Way Forward with i-Size UNECE Regulation No 129

Rethinking the strengths of the new regulation
Main goals of the new regulation overall: improving protection level

• Simplification of CRS selection by parents
  • Stature based classification
• Avoiding misuse
  • Easy to install
  • Fool-proof concept
• Adding side impact protection
  • For all size ranges / child ages
• New Q-dummy family
  • Q0, Q1, Q1.5, Q3, Q6 and Q10
Concrete achievements so far

- i-Size available up to 105 cm
  - Integral belts
  - Up to Q3
- Side impact protection
  - Fully incorporated
- 'Universal' plug-and-play approach
  - Achieved through R14 and R16 integration
Shortcomings phase 1

• Flexibility for infant carrier systems
  • Temporary fix to allow for seatbelt routing

• Certain measures still have more potential for improvement
  • Frontal impact pulse revision (update 1970's car fleet)
Phase 2 and phase 3

• Observed issues
  • Q6 and Q10 reliability for testing
    Acceptable solutions not expected before end of 2015
  • Centre of CRS ≠ centre of car seat
    Due to potential size of 'gabarit'
  • Complexity of information to users in vehicle handbook
    Due to number of classes, lack of universality
Main objectives for ECRS regulation and its integration into Phase 2 & 3

- Ease of use (plug & play)
  - Not ensured
- Avoiding misuse
  - Not clear how this is achieved
- Side impact
  - Way forward is not clear (e.g. 125+ cm)
  - Track record of Q6 and Q10 for side impact?
- New dummies
  - Many outstanding issues
Main objectives for ECRS regulation and its integration into Phase 2 & 3

- How will we be successful to promote ISOFIX?
  - i-Size is the key

- Small car (Polo, Fiesta, C3, Clio, V40, ...)
  - 2x positions is acceptable

- Larger family car (S-max, Touran, XC90, ...)
  - 3x proposed gabarit side-by-side NEVER FITS
  - 3x side-by-side CRS IS A MUST for this type of cars

- Proposal
  - Create i-Size cars for i-Size products / adapt cars and CRS
How can we achieve the important objectives for ECRS regulation and its integration into Phase 2 & 3?

• Ease of use (plug & play)
  • Extend the i-Size philosophy
  • One size 'gabarit' fits all

• Avoiding misuse
  • Aim for plug & play solutions above to reduce the complexity of systems in the market

• Side impact & New dummies
  • Complete the analysis work
  • Make improvements where necessary
Make i-Size standard across the board

- **Merge** the assessment volumes 'gabarits'
  - ISO F2X (B1) = light blue
  - ISO R2 (D) = green
  - F4/N1100 ISO new booster seat CRF = yellow
Make i-Size standard across the board

- And restrict the width to 440 mm
  - Consistent with maximum width in Phase 1
  - Will fit 3-across larger family vehicles
i-Size across the board -- challenges

• Car manufacturers larger family cars, may be driven through market demand 3x i-Size rear row
  • High forces, tested at the same time
  • Adjustable split bench may no longer be possible

• CRS manufacturers
  • Reduced width for side impact protection integration
i-Size across the board -- way forward

• We need to think outside of the box

• Car manufacturers to install more ISOFIX when the smaller 'gabarit' facilitates this

• CRS manufacturers to make innovative products
i-Size across the board ➔ goal

• Large choice of i-Size products in the market
  • From newborn to 150 cm
  • All fitting the i-Size concept
  • Straightforward selection and installation by consumers

• Smaller cars
  • Remain with 2 i-Size positions
    (acceptable for most 2-child families?)

• Larger family cars
  • Families with more than 2 children can expect that
    3 CRS will fit on 3-person rear seat row (market driven
    adaptation?)
European Commission
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for
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Sustainable Mobility and Automotive Industry

Thank you for your attention