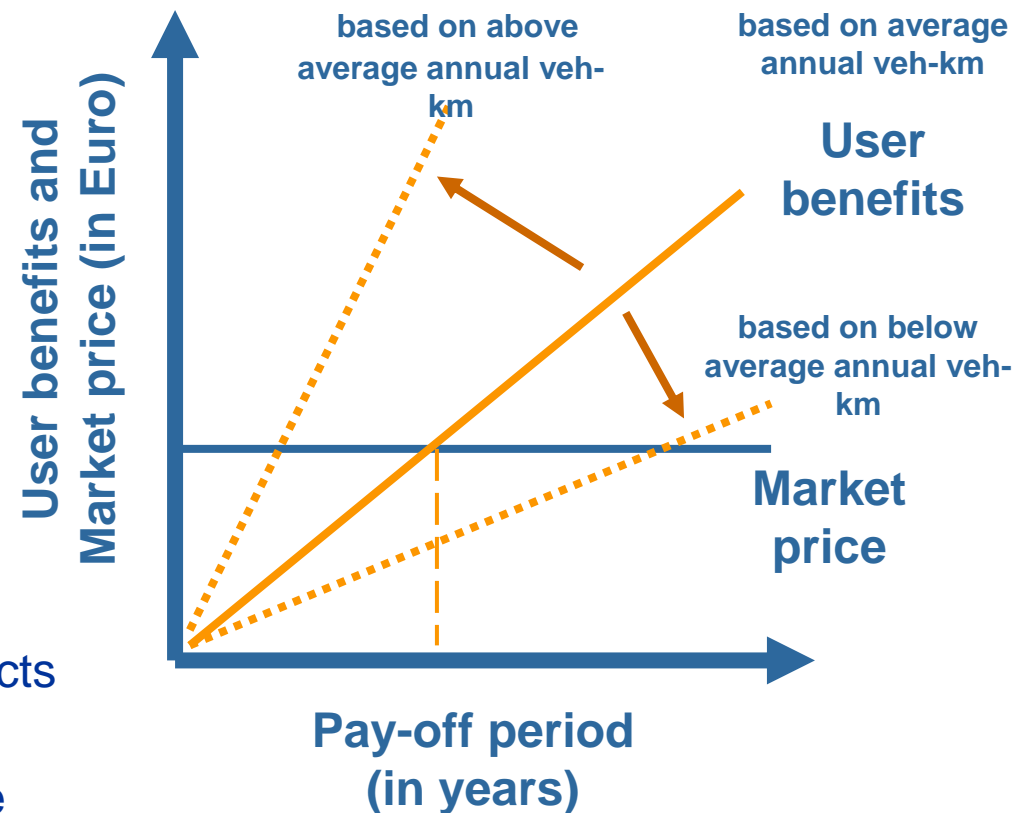
- Enlarged framework of socio-economic impact assessment
- Stakeholder analyses provide quantitative information which is complementary to CBA results
- Stakeholder analyses within eIMPACT address system users, the automotive and the insurance industry and public authorities

## The toolbox of stakeholder analyses

STAKEHOLDER	ANALYT. GOAL	ECONOMIC TOOLS
System users Automotive industry Insurance Industry	Benefits and costs on user level, industry level...	Break-even analysis
Public Authorities	Fiscal effects Employment effects Income distribution effects	Financial analysis Input-output analysis Incidence analysis

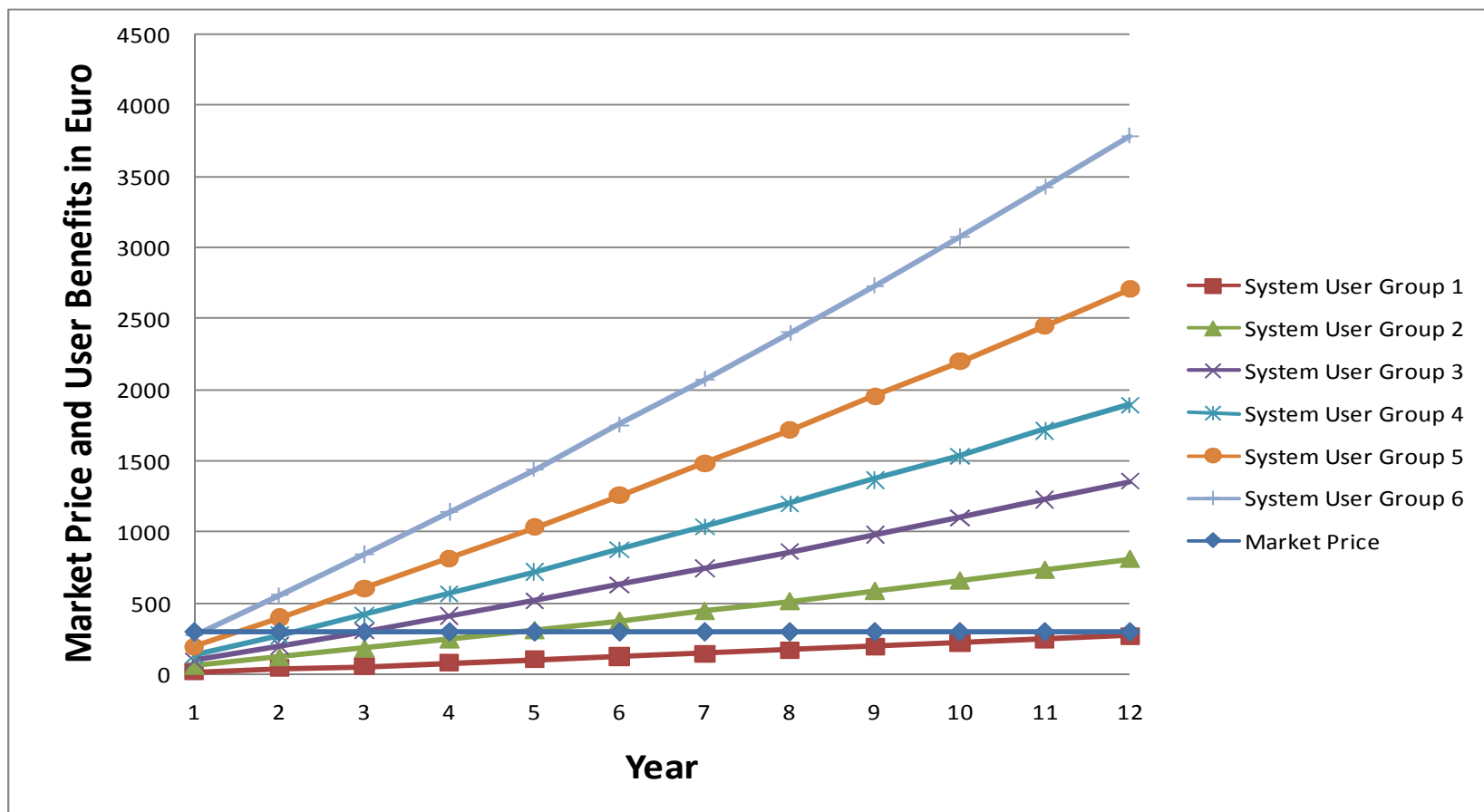
## Break-even analysis for the users – Methodology

- Segmentation of user groups according to vehicle mileage
- Market prices instead of cost prices
- Safety impacts appraisal with willingness-to-pay values
- Environmental benefits not relevant in private pay-off considerations
- Relevance of comfort aspects – if applicable –
- Market-based discount rate
- Result can be provided as pay-off period, threshold for annual vehicle kilometers...



## Break-even analysis for the users – Results

### Results for Electronic Stability Control, 2020 high scenario



## Break-even analysis for the users – Results

Systems	System User Groups according to 1,000 kilo- meters driven per year	Year			
		2010		2020	
		Low	High	Low	High
<b>Electronic Stability Control</b>	SUG 1: < 5	-	-	-	-
	SUG 2: 5 – 10	+	++	+	++
	SUG 3: 10 – 15	+	++	++	++
	SUG 4: 15 – 20	++	++	++	+++
	SUG 5: 20 – 30	++	+++	+++	+++
	SUG 6: > 30	++	+++	+++	+++

### Annotations:

- Break-even point is not reached within lifetime of the passenger car
- + Break-even point is reached within lifetime of the passenger car
- ++ Break-even point is reached in the first six years
- +++ Break-even point reached in the first two years

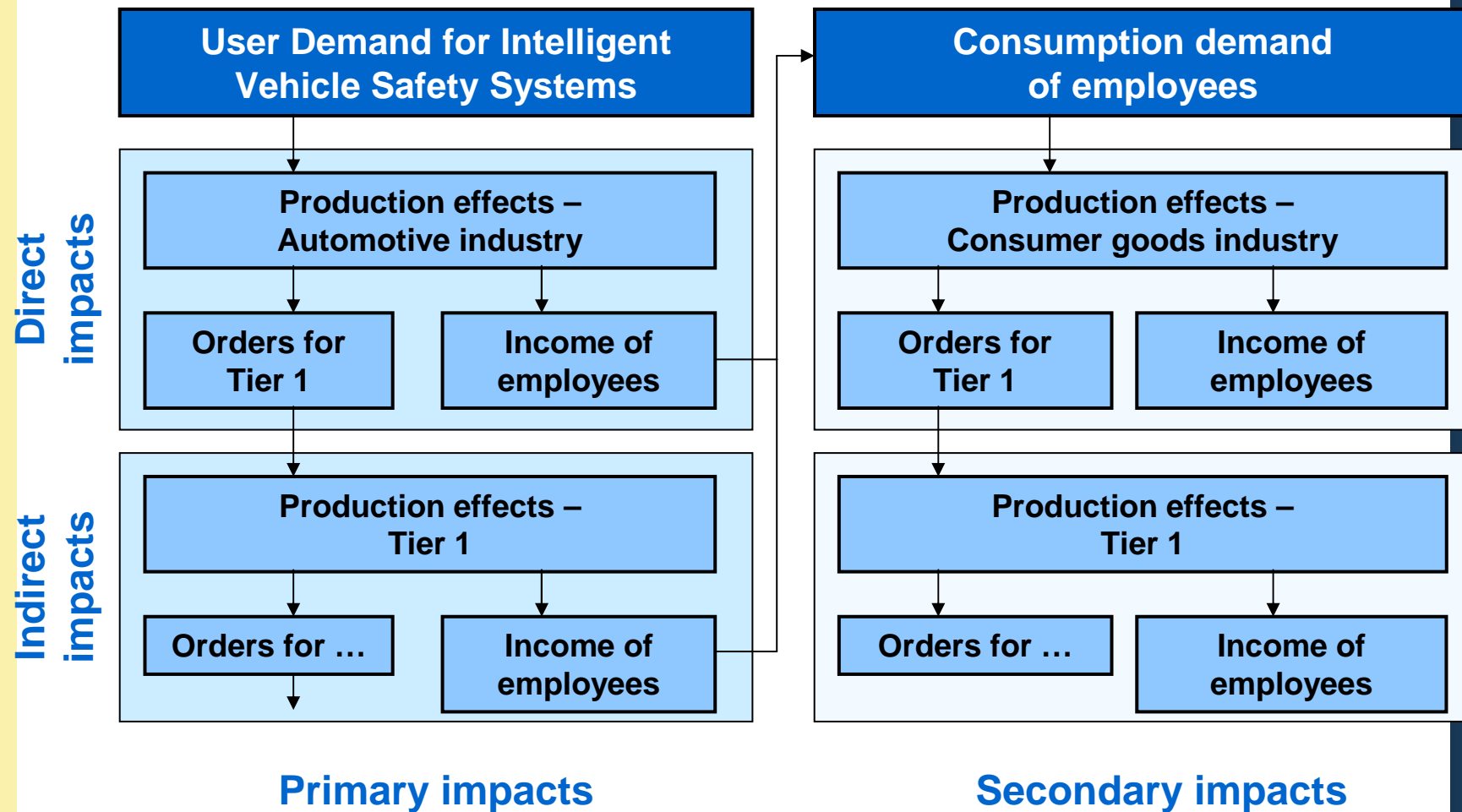
## Break-even analysis for the users – Results

Systems	System User Groups according to 1,000 kilo- meters driven per year	Year			
		2010		2020	
		Low	High	Low	High
<b>Speed Alert</b>	SUG 1: < 5	-	-	-	-
	SUG 2: 5 – 10	-	-	-	-
	SUG 3: 10 – 15	-	-	+	+
	SUG 4: 15 – 20	-	-	+	+
	SUG 5: 20 – 30	-	-	+	++
	SUG 6: > 30	-	-	++	++

### Annotations:

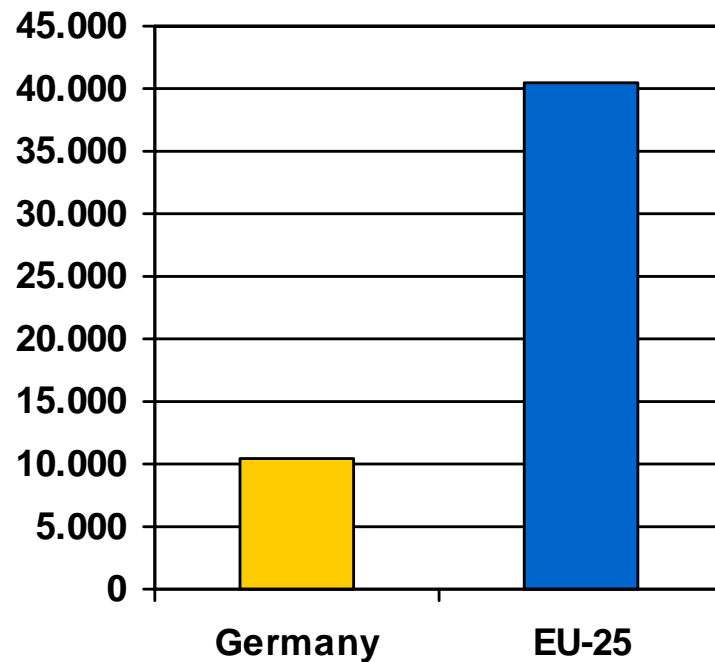
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## Employment effects – Methodology of Input-output analysis

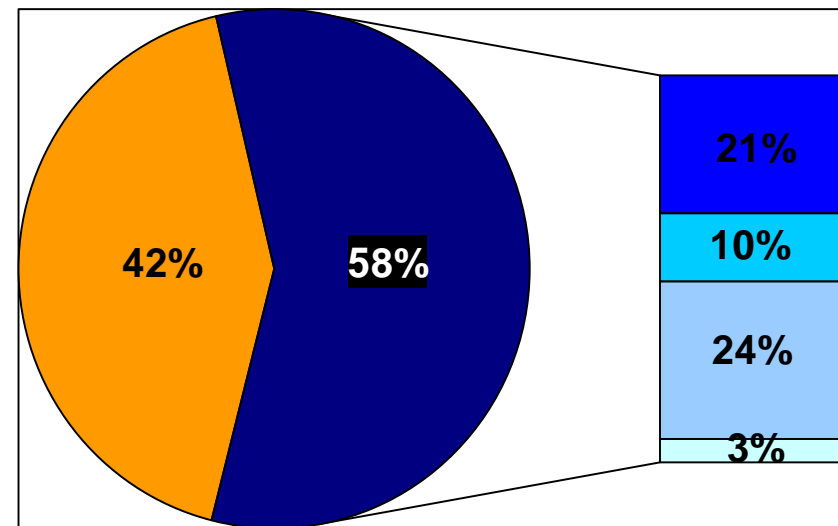


## Employment effects – Results (ESC 2010 high scenario)

Size of the effect



Structure of the effect



- Direct effects
- Trade
- Public administration
- Industry
- Finance and real estate

## Conclusions & recommendations

- Applicability of methods
  - Stakeholder analyses as useful complementary analyses to CBA
  - Wider practice needed, comparison of findings and refinement of tools
- Results
  - Break-even results driven by the kilometers per year
  - Mature systems and systems with low market prices perform better in BEA
  - Considerable wider economic impacts (e.g. employment effects, tax revenues)
- Perspectives for further research
  - Prioritisation of stakeholders according to importance and proactivity
  - Field Operational Tests as opportunity to improve input data

For further information: [www.eimpact.eu](http://www.eimpact.eu)

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Deliverable 8:  
**Stakeholder Analyses for  
Intelligent Vehicle Safety Systems  
(WP5000)**